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# Salesforce Winter '21 Release Notes

Salesforce, Winter '21

Delivering innovations to help connect you to your customers, from anywhere



Note: This release is in preview. Features described in this document don't become generally available until the latest general availability date that Salesforce announces for this release. Before then, and where features are noted as beta, pilot, or developer preview, we can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features.

 [@salesforcedocs](https://twitter.com/salesforcedocs)  
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# SALESFORCE WINTER '21 RELEASE NOTES

The Winter '21 release delivers innovations across the Salesforce Customer 360 platform to help connect you to your customers, from anywhere.

## IN THIS SECTION:

### [How to Use the Release Notes](#)

Our release notes offer brief, high-level descriptions of enhancements and new features. We include setup information, tips to help you get started, and best practices to ensure your continued success.

### [Get Ready for the Release](#)

Reading the release notes is a great step in preparing for the release. These other resources help get you, your org, and your users ready for what's coming your way. We add resources throughout the release when they become available, so check back often.

### [How and When Do Features Become Available?](#)

Some features in Winter '21 affect all users immediately after the release goes live. Consider communicating these changes to your users beforehand so that they're prepared. Other features require direct action by an administrator before users can benefit from the new functionality.

### [Supported Browsers](#)

We made some changes to our supported browsers documentation, making it easier to find what you need. Supported browsers for Salesforce vary depending on whether you use Salesforce Classic or Lightning Experience.

### [Salesforce Overall: Multi-Factor Authentication, Einstein Search Personalization, and Salesforce Anywhere \(Beta\)](#)

Use the Multi-Factor Authentication (MFA) Assistant to help roll MFA out to your users. Get personalized search results based on your activity, location, and other factors, with Einstein Search. Experience the future of CRM with Salesforce Anywhere's real-time alerts, chat, and Lightning Flow invocable actions (Beta). Also, read through our Customer 360 guides and solution kits to help solve complex business cases, add custom themes to in-app guidance, display specific survey pages to participants based on data, and more.

### [Work.com](#)

Prepare your business, employees, and facilities. Respond to major events, such as the current COVID-19 crisis, with the apps and services in Work.com.

### [Service: Service Cloud Voice Streamlined Setup, Omni-Channel Supervisor for Calls, Einstein Bots Templates, and More](#)

Get started with Service Cloud Voice using a streamlined setup, support for Sales Cloud, the Voice API Toolkit (generally available), and more. Let Omni-Channel supervisors view calls as they happen to improve training and onboarding. Build your Einstein Bot faster with a new guided template and strengthen intent models with Input Recommender (beta). Field Service Time Sheets let you track your employees' hours right inside your field service solution. Accelerate your customer service configuration with easy setup and built-in best practices. Learn about these and other new Service Cloud features.

### [Sales: Sales Cadence Improvements for High Velocity Sales, Global Models for Einstein Lead Scoring, Opportunity Deal Change Highlights, and Multi-Cloud Support for Billing](#)

Organize and share sales cadences in folders, pause sales cadences, and change step ownership. Use Einstein Lead Scoring even when you don't have enough data of your own. Use opportunity deal change highlights to see what's changed in the pipeline. Create invoices and bills for orders that originate from B2B Commerce, Service Cloud, and other systems. Plus, Call Coaching users can share voice calls. Get more out of Einstein Activity Capture with new connection and configuration options. And sales reps get even more productive with emails and templates.

### [Industries: Document Management, Forecasting, Public Service Optimization, and Much More](#)

Our industry-specific solutions work even harder in Winter '21 to bring you closer to your customers. Health Cloud brings you streamlined document management for patient intake, along with new inventory management and sales forecasting capabilities. Financial Services Cloud unveils a new community portal template, compliant data sharing, and improved record rollups. Consumer Goods Cloud helps you plan store visits and keep shelves stocked, and Manufacturing Cloud gives you finer control over rebates and account forecasts. Our new data processing engine works behind the scenes to help you leverage your Salesforce data for bigger business impact. On top of all that, meet the newest addition to our lineup of industry-specific solutions: Public Sector Cloud, with advanced support for government service providers and users!

### [Analytics: Einstein Discovery Fast Start Templates, Sync Out for Snowflake, Einstein Discovery Automated Model Refresh](#)

Analytics includes Reports & Dashboards, Einstein Analytics, and Einstein Discovery. Get Einstein Discovery going more quickly and easily with Fast Start Templates. Export your raw local Salesforce data to your Snowflake data lake without the need for a third-party ETL tool. Automate some of the manual steps required to update your Einstein Discovery predictive models with scheduled model refresh.

### [Salesforce Einstein: Build Bots Faster with Templates, Make Opportunity Scoring More Relevant with Filters, and Search Personalization Is Generally Available](#)

Bots are faster to build and more collaborative with intent model enhancements. Opportunity Scoring has filters to let you decide which records and fields are considered. Personalization tailors search results to the way each user works in Salesforce.

### [Commerce: Process Exceptions for Order Management and Enhanced Lightning B2B Commerce Capabilities](#)

Check out what's new in Salesforce Order Management and Lightning B2B Commerce.

### [Communities: New Audience Criteria, Enhanced Build Your Own \(LWC\) Template, and Better Guest User Security](#)

Communities elves have been hard at work this release delivering new features and enhancements. Take advantage of more granular audience criteria that let you vary record detail pages based on record fields. The latest Build Your Own (LWC) template is packed with changes, including support for an upgraded version of Lightning Locker, custom URL paths, and SEO. And your data is more secure than ever with the enforcement of several guest user security settings that were introduced in previous releases.

### [Salesforce CMS: Content Delivery Network, Local Content Import, and Folders](#)

Share your public content with a content delivery network (CDN), import images and documents from your local drive to Salesforce CMS, and organize your CMS content with folders.

### [Mobile: Productivity Features and More Convenient Navigation](#)

Get more done in the Salesforce mobile app with launchpad, activity timeline, and other productivity boosters. Notifications features give you even more control over your custom notifications. Mobile Publisher for Communities now supports Marketing Cloud push notifications (Pilot). Experience the future of CRM with Salesforce Anywhere's real-time alerts, chat, and suggested actions (Beta).

### [Customization: Lightning Flow Enhancements, More Dynamic Lightning Pages, and Einstein Builder Updates](#)

Build and test flows with new layout and debug options, and launch flows when records are deleted. Break up your record details and create more flexible Lightning pages with Dynamic Forms and Dynamic Actions in the Lightning App Builder. Recommend anything to anyone with Einstein Recommendation Builder (beta).

### [Security, Privacy, and Identity: Security Center and Mobile Device Tracking Generally Available, Required My Domain, and More Real-Time Monitoring Events and Field Encryption](#)

Maintain security, privacy, and governance policies for multiple orgs with Security Center, now generally available. View and manage mobile device access to your org with Mobile Device Tracking, generally available. New Salesforce orgs get a My Domain by default and existing orgs must define one. Keep a closer eye on your org with three new Real-Time Monitoring Events. Encrypt fields associated with health intake documents, and encrypt some Financial Services Cloud documents.

### [Customer 360 Truth: A Secure, Single Source of Truth for All of Your Customer Data](#)

Learn what's new with Customer 360 Data Manager. Give your users more identity verification options and a more personalized email change experience. And use one app to create multiple org monitoring policies.

### [Deployment: New Change Set Components](#)

Send customizations from one org to another by adding these components to change sets.

### [Development: Create Your Own Salesforce App](#)

Whether you're using Lightning components, Visualforce, Apex, or our APIs with your favorite programming language, these enhancements help you develop amazing applications, integrations, and packages for resale to other organizations.

### [Quip: Template Management, New User Engagement Template Metrics, Salesforce Data in the Relationship Map Live App, Filtered List Views, and More](#)

Mark your embedded Quip documents as templates. Increase template adoption with the Template Library in Quip. Get granular user engagement metrics to see how users are employing Quip templates. Add inline live Salesforce data mentions to a Quip document or spreadsheet. Create hybrid Salesforce and Quip relationship maps.

### [Pardot: Email in Lightning, Einstein Enhancements, and More Customizations](#)

Create, send, and manage your email templates and email content in the new Lightning Content Builder. Connect to Salesforce CMS to host and reuse images for email marketing, and get rollup metrics on the email records you use most. You can also resync prospects faster after import errors are resolved and customize your Einstein Attribution success milestone.

### [Marketing: Transactional Sending and Behavioral Triggers in Journey Builder, Ecommerce Optimizer App in Datorama, Einstein in Interaction Studio](#)

Marketing Cloud is the premier platform for delighting customers with 1:1 customer journeys. It enables you to build a single view of your customer, leveraging data from any source. Plan and optimize unique customer journeys based on your business objectives. Deliver personalized content across every channel and device at precisely the right time. Measure the impact of each interaction on your business so that you can optimize your approach in real time and deliver better results.

### [Release Updates and Security Alerts: Generally Available with Improvements](#)

View important updates and alerts in a single location in the generally available Release Updates. We added some enhancements to ensure that your Salesforce org stays up to date on all changes that affect its performance, security, and users.

### [Other Salesforce Products and Services](#)

## How to Use the Release Notes

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Our release notes offer brief, high-level descriptions of enhancements and new features. We include setup information, tips to help you get started, and best practices to ensure your continued success.

- We offer [PDF](#) and [HTML](#) versions.
- For the HTML version, your browser's settings determine the language you see. To change the language, scroll to the bottom, click **Change Language**, and select a language.
- The release notes include details about new and modified features. For information on known issues, visit the [Salesforce Known Issues site](#).

 **Note:** Until the new release is available to you, links from release notes to Salesforce Help, implementation guides, developer guides, and other documentation don't work. And sometimes the links point to material from the previous release.

Some of our documentation has preview versions available several weeks before the release. To access a preview version on [Salesforce Developers](#), select **Preview** from the Documentation Version dropdown list.

### IN THIS SECTION:

#### [Use Filters to Zero In on the News That Matters Most](#)

The filters narrow down the list of release notes on the right side of your screen, not the content on the left.

[Know What's in Salesforce Lightning Experience and What's in Salesforce Classic](#)

Everybody's excited about Lightning Experience and everything it offers. But we also understand that lots of orgs continue to use Salesforce Classic—either exclusively or in tandem with Lightning Experience as it evolves.

[Release Note Changes](#)

Read about changes to the release notes, with the most recent changes first.

[Your Feedback Matters](#)

We know how important our documentation is to your company's success. We want to know what works for you and what doesn't.

## Use Filters to Zero In on the News That Matters Most

The filters narrow down the list of release notes on the right side of your screen, not the content on the left.

### Experience

See which features are available in Lightning Experience, the Salesforce mobile app, and Salesforce Classic.

### Edition

Which feature enhancements are available to you depends on your edition. Filter the release notes to show only the enhancements that are available in your edition.

### Feature Impact

Some features require you to enable or configure them before users can get the benefits. As an admin, filter the release notes to focus on or hide just those features. Or maybe you want to see only the features that are automatically enabled for your users.

### Product Area

See only the products that your org uses. If your org does sales but not support, set up your release notes so that only the sales-related news appears.

To narrow down the list of release notes, click **Show Filters** on the right side.

**Experience**

- Lightning Experience
- Mobile
- Salesforce Classic

**Edition**

Professional Edition ▼

**Feature Impact**

Enabled for users ▼

**Product Area**

- Analytics
- API
- Chatter
- Email Integration
- Communities
- Data.com
- Force.com Customization
- Force.com Development
- Mobile
- Sales
- Service
- Work.com

[Fewer Product Areas](#) [Reset](#)

You can share your filtered list of release notes with anyone. Select filters, copy the URL, and then distribute that URL however you want.

# Know What's in Salesforce Lightning Experience and What's in Salesforce Classic

Everybody's excited about Lightning Experience and everything it offers. But we also understand that lots of orgs continue to use Salesforce Classic—either exclusively or in tandem with Lightning Experience as it evolves.

One key to success during this time of transition is understanding what's available in one, both, or all the Salesforce experiences. To guide you, we added experience information to the applicable release notes at the highest level: for entire clouds or for individual features within clouds. Let's look at a couple of examples.

- A new Service Cloud feature is available in *both desktop experiences*, so the **Where** section of the release note says, "This change applies to Lightning Experience and Salesforce Classic."
- A new Sales Cloud feature is available in Lightning Experience *only*, so the **Where** section of the release note says, "This change applies to Lightning Experience only."

If a *key* feature is also available in the Salesforce mobile app, we mention that in the **Where** section of the release note. But you can also check the Mobile section for a complete list of what's new.

## Release Note Changes

Read about changes to the release notes, with the most recent changes first.

### August 24, 2020

#### [Salesforce Winter '21 Release Notes](#)

Published preview release notes.

## Your Feedback Matters

We know how important our documentation is to your company's success. We want to know what works for you and what doesn't.

- **Trailblazer Community**—Post your feedback in the [Release Readiness Trailblazers](#) group. To help us track and respond to your feedback, use a hashtag that indicates the release, such as #Winter20Feedback.
- **Feedback forms**—As you're working with our documentation in Salesforce Help, release notes, or developer guides, look for the feedback form and vote up or down. Add comments if you have them.
- **Twitter**—When you follow @salesforcedocs on Twitter, you receive notices whenever we publish new documentation or make significant updates to existing documentation. Tweet us at [@salesforcedocs](#).

## Get Ready for the Release

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Reading the release notes is a great step in preparing for the release. These other resources help get you, your org, and your users ready for what's coming your way. We add resources throughout the release when they become available, so check back often.

## Release Readiness Essentials

- [Release Readiness Trailblazers](#). Access resources and experts for all things release readiness.
- [Trust Status Maintenances](#). See sandbox and other release dates and times. Click Instances and your instance to see your maintenance dates.

- [Sandbox Refresh Calculator](#). Plan if and when you need to refresh your existing sandbox orgs.
- [Sandbox Preview Video](#). Learn how to navigate the sandbox preview process.
- [Certification Release Maintenance Schedule](#). Keep your certification updated in Trailhead.
- [Prepare for Salesforce Releases](#). Use Trailhead to create your release strategy.
- [Releases Email Journey](#). Prepare for releases by subscribing to emails.

## How and When Do Features Become Available?

Some features in Winter '21 affect all users immediately after the release goes live. Consider communicating these changes to your users beforehand so that they're prepared. Other features require direct action by an administrator before users can benefit from the new functionality.

### Supported Browsers

We made some changes to our supported browsers documentation, making it easier to find what you need. Supported browsers for Salesforce vary depending on whether you use Salesforce Classic or Lightning Experience.

| Feature   | Enabled for users | Enabled for administrators/ developers | Requires administrator setup | Contact Salesforce to enable |
|---|-------------------|--|------------------------------|------------------------------|
| <a href="#">Supported Browsers and Devices for Lightning Experience</a> | ✓                 |  |                              |                              |
| <a href="#">Supported Browsers and Devices for Salesforce Classic</a>   | ✓                 |  |                              |                              |
| <a href="#">Supported Browsers for Einstein Analytics</a>               | ✓                 |  |                              |                              |

### Salesforce Overall

Use the Multi-Factor Authentication (MFA) Assistant to help roll MFA out to your users. Get personalized search results based on your activity, location, and other factors, with Einstein Search. Experience the future of CRM with Salesforce Anywhere's real-time alerts, chat, and Lightning Flow invocable actions (Beta). Also, read through our Customer 360 guides and solution kits to help solve complex business cases, add custom themes to in-app guidance, display specific survey pages to participants based on data, and more.

| Feature  | Enabled for users | Enabled for administrators/ developers | Requires administrator setup | Contact Salesforce to enable |
|--|-------------------|--|------------------------------|------------------------------|
| <b>Multi-Factor Authentication: Safeguard Account Access</b>                           |                   |  |                              |                              |
| <a href="#">Drive Your Multi-Factor Authentication Implementation from One Place</a>   |                   |  | ✓                            |                              |
| <a href="#">Renamed Two-Factor Authentication User Permissions and Labels in Setup</a> |                   |  | ✓                            |                              |

| Feature  | Enabled for users | Enabled for administrators/<br>developers | Requires administrator setup | Contact Salesforce to enable |
|--|-------------------|---|------------------------------|------------------------------|
| <b>Search</b>  |                   |   |                              |                              |
| <b>Einstein Search: Personalization (Generally Available), Easier Setup at the Org Level, Smarter Natural Language Searches (Beta), and Searchable Renamed Objects Using Natural Language Search</b> |                   |   |                              |                              |
| Enable Personalization to Tailor Search Results to Each User (Generally Available)   |                   |   | ✓                            |                              |
| Step Up Productivity with Einstein Search in Professional Edition  | ✓                 |   |                              |                              |
| Click Three Times to Enable Einstein Search for Your Org   |                   |   | ✓                            |                              |
| Benefit from Smarter Natural Language Search Results (Beta)  |                   |   | ✓                            |                              |
| Rename It—Einstein Search Finds It (Beta)  |                   |   | ✓                            |                              |
| <b>Salesforce Anywhere: Plan and Accelerate Your Business in Real Time (Beta)</b>  |                   |   | ✓                            |                              |
| <b>Cross-Cloud Integrations: Customer 360 Guides, Solution Kits</b>  |                   |   |                              |                              |
| <b>Introducing Customer 360 Guides</b>   |                   |   |                              |                              |
| Transform the Consumer Experience  |                   |   | ✓                            |                              |
| <b>Lightning Experience Engagement: In-App Guidance and Help Menu</b>  |                   |   |                              |                              |
| <b>Add In-App Guidance to New, Edit, and Clone Pages</b>   |                   |   | ✓                            |                              |
| <b>Add Custom Theme Colors to In-App Guidance</b>  |                   |   | ✓                            |                              |
| <b>Share a Direct Link to In-App Guidance</b>  |                   |   | ✓                            |                              |
| <b>Search Trailhead from the Help Menu</b>   |                   |   | ✓                            |                              |
| <b>Add More Custom Resources to the Help Menu</b>  |                   |   | ✓                            |                              |
| <b>Learn About Salesforce In-App Content</b>   |                   | ✓   |                              |                              |
| <b>Salesforce Surveys: Enhanced Participant Experience, Survey Templates, and More</b>   |                   |   |                              |                              |
| <b>Display Survey Pages Based on Your Data</b>   | ✓                 |   |                              |                              |
| <b>Personalize Survey Questions Within Email</b>   | ✓                 |   |                              |                              |

| Feature   | Enabled for users | Enabled for administrators/<br>developers | Requires administrator setup | Contact Salesforce to enable |
|---|-------------------|---|------------------------------|------------------------------|
| Email Survey Invitations to 300 Participants  |                   |   |                              |                              |
| Give Your Colleagues a Head Start with Template Surveys   | ✓                 |   |                              |                              |
| Move Questions Around on a Page   | ✓                 |   |                              |                              |
| Retain Translations from a Copied Survey  | ✓                 |   |                              |                              |
| Improve Participants' Experience when Responding in Right to Left Languages   | ✓                 |   |                              |                              |
| Respect Email Opt Out Preferences   | ✓                 |   |                              |                              |
| Consider Your Org's Email Limits  |                   |   | ✓                            |                              |
| Single Selection Question Look and Feel Was Changed   | ✓                 |   |                              |                              |
| <b>Lightning Scheduler: Controlled and Direct Interaction with External Calendars, Embedded Flows, Greater Scheduling Flexibility, and More</b> |                   |   |                              |                              |
| Write Lightning Scheduler Appointments Directly to External Calendars   |                   |   | ✓                            |                              |
| Check Resource Availability Directly from External Calendars  |                   |   | ✓                            |                              |
| Schedule Appointments in a Whole New Way  |                   |   | ✓                            |                              |
| Use Custom Scheduling Policies with Lightning Scheduler Flows   |                   |   | ✓                            |                              |
| Run Lightning Scheduler Flows Without Worrying About User Permissions   |                   |   | ✓                            |                              |
| Other Changes to Lightning Scheduler  |                   |   | ✓                            |                              |
| Do More with the Optimizer App  |                   |   | ✓                            |                              |
| See More Record Info in Highlights Panels   | ✓                 |   |                              |                              |
| UI Changes for Lightning Web Components   | ✓                 |   |                              |                              |
| UI Changes for Cloning Records  | ✓                 |   |                              |                              |

| Feature  | Enabled for users | Enabled for administrators/<br>developers | Requires administrator setup | Contact Salesforce to enable |
|--|-------------------|---|------------------------------|------------------------------|
| <a href="#">Recycle Bin Search Capability Is Being Removed</a>                     | ✓                 |   |                              |                              |
| <a href="#">Access Setup and Visualforce Pages in Apple® Safari</a>                |                   | ✓   |                              |                              |
| <a href="#">Cisco Webex Is Being Retired</a>                                       | ✓                 |   |                              |                              |
| <a href="#">Skype Is Being Retired</a>   | ✓                 |   |                              |                              |
| <a href="#">Keep Working with Tab-Focused Dialogs (Previously Released Update)</a> |                   |   | ✓                            |                              |

## Service

Get started with Service Cloud Voice using a streamlined setup, support for Sales Cloud, the Voice API Toolkit (generally available), and more. Let Omni-Channel supervisors view calls as they happen to improve training and onboarding. Build your Einstein Bot faster with a new guided template and strengthen intent models with Input Recommender (beta). Field Service Time Sheets let you track your employees' hours right inside your field service solution. Accelerate your customer service configuration with easy setup and built-in best practices. Learn about these and other new Service Cloud features.

| Feature  | Enabled for users | Enabled for administrators/<br>developers | Requires administrator setup | Contact Salesforce to enable |
|--|-------------------|---|------------------------------|------------------------------|
| <b>Einstein for Service</b>  |                   |   |                              |                              |
| <b>Einstein Bots</b>   |                   |   |                              |                              |
| <a href="#">Jumpstart Bot Building with Bots Guided Setup Updates</a>                        | ✓                 |   |                              |                              |
| <a href="#">Strengthen Your Intent Model with Input Recommender (Beta)</a>                   | ✓                 |   |                              |                              |
| <a href="#">Make Bot Development a Team Effort with Enhanced Permissions</a>                 | ✓                 |   |                              |                              |
| <a href="#">Find Your Way with New Map View Accessibility Features (Generally Available)</a> | ✓                 |   |                              |                              |
| <a href="#">Get Even More Languages for Einstein Bots</a>                                    | ✓                 |   |                              |                              |
| <a href="#">Get Specific with Custom Context Variables Mapping</a>                           | ✓                 |   |                              |                              |
| <a href="#">Gain Deeper Insights with Enhanced Bot Session Metrics</a>                       | ✓                 |   |                              |                              |
| <b>Einstein Case Classification</b>  |                   |   |                              |                              |

| Feature   | Enabled for users | Enabled for administrators/<br>developers | Requires administrator setup | Contact Salesforce to enable |
|---|-------------------|---|------------------------------|------------------------------|
| Try Einstein, Now with Faster Recommendations (available within 24 hours after the release) | ✓                 |   |                              |                              |
| Controlling Fields Are Optional   |                   | ✓   |                              |                              |
| Get Insight into Auto-Update Issues   |                   | ✓   |                              |                              |
| <b>Einstein Reply Recommendations</b>   |                   |   |                              |                              |
| Keep the Conversation Going with the New Docked Format                                      | ✓                 |   |                              |                              |
| Expand Your Global Reach with Reply Recommendations in Eight Languages (Pilot)              |                   |   |                              | ✓                            |
| <b>Einstein Article Recommendations</b>   |                   |   |                              |                              |
| Show Einstein Article Recommendations to Lightning Knowledge Users (Update)                 | ✓                 |   |                              |                              |
| Find and Fix Data Flaws Earlier   |                   |   | ✓                            |                              |
| <b>Field Service</b>  |                   |   |                              |                              |
| <b>Field Service Has a New Name</b>   | ✓                 |   |                              |                              |
| <b>Keep Track of Time on the Job with Time Sheets (Generally Available)</b>                 |                   | ✓   |                              |                              |
| <b>Record Product Warranties</b>  |                   |   | ✓                            |                              |
| <b>Improve Preventive Maintenance with Advanced Recurrence (Beta)</b>                       |                   |   |                              | ✓                            |
| <b>Get the Total Price on Service Contract Line Items</b>                                   |                   |   | ✓                            |                              |
| <b>Find the Right Previous Business Day with BusinessHours.add</b>                          |                   |   | ✓                            |                              |
| <b>Get Translated Work Order Subjects</b>   |                   |   | ✓                            |                              |
| <b>Field Service Scheduling</b>   |                   |   |                              |                              |
| Estimate Travel Times with Street-Level Routing (Generally Available)                       |                   | ✓   |                              |                              |
| Target Work Priorities Using Service Appointments   |                   | ✓   |                              |                              |
| Shape Up with New Tests in Health Check   |                   | ✓   |                              |                              |

| Feature   | Enabled for users | Enabled for administrators/<br>developers | Requires administrator setup | Contact Salesforce to enable |
|---|-------------------|---|------------------------------|------------------------------|
| Offload Sandbox Services for Routing and Optimization   |                   | ✓   |                              |                              |
| <b>Field Service Mobile App</b>   |                   |   |                              |                              |
| Send Meaningful Messages Using Custom Notifications   |                   | ✓   |                              |                              |
| Log Work Hours with Time Sheets (Generally Available)   | ✓                 |   |                              |                              |
| Never Miss a Message in Notifications   | ✓                 |   |                              |                              |
| Be More Efficient with the Actions Launcher Redesign  | ✓                 |   |                              |                              |
| <b>Service Setup</b>  | ✓                 |   |                              |                              |
| <b>Channels</b>   |                   |   |                              |                              |
| <b>Voice: Now Available in Sales Cloud, API Toolkit, Process Automation Tools, and Collaboration and Usability Improvements</b> |                   |   |                              |                              |
| Amp Up Sales Cloud with Voice   |                   |   | ✓                            |                              |
| Spend Less Time Setting Up Voice with Improved Setup  |                   |   | ✓                            |                              |
| Recommend the Next Best Action for Agents with the Service Cloud Voice Toolkit API (Generally Available)                        |                   |   | ✓                            |                              |
| Kick Off Lightning Flows, Processes, and Workflows Based on Voice Call Records  |                   |   | ✓                            |                              |
| Work More Efficiently on Voice Call Records with Macros and Quick Actions   |                   |   | ✓                            |                              |
| Let Agents Pause and Resume Call Recordings   |                   |   | ✓                            |                              |
| Listen to Call Recordings on the Improved Call Recording Player   |                   |   | ✓                            |                              |
| Transfer Callers to the Right Agent with a More Intuitive User Interface  | ✓                 |   |                              |                              |
| Dial Phone Extensions with the Built-In Keypad  | ✓                 |   |                              |                              |
| Collaborate Better with Chatter on Voice Call Records   |                   |   | ✓                            |                              |
| Get Warnings to Avoid Ending Calls Accidentally   |                   |   | ✓                            |                              |

| Feature   | Enabled for users | Enabled for administrators/<br>developers | Requires administrator setup | Contact Salesforce to enable |
|---|-------------------|---|------------------------------|------------------------------|
| Facilitate Training with Service Cloud Voice Transcript Monitoring            |                   |   | ✓                            |                              |
| Track Amazon Connect Charges in Standard Reports                              |                   |   | ✓                            |                              |
| Add Voice Call Custom Fields to Packages                                      |                   |   | ✓                            |                              |
| <b>Messaging</b>  |                   |   |                              |                              |
| Create Messaging Templates Using Leads and Opportunities                      |                   |   | ✓                            |                              |
| Define Smarter Permissions for Messaging Session Objects                      |                   |   | ✓                            |                              |
| Omni-Channel Routing Types Renamed  |                   | ✓   |                              |                              |
| Use Skills-Based Routing Rules to Direct Messages to the Right Agents         |                   |   | ✓                            |                              |
| <b>Chat</b>   |                   |   |                              |                              |
| Omni-Channel Routing Types Renamed  |                   | ✓   |                              |                              |
| Use Skills-Based Routing Rules to Direct Chats to the Right Agents            |                   |   | ✓                            |                              |
| <b>Embedded Service for Web</b>   |                   |   |                              |                              |
| Reimagine Customer Interactions with Channel Menu Code Settings               |                   |   | ✓                            |                              |
| Customize Communities with Code Settings                                      |                   |   | ✓                            |                              |
| Track Chat Conversations with a New Message Icon                              |                   | ✓   |                              |                              |
| Streamline Bot Responses for Screen Readers                                   | ✓                 |   |                              |                              |
| <b>Knowledge</b>  |                   |   |                              |                              |
| <b>Use Knowledge Sharing with Guest Users and High-Volume Community Users</b> |                   |   | ✓                            |                              |
| <b>Transfer Ownership of Published and Archived Articles</b>                  |                   |   | ✓                            |                              |
| <b>Perform Mass Ownership Changes on Draft Articles</b>                       |                   |   | ✓                            |                              |
| <b>Track Article Ownership Changes</b>  |                   | ✓   |                              |                              |

| Feature   | Enabled for users | Enabled for administrators/<br>developers | Requires administrator setup | Contact Salesforce to enable |
|---|-------------------|---|------------------------------|------------------------------|
| <a href="#">Knowledge Enhancements for Channels</a>   |                   | ✓   |                              |                              |
| <a href="#">Changed Permissions for Linked Articles</a>   |                   | ✓   |                              |                              |
| <b>Routing</b>  |                   |   |                              |                              |
| <a href="#">Attribute Setup for Skills-Based Routing Was Renamed</a>  |                   | ✓   |                              |                              |
| <a href="#">Use Omni-Channel Skills-Based Routing Rules to Route Chats and Messages to Agents with the Right Skills</a> |                   |   | ✓                            |                              |
| <a href="#">Routing Types for Chat and Messaging Were Renamed</a>   |                   | ✓   |                              |                              |
| <a href="#">Show Supervisors Only the Agents on Their Teams (Generally Available)</a>                                   |                   |   | ✓                            |                              |
| <a href="#">Monitor Service Cloud Voice Transcripts in Omni-Channel Supervisor</a>                                      |                   |   | ✓                            |                              |
| <b>Case Management</b>  |                   |   |                              |                              |
| <a href="#">Enhance Security with a New Threading Behavior for Email-To-Case</a>  |                   |   | ✓                            |                              |
| <a href="#">Improve Agent Interactions with Prebuilt Flows</a>  | ✓                 |   |                              |                              |
| <a href="#">Boost Agent Productivity with Prebuilt Macros</a>   | ✓                 |   |                              |                              |
| <a href="#">Streamline Customer Interactions with Prebuilt QuickTexts</a>   | ✓                 |   |                              |                              |
| <a href="#">Service Setup Assistant: Go from Zero to Console in Minutes</a>   | ✓                 |   |                              |                              |
| <b>Other Changes</b>  |                   |   |                              |                              |
| <a href="#">Microsoft Teams Integration (Pilot)</a>   |                   |   | ✓                            |                              |
| <a href="#">Service Console: Avoid Duplicating Existing Records</a>   |                   |   |                              |                              |

## Sales

Organize and share sales cadences in folders, pause sales cadences, and change step ownership. Use Einstein Lead Scoring even when you don't have enough data of your own. Use opportunity deal change highlights to see what's changed in the pipeline. Create invoices and bills for orders that originate from B2B Commerce, Service Cloud, and other systems. Plus, Call Coaching users can share voice calls.

Get more out of Einstein Activity Capture with new connection and configuration options. And sales reps get even more productive with emails and templates.

| Feature  | Enabled for users | Enabled for administrators/<br>developers | Requires administrator<br>setup | Contact<br>Salesforce to<br>enable |
|--|-------------------|---|---------------------------------|------------------------------------|
| <b>High Velocity Sales</b>                               |                   |   |                                 |                                    |
| <b>Einstein Call Coaching</b>                            |                   |   |                                 |                                    |
| See Insights Related to Challenges and Trending Terms    |                   |   | ✓                               |                                    |
| Share Voice Calls  |                   |   | ✓                               |                                    |
| Do More with Call Coaching Dashboards                    |                   |   | ✓                               |                                    |
| Use More Call Player Features                            |                   |   | ✓                               |                                    |
| Access Chatter from Voice Call Records                   |                   |   | ✓                               |                                    |
| Receive More Info in the Call Highlights Email           |                   |   | ✓                               |                                    |
| See More Setup Information                               |                   |   | ✓                               |                                    |
| <b>Control Who Can Access Sales Cadences</b>             |                   |   | ✓                               |                                    |
| <b>Hand Off Sales Cadence Targets to Another Rep</b>     | ✓                 |   |                                 |                                    |
| <b>Pause Sales Cadence Targets</b>                       | ✓                 |   |                                 |                                    |
| <b>Filter Your Work Queue by Target Status</b>           | ✓                 |   |                                 |                                    |
| <b>Stay Organized with a More Structured Work Queue</b>  | ✓                 |   |                                 |                                    |
| <b>Stay Focused with Session-Long Work Queue Filters</b> | ✓                 |   |                                 |                                    |
| <b>Choose Which Number to Dial for Click-to-Call</b>     | ✓                 |   |                                 |                                    |
| <b>Other Changes to High Velocity Sales</b>              |                   |   |                                 |                                    |
| Daily Per-User Limit for Automated Email Was Introduced  |                   |   | ✓                               |                                    |
| Limit on Sales Cadence Active Targets Was Introduced     |                   |   | ✓                               |                                    |
| See How Many Targets Were Paused on Each Sales Step      | ✓                 |   |                                 |                                    |
| <b>Sales Cloud Einstein</b>                              |                   |   |                                 |                                    |

| Feature  | Enabled for users | Enabled for administrators/<br>developers | Requires administrator<br>setup | Contact<br>Salesforce to<br>enable |
|--|-------------------|---|---------------------------------|------------------------------------|
| <b>Optimize the Opportunity Scoring Model</b>                                  |                   |   | ✓                               |                                    |
| <b>Enable Einstein Lead Scoring with Less Data</b>                             |                   |   | ✓                               |                                    |
| <b>See Key Factors with Renamed Opportunity Field Labels</b>                   | ✓                 |   |                                 |                                    |
| <b>Additional Users Permission for Setting Up Opportunity and Lead Scoring</b> |                   | ✓   |                                 |                                    |
| <b>Take It to the Next Level with Einstein Activity Capture</b>                |                   |   | ✓                               |                                    |
| <b>Core Sales Features</b>   |                   |   |                                 |                                    |
| <b>Opportunities</b>   |                   |   |                                 |                                    |
| Find Changed Deals at a Glance   | ✓                 |   |                                 |                                    |
| Do More with Opportunity Products  |                   | ✓   |                                 |                                    |
| Enjoy Improvements to Einstein Opportunity Scoring                             |                   |   | ✓                               |                                    |
| <b>Collaborative Forecasts</b>   |                   |   |                                 |                                    |
| Get Forecasts on the Go  | ✓                 |   |                                 |                                    |
| Update Opportunity Stages on the Forecasts Page in Lightning Experience        | ✓                 |   |                                 |                                    |
| <b>Enterprise Territory Management</b>   |                   |   |                                 |                                    |
| <b>Orders</b>  |                   |   |                                 |                                    |
| <b>Other Changes in Core Sales Features</b>                                    |                   |   |                                 |                                    |
| PK Chunking Support Added for ObjectTerritory2Association                      |                   | ✓   |                                 |                                    |
| Original Territory Management Is Being Retired                                 |                   | ✓   |                                 |                                    |
| <b>Productivity Features</b>   |                   |   |                                 |                                    |
| <b>Einstein Activity Capture</b>   |                   |   |                                 |                                    |
| Connect Microsoft Office 365 to Salesforce in More Ways                        |                   |   | ✓                               |                                    |
| Control How Data Flows Between Salesforce and the Connected Account            |                   |   | ✓                               |                                    |

| Feature  | Enabled for users | Enabled for administrators/<br>developers | Requires administrator setup | Contact Salesforce to enable |
|--|-------------------|---|------------------------------|------------------------------|
| Know When a Prospect or Contact Has a Request for You with Email Insight     | ✓                 |   |                              |                              |
| Prevent New Users from Changing the Default Sharing Setting                  |                   |   | ✓                            |                              |
| Add Users to a Configuration More Easily                                     |                   | ✓   |                              |                              |
| Keep Settings and Configurations When You Turn Off Einstein Activity Capture |                   | ✓   |                              |                              |
| Enjoy Enhancements to the Activities Dashboard                               | ✓                 |   |                              |                              |
| Block Activity from Automated Emails   | ✓                 |   |                              |                              |
| Avoid Cluttering the Activity Timeline with Internal Activity                |                   | ✓   |                              |                              |
| <b>Email Experience</b>  |                   |   |                              |                              |
| Easily Coordinate When to Meet with Insert Free Time in Lightning Experience | ✓                 |   |                              |                              |
| Send List Emails at the Ideal Time   | ✓                 |   |                              |                              |
| Create Larger Emails with New Maximum Size of 35 MB                          | ✓                 |   |                              |                              |
| Default Email Encoding Changing to UTF-8                                     | ✓                 |   |                              |                              |
| Streamline Contacts and Leads with Default Bounce Alerts                     | ✓                 |   |                              |                              |
| <b>Email Templates</b>   |                   |   |                              |                              |
| Interactively Create Engaging Email Templates                                |                   |   | ✓                            |                              |
| <b>Salesforce Inbox Mobile</b>   |                   |   |                              |                              |
|  | ✓                 |   |                              |                              |
| <b>Integration with Google</b>   |                   |   |                              |                              |
| <b>Gmail™ Integration</b>  |                   |   |                              |                              |
| Manually Log Emails When Einstein Activity Capture Is On                     |                   |   | ✓                            |                              |
| Insert Availability Improvements   | ✓                 |   |                              |                              |
| <b>Lightning Sync for Google</b>   |                   |   |                              |                              |
|  |                   |   | ✓                            |                              |
| <b>Integration with Microsoft®</b>   |                   |   |                              |                              |
| <b>Teams Integration (Pilot)</b>   |                   |   |                              |                              |
|  |                   |   | ✓                            |                              |

| Feature  | Enabled for users | Enabled for administrators/<br>developers | Requires administrator setup | Contact Salesforce to enable |
|--|-------------------|---|------------------------------|------------------------------|
| <b>Outlook® Integration</b>  |                   |   |                              |                              |
| Continued Support for the Outlook Integration in Older Versions of Outlook and Windows |                   |   | ✓                            |                              |
| Manually Log Emails When Einstein Activity Capture Is On                               |                   |   | ✓                            |                              |
| Shared Mailbox and Calendar Support  | ✓                 |   |                              |                              |
| Insert Availability Improvements   | ✓                 |   |                              |                              |
| <b>Lightning Sync for Microsoft® Exchange®</b>   |                   |   |                              |                              |
| Lightning Sync Not Available for New Salesforce Customers                              |                   |   | ✓                            |                              |
| Required Setting Changes for Some Microsoft Office 365 Customers                       |                   |   | ✓                            |                              |
| <b>Salesforce for Outlook</b>  |                   |   |                              |                              |
| Salesforce for Outlook Is Being Retired in December 2020                               |                   |   | ✓                            |                              |
| Restore Access If Service Is Interrupted Before December 2020                          |                   |   | ✓                            |                              |
| Find Version-Specific Salesforce for Outlook Release Notes                             |                   |   | ✓                            |                              |
| <b>Salesforce CPQ and Billing</b>  |                   |   |                              |                              |
| <b>Salesforce CPQ</b>  |                   |   |                              |                              |
| Help Sales Reps Sell More with Product Recommendations in the Quote Line Editor        |                   |   | ✓                            |                              |
| Dynamically Control Quote Fields Shown in the Quote Line Editor                        |                   |   | ✓                            |                              |
| Sell Add-On Products on Amendments and Prevent Backdated Amendments at the Same Time   | ✓                 |   |                              |                              |
| Connect CPQ to B2B Commerce with Solution Kits   |                   |   | ✓                            |                              |
| Validation Was Added to Ensure Unique Values for Number Field on Quote Lines           | ✓                 |   |                              |                              |

| Feature   | Enabled for users | Enabled for administrators/<br>developers | Requires administrator setup | Contact Salesforce to enable |
|---|-------------------|---|------------------------------|------------------------------|
| Permissions for Activating Order Products in Orgs with Usage-Based Pricing Were Changed |                   |   | ✓                            |                              |
| <b>Salesforce Billing</b>   |                   |   |                              |                              |
| Understand What Your Customers Have Bought  |                   |   |                              | ✓                            |
| Create Orders and Order Products Without CPQ Quotes                                     | ✓                 |   |                              |                              |
| Gather Information About Financial Actions on Salesforce Billing Objects                | ✓                 |   |                              |                              |
| Align Cancellation and Amendment Calculations Based on Billing Periods                  | ✓                 |   |                              |                              |
| Demonstrate Salesforce Billing Payment Functionality with Test Gateway Adapters         | ✓                 |   |                              |                              |
| Capture Externally Authorized Payments in Salesforce Billing                            | ✓                 |   |                              |                              |
| Billing Period Creation Logic Was Updated   | ✓                 |   |                              |                              |
| <b>Other Changes in the Sales Cloud</b>   |                   |   |                              |                              |
| <b>Review the Org-Level Email Tracking Setting for Salesforce Inbox (Update)</b>        |                   |   | ✓                            |                              |

## Industries

Our industry-specific solutions work even harder in Winter '21 to bring you closer to your customers. Health Cloud brings you streamlined document management for patient intake, along with new inventory management and sales forecasting capabilities. Financial Services Cloud unveils a new community portal template, compliant data sharing, and improved record rollups. Consumer Goods Cloud helps you plan store visits and keep shelves stocked, and Manufacturing Cloud gives you finer control over rebates and account forecasts. Our new data processing engine works behind the scenes to help you leverage your Salesforce data for bigger business impact. On top of all that, meet the newest addition to our lineup of industry-specific solutions: Public Sector Cloud, with advanced support for government service providers and users!

| Feature  | Enabled for users | Enabled for administrators/<br>developers | Requires administrator setup | Contact Salesforce to enable |
|--|-------------------|---|------------------------------|------------------------------|
| <b>Health Cloud</b>  |                   |   |                              |                              |
| <b>Intelligent Document Automation: Streamline Intake for Patient Services and Support</b> |                   |   |                              |                              |
| Process Home Health Documents Better   |                   |   |                              | ✓                            |

| Feature   | Enabled for users | Enabled for administrators/<br>developers | Requires administrator setup | Contact Salesforce to enable |
|---|-------------------|---|------------------------------|------------------------------|
| Get a Handle on Referrals   |                   |   |                              | ✓                            |
| Extract Patient Data from Documents   |                   |   |                              | ✓                            |
| Encrypt Data in Home Health Intake Documents  |                   |   | ✓                            |                              |
| <b>Intelligent Sales: Field Inventory Management on Mobile, Product Serialization, and More</b>   |                   |   |                              |                              |
| Manage Your Inventory on the Go   |                   | ✓   |                              |                              |
| Track Products Using Serial Numbers   |                   | ✓   |                              |                              |
| Track Serial Numbers in Orders Authorized in a Visit  |                   |   | ✓                            |                              |
| Stay On Top of Transfer Requests with Chatter Post Notifications  |                   | ✓   |                              |                              |
| Other Changes in Intelligent Sales  |                   |   | ✓                            |                              |
| <b>Health Cloud Has New and Changed Objects</b>   |                   |   |                              |                              |
| <b>Health Cloud Has New App Builder Components</b>  |                   |   |                              |                              |
| <b>Financial Services Cloud</b>   |                   |   |                              |                              |
| <b>Mortgage for Financial Services Cloud: Enhanced Customer Experience with Pre-Built Community and New Flow</b>  |                   |   |                              |                              |
| Use a Financial Services Community to Speed Loan Processing and Empower Loan Officers   |                   | ✓   |                              |                              |
| New Financial Services Cloud Flow and Flow Screen Components  |                   |   |                              |                              |
| Use New Summary View Lightning App Builder Component  |                   |   |                              |                              |
| Get Notifications of Changes to Mortgage Object Records   |                   |   |                              |                              |
| Create or Update Loan Applications and Upsert Records from a Single Endpoint  |                   | ✓   |                              |                              |
| Create a Loan Forbearance Solution  |                   |   |                              |                              |
| <b>Insurance for Financial Services Cloud: Consolidated View of Household Policies, Record Type Filter on Policies, and Support for Account Relationships</b> |                   |   |                              |                              |
| Policy Component: Household Policies, Record Type Filters, and More   |                   |   | ✓                            |                              |

| Feature   | Enabled for users | Enabled for administrators/<br>developers | Requires administrator setup | Contact Salesforce to enable |
|---|-------------------|---|------------------------------|------------------------------|
| Simplify Partner Access to Insurance Records with Account Relationships   |                   |   | ✓                            |                              |
| Print Insurance Record Details with Printable View  |                   |   | ✓                            |                              |
| Analytics for Insurance: Predictive App Template, Date Filtering, and Data Access for Sales Managers                        |                   |   |                              |                              |
| <b>Compliant Data Sharing: Advanced Data Sharing Configuration to Improve Compliance (GA)</b>                               | ✓                 |   |                              |                              |
| <b>Actionable Relationship Center: Manage Complex Relationships and Related Lists</b>                                       | ✓                 |   |                              |                              |
| <b>Stay Productive with Financial Services Cloud Lightning Components for Mobile</b>  | ✓                 |   |                              |                              |
| <b>Record Rollups for Financial Services Cloud</b>  |                   |   |                              |                              |
| Gain Visibility into Household Cases with Case Record Rollups   |                   |   | ✓                            |                              |
| Optimize Record Rollups   |                   |   | ✓                            |                              |
| Get Improved Performance and Granular Control Over Batch Record Rollups   |                   |   | ✓                            |                              |
| <b>Encrypt Identity Document Fields</b>   |                   |   | ✓                            |                              |
| <b>Einstein App Enhancements</b>  |                   |   |                              |                              |
| Predict Client Churn Risk for Wealth Management   |                   |   | ✓                            |                              |
| Predict the Likelihood to Add Assets for Wealth Management  |                   |   | ✓                            |                              |
| Increase Sales with the Analytics for Mortgage App  |                   |   | ✓                            |                              |
| <b>New and Changed Financial Services Cloud Object Fields</b>   |                   | ✓   |                              |                              |
| <b>New and Changed Financial Services Cloud Metadata Types</b>  |                   | ✓   |                              |                              |
| <b>REST API</b>   |                   | ✓   |                              |                              |
| <b>Public Sector Cloud: Licensing and Permitting Management Made Simpler, Faster, and Transparent (Generally Available)</b> |                   |   |                              |                              |

| Feature   | Enabled for users | Enabled for administrators/<br>developers | Requires administrator setup | Contact Salesforce to enable |
|---|-------------------|---|------------------------------|------------------------------|
| <a href="#">Transform Government Services with Public Sector Cloud</a>                            |                   |   | ✓                            |                              |
| <a href="#">Define Diverse Authorization Processes with Easily Configurable Data Model</a>        |                   |   | ✓                            |                              |
| <a href="#">Give a Consolidated View of Applications with the Hierarchical View Component</a>     |                   |   | ✓                            |                              |
| <a href="#">Plan Effective Inspections with the Inspection Management Mobile App</a>              |                   |   | ✓                            |                              |
| <a href="#">Create a Feature-Rich Portal for Constituents' Licensing and Permitting Needs</a>     |                   |   | ✓                            |                              |
| <a href="#">Help Constituents Plan and Prioritize Applications</a>                                |                   |   | ✓                            |                              |
| <a href="#">Accommodate Diverse Licensing and Permitting Needs with Dynamic Forms</a>             |                   |   | ✓                            |                              |
| <a href="#">Issue Licenses and Permits Faster with Automated Approval Processes</a>               |                   |   | ✓                            |                              |
| <a href="#">Track Code Violations and Enforce Compliance to Regulatory Standards</a>              |                   |   | ✓                            |                              |
| <a href="#">Public Sector Cloud Has New Objects</a>   |                   | ✓   |                              |                              |
| <a href="#">Public Sector Cloud Has New Metadata Type</a>   |                   | ✓   |                              |                              |
| <b>Consumer Goods Cloud: Direct Store Delivery, Visit Recommendations, and More</b>               |                   |   |                              |                              |
| <a href="#">Einstein Visit Recommendations: Plan Visits to the Right Stores at the Right Time</a> |                   |   | ✓                            |                              |
| <a href="#">Ensure Timely Deliveries to Stores with Delivery Tasks</a>                            |                   |   | ✓                            |                              |
| <b>Visit Execution: More Flexibility and Improved Productivity</b>                                |                   |   |                              |                              |
| <a href="#">Create Custom Tasks Based on Standard Consumer Goods Objects</a>                      |                   |   | ✓                            |                              |
| <a href="#">Filter and Sort Your Visits</a>   |                   |   | ✓                            |                              |
| <a href="#">Other Changes to Consumer Goods Cloud</a>   | ✓                 |   |                              |                              |

| Feature   | Enabled for users | Enabled for administrators/<br>developers | Requires administrator<br>setup | Contact<br>Salesforce to<br>enable |
|---|-------------------|---|---------------------------------|------------------------------------|
| <b>Enhance Your Stores' Retail Execution</b>  | ✓                 |   |                                 |                                    |
| <b>Consumer Goods Cloud Has New Objects</b>   |                   | ✓   |                                 |                                    |
| <b>Manufacturing Cloud: Rebates (Pilot) and Enhanced Account Forecasting</b>                      |                   |   |                                 |                                    |
| <b>Rebate Management: One-Stop Solution for Processing Rebates (Pilot)</b>                        |                   |   |                                 |                                    |
| Define Rebate Programs to Easily Calculate Rebate Amounts (Pilot)                                 |                   |   | ✓                               |                                    |
| Process Rebate Payouts (Pilot)  |                   |   | ✓                               |                                    |
| Keep Your Partners Informed on Rebates Through Communities (Pilot)                                |                   |   | ✓                               |                                    |
| <b>Renew Sales Agreements and Calculate Account Forecasts with Greater Flexibility</b>            |                   |   |                                 |                                    |
| Be Future Ready by Defining the Start of Sales Agreement Renewal Periods                          |                   |   | ✓                               |                                    |
| Calculate Account Forecasts with Better Precision by Specifying Sales Agreements                  |                   |   | ✓                               |                                    |
| Use Opportunity Probability in Account Forecasting  |                   |   | ✓                               |                                    |
| <b>Use Manufacturing Partner Community Template with Lightning External Apps Licenses</b>         |                   |   | ✓                               |                                    |
| <b>Einstein Analytics for Manufacturing: Target Analysis and Data Access Control for Managers</b> |                   |   |                                 |                                    |
| Track Your Sales Performance Against Targets  | ✓                 |   |                                 |                                    |
| Customize Data Access for Sales Managers  |                   | ✓   |                                 |                                    |
| <b>Changed Manufacturing Cloud Metadata Types</b>   |                   | ✓   |                                 |                                    |
| <b>Changed Manufacturing Cloud Tooling API Objects</b>  |                   | ✓   |                                 |                                    |
| <b>Batch Management: Processing Large Volumes of Data with a Few Clicks (Pilot)</b>               |                   |   |                                 |                                    |
| <b>Define Batch Jobs to Process Large Record Volumes (Pilot)</b>                                  |                   |   |                                 | ✓                                  |
| <b>Schedule Your Batch Jobs (Pilot)</b>   |                   |   |                                 | ✓                                  |
| <b>Keep a Close Eye on Your Batch Jobs (Pilot)</b>  |                   |   |                                 | ✓                                  |

| Feature  | Enabled for users | Enabled for administrators/<br>developers | Requires administrator<br>setup | Contact<br>Salesforce to<br>enable |
|--|-------------------|---|---------------------------------|------------------------------------|
| <b>Data Processing Engine: Transform Data in Your Org in a Whole New Way (Pilot)</b> |                   |   |                                 |                                    |
| <b>Transform Data with a Few Clicks (Pilot)</b>                                      |                   |   |                                 | ✓                                  |
| <b>Run Your Data Processing Engine (Pilot)</b>                                       |                   |   |                                 | ✓                                  |
| <b>Track What Your Data Processing Engines Are Up To (Pilot)</b>                     |                   |   |                                 | ✓                                  |

## Analytics

Analytics includes Reports & Dashboards, Einstein Analytics, and Einstein Discovery. Get Einstein Discovery going more quickly and easily with Fast Start Templates. Export your raw local Salesforce data to your Snowflake data lake without the need for a third-party ETL tool. Automate some of the manual steps required to update your Einstein Discovery predictive models with scheduled model refresh.

| Feature  | Enabled for users | Enabled for administrators/<br>developers | Requires administrator<br>setup | Contact<br>Salesforce to<br>enable |
|--|-------------------|---|---------------------------------|------------------------------------|
| <b>Reports and Dashboards</b>  |                   |   |                                 |                                    |
| <b>Subscribe to Get Report Results Delivered by Email (Generally Available)</b>        |                   |   | ✓                               |                                    |
| <b>Auto Add Fields to Custom Report Types (Beta)</b>                                   |                   |   | ✓                               |                                    |
| <b>Einstein Analytics</b>  |                   |   |                                 |                                    |
| <b>Setup and Data Integration</b>  |                   |   |                                 |                                    |
| Avoid Stale Salesforce Data in Snowflake with Sync Out (Beta)                          |                   |   |                                 | ✓                                  |
| Write Your Einstein Analytics Datasets to Snowflake from Recipes (Generally Available) | ✓                 |   |                                 |                                    |
| Prepare Data with the Next Generation of Data Prep (Generally Available)               | ✓                 |   |                                 |                                    |
| Build Calculated Formula Columns with More Functions in Data Prep                      | ✓                 |   |                                 |                                    |
| Calculate Dates with Click-Not-Code Date and Time Transformations                      | ✓                 |   |                                 |                                    |
| Quickly Calculate Statistics with Aggregate Functions                                  | ✓                 |   |                                 |                                    |
| View More Previews in Recipes  | ✓                 |   |                                 |                                    |

| Feature   | Enabled for users | Enabled for administrators/<br>developers | Requires administrator<br>setup | Contact<br>Salesforce to<br>enable |
|---|-------------------|---|---------------------------------|------------------------------------|
| Manage Row-Level Security for Data Prep Recipes                                       | ✓                 |   |                                 |                                    |
| Edit a Dataset with One Click from Data Manager                                       | ✓                 |   |                                 |                                    |
| Monitor and Update Auto-Installed Analytics Apps from Setup                           |                   | ✓   |                                 |                                    |
| <b>Prebuilt Templates and Apps</b>  |                   |   |                                 |                                    |
| Improve Insights into Sales Performance with the Revenue Operations Analytics App     |                   | ✓   |                                 |                                    |
| <b>App Building</b>   |                   |   |                                 |                                    |
| Freeze Some Table Columns, Scroll Through the Rest                                    | ✓                 |   |                                 |                                    |
| Expand or Collapse Grouped Columns Faster   | ✓                 |   |                                 |                                    |
| Customize One-Click Actions for Dimensions  | ✓                 |   |                                 |                                    |
| Gain Insights on Data Directly in Snowflake (Generally Available)                     | ✓                 |   |                                 |                                    |
| Add Accuracy to Your Insights with Date and Time Data in Your Local Time Zone (Beta)  |                   |   |                                 | ✓                                  |
| Emphasize Key Metrics in Dashboard Text with Conditional Formatting                   | ✓                 |   |                                 |                                    |
| Protect Data in Embedded Dashboards with Locked or Hidden Filters                     |                   | ✓   |                                 |                                    |
| Save Time Creating and Managing Dashboards with Reusable Dashboard Components (Pilot) |                   |   |                                 | ✓                                  |
| Develop Analytics Templates for Auto Installation                                     |                   | ✓   |                                 |                                    |
| View Einstein Analytics Data Downloads in Your Event Log Files                        |                   | ✓   |                                 |                                    |
| <b>Einstein Discovery</b>   |                   |   |                                 |                                    |
| Guide User Actions with Custom Improvement Text                                       |                   |   |                                 | ✓                                  |
| Enable High Cardinality for One Variable in a Story                                   |                   |   |                                 | ✓                                  |

| Feature  | Enabled for users | Enabled for administrators/<br>developers | Requires administrator<br>setup | Contact<br>Salesforce to<br>enable |
|--|-------------------|---|---------------------------------|------------------------------------|
| Visually Determine Whether Your Data Is Normally Distributed                             |                   |   |                                 | ✓                                  |
| Update Your Models Regularly with Automatic Refresh                                      |                   |   |                                 | ✓                                  |
| Stay Informed with Dataset Change Notifications and Applied Filters                      |                   |   |                                 | ✓                                  |
| Embed Predictions in Your Dataset During Data Prep                                       |                   |   |                                 | ✓                                  |
| Minimize Disparate Impact in Your Stories with Sensitive Variables                       |                   |   |                                 | ✓                                  |
| Jump-Start Story Creation Using Templates  |                   |   |                                 | ✓                                  |
| Get Better Tuned XGBoost and GBM Models  |                   |   |                                 | ✓                                  |
| Implement External Models in Your Salesforce Org (Pilot)                                 |                   |   |                                 | ✓                                  |
| Build Accurate Models Using Random Forest Algorithms (Pilot)                             |                   | ✓   |                                 |                                    |
| Annotate Story Versions with Descriptions  |                   |   |                                 | ✓                                  |
| Cancel Story Creation During Analysis  |                   |   |                                 | ✓                                  |
| Load Einstein Discovery Stories Faster   |                   |   |                                 | ✓                                  |
| <b>Analytics for Everyone</b>  |                   |   |                                 |                                    |
| Monitor Important Metrics with the Einstein Analytics Watchlist (Generally Available)    | ✓                 |   |                                 |                                    |
| Subscribe to Lenses and Dashboard Widgets for Timely Email Updates (Generally Available) |                   |   | ✓                               |                                    |
| Control Who Shares Dashboard and Lens Images   |                   |   | ✓                               |                                    |
| Get Ready for the Winter '21 Versions of Einstein Analytics for iOS and Android          | ✓                 |   |                                 |                                    |
| <b>What's New In SAQL</b>  |                   |   |                                 |                                    |
| Get Custom Fiscal Year Support in Einstein Analytics (Generally Available)               |                   |   |                                 | ✓                                  |
| Convert Multi-Value Fields to String Fields in SAQL                                      |                   | ✓   |                                 |                                    |

| Feature  | Enabled for users | Enabled for administrators/<br>developers | Requires administrator<br>setup | Contact<br>Salesforce to<br>enable |
|--|-------------------|---|---------------------------------|------------------------------------|
| Write Local Time Zone-Specific Queries with Single Custom Time Zone (Beta) |                   |   |                                 | ✓                                  |
| Use Trigonometry and ASCII Conversion Functions in SAQL Queries            |                   |   |                                 |                                    |
| Access Date Information With More Functions for Fiscal Year Data           |                   | ✓   |                                 |                                    |

## Commerce

Check out what's new in Salesforce Order Management and Lightning B2B Commerce.

| Feature   | Enabled for users | Enabled for administrators/<br>developers | Requires administrator<br>setup | Contact<br>Salesforce to<br>enable |
|---|-------------------|---|---------------------------------|------------------------------------|
| <b>Salesforce Order Management</b>                                      |                   |   |                                 |                                    |
| Manage Order Process Exceptions   |                   | ✓   |                                 |                                    |
| Access New and Updated Order Management Flows                           |                   | ✓   |                                 |                                    |
| Create Order Summaries with Custom Numbers and Statuses                 |                   | ✓   |                                 |                                    |
| Handle Custom Payment Methods   |                   | ✓   |                                 |                                    |
| <b>Lightning B2B Commerce</b>   |                   |   |                                 |                                    |
| Let External Users Buy for or Manage Users on External Managed Accounts | ✓                 |   |                                 |                                    |
| Use Improved Order Summary Components                                   |                   | ✓   |                                 |                                    |
| Provide Accurate Checkout Information with Time to Live                 |                   | ✓   |                                 |                                    |
| Connect Faster with the B2B Commerce Integration Dashboard              |                   | ✓   |                                 |                                    |
| Present Your Delivery Options with the Delivery Method Component        |                   | ✓   |                                 |                                    |
| Give Buyers Clear Information About Volume Discounts                    |                   | ✓   |                                 |                                    |
| Manage Your B2B Commerce Pricing in the Pricing Workspace               |                   | ✓   |                                 |                                    |

| Feature   | Enabled for users | Enabled for administrators/<br>developers | Requires administrator setup | Contact Salesforce to enable |
|---|-------------------|---|------------------------------|------------------------------|
| <a href="#">See All Your Products in One Place and Take Action on Them</a>            | ✓                 |   |                              |                              |
| <a href="#">View Associated Stores and Manage Searchability on Products</a>           | ✓                 |   |                              |                              |
| <a href="#">Associate Your Buyer Groups to Stores to See Pricing and Entitlements</a> |                   | ✓   |                              |                              |
| <a href="#">Bookmark Store Search Results</a>   | ✓                 |   |                              |                              |
| <a href="#">Get an Effortless No-Search-Results Experience</a>                        |                   | ✓   |                              |                              |
| <a href="#">Show or Hide Breadcrumbs in Product Search Results</a>                    | ✓                 |   |                              |                              |
| <a href="#">Add All Cart Items, Rename, and Delete Lists (Beta)</a>                   |                   |   |                              | ✓                            |
| <a href="#">Dismiss Cart Errors for Good</a>  | ✓                 |   |                              |                              |

## Communities

Communities elves have been hard at work this release delivering new features and enhancements. Take advantage of more granular audience criteria that let you vary record detail pages based on record fields. The latest Build Your Own (LWC) template is packed with changes, including support for an upgraded version of Lightning Locker, custom URL paths, and SEO. And your data is more secure than ever with the enforcement of several guest user security settings that were introduced in previous releases.

| Feature  | Enabled for users | Enabled for administrators/<br>developers | Requires administrator setup | Contact Salesforce to enable |
|--|-------------------|---|------------------------------|------------------------------|
| <b>Lightning Communities</b>   |                   |   |                              |                              |
| <a href="#">Prepare Your Community for Upcoming CSP Changes</a>                        |                   | ✓   |                              |                              |
| <a href="#">Manage Your Pages and URLs with the Pages Menu</a>                         |                   | ✓   |                              |                              |
| <a href="#">Apply Audiences to Record Detail Pages with Record-Based Criteria</a>      |                   | ✓   |                              |                              |
| <a href="#">Print Lightning Community Record Details and Lists with Printable View</a> |                   | ✓   |                              |                              |
| <a href="#">Package Tile Menus in Bolt Solutions</a>                                   |                   | ✓   |                              |                              |
| <a href="#">Let External Users Manage Other Users with External Managed Accounts</a>   |                   |   | ✓                            |                              |

| Feature   | Enabled for users | Enabled for administrators/<br>developers | Requires administrator setup | Contact Salesforce to enable |
|---|-------------------|---|------------------------------|------------------------------|
| <a href="#">Topic ID Field Added Back to Topics Components</a>  |                   | ✓   |                              |                              |
| <b>Developer Productivity</b>   |                   |   |                              |                              |
| <a href="#">Build Fast, Efficient Experiences with the LWC-Based Template (Pilot)</a>   |                   |   | ✓                            |                              |
| <a href="#">Communities Now Support lightning:hasPageReference and Default Field Values in lightning:navigation</a>                 |                   | ✓   |                              |                              |
| <b>Guest User</b>   |                   |   |                              |                              |
| <a href="#">Secure Guest User Record Access Can't Be Disabled (available within 24 hours after the release)</a>                     |                   | ✓   |                              |                              |
| <a href="#">Automatically Assign Records Created by Guest Users to a Default Owner (Previously Released Update)</a>                 |                   |   | ✓                            |                              |
| <a href="#">Reduce Object Permissions for Guest Users</a>   |                   | ✓   |                              |                              |
| <a href="#">Opt Out of Enforcing Guest User Object Permission Changes (Previously Released Update)</a>                              |                   |   | ✓                            |                              |
| <a href="#">View All Users Permission to be Removed in Guest User Profiles in Spring '21 (Previously Released Update, Enforced)</a> |                   | ✓   |                              |                              |
| <a href="#">Let Guest Users See Other Members of This Community Setting Disabled</a>  |                   |   | ✓                            |                              |
| <a href="#">Improved Security for Managed Topic Images</a>  |                   |   | ✓                            |                              |
| <a href="#">Override Entity Permissions When Using &lt;apex:inputField&gt;</a>  |                   | ✓   |                              |                              |
| <b>Security and Sharing</b>   |                   |   |                              |                              |
| <a href="#">Let Users Authenticate by SMS</a>   |                   |   |                              | ✓                            |
| <a href="#">Customize Notifications for Changing Email Addresses</a>  | ✓                 |   |                              |                              |
| <b>Other Changes</b>  |                   |   |                              |                              |

| Feature   | Enabled for users | Enabled for administrators/<br>developers | Requires administrator<br>setup | Contact<br>Salesforce to<br>enable |
|---|-------------------|---|---------------------------------|------------------------------------|
| <a href="#">Trusted Site Paths for Lightning Communities Are Case-Sensitive</a>               |                   | ✓   |                                 |                                    |
| <a href="#">User Settings and User Profile Summary &amp; Image Components Were Replaced</a>   |                   | ✓   |                                 |                                    |
| <a href="#">Enable Article Sharing for High-Volume Community Users</a>                        |                   |   | ✓                               |                                    |
| <a href="#">Personalize Communities with Code Settings for Embedded Chat and Channel Menu</a> |                   |   | ✓                               |                                    |

## Salesforce CMS

Share your public content with a content delivery network (CDN), import images and documents from your local drive to Salesforce CMS, and organize your CMS content with folders.

| Feature   | Enabled for users | Enabled for administrators/<br>developers | Requires administrator<br>setup | Contact<br>Salesforce to<br>enable |
|---|-------------------|---|---------------------------------|------------------------------------|
| <a href="#">Serve CMS Content with a Content Delivery Network (CDN)</a>                         |                   | ✓   |                                 |                                    |
| <a href="#">Import Local Images and Documents to Salesforce CMS</a>                             |                   | ✓   |                                 |                                    |
| <a href="#">Organize Salesforce CMS Content with Folders</a>                                    |                   | ✓   |                                 |                                    |
| <a href="#">Salesforce CMS Now Supports Knowledge Articles in the CMS Collections Component</a> |                   | ✓   |                                 |                                    |
| <a href="#">Add Content More Easily with the Enhanced Rich Text Editor</a>                      |                   | ✓   |                                 |                                    |
| <a href="#">Salesforce CMS Apps and Tabs Are Enabled by Default</a>                             |                   | ✓   |                                 |                                    |
| <a href="#">Filter by Content Type in Salesforce CMS</a>  |                   | ✓   |                                 |                                    |

## Files

Switch your file rendition in Connect REST API from Adobe Flash to SVG.

| Feature  | Enabled for users | Enabled for administrators/<br>developers | Requires administrator<br>setup | Contact<br>Salesforce to<br>enable |
|--|-------------------|---|---------------------------------|------------------------------------|
| <a href="#">Switch Your File Rendition in Connect REST API</a> |                   | ✓   |                                 |                                    |

## Mobile

Get more done in the Salesforce mobile app with launchpad, activity timeline, and other productivity boosters. Notifications features give you even more control over your custom notifications. Mobile Publisher for Communities now supports Marketing Cloud push notifications (Pilot). Experience the future of CRM with Salesforce Anywhere's real-time alerts, chat, and suggested actions (Beta).

| Feature   | Enabled for users | Enabled for administrators/<br>developers | Requires administrator<br>setup | Contact<br>Salesforce to<br>enable |
|---|-------------------|---|---------------------------------|------------------------------------|
| <b>Salesforce Mobile App</b>  |                   |   |                                 |                                    |
| <b>Everything That's New in the Salesforce Mobile App</b>   |                   |   |                                 |                                    |
| <a href="#">Salesforce Mobile App Requirements Have Changed</a>                                       | ✓                 |   |                                 |                                    |
| <a href="#">Create Shortcuts to Users' Essential Pages</a>  |                   |   | ✓                               |                                    |
| <a href="#">Tap Into Salesforce from Your Home Screen with the Quick Navigation Widget</a>            | ✓                 |   |                                 |                                    |
| <a href="#">Cruise Through the App with Improved Scrolling</a>  | ✓                 |   |                                 |                                    |
| <a href="#">Keep Track of Your Activities with Activity Timeline on iOS</a>                           |                   |   |                                 |                                    |
| <a href="#">Get to the Point with Report Highlights</a>   | ✓                 |   |                                 |                                    |
| <a href="#">Stay Productive with Financial Services Cloud Lightning Components for Mobile</a>         | ✓                 |   |                                 |                                    |
| <b>Notifications</b>  |                   |   |                                 |                                    |
| <a href="#">Require User Permission for the Send Custom Notification Action (Update)</a>              |                   | ✓   |                                 |                                    |
| <a href="#">Send Your Custom Notification Recipients to New Places with Page Reference Navigation</a> |                   | ✓   |                                 |                                    |
| <b>Mobile Publisher</b>   |                   |   |                                 |                                    |
| <a href="#">Configure Marketing Cloud Notifications (Pilot)</a>                                       |                   |   | ✓                               |                                    |

| Feature   | Enabled for users | Enabled for administrators/<br>developers | Requires administrator setup | Contact Salesforce to enable |
|---|-------------------|---|------------------------------|------------------------------|
| <a href="#">Use Your Mobile Device Camera to Scan Barcodes</a>            |                   |   | ✓                            |                              |
| <a href="#">Customize How Users Navigate in the Community App (Pilot)</a> |                   |   | ✓                            |                              |
| <a href="#">Salesforce Anywhere</a>                                       |                   |   | ✓                            |                              |

## Customization

Build and test flows with new layout and debug options, and launch flows when records are deleted. Break up your record details and create more flexible Lightning pages with Dynamic Forms and Dynamic Actions in the Lightning App Builder. Recommend anything to anyone with Einstein Recommendation Builder (beta).

| Feature   | Enabled for users | Enabled for administrators/<br>developers | Requires administrator setup | Contact Salesforce to enable |
|---|-------------------|---|------------------------------|------------------------------|
| <b>Lightning Flow</b>   |                   |   |                              |                              |
| <b>Flow Builder</b>   |                   |   |                              |                              |
| <a href="#">Trigger a Flow to Run Before a Record is Deleted</a>                                    |                   | ✓   |                              |                              |
| <a href="#">Debug Flow Errors in Sandbox Org as Another User</a>                                    |                   |   | ✓                            |                              |
| <a href="#">Debug Autolaunched Flows Directly on the Canvas (Beta)</a>                              |                   | ✓   |                              |                              |
| <a href="#">Build Multi-Column Screens in Flow Builder (Pilot)</a>                                  |                   |   |                              | ✓                            |
| <a href="#">Place Flow Elements Automatically with Auto-Layout (Beta)</a>                           |                   | ✓   |                              |                              |
| <a href="#">Improve the Performance and Precision of Record-Triggered Flows with Entry Criteria</a> |                   | ✓   |                              |                              |
| <a href="#">Create Decision Outcomes that Only Execute When Certain Changes are Made</a>            |                   | ✓   |                              |                              |
| <a href="#">Use AND, OR, and Custom Operators Across All Flow Builder Elements</a>                  |                   | ✓   |                              |                              |
| <a href="#">Locate a Flow Builder Error with the Click of a Link</a>                                |                   | ✓   |                              |                              |
| <a href="#">Easily Access Related Record Data in Autolaunched Flows with Triggers</a>               |                   | ✓   |                              |                              |

| Feature   | Enabled for users | Enabled for administrators/<br>developers | Requires administrator setup | Contact Salesforce to enable |
|---|-------------------|---|------------------------------|------------------------------|
| Use Your Salesforce Org's Global Variables Everywhere in Flows  |                   | ✓   |                              |                              |
| View Merge Field Labels in Flow Builder   |                   | ✓   |                              |                              |
| Text Template Setting Is Saved  |                   | ✓   |                              |                              |
| Flow Screen Previews of Picklist and Multi-Select Picklist Components Are No Longer Interactive               |                   | ✓   |                              |                              |
| <b>Lightning Flow Management</b>  |                   |   |                              |                              |
| Adopt Run-Time Behavior Changes for Individual Flows and Processes at Your Convenience                        |                   | ✓   |                              |                              |
| Quickly See the Triggers of Your Flows on the Flows Page in Setup   |                   | ✓   |                              |                              |
| View Flow Labels and Screen Labels in Flow Interview Logs   |                   | ✓   |                              |                              |
| Run Flows in System Context Without Sharing to Access the Recommendation Object for External Users            | ✓                 |   |                              |                              |
| Trigger Flows to Run When a Record Owner Is Changed in Salesforce Classic                                     | ✓                 |   |                              |                              |
| <b>Lightning Flow Extensions</b>  |                   |   |                              |                              |
| Create Flow Screen Components That Work for Multiple Objects (Generally Available)                            |                   | ✓   |                              |                              |
| Configure Custom Flow Screen Components More Easily (Generally Available)                                     |                   | ✓   |                              |                              |
| Use Custom Property Editors in Flow Builder with Actions and Screen Components That Work for Multiple Objects |                   | ✓   |                              |                              |
| Easily Add Actions to Flows from Public Web Services (Pilot)  |                   | ✓   |                              |                              |
| <b>Lightning Flow Release Updates</b>   |                   |   |                              |                              |
| Make Paused Flow Interviews Resume in the Same Context with the Same User Access (Update)                     |                   |   | ✓                            |                              |

| Feature  | Enabled for users | Enabled for administrators/<br>developers | Requires administrator setup | Contact Salesforce to enable |
|--|-------------------|---|------------------------------|------------------------------|
| Evaluate Criteria Based on Original Record Values in Process Builder (Update, Postponed)   |                   |   | ✓                            |                              |
| Enable Partial Save for Invocable Actions (Update, Postponed)  |                   |   | ✓                            |                              |
| Enforce Data Access in Flow Formulas (Update, Postponed)   |                   |   | ✓                            |                              |
| Make Flows Respect Access Modifiers for Legacy Apex Actions (Update, Postponed)  |                   |   | ✓                            |                              |
| Disable Rules for Enforcing Explicit Access to Apex Classes (Update, Postponed)  |                   |   | ✓                            |                              |
| Check for Null Record Variables or Null Values of Lookup Relationship Fields in Process and Flow Formulas (Update, Postponed)                          |                   |   | ✓                            |                              |
| <b>Lightning Flow Run-Time Improvements in API Version 50.0</b>  |                   |   | ✓                            |                              |
| <b>Lightning App Builder</b>   |                   |   |                              |                              |
| <b>Break Up Your Record Details with Dynamic Forms (Generally Available)</b>   |                   |   | ✓                            |                              |
| <b>Unleash New Flexibility with Dynamic Actions on Desktop (GA and Beta) and Mobile (Beta)</b>   |                   |   | ✓                            |                              |
| <b>Analyze Your Lightning Page Performance</b>   |                   | ✓   |                              |                              |
| <b>Lightning App Builder Header and Toolbar Changes</b>  |                   | ✓   |                              |                              |
| <b>Get Record Types When You Package Lightning Pages</b>   |                   | ✓   |                              |                              |
| <b>App Performance (Beta) in Lightning App Settings Has Been Retired</b>   |                   | ✓   |                              |                              |
| <b>Lightning App Builder Accessibility Enhancements</b>  |                   | ✓   |                              |                              |
| <b>Einstein Builders: Deliver Personalized Recommendations (Beta), and Show Confidence Range and Top Predictors on Records for Numeric Predictions</b> |                   |   |                              |                              |

| Feature   | Enabled for users | Enabled for administrators/<br>developers | Requires administrator setup | Contact Salesforce to enable |
|---|-------------------|---|------------------------------|------------------------------|
| <a href="#">Recommend Anything to Anyone with Einstein Recommendation Builder (Beta)</a>          |                   |   | ✓                            |                              |
| <a href="#">Show Top Predictors and Confidence Range on Records for Numeric Predictions</a>       |                   |   | ✓                            |                              |
| <b>Globalization</b>  |                   |   |                              |                              |
| <a href="#">Understand Translation Import Errors with Improved Email Notifications</a>            | ✓                 |   |                              |                              |
| <a href="#">Enable ICU Locale Formats (Previously Released Update)</a>                            |                   |   | ✓                            |                              |
| <a href="#">Connect with Customers Who Speak and Read Khmer</a>                                   |                   | ✓   |                              |                              |
| <a href="#">Import and Export Larger Data Translation Files</a>                                   | ✓                 |   |                              |                              |
| <a href="#">Submit Only One Translation Import or Export Request at a Time</a>                    | ✓                 |   |                              |                              |
| <b>Profiles and Permissions</b>   |                   |   |                              |                              |
| <a href="#">Improve Org Security with the Profile Filter Option</a>                               |                   | ✓   |                              |                              |
| <a href="#">Check Out the View All Profiles Permission</a>  |                   | ✓   |                              |                              |
| <a href="#">Restrict Permissions Cloning in Profiles</a>  |                   | ✓   |                              |                              |
| <a href="#">Use Permission Set Groups in Professional Edition</a>                                 |                   | ✓   |                              |                              |
| <a href="#">Understand the Custom Permissions License Required Option</a>                         |                   | ✓   |                              |                              |
| <b>Salesforce Connect</b>   |                   |   |                              |                              |
| <a href="#">Restricted Access to Authentication in Named Credentials and External Data Source</a> |                   | ✓   |                              |                              |
| <a href="#">Salesforce Connect is HIPAA Compliant</a>   |                   | ✓   |                              |                              |
| <a href="#">External Object ID Mappings Subject to Expiration</a>                                 |                   | ✓   |                              |                              |
| <b>Einstein Next Best Action</b>  |                   |   |                              |                              |

| Feature   | Enabled for users | Enabled for administrators/<br>developers | Requires administrator setup | Contact Salesforce to enable |
|---|-------------------|---|------------------------------|------------------------------|
| Store and Encrypt Healthcare Data with HIPAA-Compliant Einstein Next Best Action  |                   | ✓   |                              |                              |
| Create Event-Driven Recommendations Using Voice Call Records  |                   | ✓   |                              |                              |
| Add AI-Driven Recommendations to Your Strategies Using Einstein Recommendation Builder (Beta)                           |                   | ✓   |                              |                              |
| <b>External Services</b>  |                   |   |                              |                              |
| Manage and Recreate Legacy External Services Registrations  |                   | ✓   |                              |                              |
| Legacy External Services Version Is Being Retired   |                   | ✓   |                              |                              |
| <b>Sharing</b>  |                   |   |                              |                              |
| Deploy Organization-Wide Defaults and Criteria-Based Sharing Rules Together   |                   | ✓   |                              |                              |
| Secure Guest Users' Org-Wide Defaults and Sharing Model Can't Be Disabled (available within 24 hours after the release) |                   | ✓   |                              |                              |
| <b>Fields</b>   |                   |   |                              |                              |
| Disable Rendering of HTML in Custom Field Labels (Update)   |                   | ✓   |                              |                              |
| Manage Deleted Fields in Lightning Experience   |                   | ✓   |                              |                              |
| <b>Custom Metadata Types</b>  |                   |   |                              |                              |
| Custom Metadata Types Support Geolocation Field Types Relationships   |                   | ✓   |                              |                              |
| View Supported Relationship Entities When Creating Custom Metadata Types  |                   | ✓   |                              |                              |
| <b>General Setup</b>  |                   |   |                              |                              |
| Choose Your Utility Bar Alignment   | ✓                 |   |                              |                              |
| Choose When to Show the Submit for Approval Action (Generally Available and Beta)                                       |                   | ✓   |                              |                              |

| Feature   | Enabled for users | Enabled for administrators/<br>developers | Requires administrator<br>setup | Contact<br>Salesforce to<br>enable |
|---|-------------------|---|---------------------------------|------------------------------------|
| <a href="#">Changes to Record Type Creation UI in Setup</a>   |                   | ✓   |                                 |                                    |
| <a href="#">Require Permission to View Record Names in Lookup Fields (Previously Released Update)</a> |                   |   | ✓                               |                                    |
| <a href="#">Disable Standard Object Edits on Standard Profile (Update)</a>                            |                   |   | ✓                               |                                    |

## Security, Privacy, and Identity

Maintain security, privacy, and governance policies for multiple orgs with Security Center, now generally available. View and manage mobile device access to your org with Mobile Device Tracking, generally available. New Salesforce orgs get a My Domain by default and existing orgs must define one. Keep a closer eye on your org with three new Real-Time Monitoring Events. Encrypt fields associated with health intake documents, and encrypt some Financial Services Cloud documents.

| Feature  | Enabled for users | Enabled for administrators/<br>developers | Requires administrator<br>setup | Contact<br>Salesforce to<br>enable |
|--|-------------------|---|---------------------------------|------------------------------------|
| <b>Authentication and Identity</b>   |                   |   |                                 |                                    |
| <a href="#">Implement MFA with the Multi-Factor Authentication Assistant</a>                                 |                   |   | ✓                               |                                    |
| <a href="#">We Upgraded to Using Multi-Factor Authentication Terminology</a>                                 |                   |   | ✓                               |                                    |
| <a href="#">View and Revoke Devices with Mobile Device Tracking</a>  |                   |   |                                 | ✓                                  |
| <a href="#">Perform Cross-Origin Requests to OAuth Endpoints</a>   |                   | ✓   |                                 |                                    |
| <a href="#">Secure SAML Messages When Salesforce Is the Identity Provider</a>                                |                   | ✓   |                                 |                                    |
| <a href="#">Update Identity Provider SAML Requests to Use Lowercase Sandbox Names</a>                        |                   |   | ✓                               |                                    |
| <a href="#">OAuth 2.0 User-Agent Flow Supports mobileauth.salesforce.com Redirect URL for Refresh Tokens</a> |                   | ✓   |                                 |                                    |
| <b>Domains</b>   |                   |   |                                 |                                    |
| <a href="#">Deploy a My Domain (Update)</a>  |                   |   | ✓                               |                                    |

| Feature  | Enabled for users | Enabled for administrators/<br>developers | Requires administrator setup | Contact Salesforce to enable |
|--|-------------------|---|------------------------------|------------------------------|
| <b>Define a My Domain When Creating a New Salesforce Org</b>   |                   | ✓   |                              |                              |
| <b>Stabilize URLs for Visualforce, Experience Builder, Site.com Studio, and Content Files (Previously Released Update)</b>         |                   |   | ✓                            |                              |
| <b>Setting That Allows Non-Secure HTTP Connections for Sites Was Removed</b>   |                   | ✓   |                              |                              |
| <b>Salesforce Shield</b>   |                   |   |                              |                              |
| <b>Shield Platform Encryption: Encrypt Data Associated with Documents and Deprecated Release Update</b>                            |                   |   |                              |                              |
| Encrypt Data Associated with Health Intake Documents   |                   |   | ✓                            |                              |
| Encrypt Identity Document Fields   |                   |   | ✓                            |                              |
| Manage Encryption Keys Permission Removal from System Administrator Profile Release Update Deprecated (Previously Released Update) |                   |   | ✓                            |                              |
| <b>Event Monitoring: Transaction Security Retirement, New Events</b>   |                   |   |                              |                              |
| Legacy Transaction Security: End of Life   |                   | ✓   |                              |                              |
| Prevent Data Loss with BulkApiResponse Event   |                   | ✓   |                              |                              |
| Detect Anomalies in API Queries with New ApiAnomalyEvent   |                   | ✓   |                              |                              |
| Analyze Unexpected Exceptions in the Event Monitoring Analytics App  |                   | ✓   |                              |                              |
| View Einstein Analytics Data Downloads in Your Event Log Files   |                   | ✓   |                              |                              |
| <b>Other Changes</b>   |                   |   |                              |                              |
| <b>Changes to the Security, Privacy, and Identity Release Notes Section</b>  | ✓                 |   |                              |                              |
| <b>Streamline Security Policy Monitoring with Security Center (Generally Available)</b>  |                   |   | ✓                            |                              |
| <b>Review and Update Your TLS 1.2 Ciphers</b>  |                   |   | ✓                            |                              |
| <b>Apex Crypto Class Supports ECDSA</b>  |                   | ✓   |                              |                              |

## Customer 360 Truth

Learn what's new with Customer 360 Data Manager. Give your users more identity verification options and a more personalized email change experience. And use one app to create multiple org monitoring policies.

| Feature  | Enabled for users | Enabled for administrators/ developers | Requires administrator setup | Contact Salesforce to enable |
|--|-------------------|--|------------------------------|------------------------------|
| <b>Customer 360 Data Manager</b>   |                   |  |                              |                              |
| <b>Identity for Customers &amp; Partners</b>   |                   |  |                              |                              |
| Let Your Community Users, Customers, and Partners Verify Their Identities with SMS                     |                   |  |                              | ✓                            |
| Require Verification When Community Users, Partners, and Customers Change Their Email Address (Update) |                   |  | ✓                            |                              |
| Put Your Own Spin on Your Community's Email Address Change Verification Emails                         |                   | ✓                                      |                              |                              |
| <b>Privacy &amp; Data Compliance</b>   |                   |  |                              |                              |
| Privacy Center   |                   | ✓                                      |                              |                              |
| Consent Event Stream   |                   | ✓                                      |                              |                              |

## Deployment

Send customizations from one org to another by adding these components to change sets.

| Feature                   | Enabled for users | Enabled for administrators/ developers | Requires administrator setup | Contact Salesforce to enable |
|---------------------------|-------------------|--|------------------------------|------------------------------|
| New Change Set Components |                   | ✓                                      |                              |                              |

## Development

Whether you're using Lightning components, Visualforce, Apex, or our APIs with your favorite programming language, these enhancements help you develop amazing applications, integrations, and packages for resale to other organizations.

| Feature                     | Enabled for users | Enabled for administrators/ developers | Requires administrator setup | Contact Salesforce to enable |
|-----------------------------|-------------------|--|------------------------------|------------------------------|
| <b>Lightning Components</b> |                   |  |                              |                              |

| Feature  | Enabled for users | Enabled for administrators/<br>developers | Requires administrator setup | Contact Salesforce to enable |
|--|-------------------|---|------------------------------|------------------------------|
| <b>Add Custom Buttons to the lightning-input-rich-text Base Component (Beta)</b>                                 |                   | ✓   |                              |                              |
| <b>Second-Generation Packages Support Lightning Message Channels</b>   |                   | ✓   |                              |                              |
| <b>Scan a Barcode in a Lightning Web Component (Beta)</b>  |                   | ✓   |                              |                              |
| <b>Increased Timeout for Client-Side Caching</b>   |                   | ✓   |                              |                              |
| <b>Aura Components in the ui Namespace Are Being Deprecated</b>  |                   |   | ✓                            |                              |
| <b>DOM API Changes May Require UI Test Updates</b>   |                   | ✓   |                              |                              |
| <b>Develop Flow Screen Components That Work for Multiple Objects (Generally Available)</b>                       |                   | ✓   |                              |                              |
| <b>Release Updates: Enforcement for Profile-Based Access for @AuraEnabled Apex Classes, and More</b>             |                   |   |                              |                              |
| Restrict Access to @AuraEnabled Apex Methods for Guest and Portal Users Based on User Profile (Update, Enforced) |                   |   | ✓                            |                              |
| Restrict Access to @AuraEnabled Apex Methods for Authenticated Users Based on User Profile (Update, Enforced)    |                   |   | ✓                            |                              |
| Enable Secure Static Resources for Lightning Components (Update)   |                   |   | ✓                            |                              |
| Enable Dependency Access Checks In Lightning Components (Update, Postponed)                                      |                   |   | ✓                            |                              |
| Use with sharing for @AuraEnabled Apex Controllers with Implicit Sharing (Update, Postponed)                     |                   |   | ✓                            |                              |
| Disable Access to Non-global Apex Controller Methods in Managed Packages (Update, Postponed)                     |                   |   | ✓                            |                              |
| Enforce Access Modifiers on Apex Properties in Lightning Component Markup (Update, Postponed)                    |                   |   | ✓                            |                              |

| Feature   | Enabled for users | Enabled for administrators/<br>developers | Requires administrator setup | Contact Salesforce to enable |
|---|-------------------|---|------------------------------|------------------------------|
| Prevent Creation of Function Expressions in Dynamically Created Aura Components (Update, Postponed) |                   |   | ✓                            |                              |
| <b>Einstein Vision and Language</b>   |                   |   |                              |                              |
| <b>Einstein Language: Build Einstein Intent Models in More Languages</b>                            |                   |   |                              |                              |
| Einstein Intent Supports More Languages (Beta)  |                   | ✓   |                              |                              |
| <b>Visualforce</b>  |                   |   |                              |                              |
| Second-Generation Packages Support Lightning Message Channels                                       |                   | ✓   |                              |                              |
| Shorten Your Visualforce URLs   |                   |   | ✓                            |                              |
| Prevent Consecutive API Navigation Calls in Visualforce Pages (Previously Released Update)          |                   | ✓   |                              |                              |
| New Attribute on <apex:inputField> Overrides Entity Edit Permissions                                |                   | ✓   |                              |                              |
| <b>Apex</b>   |                   |   |                              |                              |
| Use the Safe Navigation Operator to Avoid Null Pointer Exceptions                                   |                   | ✓   |                              |                              |
| Update Resources with the PATCH HTTP Method in Apex Callouts  |                   | ✓   |                              |                              |
| Send Custom Notifications from Apex   |                   | ✓   |                              |                              |
| Detect Apex Runtime Context with RequestId and Quiddity   |                   | ✓   |                              |                              |
| Improve Apex Testing with New SObject Error Methods   |                   | ✓   |                              |                              |
| Delete up to 50,000 Big Object Records in a Batch   |                   | ✓   |                              |                              |
| Enhanced Support for @namespaceAccessible Annotation  |                   | ✓   |                              |                              |
| <b>API</b>  |                   |   |                              |                              |
| Make More Powerful Composite Requests   |                   | ✓   |                              |                              |
| <b>Packaging</b>  |                   |   |                              |                              |

| Feature  | Enabled for users | Enabled for administrators/<br>developers | Requires administrator setup | Contact Salesforce to enable |
|--|-------------------|---|------------------------------|------------------------------|
| Visualize Package Ancestry Tree Using Salesforce CLI   |                   | ✓   |                              |                              |
| Schedule and Push Upgrades to Unlocked and Second-Generation Managed Packages (Generally Available)          |                   | ✓   |                              |                              |
| Delete Unwanted Packages and Package Versions  |                   | ✓   |                              |                              |
| Get Package Error Notifications  |                   | ✓   |                              |                              |
| Code Coverage Enforcement for Unlocked Packages  |                   | ✓   |                              |                              |
| Specify Unpackaged Metadata for Package Version Creation Tests (Pilot)                                       |                   |   |                              | ✓                            |
| Ensure That Multi-Factor Authentication Is Configured for License Management Orgs                            |                   | ✓   |                              |                              |
| Branch Packaging Orgs Are No Longer Available  |                   | ✓   |                              |                              |
| <b>Scratch Orgs: Org Shape and New Features</b>  |                   |   |                              |                              |
| Create Scratch Orgs More Easily Using an Org's Shape (Beta)  |                   | ✓   |                              |                              |
| Create Scratch Orgs with More Features   |                   | ✓   |                              |                              |
| Platform Development Tools   |                   | ✓   |                              |                              |
| <b>Lightning Design System: Styling Hooks and Other Component Blueprint Enhancements</b>                     |                   |   |                              |                              |
| Customize Components with Lightning Design System Styling Hooks (Beta)                                       |                   | ✓   |                              |                              |
| BEM Notation with Double Dashes Is Being Deprecated  |                   | ✓   |                              |                              |
| Lightning Design System Component Blueprint Updates  |                   | ✓   |                              |                              |
| <b>AppExchange Partners</b>  |                   |   |                              |                              |
| See Which Locations Drive Listing Activity with AppExchange Marketplace Analytics Activity Summary by Region |                   | ✓   |                              |                              |

| Feature   | Enabled for users | Enabled for administrators/<br>developers | Requires administrator<br>setup | Contact<br>Salesforce to<br>enable |
|---|-------------------|---|---------------------------------|------------------------------------|
| <a href="#">Test Your Custom Integrations Using AppExchange App Analytics Simulation Mode</a> |                   |   |                                 | ✓                                  |
| <b>Change Data Capture</b>  |                   |   |                                 |                                    |
| <a href="#">Enrich Change Event Messages with Extra Fields (Beta)</a>                         |                   |   |                                 | ✓                                  |
| <a href="#">Receive Change Event Notifications for More Objects</a>                           |                   | ✓   |                                 |                                    |
| <b>Platform Events</b>  |                   |   |                                 |                                    |
| <a href="#">Manage Your Platform Event Trigger Subscriptions from the User Interface</a>      |                   | ✓   |                                 |                                    |
| <a href="#">Monitor Event Publishing and Delivery Usage</a>                                   |                   | ✓   |                                 |                                    |
| <a href="#">Make Apex Callouts After Publishing Platform Event Messages</a>                   |                   | ✓   |                                 |                                    |
| <a href="#">Get the Status of High-Volume Platform Event Publish Operations (Beta)</a>        |                   |   |                                 | ✓                                  |

## Quip

Mark your embedded Quip documents as templates. Increase template adoption with the Template Library in Quip. Get granular user engagement metrics to see how users are employing Quip templates. Add inline live Salesforce data mentions to a Quip document or spreadsheet. Create hybrid Salesforce and Quip relationship maps.

| Feature   | Enabled for users | Enabled for administrators/<br>developers | Requires administrator<br>setup | Contact<br>Salesforce to<br>enable |
|---|-------------------|---|---------------------------------|------------------------------------|
| <a href="#">Discover Quip for Customer 360 Features with the Quip Setup Starter Managed Package</a> |                   |   | ✓                               |                                    |
| <a href="#">Manage Your Quip Templates in Quip and Salesforce (Template Library)</a>                | ✓                 |   |                                 |                                    |
| <a href="#">Use Metrics to Report on User Engagement with Embedded Quip Templates</a>               | ✓                 |   |                                 |                                    |
| <a href="#">Add In-Line Salesforce Record Fields to a Quip Document (Data Mentions)</a>             | ✓                 |   |                                 |                                    |

| Feature   | Enabled for users | Enabled for administrators/<br>developers | Requires administrator<br>setup | Contact<br>Salesforce to<br>enable |
|---|-------------------|---|---------------------------------|------------------------------------|
| Create a Relationship Map in Quip with Live Salesforce Data                           | ✓                 |   |                                 |                                    |
| Use Salesforce Record Permissions to Determine Access to Linked Quip Documents        |                   |   | ✓                               |                                    |
| Manage Live Salesforce Data in Quip   | ✓                 |   |                                 |                                    |
| Test the Health of Your Quip Connection to Salesforce                                 |                   |   | ✓                               |                                    |
| Customize Your Salesforce List Views with Filters in Quip                             |                   |   | ✓                               |                                    |
| Simplify Your Quip for Customer 360 Setup, Enablement Process, and Other Enhancements |                   |   |                                 |                                    |
| Build Custom Automations with New Quip APIs   | ✓                 |   |                                 |                                    |

## Pardot

Create, send, and manage your email templates and email content in the new Lightning Content Builder. Connect to Salesforce CMS to host and reuse images for email marketing, and get rollup metrics on the email records you use most. You can also resync prospects faster after import errors are resolved and customize your Einstein Attribution success milestone.

| Feature   | Enabled for users | Enabled for administrators/<br>developers | Requires administrator<br>setup | Contact<br>Salesforce to<br>enable |
|---|-------------------|---|---------------------------------|------------------------------------|
| <b>Marketing Email in Lightning</b>                             |                   |   |                                 |                                    |
| Compose Emails with the New Lightning Content Builder           | ✓                 |   |                                 |                                    |
| Source Images from Salesforce CMS for Lightning Content Builder |                   |   | ✓                               |                                    |
| Review Aggregate Email Metrics in Lightning Experience          | ✓                 |   |                                 |                                    |
| Preview and Test an Email in Lightning Experience               | ✓                 |   |                                 |                                    |
| Define the Send Experience for Email in Lightning               | ✓                 |   |                                 |                                    |
| <b>Analytics and Reporting</b>                                  |                   |   |                                 |                                    |

| Feature  | Enabled for users | Enabled for administrators/<br>developers | Requires administrator<br>setup | Contact<br>Salesforce to<br>enable |
|--|-------------------|---|---------------------------------|------------------------------------|
| <a href="#">Choose a Success Milestone for Pardot Einstein Attribution</a>   |                   |   | ✓                               |                                    |
| <a href="#">Understand Your Customer with New Campaign Insights</a>          | ✓                 |   |                                 |                                    |
| <a href="#">Get Clearer B2BMA Dashboard Metrics</a>                          | ✓                 |   |                                 |                                    |
| <a href="#">Get Prospect Custom Field Data Faster (Beta)</a>                 |                   |   | ✓                               |                                    |
| <a href="#">View More Accurate Email Open and Click Rates in Pardot</a>      | ✓                 |   |                                 |                                    |
| <a href="#">Recalculate List Email Statistics with Confidence</a>            |                   |   | ✓                               |                                    |
| <b>Marketing Assets and Domains</b>  |                   |   |                                 |                                    |
| <a href="#">Use WordPress Block Editor Seamlessly with the Pardot Plugin</a> | ✓                 |   |                                 |                                    |
| <a href="#">Authenticate your WordPress Plugin with Salesforce SSO</a>       | ✓                 |   |                                 |                                    |
| <a href="#">Automatically Secure New Pardot Tracker Domains</a>              |                   |   | ✓                               |                                    |
| <a href="#">Customize More Pardot Assets with Any Tracker Domain</a>         | ✓                 |   |                                 |                                    |
| <a href="#">Add to Prospect Lists from Contact Related List on Accounts</a>  |                   |   | ✓                               |                                    |
| <a href="#">Sync Prospects with Resolved Errors More Easily</a>              |                   |   | ✓                               |                                    |
| <a href="#">Get Cleaner Data in Standard Campaign Influence Reports</a>      | ✓                 |   |                                 |                                    |
| <a href="#">The ObjectChangeLog is Being Retired</a>                         |                   | ✓   |                                 |                                    |
| <a href="#">Pardot API: New and Changed Items</a>                            |                   | ✓   |                                 |                                    |
| <a href="#">Pardot API Version 5 (Beta)</a>                                  |                   | ✓   |                                 |                                    |

## Release Updates and Security Alerts

View important updates and alerts in a single location in the generally available Release Updates. We added some enhancements to ensure that your Salesforce org stays up to date on all changes that affect its performance, security, and users.

| Feature   | Enabled for users | Enabled for administrators/ developers | Requires administrator setup | Contact Salesforce to enable |
|---|-------------------|--|------------------------------|------------------------------|
| <a href="#">View Org Changes in One Location with Release Updates (Generally Available)</a> |                   | ✓                                      |                              |                              |
| <a href="#">Find Security Alerts in the Same Location as Release Updates</a>                |                   | ✓                                      |                              |                              |
| <a href="#">Release Updates</a>   |                   |  | ✓                            |                              |

## Supported Browsers

We made some changes to our supported browsers documentation, making it easier to find what you need. Supported browsers for Salesforce vary depending on whether you use Salesforce Classic or Lightning Experience.

### IN THIS SECTION:

[Supported Browsers and Devices for Lightning Experience](#)

See the supported browsers and devices for Lightning Experience.

[Supported Browsers and Devices for Salesforce Classic](#)

See the supported browsers and devices for Salesforce Classic.

[Supported Browsers for Einstein Analytics](#)

Supported browsers for Einstein Analytics include those supported for Lightning Experience with the following differences: Analytics isn't supported on Apple® Safari®, and Data Prep isn't supported on Internet Explorer 11.

## Supported Browsers and Devices for Lightning Experience

See the supported browsers and devices for Lightning Experience.

**Where:** Lightning Experience is available in the Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

### Note:

- Salesforce doesn't support non-browser applications that embed WebView or similar controls to render content for Salesforce Classic or Lightning Experience. Examples of approaches that embed this type of control include Salesforce Mobile SDK, Microsoft's WebBrowser Control, Electron's embedded Chromium browser, iOS's UIWebView and WKWebView, and Android's WebView.
- You can't access Lightning Experience in a mobile browser. Instead, we recommend using the Salesforce mobile app when you're working on a mobile device.
- You can access Lightning Experience on iPad Safari. For more information, see [Lightning Experience on iPad Safari Considerations](#).
- Lightning Experience doesn't support incognito or other private browsing modes.

## Desktops and Laptops

Salesforce supports the following browsers. Make sure that your browsers are up to date. Other browsers or older versions of supported browsers aren't guaranteed to support all features.

**Important:** Support for Internet Explorer 11 to access Lightning Experience is retiring beginning in Summer '16.

- You can continue to use IE11 to access Lightning Experience until December 16, 2017.
- If you opt in to [Extended Support for IE11](#), you can continue to use IE11 to access Lightning Experience until December 31, 2020.
- IE11 has [significant performance issues](#) in Lightning Experience.
- It is strongly recommended that you do not use Internet Explorer 11 with Community Builder.
- This change doesn't impact Salesforce Classic.

**Important:** Support for the non-Chromium version of Microsoft Edge in Lightning Experience and Salesforce Classic is ending on December 31, 2020. Lightning Experience and Salesforce Classic continue to support Microsoft Edge Chromium for Windows.

|                               | <b>Microsoft®<br/>Internet<br/>Explorer®</b> | <b>Microsoft®<br/>Edge<br/>(non-Chromium)</b>                  | <b>Microsoft®<br/>Edge<br/>Chromium</b> | <b>Google<br/>Chrome™</b>              | <b>Mozilla®<br/>Firefox®</b>           | <b>Apple®<br/>Safari®</b>              |
|-------------------------------|--|--|---|--|--|--|
| Lightning Experience          | IE 11 only (EOL December 31, 2020)           | Supports latest stable browser version (EOL December 31, 2020) | Supports latest stable browser version  | Supports latest stable browser version | Supports latest stable browser version | Supports latest browser stable version |
| Lightning Communities         | IE 11 only                                   | Supports latest stable browser version                         | Supports latest stable browser version  | Supports latest stable browser version | Supports latest stable browser version | Supports latest stable browser version |
| Special setup considerations? | No   | No   | No                                      | No                                     | No                                     | No                                     |
| Limitations?                  | Yes  | Yes  | Yes                                     | No                                     | Yes                                    | Yes                                    |

**Note:** The browser vendor defines "latest" for their own browser. Check with your browser vendor to determine the latest version available.

## Tablets

Use Apple Safari on iPadOS (iOS 13.x) or later. Portrait orientation and orientation switching aren't supported on Lightning Experience on iPad Safari. Use landscape orientation and maximize your Safari browser to full width. To avoid orientation switching, turn on the iPad rotation lock.

We support only the Salesforce mobile app for Android-based tablets.

|        | <b>Apple® Safari®</b> | <b>Google Chrome™</b> | <b>Other Browsers</b> | <b>Salesforce Mobile App</b> |
|--------|-----------------------|-----------------------|-----------------------|------------------------------|
| iPadOS | Supported             | Not supported         | Not supported         | Supported                    |

|         | Apple® Safari® | Google Chrome™ | Other Browsers | Salesforce Mobile App |
|---------|----------------|----------------|----------------|-----------------------|
| Android | N/A            | Not supported  | Not supported  | Supported             |

 **Note:** Salesforce treats touch-enabled laptops, including Microsoft Surface and Surface Pro devices, as laptops instead of tablets. It's not possible to access the Salesforce mobile app on these devices. Users are always redirected to the full site experience that's enabled for them—Lightning Experience or Salesforce Classic. Only standard keyboard and mouse inputs are supported on these types of devices.

## Phones

For the best experience, use the Salesforce mobile app.

## Supported Browsers and Devices for Salesforce Classic

See the supported browsers and devices for Salesforce Classic.

**Where:** Salesforce Classic is available in all editions.

 **Note:** Using Salesforce Classic in a mobile browser isn't supported. Instead, we recommend using the Salesforce mobile app when you're working on a mobile device.

 **Important:** Support for the non-Chromium version of Microsoft Edge in Lightning Experience and Salesforce Classic is ending on December 31, 2020. Lightning Experience and Salesforce Classic continue to support Microsoft Edge Chromium for Windows.

|                               | Microsoft® Internet Explorer® | Microsoft® Edge (non-Chromium)                                 | Microsoft® Edge Chromium               | Google Chrome™                         | Mozilla® Firefox®                      | Apple® Safari®                         |
|-------------------------------|-------------------------------|--|--|--|--|--|
| Salesforce Classic            | IE 11 only                    | Supports latest stable browser version (EOL December 31, 2020) | Supports latest stable browser version |
| Salesforce Classic Console    | IE 11 only                    | Supports latest stable browser version (EOL December 31, 2020) | Supports latest stable browser version | Supports latest stable browser version | Supports latest stable browser version | Not supported                          |
| Special setup considerations? | Yes                           | No   | No                                     | No                                     | Yes                                    | No                                     |
| Limitations?                  | Yes                           | Yes  | Yes                                    | No                                     | No                                     | Yes                                    |

 **Note:** The browser vendor defines "latest" for their own browser. Check with your browser vendor to determine the latest version available.

## Supported Browsers for Einstein Analytics

Supported browsers for Einstein Analytics include those supported for Lightning Experience with the following differences: Analytics isn't supported on Apple® Safari®, and Data Prep isn't supported on Internet Explorer 11.

## Salesforce Overall: Multi-Factor Authentication, Einstein Search Personalization, and Salesforce Anywhere (Beta)

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Use the Multi-Factor Authentication (MFA) Assistant to help roll MFA out to your users. Get personalized search results based on your activity, location, and other factors, with Einstein Search. Experience the future of CRM with Salesforce Anywhere's real-time alerts, chat, and Lightning Flow invocable actions (Beta). Also, read through our Customer 360 guides and solution kits to help solve complex business cases, add custom themes to in-app guidance, display specific survey pages to participants based on data, and more.

### IN THIS SECTION:

#### [Multi-Factor Authentication: Safeguard Account Access](#)

The changes and challenges we face this year make it more important than ever to implement strong security measures that safeguard your business and customers. Amid the increasing complexity of today's security landscape, user credentials alone are no longer adequate to guard against unauthorized account access. To add extra protection from threats like phishing attacks and credential stuffing, we strongly recommend turning on multi-factor authentication (MFA). We're here to help you make the transition with the new Multi-Factor Authentication Assistant.

#### [Search: Find Information Faster and Get the Most Relevant Results](#)

Amp up your productivity using Search. Find the records you want more easily and take action right from the search results page.

#### [Salesforce Anywhere: Plan and Accelerate Your Business in Real Time \(Beta\)](#)

Salesforce Anywhere is the future experience of CRM — making Salesforce real time. Get alerts about changes to the Salesforce data you care about. Update your Salesforce data in just a few taps with suggested actions. Collaborate in context with chat. Search and view your Salesforce data. And integrate Salesforce Anywhere chat and alerts into your business processes with Lightning Flow and Process Builder.

#### [Cross-Cloud Integrations: Customer 360 Guides, Solution Kits](#)

Explore the Salesforce cross-cloud architecture and identify and solve complex business use cases.

#### [Lightning Experience Engagement: In-App Guidance and Help Menu](#)

Add in-app guidance to more places in your apps. Use custom theme colors to make your in-app guidance stand out. Easily share direct links to in-app guidance. And show more custom resources in the Help Menu. Users can search for Trailhead modules right inside the Help Menu.

#### [Salesforce Surveys: Enhanced Participant Experience, Survey Templates, and More](#)

Enhance the participant experience by using merge fields within survey invitation emails. Use variables to decide which pages your participants view based on your Salesforce org's data. Participants can now read and respond to surveys in right to left languages. Participants who opt out of emails don't receive survey invitations by email. As a survey designer, you can now create template surveys. When you copy a translated survey, the translations get carried over to the new survey. Easily reorder questions on a survey page.

### [Lightning Scheduler: Controlled and Direct Interaction with External Calendars, Embedded Flows, Greater Scheduling Flexibility, and More](#)

Use the provided developer resources to write appointments directly and securely to, and read events from, external calendars. Schedule appointments in a whole new way by embedding Lightning Scheduler flows into record pages. And enjoy greater scheduling flexibility by associating custom scheduling policies with Lightning Scheduler flows with the new SchedulingPolicyName flow variable.

### [Do More with the Optimizer App](#)

The Optimizer App now has even more capabilities to enhance your Salesforce org's implementation. Use two new features to schedule automatic runs and view org metric history and access seven new metrics to improve security.

### [See More Record Info in Highlights Panels](#)

Hovering over a lookup relationship field on a record page displays the first seven fields from the compact layout in a highlights panel. Previously, the highlights panel displayed only the first five fields.

### [UI Changes for Lightning Web Components](#)

Salesforce product and engineering teams made usability and performance enhancements by switching users from Aura components to Lightning Web Components. These enhancements were rolled out to custom objects, some standard objects, and some UI elements like related lists. There should be no changes to functionality.

### [UI Changes for Cloning Records](#)

We made minor changes to the clone records interface to ensure that the correct record details appear.

### [Recycle Bin Search Capability Is Being Removed](#)

To avoid performance issues, we removed the search functionality from the Recycle Bin.

### [Access Setup and Visualforce Pages in Apple® Safari](#)

To protect user privacy, the Prevent Cross-Site Tracking privacy setting is enabled by default in Apple Safari version 13.1 and later. This setting prevents some Setup and Visualforce pages from displaying properly. On the affected Setup pages, a new on-screen message and link allow you to access the page's content by reloading the page in Salesforce Classic. For Visualforce pages, you can change some org metadata so that those pages display properly.

### [Cisco Webex Is Being Retired](#)

Cisco Webex is scheduled to be retired starting on October 9, 2020, as part of the Winter '21 release.

### [Skype Is Being Retired](#)

Skype is scheduled to be retired starting on October 9, 2020, as part of the Winter '21 release.

### [Keep Working with Tab-Focused Dialogs \(Previously Released Update\)](#)

In Lightning console apps, dialogs no longer stop you from interacting with the rest of the UI. This release update limits the focus of dialogs triggered by a workspace tab or subtab to only the tab that triggered it. This release update was first made available in Winter '20.

## Multi-Factor Authentication: Safeguard Account Access

The changes and challenges we face this year make it more important than ever to implement strong security measures that safeguard your business and customers. Amid the increasing complexity of today's security landscape, user credentials alone are no longer adequate to guard against unauthorized account access. To add extra protection from threats like phishing attacks and credential stuffing, we strongly recommend turning on multi-factor authentication (MFA). We're here to help you make the transition with the new Multi-Factor Authentication Assistant.



**Note:** In previous releases, multi-factor authentication was called two-factor authentication.

MFA requires users to prove they're who they say they are by providing two or more pieces of evidence—or factors—when they log in. One factor is something the user knows, such as their username and password combination. Other factors are verification methods that the user has in their possession, such as the Salesforce Authenticator app or a physical security key. By tying user access to multiple, different types of factors, it's much harder for a bad actor to access your Salesforce environment.

#### IN THIS SECTION:

##### [Drive Your Multi-Factor Authentication Implementation from One Place](#)

It's time to add another layer of protection for your Salesforce accounts. Meet the Multi-Factor Authentication Assistant, your hub for all the recommended steps, tools, and resources to roll out MFA to your users. The Assistant guides you through the entire process—from evaluating your requirements and planning the project to launching MFA and supporting users' post-rollout needs.

##### [Renamed Two-Factor Authentication User Permissions and Labels in Setup](#)

For all Salesforce products, we retired two-factor authentication (2FA) terminology and moved to the industry standard term of multi-factor authentication (MFA). To align Lightning Experience and Salesforce Classic with this change, we renamed two-factor authentication user permissions. And we renamed all two-factor and 2FA references throughout Setup and Salesforce documentation, including Salesforce Help, the Salesforce Security Guide, and Salesforce Developer Documentation. This update is a terminology change only—all functionality remains the same.

## Drive Your Multi-Factor Authentication Implementation from One Place

It's time to add another layer of protection for your Salesforce accounts. Meet the Multi-Factor Authentication Assistant, your hub for all the recommended steps, tools, and resources to roll out MFA to your users. The Assistant guides you through the entire process—from evaluating your requirements and planning the project to launching MFA and supporting users' post-rollout needs.

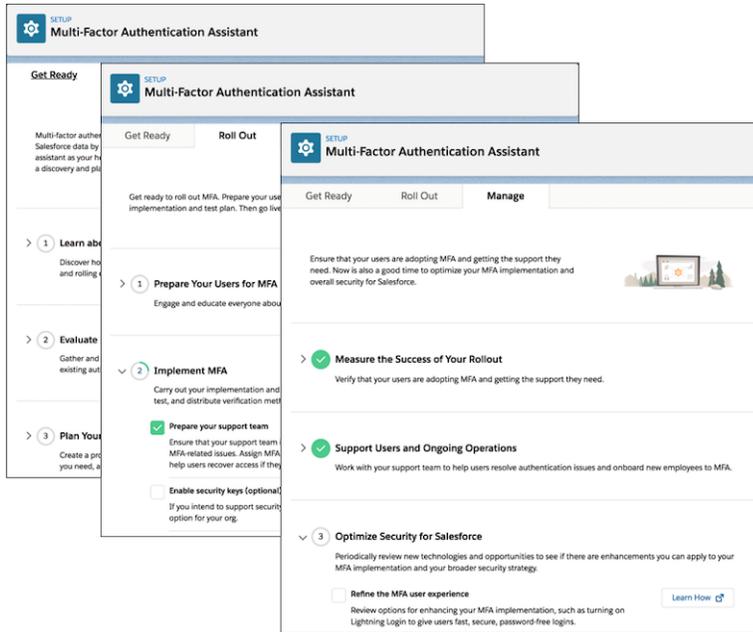
**Where:** This change applies to Lightning Experience in Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**When:** The new Multi-Factor Authentication Assistant is available in Salesforce production orgs on a rolling basis between September 18, 2020 and October 17, 2020.

**Who:** To use the Assistant, you must have the View Setup and Configuration and Customize Application user permissions.

**Why:** For easier manageability, the Multi-Factor Authentication Assistant breaks up your MFA project into three phases. Each phase provides step-by-step instructions and resources that give you guidance and best practices.

In each phase, steps are organized in stages that keep things organized, help you monitor your progress, and inspire confidence that nothing important is overlooked.



**How:** Access the Multi-Factor Authentication Assistant from Setup in Lightning Experience. At the top of the menu, click **Multi-Factor Authentication Assistant**.

## Renamed Two-Factor Authentication User Permissions and Labels in Setup

For all Salesforce products, we retired two-factor authentication (2FA) terminology and moved to the industry standard term of multi-factor authentication (MFA). To align Lightning Experience and Salesforce Classic with this change, we renamed two-factor authentication user permissions. And we renamed all two-factor and 2FA references throughout Setup and Salesforce documentation, including Salesforce Help, the Salesforce Security Guide, and Salesforce Developer Documentation. This update is a terminology change only—all functionality remains the same.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Group, Professional, Enterprise, Performance, Unlimited, Developer, and Contact Manager Editions.

**What:** In Setup, we updated two-factor authentication user permission names. We also updated labels for 2FA-related checkboxes, picklist options, and tooltips, descriptions, and other in-app messages.

 **Note:** 2FA-related object names and field names in SOAP API, including TwoFactorInfo, TwoFactorMethodsInfo, and TwoFactorTempCode, did not change.

**How:** These user permission names were updated:

| Original Permission Name                            | New Permission Name                                   |
|---|---|
| Manage Two-Factor Authentication in API             | Manage Multi-Factor Authentication in API             |
| Manage Two-Factor Authentication in User Interface  | Manage Multi-Factor Authentication in User Interface  |
| Two-Factor Authentication for API Logins            | Multi-Factor Authentication for API Logins            |
| Two-Factor Authentication for User Interface Logins | Multi-Factor Authentication for User Interface Logins |

On the Identity Verification page in Identity, these labels were updated:

| Original Label  | New Label   |
|---|---|
| Require identity verification during two-factor authentication (2FA) registration (checkbox)        | Require identity verification during multi-factor authentication (MFA) registration |
| Manage Two-Factor Authentication in API (in the Session Security Level Policies section)            | Manage Multi-Factor Authentication in API   |
| Manage Two-Factor Authentication in User Interface (in the Session Security Level Policies section) | Manage Multi-Factor Authentication in User Interface                                |

On the Session Settings page in Security, these labels were updated:

| Original Label   | New Label   |
|--|---|
| Require identity verification during two-factor authentication (2FA) registration (checkbox) | Require identity verification during multi-factor authentication (MFA) registration |
| Two Factor Authentication (option in the Session Security Levels section)                    | Multi-Factor Authentication   |

We also made these label updates:

- On the Transition Security Policies pages, the Two-factor authentication action is now called Multi-factor authentication.
- On the Identity Verification and Session Settings pages, the Let users authenticate with a physical security key (U2F) checkbox is now called Let users verify their identity with a physical security key (U2F).
- On user detail pages in Setup, and the Advanced User Details page in a user's profile, the App Registration: One-Time Password Generator option is now called App-Registration: One-Time Password Authenticator.

## Search: Find Information Faster and Get the Most Relevant Results

Amp up your productivity using Search. Find the records you want more easily and take action right from the search results page.

### IN THIS SECTION:

[Einstein Search: Personalization \(Generally Available\), Easier Setup at the Org Level, Smarter Natural Language Searches \(Beta\), and Searchable Renamed Objects Using Natural Language Search](#)

Personalization is now generally available. Enable this feature and all other features at the org level with just a few clicks. Get better natural language searches (beta) now that common words are ignored, and go ahead and rename an object supported by natural language search. Einstein Search can find it.

## Einstein Search: Personalization (Generally Available), Easier Setup at the Org Level, Smarter Natural Language Searches (Beta), and Searchable Renamed Objects Using Natural Language Search

Personalization is now generally available. Enable this feature and all other features at the org level with just a few clicks. Get better natural language searches (beta) now that common words are ignored, and go ahead and rename an object supported by natural language search. Einstein Search can find it.

 **Note:** As a beta feature, Einstein Search is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for Einstein Search in the <mailto:TryEinsteinSearch@salesforce.com>.

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### IN THIS SECTION:

#### [Enable Personalization to Tailor Search Results to Each User \(Generally Available\)](#)

Personalization is generally available for Accounts, Cases, Contacts, Leads, and Opportunities. With this powerful feature, users do the same searches as before, but now Einstein Search reranks results to what's relevant to individual users. And don't worry, no applicable results are discarded.

#### [Step Up Productivity with Einstein Search in Professional Edition](#)

Einstein Search is now available with Professional Edition. You can turn on personalization (generally available), natural language search (beta), actionable instant results (beta), and recommended results (beta).

#### [Click Three Times to Enable Einstein Search for Your Org](#)

Empower your Salesforce org with Einstein Search in just a few clicks. You can turn on personalization (generally available), actionable instant results (beta), and natural language search (beta) at the org level. You can still enable instant results and natural language search by configuring user-level permission sets, but the org-level settings override user-level settings.

#### [Benefit from Smarter Natural Language Search Results \(Beta\)](#)

Einstein Search is getting smarter by ignoring common words that aren't relevant to your search results. For natural language searches, Salesforce filters out articles (the, a, an), pronouns (he, she, it), prepositions (above, before), and other simple words. Eliminating these types of words improves search results for phrases that include those words.

#### [Rename It—Einstein Search Finds It \(Beta\)](#)

Einstein Search can now return results for searches that use renamed objects. You can rename the standard objects that natural language search supports, which are account, case, lead, contact, and opportunity. For example, if you rename Accounts to Pharmacies or Opportunities to Deals, users can search for *pharmacies in Seattle* and *my open deals last week*.

### SEE ALSO:

[Salesforce Einstein: Build Bots Faster with Templates, Make Opportunity Scoring More Relevant with Filters, and Search Personalization Is Generally Available](#)

## Enable Personalization to Tailor Search Results to Each User (Generally Available)

Personalization is generally available for Accounts, Cases, Contacts, Leads, and Opportunities. With this powerful feature, users do the same searches as before, but now Einstein Search reranks results to what's relevant to individual users. And don't worry, no applicable results are discarded.

**Where:** This change applies to Lightning Experience and all versions of the Salesforce Mobile app in Professional, Enterprise, Performance, and Unlimited editions.

**Who:** To use personalization, enable the Einstein Search org preference.

**Why:** Personalization customizes searches based on factors such as recent user activity, geographic location where users work most often, and ownership of objects. Prioritizing those results over others makes users more productive, which saves time and money.

SEE ALSO:

[Salesforce Help: Personalized Search Results \(can be outdated or unavailable during release preview\)](#)

## Step Up Productivity with Einstein Search in Professional Edition

Einstein Search is now available with Professional Edition. You can turn on personalization (generally available), natural language search (beta), actionable instant results (beta), and recommended results (beta).

**Where:** This change applies to Lightning Experience and all versions of the Salesforce mobile app in Professional edition. The Salesforce mobile app supports only personalization and recommended results (beta), but not actionable instant results (beta) or natural language search (beta).

**Who:** To use all Einstein Search features, select all three Einstein Search org preferences.

## Click Three Times to Enable Einstein Search for Your Org

Empower your Salesforce org with Einstein Search in just a few clicks. You can turn on personalization (generally available), actionable instant results (beta), and natural language search (beta) at the org level. You can still enable instant results and natural language search by configuring user-level permission sets, but the org-level settings override user-level settings.

**Where:** This change applies to Lightning Experience in Professional, Enterprise, Performance, and Unlimited editions.

**Who:** To use Einstein Search, enable the Einstein Search org preferences.

**Why:** Personalization is no longer the only feature you set at the org level. Now it's even easier to improve user productivity by making the other features available at the org-level too.

**How:** To enable Einstein Search features:

1. From Setup, in the Quick Find box, type *Enable Einstein Search*, and then select **Enable Einstein Search**.
2. To enable all Einstein Search features, select all three checkboxes.



**Note:** Natural language search requires actionable instant results.

SEE ALSO:

[Salesforce Help: Enable Einstein Search Features \(can be outdated or unavailable during release preview\)](#)

## Benefit from Smarter Natural Language Search Results (Beta)

Einstein Search is getting smarter by ignoring common words that aren't relevant to your search results. For natural language searches, Salesforce filters out articles (the, a, an), pronouns (he, she, it), prepositions (above, before), and other simple words. Eliminating these types of words improves search results for phrases that include those words.

**Where:** This change applies to Lightning Experience in Professional, Enterprise, Performance, and Unlimited editions.

**Who:** To use natural language search, select the Einstein Search org preference for this feature. Natural language search requires actionable instant results, so that org preference gets automatically selected.

SEE ALSO:

[Salesforce Help: Natural Language Search Examples \(Beta\) \(can be outdated or unavailable during release preview\)](#)

## Rename It—Einstein Search Finds It (Beta)

Einstein Search can now return results for searches that use renamed objects. You can rename the standard objects that natural language search supports, which are account, case, lead, contact, and opportunity. For example, if you rename Accounts to Pharmacies or Opportunities to Deals, users can search for *pharmacies in Seattle* and *my open deals last week*.

**Where:** This change applies to Lightning Experience in Professional, Enterprise, Performance, and Unlimited editions.

**Who:** To use natural language search, select the Einstein Search org preference for this feature. Natural language search requires actionable instant results, so that org preference gets automatically selected.

**Why:** You want to rename an object to something more relevant to your business, using terms that they are likely to enter in a natural language search. Einstein Search can find results for the renamed object. However, users can no longer search using the original standard object name. For example, *accounts in Seattle* doesn't work anymore.

**How:** From Setup, in the Quick Find box, type *Rename Tabs and Labels*, and then select **Rename Tabs and Labels**.

SEE ALSO:

[Salesforce Help: Rename Object, Tab, and Field Labels \(can be outdated or unavailable during release preview\)](#)

## Salesforce Anywhere: Plan and Accelerate Your Business in Real Time (Beta)

Salesforce Anywhere is the future experience of CRM — making Salesforce real time. Get alerts about changes to the Salesforce data you care about. Update your Salesforce data in just a few taps with suggested actions. Collaborate in context with chat. Search and view your Salesforce data. And integrate Salesforce Anywhere chat and alerts into your business processes with Lightning Flow and Process Builder.

 **Note:** Salesforce Anywhere is a Non-GA Service and not a "Service" or part of the "Services", as defined in the Master Subscription Agreement ("MSA") with Salesforce. Such Non-GA Service is subject to the terms and conditions of the [Universal Pilot Research Agreement](#) ("UPRA"), including the [Data Processing Addendum](#) to the UPRA. Use of this Non-GA Service is at your sole discretion, and any purchase decisions should be made only on the basis of Salesforce generally available products and features. Automatic availability of Salesforce Anywhere depends on your MSA with Salesforce and the type of Services you have purchased. If you do not see Salesforce Anywhere in Setup, contact your Account Executive to get access to Salesforce Anywhere.

Learn about the latest features in the [Salesforce Anywhere Release Notes](#).

SEE ALSO:

[Salesforce Anywhere Overview](#)

## Cross-Cloud Integrations: Customer 360 Guides, Solution Kits

Explore the Salesforce cross-cloud architecture and identify and solve complex business use cases.

IN THIS SECTION:

[Introducing Customer 360 Guides](#)

Customer 360 Guides bring together assets for c-suite executives, line-of-business leaders, architects, and developers to drive digital transformation and engage customers.

### Introducing Customer 360 Guides

Customer 360 Guides bring together assets for c-suite executives, line-of-business leaders, architects, and developers to drive digital transformation and engage customers.

**Why:** Explore relevant change management processes, examine the Salesforce architecture, map business capabilities to solutions, and solve critical business use cases that cross clouds and products. Each guide contains curated assets from across Salesforce.

- Customer Stories
- Playbooks
- Change Management Information
- Thought Leadership
- Industry Blueprints
- Reference Architectures
- Solution Architectures
- Business Scenarios
- Solution Kits

**How:** Find Customer 360 Guides at <https://trailhead.salesforce.com/guides>.

IN THIS SECTION:

[Transform the Consumer Experience](#)

Deliver personalized, genuine customer experiences that promote growth of unique shoppers, increase site traffic, and create higher demand with the Transform the Consumer Experience Customer 360 Guide.

### Transform the Consumer Experience

Deliver personalized, genuine customer experiences that promote growth of unique shoppers, increase site traffic, and create higher demand with the Transform the Consumer Experience Customer 360 Guide.

**Why:** Companies that don't engage with customers at the right moment struggle to keep up with competitors. This guide helps you identify goals for digital transformation, assess your business needs, map your goals, and deliver solutions.

**How:** Access the complete Transform the Consumer Experience Guide at <https://tcxguide-salesforce.herokuapp.com/>.

## IN THIS SECTION:

[Turn Abandoned Carts into Completed Sales Solution Kit](#)

Connect with shoppers who add items to their carts but don't finish orders. Send personalized behavioral messages that encourage them to return and complete and purchase.

[Redeem Coupons Solution Kit](#)

Offer targeted customer journeys and increase positive purchasing decisions. Increase completed purchases, personalize the experience, and track coupon usage.

[Order on Behalf of a Customer Solution Kit](#)

Place orders on behalf of shoppers who need assistance because they can't access the Internet or find the products they want to purchase.

[Personalize Marketing Recommendations Solution Kit](#)

Keep shoppers interested in your products using email recommendations based on merchandise that your customers already purchased from you.

[Keep Customers in the Loop with Transactional Email Solution Kit](#)

Inform customers on the status of their orders through email while reducing call volume to your service centers. Increase storefront visits.

[View Order History and Cancel Orders Solution Kit](#)

Enhance customer service and let your agents cancel orders. Personalize the experience by connecting Commerce Cloud and Service Cloud.

[Engage Customers with Conversational Commerce Solution Kit](#)

Provide richer customer service and drive sales when you implement live agent chat or chatbots within Commerce Cloud. Build brand loyalty, check order status, and offer extra assistance at the hands of service agents.

[Implement Seamless Cross-Cloud Identity Solution Kit](#)

Unify customer data with a single identity for each customer across your ecommerce sites and your communities. Enable one identity and give the customer visibility through the entire product catalog.

[Explore Cross-Cloud Engagement Data Models Solution Kit](#)

Improve customer loyalty by establishing a common profile for each customer across Marketing Cloud, Commerce Cloud, and Sales, Service, or Community Clouds. Determine the best system of record for each type of customer data to take advantage of out-of-the-box cloud integrations.

[Run Conversational Campaigns for WhatsApp Solution Kit](#)

Link customers directly from marketing messages to a live WhatsApp chat with your agent or chatbot for any questions about the product promotion.

[Run Conversational Campaigns for SMS Solution Kit](#)

Link customers directly from marketing messages to a live SMS chat with your agent or chatbot for any questions about the product promotion.

[Communicate Store Changes Solution Kit](#)

Build trust with your customers by keeping them updated on your store policies, hours, and any changes to locations.

[Schedule an Appointment Solution Kit](#)

Implement scalable processes to let shoppers schedule appointments to meet locally managed or customer-preferred social distancing preferences.

[Facilitate Curbside Pickup Solution Kit](#)

Prepare for the customer's arrival, fulfill curbside orders, and complete fulfillment without logging in to multiple systems.

### Turn Abandoned Carts into Completed Sales Solution Kit

Connect with shoppers who add items to their carts but don't finish orders. Send personalized behavioral messages that encourage them to return and complete and purchase.

**Who:** Businesses who want to integrate Commerce Cloud with Marketing Cloud to reduce cart abandonment.

**Why:** Simplify implementation by getting our recommendations for specific products, configurations, and best practices to resolve this issue.

**How:** Check out the complete solution kit [in Salesforce Help](#) or [download it as a PDF](#). This solution kit is part of the Transform the Consumer Experience Customer 360 Guide.

### Redeem Coupons Solution Kit

Offer targeted customer journeys and increase positive purchasing decisions. Increase completed purchases, personalize the experience, and track coupon usage.

**Who:** Businesses who want to integrate Commerce Cloud with Marketing Cloud to let customers redeem coupons.

**Why:** Simplify implementation by getting our recommendations for specific products, configurations, and best practices to resolve this issue.

**How:** Check out the complete solution kit [in Salesforce Help](#) or [download it as a PDF](#). This solution kit is part of the Transform the Consumer Experience Customer 360 Guide.

### Order on Behalf of a Customer Solution Kit

Place orders on behalf of shoppers who need assistance because they can't access the Internet or find the products they want to purchase.

**Who:** Businesses who want to integrate Commerce Cloud with Service Cloud to help customers place orders.

**Why:** Simplify implementation by getting our recommendations for specific products, configurations, and best practices to resolve this issue.

**How:** Check out the complete solution kit [in Salesforce Help](#) or [download it as a PDF](#). This solution kit is part of the Transform the Consumer Experience Customer 360 Guide.

### Personalize Marketing Recommendations Solution Kit

Keep shoppers interested in your products using email recommendations based on merchandise that your customers already purchased from you.

**Who:** Businesses who want to integrate Marketing Cloud with Commerce Cloud to personalize their marketing.

**Why:** Simplify implementation by getting our recommendations for specific products, configurations, and best practices to resolve this issue.

**How:** Check out the complete solution kit [in Salesforce Help](#) or [download it as a PDF](#). This solution kit is part of the Transform the Consumer Experience Customer 360 Guide.

### Keep Customers in the Loop with Transactional Email Solution Kit

Inform customers on the status of their orders through email while reducing call volume to your service centers. Increase storefront visits.

**Who:** Businesses who want to integrate Marketing Cloud with Commerce Cloud to send transactional email to customers.

**Why:** Simplify implementation by getting our recommendations for specific products, configurations, and best practices to resolve this issue.

**How:** Check out the complete solution kit [in Salesforce Help](#) or [download it as a PDF](#). This solution kit is part of the Transform the Consumer Experience Customer 360 Guide.

### View Order History and Cancel Orders Solution Kit

Enhance customer service and let your agents cancel orders. Personalize the experience by connecting Commerce Cloud and Service Cloud.

**Who:** Businesses who want to integrate Service Cloud with Commerce Cloud to let agents view the history of an order or cancel it.

**Why:** Simplify implementation by getting our recommendations for specific products, configurations, and best practices to resolve this issue.

**How:** Check out the complete solution kit [in Salesforce Help](#) or [download it as a PDF](#). This solution kit is part of the Transform the Consumer Experience Customer 360 Guide.

### Engage Customers with Conversational Commerce Solution Kit

Provide richer customer service and drive sales when you implement live agent chat or chatbots within Commerce Cloud. Build brand loyalty, check order status, and offer extra assistance at the hands of service agents.

**Who:** Businesses who want to integrate Service Cloud with Commerce Cloud to engage customers at key points of their shopping experience.

**Why:** Simplify implementation by getting our recommendations for specific products, configurations, and best practices to resolve this issue.

**How:** Check out the complete solution kit [in Salesforce Help](#) or [download it as a PDF](#). This solution kit is part of the Transform the Consumer Experience Customer 360 Guide.

### Implement Seamless Cross-Cloud Identity Solution Kit

Unify customer data with a single identity for each customer across your ecommerce sites and your communities. Enable one identity and give the customer visibility through the entire product catalog.

**Who:** Businesses who want to integrate Commerce Cloud, Community Cloud, and Salesforce Identity to enable one identity and log in across clouds.

**Why:** Simplify implementation by getting our recommendations for specific products, configurations, and best practices to resolve this issue.

**How:** Check out the complete solution kit [in Salesforce Help](#) or [download it as a PDF](#). This solution kit is part of the Transform the Consumer Experience Customer 360 Guide.

### Explore Cross-Cloud Engagement Data Models Solution Kit

Improve customer loyalty by establishing a common profile for each customer across Marketing Cloud, Commerce Cloud, and Sales, Service, or Community Clouds. Determine the best system of record for each type of customer data to take advantage of out-of-the-box cloud integrations.

**Who:** Businesses who want to integrate Commerce Cloud; Marketing Cloud; Sales, Service, or Community Cloud; using connectors and Customer 360 Data Manager to optimize cross-cloud implementations to achieve a 360-degree view of their customers.

**Why:** Simplify implementation by getting our recommendations for specific products, configurations, and best practices to resolve this issue.

**How:** Check out the complete solution kit [in Salesforce Help](#) or [download it as a PDF](#). This solution kit is part of the Transform the Consumer Experience Customer 360 Guide.

### Run Conversational Campaigns for WhatsApp Solution Kit

Link customers directly from marketing messages to a live WhatsApp chat with your agent or chatbot for any questions about the product promotion.

**Who:** Businesses who want to integrate Marketing Cloud, Sales Cloud, and other products to include a WhatsApp direct message link as a footer in all promotional SMS messages.

**Why:** Simplify implementation by getting our recommendations for specific products, configurations, and best practices to resolve this issue.

**How:** Check out the complete solution kit [in Salesforce Help](#) or [download it as a PDF](#). This solution kit is part of the Transform the Consumer Experience Customer 360 Guide.

### Run Conversational Campaigns for SMS Solution Kit

Link customers directly from marketing messages to a live SMS chat with your agent or chatbot for any questions about the product promotion.

**Who:** Businesses who want to integrate Marketing Cloud, Sales Cloud, Service Cloud, and other products to include a keyword prompt as a footer in all promotional SMS messages.

**Why:** Simplify implementation by getting our recommendations for specific products, configurations, and best practices to resolve this issue.

**How:** Check out the complete solution kit [in Salesforce Help](#) or [download it as a PDF](#). This solution kit is part of the Transform the Consumer Experience Customer 360 Guide.

### Communicate Store Changes Solution Kit

Build trust with your customers by keeping them updated on your store policies, hours, and any changes to locations.

**Who:** Businesses who want to integrate Commerce Cloud with Marketing Cloud to reduce cart abandonment.

**Why:** Simplify implementation by getting our recommendations for specific products, configurations, and best practices to resolve this issue.

**How:** Check out the complete solution kit [in Salesforce Help](#). This solution kit is part of the Transform the Consumer Experience Customer 360 Guide.

### Schedule an Appointment Solution Kit

Implement scalable processes to let shoppers schedule appointments to meet locally managed or customer-preferred social distancing preferences.

**Who:** Businesses who want to integrate Commerce Cloud with Marketing Cloud to reduce cart abandonment.

**Why:** Simplify implementation by getting our recommendations for specific products, configurations, and best practices to resolve this issue.

**How:** Check out the complete solution kit [in Salesforce Help](#). This solution kit is part of the Transform the Consumer Experience Customer 360 Guide.

### Facilitate Curbside Pickup Solution Kit

Prepare for the customer's arrival, fulfill curbside orders, and complete fulfillment without logging in to multiple systems.

**Who:** Businesses who want to integrate Commerce Cloud with Marketing Cloud to reduce cart abandonment.

**Why:** Simplify implementation by getting our recommendations for specific products, configurations, and best practices to resolve this issue.

**How:** Check out the complete solution kit [in Salesforce Help](#). This solution kit is part of the Transform the Consumer Experience Customer 360 Guide.

## Lightning Experience Engagement: In-App Guidance and Help Menu

Add in-app guidance to more places in your apps. Use custom theme colors to make your in-app guidance stand out. Easily share direct links to in-app guidance. And show more custom resources in the Help Menu. Users can search for Trailhead modules right inside the Help Menu.

### IN THIS SECTION:

#### [Add In-App Guidance to New, Edit, and Clone Pages](#)

Help users along as they create, edit, and clone records, including dialogs, with in-app guidance.

#### [Add Custom Theme Colors to In-App Guidance](#)

Make your in-app guidance contrast or complement your org's theme color and branding. Choose from a color palette based on your org's theme to see how Salesforce makes your in-app guidance pop.

#### [Share a Direct Link to In-App Guidance](#)

Send users and collaborators a direct link to prompts and walkthroughs. Or, add the URL to your Help Menu to enhance your training materials. The URL immediately opens the in-app guidance unless the guidance is inactive or outside of the scheduled date range.

#### [Search Trailhead from the Help Menu](#)

Review Trailhead search results right from the Help Menu inside the app. Previously, only product documentation was available to search in the Help Menu.

#### [Add More Custom Resources to the Help Menu](#)

Specify up to 30 resources in your custom section of the Help Menu. Previously, you could only add up to 15 resources. Add in links to training documentation, onboarding resources, videos, or in-app guidance so users have the resources they need inside their workspace.

#### [Learn About Salesforce In-App Content](#)

Stay up to date on the valuable in-app prompts, welcome mats, and popovers Salesforce shows admins and end users.

## Add In-App Guidance to New, Edit, and Clone Pages

Help users along as they create, edit, and clone records, including dialogs, with in-app guidance.

**Where:** This change applies to Lightning Experience in Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

To show you custom walkthroughs to users, subscribe to myTrailhead to get the Access Walkthroughs permission set license and the Walkthroughs permission set. Assign the View Walkthroughs user permission to users you want to be able to see walkthroughs. Contact your Salesforce account executive for pricing details.

**How:** Add in-app guidance to a new, edit, or clone record page type as you would any other page.

The screenshot shows a 'New Account: Sales Record Type' form. A blue overlay box with a white speech bubble icon contains the text: 'Fill out all the required fields' and 'Required fields are indicated by an asterisk.' Below this text is an 'OK' button. The form itself has a header 'Account Information' and several fields: 'Account Owner', 'Account Name' (with a red asterisk), 'Parent Account', 'Account Number', 'Account Site', 'Industry' (with a dropdown menu showing '--None--'), 'SIC Code', 'Annual Revenue', 'Rating' (with a dropdown menu showing '--None--'), 'Phone', 'Fax', 'Website', and 'Ticker Symbol'. At the bottom of the form are three buttons: 'Cancel', 'Save & New', and 'Save'.

You can't add more steps to a nondialog page after adding a step to a new, edit, or clone dialog. If a new or clone record page has multiple record types, the walkthrough displays on the picklist for choosing a record type.

#### SEE ALSO:

[Salesforce Help: In-App Guidance in Lightning Experience \(can be outdated or unavailable during release preview\)](#)

[AppExchange: In-App Guidance Walkthroughs: Getting Started for Sales Users](#)

[AppExchange: In-App Guidance Dashboard: Prompt Engagement](#)

[AppExchange: In-App Guidance Dashboard: Walkthrough Engagement](#)

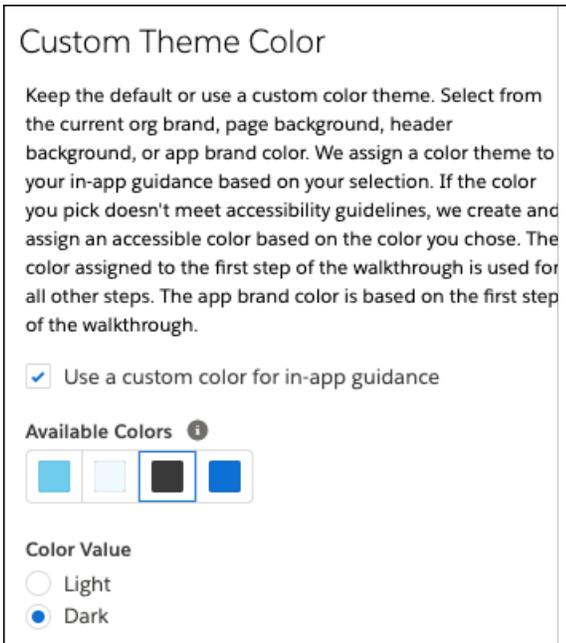
## Add Custom Theme Colors to In-App Guidance

Make your in-app guidance contrast or complement your org's theme color and branding. Choose from a color palette based on your org's theme to see how Salesforce makes your in-app guidance pop.

**Where:** This change applies to Lightning Experience in Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions. This change isn't available for the Internet Explorer 11 browser.

To show you custom walkthroughs to users, subscribe to myTrailhead to get the Access Walkthroughs permission set license and the Walkthroughs permission set. Assign the View Walkthroughs user permission to users you want to be able to see walkthroughs. Contact your Salesforce account executive for pricing details.

**How:** As you create prompts and walkthroughs in the In-App Guidance Builder, check **Use a custom color for in-app guidance**.



Then choose from up to four colors, which are taken from the org's current org brand, page background, header background, or app brand color. Salesforce ensures that the colors are accessible by darkening the color or by increasing the contrast color ratio. If you change the theme colors on the Themes and Branding Setup page or in the App Builder, the in-app guidance theme colors are also updated.



You can also switch to a dark color value for each color.



## SEE ALSO:

[Salesforce Help: In-App Guidance in Lightning Experience \(can be outdated or unavailable during release preview\)](#)

[AppExchange: In-App Guidance Walkthroughs: Getting Started for Sales Users](#)

[AppExchange: In-App Guidance Dashboard: Prompt Engagement](#)

[AppExchange: In-App Guidance Dashboard: Walkthrough Engagement](#)

## Share a Direct Link to In-App Guidance

Send users and collaborators a direct link to prompts and walkthroughs. Or, add the URL to your Help Menu to enhance your training materials. The URL immediately opens the in-app guidance unless the guidance is inactive or outside of the scheduled date range.

**Where:** This change applies to Lightning Experience in Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

To show custom walkthroughs to users, subscribe to myTrailhead to get the Access Walkthroughs permission set license and the Walkthroughs permission set. Assign the View Walkthroughs user permission to users you want to be able to see walkthroughs. Contact your Salesforce account executive for pricing details.

**How:** There are two ways to copy the shareable URL to your clipboard for pasting. Click Copy URL from either the:

- Row-level action menu on the In-App Guidance Setup page.
- Settings from inside the In-App Guidance Builder on the Details dialog. Edit the in-app guidance to see the Settings gear icon.

If you change the API name of the in-app guidance, the URL changes.

If the prompt or walkthrough is on a record page type, the URL specifies that exact record, not any record type. For example, the URL opens on the Acme account record, not any account record. But, if the user doesn't have access to the record, the in-app guidance opens on the same object record that the user has access to.

## SEE ALSO:

[Salesforce Help: In-App Guidance in Lightning Experience \(can be outdated or unavailable during release preview\)](#)

[AppExchange: In-App Guidance Walkthroughs: Getting Started for Sales Users](#)

[AppExchange: In-App Guidance Dashboard: Prompt Engagement](#)

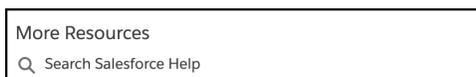
[AppExchange: In-App Guidance Dashboard: Walkthrough Engagement](#)

## Search Trailhead from the Help Menu

Review Trailhead search results right from the Help Menu inside the app. Previously, only product documentation was available to search in the Help Menu.

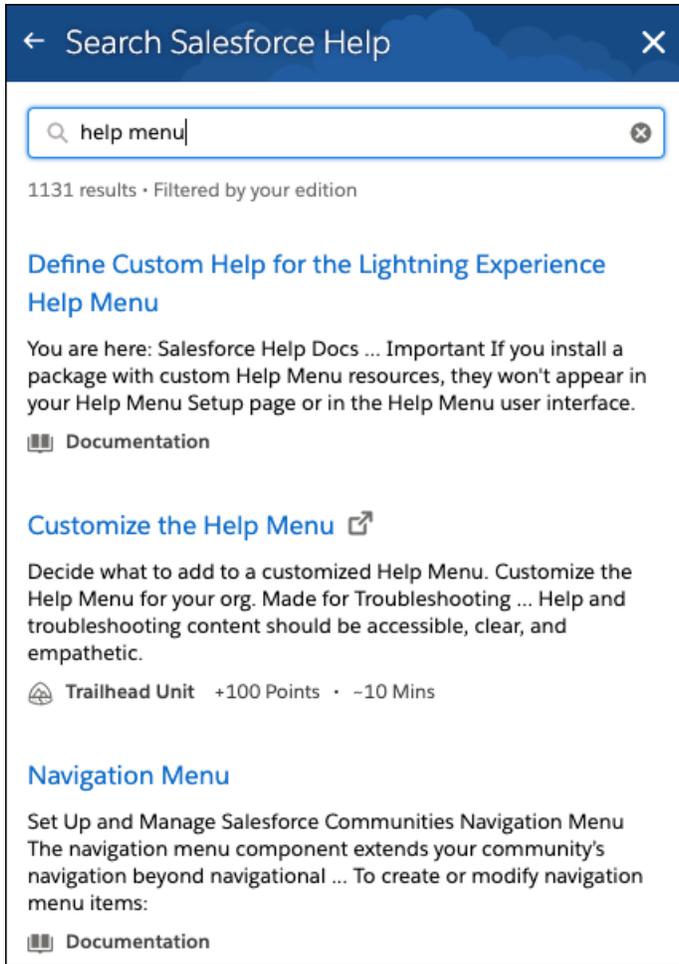
**Where:** This change applies to Lightning Experience in Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** Click **Search Salesforce Help** and enter a search term.



The image shows a rectangular input field with a thin black border. At the top left of the field, the text "More Resources" is displayed. Below it, there is a magnifying glass icon followed by the text "Search Salesforce Help".

Enter a search term to view both documentation and Trailhead search results.



When you open a Trailhead link in the search results, a new browser tab opens.

SEE ALSO:

[Salesforce Help: Define Custom Help for the Lightning Experience Help Menu \(can be outdated or unavailable during release preview\)](#)

## Add More Custom Resources to the Help Menu

Specify up to 30 resources in your custom section of the Help Menu. Previously, you could only add up to 15 resources. Add in links to training documentation, onboarding resources, videos, or in-app guidance so users have the resources they need inside their workspace.

**Where:** This change applies to Lightning Experience in Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

[Salesforce Help: Define Custom Help for the Lightning Experience Help Menu \(can be outdated or unavailable during release preview\)](#)

## Learn About Salesforce In-App Content

Stay up to date on the valuable in-app prompts, welcome mats, and popovers Salesforce shows admins and end users.

**Where:** The availability of in-app content varies by feature.

**Why:** Avoid duplicating information as you create your own prompts or other in-app content.

In the Winter '21 release, Salesforce added the following prompts.

- A series of floating prompts that let admins know about the Multi-Factor Authentication Assistant, then guides them through completing key steps in the MFA adoption journey.
- A docked prompt to encourage admins to use Dynamic Forms, and highlights the localization feature.
- A docked prompt to highlight the benefits of planning territories in Salesforce Maps, and then integrating them with Enterprise Territory Management.
- Two feature popovers to highlight target status filters used to organize work queue items.
- A feature popover to educate users about the feature when Einstein Search is turned on by the admin.

You can turn off in-app content authored by Salesforce from the In-App Guidance Setup page. The MFA prompts are controlled by the Disable MFA Admin Prompts checkbox on the User Interface page.

SEE ALSO:

[Salesforce Help: Salesforce In-App Content in Lightning Experience \(can be outdated or unavailable during release preview\)](#)

## Salesforce Surveys: Enhanced Participant Experience, Survey Templates, and More

Enhance the participant experience by using merge fields within survey invitation emails. Use variables to decide which pages your participants view based on your Salesforce org's data. Participants can now read and respond to surveys in right to left languages. Participants who opt out of emails don't receive survey invitations by email. As a survey designer, you can now create template surveys. When you copy a translated survey, the translations get carried over to the new survey. Easily reorder questions on a survey page.

IN THIS SECTION:

### [Display Survey Pages Based on Your Data](#)

Let data in your Salesforce org determine which survey page participants view next. Use variables to define conditions in your page branching logic. Use associated record merge field variables and participant record merge field variables to define field-level conditions. Use org variables to define conditions based on your org's information. Use custom variables to define conditions based on values that you define.

### [Personalize Survey Questions Within Email](#)

Give your participants a VIP experience by personalizing survey questions that are embedded within an email invitation.

### [Email Survey Invitations to 300 Participants](#)

You can email survey invitations to up to 300 participants using a new Connect REST API resource. The Connect REST API also let's you to associate SurveySubject supported object records to survey invitations.

### [Give Your Colleagues a Head Start with Template Surveys](#)

Survey creators can now build on each others' work. Create template surveys and automatically share them with users in your Salesforce org. Based on their survey record-level access, users can view or copy the template. Template surveys aren't protected intellectual property, so you can distribute them to other orgs, partners, and customers.

### [Move Questions Around on a Page](#)

Reorder questions on a survey page with the click of a button.

### [Retain Translations from a Copied Survey](#)

Save your translator time and effort. When you copy a survey, the translations from the copied survey automatically carry over to the new survey.

### [Improve Participants' Experience when Responding in Right to Left Languages](#)

Connect with your global participants better with improved right-to-left language support. The survey reads right to left when a participant chooses to respond in a right-to-left language.

### [Respect Email Opt Out Preferences](#)

Respect your participants' preference to not receive emails. Contacts and leads who opt out of receiving emails don't receive survey invitation emails. Email opt out applies to survey invitations that are emailed from the Survey Builder or that use automated processes.

### [Consider Your Org's Email Limits](#)

Survey invitation emails sent to participants outside your Salesforce org now count toward the total daily emails sent from your org. When emailing survey invitations, keep your org's daily email limit in mind. Contact your Salesforce account executive to extend your org's email limit.

### [Single Selection Question Look and Feel Was Changed](#)

When survey participants respond to or admins preview a Single Selection question, they now click an answer choice to select it. Previously, they used radio buttons.

## Display Survey Pages Based on Your Data

Let data in your Salesforce org determine which survey page participants view next. Use variables to define conditions in your page branching logic. Use associated record merge field variables and participant record merge field variables to define field-level conditions. Use org variables to define conditions based on your org's information. Use custom variables to define conditions based on values that you define.

**Where:** This change applies to Lightning Experience in Performance, Enterprise, Developer, and Unlimited editions where Salesforce Surveys is enabled.

**Who:** To create page branching logic based on field values, users need the Salesforce Surveys Advanced Features permission, available with the Salesforce Feedback Management license.

**How:** Open a survey, click **Advanced Settings**, and select **Merge Field Variables**. Select the associated object and the participant object. Define one or more org variables, and your custom variables. Click **Back to Builder**. Click  on the page you want to create page branching logic for. Select a logic type, and then select either a merge field or a variable. Provide the value to validate the logic against.

Page branching logic

Go to a Page

Based on conditions  
 Every time

\* Select Page: Low Priority

Select Condition: All conditions are met

\* Logic Type: Associated Record

\* Field: Case.Priority

\* Operator: equals

\* Value: Low

+ Add Condition

Create Rule

A rule is a collection of conditions.

Select Page: High Priority

Select Condition: All conditions are met

\* Logic Type: Associated Record

\* Field: Case.Priority

\* Operator: equals

\* Value: High

Delete Rule

Save Logic Cancel

SEE ALSO:

[Salesforce Help: Define Page Branching Logic Based on Merge Fields \(can be outdated or unavailable during release preview\)](#)

## Personalize Survey Questions Within Email

Give your participants a VIP experience by personalizing survey questions that are embedded within an email invitation.

**Where:** This change applies to Lightning Experience in Performance, Enterprise, Developer, and Unlimited editions where Salesforce Surveys is enabled.

**Who:** To define variables and use merge fields, users need the Salesforce Surveys Advanced Features permission, available with the Salesforce Feedback Management license.

**How:** When you email a survey question using an automated process such as Support Settings or Process Builder, the merge fields in the question resolve in the email.

How would you rate the resolution provided for your case: Solar panels losing power within minutes (Case ID: 500RM000002wQvbYAE)?

☆☆☆☆☆

Bad Good

SEE ALSO:

[Salesforce Help: Use Merge Fields to Personalize Surveys \(can be outdated or unavailable during release preview\)](#)

## Email Survey Invitations to 300 Participants

You can email survey invitations to up to 300 participants using a new Connect REST API resource. The Connect REST API also lets you associate SurveySubject supported object records to survey invitations.

**Where:** This change applies to Lightning Experience in Performance, Enterprise, Developer, and Unlimited editions where Salesforce Surveys is enabled.

SEE ALSO:

[Connect REST API Developer Guide: Salesforce Surveys Invitation Emails Resource](#) (can be outdated or unavailable during release preview)

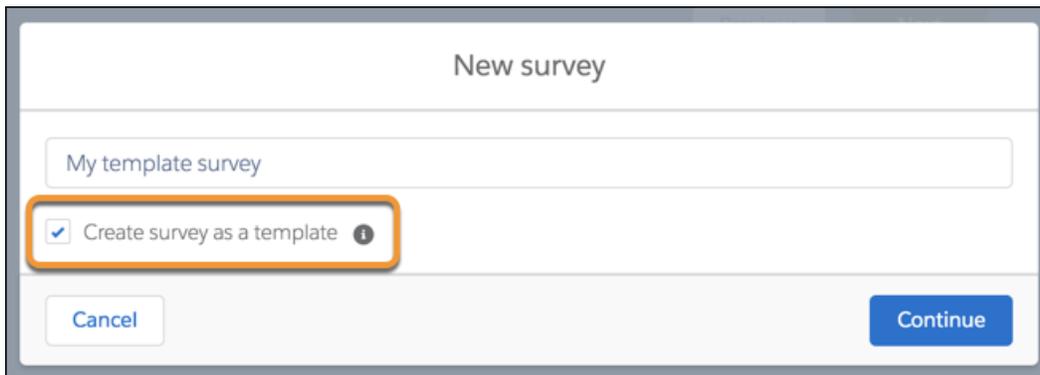
[Apex Developer Guide: Survey Class](#) (can be outdated or unavailable during release preview)

## Give Your Colleagues a Head Start with Template Surveys

Survey creators can now build on each others' work. Create template surveys and automatically share them with users in your Salesforce org. Based on their survey record-level access, users can view or copy the template. Template surveys aren't protected intellectual property, so you can distribute them to other orgs, partners, and customers.

**Where:** This change applies to Lightning Experience in Performance, Enterprise, Developer, and Unlimited editions where Salesforce Surveys is enabled.

**How:** On the Surveys list view, click **New**. In the New survey modal, select **Create survey as a template**. You can also create a template survey when copying an existing survey. To see whether a survey is a template, look for the word Template on the Survey Builder.



SEE ALSO:

[Salesforce Help: Create a Survey](#) (can be outdated or unavailable during release preview)

## Move Questions Around on a Page

Reorder questions on a survey page with the click of a button.

**Where:** This change applies to Lightning Experience in Performance, Enterprise, Developer, and Unlimited editions where Salesforce Surveys is enabled.

**How:** Use the up and down arrows above the rich text editor of a question to move the question before or after another question.



## Retain Translations from a Copied Survey

Save your translator time and effort. When you copy a survey, the translations from the copied survey automatically carry over to the new survey.

**Where:** This change applies to Lightning Experience in Performance, Enterprise, Developer, and Unlimited editions where Salesforce Surveys is enabled.

SEE ALSO:

[Salesforce Help: Copy a Survey \(can be outdated or unavailable during release preview\)](#)

## Improve Participants' Experience when Responding in Right to Left Languages

Connect with your global participants better with improved right-to-left language support. The survey reads right to left when a participant chooses to respond in a right-to-left language.

**Where:** This change applies to Lightning Experience in Performance, Enterprise, Developer, and Unlimited editions where Salesforce Surveys is enabled.

SEE ALSO:

[Salesforce Help: How Do Participants View Translated Surveys? \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Right-to-Left \(RTL\) Language Support \(can be outdated or unavailable during release preview\)](#)

## Respect Email Opt Out Preferences

Respect your participants' preference to not receive emails. Contacts and leads who opt out of receiving emails don't receive survey invitation emails. Email opt out applies to survey invitations that are emailed from the Survey Builder or that use automated processes.

**Where:** This change applies to Lightning Experience in Performance, Enterprise, Developer, and Unlimited editions where Salesforce Surveys is enabled.

**How:** If contact or lead records have the Email Opt Out field checked, the email IDs associated with those records don't receive survey invitation emails.

SEE ALSO:

[Salesforce Help: Email Opt Out \(can be outdated or unavailable during release preview\)](#)

## Consider Your Org's Email Limits

Survey invitation emails sent to participants outside your Salesforce org now count toward the total daily emails sent from your org. When emailing survey invitations, keep your org's daily email limit in mind. Contact your Salesforce account executive to extend your org's email limit.

**Where:** This change applies to Lightning Experience in Performance, Enterprise, Developer, and Unlimited editions where Salesforce Surveys is enabled.

### SEE ALSO:

[Salesforce Help: Mass Email Limitations \(can be outdated or unavailable during release preview\)](#)

[Salesforce Knowledge Article: Increase your daily Mass Email limit \(can be outdated or unavailable during release preview\)](#)

[Salesforce Knowledge Article: Increase the Daily Single Email Message limit for your organization \(can be outdated or unavailable during release preview\)](#)

## Single Selection Question Look and Feel Was Changed

When survey participants respond to or admins preview a Single Selection question, they now click an answer choice to select it. Previously, they used radio buttons.

**Where:** This change applies to Lightning Experience in Performance, Enterprise, Developer, and Unlimited editions where Salesforce Surveys is enabled.

## Lightning Scheduler: Controlled and Direct Interaction with External Calendars, Embedded Flows, Greater Scheduling Flexibility, and More

Use the provided developer resources to write appointments directly and securely to, and read events from, external calendars. Schedule appointments in a whole new way by embedding Lightning Scheduler flows into record pages. And enjoy greater scheduling flexibility by associating custom scheduling policies with Lightning Scheduler flows with the new SchedulingPolicyName flow variable.

### IN THIS SECTION:

#### [Write Lightning Scheduler Appointments Directly to External Calendars](#)

We added a setting and developer resources to help you write Lightning Scheduler appointments directly to external calendars. When you enable the new Publish Appointments as Platform Events setting, Lightning Scheduler triggers platform events for new, modified, or deleted appointments. You can capture and write those events to external calendars using APIs.

#### [Check Resource Availability Directly from External Calendars](#)

Now you can check external calendar events for service resource availability without synchronizing with the Salesforce calendar. Write an Apex class implementing the provided interface to check external calendar events for requested service resources and timelines and return the unavailable time slots. Lightning Scheduler excludes those time slots when showing the list of available time slots for those service resources.

#### [Schedule Appointments in a Whole New Way](#)

You can now embed Lightning Scheduler flows into record pages. Users can schedule, modify, or cancel appointments without launching the flow in a separate window over the record page, which blocks their access to details on the page.

#### [Use Custom Scheduling Policies with Lightning Scheduler Flows](#)

Enjoy greater scheduling flexibility by associating one or more custom scheduling policies with Lightning Scheduler flows. For example, you can create two scheduling policies with different appointment start time intervals. Then, customize your flow to invoke one or the other scheduling policy depending on the work type that users select when scheduling an appointment.

[Run Lightning Scheduler Flows Without Worrying About User Permissions](#)

Now you can set Lightning Scheduler flows to run in system context. Normally, how a flow is launched determines whether the flow runs in the context of the user or the system. Now you can bypass the running user's permissions by setting your flow to run in system context with sharing. The flow still respects org-wide default settings, role hierarchies, sharing rules, manual sharing, teams, and territories, but it ignores object permissions, field-level access, or other permissions of the running user.

[Other Changes to Lightning Scheduler](#)

Learn about other small but important improvements to Lightning Scheduler.

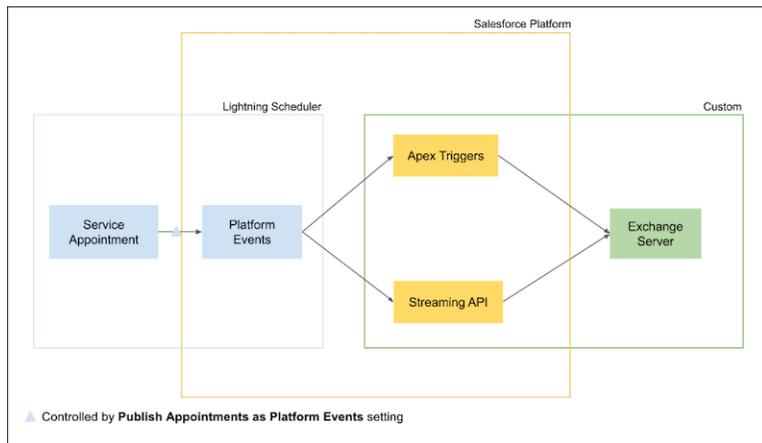
## Write Lightning Scheduler Appointments Directly to External Calendars

We added a setting and developer resources to help you write Lightning Scheduler appointments directly to external calendars. When you enable the new Publish Appointments as Platform Events setting, Lightning Scheduler triggers platform events for new, modified, or deleted appointments. You can capture and write those events to external calendars using APIs.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, and Unlimited editions with Lightning Scheduler enabled.

**Why:** This method is an alternative to using calendar sync tools, which let you synchronize your service resources' Salesforce calendars with external calendars. One of the benefits of using this method is that you can exercise greater control over the entire process.

**How:** Enable the Publish Appointments as Platform Events setting, and subscribe to the new AppointmentSchedulingEvent platform event to receive event notifications when users create, modify, or delete appointments. Use an API to write the platform events directly to an external calendar. For example, use Microsoft Graph REST API to publish the events to Microsoft® Outlook®.



## SEE ALSO:

[Salesforce Release Notes: New and Changed Standard Platform Events](#)

[Salesforce Help: Write Lightning Scheduler Appointments to External Calendars \(can be outdated or unavailable during release preview\)](#)

[Platform Events Developer Guide: AppointmentSchedulingEvent \(can be outdated or unavailable during release preview\)](#)

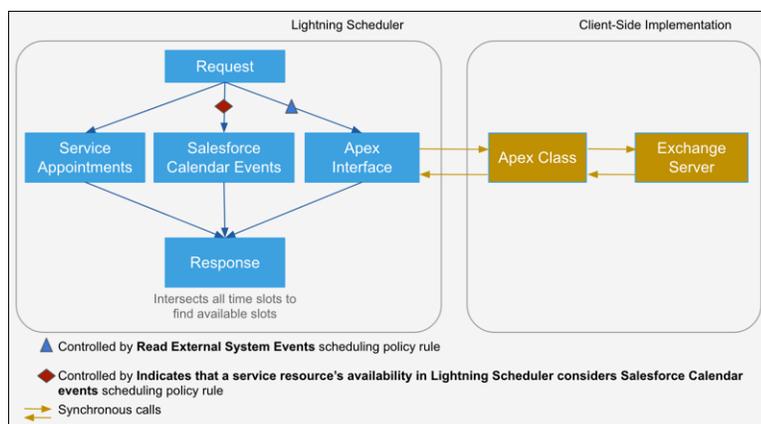
## Check Resource Availability Directly from External Calendars

Now you can check external calendar events for service resource availability without synchronizing with the Salesforce calendar. Write an Apex class implementing the provided interface to check external calendar events for requested service resources and timelines and return the unavailable time slots. Lightning Scheduler excludes those time slots when showing the list of available time slots for those service resources.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, and Unlimited editions with Lightning Scheduler enabled.

**Why:** This development-centric method is an alternative to using calendar sync tools, which let you synchronize your service resources' Salesforce calendars with external calendars. One of the benefits of using this method is that you can exercise greater control over the entire process.

**How:** Use the `LxScheduler.ServiceResourceScheduleHandler` Apex interface to write a custom Apex class to read external calendar events. Then, associate the Apex class with Lightning Scheduler flows or API calls through the Read External System Events scheduling policy rule.



SEE ALSO:

[Salesforce Release Notes: LxScheduler Namespace](#)

[Salesforce Help: Check External Calendars to Determine Resource Availability \(can be outdated or unavailable during release preview\)](#)

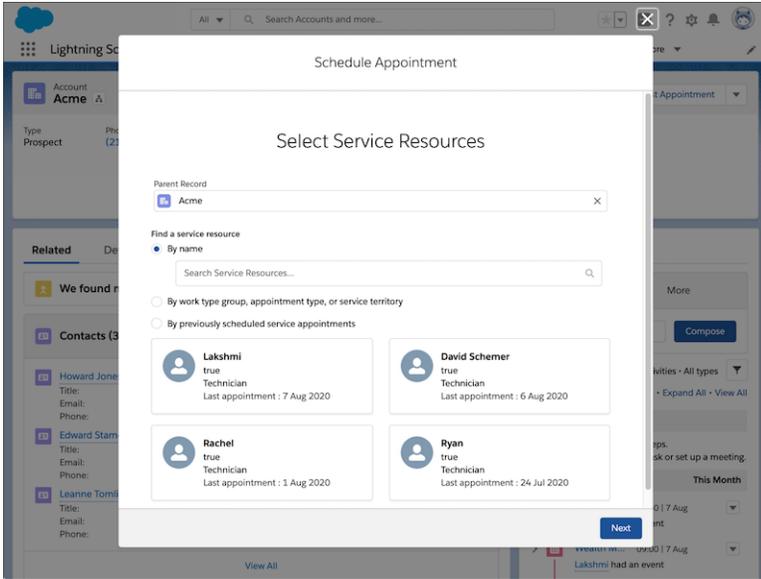
[Apex Developer Guide: LxScheduler Namespace \(can be outdated or unavailable during release preview\)](#)

## Schedule Appointments in a Whole New Way

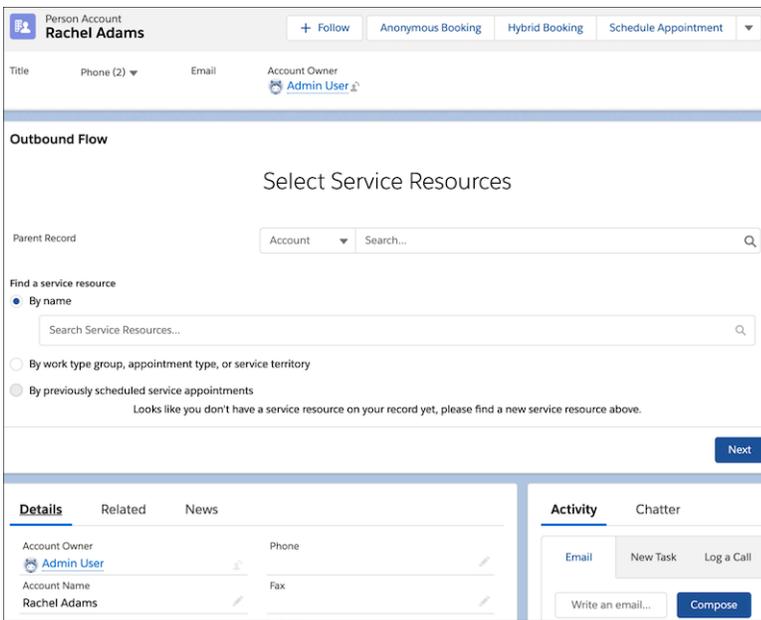
You can now embed Lightning Scheduler flows into record pages. Users can schedule, modify, or cancel appointments without launching the flow in a separate window over the record page, which blocks their access to details on the page.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, and Unlimited editions with Lightning Scheduler enabled.

**Why:** When a user launches a Lightning Scheduler flow using a quick action, the flow opens in a separate window, blocking access to the underlying page.



However, when you embed the flow into a record page, it doesn't block the user's view of the page.



**How:** Edit an account, person account, opportunity, or lead page. Drag the Flow component on the page, and then select the Lightning Scheduler flow you want to add to the page.

SEE ALSO:

[Salesforce Help: Add Lightning Scheduler Flows to Record Pages \(can be outdated or unavailable during release preview\)](#)

## Use Custom Scheduling Policies with Lightning Scheduler Flows

Enjoy greater scheduling flexibility by associating one or more custom scheduling policies with Lightning Scheduler flows. For example, you can create two scheduling policies with different appointment start time intervals. Then, customize your flow to invoke one or the other scheduling policy depending on the work type that users select when scheduling an appointment.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, and Unlimited editions with Lightning Scheduler enabled.

**Why:** Previously, all Lightning Scheduler flows used the provided Default Appointment Scheduling Policy. You could use custom scheduling policies only with Lightning Scheduler API calls.

**How:** Edit your Lightning Scheduler flow. In Flow Builder, on the Manager tab, edit the SchedulingPolicyName variable, and set its default value to the developer name of your custom scheduling policy.

The screenshot shows the 'Edit Variable' dialog box for a variable named 'schedulingPolicyName'. The 'Data Type' is set to 'Text'. The 'Default Value' field is highlighted with an orange box and contains the text 'custom\_scheduling\_policy'. There are also checkboxes for 'Allow multiple values (collection)', 'Available for input', and 'Available for output'. The 'Cancel' and 'Done' buttons are at the bottom right.

To assign different scheduling policies to the SchedulingPolicyName variable at run time, add a decision element to your flow, and map it to multiple assignment elements.

### SEE ALSO:

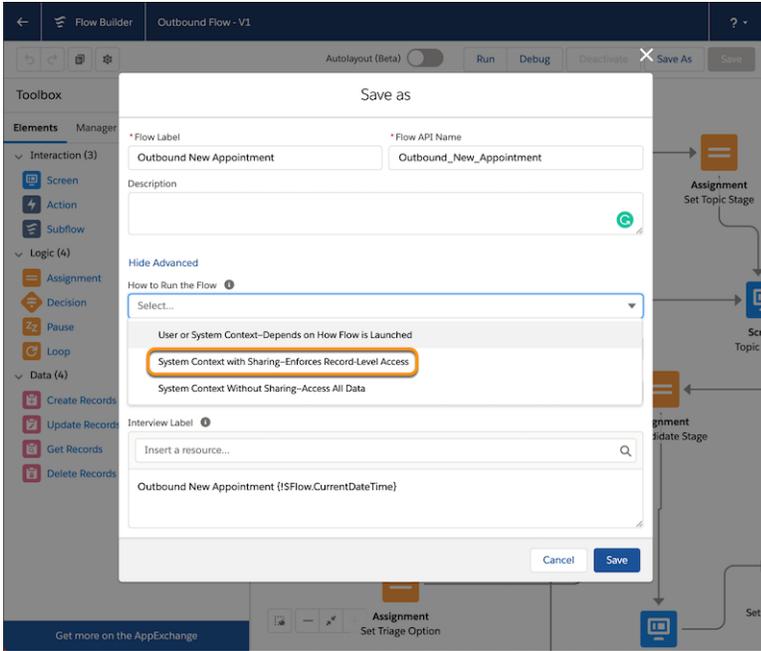
[Salesforce Help: Create and Use Custom Scheduling Policies in Lightning Scheduler \(can be outdated or unavailable during release preview\)](#)

## Run Lightning Scheduler Flows Without Worrying About User Permissions

Now you can set Lightning Scheduler flows to run in system context. Normally, how a flow is launched determines whether the flow runs in the context of the user or the system. Now you can bypass the running user's permissions by setting your flow to run in system context with sharing. The flow still respects org-wide default settings, role hierarchies, sharing rules, manual sharing, teams, and territories, but it ignores object permissions, field-level access, or other permissions of the running user.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, and Unlimited editions with Lightning Scheduler enabled.

**How:** When saving a flow, click **Show Advanced**. For *How to Run the Flow*, select *System Context with Sharing—Enforces Record-Level Access*.



To select this option for an existing flow version, use the settings icon.

## Other Changes to Lightning Scheduler

Learn about other small but important improvements to Lightning Scheduler.

**Where:** These changes apply to Lightning Experience in Enterprise, Performance, and Unlimited editions with Lightning Scheduler enabled.

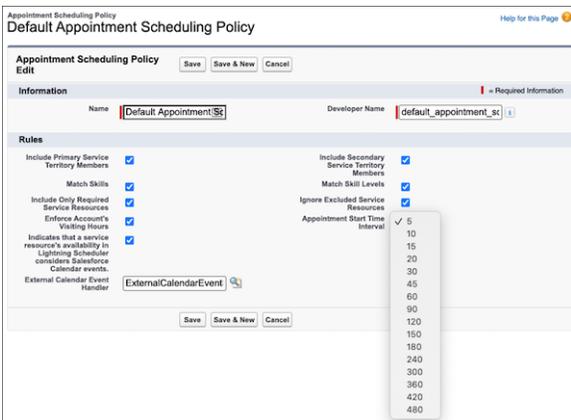
**Why:** We enhanced the appointment scheduling experience for users.

### Let guest users schedule appointments on the go

The Inbound New Guest Appointment flow is now supported on mobile devices.

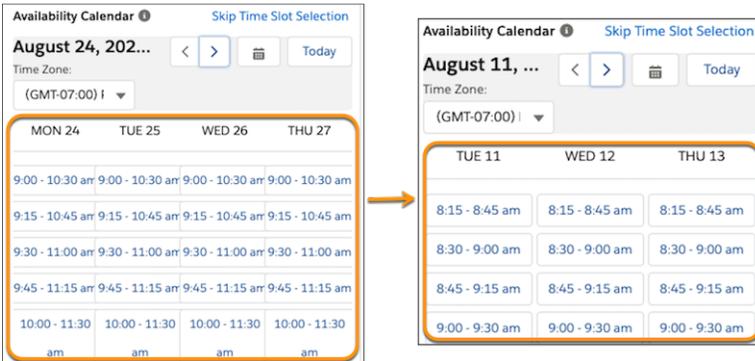
### Define appointment time slots longer than an hour

The Appointment Start Time Interval scheduling policy rule has new values that let you define nonoverlapping time slots that are longer than 60 minutes. Previously, you could define nonoverlapping time slots of only up to 60 minutes.



### Provide better user experience with a responsive time slot page

The number of days displayed on the time slot selection page varies depending on the screen size. This enhancement prevents the need for a horizontal scroll bar or overlapping time slot columns.



## Do More with the Optimizer App

The Optimizer App now has even more capabilities to enhance your Salesforce org's implementation. Use two new features to schedule automatic runs and view org metric history and access seven new metrics to improve security.

**Where:** This change applies to Lightning Experience in Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Who:** Users must have the Customize Application, Modify All Data, and Manage Users user permissions to access the Optimizer App.

**Why:** We added two new features:

- **Schedule Run:** Save yourself time by setting the Optimizer App to automatically run once a month, behind the scenes.
- **Org Metric History:** Get a high-level overview of how actions have affected the limits on your org's file storage, static resources, and data storage.

We also added seven new metrics to help evaluate and give expert recommendations on the security of your org. Ensure that your Salesforce org's data is secure by following security configuration best practices.

- Profile Assignments
- Critical Permission Assignments
- Release Updates Pending Review
- Insecure Community Sharing Settings
- Insecure Default External Access Levels
- Sharing Rules for All External Users
- Public Groups and Queues with Guest Users

**How:** From Setup, in the Quick Find box, enter *optimizer*, then select **Optimizer**.

## See More Record Info in Highlights Panels

Hovering over a lookup relationship field on a record page displays the first seven fields from the compact layout in a highlights panel. Previously, the highlights panel displayed only the first five fields.

**Where:** This change applies to Lightning Experience in all editions.

SEE ALSO:

[Salesforce Help: Compact Layouts \(can be outdated or unavailable during release preview\)](#)

## UI Changes for Lightning Web Components

Salesforce product and engineering teams made usability and performance enhancements by switching users from Aura components to Lightning Web Components. These enhancements were rolled out to custom objects, some standard objects, and some UI elements like related lists. There should be no changes to functionality.

**Where:** This change applies to Lightning Experience in all editions.

## UI Changes for Cloning Records

We made minor changes to the clone records interface to ensure that the correct record details appear.

**Where:** This change applies to Lightning Experience in all editions.

## Recycle Bin Search Capability Is Being Removed

To avoid performance issues, we removed the search functionality from the Recycle Bin.

**Where:** This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** The Recycle Bin is a list view that allows you to sort and filter to find the records you need.

SEE ALSO:

[New and Changed Objects](#)

[Salesforce Help: Manage the Recycle Bin in Lightning Experience \(can be outdated or unavailable during release preview\)](#)

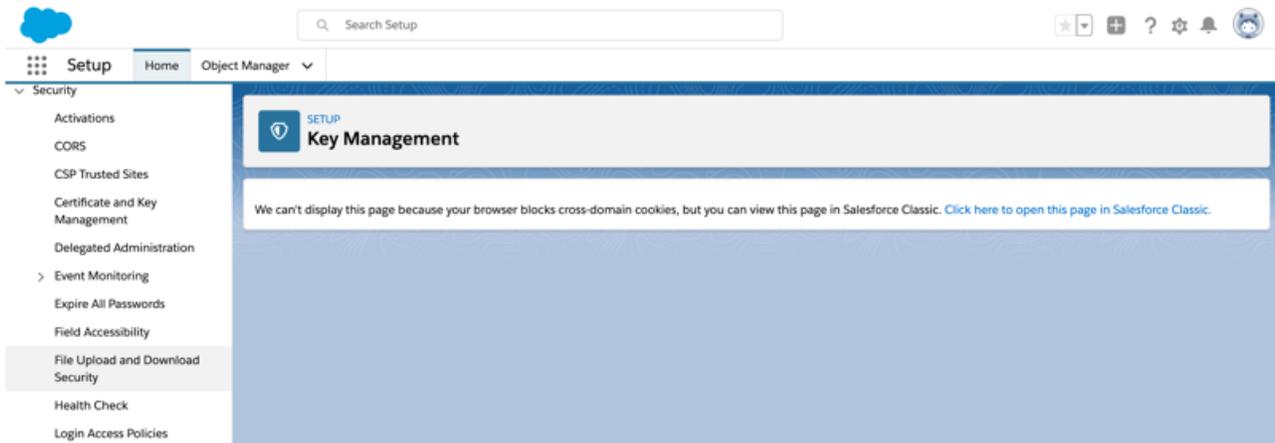
[Salesforce Help: View and Restore Your Recycle Bin in Lightning Experience \(can be outdated or unavailable during release preview\)](#)

## Access Setup and Visualforce Pages in Apple® Safari

To protect user privacy, the Prevent Cross-Site Tracking privacy setting is enabled by default in Apple Safari version 13.1 and later. This setting prevents some Setup and Visualforce pages from displaying properly. On the affected Setup pages, a new on-screen message and link allow you to access the page's content by reloading the page in Salesforce Classic. For Visualforce pages, you can change some org metadata so that those pages display properly.

**Where:** This change applies to Lightning Experience in all editions.

**How:** Salesforce is actively working on updating these pages so that they display correctly. In the meantime, we've added this message to the affected Setup pages: "We can't display this page because your browser blocks cross-domain cookies, but you can view this page in Salesforce Classic." Click the link in the message to reload the page in Classic.



To display content for Visualforce pages, follow the steps in the [Cannot Load Images and Other Content When Using Safari](#) knowledge article to change your org's metadata.

**Important:** Some setup pages don't let you reload the page in Classic from the on-screen message and can result in an error.

- **Einstein > Einstein Search > Promoted Search Terms**
- **Company Settings > My Domain**
- **Company Settings > Fiscal Year**
- **Security > Session Settings**

To access these pages, in the Lightning Experience header, click the profile picture and select **Switch to Salesforce Classic**.

## Cisco Webex Is Being Retired

Cisco Webex is scheduled to be retired starting on October 9, 2020, as part of the Winter '21 release.

**Where:** This change applies to Lightning Experience in Professional, Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

[Knowledge Article: Cisco Webex Retirement](#)

## Skype Is Being Retired

Skype is scheduled to be retired starting on October 9, 2020, as part of the Winter '21 release.

**Where:** This change applies to Lightning Experience in Professional, Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

[Knowledge Article: Skype For Salesforce Retirement](#)

## Keep Working with Tab-Focused Dialogs (Previously Released Update)

In Lightning console apps, dialogs no longer stop you from interacting with the rest of the UI. This release update limits the focus of dialogs triggered by a workspace tab or subtab to only the tab that triggered it. This release update was first made available in Winter '20.

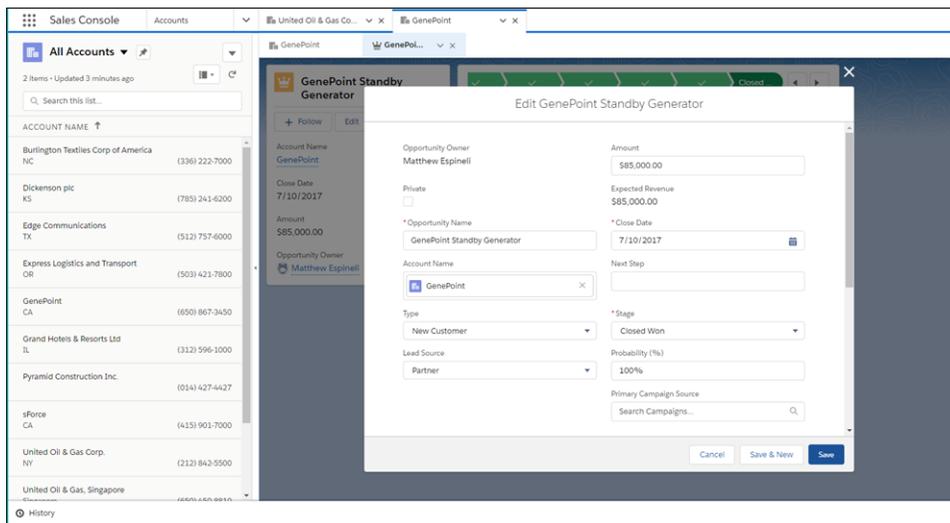
**Where:** This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions. Lightning console apps are available for an extra cost to users with Salesforce Platform user licenses for certain products. Some restrictions apply. For pricing details, contact your Salesforce account executive.

**When:** You can activate this update now. Otherwise, we auto-activate it on October 19, 2020.

**Why:** Before the Winter '20 release, all dialogs triggered by a workspace tab or subtab in a Lightning console app took the focus of the entire app. This update makes dialogs require the focus of only the tab that triggered them, allowing users to interact with the rest of the app.

**How:** To activate this release update before October 19, 2020, from Setup, in the Quick Find box, enter *Release Updates*, and then select **Release Updates**. For Keep Working with Tab-Focused Dialogs, click **Activate**.

After the update, when you trigger a dialog, it's limited to the tab that created it.



SEE ALSO:

[Release Updates](#)

## Work.com

Prepare your business, employees, and facilities. Respond to major events, such as the current COVID-19 crisis, with the apps and services in Work.com.

See the Work.com release notes for the latest updates: [Work.com Release Notes](#)

## Service: Service Cloud Voice Streamlined Setup, Omni-Channel Supervisor for Calls, Einstein Bots Templates, and More

Get started with Service Cloud Voice using a streamlined setup, support for Sales Cloud, the Voice API Toolkit (generally available), and more. Let Omni-Channel supervisors view calls as they happen to improve training and onboarding. Build your Einstein Bot faster with a new guided template and strengthen intent models with Input Recommender (beta). Field Service Time Sheets let you track your employees' hours right inside your field service solution. Accelerate your customer service configuration with easy setup and built-in best practices. Learn about these and other new Service Cloud features.

## IN THIS SECTION:

[Einstein for Service: Bot Building from a Template, Faster Case Classification Recommendations, and More](#)

Get started faster with a fully loaded bot from a template in Guided Setup. In both versions of Einstein Case Classification, recommendations now appear when a case is created. All Lightning Knowledge users now see Einstein Article Recommendations in the Lightning Service Console. Agents can dock, or pin, the Einstein Replies component to send recommended replies from any console subtab. Input Recommender empowers bot admins to find utterances in your chat data to build stronger intent models. Expand your global reach with new language support for Reply Recommendations and Einstein Bots.

[Field Service: A New Name, Time Sheets Everywhere, and Complex Preventive Maintenance Scheduling](#)

Take advantage of new features under the renamed Field Service umbrella. Let your workers submit time sheets, now generally available, from the field service mobile app and include local time zones. Recurrent patterns let you define the right cadence for periodic maintenance appointments.

[Service Setup Assistant: Go from Zero to Console in Minutes](#)

Get started with Service Cloud faster than ever. The out-of-the-box setup assistant does the heavy lifting—link your support email and add your team members. This process sets up everything you need to start resolving cases the same day: the Lightning Service Console App, custom profiles, Email to Case, queues, and the case Lightning record page. We also add prebuilt Quick Text, macros, and Lightning Flows to streamline your workflow.

[Channels: Voice Setup with Amazon Connect for Sales, Messaging Templates, and Channel Menu Code Settings](#)

Bring the power of integrated telephony to your sales and support organizations with faster Service Cloud Voice setup. Increase agent productivity with the Voice toolkit API, automation, collaboration tools, and usability improvements. Build Messaging templates with more flexibility using Lead and Opportunity records. Customize your Channel Menu with Code Settings and avoid tangling with HTML on your web pages.

[Knowledge: Enhancements to Sharing, Article Ownership, and Article Linking](#)

Use standard sharing for Knowledge with Guest Users and High-Volume Community Users. Change ownership of multiple articles at once and track article ownership. Use Linked Articles with Voice and Related Lists with Voice, Chat, Messaging and Social Post.

[Routing: Supervisor Monitoring for Voice, Supervisor Configuration \(Generally Available\), Name Changes, Skills-Based Routing for Chat and Messaging](#)

Enable service supervisors to assist agents in real time with the latest Omni-Channel Supervisor enhancements. Supervisors can view voice transcripts as the phone call is in progress so they can jump in and help agents when needed. Control which agents supervisors see with Supervisor Configurations. Attribute Setup for Skills-Based Routing is renamed and is now available for Chat and Messaging.

[Case Management: Productivity Tools and Email-to-Case Threading](#)

New prebuilt macros, quick text, and flows help enhance agent productivity and get them doing better work, faster than ever before. Email-to-Case threading behavior update boosts security by matching incoming emails with their header information instead of through a Ref ID.

[Other Changes in Service Cloud](#)

Learn about other changes we've made in the Service Cloud.

## Einstein for Service: Bot Building from a Template, Faster Case Classification Recommendations, and More

Get started faster with a fully loaded bot from a template in Guided Setup. In both versions of Einstein Case Classification, recommendations now appear when a case is created. All Lightning Knowledge users now see Einstein Article Recommendations in the Lightning Service Console. Agents can dock, or pin, the Einstein Replies component to send recommended replies from any console subtab. Input Recommender empowers bot admins to find utterances in your chat data to build stronger intent models. Expand your global reach with new language support for Reply Recommendations and Einstein Bots.

## IN THIS SECTION:

[Einstein Bots: Everyone Can Bot with Intro Template, Intent Model Enhancements, and New Permissions](#)

This Einstein Bots release is all about bringing more bots to more people. Get started with Bots faster by creating a bot from a template in Guided Setup. Build robust intent models with Input Recommender, and invite more team members to build and manage your intent model with enhanced permissions. We're adding three new languages and innovative accessibility features to Map View. And you can add custom context variables to your bot to capture important incoming information about your customers.

[Einstein Case Classification: Faster Recommendations, Optional Controlling Fields, and Auto-Update Insights](#)

If you're using the Try Einstein version of Einstein Case Classification, field value recommendations now appear right after the case is created rather than hourly. Controlling fields are optional so model setup goes smoothly. And you get details to help you resolve issues with automatic case updates.

[Einstein Reply Recommendations: New Flexible Format and Multi-Language Support](#)

Work more nimbly in the Lightning Service Console by docking the Einstein Replies component, which lets agents review and send recommended replies while reviewing other records. Extend your global reach with reply recommendations in eight new languages.

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No more fiddling with user permissions—all Lightning Knowledge users now see Einstein Article Recommendations in the Lightning Service Console. Einstein now identifies data quality issues that can affect article recommendations.

## Einstein Bots: Everyone Can Bot with Intro Template, Intent Model Enhancements, and New Permissions

This Einstein Bots release is all about bringing more bots to more people. Get started with Bots faster by creating a bot from a template in Guided Setup. Build robust intent models with Input Recommender, and invite more team members to build and manage your intent model with enhanced permissions. We're adding three new languages and innovative accessibility features to Map View. And you can add custom context variables to your bot to capture important incoming information about your customers.

## IN THIS SECTION:

[Jumpstart Bot Building with Bots Guided Setup Updates](#)

The Guided Setup Flow updates help new and experienced bot builders. New builders can create a bot from a template that includes popular Salesforce actions such as create a case, create a lead, add a case comment, or look up an order. This bot also includes optimized conversational text and flows so you can customize it and go live faster. Experienced builders can use this flow to quickly spin up a bot from scratch for fast customization.

[Strengthen Your Intent Model with Input Recommender \(Beta\)](#)

Build your intent model in record time with Input Recommender. Use recommendations within new or existing dialog intents to build realistic training data that's based on phrases your customers already use. You can use Input Recommender to generate lots of utterances for a new intent or to increase the quality of your existing intents by recommending high-value utterances.

[Make Bot Development a Team Effort with Enhanced Permissions](#)

Share bot development with multiple stakeholders while keeping your data secure. Users with View Setup and Configuration can access the bot in read-only mode. The Manage Bots permission allows you to build and maintain bots while Manage Bots Training Data gives access to intent sets and training activities. These updates help you maintain your bot's intent model across a broad team while keeping bot development to a select few.

[Find Your Way with New Map View Accessibility Features \(Generally Available\)](#)

Map View is even more accessible to bot admins thanks to a new location-based framework for screen readers. When you select a dialog, screen readers describe the child elements and identify whether Einstein is enabled. Admins can use the robust keyboard navigation tools in Map View to visually navigate bots.

### Get Even More Languages for Einstein Bots

Bots' language capabilities are better than ever! Japanese, Chinese Traditional, and Chinese Simplified are now generally available, and Russian, Dutch, and Brazilian Portuguese are now beta languages.

### Get Specific with Custom Context Variables Mapping

Help your bot act on incoming context from your customer by mapping custom context variables. Chat admins can customize the prechat form to deliver information to the bot, and Messaging admins can capture phone numbers to link to existing records. Every custom context variable can map to multiple channels and fields.

### Gain Deeper Insights with Enhanced Bot Session Metrics

Get even more enhancements for bot metrics so you can share insights with your team. The event logs show when a bot transfers to an agent or another bot. And the logs call out each rule action. Rule elements with conditions are now specified as unique events.

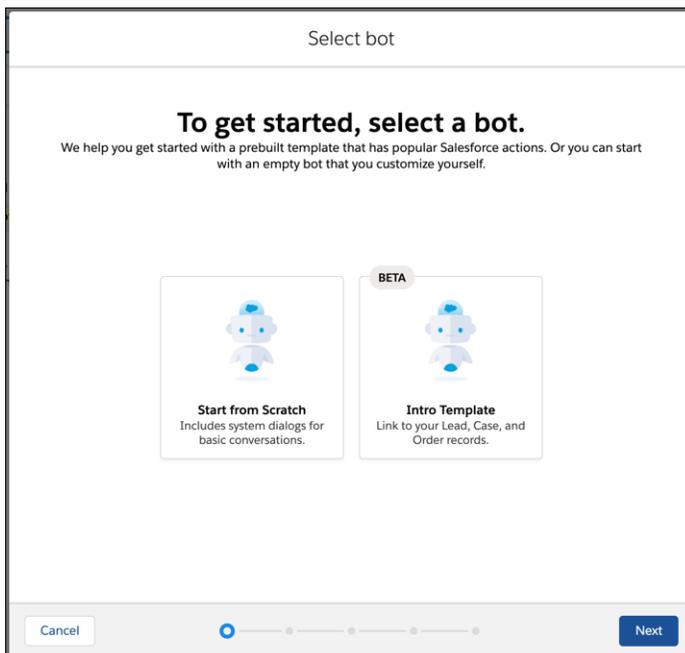
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The Guided Setup Flow updates help new and experienced bot builders. New builders can create a bot from a template that includes popular Salesforce actions such as create a case, create a lead, add a case comment, or look up an order. This bot also includes optimized conversational text and flows so you can customize it and go live faster. Experienced builders can use this flow to quickly spin up a bot from scratch for fast customization.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions. Setup for Einstein Bots is available only in Lightning Experience.

**Who:** Einstein Bots is available to Salesforce orgs with both Service Cloud and Chat user licenses, or to orgs with Digital Engagement user licenses. Each applicable org is provided with 25 Einstein Bots conversations per month for each Chat or Digital Engagement user with an active subscription. This feature requires the following permissions: Customize Application OR Modify Metadata OR Manage Bots. To create a bot using the Intro Template, customers must have Messaging and Chat enabled in their org.

**How:** New bot users can click Create a New Bot on the Bot main page to launch Guided Setup. Users with existing bots can click New on the Bot main page.



## Strengthen Your Intent Model with Input Recommender (Beta)

Build your intent model in record time with Input Recommender. Use recommendations within new or existing dialog intents to build realistic training data that's based on phrases your customers already use. You can use Input Recommender to generate lots of utterances for a new intent or to increase the quality of your existing intents by recommending high-value utterances.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions. Setup for Einstein Bots is available only in Lightning Experience.

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**How:** You can activate Input Recommender on the Einstein Bots Main page. To launch Input Recommender, click Get Recommendations from a new intent or click Find Similar next to any utterance.

To enable Input Recommender, your profile must have View All access on the Chat Transcript object. Input Recommender requires at least 10,000 Chat Transcript records to build a high-quality model.

Any use of this beta feature is subject to the [Beta Services terms](#).

## Make Bot Development a Team Effort with Enhanced Permissions

Share bot development with multiple stakeholders while keeping your data secure. Users with View Setup and Configuration can access the bot in read-only mode. The Manage Bots permission allows you to build and maintain bots while Manage Bots Training Data gives access to intent sets and training activities. These updates help you maintain your bot's intent model across a broad team while keeping bot development to a select few.

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**How:** Manage Bots and Manage Bots Training Data are custom permissions in permission sets that can be assigned to a profile. Learn more about how to assign permission sets with [this help article](#).

## Find Your Way with New Map View Accessibility Features (Generally Available)

Map View is even more accessible to bot admins thanks to a new location-based framework for screen readers. When you select a dialog, screen readers describe the child elements and identify whether Einstein is enabled. Admins can use the robust keyboard navigation tools in Map View to visually navigate bots.

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**How:** You can access Map View on the Dialog Page in the Bot Builder.

## Get Even More Languages for Einstein Bots

Bots' language capabilities are better than ever! Japanese, Chinese Traditional, and Chinese Simplified are now generally available, and Russian, Dutch, and Brazilian Portuguese are now beta languages.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions. Setup for Einstein Bots is available only in Lightning Experience.

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**How:** Setting a language for the bot is required. You can select a language for a new bot during the New Bot Setup Flow. You can assign a language to previously created bots by editing the Bot Information section of the Bot Overview page.

## Get Specific with Custom Context Variables Mapping

Help your bot act on incoming context from your customer by mapping custom context variables. Chat admins can customize the prechat form to deliver information to the bot, and Messaging admins can capture phone numbers to link to existing records. Every custom context variable can map to multiple channels and fields.

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**How:** To make a new variable, click New in the Variables page of the Bot Builder. Change the Type field to Context. Save your work and then click the Variable name to add mappings per channel. The Chat channel can map to the LiveChatTranscript object and the Messaging Channels can map from either the MessagingSession or MessagingUser objects.

The screenshot shows the 'Variables' configuration page for 'Product Interest'. At the top, there is a header with the variable name and an 'Edit' button. Below this is a table with the following columns: Variable Name, API Name, Is List?, Data Type, and Type. The table contains one row for 'Product Interest' with API Name 'Product\_Interest', Is List? 'false', Data Type 'Text', and Type 'Context'. Below the table is a section for 'Context Variable Mappings' with a 'New' button. This section contains a table with columns for 'Channel' and 'Field Name'. There are two rows: 'Chat' with field name 'LiveChatTranscript.Product\_Interest\_\_c' and 'Facebook' with field name 'MessagingSession.Product\_Interest\_\_c'. Both field names have a dropdown arrow on the right.

| Variable Name    | API Name         | Is List? | Data Type | Type    |
|------------------|------------------|----------|-----------|---------|
| Product Interest | Product_Interest | false    | Text      | Context |

| Channel  | Field Name                             |
|----------|--|
| Chat     | LiveChatTranscript.Product_Interest__c |
| Facebook | MessagingSession.Product_Interest__c   |

## Gain Deeper Insights with Enhanced Bot Session Metrics

Get even more enhancements for bot metrics so you can share insights with your team. The event logs show when a bot transfers to an agent or another bot. And the logs call out each rule action. Rule elements with conditions are now specified as unique events.

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**How:** You can access the Event Logs on the Performance tab within the Bot Builder. Reports on transfers use the new field on the ConversationDefinitionSession object: Session Transfer Target Type.

## Einstein Case Classification: Faster Recommendations, Optional Controlling Fields, and Auto-Update Insights

If you're using the Try Einstein version of Einstein Case Classification, field value recommendations now appear right after the case is created rather than hourly. Controlling fields are optional so model setup goes smoothly. And you get details to help you resolve issues with automatic case updates.

### IN THIS SECTION:

#### [Try Einstein, Now with Faster Recommendations](#)

We know that every minute counts. If you have the Try Einstein version of Einstein Case Classification, Einstein now recommends field values just once to the agent, right after the case is created. Previously, recommendations were refreshed hourly on all open and updated cases, which meant that they weren't always available when a case was created.

#### [Controlling Fields Are Optional](#)

A controlling field determines which values are available in another field, known as the dependent field. If you want Einstein Case Classification to predict a dependent field, you can now activate your model without including the controlling field.

### [Get Insight into Auto-Update Issues](#)

If Einstein Case Classification tries and fails to update a case field, we tell you the reason for the failure so you can fix it.

## Try Einstein, Now with Faster Recommendations

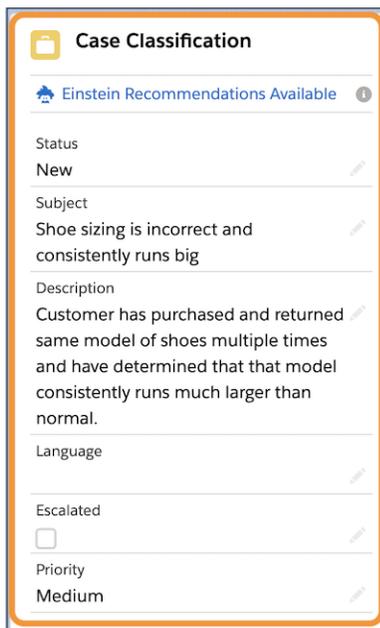
We know that every minute counts. If you have the Try Einstein version of Einstein Case Classification, Einstein now recommends field values just once to the agent, right after the case is created. Previously, recommendations were refreshed hourly on all open and updated cases, which meant that they weren't always available when a case was created.

**Where:** This change applies to Salesforce Classic and Lightning Experience in Enterprise, Performance, and Unlimited editions. Setup for Einstein Case Classification is available only in Lightning Experience.

**Who:** The Try Einstein version of Einstein Case Classification doesn't require the Service Cloud Einstein add-on license.

**How:** To view Einstein's recommendations on a case, click **Get Einstein Recommendations** in the Lightning Service Console. Depending on how you set up Einstein Case Classification, this link appears in:

- The Case Details related record component, or
- The Einstein Field Recommendations component, whose standard header is Case Classification



Recommendations typically appear right after after the case is created, though there can be a slight delay during high-traffic times. You may need to refresh the page to see them.

## Controlling Fields Are Optional

A controlling field determines which values are available in another field, known as the dependent field. If you want Einstein Case Classification to predict a dependent field, you can now activate your model without including the controlling field.

**Where:** This change applies to Salesforce Classic and Lightning Experience in Enterprise, Performance, and Unlimited editions. Setup for Einstein Case Classification is available only in Lightning Experience.

**Why:** For example, suppose the `Reason` case field is dependent on the `Case Source` field. You add `Reason` to your model so Einstein can predict it, but `Case Source` isn't supported in Einstein Case Classification. You can now activate your model without removing `Reason`.

Including the controlling field in your model gives Einstein context for predictions. However, don't worry if it's not available to add—Einstein still predicts the dependent field. If Einstein's predicted value for the dependent field isn't compatible with the controlling field's value on a case, the prediction is hidden to preserve data quality.

SEE ALSO:

[Salesforce Help: Considerations for Choosing Fields to Predict \(can be outdated or unavailable during release preview\)](#)

## Get Insight into Auto-Update Issues

If Einstein Case Classification tries and fails to update a case field, we tell you the reason for the failure so you can fix it.

**Where:** This change applies to Salesforce Classic and Lightning Experience in Enterprise, Performance, and Unlimited editions. Setup for Einstein Case Classification is available only in Lightning Experience.

**Why:** When **Automate Value** is selected on a field in your model, Einstein Case Classification automatically updates the field on a case as long as the prediction is above your confidence threshold. Previously, if a case that met these requirements wasn't auto-updated, it wasn't clear why. Now, the new `Error Code` picklist field on the `AIUpdateRecordEvent` platform event tells you why an automatic update wasn't completed. The field has these values, which can't be customized:

- `none`—No error occurred.
- `entity_locked`—The case is locked for editing by an approval process.
- `no_access`—The selected Einstein user or automatic process user doesn't have permission to update the case.
- `validation_rule`—The update violates a case validation rule.
- `other`—A different error occurred.

**How:** Use the new field to catch and troubleshoot any auto-update failures. For example, create a process or flow to add cases to a queue for review if their Error Code isn't equal to `none`.

SEE ALSO:

[Salesforce Help: AIUpdateRecordEvent \(can be outdated or unavailable during release preview\)](#)

## Einstein Reply Recommendations: New Flexible Format and Multi-Language Support

Work more nimbly in the Lightning Service Console by docking the Einstein Replies component, which lets agents review and send recommended replies while reviewing other records. Extend your global reach with reply recommendations in eight new languages.

IN THIS SECTION:

[Keep the Conversation Going with the New Docked Format](#)

Dock, or pin, the Einstein Replies component to send replies from any subtab in the Lightning Service Console. When the component is docked, it shows replies for the current tab's open chat or messaging session. Agents can minimize and expand it while they scan records related to the conversation.

### [Expand Your Global Reach with Reply Recommendations in Eight Languages \(Pilot\)](#)

Einstein Reply Recommendations suggests common replies to support agents during chat and messaging sessions. The reply recommendations are based on past chat transcripts, and come from a list of replies generated by Einstein and approved by you. The feature was previously available only in English. Reply recommendations in French, Dutch, German, Spanish, Italian, Danish, Swedish, and Turkish are now in pilot.

## Keep the Conversation Going with the New Docked Format

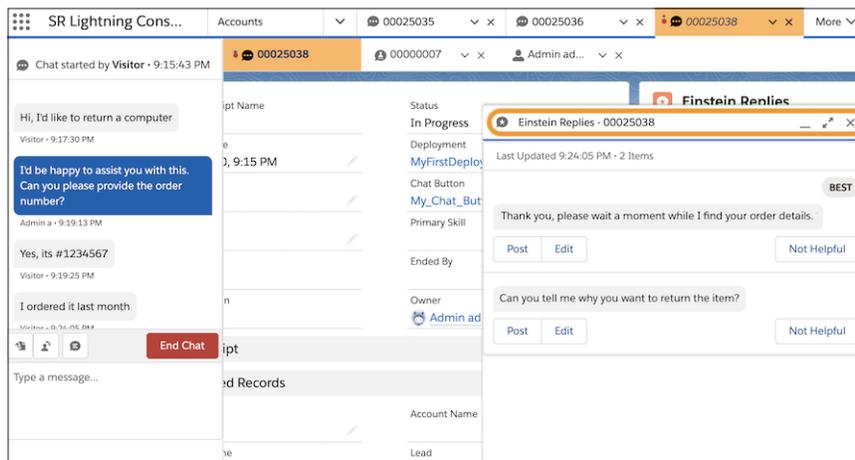
Dock, or pin, the Einstein Replies component to send replies from any subtab in the Lightning Service Console. When the component is docked, it shows replies for the current tab's open chat or messaging session. Agents can minimize and expand it while they scan records related to the conversation.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, and Unlimited editions.

**How:** The dock option is automatically available to all agents who can see the Einstein Replies component. Click the top-right icon to dock the component.



Use the header bar actions to minimize, maximize, or close the docked component. The header bar also shows the transcript number of the open chat or messaging session for the current console tab.



Agents can interact with recommended replies even if the conversation isn't visible from their current subtab. For example, click **Post** or **Not Helpful** on a recommended reply while scanning a related knowledge article. Clicking **Edit** pastes the reply into the conversation's message field for editing, but keeps the focus on the current subtab. The agent can then navigate to the conversation to polish and post the reply.

 **Note:** You can choose to shift focus to the active conversation when users click **Edit** on replies in docked mode. Open the Chat or Messaging console pages in the Lightning App Builder. Then, click the Einstein Replies component and select **Go to active conversation for docked edits**.

SEE ALSO:

[Salesforce Help: Use Reply Recommendations in the Lightning Service Console \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Give Agents Access to Reply Recommendations \(can be outdated or unavailable during release preview\)](#)

## Expand Your Global Reach with Reply Recommendations in Eight Languages (Pilot)

Einstein Reply Recommendations suggests common replies to support agents during chat and messaging sessions. The reply recommendations are based on past chat transcripts, and come from a list of replies generated by Einstein and approved by you. The feature was previously available only in English. Reply recommendations in French, Dutch, German, Spanish, Italian, Danish, Swedish, and Turkish are now in pilot.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, and Unlimited editions.

**How:** To learn about the Einstein Reply Recommendations multi-language pilot, contact your Salesforce Account Executive. The pilot is available for orgs in which the majority of chat transcripts are in a non-English pilot language. For example, if 90% of your closed chat transcripts are in French, you can join the pilot for French reply recommendations. The pilot isn't available for orgs already using Einstein Reply Recommendations in English.

To deliver reply recommendations in your majority language, Einstein needs to analyze at least 10,000 closed chat transcripts in that language. If you don't have enough closed chats or if the chats are too short, we let you know when you try to build your predictive model.

## Einstein Article Recommendations: Easier Agent Access and a New Data Check

No more fiddling with user permissions—all Lightning Knowledge users now see Einstein Article Recommendations in the Lightning Service Console. Einstein now identifies data quality issues that can affect article recommendations.

### IN THIS SECTION:

#### [Show Einstein Article Recommendations to Lightning Knowledge Users \(Update\)](#)

All Lightning Knowledge users now see Einstein Article Recommendations in the Knowledge component. Previously, users needed a user permission to see article recommendations.

#### [Find and Fix Data Flaws Earlier](#)

Without good, plentiful data to learn from, Einstein can't make accurate article recommendations. You now are notified if you don't have enough high-quality data to activate your Einstein Article Recommendations model. And you get tips to help you fix the issue.

## Show Einstein Article Recommendations to Lightning Knowledge Users (Update)

All Lightning Knowledge users now see Einstein Article Recommendations in the Knowledge component. Previously, users needed a user permission to see article recommendations.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, and Unlimited editions.

**How:** If you haven't yet set up Einstein Article Recommendations, you're prompted to indicate your user access preference when you activate your model.

Activate your model

Which users need article recommendations?  
Decide who sees Einstein Article Recommendations in the Knowledge component. You can update this setting at any time.

All Lightning Knowledge Users  
Show article recommendations to all Lightning Knowledge users.

Specific Users  
Show article recommendations to users of your choice. [Tell Me How](#)

Cancel Activate

Choose between two options:

- **All Lightning Knowledge Users:** This option is selected for you so you no longer need to manually manage user permission assignment. If your Einstein Article Recommendations model is already active, some users may see article recommendations for the first time.
- **Specific Users:** Select this option to use the View and Act On Einstein Article Recommendations user permission to control access to article recommendations.

Update the new setting at any time from the Einstein Article Recommendations page in Setup.

#### SEE ALSO:

[Salesforce Help: Give Agents Access to Einstein Article Recommendations \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Einstein Article Recommendations FAQ \(can be outdated or unavailable during release preview\)](#)

## Find and Fix Data Flaws Earlier

Without good, plentiful data to learn from, Einstein can't make accurate article recommendations. You now are notified if you don't have enough high-quality data to activate your Einstein Article Recommendations model. And you get tips to help you fix the issue.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, and Unlimited editions.

**How:** After you build your model, you're notified if your cases and articles don't contain enough high-quality data to allow model activation. Too many blank, incomplete, or improperly filled out fields in your cases can cause this data warning.

The warning tells you how often the fields included in your model were left blank. Use this information as a starting point to conduct a quality review of your knowledge base and recent cases. Or, boost your model's data quality by choosing different case and knowledge fields for Einstein to learn from. Then rebuild and activate your model.

## Field Service: A New Name, Time Sheets Everywhere, and Complex Preventive Maintenance Scheduling

Take advantage of new features under the renamed Field Service umbrella. Let your workers submit time sheets, now generally available, from the field service mobile app and include local time zones. Recurrent patterns let you define the right cadence for periodic maintenance appointments.

#### IN THIS SECTION:

##### [Field Service Has a New Name](#)

It's still lightning-fast, but Field Service Lightning is now Field Service. Field names, messages, and Salesforce Help reflect the new name. The API namespace, developer field names, permission sets, and custom permissions don't change, so there's no need to worry about updates to your custom code.

##### [Keep Track of Time on the Job with Time Sheets \(Generally Available\)](#)

Gain visibility into the hours that your mobile employees are working. Let managers create, review, and take action on employee time sheets. Define templates so that you can generate time sheets automatically.

##### [Record Product Warranties](#)

Give your mobile workers access to product warranty details so that they can start claims for faulty products. Record details of warranty terms and assign them to products or product families to create standard warranties. Then create assets and, in addition to the standard warranty, enter additional or extended warranties along with exclusions and void terms.

### [Improve Preventive Maintenance with Advanced Recurrence \(Beta\)](#)

Keep assets in tip-top shape by managing maintenance that runs on different schedules. Define maintenance schedules with recurrent rules and specify the precedence of each schedule. Then, let the work orders generated guide your field service technicians to perform the right maintenance at the right time.

### [Get the Total Price on Service Contract Line Items](#)

No need to get out the calculator. You can now see the total price of all line items for a service contract.

### [Find the Right Previous Business Day with BusinessHours.add](#)

When you want to find the previous business day using BusinessHours.add, the returned datetime now accounts for a holiday before a day with no business hours. For example, where a Friday is taken as a holiday when Saturday has no business hours the previous business day is now correctly returned as Thursday.

### [Get Translated Work Order Subjects](#)

It's easier to communicate with mobile workers in their own language. In the subject of work orders that are generated from maintenance plans, the word maintenance translates correctly into Salesforce-supported languages.

### [Field Service Scheduling: Street-Level Routing and Prioritized Appointments](#)

Predict more accurate travel times with street-level routing. Let scheduling and optimization assign high-priority appointments to time slots and overlap less urgent visits.

### [Field Service Mobile: Time Sheets, Notification Enhancements, and Actions Launcher Parity](#)

Workers can get more done in the Field Service mobile app. They can submit past and present time sheets, send relevant notifications, and see when new messages arrive. Actions launcher parity between Android and iOS makes it easier for teams on both platforms to use the app.

## Field Service Has a New Name

It's still lightning-fast, but Field Service Lightning is now Field Service. Field names, messages, and Salesforce Help reflect the new name. The API namespace, developer field names, permission sets, and custom permissions don't change, so there's no need to worry about updates to your custom code.

**Where:** This feature applies to Lightning Experience, Salesforce Classic, and the Salesforce mobile app for iOS and Android in Enterprise, Performance, Unlimited, and Developer editions.

## Keep Track of Time on the Job with Time Sheets (Generally Available)

Gain visibility into the hours that your mobile employees are working. Let managers create, review, and take action on employee time sheets. Define templates so that you can generate time sheets automatically.

**Where:** This feature applies to Lightning Experience, Salesforce Classic, and the Salesforce mobile app for iOS and Android in Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

[Salesforce Help: Get Started with Time Sheets \(can be outdated or unavailable during release preview\)](#)

## Record Product Warranties

Give your mobile workers access to product warranty details so that they can start claims for faulty products. Record details of warranty terms and assign them to products or product families to create standard warranties. Then create assets and, in addition to the standard warranty, enter additional or extended warranties along with exclusions and void terms.

**Where:** This change applies to Lightning Experience, and Salesforce Classic, and the Salesforce mobile app for iOS and Android in Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

[Salesforce Help: Record Product Warranties \(can be outdated or unavailable during release preview\)](#)

## Improve Preventive Maintenance with Advanced Recurrence (Beta)

Keep assets in tip-top shape by managing maintenance that runs on different schedules. Define maintenance schedules with recurrent rules and specify the precedence of each schedule. Then, let the work orders generated guide your field service technicians to perform the right maintenance at the right time.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

As a beta feature, Maintenance Plan Advanced Recurrence is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. For information on enabling this feature in your org, contact Salesforce.

**Why:** Assets can have requirements for multiple maintenance schedules, with each schedule at different frequencies. When maintenance tasks coincide, you may want to do them all or perform only some.

For example, a building maintenance company performs minor maintenance on an air conditioning system every 3 months and a major service annually. When a work order is generated for annual service, the service manager doesn't want a work order generated for 3-month service.

Or, consider, a pool maintenance company that cleans a pool monthly and applies a chemical treatment every 3 months. In this case, when the treatment work order is created, the service manager wants the pool cleaning work order too.

**How:** Create a maintenance work rule for an asset, and use sort order to set precedence for multiple rules. When the work order generation process finds several rules to generate on the same day, only work orders for the rules with the lowest sort order value are generated. If there are rules with the same sort order, each rule generates a work order.

## New Maintenance Work Rule

**Description**

\* Maintenance Work Rule Title

**General Information**

\* Maintenance Asset

Work Type

**Work Order Generation**

\* Sort Order

Date of the first work order in the next batch

**Recurrence Pattern**

\* Recurrence Pattern

SEE ALSO:

[Salesforce Help: Manage Multiple Maintenance Schedules \(can be outdated or unavailable during release preview\)](#)

## Get the Total Price on Service Contract Line Items

No need to get out the calculator. You can now see the total price of all line items for a service contract.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions.

## Find the Right Previous Business Day with BusinessHours.add

When you want to find the previous business day using BusinessHours.add, the returned datetime now accounts for a holiday before a day with no business hours. For example, where a Friday is taken as a holiday when Saturday has no business hours the previous business day is now correctly returned as Thursday.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

[BusinessHours.add for a negative value doesn't work as expected when a one time holiday falls before a day with no business hours](#)

## Get Translated Work Order Subjects

It's easier to communicate with mobile workers in their own language. In the subject of work orders that are generated from maintenance plans, the word maintenance translates correctly into Salesforce-supported languages.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

## Field Service Scheduling: Street-Level Routing and Prioritized Appointments

Predict more accurate travel times with street-level routing. Let scheduling and optimization assign high-priority appointments to time slots and overlap less urgent visits.

### IN THIS SECTION:

#### [Estimate Travel Times with Street-Level Routing \(Generally Available\)](#)

Because street-level routing (SLR) uses actual road speeds and turn-by-turn data, it calculates travel times more precisely than aerial routing. More accurate travel projections can help your workers be more productive and drive less.

#### [Target Work Priorities Using Service Appointments](#)

When your team's availability is limited, prioritize urgent service appointments over less pressing jobs. You can assign priority values directly to appointments. Previously, you could specify them only on parent work orders or work order line items.

#### [Shape Up with New Tests in Health Check](#)

Keep your field service configuration healthy. Added tests help you detect if a service territory lacks resources with the needed skills or whether an arrival window occurs after an appointment's due date. Also, one click can tell you if street-level routing (SLR) is set up properly.

#### [Offload Sandbox Services for Routing and Optimization](#)

Configure your Salesforce sandbox orgs to use independent remote sites for street-level routing (SLR) and optimization services. To keep your production orgs running smoothly, we added dedicated remote sites for sandboxes. In a future release, we'll require sandboxes to use these sites for SLR and optimization services.

## Estimate Travel Times with Street-Level Routing (Generally Available)

Because street-level routing (SLR) uses actual road speeds and turn-by-turn data, it calculates travel times more precisely than aerial routing. More accurate travel projections can help your workers be more productive and drive less.

**Where:** This feature applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions with the Field Service managed package installed.

**How:** In the Field Service Admin app, turn on street-level routing in **Field Service Settings > Scheduling > Routing**. SLR calculations take a bit longer than aerial routing.

### SEE ALSO:

[Salesforce Help: Set Up Routing for Travel Time Calculations \(can be outdated or unavailable during release preview\)](#)

## Target Work Priorities Using Service Appointments

When your team's availability is limited, prioritize urgent service appointments over less pressing jobs. You can assign priority values directly to appointments. Previously, you could specify them only on parent work orders or work order line items.

**Where:** This feature applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions with the Field Service managed package installed.

**Why:** Use a custom formula to assign priority values. For example, create a priority field that's based on appointment due dates. When there's no available time slot and the due date is near, optimization bumps appointments with lower priorities. Scheduling gives precedence to high priority appointments and overlaps lower priority assignments.

**How:** Select a priority field on service appointments, work orders, or work order line items. Default priorities range from 1, the most critical, to 10, the least urgent. If you need small increments between priority values, use the optional range of 1–100. After scheduling or optimization actions, reschedule appointments or resolve overlaps.

SEE ALSO:

[Salesforce Help: Schedule High-Priority Appointments \(can be outdated or unavailable during release preview\)](#)

## Shape Up with New Tests in Health Check

Keep your field service configuration healthy. Added tests help you detect if a service territory lacks resources with the needed skills or whether an arrival window occurs after an appointment's due date. Also, one click can tell you if street-level routing (SLR) is set up properly.

**Where:** This feature applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions with the Field Service managed package installed.

**How:** In the Field Service Admin app, select **Health Check** in Field Service Settings.

SEE ALSO:

[Salesforce Help: Test Your Field Service Configuration with Health Check \(can be outdated or unavailable during release preview\)](#)

## Offload Sandbox Services for Routing and Optimization

Configure your Salesforce sandbox orgs to use independent remote sites for street-level routing (SLR) and optimization services. To keep your production orgs running smoothly, we added dedicated remote sites for sandboxes. In a future release, we'll require sandboxes to use these sites for SLR and optimization services.

**Where:** This feature applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions. It applies to sandbox orgs installed with the Field Service managed package before Winter '21.

**How:** In Setup on the sandbox org, go to **Remote Site Settings** and activate the FSL\_GIS\_SB and FSL\_Optimize\_SB sites.

SEE ALSO:

[Salesforce Help: Configure Remote Site Settings \(can be outdated or unavailable during release preview\)](#)

## Field Service Mobile: Time Sheets, Notification Enhancements, and Actions Launcher Parity

Workers can get more done in the Field Service mobile app. They can submit past and present time sheets, send relevant notifications, and see when new messages arrive. Actions launcher parity between Android and iOS makes it easier for teams on both platforms to use the app.

## IN THIS SECTION:

[Send Meaningful Messages Using Custom Notifications](#)

Customize the messages you send to your mobile workers based on your business needs. You can extend or replace the default notifications with important information related to any part of your workflow. For example, you can let workers know when inventory's low or if there's an urgent service appointment they need to get to.

[Log Work Hours with Time Sheets \(Generally Available\)](#)

For mobile workers that cross time zones, you can automatically capture the time zone where the work occurs. On a mobile device, workers can submit past time sheets with corrections.

[Never Miss a Message in Notifications](#)

Mobile workers on Android can see when they get notifications so they don't miss an important event such as changes to service appointments. Workers tap an alert to view the list of messages, and they can also see opened messages offline. Previously, notification alerts were only available in iOS.

[Be More Efficient with the Actions Launcher Redesign](#)

Working on iOS and Android is easier with the updated Actions launcher. The Actions launcher's look and feel is now the same across platforms, giving users a consistent experience, no matter their device. Section headers make it faster to find what you're looking for when navigating through actions lists.

## Send Meaningful Messages Using Custom Notifications

Customize the messages you send to your mobile workers based on your business needs. You can extend or replace the default notifications with important information related to any part of your workflow. For example, you can let workers know when inventory's low or if there's an urgent service appointment they need to get to.

**Where:** This change applies to the Field Service mobile app in Enterprise, Performance, Unlimited, and Developer editions.

**How:** In **Setup | Notification Delivery Settings**, create a new **Custom Notification Type** for the Mobile channel. You can then add custom notifications from a process, flow, or REST API.

## Log Work Hours with Time Sheets (Generally Available)

For mobile workers that cross time zones, you can automatically capture the time zone where the work occurs. On a mobile device, workers can submit past time sheets with corrections.

**Where:** This feature applies to Lightning Experience, Salesforce Classic, and the Salesforce mobile app for iOS and Android in Enterprise, Performance, Unlimited, and Developer editions.

## SEE ALSO:

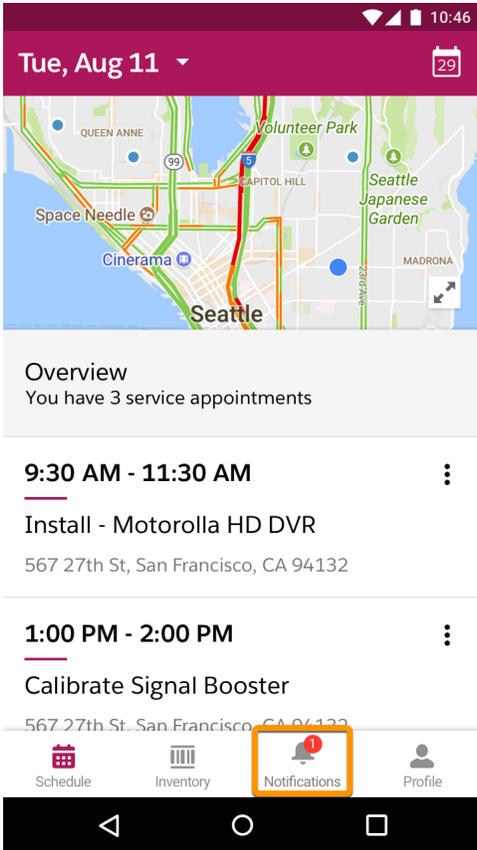
[Salesforce Help: Get Started with Time Sheets \(can be outdated or unavailable during release preview\)](#)

## Never Miss a Message in Notifications

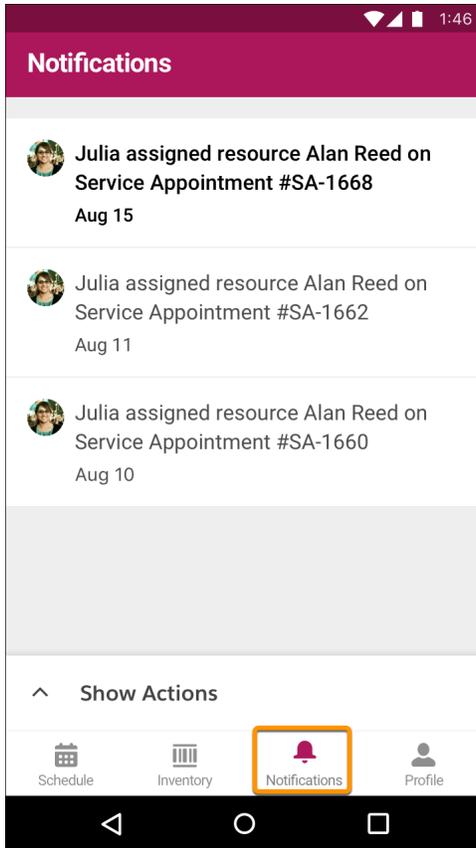
Mobile workers on Android can see when they get notifications so they don't miss an important event such as changes to service appointments. Workers tap an alert to view the list of messages, and they can also see opened messages offline. Previously, notification alerts were only available in iOS.

**Where:** This change applies to Field Service for Android.

**How:** An alert on the notification tab shows workers the number of unseen messages.



Opening the list of notifications makes the alert disappear. If an admin deletes a notification before a worker views it, they see an error message when they open the message. If they get a notification after they open the notification tab, they can swipe down on the screen to refresh the notifications list.



SEE ALSO:

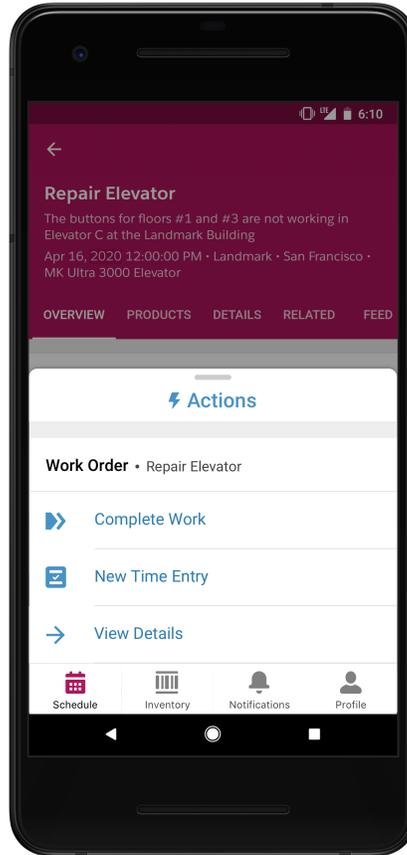
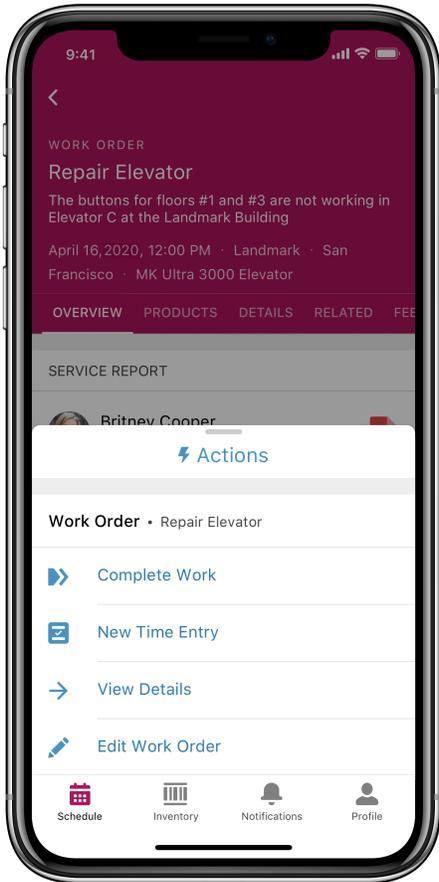
[Salesforce Help: Customize Push Notifications for the Field Service Mobile App \(can be outdated or unavailable during release preview\)](#)

## Be More Efficient with the Actions Launcher Redesign

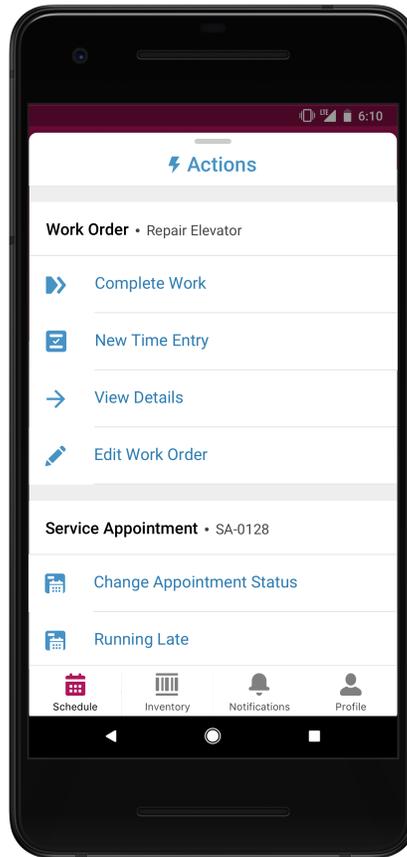
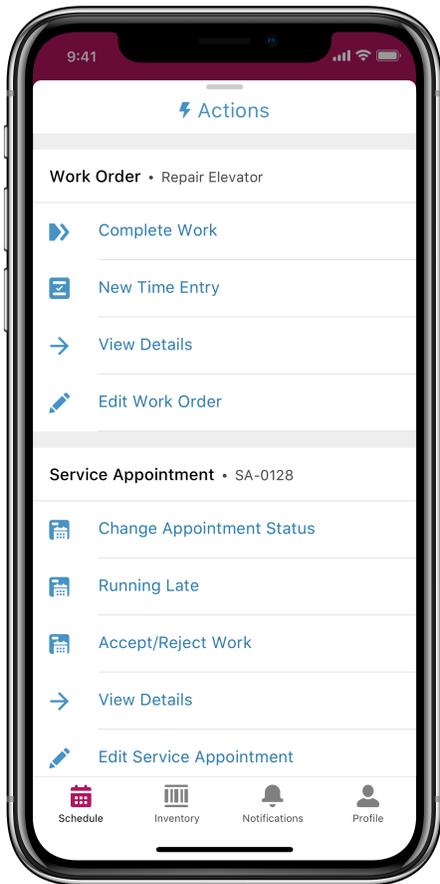
Working on iOS and Android is easier with the updated Actions launcher. The Actions launcher's look and feel is now the same across platforms, giving users a consistent experience, no matter their device. Section headers make it faster to find what you're looking for when navigating through actions lists.

**Where:** This change applies to Field Service for iOS and Android.

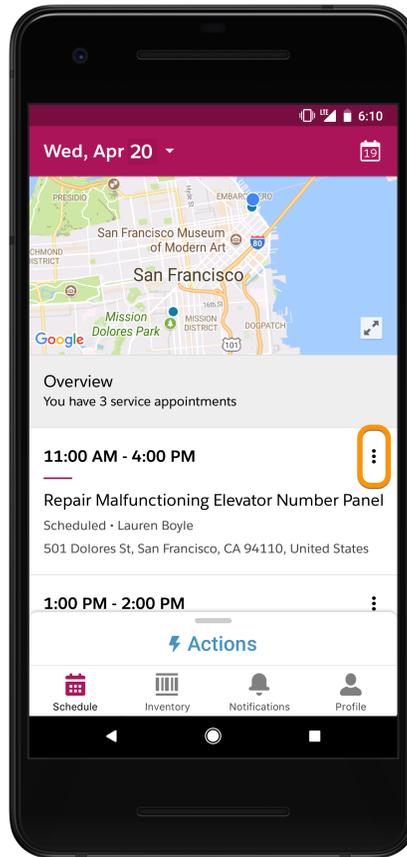
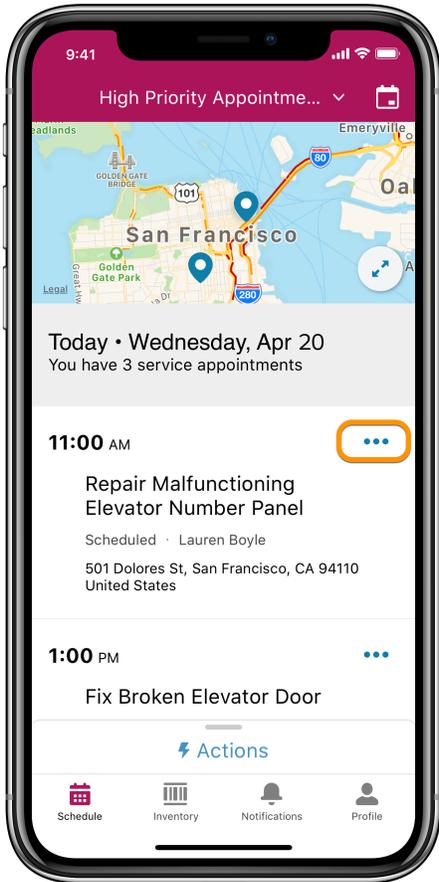
**How:** Tap, swipe, or slide the Actions launcher to open to a half screen.



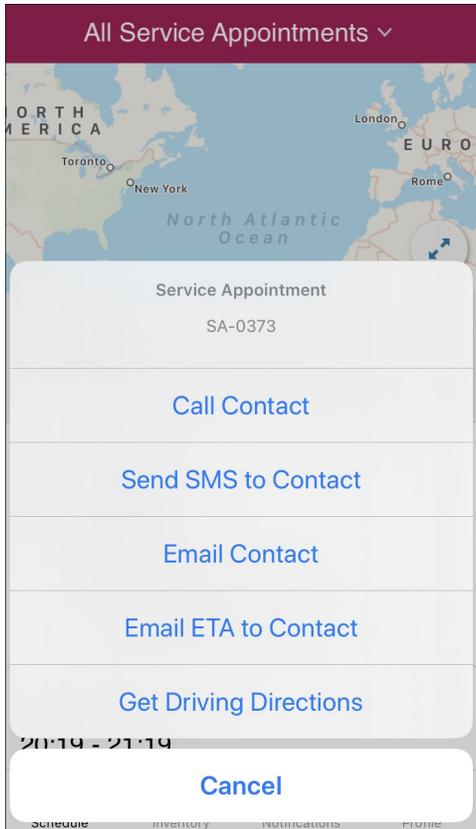
Repeat the gesture to expand to a full screen.



You can also tap the options menu icon to open a menu for tasks related to an action item.



Section headers organize actions by object type, for example, service appointments or work orders. More Actions lists actions not associated with an object type.



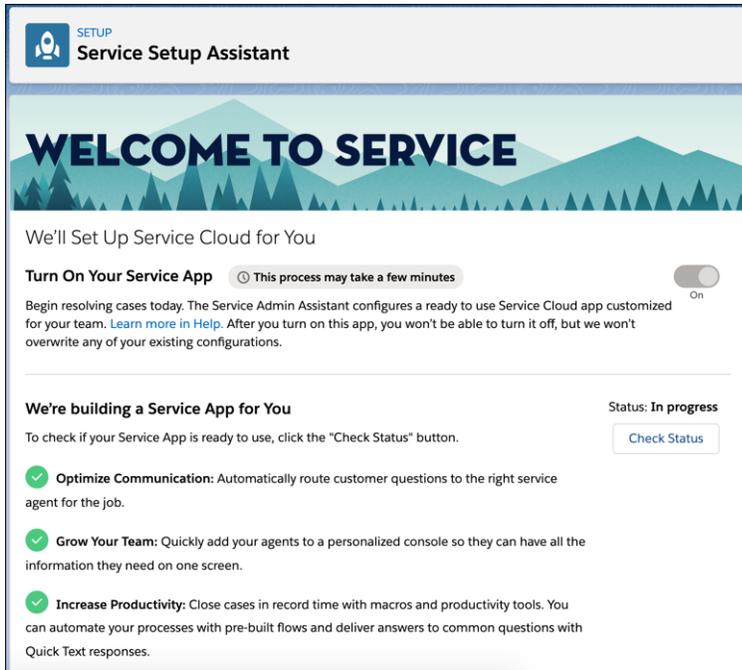
## Service Setup Assistant: Go from Zero to Console in Minutes

Get started with Service Cloud faster than ever. The out-of-the-box setup assistant does the heavy lifting—link your support email and add your team members. This process sets up everything you need to start resolving cases the same day: the Lightning Service Console App, custom profiles, Email to Case, queues, and the case Lightning record page. We also add prebuilt Quick Text, macros, and Lightning Flows to streamline your workflow.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, Unlimited, Professional, and Developer editions.

**Who:** Service Setup Assistant is available to Salesforce orgs with Service Cloud licenses.

**How:** To get started with Service, click **Service Setup Assistant** from the Setup menu.



## Channels: Voice Setup with Amazon Connect for Sales, Messaging Templates, and Channel Menu Code Settings

Bring the power of integrated telephony to your sales and support organizations with faster Service Cloud Voice setup. Increase agent productivity with the Voice toolkit API, automation, collaboration tools, and usability improvements. Build Messaging templates with more flexibility using Lead and Opportunity records. Customize your Channel Menu with Code Settings and avoid tangling with HTML on your web pages.

### IN THIS SECTION:

#### [Voice: Now Available in Sales Cloud, API Toolkit, Process Automation Tools, and Collaboration and Usability Improvements](#)

Bring the power of natively integrated Voice telephony to Sales Cloud. Build solutions for your business with the Service Cloud Voice Toolkit API and packageable custom fields. Increase your contact center's efficiency with process automation tools such as macros, quick actions, Lightning flows, processes, and workflows. Increase agent productivity with faster setup, collaboration tools like Chatter, and usability improvements to the call transfer interface, call recording component, call recording player, and voice call record page. Let your agents pause call recordings to protect customers' private information.

#### [Messaging: Enhancements to Templates and Object Permissions](#)

We added more flexibility when building Messaging templates and give admins more control over Messaging object permissions. Also, you can now use Omni-Channel Skills-Based Routing Rules for Messaging.

#### [Chat: Routing Types Renamed, Skills-Based Routing Rules](#)

Take note of some changes to the terminology in Chat Buttons & Invitations. Check out Skills-Based Routing Rules which now support chat.

#### [Embedded Service for Web: Channel Menu Code Settings, Community Chat Invitations, and New Message Icon for Chat](#)

Deploy Channel Menu Code Settings with JavaScript static resources in Service Setup for more flexibility. Send customers invitations to chat in communities with code settings. Use a sleek new message icon in Chat for streamlined conversations.

## Voice: Now Available in Sales Cloud, API Toolkit, Process Automation Tools, and Collaboration and Usability Improvements

Bring the power of natively integrated Voice telephony to Sales Cloud. Build solutions for your business with the Service Cloud Voice Toolkit API and packageable custom fields. Increase your contact center's efficiency with process automation tools such as macros, quick actions, Lightning flows, processes, and workflows. Increase agent productivity with faster setup, collaboration tools like Chatter, and usability improvements to the call transfer interface, call recording component, call recording player, and voice call record page. Let your agents pause call recordings to protect customers' private information.

### IN THIS SECTION:

#### [Amp Up Sales Cloud with Voice](#)

Amplify your sales teams with Voice, the Salesforce intelligent native telephony solution. Salespeople can talk with your customers using an intuitive softphone that combines the power of Amazon Connect, including real-time call transcription. Bring voice calls and your digital channels together so your sales representatives can reach customers at the right time using the channel that customers prefer.

#### [Spend Less Time Setting Up Voice with Improved Setup](#)

Get your contact center up and running even faster thanks to the improved setup experience in Service Cloud Voice. The updated Voice Setup page guides you through the setup steps. And several steps previously required to configure your Amazon Connect instance are now automated.

#### [Recommend the Next Best Action for Agents with the Service Cloud Voice Toolkit API \(Generally Available\)](#)

Leverage your company's knowledge of the customer to suggest the best action for an agent to take so you can retain customers and increase customer satisfaction. Empower your agents with intelligent recommendations in the Einstein Next Best Action component and the Actions & Recommendation component based on information in Voice Call records and call transcripts. Use the events for call state changes, such as start call, end call, mute, and hold, to build event-driven solutions. Use the APIs in the Service Cloud Voice Toolkit to push context-sensitive recommendations based on field values in the call record and keywords in the call transcript.

#### [Kick Off Lightning Flows, Processes, and Workflows Based on Voice Call Records](#)

Harness the power of Salesforce automation tools to enforce your company's business processes when a Voice Call record is created or modified. For example, use a workflow to automatically send an email when a Voice Call field is updated, or automatically change a Voice Call field when a field in a related record is updated. You also can create records based on Voice Call records. For example, you can create a case or a lead when a Voice Call is created or updated. Voice Call records are supported on Lightning processes, flows, and workflows.

#### [Work More Efficiently on Voice Call Records with Macros and Quick Actions](#)

Agents can run macros and quick actions on Voice Call records so they can work more efficiently. For example, agents can run a macro that updates the Call Disposition field to Resolved and sends the customer a follow-up email. Bulk macros and quick actions are supported on the Voice Call object and on Voice Call records.

#### [Let Agents Pause and Resume Call Recordings](#)

Help your agents protect your customers' private information such as Social Security numbers by letting agents pause and resume call recording.

#### [Listen to Call Recordings on the Improved Call Recording Player](#)

The call recording player has an updated appearance and usability improvements, including a progress indicator, call type indicator, and timestamp.

### [Transfer Callers to the Right Agent with a More Intuitive User Interface](#)

It's easier for agents to transfer calls to another agent and to add callers to a call in the updated Omni-Channel Call Controls tab. Agents can introduce the new agent to the customer by merging two calls into one call: "I'm adding Jane Doe to our call." They can switch from one call to the other, so customers don't need to repeat themselves: "Let me put you on hold for a minute while I update our billing specialist on your situation." Agents can leave the call after the customer is transferred to the second agent, so they're available to help other customers: "Now that you're talking with the right person, I'll drop off."

### [Dial Phone Extensions with the Built-In Keypad](#)

Agents can use the built-in keypad in the Omni-Channel utility to dial extensions and IVR phone trees so they can call customers with less context switching.

### [Collaborate Better with Chatter on Voice Call Records](#)

The Chatter component is now available by default on the Voice Call record, so it's easier for agents to collaborate with their coworkers on calls.

### [Get Warnings to Avoid Ending Calls Accidentally](#)

When an agent tries to close a Voice Call page while on a call, a popup window asks the agent to confirm whether to hang up to help prevent ending calls unintentionally.

### [Facilitate Training with Service Cloud Voice Transcript Monitoring](#)

Now supervisors can view voice call transcripts as they happen to facilitate training and onboarding. Supervisors can monitor up to five Service Cloud Voice transcripts and chats in Omni-Channel Supervisor. Previously, they could monitor only chats.

### [Track Amazon Connect Charges in Standard Reports](#)

Monitor your org's Amazon Connect monthly billing charges in a standard Salesforce report. See an itemized list of charges for each AWS account and region associated with your Salesforce org. Filter the report using standard Salesforce reporting tools and export the report as a .csv file.

### [Add Voice Call Custom Fields to Packages](#)

Partners and ISVs can build telephony solutions for their customers by adding custom fields on the Voice Call object to a package. Use custom fields to store data from an Amazon Connect contact flow or to pass data from a Voice Call record to another object. ISVs can create a package that their customers can easily install and can push updates to the package so customers have the latest and greatest.

## Amp Up Sales Cloud with Voice

Amplify your sales teams with Voice, the Salesforce intelligent native telephony solution. Salespeople can talk with your customers using an intuitive softphone that combines the power of Amazon Connect, including real-time call transcription. Bring voice calls and your digital channels together so your sales representatives can reach customers at the right time using the channel that customers prefer.

**Where:** This change applies to Lightning Experience in the Enterprise, Performance, and Unlimited editions. Service Cloud Voice is available for an extra cost as an add-on license in Sales Cloud and Service Cloud.

**Who:** Users with the Contact Center Admin permission can create and manage Voice contact centers. Users with the Contact Center Agent permission set can access the contact center and make and receive calls.

**How:** From Setup, in the Quick Find box, enter *Voice Setup*, and then select **Voice Setup**. Follow the instructions on the setup page to turn on Voice, create a contact center, and configure Amazon Connect. When you configure Salesforce to use Voice, add the Omni-Channel utility to the Lightning Sales Console so your salespeople can use it to answer and make calls.

### SEE ALSO:

[Salesforce Help: Service Cloud Voice \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Set Up Service Cloud Voice \(can be outdated or unavailable during release preview\)](#)

## Spend Less Time Setting Up Voice with Improved Setup

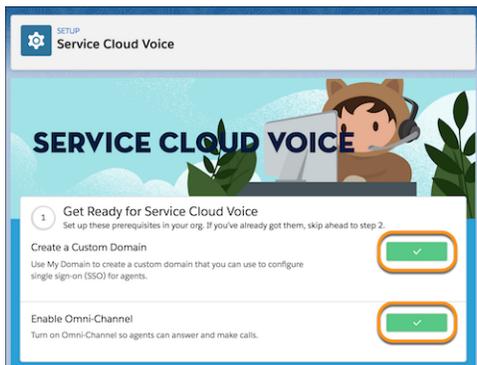
Get your contact center up and running even faster thanks to the improved setup experience in Service Cloud Voice. The updated Voice Setup page guides you through the setup steps. And several steps previously required to configure your Amazon Connect instance are now automated.

**Where:** This change applies to Lightning Experience in the Enterprise, Performance, and Unlimited editions. Service Cloud Voice is available for an extra cost as an add-on license in Sales Cloud and Service Cloud.

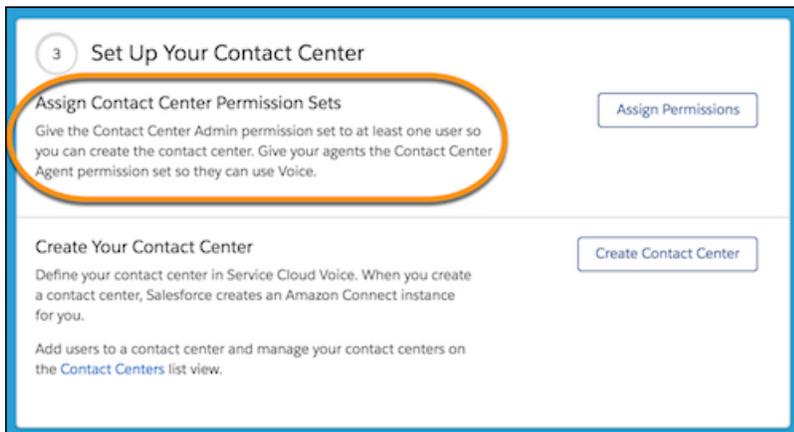
**Who:** Users need the Customize Application permission and the Contact Center Admin permission set to set up Service Cloud Voice. The Amazon Connect administrator can configure the Amazon Connect instance.

**Why:** Spend less time setting up Voice and more time helping your customers.

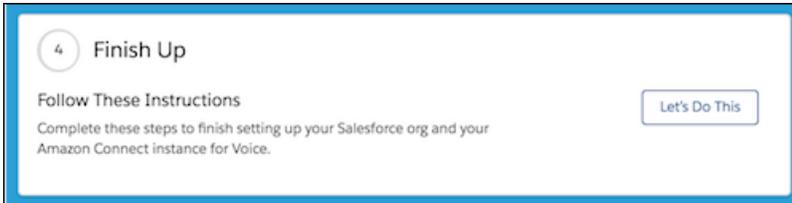
Updated wording and an added visual checkmark indicate when your org satisfies the Voice prerequisites for MyDomain and Omni-Channel.



Updated wording on the Set Up Contact Center step tells you which permission sets to give your agents so they can start helping customers.



A new Finish Up step provides a link to the setup documentation so you can quickly find the right information to finish setting up Voice.



The updated Turn On Service Cloud Voice modal window asks you to enter your email address twice so you can be sure that Amazon Web Services root user email is correct.

When Salesforce creates your contact center, it automatically enables call recording, call audio streaming, data streaming for transcripts, and configures single sign-on (SSO), saving you time. Previously, those features required manual configuration.

**How:** From Setup, in the Quick Find box, enter *voice setup*, and then select **Voice Setup**. Follow the instructions on the setup page to turn on Voice, create a contact center, and configure Amazon Connect.

SEE ALSO:

[Salesforce Help: Set Up Service Cloud Voice \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Configure Your Amazon Connect Instance \(can be outdated or unavailable during release preview\)](#)

## Recommend the Next Best Action for Agents with the Service Cloud Voice Toolkit API (Generally Available)

Leverage your company's knowledge of the customer to suggest the best action for an agent to take so you can retain customers and increase customer satisfaction. Empower your agents with intelligent recommendations in the Einstein Next Best Action component and the Actions & Recommendation component based on information in Voice Call records and call transcripts. Use the events for call state changes, such as start call, end call, mute, and hold, to build event-driven solutions. Use the APIs in the Service Cloud Voice Toolkit to push context-sensitive recommendations based on field values in the call record and keywords in the call transcript.

**Where:** This change applies to Lightning Experience in the Enterprise, Performance, and Unlimited editions. Service Cloud Voice is available for an extra cost as an add-on license in Sales Cloud and Service Cloud.

SEE ALSO:

[Salesforce Help: Einstein Next Best Action Entitlements \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Get Started with Einstein Next Best Action \(can be outdated or unavailable during release preview\)](#)

[Service Cloud Voice Developer Guide: Service Cloud Voice Toolkit API \(can be outdated or unavailable during release preview\)](#)

## Kick Off Lightning Flows, Processes, and Workflows Based on Voice Call Records

Harness the power of Salesforce automation tools to enforce your company's business processes when a Voice Call record is created or modified. For example, use a workflow to automatically send an email when a Voice Call field is updated, or automatically change a Voice Call field when a field in a related record is updated. You also can create records based on Voice Call records. For example, you can create a case or a lead when a Voice Call is created or updated. Voice Call records are supported on Lightning processes, flows, and workflows.

**Where:** This change applies to Lightning Experience in the Enterprise, Performance, and Unlimited editions. Service Cloud Voice is available for an extra cost as an add-on license in Sales Cloud and Service Cloud.

**How:** Use Flow Builder to automatically start a flow when a Voice Call record is created or modified. Use Process Builder to launch processes when a Voice Call record is created or modified. Use Workflow rules to trigger standard internal procedures when a Voice Call record is created or modified.

SEE ALSO:

[Salesforce Help: Lightning Process Builder \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Flows \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Workflow \(can be outdated or unavailable during release preview\)](#)

## Work More Efficiently on Voice Call Records with Macros and Quick Actions

Agents can run macros and quick actions on Voice Call records so they can work more efficiently. For example, agents can run a macro that updates the Call Disposition field to Resolved and sends the customer a follow-up email. Bulk macros and quick actions are supported on the Voice Call object and on Voice Call records.

**Where:** This change applies to Lightning Experience in the Enterprise, Performance, and Unlimited editions. Service Cloud Voice is available for an extra cost as an add-on license in Sales Cloud and Service Cloud.

**Who:** To create actions, users need the Customize Application permission. To view, create, and edit macros, users need the Read, Create, and Edit permissions on macros. To create and run irreversible macros, users need the Manage Macros that Can't Be Undone permission. To run bulk macros, users need the Run Macros on Multiple Records permission.

**How:** To create a macro, use the Macro Builder to build a macro and select Voice Call as the object to apply the macro to. Specify the macro's actions and then run the macro.

To create an object-specific action, go to the management settings for the Voice Call object and then go to Buttons, Links, and Actions, and create your action. Agents can run the action on Voice Call records.

SEE ALSO:

[Salesforce Help: Create Macros in Lightning Experience \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Create Object-Specific Quick Actions \(can be outdated or unavailable during release preview\)](#)

## Let Agents Pause and Resume Call Recordings

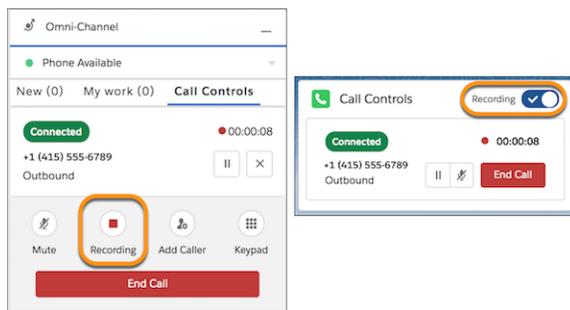
Help your agents protect your customers' private information such as Social Security numbers by letting agents pause and resume call recording.

**Where:** This change applies to Lightning Experience in the Enterprise, Performance, and Unlimited editions. Service Cloud Voice is available for an extra cost as an add-on license in Sales Cloud and Service Cloud.

**Who:** Users with the Contact Center Agent permission set can access the contact center and make and receive calls. Users with the Control Call Recording permission can pause and resume call recordings.

**Why:** To temporarily pause the recording, click **Recording** in the Omni-Channel utility or the Recording radio button in the Call Controls component. To resume recording, click the button again.

Previously, if call recording was enabled, the entire conversation was recorded and agents couldn't pause the recording.



**How:** In new contact centers, add the Call Controls component to your Lightning record page. Then give agents the Control Call Recording user permission so they can pause and resume recordings.

If you already have a Voice contact center, follow the update steps to enable call recording and pausing in your Amazon Connect instance.

### SEE ALSO:

[Salesforce Help: Configure Salesforce for Service Cloud Voice \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Configure Your Amazon Connect Instance \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Help Customers on the Phone \(can be outdated or unavailable during release preview\)](#)

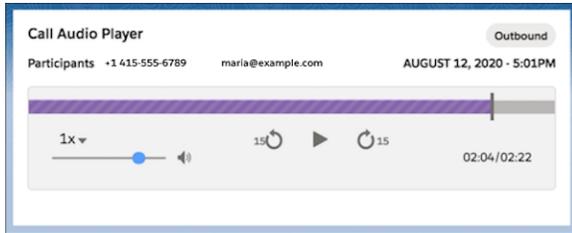
## Listen to Call Recordings on the Improved Call Recording Player

The call recording player has an updated appearance and usability improvements, including a progress indicator, call type indicator, and timestamp.

**Where:** This change applies to Lightning Experience in the Enterprise, Performance, and Unlimited editions. Service Cloud Voice is available for an extra cost as an add-on license in Sales Cloud and Service Cloud.

**Who:** Users with the Contact Center Agent permission set can access the contact center and make and receive calls. Users with the View Call Recording permission can listen to recorded calls.

**Why:** The component's title, Call Audio Player, is displayed, so screen readers can tell which component they're on. A pill box indicates whether the call was inbound, outbound, or transferred, so agents can tell what type of call it was. The date and start time of the call is displayed, so agents can easily tell when the call occurred. A progress indicator shows where the listener is on the call.



**How:** To let agents listen to call recordings, add the Call Recording Player component to the Voice Call record page. Agents can click the play button to hear the recording.

SEE ALSO:

[Salesforce Help: Configure Salesforce for Service Cloud Voice \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Standard Lightning Page Components \(can be outdated or unavailable during release preview\)](#)

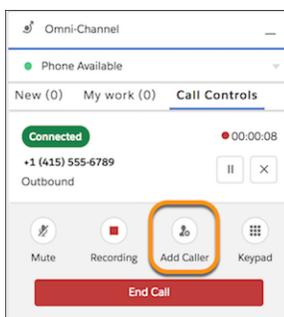
## Transfer Callers to the Right Agent with a More Intuitive User Interface

It's easier for agents to transfer calls to another agent and to add callers to a call in the updated Omni-Channel Call Controls tab. Agents can introduce the new agent to the customer by merging two calls into one call: "I'm adding Jane Doe to our call." They can switch from one call to the other, so customers don't need to repeat themselves: "Let me put you on hold for a minute while I update our billing specialist on your situation." Agents can leave the call after the customer is transferred to the second agent, so they're available to help other customers: "Now that you're talking with the right person, I'll drop off."

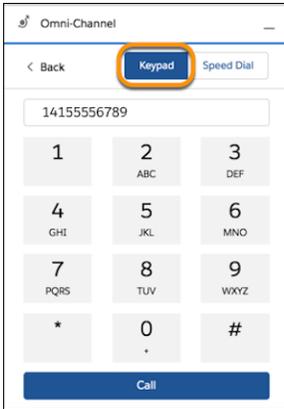
**Where:** This change applies to Lightning Experience in the Enterprise, Performance, and Unlimited editions. Service Cloud Voice is available for an extra cost as an add-on license in Sales Cloud and Service Cloud.

**Who:** Users with the Contact Center Agent permission set can make and receive phone calls in Service Cloud Voice.

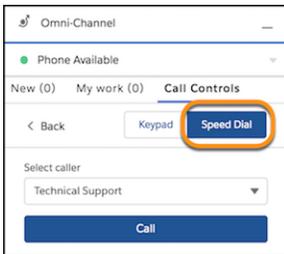
**How:** To add another person to a call or to transfer a call to another agent or queue, click **Add Caller** in the Omni-Channel Call Controls tab.



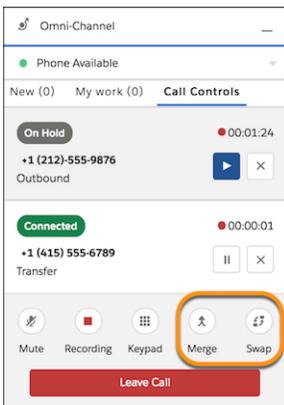
To use the keypad to dial an external caller, click **Keypad** and enter the number. Agents also can use the keypad to select from a phone tree or to dial an extension.



To use speed dial or to call Amazon Connect Quick Connect numbers, click **Speed Dial** and select the caller.



After the second caller is connected, the Swap and Merge buttons are displayed on the Omni-Channel Call Controls tab.



Previously, the buttons for Speed Dial, Transfer, Swap, and Merge calls all appeared on the main Omni-Channel Call Controls tab.

SEE ALSO:

[Salesforce Help: Help Customers on the Phone \(can be outdated or unavailable during release preview\)](#)

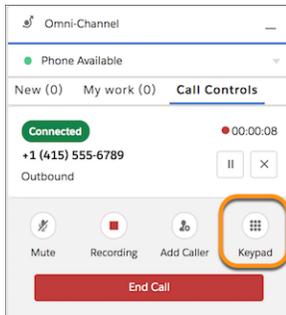
## Dial Phone Extensions with the Built-In Keypad

Agents can use the built-in keypad in the Omni-Channel utility to dial extensions and IVR phone trees so they can call customers with less context switching.

**Where:** This change applies to Lightning Experience in the Enterprise, Performance, and Unlimited editions. Service Cloud Voice is available for an extra cost as an add-on license in Sales Cloud and Service Cloud.

**Who:** Users with the Contact Center Agent permission set can make and receive phone calls in Service Cloud Voice.

**How:** When an agent is on a call, click **Keypad** in the Omni-Channel utility to dial phone numbers, extensions, and phone trees.



SEE ALSO:

[Salesforce Help: Help Customers on the Phone \(can be outdated or unavailable during release preview\)](#)

## Collaborate Better with Chatter on Voice Call Records

The Chatter component is now available by default on the Voice Call record, so it's easier for agents to collaborate with their coworkers on calls.

**Where:** This change applies to Lightning Experience in the Enterprise, Performance, and Unlimited editions. Service Cloud Voice is available for an extra cost as an add-on license in Sales Cloud and Service Cloud.

**How:** Open a Voice Call record to view the Chatter feed, post, @mention colleagues, create tasks from feed items, link to records, and more.

SEE ALSO:

[Salesforce Help: Help Customers on the Phone \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Work with Feeds \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Work with Posts \(can be outdated or unavailable during release preview\)](#)

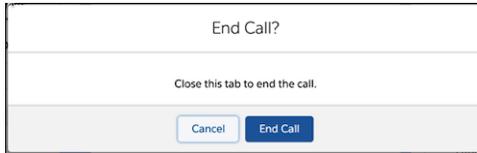
## Get Warnings to Avoid Ending Calls Accidentally

When an agent tries to close a Voice Call page while on a call, a popup window asks the agent to confirm whether to hang up to help prevent ending calls unintentionally.

**Where:** This change applies to Lightning Experience in the Enterprise, Performance, and Unlimited editions. Service Cloud Voice is available for an extra cost as an add-on license in Sales Cloud and Service Cloud.

**Who:** Users with the Contact Center Agent permission set can access the contact center and make and receive calls. Users with the View Call Recording permission can listen to recorded calls.

**Why:** The confirmation window is shown only for Voice Call records that have the Call Controls Component added to the page layout. Previously, agents could not close a Voice Call record during an active call.



SEE ALSO:

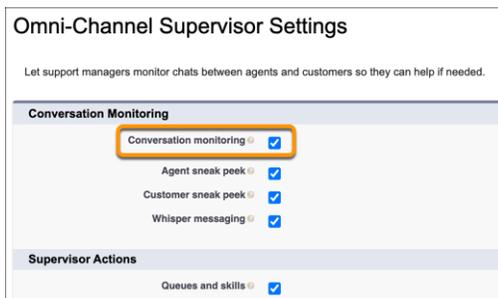
[Salesforce Help: Help Customers on the Phone \(can be outdated or unavailable during release preview\)](#)

## Facilitate Training with Service Cloud Voice Transcript Monitoring

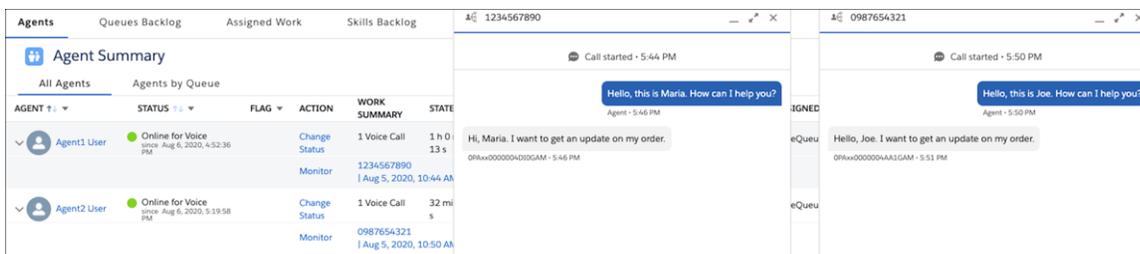
Now supervisors can view voice call transcripts as they happen to facilitate training and onboarding. Supervisors can monitor up to five Service Cloud Voice transcripts and chats in Omni-Channel Supervisor. Previously, they could monitor only chats.

**Where:** This change applies to Lightning Experience in the Enterprise, Performance, and Unlimited editions. Service Cloud Voice is available for an extra cost as an add-on license in Sales Cloud and Service Cloud.

**How:** Turn on **Conversation Monitoring** in Omni-Channel Supervisor Settings.



View transcripts in Omni-Channel Supervisor.



SEE ALSO:

[Salesforce Help: Monitor and Support Agents in Omni-Channel Supervisor \(can be outdated or unavailable during release preview\)](#)

## Track Amazon Connect Charges in Standard Reports

Monitor your org's Amazon Connect monthly billing charges in a standard Salesforce report. See an itemized list of charges for each AWS account and region associated with your Salesforce org. Filter the report using standard Salesforce reporting tools and export the report as a .csv file.

**Where:** This change applies to Lightning Experience in the Enterprise, Performance, and Unlimited editions. Service Cloud Voice is available for an extra cost as an add-on license in Sales Cloud and Service Cloud.

**Who:** Users with the Create and Customize Reports permission can create, edit, and delete reports in private folders. Users with the Report Builder permission can create, edit, and delete reports in both public and private folders.

**Why:** The Telephony Usage and Cost Report shows your org's usage for each AWS account, AWS region, month, year, number of minutes, number of utterances, and the associated charges. Aggregated billing data for the previous month is available on the fifth of the following month. For example, billing data for June is available on July 5.

| Report: Telephony Usage and Cost Report |                |                    |                          |         |          |        |           |             |            |
|---|----------------|--------------------|--------------------------|---------|----------|--------|-----------|-------------|------------|
| New Report                              |                |                    |                          |         |          |        |           |             |            |
| Total Records                           | Total Count    | Total Minute       | Total Charge             |         |          |        |           |             |            |
| 4                                       | 99.0000        | 143.3656           | 5.77                     |         |          |        |           |             |            |
|   | AWS Account Id | AWS Region         | Key                      | Count   | Minute   | Charge | Currency  | Usage Month | Usage Year |
| 1                                       | 123456789      | Europe (Frankfurt) | EUC1-FR-tollfree-numbers | 44.0000 | -        | 4.02   | US Dollar | 7           | 2020       |
| 2                                       | 123456789      | Europe (Frankfurt) | EUC1-US-outbound-mins    | -       | 65.9489  | 0.98   | US Dollar | 7           | 2020       |
| 3                                       | 123456789      | US West (Oregon)   | USW2-US-did-numbers      | 55.0000 | -        | 0.65   | US Dollar | 7           | 2020       |
| 4                                       | 123456789      | US West (Oregon)   | USW2-US-outbound-mins    | -       | 77.4167  | 0.12   | US Dollar | 7           | 2020       |
| 5                                       |                |                    |                          | 99.0000 | 143.3656 | 5.77   |           |             |            |

**How:** Create a custom report type where Voice Usage and Cost Metrics are the primary object, and deploy the report type. Then create a report, add the columns in the order that you prefer, and filter the report by month and year, and run your report.

SEE ALSO:

[Salesforce Help: Create a Report to Track Your Amazon Connect Usage \(can be outdated or unavailable during release preview\)](#)

## Add Voice Call Custom Fields to Packages

Partners and ISVs can build telephony solutions for their customers by adding custom fields on the Voice Call object to a package. Use custom fields to store data from an Amazon Connect contact flow or to pass data from a Voice Call record to another object. ISVs can create a package that their customers can easily install and can push updates to the package so customers have the latest and greatest.

**Where:** This change applies to Lightning Experience in the Enterprise, Performance, and Unlimited editions. Service Cloud Voice is available for an extra cost as an add-on license in Sales Cloud and Service Cloud.

**Who:** Users with the Create AppExchange Packages permission can create packages and add components to them.

**How:** Create custom fields on the Voice Call object. Then create a package and add the Voice Call custom fields as a component of the package.

SEE ALSO:

[Salesforce Help: Create Custom Fields \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Work with Packages \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Add Components to Your Package \(can be outdated or unavailable during release preview\)](#)

## Messaging: Enhancements to Templates and Object Permissions

We added more flexibility when building Messaging templates and give admins more control over Messaging object permissions. Also, you can now use Omni-Channel Skills-Based Routing Rules for Messaging.

### IN THIS SECTION:

#### [Create Messaging Templates Using Leads and Opportunities](#)

Build automated templates to keep customers and potential customers up to speed when specific conditions are met. Messaging templates now let you use fields from Lead and Opportunity records. Previously, this feature only supported the following Salesforce objects: Account, Asset, Case, Contact, Location, Organization, User.

#### [Define Smarter Permissions for Messaging Session Objects](#)

Bring more flexibility and control to your permission policy. Admins can now restrict actions that agents and other users can take on MessagingEndUser and MessagingSession. For example, an admin can allow agents to see, but not edit, a Messaging End User.

#### [Omni-Channel Routing Types Renamed](#)

We renamed the Omni-Channel Queue routing type Omni-Channel. And we renamed the Omni-Channel Skills routing type Channel Skills.

#### [Use Skills-Based Routing Rules to Direct Messages to the Right Agents](#)

Skills-based routing rules can help you route a Messaging session to the right agent with the right skills. Check out the new Skills-Based Routing Rules for Omni-Channel routable channels.

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**Where:** This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

### SEE ALSO:

[Salesforce Help: Create Messaging Templates for Automatic Message Notifications \(can be outdated or unavailable during release preview\)](#)

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### SEE ALSO:

[Salesforce Security Guide: Control Who Sees What \(can be outdated or unavailable during release preview\)](#)

[Salesforce Security Guide: Object Permissions \(can be outdated or unavailable during release preview\)](#)

## Omni-Channel Routing Types Renamed

We renamed the Omni-Channel Queue routing type Omni-Channel. And we renamed the Omni-Channel Skills routing type Channel Skills.



**Note:** Interested in a more powerful method of routing work to agents based on skills? Check out Skills-Based Routing Rules.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

[Routing Types for Chat and Messaging Were Renamed](#)

[Salesforce Help: Set Up Skills-Based Routing \(can be outdated or unavailable during release preview\)](#)

## Use Skills-Based Routing Rules to Direct Messages to the Right Agents

Skills-based routing rules can help you route a Messaging session to the right agent with the right skills. Check out the new Skills-Based Routing Rules for Omni-Channel routable channels.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

[Use Omni-Channel Skills-Based Routing Rules to Route Chats and Messages to Agents with the Right Skills](#)

[Salesforce Help: Set Up Skills-Based Routing \(can be outdated or unavailable during release preview\)](#)

## Chat: Routing Types Renamed, Skills-Based Routing Rules

Take note of some changes to the terminology in Chat Buttons & Invitations. Check out Skills-Based Routing Rules which now support chat.

IN THIS SECTION:

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SEE ALSO:

[Use Omni-Channel Skills-Based Routing Rules to Route Chats and Messages to Agents with the Right Skills](#)

[Salesforce Help: Set Up Skills-Based Routing \(can be outdated or unavailable during release preview\)](#)

## Embedded Service for Web: Channel Menu Code Settings, Community Chat Invitations, and New Message Icon for Chat

Deploy Channel Menu Code Settings with JavaScript static resources in Service Setup for more flexibility. Send customers invitations to chat in communities with code settings. Use a sleek new message icon in Chat for streamlined conversations.

IN THIS SECTION:

[Reimagine Customer Interactions with Channel Menu Code Settings](#)

Avoid tangling with HTML code on every web page, and create unique page-level settings with your static resources in Salesforce Setup. You're free to imagine and change how you connect with customers using the Channel Menu on your website or in a Salesforce community.

[Customize Communities with Code Settings for Embedded Chat and Channel Menu](#)

Invite customers to chat in your Salesforce community for a more personalized experience. A Code Setting Name property added in Experience Builder allows you to load custom JavaScript that appears as pop-up invitations for visitors as they browse.

[Track Chat Conversations with a New Message Icon](#)

Provide a modern experience for your Embedded Chat users with a sleek new message notification and arrow. The icon, showing the number of unread messages, appears in the chat window above those messages. The user can scroll down to read and know when an agent is typing.

[Streamline Bot Responses for Screen Readers](#)

Deliver a condensed summary of options in the chat window for screen reader users who interact with Einstein Bots. This update makes screen readers automatically responsive and provides a more accessible experience.

## Reimagine Customer Interactions with Channel Menu Code Settings

Avoid tangling with HTML code on every web page, and create unique page-level settings with your static resources in Salesforce Setup. You're free to imagine and change how you connect with customers using the Channel Menu on your website or in a Salesforce community.

**Where:** This change applies to Digital Engagement for Lightning Experience in Professional, Performance, Unlimited, and Essential editions.

**Why:** Adding JavaScript code as a static resource to your Salesforce org provides the flexibility of changing your customer touchpoints such as adding extra pre-chat or other settings. With a few clicks, this process avoids messy web page code customizations.

**How:** To add your JavaScript file, search Static Resources in the Quick-Find box in Setup. On the Channel Menu Settings page, edit your Code Settings to apply deployment-level modification. Create one or many setting files with your static resources to load with each page. This optional customization requires adding the code setting name to your Channel Menu Code Snippet. Admins must access and enable the Author Apex user permission to use Code Settings.

| Action     | Name                   | Namespace Prefix | Description                            | MINE Type       | Size   | Created By Alias | Created Date | Last Modified Date  | Cache Control |
|------------|------------------------|------------------|--|-----------------|--------|------------------|--------------|---------------------|---------------|
| Edit   Del | StaticResourceTestFile |                  |  | text/javascript | 154    | AllUser          | 1/15/2020    | 6/29/2020, 2:52 PM  | Public        |
| Edit   Del | StaticResourceSettings |                  |  | text/javascript | 600    | AllUser          | 8/4/2020     | 8/5/2020, 3:47 PM   | Public        |
| Edit   Del | StaticResourceTestFile |                  |  | text/javascript | 4,741  | AllUser          | 8/4/2020     | 8/4/2020, 1:40 PM   | Public        |
| Edit   Del | StaticResourceCode     |                  |  | text/javascript | 1,098  | AllUser          | 7/14/2020    | 8/6/2020, 11:21 AM  | Public        |
| Edit   Del | StaticResourceImage    |                  | Template detail image                  | image/png       | 2,400  | AllUser          | 8/21/2019    | 8/6/2020, 11:21 AM  | Public        |
| Edit   Del | StaticResourceImage    |                  | Static resource for sites sample pages | application/zip | 42,080 | AllUser          | 1/25/2019    | 1/25/2019, 10:48 AM | Public        |

123

Site Endpoint: BrandingTest

**IMPORTANT** If you make additional changes to your menu after setup, the results may take up to 10 minutes to appear for the first time on your website due to caching.

**Menu Setup**  
Select and edit your Channel Menu items.

**Branding**  
Customize the look and feel of the button and menu with color, backgrounds, and fonts.

**Labels**  
Create your own labels and manage translations.

**Code Settings**  
Add optional code modifications and link to static resource files.

**Channel Menu Code Snippet**  
Copy and paste the Channel Menu code snippet to get it up and running on your website.

SEE ALSO:

[Salesforce Help: Add Channel Menu Code Settings \(can be outdated or unavailable during release preview\)](#)

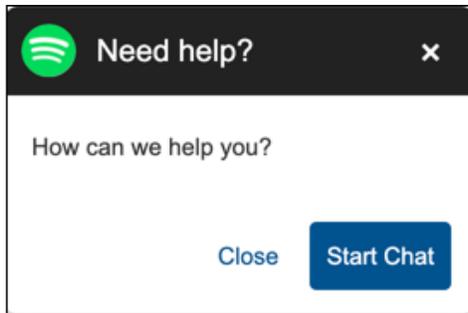
[Salesforce Help: Create Embedded Static Resources \(can be outdated or unavailable during release preview\)](#)

## Customize Communities with Code Settings for Embedded Chat and Channel Menu

Invite customers to chat in your Salesforce community for a more personalized experience. A Code Setting Name property added in Experience Builder allows you to load custom JavaScript that appears as pop-up invitations for visitors as they browse.

**Where:** This change applies to Digital Engagement for Lightning Experience in Professional, Performance, Unlimited, and Essential editions.

**How:** Admins upload static resource files to their Salesforce org and associate them with a custom object in Channel Menu Setup or Embedded Chat Setup under Code Settings. In the property builder, load the Code Setting Name for your community on a specific page. The file adds customizations, including chat invitations for visitors, and triggers when the page loads on their device.



### SEE ALSO:

[Salesforce Help: Adding Your Chat Window to a Community \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Add the Channel Menu to a Community \(can be outdated or unavailable during release preview\)](#)

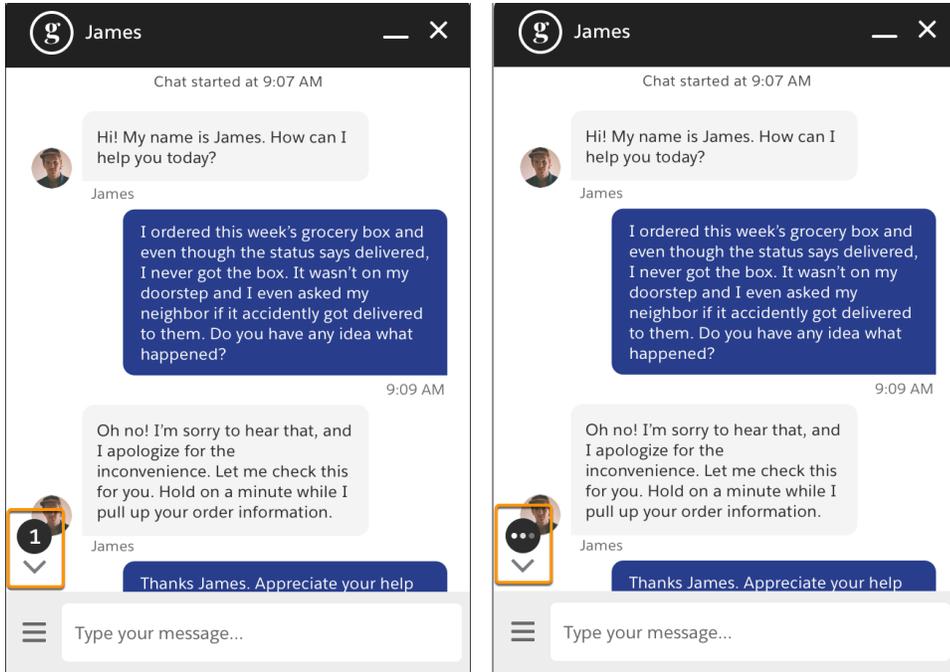
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## Track Chat Conversations with a New Message Icon

Provide a modern experience for your Embedded Chat users with a sleek new message notification and arrow. The icon, showing the number of unread messages, appears in the chat window above those messages. The user can scroll down to read and know when an agent is typing.

**Where:** This change applies to Digital Engagement for Lightning Experience in Professional, Performance, Unlimited, and Essential editions.

**How:** The icon replaces the new messages pill button in the chat window. The agent typing indicator was added to the icon and appears as an animation. The updates are automatic in Embedded Chat. No additional setup is required.

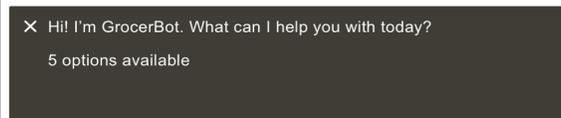
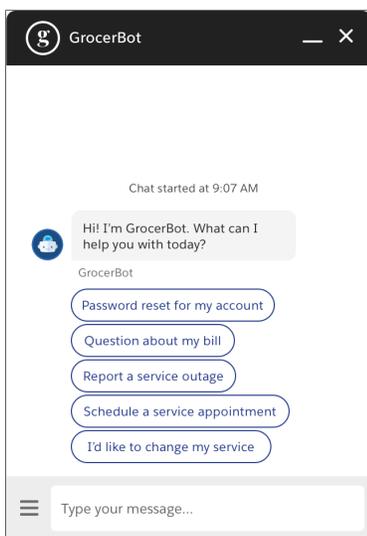


### Streamline Bot Responses for Screen Readers

Deliver a condensed summary of options in the chat window for screen reader users who interact with Einstein Bots. This update makes screen readers automatically responsive and provides a more accessible experience.

**Where:** This change applies to Digital Engagement for Lightning Experience in Professional, Performance, Unlimited, and Essential editions.

**How:** Instead of repeating every choice in the Embedded Chat window for screen readers, a Bot agent responds with a summary of options. The update summarizes the number of options available and prompts the user to decide if they want to hear them.



## SEE ALSO:

[Add More Accessibility for Chat](#)[Accessibility Standards](#)

## Knowledge: Enhancements to Sharing, Article Ownership, and Article Linking

Use standard sharing for Knowledge with Guest Users and High-Volume Community Users. Change ownership of multiple articles at once and track article ownership. Use Linked Articles with Voice and Related Lists with Voice, Chat, Messaging and Social Post.

## IN THIS SECTION:

[Use Knowledge Sharing with Guest Users and High-Volume Community Users](#)

We enhanced standard sharing for Knowledge to make sharing work the way it does for other Salesforce objects. Use criteria-based record-sharing rules to control which articles are exposed to your community's guest users. Use sharing groups and sharing sets to share articles owned by High-Volume Community Users and portal users. Lightning Knowledge only.

[Transfer Ownership of Published and Archived Articles](#)

The Spring '20 release introduced the ability to change a draft article's owner in Salesforce Lightning. You can change the ownership of published and archived versions at the same time you change a draft version's owner.

[Perform Mass Ownership Changes on Draft Articles](#)

Now you can change the ownership of multiple draft articles simultaneously, including translations.

[Track Article Ownership Changes](#)

Now that Knowledge for Lightning Experience includes the ability to change article ownership, you can track that ownership. We added an Owner field to the Knowledge Field History for all article versions.

[Knowledge Enhancements for Channels](#)

The Summer '20 release added Linked Articles to Chat, Messaging, and Social conversation. The Winter '21 release extends that functionality to Voice and adds the ability to use Related Lists for all four channels. Additionally, you can now manually attach and detach articles from channels.

[Changed Permissions for Linked Articles](#)

Access to linked articles in the API is limited to users with access to the Knowledge article.

## Use Knowledge Sharing with Guest Users and High-Volume Community Users

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**Where:** This change applies to Enterprise, Essentials, Performance, Developer, and Unlimited editions of Knowledge with Lightning Knowledge enabled. Not available in Salesforce Classic.

**Why:** Sharing for High-Volume Community Users is new for Knowledge for Summer '20.

Although Guest User sharing was available with Knowledge in the Summer '20 release, sharing in Knowledge followed external sharing rules. Now, normal Guest User security policies apply to Knowledge.

**How:** In Knowledge Settings, enable Lightning Knowledge and standard Salesforce sharing. For Guest User sharing, go to Setup->Sharing Settings, and set Secure guest user record access.

For sharing with High-Volume Community Users, use sharing groups and sharing sets.

#### SEE ALSO:

[Salesforce Help: Sharing for Lightning Knowledge \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Sharing Considerations for Lightning Knowledge \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Use Share Groups to Share Records Owned by High-Volume Community Users \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Set Up Sharing Sets \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Guest User Security Policies and Timelines \(can be outdated or unavailable during release preview\)](#)

## Transfer Ownership of Published and Archived Articles

The Spring '20 release introduced the ability to change a draft article's owner in Salesforce Lightning. You can change the ownership of published and archived versions at the same time you change a draft version's owner.

**Where:** This change applies to Enterprise, Essentials, Performance, Developer, and Unlimited editions of Knowledge with Lightning Knowledge enabled. Not available in Salesforce Classic.

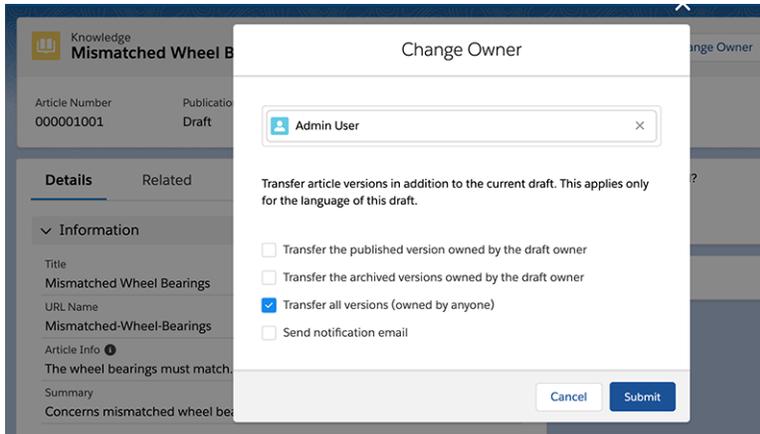
**Who:** To change the ownership of an article, you must:

- Be a Knowledge user.
- Have the Manage Article user permission.
- Have Read and Edit permissions for the article.

**Why:** With this enhancement, you can change the ownership of any version of any article. For example, this is useful if the owner of a published article no longer works at your company.

**How:** With a draft article that also has archived or published versions, the Change Owner button on the record's home enables you to change the other versions.

- To transfer the article owner's published version for the language of the current draft, select **Transfer the published version owned by the draft owner**.
- To transfer the article owner's archived versions for the language of the current draft, select **Transfer the archived versions owned by the draft owner**.
- To transfer all published and archived versions owned by anyone for the language of the current draft, select **Transfer all versions (owned by anyone)**.



## SEE ALSO:

[Salesforce Help: Considerations for Changing a Record's Owner \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Lightning Knowledge User Access \(can be outdated or unavailable during release preview\)](#)

## Perform Mass Ownership Changes on Draft Articles

Now you can change the ownership of multiple draft articles simultaneously, including translations.

**Where:** This change applies to Enterprise, Essentials, Performance, Developer, and Unlimited editions of Knowledge with Lightning Knowledge enabled. Not available in Salesforce Classic.

**Who:** To use the Mass Change Owner action, users must have permission to transfer records, manage articles, and have Knowledge object permission to create, read, and edit articles. To be an article owner, the user or queue must have permission to view draft articles. When you use data categories to control record access, the owner needs category-based access.

**Why:** The Summer '20 release introduced the ability to change the owner of a draft article in Lightning Knowledge. However, it allowed you to work on only one article at a time.

**How:** In a list view of Knowledge articles, select the articles you want to change, and select Change Owner.

Note that:

- You must have Change Owner on the Knowledge page layout.
- If you select published and archived articles along with draft articles, the draft articles are changed. The published and archived articles are not. But they can still be changed individually.

## SEE ALSO:

[Salesforce Help: When Are Lightning Authoring Actions Available? \(can be outdated or unavailable during release preview\)](#)

## Track Article Ownership Changes

Now that Knowledge for Lightning Experience includes the ability to change article ownership, you can track that ownership. We added an Owner field to the Knowledge Field History for all article versions.

**Where:** This change applies to Enterprise, Essentials, Performance, Developer, and Unlimited editions of Knowledge with Lightning Knowledge enabled. Not available in Salesforce Classic.

**Who:** Article history respects field, entity, and record-level security. You must have at least Read permission on the article type or the field to access its history.

**How:** To track ownership changes of Knowledge articles, make sure that:

- Lightning Knowledge is enabled.
- Field Tracking is enabled for the Knowledge Base.
- The Owner field is turned on for the field tracking.

Changes of ownership are displayed for all article versions that are updated, including online and archived articles and draft articles. A SOQL query on **KnowledgeArticleVersionHistory** returns two rows for each owner change update:

- User label (old and new) stored in the `oldval_first_name` and `oldval_last_name` fields
- User Id (old and new) stored in the `oldval_string` and `newval_string` fields.

SEE ALSO:

[Salesforce Help: Field History Tracking \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Article History Tracking \(Lightning Experience\) \(can be outdated or unavailable during release preview\)](#)

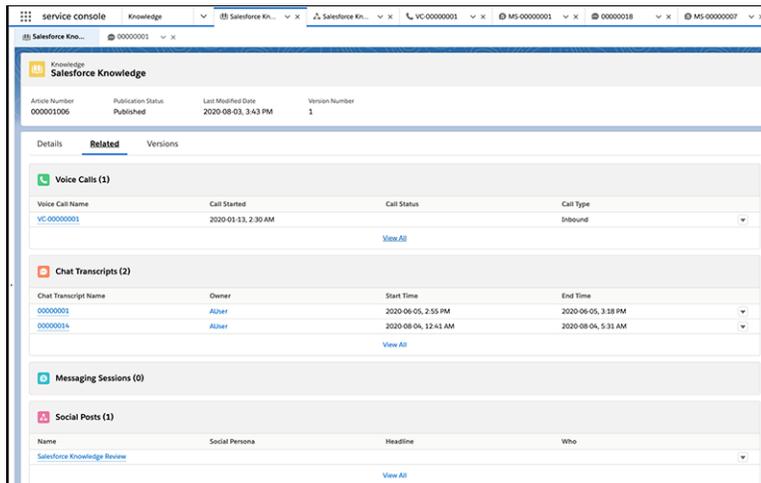
## Knowledge Enhancements for Channels

The Summer '20 release added Linked Articles to Chat, Messaging, and Social conversation. The Winter '21 release extends that functionality to Voice and adds the ability to use Related Lists for all four channels. Additionally, you can now manually attach and detach articles from channels.

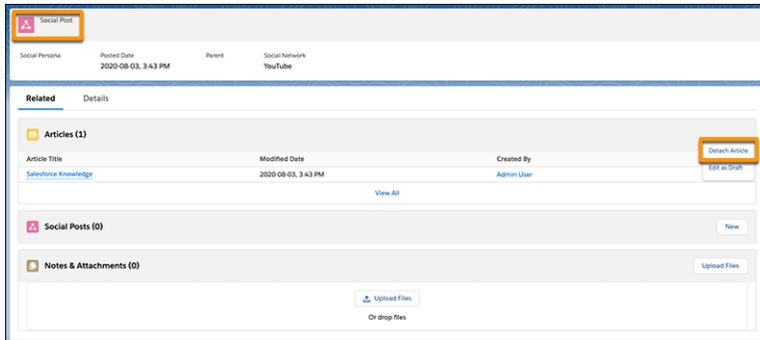
**Where:** This change applies to Enterprise, Essentials, Performance, Developer, and Unlimited editions of Knowledge with Lightning Knowledge enabled. Not available in Salesforce Classic.

**Who:** In addition to having Lightning Knowledge enabled, you must have Service Cloud and the channels you want to use set up. Also, you must also set up page layouts that show articles and related lists in your channels.

**Why:** In a channel, you can see articles in the channel's Related lists. Conversely, from Knowledge, you can see channels that link to articles. Here is an example of a Related List showing channels linked to articles.



You can now manually attach and detach articles:

**SEE ALSO:**

[Salesforce Help: Share Articles in Channels in Lightning Knowledge \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Service Cloud Channels \(can be outdated or unavailable during release preview\)](#)

## Changed Permissions for Linked Articles

Access to linked articles in the API is limited to users with access to the Knowledge article.

**Where:** This change applies to Essentials, Enterprise, Performance, Unlimited, and Developer editions in Lightning Experience with Lightning Knowledge enabled.

## Routing: Supervisor Monitoring for Voice, Supervisor Configuration (Generally Available), Name Changes, Skills-Based Routing for Chat and Messaging

Enable service supervisors to assist agents in real time with the latest Omni-Channel Supervisor enhancements. Supervisors can view voice transcripts as the phone call is in progress so they can jump in and help agents when needed. Control which agents supervisors see with Supervisor Configurations. Attribute Setup for Skills-Based Routing is renamed and is now available for Chat and Messaging.

**IN THIS SECTION:**

### [Attribute Setup for Skills-Based Routing Was Renamed](#)

We renamed Attribute Setup for Skills-Based Routing to Skills-Based Routing Rules. It's the same great feature with a more intuitive name. Skills-Based Routing Rules let you set up skills-based routing with clicks, not code.

### [Use Omni-Channel Skills-Based Routing Rules to Route Chats and Messages to Agents with the Right Skills](#)

Now you can use information from a chat or message to determine what skills are required to route the conversation to the best agent.

### [Routing Types for Chat and Messaging Were Renamed](#)

The Omni-Channel Queue routing type was renamed Omni-Channel. The Omni-Channel Skills routing type was renamed Channel Skills for Messaging Channels and Button Skills for Chat buttons.

### [Show Supervisors Only the Agents on Their Teams \(Generally Available\)](#)

Create supervisor configurations to determine which agents a supervisor or group of supervisors can see when they're using Omni-Channel Supervisor.

### [Monitor Service Cloud Voice Transcripts in Omni-Channel Supervisor](#)

Now supervisors can view voice call transcripts as they happen to facilitate training and onboarding. Supervisors can monitor up to five Service Cloud Voice transcripts and chats in Omni-Channel Supervisor. Previously, they could monitor only chats.

## Attribute Setup for Skills-Based Routing Was Renamed

We renamed Attribute Setup for Skills-Based Routing to Skills-Based Routing Rules. It's the same great feature with a more intuitive name. Skills-Based Routing Rules let you set up skills-based routing with clicks, not code.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

[Salesforce Help: Set Up Skills-Based Routing \(can be outdated or unavailable during release preview\)](#)

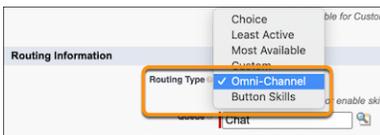
## Use Omni-Channel Skills-Based Routing Rules to Route Chats and Messages to Agents with the Right Skills

Now you can use information from a chat or message to determine what skills are required to route the conversation to the best agent.

 **Note:** Previously, this feature was called attribute setup for skills-based routing.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** In the Routing section of the Chat button or Messaging channel, set **Routing Type** to **Omni-Channel**.



On the routing configuration that's associated with the queue, select **Use with Skills-Based Routing Rules**. Optionally, add skills to the routing configuration.

When a customer starts a chat or messaging session, the session is associated with a combination of skills from skills-based routing rules and the routing configuration. These skills route chats and messaging sessions to the right agent.

At least one agent with the combination of skills from the routing configuration and skills from skills-based routing rules must be online for a chat to be queued. Otherwise, the chat session is canceled even if the button is configured with Enable Queue.

 **Note:** The Omni-Channel Skills routing type option was renamed Button Skills for Chat buttons and Channel Skills for Messaging Channels.

SEE ALSO:

[Salesforce Help: Set Up Skills-Based Routing \(can be outdated or unavailable during release preview\)](#)

## Routing Types for Chat and Messaging Were Renamed

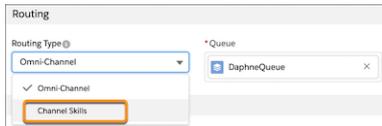
The Omni-Channel Queue routing type was renamed Omni-Channel. The Omni-Channel Skills routing type was renamed Channel Skills for Messaging Channels and Button Skills for Chat buttons.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

The Omni-Channel Skills routing type in Chat Buttons & Invitations was renamed Button Skills.



The Omni-Channel Skills routing type in Messaging Settings was renamed Channel Skills.



 **Note:** To configure dynamic skill requirements, select the Omni-Channel routing type and configure skills-based routing rules.

SEE ALSO:

[Salesforce Help: Set Up Skills-Based Routing \(can be outdated or unavailable during release preview\)](#)

## Show Supervisors Only the Agents on Their Teams (Generally Available)

Create supervisor configurations to determine which agents a supervisor or group of supervisors can see when they're using Omni-Channel Supervisor.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Why:** Previously, supervisors filtered agents manually, which was time consuming. And admins were unable to limit supervisors from seeing agents outside of their team.

**How:** Use **Supervisor Configurations** in Setup.

SEE ALSO:

[Salesforce Help: Limit the Agents a Supervisor or Group of Supervisors Can See \(can be outdated or unavailable during release preview\)](#)

## Monitor Service Cloud Voice Transcripts in Omni-Channel Supervisor

Now supervisors can view voice call transcripts as they happen to facilitate training and onboarding. Supervisors can monitor up to five Service Cloud Voice transcripts and chats in Omni-Channel Supervisor. Previously, they could monitor only chats.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

[Facilitate Training with Service Cloud Voice Transcript Monitoring](#)

## Case Management: Productivity Tools and Email-to-Case Threading

New prebuilt macros, quick text, and flows help enhance agent productivity and get them doing better work, faster than ever before. Email-to-Case threading behavior update boosts security by matching incoming emails with their header information instead of through a Ref ID.

### IN THIS SECTION:

#### [Enhance Security with a New Threading Behavior for Email-To-Case](#)

A new Email-to-Case threading behavior matches incoming emails with their header information instead of through a Ref ID from the subject or body. New outbound emails don't contain a Ref ID, and existing orgs get an upgrade path with an end-of-life notification for Ref ID.

#### [Improve Agent Interactions with Prebuilt Flows](#)

Three flows now come out-of-the-box with your Salesforce subscription to help expedite repetitive processes in your agents' daily efforts.

#### [Boost Agent Productivity with Prebuilt Macros](#)

New prebuilt Macros let agents control cases and send mass emails to customers with a streamlined interaction that's included with your Salesforce subscription.

#### [Streamline Customer Interactions with Prebuilt QuickTexts](#)

New prebuilt Quick Texts enhance agents' workflow with instant productivity. Agents can resolve cases, request more information from customers, and follow up via email after closed cases or to troubleshoot with only a few clicks.

#### [Service Setup Assistant: Go from Zero to Console in Minutes](#)

Get started with Service Cloud faster than ever. The out-of-the-box setup assistant does the heavy lifting—link your support email and add your team members. This process sets up everything you need to start resolving cases the same day: the Lightning Service Console App, custom profiles, Email to Case, queues, and the case Lightning record page. We also add prebuilt Quick Text, macros, and Lightning Flows to streamline your workflow.

## Enhance Security with a New Threading Behavior for Email-To-Case

A new Email-to-Case threading behavior matches incoming emails with their header information instead of through a Ref ID from the subject or body. New outbound emails don't contain a Ref ID, and existing orgs get an upgrade path with an end-of-life notification for Ref ID.

**Where:** This change applies to Lightning Experience in Professional, Enterprise, Essentials, Unlimited, Performance, and Developer Editions.

**How:** Existing orgs get an upgrade path with an end-of-life notification for Ref ID. Until then, existing orgs are backward compatible with Ref ID. To avoid issues after the update, ensure that user headers are set correctly on Emails.

### SEE ALSO:

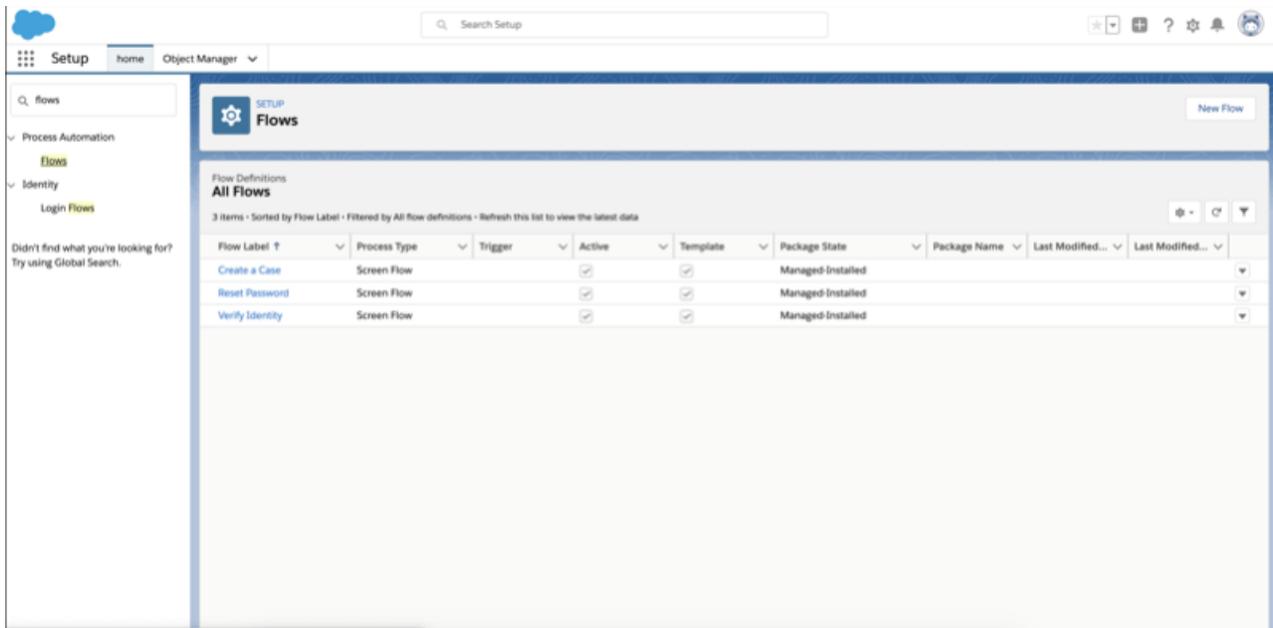
[Salesforce Help: Case Management \(can be outdated or unavailable during release preview\)](#)

## Improve Agent Interactions with Prebuilt Flows

Three flows now come out-of-the-box with your Salesforce subscription to help expedite repetitive processes in your agents' daily efforts.

**Where:** This change applies to Lightning Experience in Professional, Enterprise, Unlimited, Performance, and Developer Editions.

**How:** Create a Case walks agents through the typical case creation process to eliminate user errors and streamline agent workflows. Reset Password guides agents through the customer password reset experience in a series of clicks, letting agents prioritize other important tasks. And the Verify Identity flow empowers agents to resolve cases of missing credentials in a matter of seconds.

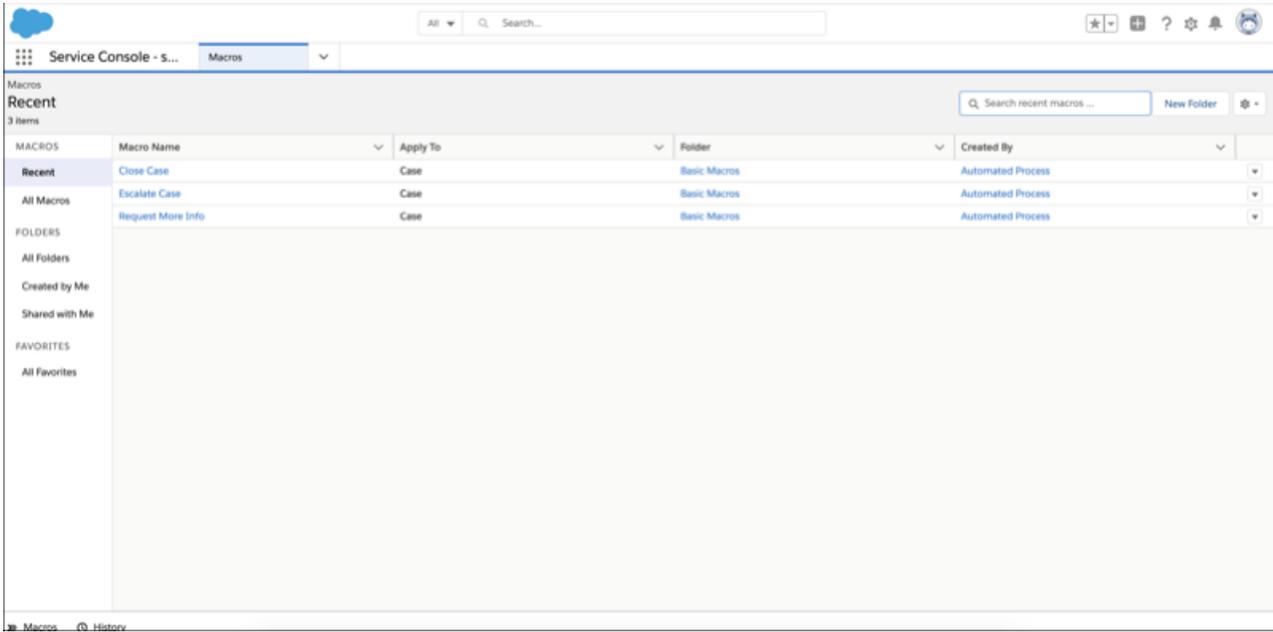


## Boost Agent Productivity with Prebuilt Macros

New prebuilt Macros let agents control cases and send mass emails to customers with a streamlined interaction that's included with your Salesforce subscription.

**Where:** This change applies to Lightning Experience in Professional, Enterprise, Unlimited, Performance, and Developer Editions.

**How:** Go to **Support Settings** in Setup, and turn on **Show Closed Statuses in Case Status Field**.



SEE ALSO:

[Salesforce Help: Case Management \(can be outdated or unavailable during release preview\)](#)

## Streamline Customer Interactions with Prebuilt QuickTexts

New prebuilt Quick Texts enhance agents' workflow with instant productivity. Agents can resolve cases, request more information from customers, and follow up via email after closed cases or to troubleshoot with only a few clicks.

**Where:** This change applies to Lightning Experience in Professional, Enterprise, Unlimited, Performance, and Developer Editions.

**How:** Share the folder **Sample Quick Texts 1**, and give read access to the service agents you want to access QuickTexts.

| QUICK TEXT     | Quick Text Name               | Message   | Folder               | Channel | Category  |
|----------------|-------------------------------|---|----------------------|---------|-----------|
| Recent         | Closed Case Email             | Hi (! BLANKVALUE (Case.SuppName, Contact.Name)), Your case (! Case.Casenum) is closed. Thanks, (! Organization.name) Support  | Sample Quick Texts 2 | E-mail  | Greetings |
| All Quick Text | Closed Case Email Subject     | Case (! Case.Casenum) Closed  | Sample Quick Texts 2 | E-mail  | Greetings |
| FOLDERS        | Request for More Info         | Hi (! Contact.name), My name is (! User.name), and I'm here to help. After reviewing your case, I'll need to gather a bit more information from you.  | Sample Quick Texts 1 | E-mail  | Greetings |
| All Folders    | Resolution                    | If there is anything else we can help you with, simply respond to this email. Otherwise, thanks for being a (! Organization.name) customer, and have a great day!   | Sample Quick Texts 1 | E-mail  | Greetings |
| Created by Me  | Resolution [Article]          | Hi (! Contact.name), I found an article with an answer to your question. You can view it here: <a href="#">insert article</a> If there is anything else we can help you with, reply to this email.  | Sample Quick Texts 1 | E-mail  | Greetings |
| Shared with Me | Troubleshooting Email         | Hi (! BLANKVALUE (Case.SuppName, Contact.Name)), Thanks for reaching out. Looks like we need a bit more information to troubleshoot. Respond at your convenience and we can move forward. Thanks for your continued business, (! Organization.name) Support | Sample Quick Texts 2 | E-mail  | Greetings |
| FAVORITES      | Troubleshooting Email Subject | Troubleshoot your Case (! Case.Casenum)   | Sample Quick Texts 2 | E-mail  | Greetings |
| All Favorites  |                               |   |                      |         |           |

SEE ALSO:

[Salesforce Help: Case Management \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Case Management \(can be outdated or unavailable during release preview\)](#)

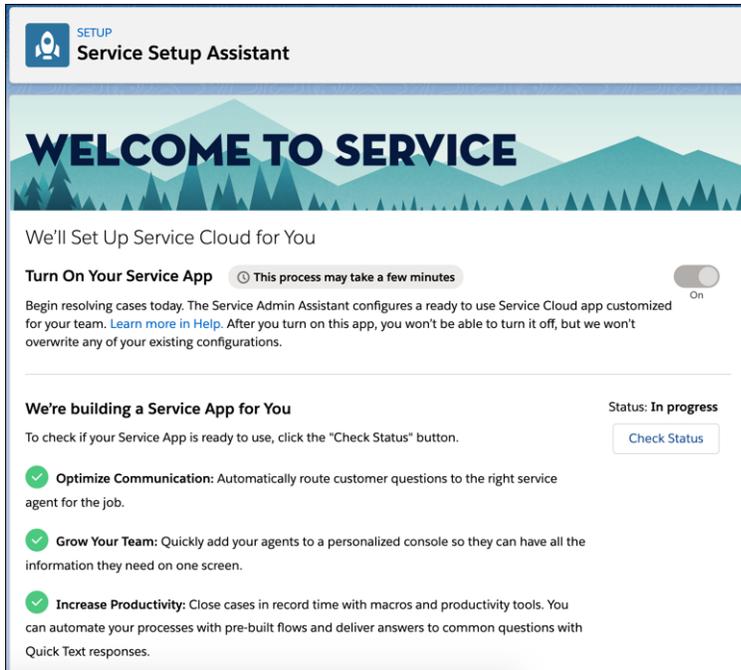
## Service Setup Assistant: Go from Zero to Console in Minutes

Get started with Service Cloud faster than ever. The out-of-the-box setup assistant does the heavy lifting—link your support email and add your team members. This process sets up everything you need to start resolving cases the same day: the Lightning Service Console App, custom profiles, Email to Case, queues, and the case Lightning record page. We also add prebuilt Quick Text, macros, and Lightning Flows to streamline your workflow.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, Unlimited, Professional, and Developer editions.

**Who:** Service Setup Assistant is available to Salesforce orgs with Service Cloud licenses.

**How:** To get started with Service, click **Service Setup Assistant** from the Setup menu.



## Other Changes in Service Cloud

Learn about other changes we've made in the Service Cloud.

### IN THIS SECTION:

#### [Microsoft Teams Integration: Bring Salesforce and Microsoft Teams Together for Service Reps \(Pilot\)](#)

Your service teams use Salesforce to management customer relationships. They also chat in Microsoft® Teams and discuss topics relevant to their service cases. The Teams Integration provides context about Salesforce records from Teams channels and one-on-one chat conversations, eliminating switching between applications.

#### [Service Console: Avoid Duplicating Existing Records](#)

Help service agents using the C360 Global Profile component avoid creating duplicate contact, account, or lead records from Service Console. A green dot next to a search result alerts an agent that the result might be part of an existing Customer 360 Data Manager global profile. Agents can then search on different parts of the search result, like email address or phone number, to try to find the existing record.

## Microsoft Teams Integration: Bring Salesforce and Microsoft Teams Together for Service Reps (Pilot)

Your service teams use Salesforce to management customer relationships. They also chat in Microsoft® Teams and discuss topics relevant to their service cases. The Teams Integration provides context about Salesforce records from Teams channels and one-on-one chat conversations, eliminating switching between applications.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions.

 **Note:** We provide the Teams Integration to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. Feature isn't generally available unless or until Salesforce announces its general availability in

documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features. You can provide feedback and suggestions for the Teams Integration in the [Lightning Now](#) group in the Trailblazer Community.

**SEE ALSO:**

[Microsoft Teams Integration: Bring Salesforce and Microsoft Teams Together \(Pilot\)](#)

## Service Console: Avoid Duplicating Existing Records

Help service agents using the C360 Global Profile component avoid creating duplicate contact, account, or lead records from Service Console. A green dot next to a search result alerts an agent that the result might be part of an existing Customer 360 Data Manager global profile. Agents can then search on different parts of the search result, like email address or phone number, to try to find the existing record.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, and Unlimited editions.

**Who:** Users with a Customer 360 Data Manager add-on subscription.

## Sales: Sales Cadence Improvements for High Velocity Sales, Global Models for Einstein Lead Scoring, Opportunity Deal Change Highlights, and Multi-Cloud Support for Billing

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Organize and share sales cadences in folders, pause sales cadences, and change step ownership. Use Einstein Lead Scoring even when you don't have enough data of your own. Use opportunity deal change highlights to see what's changed in the pipeline. Create invoices and bills for orders that originate from B2B Commerce, Service Cloud, and other systems. Plus, Call Coaching users can share voice calls. Get more out of Einstein Activity Capture with new connection and configuration options. And sales reps get even more productive with emails and templates.

**IN THIS SECTION:**

[High Velocity Sales: Einstein Call Coaching Enhancements, Sales Cadence Folders and Sharing, and Improved Sales Cadence Target Management](#)

Call Coaching users can now see new insights and share voice calls. Organize and share sales cadences with folders, reassign targets to a different rep, pause targets in sales cadences, and use improved filters in the Work Queue.

[Sales Cloud Einstein: More Control of the Opportunity Scoring Model, Global Models for Lead Scoring, and Big Improvements to Einstein Activity Capture](#)

When setting up Einstein Opportunity Scoring, choose to have Einstein look only at certain opportunity records and custom fields. Use Einstein Lead Scoring even when you don't have enough data of your own. And get more out of Einstein Activity Capture with new connection and configuration options.

[Core Sales Features: Opportunity Deal Change Highlights, Product Lookup Relationships, and Mobile Forecasting](#)

Quickly find the opportunities that changed in the last week. Get more flexibility for tracking information on opportunity product records. More mobile users get Collaborative Forecasts, now available for Android and iOS. Manually assign a territory to a new opportunity in fewer steps. And running custom application logic on orders is easier.

[Productivity Features: Einstein Activity Capture Enhancements, Schedule Meetings More Easily, and New Email Template Builder](#)

Einstein Activity Capture has several enhancements, such as new sync options and the new Request email insight. Sales reps can include suggested meeting times in their emails by choosing available times from their calendar. Recipients choose from among the suggested times, making it easier to set up meetings. And reps have a new option for easily and quickly creating engaging email templates with Email Template Builder. Visual tools make it efficient to add components like HTML and images.

[Integration with Google: Manual Email Logging with Einstein Activity Capture Enabled, Insert Availability Improvements, Changes to Lightning Sync Availability](#)

Reps can manually log emails in the Outlook integration when Einstein Activity Capture has emails disabled. We made improvements to the Insert Availability window in the Gmail integration with Inbox, including accessibility and localization. Lightning Sync isn't available for new Salesforce customers.

[Integration with Microsoft®: Manual Email Logging with Einstein Activity Capture Enabled, Support for Shared Mailboxes, Changes to Lightning Sync and Salesforce for Outlook Availability](#)

Sales reps can manually log emails in the Outlook integration when Einstein Activity Capture has emails disabled. Sales reps can now log emails and events to Salesforce from Outlook Shared Folders and from Delegate Access Mailboxes. Lightning Sync isn't available for new Salesforce customers. Salesforce for Outlook will no longer function when extended support for Microsoft® Internet Explorer 11 ends in December 2020.

[Salesforce CPQ and Billing: Product Recommendations, Quote Fields, Asset Lifecycle Management, Standalone Orders](#)

Salesforce CPQ can now display complementary products when reps are creating a quote, and you can control quote fields dynamically. Salesforce Billing customers can now get insight into what customers have bought, and create standalone orders.

[Other Changes in the Sales Cloud](#)

Learn about other changes we've made to improve usability.

## High Velocity Sales: Einstein Call Coaching Enhancements, Sales Cadence Folders and Sharing, and Improved Sales Cadence Target Management

Call Coaching users can now see new insights and share voice calls. Organize and share sales cadences with folders, reassign targets to a different rep, pause targets in sales cadences, and use improved filters in the Work Queue.

High Velocity Sales and its features are available for an extra cost. For pricing details, contact your Salesforce account executive. Lightning Dialer is also available for an extra cost as an add-on license.

### IN THIS SECTION:

[Einstein Call Coaching: New Automatic Insights, Call Sharing, and More Reporting Features](#)

We're debuting two new automatic insight types: challenges and trending terms. Call Coaching users can now share voice calls. There's also a barrelful of new features for Call Coaching Reporting and the voice call player, such as filtering dashboards by record and adjusting the playback rate for voice recordings.

[Control Who Can Access Sales Cadences](#)

Your sales managers and reps can now decide who can access which sales cadences and set the appropriate levels of access. Sales managers can organize sales cadences into folders for specific sales teams, products, or business units, and share these folders with sales reps or teams.

[Hand Off Sales Cadence Targets to Another Rep](#)

If a sales manager or rep wants to give in-progress targets to a different rep, they can update the target assignee without removing the target from the sales cadence.

[Pause Sales Cadence Targets](#)

When a target is out of the office, sales reps can pause the target's progress through the sales cadence so no outreach is wasted.

#### [Filter Your Work Queue by Target Status](#)

Sales reps can filter their work queue by the status of targets so that reps can prioritize their work more efficiently. With folders for organization and access control, and the ability to pause targets, reps see more target statuses in their work queues. Targets can have a status of Active, Paused, or Sales cadence access lost.

#### [Stay Organized with a More Structured Work Queue](#)

Sales reps can see sublists that group work queue items based on target status. The new sublists are paused targets and sales cadences that reps can no longer access.

#### [Stay Focused with Session-Long Work Queue Filters](#)

Help your reps manage their time more efficiently. After a rep filters their work queue, they can leave the tab and return to find their most recent curated list of sales cadences. Previously, reps selected their work queue filters every time they returned to the work queue tab.

#### [Choose Which Number to Dial for Click-to-Call](#)

Sales reps can improve interactions with customers by reaching them at the best number. When a record has multiple phone numbers listed, sales reps can choose which phone number to call. Previously, a phone number was automatically selected for reps.

#### [Other Changes to High Velocity Sales](#)

Learn about limits on automated emails and sales cadence targets, and a new field in the Sales Cadence Engagement dashboard.

## Einstein Call Coaching: New Automatic Insights, Call Sharing, and More Reporting Features

We're debuting two new automatic insight types: challenges and trending terms. Call Coaching users can now share voice calls. There's also a barrelful of new features for Call Coaching Reporting and the voice call player, such as filtering dashboards by record and adjusting the playback rate for voice recordings.

This feature is available with High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

Call Coaching does not record your calls. Rather, you connect it with your recording system such as Lightning Dialer or other supported partners. It is a customer's responsibility to manage consent and comply with local privacy requirements in the way calls are recorded.

### IN THIS SECTION:

#### [See Insights Related to Challenges and Trending Terms](#)

Call Coaching users can now access two new types of automatic insights: Challenges and Trending. Challenges highlight sales challenges with customers, and Trending indicates trending words and phrases.

#### [Share Voice Calls](#)

Managers and reps now can share voice calls with other users.

#### [Do More with Call Coaching Dashboards](#)

Sales managers can now filter Call Coaching dashboards by the related record. They can also see when the dashboard was last refreshed, reset filters with ease, and access voice calls with a single click.

#### [Use More Call Player Features](#)

Call Coaching users can speed up the playback of calls to listen to recordings faster. The call player displays the time of the call. Other contextual details including related record links and custom keyword text are also available.

#### [Access Chatter from Voice Call Records](#)

The Chatter component is now available by default on voice call records, so it's easier for sales reps to collaborate with their coworkers on calls.

[Receive More Info in the Call Highlights Email](#)

The updated Call Highlights email now includes record types and more contextual information. Also, clicking on a call in the email automatically jumps to the first mention in the player.

[See More Setup Information](#)

Salesforce admins now have more information and links available to them when setting up Call Coaching. They can see the setup status of the dashboards and assign permission sets with ease.

## See Insights Related to Challenges and Trending Terms

Call Coaching users can now access two new types of automatic insights: Challenges and Trending. Challenges highlight sales challenges with customers, and Trending indicates trending words and phrases.

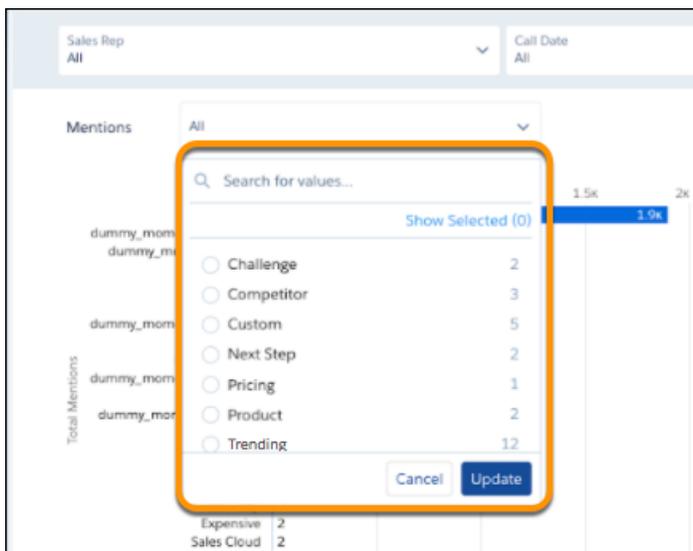
**Where:** This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

**Who:** This feature is available to sales managers with the Call Coaching User permission set, and is available only in English.

**Why:** Challenge insights detect common obstacles that sales reps face during sales calls such as price, time-related challenges, customer need, additional approval, and other challenge-related phrases.

Trending insights are recent words or phrases that appear in a significant pattern across calls and aren't covered by any existing custom or automatic insights. Emerging topics that were brought up frequently over the past week appear.

These insights are highlighted on voice records and with the Call Coaching dashboards. Managers can also filter by these insights to display relevant reports.



**How:** These insights are automatic and don't require any setup. Automatic and admin-configured insights can be accessed from the Call Insights page in Setup.

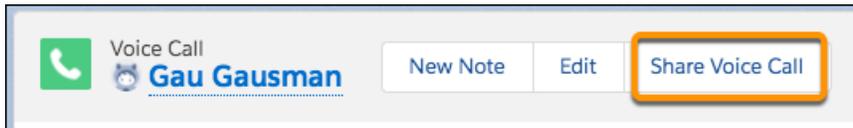
## Share Voice Calls

Managers and reps now can share voice calls with other users.

**Where:** This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

**Who:** This feature is available to sales managers with the Call Coaching User permission set, and is available only in English.

**Why:** To share a call, select **Share Voice Call** from the voice call record.



Users receive a notification when calls are shared with them.

Access to the call recording player is limited to High Velocity Sales users. Other users can access record details but won't have access to the recording or related mentions.

## Do More with Call Coaching Dashboards

Sales managers can now filter Call Coaching dashboards by the related record. They can also see when the dashboard was last refreshed, reset filters with ease, and access voice calls with a single click.

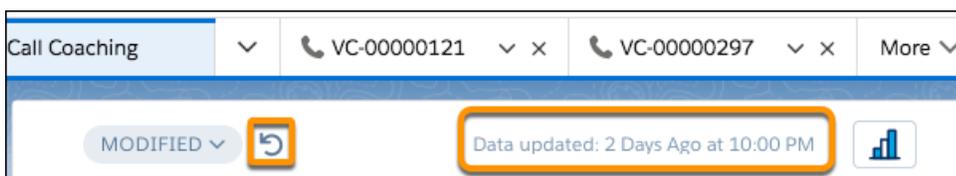
**Where:** This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

**Who:** This feature is available to sales managers with the Call Coaching User permission set, and is available only in English.

**Why:** Sales managers have more control over the type of data they can filter for. From the Overview and Mentions pages, they can filter dashboards by selecting either lead, contact, or account.

| Sales Rep            | Call Date                               | Related Record                       |                                     |
|----------------------|---|--------------------------------------|-------------------------------------|
| All                  | All                                     | All                                  |                                     |
| TOTAL CALLS ANALYZED | TOTAL CALLS with<br>COMPETITOR MENTIONS | TOTAL CALLS with<br>PRODUCT MENTIONS | TOTAL CALLS with<br>CUSTOM MENTIONS |
| 144                  | 37                                      | 22                                   | 66                                  |

They can also click  to reset filters with ease and see the last time the dashboard was refreshed.



Voice calls and related records are accessible with a single click rather than clicking an extra dropdown to access records from dashboards.

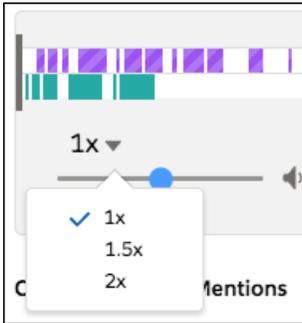
## Use More Call Player Features

Call Coaching users can speed up the playback of calls to listen to recordings faster. The call player displays the time of the call. Other contextual details including related record links and custom keyword text are also available.

**Where:** This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

**Who:** This feature is available to sales managers with the Call Coaching User permission set, and is available only in English.

**Why:** Users can adjust the playback speed to 1.5 or 2 times the regular speed.



The time when calls were made is also displayed. And if call participants are related to an existing record, it's automatically linked from the player.



And custom keywords in the Mentioned section show the specific keyword text instead of just the group name.



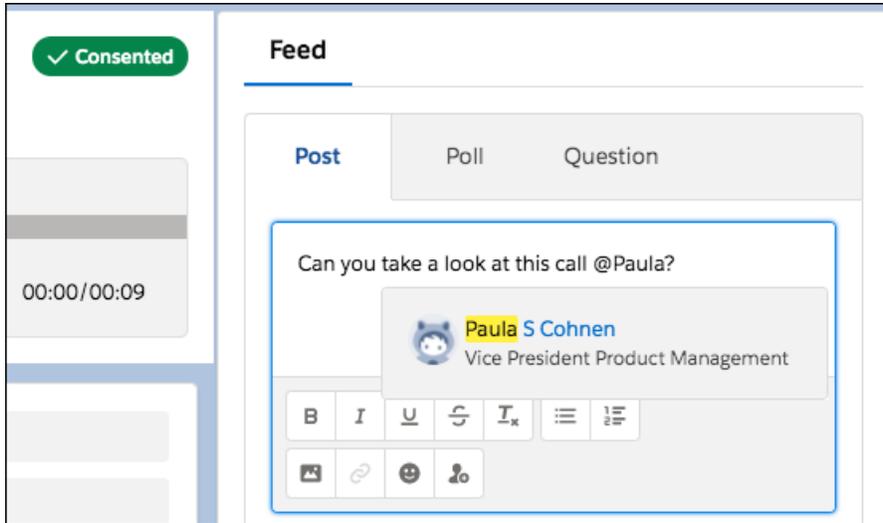
## Access Chatter from Voice Call Records

The Chatter component is now available by default on voice call records, so it's easier for sales reps to collaborate with their coworkers on calls.

**Where:** This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

**Who:** This feature is available to sales managers with the Call Coaching User permission set, and is available only in English.

**How:** Open a voice call record to view the Chatter feed, post, @mention colleagues, create tasks from feed items, link to records, and more.



The Chatter component is automatically added to the default page layout. If your org is using a custom layout for voice call records, you may need to add the component manually.

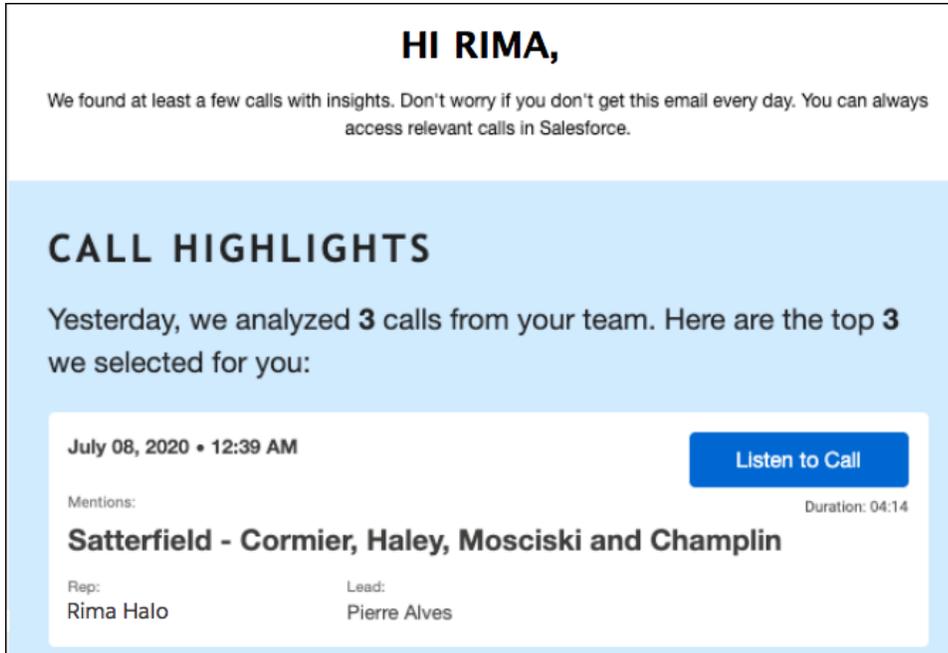
### Receive More Info in the Call Highlights Email

The updated Call Highlights email now includes record types and more contextual information. Also, clicking on a call in the email automatically jumps to the first mention in the player.

**Where:** This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

**Who:** This feature is available to sales managers with the Call Coaching User permission set, and is available only in English.

**Why:** Call Highlights emails have an improved look. The new email format now shows the related rep and prospect, the record type, and other useful details.



Clicking on a call jumps to the first mention rather than starting at the beginning of the call.

Emails are now sent at 9:00 AM based on the time zone of the Salesforce org.

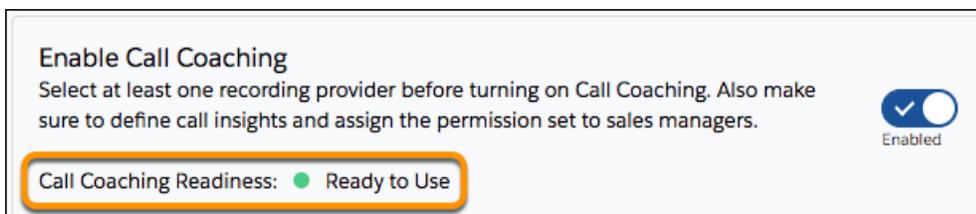
## See More Setup Information

Salesforce admins now have more information and links available to them when setting up Call Coaching. They can see the setup status of the dashboards and assign permission sets with ease.

**Where:** This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

**Who:** This feature is available to sales managers with the Call Coaching User permission set, and is available only in English.

**Why:** Salesforce admins setting up Call Coaching have more information available about the status of the Call Coaching dashboards.



And now admins get more detailed instructions about assigning permission sets and links to the related setup pages.

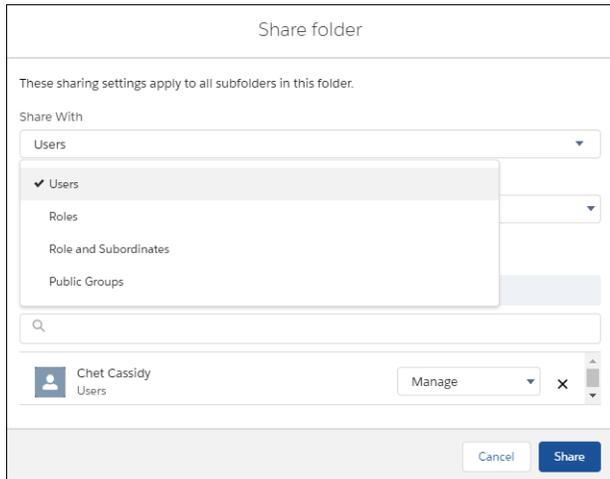
## Control Who Can Access Sales Cadences

Your sales managers and reps can now decide who can access which sales cadences and set the appropriate levels of access. Sales managers can organize sales cadences into folders for specific sales teams, products, or business units, and share these folders with sales reps or teams.

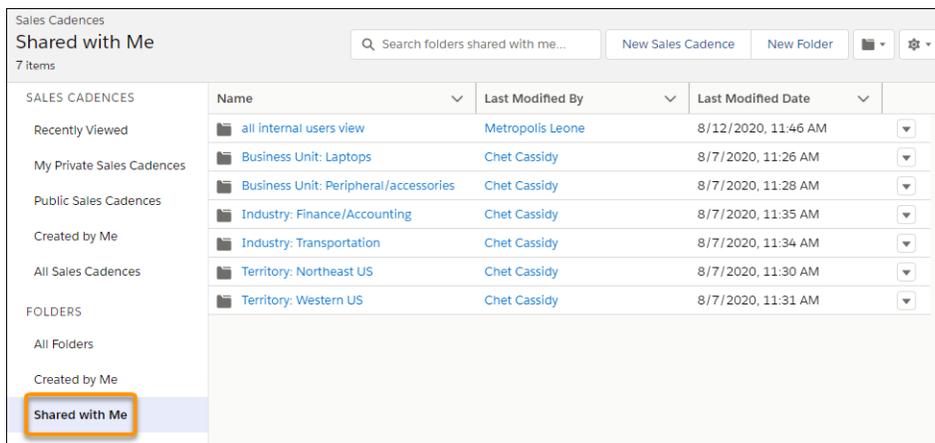
**Where:** This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

**Who:** Sales Cadence folders and folder sharing is available to users with the High Velocity Sales User or High Velocity Sales Cadence Creator permission.

**Why:** Companies with large sales teams and multiple territories or product groups can keep sales cadences organized and limit access to the right reps and teams. By controlling access to sales cadences, you can prevent sales reps from assigning targets to a sales cadence in the incorrect sales team or product line.



Sales managers can easily share folders with individual sales reps, teams, and roles.



The sales cadences view shows you the sales cadence folders you have access to.

**Note:** All existing sales cadences are in the Public Sales Cadences folder. To ensure that your users can access the sales cadences they need, create and share folders with the appropriate users and teams first. Next, move your sales cadences into those folders.

**How:** Ensure that the update, **Enable Enhanced Folder Sharing for Reports and Dashboards**, is activated in Setup.

SEE ALSO:

[Salesforce Help: Considerations for Setting Up High Velocity Sales \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Select Who Can Use High Velocity Sales \(can be outdated or unavailable during release preview\)](#)

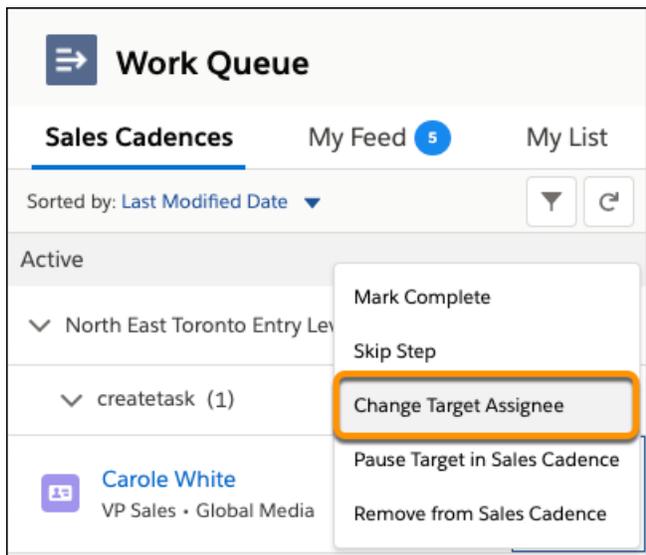
## Hand Off Sales Cadence Targets to Another Rep

If a sales manager or rep wants to give in-progress targets to a different rep, they can update the target assignee without removing the target from the sales cadence.

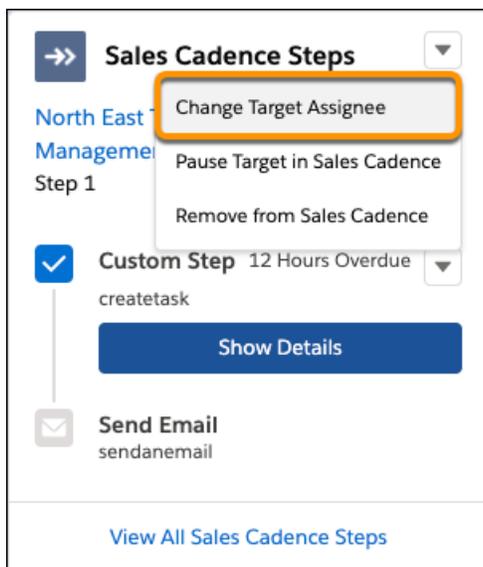
**Where:** This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

**Why:** When sales reps go on vacation, change roles, or simply want to do some load balancing, they can easily reassign targets to another rep.

**How:** In High Velocity Sales Setup, turn on **Change Sales Cadence Target Assignees**. By default this setting is off for existing orgs and on for new orgs. With this setting on, reports using the Action Cadence Tracker object's Owner ID field to show which reps complete sales cadence steps become inaccurate. Update these reports to use the Completed By field of the Action Cadence Step Tracker object instead.



Sales reps can change target assignees from the Work Queue or the Sales Cadence Steps component.



## Pause Sales Cadence Targets

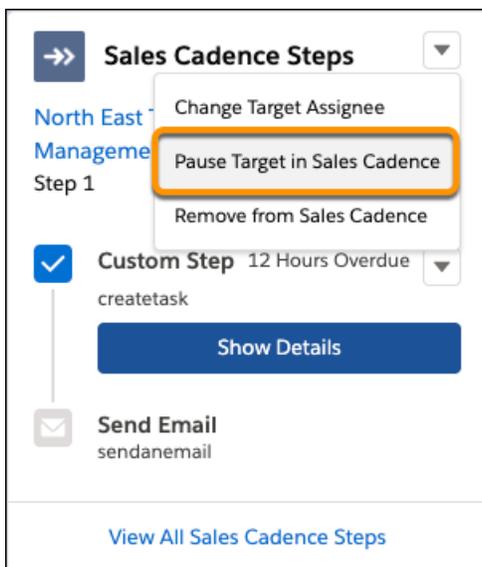
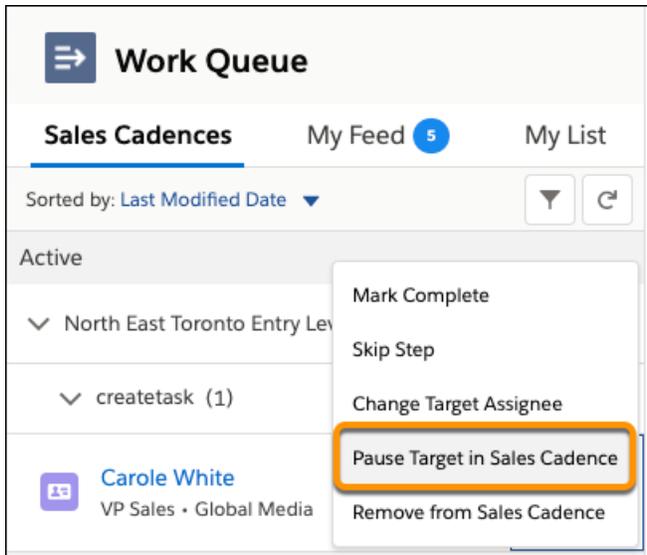
When a target is out of the office, sales reps can pause the target's progress through the sales cadence so no outreach is wasted.

**Where:** This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

**Why:** Sales reps can pause targets who are on vacation, traveling, or ask the rep to temporarily hold off on contacting them.

Sales cadence reports now include a Targets Paused field showing the number of targets that were paused at each step in a sales cadence.

**How:** Sales reps can pause and resume targets from the Work Queue or the Sales Cadence Steps component.

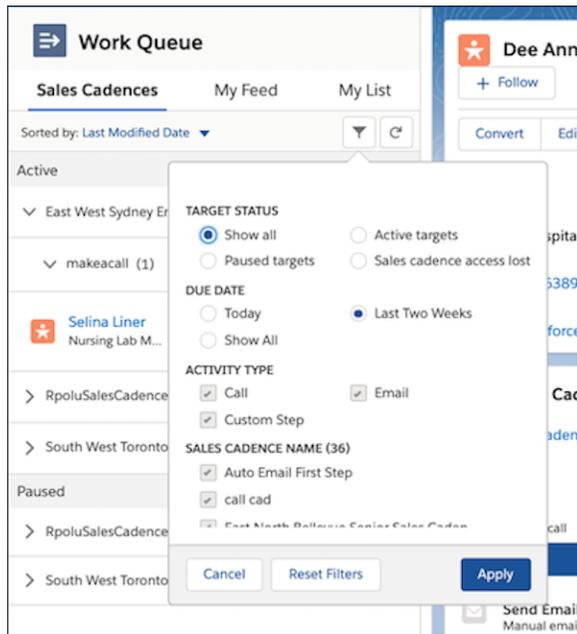


## Filter Your Work Queue by Target Status

Sales reps can filter their work queue by the status of targets so that reps can prioritize their work more efficiently. With folders for organization and access control, and the ability to pause targets, reps see more target statuses in their work queues. Targets can have a status of Active, Paused, or Sales cadence access lost.

**Where:** This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

**Why:** Sales reps can focus on prospects that are currently moving through their sales cadence using the Active target filter. Reps can quickly resume a paused sales cadence using the Paused target filter. If reps no longer manage a target for any reason, they can reassign any related sales cadences to the rep taking over those targets.

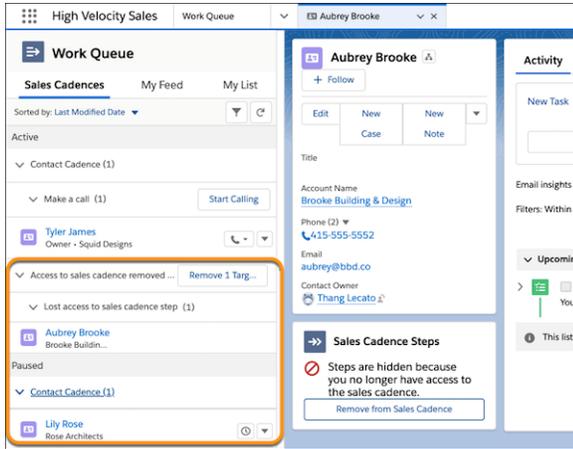


## Stay Organized with a More Structured Work Queue

Sales reps can see sublists that group work queue items based on target status. The new sublists are paused targets and sales cadences that reps can no longer access.

**Where:** This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

**Why:** With the new sublists, sales reps can easily scan their sales cadences for targets to resume or reassign to another rep.



SEE ALSO:

[Salesforce Help: Considerations for Setting Up High Velocity Sales \(can be outdated or unavailable during release preview\)](#)

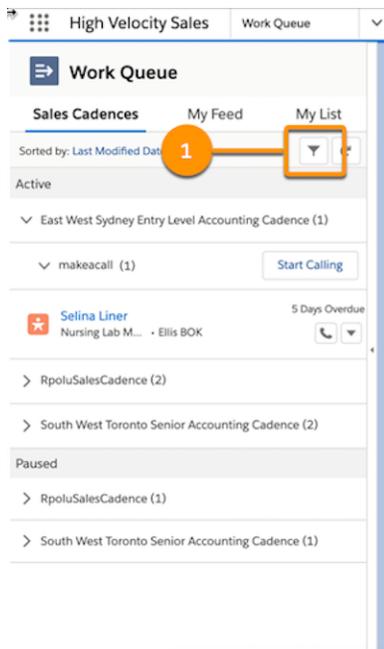
[Salesforce Help: Select Who Can Use High Velocity Sales \(can be outdated or unavailable during release preview\)](#)

## Stay Focused with Session-Long Work Queue Filters

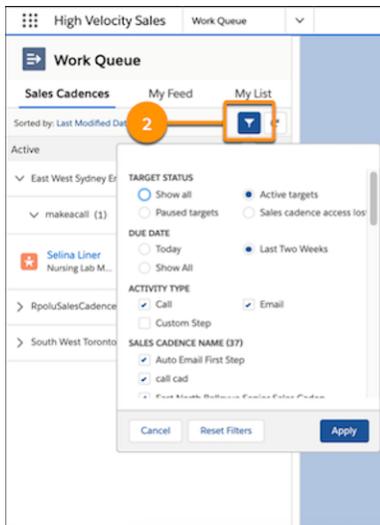
Help your reps manage their time more efficiently. After a rep filters their work queue, they can leave the tab and return to find their most recent curated list of sales cadences. Previously, reps selected their work queue filters every time they returned to the work queue tab.

**Where:** This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

**Why:** A sales rep filters their work queue (1) by Active targets and closes the tab while they look over some prospect details.



When reps return to the work queue tab, they see that their sales cadences remain filtered by Active targets (2). The rep can start following up with the prospect they researched. Filters persist only throughout your current Salesforce session.

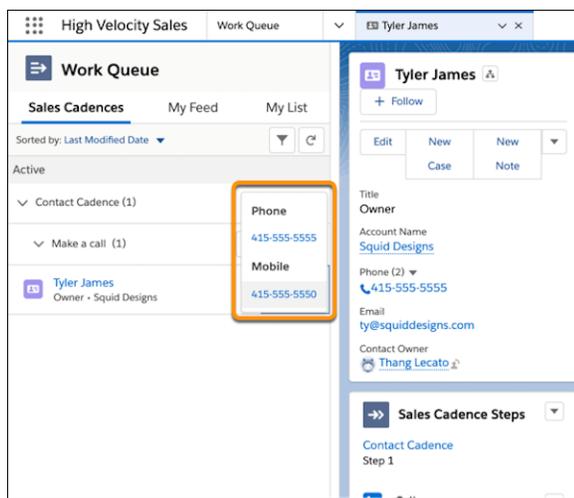


## Choose Which Number to Dial for Click-to-Call

Sales reps can improve interactions with customers by reaching them at the best number. When a record has multiple phone numbers listed, sales reps can choose which phone number to call. Previously, a phone number was automatically selected for reps.

**Where:** This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

**How:** Reps can choose the number for targets in a Call step in the sales cadence.



## Other Changes to High Velocity Sales

Learn about limits on automated emails and sales cadence targets, and a new field in the Sales Cadence Engagement dashboard.

### IN THIS SECTION:

#### [Daily Per-User Limit for Automated Email Was Introduced](#)

The new daily sending limit is 1,000 automated emails per user.

#### [Limit on Sales Cadence Active Targets Was Introduced](#)

The limit of active targets in sales cadences is 150,000 per org. Previously, no limit applied.

#### [See How Many Targets Were Paused on Each Sales Step](#)

The new Targets Paused field shows sales managers and reps the total number of targets that were paused on a specific sales cadence step. The field appears in the Sales Cadence Engagement dashboard in the High Velocity Sales Performance app.

## Daily Per-User Limit for Automated Email Was Introduced

The new daily sending limit is 1,000 automated emails per user.

**Where:** This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

## Limit on Sales Cadence Active Targets Was Introduced

The limit of active targets in sales cadences is 150,000 per org. Previously, no limit applied.

**Where:** This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

## See How Many Targets Were Paused on Each Sales Step

The new Targets Paused field shows sales managers and reps the total number of targets that were paused on a specific sales cadence step. The field appears in the Sales Cadence Engagement dashboard in the High Velocity Sales Performance app.

**Where:** This change applies to High Velocity Sales in Lightning Experience. High Velocity Sales is available as an add-on in Enterprise, Performance, and Unlimited editions.

## Sales Cloud Einstein: More Control of the Opportunity Scoring Model, Global Models for Lead Scoring, and Big Improvements to Einstein Activity Capture

When setting up Einstein Opportunity Scoring, choose to have Einstein look only at certain opportunity records and custom fields. Use Einstein Lead Scoring even when you don't have enough data of your own. And get more out of Einstein Activity Capture with new connection and configuration options.

### IN THIS SECTION:

#### [Optimize the Opportunity Scoring Model](#)

Fine-tuning your scoring model can yield more accurate scores. When setting up Einstein Opportunity Scoring, you can choose to have Einstein look only at opportunities that meet certain conditions. Also, decide if you want Einstein to exclude any custom opportunity fields from the scoring model.

### [Enable Einstein Lead Scoring with Less Data](#)

Salesforce organizations with smaller data sets can now enable Einstein Lead Scoring. Einstein takes advantage of a global scoring model that uses anonymous aggregated data to allow smaller orgs to score their leads. When an organization generates enough of its own data, Einstein switches to a scoring model built only with that data.

### [See Key Factors with Renamed Opportunity Field Labels](#)

When your team sees field labels that they're familiar with, key factors are easier to understand. Now, if you rename opportunity field labels, the key factors now reference the new field label instead of the standard label.

### [Additional Users Permission for Setting Up Opportunity and Lead Scoring](#)

The View All Profiles permission is now required when enabling or disabling Einstein Opportunity Scoring and Einstein Lead Scoring. Previously, you needed only the Customize Application and Modify All Data user permissions.

### [Take It to the Next Level with Einstein Activity Capture](#)

If you use Microsoft Office 365, you can now connect all your Einstein Activity Capture users to Salesforce at once. Set your configuration to sync events and contacts only from Salesforce to the connected account. Or you can stop contact and event data from moving between applications altogether. Reps know when action is needed thanks to the new Request email insight. Plus, we made improvements to how emails and events are shared, made it easier to add users to a configuration, and enhanced the Activities dashboard.

## Optimize the Opportunity Scoring Model

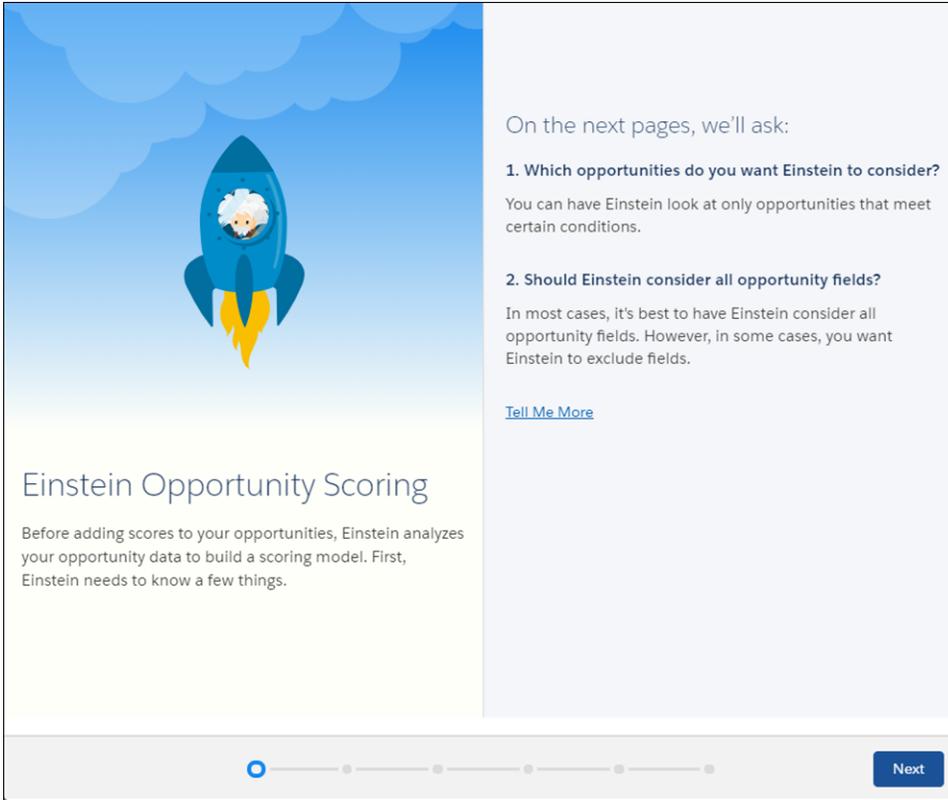
Fine-tuning your scoring model can yield more accurate scores. When setting up Einstein Opportunity Scoring, you can choose to have Einstein look only at opportunities that meet certain conditions. Also, decide if you want Einstein to exclude any custom opportunity fields from the scoring model.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, and Unlimited editions.

**Who:** Einstein Opportunity Scoring is available to users with and without a Sales Cloud Einstein license. If you have questions about the requirements for Einstein Opportunity Scoring without a Sales Cloud Einstein license, talk to your Salesforce account executive.

**How:** Open the Einstein Opportunity Scoring setup page. Click **Set Up** or **Review Settings**, depending on which option is available. Follow the prompts to filter opportunity records and exclude custom opportunity fields.

 **Note:** Fields that are excluded through the Einstein Forecasting setup no longer affect the opportunity scoring model. If you were previously excluding fields for the opportunity scoring model through Einstein Forecasting or from a special request made to Salesforce, we keep your existing settings until you make changes. However, your existing settings aren't reflected in setup. We recommend that you update the settings with your record and field exclusion preferences.



**Einstein Opportunity Scoring**

Before adding scores to your opportunities, Einstein analyzes your opportunity data to build a scoring model. First, Einstein needs to know a few things.

On the next pages, we'll ask:

- 1. Which opportunities do you want Einstein to consider?**  
You can have Einstein look at only opportunities that meet certain conditions.
- 2. Should Einstein consider all opportunity fields?**  
In most cases, it's best to have Einstein consider all opportunity fields. However, in some cases, you want Einstein to exclude fields.

[Tell Me More](#)

Next

## SEE ALSO:

[Salesforce Help: Enable Einstein Opportunity Scoring \(can be outdated or unavailable during release preview\)](#)

[Salesforce Einstein: Build Bots Faster with Templates, Make Opportunity Scoring More Relevant with Filters, and Search Personalization Is Generally Available](#)

## Enable Einstein Lead Scoring with Less Data

Salesforce organizations with smaller data sets can now enable Einstein Lead Scoring. Einstein takes advantage of a global scoring model that uses anonymous aggregated data to allow smaller orgs to score their leads. When an organization generates enough of its own data, Einstein switches to a scoring model built only with that data.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, and Unlimited editions.

**Why:** Previously, the Einstein Readiness Assessor required 1000 new leads and 120 lead conversions in the previous 6 months. Now the assessor allows all organizations to turn on Einstein Lead Scoring.

**How:** To see whether your Salesforce organization is ready to use a global model or a single-customer model, run the Einstein Readiness Assessor from Setup.

## SEE ALSO:

[Salesforce Einstein: Build Bots Faster with Templates, Make Opportunity Scoring More Relevant with Filters, and Search Personalization Is Generally Available](#)

[Salesforce Help: Run the Sales Cloud Einstein Readiness Assessor \(can be outdated or unavailable during release preview\)](#)

[Salesforce Knowledge Article: Salesforce Einstein: Global Model Opt-Out Process \(can be outdated or unavailable during release preview\)](#)

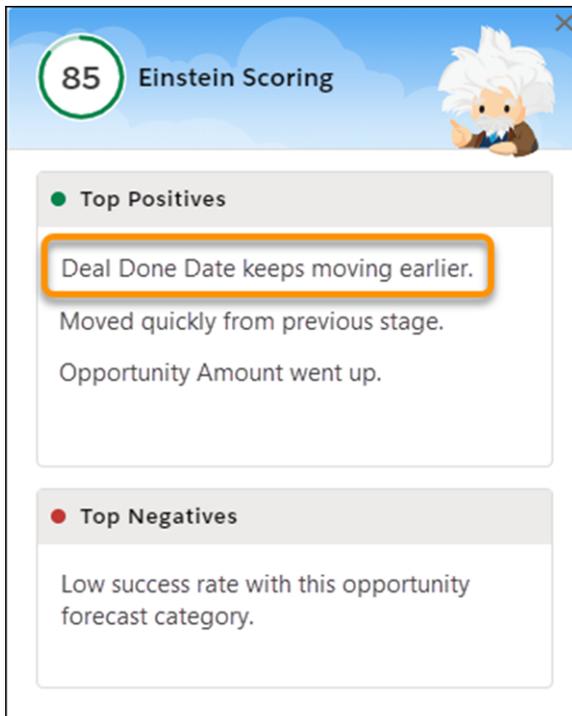
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When your team sees field labels that they're familiar with, key factors are easier to understand. Now, if you rename opportunity field labels, the key factors now reference the new field label instead of the standard label.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, and Unlimited editions.

**Who:** Einstein Opportunity Scoring is available to users with and without a Sales Cloud Einstein license. If you have questions about the requirements for Einstein Opportunity Scoring without a Sales Cloud Einstein license, talk to your Salesforce account executive.

**Why:** For example, if you change the opportunity **Closed Date** field to **Deal Done Date**, the key factor `Close date moved earlier.` is shown as `Deal Done Date moved earlier.`



SEE ALSO:

[Salesforce Einstein: Build Bots Faster with Templates, Make Opportunity Scoring More Relevant with Filters, and Search Personalization Is Generally Available](#)

## Additional Users Permission for Setting Up Opportunity and Lead Scoring

The View All Profiles permission is now required when enabling or disabling Einstein Opportunity Scoring and Einstein Lead Scoring. Previously, you needed only the Customize Application and Modify All Data user permissions.

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### SEE ALSO:

[Einstein Activity Capture: New Connection Options, More Control Over How Data Flows, and a New Email Insight](#)

[Salesforce Einstein: Build Bots Faster with Templates, Make Opportunity Scoring More Relevant with Filters, and Search Personalization Is Generally Available](#)

## Core Sales Features: Opportunity Deal Change Highlights, Product Lookup Relationships, and Mobile Forecasting

Quickly find the opportunities that changed in the last week. Get more flexibility for tracking information on opportunity product records. More mobile users get Collaborative Forecasts, now available for Android and iOS. Manually assign a territory to a new opportunity in fewer steps. And running custom application logic on orders is easier.

### IN THIS SECTION:

[Opportunities: More Options for Managing Deals and Products, and Improvements to Einstein Opportunity Scoring](#)

Opportunity deal change highlights point out recently changed amounts and close dates. Sales teams get more flexibility for tracking information on opportunity product records. And a new Einstein Opportunity Scoring setup gives you more control of how opportunities are scored.

[Collaborative Forecasts: More Options for Mobile Forecasting and Inline Editing](#)

Mobile forecasting is no longer limited to iOS devices. And the opportunity list on the forecasts page now supports inline editing for the Stage column.

[Enterprise Territory Management: Assign a Territory to a New Opportunity in Fewer Steps](#)

Users can now assign a territory while they're creating an opportunity. Previously, they saved a new opportunity and then edited it.

[Orders: New Behavior for Saving Orders](#)

Now it's easier to run custom application logic on orders. Salesforce evaluates custom application logic when a new order product or edited order product causes a change to the parent order.

[Other Changes in Core Sales Features](#)

We now support PK chunking for the ObjectTerritory2Association object. And the original territory management feature is scheduled for retirement in Summer '21.

## Opportunities: More Options for Managing Deals and Products, and Improvements to Einstein Opportunity Scoring

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## IN THIS SECTION:

[Find Changed Deals at a Glance](#)

Opportunity deal change highlights help your sales team prioritize work by showing recent changes to amounts and close dates. For example, knowing which deals changed helps sales managers with their weekly coaching sessions. In the opportunities list view and Kanban view, text colors and arrows indicate amounts and close dates that changed during the last 7 days. And users can hover over an arrow to get details.

[Do More with Opportunity Products](#)

Give your sales team more flexibility to track information on opportunity product records. For example, a rep wants to track two delivery locations in a related list for an opportunity product record. Now you can create an object relationship and page layout to make it happen.

[Enjoy Improvements to Einstein Opportunity Scoring](#)

Fine-tune your scoring model to help get more accurate scores. If you rename opportunity field labels, the key factors now reference the new field label instead of the standard label.

## SEE ALSO:

[Update Opportunity Stages on the Forecasts Page in Lightning Experience](#)

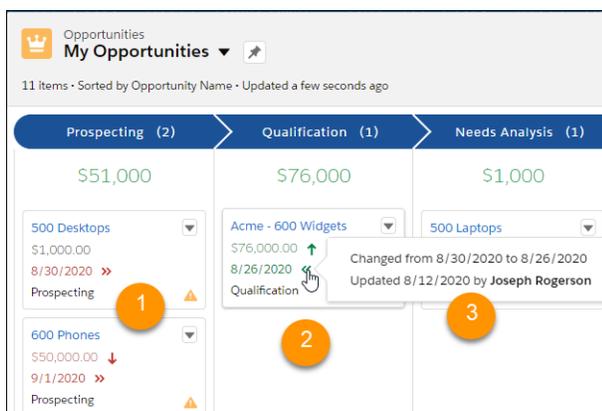
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## Find Changed Deals at a Glance

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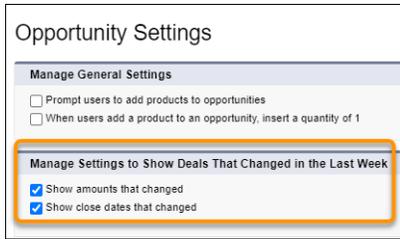
**Where:** This change applies to Lightning Experience in Unlimited Edition.

**Why:** Changes to opportunity amounts and close dates now show motion indicators for 7 days.



Red text and arrows indicate amounts that decreased and close dates that were pushed out (1). Green text and arrows indicate amounts that increased and close dates that were pulled in (2). Hover over an arrow to see what changed, who changed it, and when (3).

**How:** Opportunity deal change highlights are turned on by default, but you can turn them off (and back on) via Opportunity Settings in Setup.



[Enterprise API](#) and [Metadata API](#) support opportunity deal change highlights.

SEE ALSO:

[Salesforce Help: Manage Settings to Show Changed Deals \(can be outdated or unavailable during release preview\)](#)

## Do More with Opportunity Products

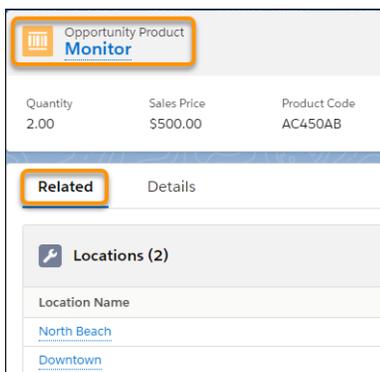
Give your sales team more flexibility to track information on opportunity product records. For example, a rep wants to track two delivery locations in a related list for an opportunity product record. Now you can create an object relationship and page layout to make it happen.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce mobile app in Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** In your object management settings, create a lookup relationship between any standard or custom object and Opportunity Product (the OpportunityLineItem object). Make sure that the lookup field and related list are added to the page layouts where you want them to appear.



In this example, the Location custom object has a lookup relationship with Opportunity Product.



Now reps can track the North Beach and Downtown delivery locations on the Monitor product record.

[Enterprise API](#) supports lookup relationships between standard and custom objects and the OpportunityLineItem object.

SEE ALSO:

[Salesforce Help: Object Relationships \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Page Layouts \(can be outdated or unavailable during release preview\)](#)

## Enjoy Improvements to Einstein Opportunity Scoring

Fine-tune your scoring model to help get more accurate scores. If you rename opportunity field labels, the key factors now reference the new field label instead of the standard label.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, and Unlimited editions.

**Who:** Einstein Opportunity Scoring is available to users with and without a Sales Cloud Einstein license. If you have questions about the requirements for Einstein Opportunity Scoring without a Sales Cloud Einstein license, talk to your Salesforce account executive.

SEE ALSO:

[Optimize the Opportunity Scoring Model](#)

[See Key Factors with Renamed Opportunity Field Labels](#)

[Additional Users Permission for Setting Up Opportunity and Lead Scoring](#)

## Collaborative Forecasts: More Options for Mobile Forecasting and Inline Editing

Mobile forecasting is no longer limited to iOS devices. And the opportunity list on the forecasts page now supports inline editing for the Stage column.

IN THIS SECTION:

[Get Forecasts on the Go](#)

Now that mobile forecasting is available for Android devices, more users can see forecasts on the go. Previously, mobile forecasting was available only on iOS devices.

[Update Opportunity Stages on the Forecasts Page in Lightning Experience](#)

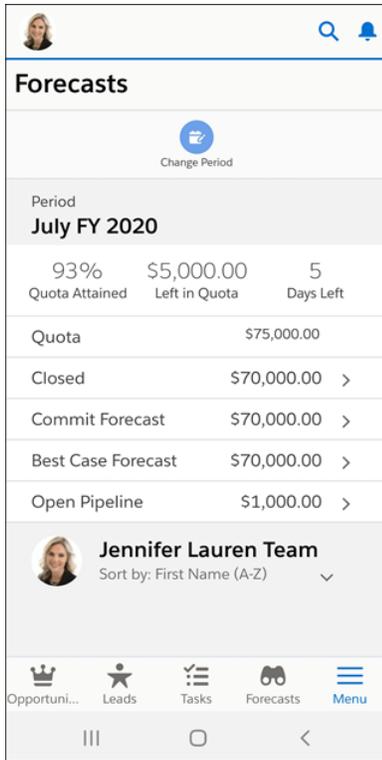
Forecast users can now update stages in the opportunity list without leaving the forecasts page. Previously, inline editing was available for other fields, but not for Stage.

## Get Forecasts on the Go

Now that mobile forecasting is available for Android devices, more users can see forecasts on the go. Previously, mobile forecasting was available only on iOS devices.

**Where:** This change applies to the Salesforce mobile app for Android in Professional, Performance, and Developer editions and in Enterprise and Unlimited editions with the Sales Cloud.

**Why:** Android users can now access read-only opportunity revenue forecasts on their devices.



## SEE ALSO:

[Salesforce Help: Collaborative Forecasts: What's Different or Not Available in the Salesforce Mobile App \(can be outdated or unavailable during release preview\)](#)

## Update Opportunity Stages on the Forecasts Page in Lightning Experience

Forecasts users can now update stages in the opportunity list without leaving the forecasts page. Previously, inline editing was available for other fields, but not for Stage.

**Where:** This change applies to Lightning Experience in Professional, Performance, and Developer editions and in Enterprise and Unlimited editions with the Sales Cloud.

**Why:** Users can click the pencil icon to edit an opportunity's stage.

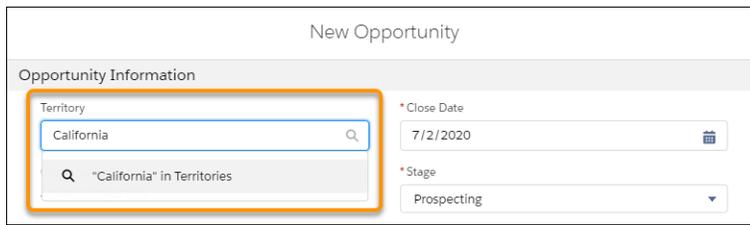
| Joseph Rogerson • FQ3 FY 2020 • All Forecast Categories |                |   |              |
|---|----------------|---|--------------|
| Opportunity Name  | Stage          |   | Account Name |
| 1 Acme - 200 Widgets                                    | Prospecting    |  | Acme         |
| 2 600 Phones  | Needs Analysis |   | Mortenson's  |
| 3 500 Laptops   | Needs Analysis |   | Mortenson's  |
| 4 500 Desktops  | Prospecting    |   | Mortenson's  |

## Enterprise Territory Management: Assign a Territory to a New Opportunity in Fewer Steps

Users can now assign a territory while they're creating an opportunity. Previously, they saved a new opportunity and then edited it.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce mobile app in Performance and Developer editions and in Enterprise and Unlimited editions with the Sales Cloud.

**How:** While creating an opportunity, select a territory to assign it. Only territories from the active territory model are available.



The screenshot shows the 'New Opportunity' form. The 'Territory' field is highlighted with an orange border. It contains a search bar with 'California' and a dropdown menu showing 'California' in Territories. Other fields include 'Close Date' (7/2/2020) and 'Stage' (Prospecting).

SEE ALSO:

[Salesforce Help: Assign a Territory Manually to an Opportunity \(can be outdated or unavailable during release preview\)](#)

## Orders: New Behavior for Saving Orders

Now it's easier to run custom application logic on orders. Salesforce evaluates custom application logic when a new order product or edited order product causes a change to the parent order.

**Where:** This change applies to Salesforce Lightning Experience and Salesforce Classic.

**Why:** Previously, Salesforce didn't run custom application logic when an order product update caused a change to the parent order—for example, a new order product causing a change to the order's total amount. Users who wanted to enforce custom applications in these scenarios required further customizations for a workaround.

**How:** Go to the Enable New Order Save Behavior release update tile and click **Enable Test Run**.

When the New Order Save Behavior is active, Salesforce evaluates and runs the following customizations whenever an order product update changes the parent order.

- Order and order product validation rules
- Order and order product Apex triggers
- Order and order product workflow rules
- Flows, including processes

## Other Changes in Core Sales Features

We now support PK chunking for the ObjectTerritory2Association object. And the original territory management feature is scheduled for retirement in Summer '21.

IN THIS SECTION:

[PK Chunking Support Added for ObjectTerritory2Association](#)

With PK chunking, you get better performance and reliability while using the API to extract large data sets from the ObjectTerritory2Association object.

[Original Territory Management Is Being Retired](#)

The original territory management feature is scheduled for retirement as of Summer '21. After the feature is retired, users can't access the original territory management feature and its underlying data. We encourage you to migrate to Enterprise Territory Management.

### PK Chunking Support Added for ObjectTerritory2Association

With PK chunking, you get better performance and reliability while using the API to extract large data sets from the ObjectTerritory2Association object.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Performance and Developer editions and in Enterprise and Unlimited editions with the Sales Cloud.

SEE ALSO:

[Salesforce Developers: Use PK Chunking to Extract Large Data Sets from Salesforce](#)

[Salesforce Developers: PK Chunking Header \(can be outdated or unavailable during release preview\)](#)

## Original Territory Management Is Being Retired

The original territory management feature is scheduled for retirement as of Summer '21. After the feature is retired, users can't access the original territory management feature and its underlying data. We encourage you to migrate to Enterprise Territory Management.

**Where:** This change applies to Salesforce Classic in Performance and Developer editions and in Enterprise and Unlimited editions with the Sales Cloud.

**How:** Review our documentation and follow the instructions for setting up Enterprise Territory Management.

 **Note:** Customizable Forecasting was retired as of Summer '20. Original territory management users can't access the Customizable Forecasting feature and its underlying data, but forecast managers retain access granted to opportunities and territories. If you were using Customizable Forecasting, we encourage you to migrate to Collaborative Forecasts.

SEE ALSO:

[Knowledge article: The Original Territory Management Module Will Be Retired in the Summer '21 Release](#)

## Productivity Features: Einstein Activity Capture Enhancements, Schedule Meetings More Easily, and New Email Template Builder

Einstein Activity Capture has several enhancements, such as new sync options and the new Request email insight. Sales reps can include suggested meeting times in their emails by choosing available times from their calendar. Recipients choose from among the suggested times, making it easier to set up meetings. And reps have a new option for easily and quickly creating engaging email templates with Email Template Builder. Visual tools make it efficient to add components like HTML and images.

IN THIS SECTION:

[Einstein Activity Capture: New Connection Options, More Control Over How Data Flows, and a New Email Insight](#)

If you use Microsoft Office 365, you can now connect all your Einstein Activity Capture users to Salesforce at once. Set your configuration to sync events and contacts only from Salesforce to the connected account. Or you can stop contact and event data from moving between applications altogether. Reps know when action is needed thanks to the new Request email insight. Plus, we made improvements to how emails and events are shared, made it easier to add users to a configuration, and enhanced the Activities dashboard.

[Email Experience: Use Insert Free Time, Schedule List Emails, and Streamlined Bounce Alerts](#)

Sales reps can now insert calendar availability in emails, making meetings easier to schedule. Email recipients choose their preferred meeting time from the available choices and the meeting is created automatically. Reps can also schedule their list emails so that they arrive at a specific date and time. And bounce alerts now appear on all records that have the same email address.

[Email Templates: Email Template Builder](#)

Quickly and easily create email templates with Email Template Builder's visual tools.

### [Salesforce Inbox Mobile: Smarter Selling from Your Inbox](#)

Salesforce Inbox integrates your email and calendar with Salesforce so sales reps can manage their work sales more efficiently. Inbox increases reps' productivity on every email message, whether they're on the go or at the desk.

## Einstein Activity Capture: New Connection Options, More Control Over How Data Flows, and a New Email Insight

If you use Microsoft Office 365, you can now connect all your Einstein Activity Capture users to Salesforce at once. Set your configuration to sync events and contacts only from Salesforce to the connected account. Or you can stop contact and event data from moving between applications altogether. Reps know when action is needed thanks to the new Request email insight. Plus, we made improvements to how emails and events are shared, made it easier to add users to a configuration, and enhanced the Activities dashboard.

### IN THIS SECTION:

#### [Connect Microsoft Office 365 to Salesforce in More Ways](#)

If you use Einstein Activity Capture with Microsoft Office 365, you can now connect to Salesforce with an org-level connection or a service account. Both connection methods provide the security of OAuth 2.0. Plus, Einstein Activity Capture users don't connect their own account, which simplifies the rollout.

#### [Control How Data Flows Between Salesforce and the Connected Account](#)

When setting up an Einstein Activity Capture configuration, you can stop event or contact data from moving between Salesforce and the connected Microsoft or Google account. Plus, you now can sync event and contact data only from Salesforce to the connected account.

#### [Know When a Prospect or Contact Has a Request for You with Email Insight](#)

The new Request insight lets reps know when they have specific action items. This insight appears when a prospect or contact indicates a request and the sales rep wants to follow up.

#### [Prevent New Users from Changing the Default Sharing Setting](#)

If you set the Einstein Activity Capture default sharing setting to Don't Share, you can prevent new Einstein Activity Capture users from changing it. By enforcing the sharing setting, you ensure that sensitive information is kept private.

#### [Add Users to a Configuration More Easily](#)

When adding users to an Einstein Activity Capture configuration, you see up to 500 users listed. Previously, only 100 users were listed. Also, your most recent assignment changes, whether they're made in setup or through the API, are used.

#### [Keep Settings and Configurations When You Turn Off Einstein Activity Capture](#)

To make sure that you don't run into unexpected issues, we distinguished the behavior for turning off and resetting Einstein Activity Capture.

#### [Enjoy Enhancements to the Activities Dashboard](#)

If you create contact records for internal users, customer activities no longer roll up to these internal contacts. As a result, the activities for accounts and opportunities in the dashboard reflect the true number of customer interactions. Plus, only completed tasks are included in the dashboard, which gives you a clearer look at your team's progress. Previously, incomplete tasks, including those with due dates within the selected time range, were also included in the dashboard.

#### [Block Activity from Automated Emails](#)

To protect users from inadvertently sharing sensitive information, Einstein Activity Capture now attempts to identify automated email replies and then set the sharing to Don't Share. The email owners can later change the sharing setting to something less restrictive.

[Avoid Cluttering the Activity Timeline with Internal Activity](#)

Salesforce continues to add your default internal domain to the Excluded Address list. Now you can't delete the default internal domain from the list. By keeping the timeline focused on customer interactions, the timeline is free from noise and performance remains high.

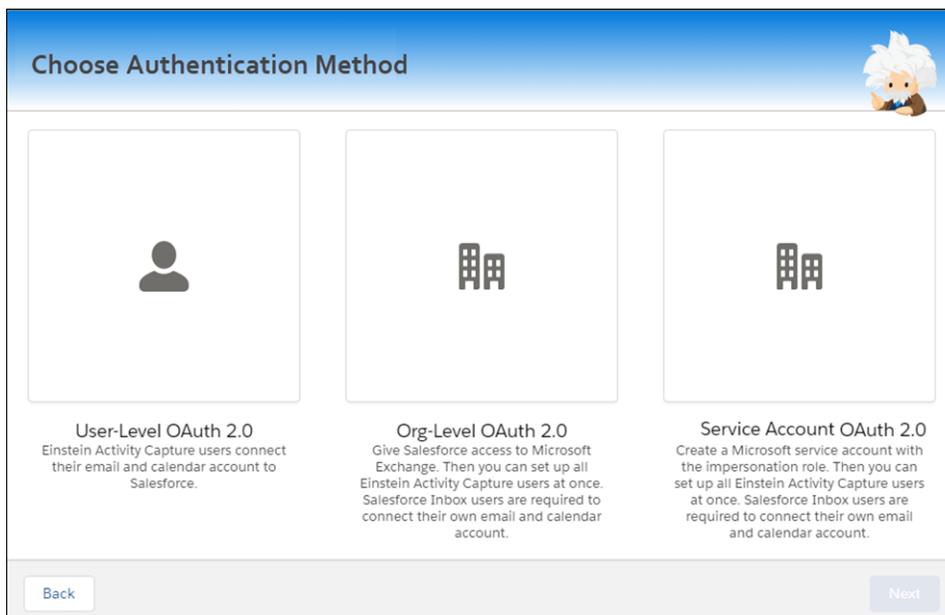
## Connect Microsoft Office 365 to Salesforce in More Ways

If you use Einstein Activity Capture with Microsoft Office 365, you can now connect to Salesforce with an org-level connection or a service account. Both connection methods provide the security of OAuth 2.0. Plus, Einstein Activity Capture users don't connect their own account, which simplifies the rollout.

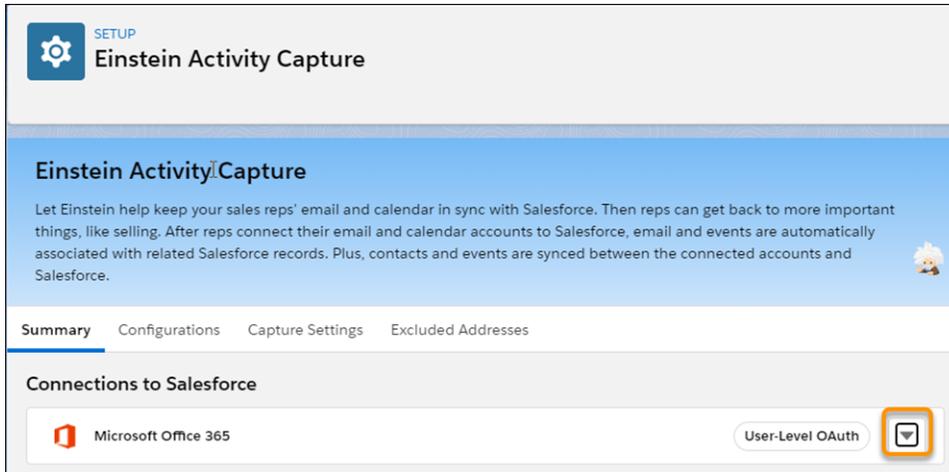
**Where:** This change applies to Lightning Experience in Professional, Enterprise, Performance, and Unlimited editions.

**Why:** Both authentication options make it easier for you to set up many users because users don't connect their own Microsoft Office 365 account to Salesforce. Plus, service accounts give you more control over which users Salesforce can access data from.

**How:** When setting up Einstein Activity Capture for the first time, select Org-Level OAuth 2.0 or Service Account OAuth 2.0 as the authentication method.



If you already set up Einstein Activity Capture, you can reset the feature and select a different authentication method. From the Einstein Activity Capture settings page, select Reset Einstein Activity Capture from the dropdown. After the reset process is complete, set up Einstein Activity Capture again. You're prompted to select the authentication method.



 **Note:** Users in configurations that capture email data are prompted to accept the Einstein Activity Capture terms of service. Until they do so, email data isn't captured.

#### SEE ALSO:

[Salesforce Help: Connect to Einstein Activity Capture with Org-Level OAuth 2.0 \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Connect to Einstein Activity Capture with a Service Account OAuth 2.0 \(can be outdated or unavailable during release preview\)](#)

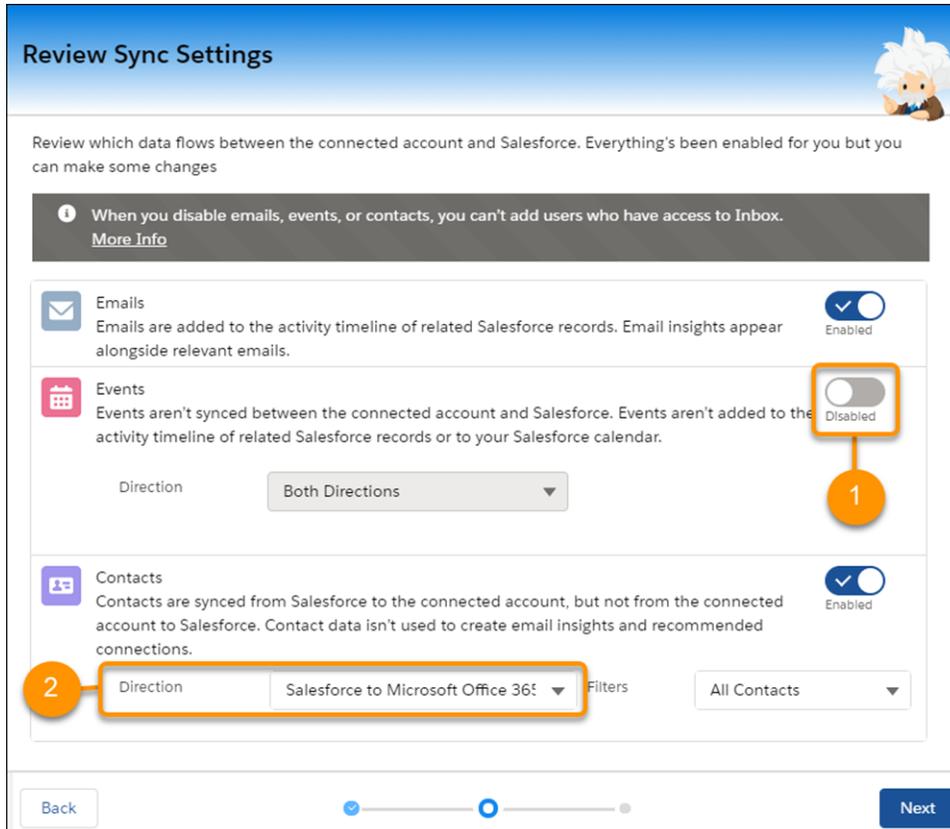
## Control How Data Flows Between Salesforce and the Connected Account

When setting up an Einstein Activity Capture configuration, you can stop event or contact data from moving between Salesforce and the connected Microsoft or Google account. Plus, you now can sync event and contact data only from Salesforce to the connected account.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, and Unlimited editions.

**Why:** Being able to control how Einstein Activity Capture interacts with your data helps Salesforce meet your company's unique business needs.

**How:**



To stop all contact or event data from moving between Salesforce and the connected accounts, go to the Einstein Activity Capture configuration. Then, disable events or contacts (1).

To stop contact or event data from moving from the connected account to Salesforce, go to the Einstein Activity Capture configuration. Then, for either events or contacts, select the direction that indicates data moves from Salesforce to your connected account (2). The event or contact data is synced from Salesforce to the connected account, but not from the connected account to Salesforce.

The capture functionality—which gathers event data from the connected account, stores it, and adds it to the activity timeline of related Salesforce records and to your Salesforce calendar—stops. Contact data, which is used to create email insights and recommended connections, also stops being captured from the connected account.

**Note:** You can't disable events or contacts for Einstein Activity Capture users who have access to Inbox. Event and contact data is used for Inbox productivity features, such as Insert Availability and Recommended Connections.

SEE ALSO:

[Salesforce Help: Create a Configuration for Einstein Activity Capture \(can be outdated or unavailable during release preview\)](#)

## Know When a Prospect or Contact Has a Request for You with Email Insight

The new Request insight lets reps know when they have specific action items. This insight appears when a prospect or contact indicates a request and the sales rep wants to follow up.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, and Unlimited editions.

**Who:** This feature is available to all Einstein Activity Capture users including users with an Inbox license.

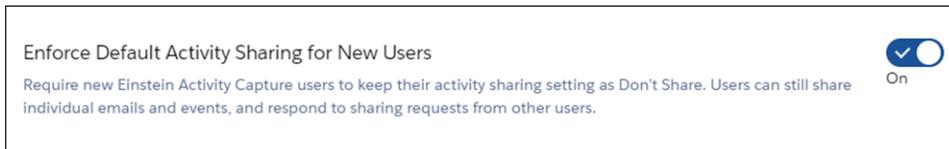
**How:** Email Insights are available when you turn on Einstein Activity Capture. If you use Einstein Activity Capture through a Sales Cloud Einstein or Inbox license, Email Insights are on by default. View this insight in the email details, on the activity timeline, and in Salesforce Inbox mobile apps.

## Prevent New Users from Changing the Default Sharing Setting

If you set the Einstein Activity Capture default sharing setting to Don't Share, you can prevent new Einstein Activity Capture users from changing it. By enforcing the sharing setting, you ensure that sensitive information is kept private.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, and Unlimited editions.

**How:** From the Einstein Activity Capture settings page, click the Capture Settings tab. Then, turn on the **Enforce Default Activity Sharing for New Users** setting. Users can still share individual emails and events, and respond to sharing requests from other users.



SEE ALSO:

[Salesforce Help: Set Default Activity Sharing for Einstein Activity Capture Users \(can be outdated or unavailable during release preview\)](#)

## Add Users to a Configuration More Easily

When adding users to an Einstein Activity Capture configuration, you see up to 500 users listed. Previously, only 100 users were listed. Also, your most recent assignment changes, whether they're made in setup or through the API, are used.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, and Unlimited editions.

**How:** From the Einstein Activity Capture settings page, click the Configurations tab. Create or edit a configuration, and then assign users.

SEE ALSO:

[Salesforce Help: Create a Configuration for Einstein Activity Capture \(can be outdated or unavailable during release preview\)](#)

## Keep Settings and Configurations When You Turn Off Einstein Activity Capture

To make sure that you don't run into unexpected issues, we distinguished the behavior for turning off and resetting Einstein Activity Capture.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, and Unlimited editions.

**Why:** Now, when you turn off Einstein Activity Capture, the following happens.

- Your configurations and settings are saved.
- Contacts and events stop syncing for all users.
- All previously captured emails and events are hidden from the activity timeline and the Salesforce calendar. The Activities dashboard isn't available.
- Previously captured data and new data is still stored outside of Salesforce.

The existing behavior for resetting Einstein Activity Capture remains the same.

- Your selected email and calendar service is removed.
- Your configurations and settings are deleted.

- Contacts and events stop syncing for all users.
- User-level connections continue to be used for capturing emails, events, and contacts.

**SEE ALSO:**

[Salesforce Help: Enable and Disable Einstein Activity Capture \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Reset Einstein Activity Capture \(can be outdated or unavailable during release preview\)](#)

## Enjoy Enhancements to the Activities Dashboard

If you create contact records for internal users, customer activities no longer roll up to these internal contacts. As a result, the activities for accounts and opportunities in the dashboard reflect the true number of customer interactions. Plus, only completed tasks are included in the dashboard, which gives you a clearer look at your team's progress. Previously, incomplete tasks, including those with due dates within the selected time range, were also included in the dashboard.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, and Unlimited editions.

**SEE ALSO:**

[Salesforce Help: Review the Activities Dashboard \(can be outdated or unavailable during release preview\)](#)

## Block Activity from Automated Emails

To protect users from inadvertently sharing sensitive information, Einstein Activity Capture now attempts to identify automated email replies and then set the sharing to Don't Share. The email owners can later change the sharing setting to something less restrictive.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, and Unlimited editions.

## Avoid Cluttering the Activity Timeline with Internal Activity

Salesforce continues to add your default internal domain to the Excluded Address list. Now you can't delete the default internal domain from the list. By keeping the timeline focused on customer interactions, the timeline is free from noise and performance remains high.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, and Unlimited editions.

**How:** You can see which internal domain was automatically added to the Excluded Addresses list. From the Einstein Activity Capture settings page, click the Excluded Addresses tab. The delete option is no longer available next to the default internal domain.

**SEE ALSO:**

[Salesforce Help: Considerations for Excluding Data from Einstein Activity Capture \(can be outdated or unavailable during release preview\)](#)

## Email Experience: Use Insert Free Time, Schedule List Emails, and Streamlined Bounce Alerts

Sales reps can now insert calendar availability in emails, making meetings easier to schedule. Email recipients choose their preferred meeting time from the available choices and the meeting is created automatically. Reps can also schedule their list emails so that they arrive at a specific date and time. And bounce alerts now appear on all records that have the same email address.

## IN THIS SECTION:

[Easily Coordinate When to Meet with Insert Free Time in Lightning Experience](#)

When emailing someone to set up a meeting, your reps can include their available time slots. The email recipient then selects from among the choices, and the meeting is automatically added to everyone's calendar. No more back-and-forth emails to land on the best moment to meet.

[Send List Emails at the Ideal Time](#)

Reps can now schedule when to send a list email. Choose an ideal date and time to ensure that the list email has the best chance of being read. For example, schedule a list email to arrive at the beginning of the work day. Scheduling was previously available for individual emails only.

[Create Larger Emails with New Maximum Size of 35 MB](#)

We increased the maximum size of outbound and inbound emails from 25 MB to 35 MB. The size of an email message includes the email headers, body, attachments, and encoding. Email size can also vary depending on character set.

[Default Email Encoding Changing to UTF-8](#)

For new Salesforce orgs, the default email encoding for templates, footers, and user email settings is changing to 8-bit Unicode Transformation Format (UTF-8). This update is to support Email Address Internationalization.

[Streamline Contacts and Leads with Default Bounce Alerts](#)

When bounce processing is enabled, bounce alerts now appear for all Contacts and Leads with the same email address.

## Easily Coordinate When to Meet with Insert Free Time in Lightning Experience

When emailing someone to set up a meeting, your reps can include their available time slots. The email recipient then selects from among the choices, and the meeting is automatically added to everyone's calendar. No more back-and-forth emails to land on the best moment to meet.

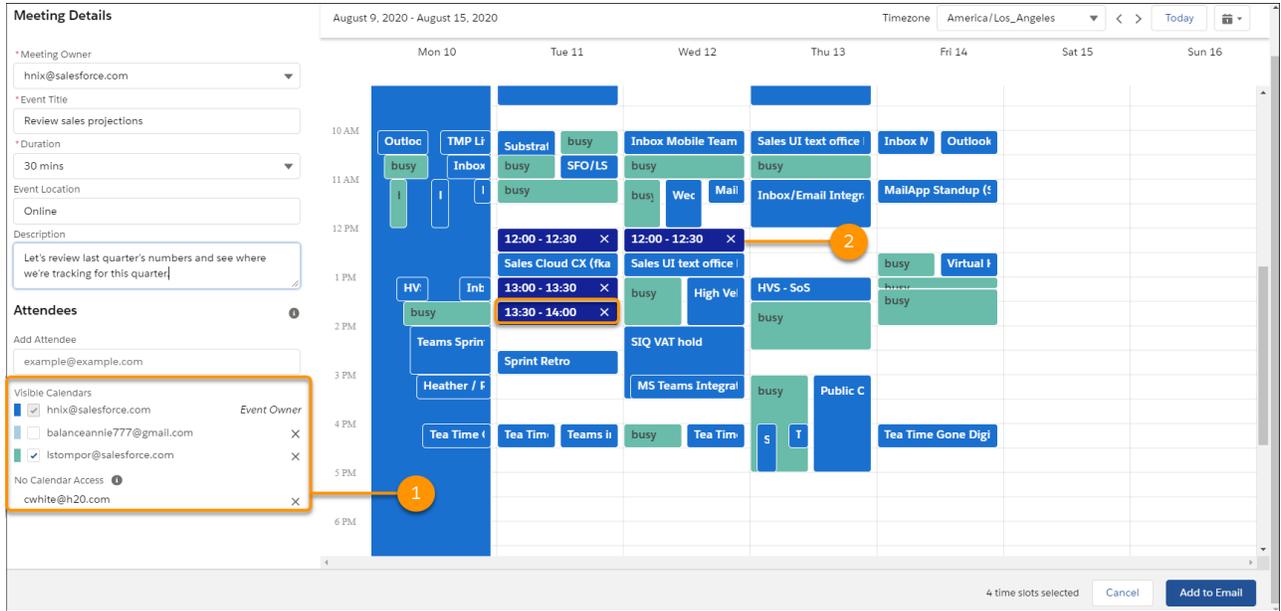
**Where:** This change applies to Lightning Experience orgs with Salesforce Inbox and Enhanced Email enabled in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Who:** Users with the Use Inbox user permission, available with a High Velocity Sales, Sales Cloud Einstein, or Inbox license.

**How:** A rep who is setting up a meeting clicks the **Insert Free Time** icon at the bottom of the email composer.



The email sender's calendar appears, along with the calendars of any attendees who are sharing their calendar.



The rep selects whose calendar to view (1) and clicks time slots (2) to suggest for the event.

SEE ALSO:

[Salesforce Help: Considerations for Insert Availability in Lightning Experience \(can be outdated or unavailable during release preview\)](#)

### Send List Emails at the Ideal Time

Reps can now schedule when to send a list email. Choose an ideal date and time to ensure that the list email has the best chance of being read. For example, schedule a list email to arrive at the beginning of the work day. Scheduling was previously available for individual emails only.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Why:** To schedule a list email, select **Send Later**.

Send List Email

Recipients All Contacts X

Enter Subject...

Content Review

Font Size **B** *I* U **A**

Dear {{{Recipient.FirstName}}},

We look forward to seeing you at our annual trade show and our accompanying golf tournament.

There's lots of new stuff to see in the booth this year!

See you soon,

{{{Sender.FirstName}}}  
{{{Sender.Email}}}

10/10 send limits remaining Save as Draft **Send**

**Send Later**

Set a date and time for the list email to be sent.

Choose a date and time

Date  
Jul 17, 2020

Time  
8:00 AM

Time Zone  
(GMT-7:00) America/Los Angeles

Send Jul 17, 08:00 AM PDT

Cancel **Save**

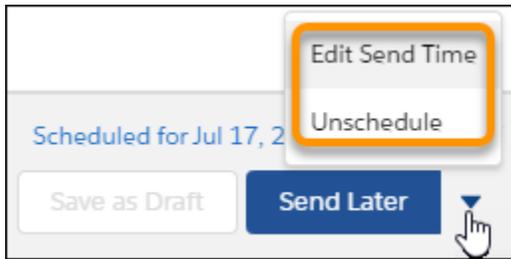
Click **Save** to save the date and time and return to the list email.

Scheduled for Jul 17, 2020, 10:00 AM CDT

Save as Draft **Send Later**

Click **Send Later** and the email is scheduled to be sent at that date and time.

To change the scheduled time or delete the email, click the Send Later dropdown.



Or, go to the List Emails home page.

SEE ALSO:

[Salesforce Help: Send List Email in Lightning Experience \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Schedule Emails with Send Later \(can be outdated or unavailable during release preview\)](#)

## Create Larger Emails with New Maximum Size of 35 MB

We increased the maximum size of outbound and inbound emails from 25 MB to 35 MB. The size of an email message includes the email headers, body, attachments, and encoding. Email size can also vary depending on character set.

**Where:** This change applies to Lightning Experience in the Personal, Contact Manager Group, Professional, Enterprise, Unlimited, and Developer editions.

SEE ALSO:

[Salesforce Help: Email and Email Template Allocations per Edition \(can be outdated or unavailable during release preview\)](#)

## Default Email Encoding Changing to UTF-8

For new Salesforce orgs, the default email encoding for templates, footers, and user email settings is changing to 8-bit Unicode Transformation Format (UTF-8). This update is to support Email Address Internationalization.

**Where:** This feature is found in the Email Encoding section.

**Who:** This change applies to any user in a new org created after the release. Existing org users still have the prior default settings, but they can update to UTF-8.

**How:** In Personal Settings > My Personal Info > Language & Timezone > Email Encoding, Unicode is the default setting. You can still select other default options.

SEE ALSO:

[Default Email Encoding Changing to UTF-8](#)

[Salesforce Help: Edit Your Language and Locale Settings \(can be outdated or unavailable during release preview\)](#)

## Streamline Contacts and Leads with Default Bounce Alerts

When bounce processing is enabled, bounce alerts now appear for all Contacts and Leads with the same email address.

**Where:** This feature is found in the Admin section under Deliverability. This setting is a Salesforce org-level setting valid for all users within a specific org.

**How:** In the Deliverability section, **Show bounce alert next to all instances of the email address** is no longer an option. When an email is returned as invalid, the bounce alert is automatically displayed next to all instances of that email address in Contact and Lead records.

SEE ALSO:

[Streamline Contacts and Leads with Default Bounce Alerts](#)

[Salesforce Help: Enable Email Bounce Handling](#)(can be outdated or unavailable during release preview)

## Email Templates: Email Template Builder

Quickly and easily create email templates with Email Template Builder's visual tools.

IN THIS SECTION:

[Interactively Create Engaging Email Templates](#)

Create email templates faster and more easily with visual tools in Email Template Builder. Instead of adding HTML code, your users can drag elements to create effective email templates. They can compose email templates with a few clicks to place design elements right where they want them.

### Interactively Create Engaging Email Templates

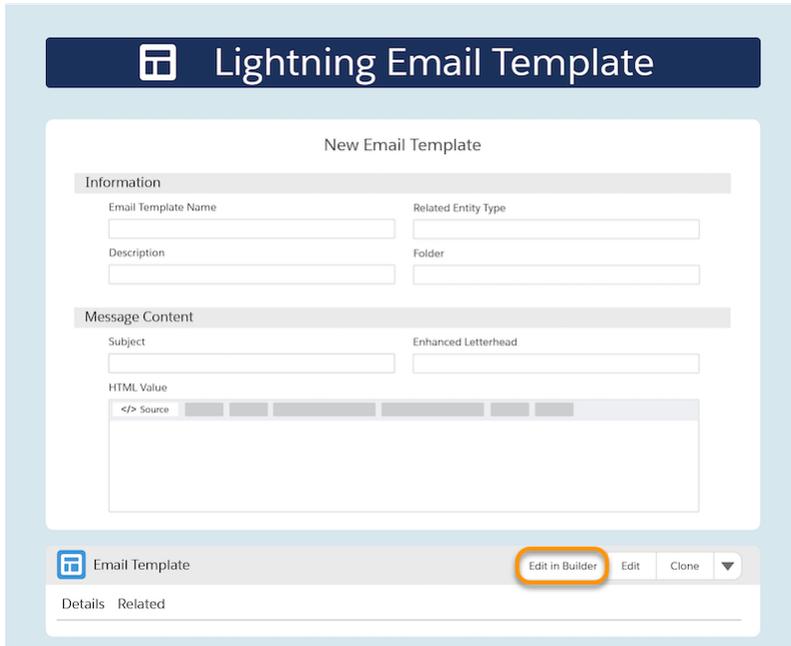
Create email templates faster and more easily with visual tools in Email Template Builder. Instead of adding HTML code, your users can drag elements to create effective email templates. They can compose email templates with a few clicks to place design elements right where they want them.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions, and all editions of Pardot in the Pardot Lightning app. This feature isn't available in Pardot Classic or the standalone Pardot app.

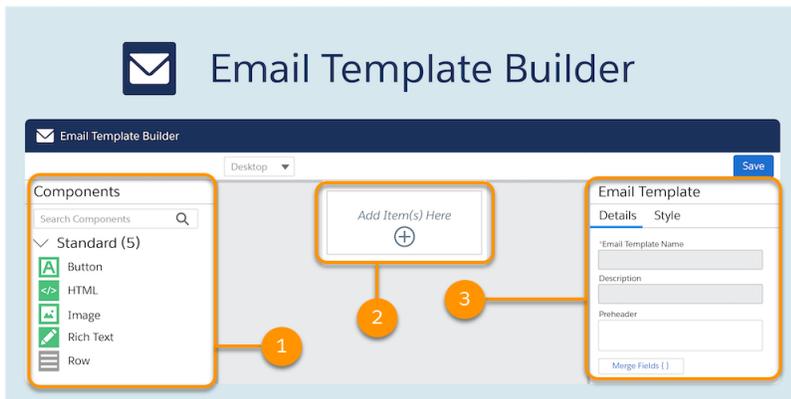
**Who:** Creating and managing Email Template Builder templates is available to users with the Access Lightning Content Builder or Manage Content Builder permission set. Any user that can send an email can use email template builder templates.

**How:** Sending professional, appealing emails is essential when communicating with your customers. Using captivating email templates gets you there.

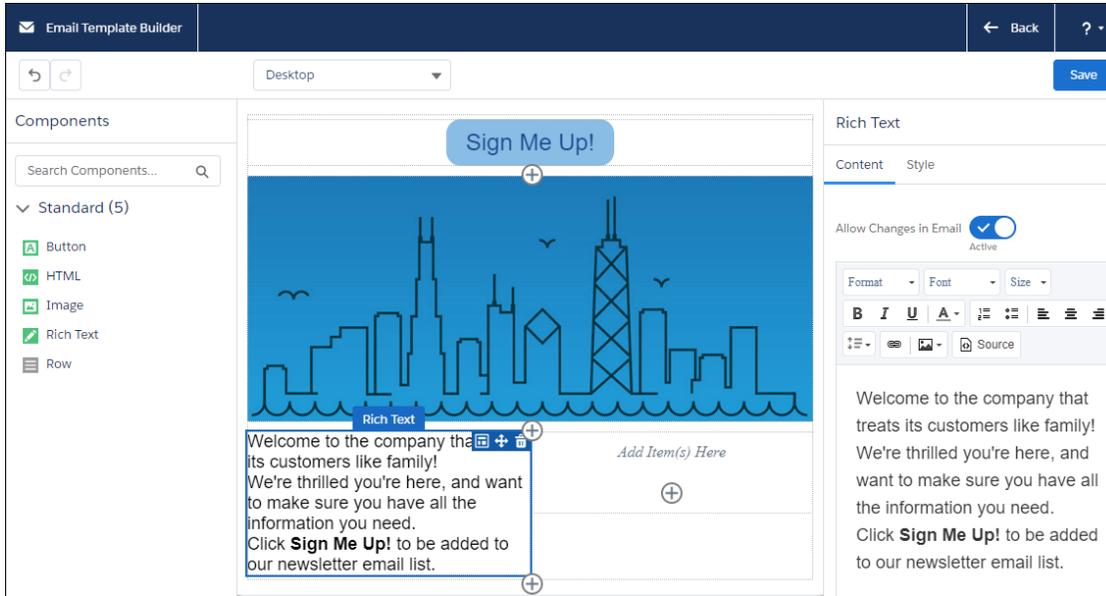
After creating a Lightning email template, users with the correct permission see the **Edit in Builder** button.



Click **Edit in Builder** to open Email Template Builder.



Choose a component (1) and drag it to the canvas (2). Change the details and style of the component using the properties panel (3).



Your users now can easily create an engaging email template.

 **Note:** Email Template Builder isn't available for previously created Classic and Lightning email templates.

SEE ALSO:

[Compose Emails with the New Lightning Content Builder](#)

[Salesforce Help: Email Template Builder \(can be outdated or unavailable during release preview\)](#)

## Salesforce Inbox Mobile: Smarter Selling from Your Inbox

Salesforce Inbox integrates your email and calendar with Salesforce so sales reps can manage their work sales more efficiently. Inbox increases reps' productivity on every email message, whether they're on the go or at the desk.

Learn about the latest features and enhancements to Inbox mobile in Salesforce Help.

- [Inbox Mobile for iOS](#)
- [Inbox Mobile for Android](#)

To learn about the latest features and enhancements in Inbox desktop, see the Outlook Integration, Gmail Integration, and Email Experience sections of the Salesforce release notes.

SEE ALSO:

[Outlook® Integration: Manual Email Logging with Einstein Activity Capture, Shared Mailbox Support, and Insert Availability Improvements](#)

[Gmail™ Integration: Manual Email Logging with Einstein Activity Capture and Updated Insert Availability](#)

[Email Experience: Use Insert Free Time, Schedule List Emails, and Streamlined Bounce Alerts](#)

## Integration with Google: Manual Email Logging with Einstein Activity Capture Enabled, Insert Availability Improvements, Changes to Lightning Sync Availability

Reps can manually log emails in the Outlook integration when Einstein Activity Capture has emails disabled. We made improvements to the Insert Availability window in the Gmail integration with Inbox, including accessibility and localization. Lightning Sync isn't available for new Salesforce customers.

### IN THIS SECTION:

#### [Gmail™ Integration: Manual Email Logging with Einstein Activity Capture and Updated Insert Availability](#)

Reps can manually log emails in the Gmail integration when Einstein Activity Capture has emails disabled. Plus, the Insert Availability window in the Gmail integration with Inbox has stylistic and accessibility updates.

#### [Lightning Sync for Google: Not Available for New Salesforce Customers](#)

Lightning Sync isn't available for new Salesforce customers. If you're exploring contact and event sync, we recommend Einstein Activity Capture. Einstein Activity Capture offers sync plus even more productivity-boosting features. Keep reading to learn more about the change in Lightning Sync availability and the latest feature enhancements available for Einstein Activity Capture. Current customers can continue using Lightning Sync.

## Gmail™ Integration: Manual Email Logging with Einstein Activity Capture and Updated Insert Availability

Reps can manually log emails in the Gmail integration when Einstein Activity Capture has emails disabled. Plus, the Insert Availability window in the Gmail integration with Inbox has stylistic and accessibility updates.

### IN THIS SECTION:

#### [Manually Log Emails from the Gmail Integration When Einstein Activity Capture Is On](#)

If your Einstein Activity Capture configuration has emails disabled, reps can now log emails manually from the Gmail integration. Previously, if emails were disabled in the configuration, users weren't shown an option to log emails.

#### [Insert Availability Improvements in the Gmail Integration with Inbox](#)

The Insert Availability window now has stylistic updates in the Gmail integration with Inbox. And, it's set up for accessibility and WCAG 2.0 compliance, localization, and internationalization. All the great features, such as defining meeting details, selecting attendees, and sending your available times to meet are still there. If you also compose emails from Lightning Experience, you can now use the feature there to coordinate meeting times with customers and prospects.

### SEE ALSO:

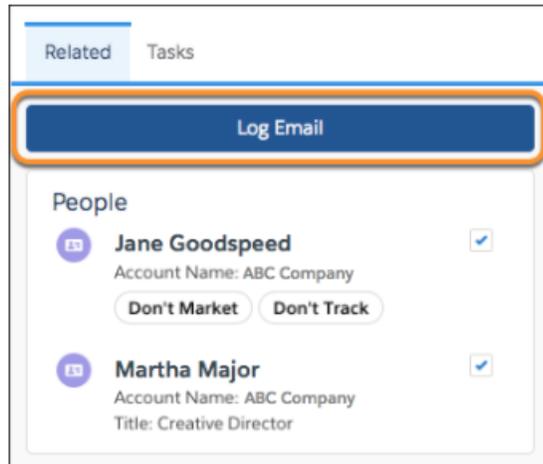
[Review the Org-Level Email Tracking Setting for Salesforce Inbox \(Update\)](#)

## Manually Log Emails from the Gmail Integration When Einstein Activity Capture Is On

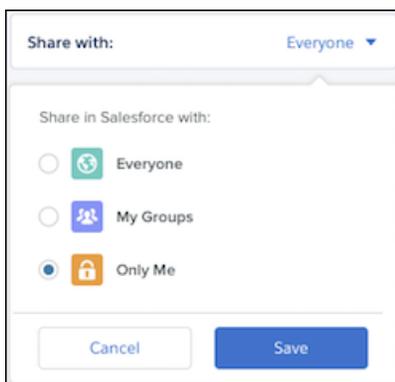
If your Einstein Activity Capture configuration has emails disabled, reps can now log emails manually from the Gmail integration. Previously, if emails were disabled in the configuration, users weren't shown an option to log emails.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, and Unlimited editions.

**Who:** When Einstein Activity Capture is enabled, users who are part of an Einstein Activity Capture configuration that doesn't include email capture see an option to log an email.



If a user is part of an Einstein Activity Capture configuration that has emails enabled, their emails are captured and logged to Salesforce automatically. These users see the sharing options available for their Einstein Activity Capture configuration.



SEE ALSO:

[Salesforce Help: Select Who Can Use Einstein Activity Capture \(can be outdated or unavailable during release preview\)](#)

## Insert Availability Improvements in the Gmail Integration with Inbox

The Insert Availability window now has stylistic updates in the Gmail integration with Inbox. And, it's set up for accessibility and WCAG 2.0 compliance, localization, and internationalization. All the great features, such as defining meeting details, selecting attendees, and sending your available times to meet are still there. If you also compose emails from Lightning Experience, you can now use the feature there to coordinate meeting times with customers and prospects.

**Where:** This change applies to Salesforce Inbox, available for an extra cost in Group, Professional, Enterprise, Performance, Unlimited, and Developer editions, and at no cost in Essentials editions.

**How:** There's no change to how you set up Insert Availability, and reps still access it using the Availability option when composing an email. It just looks a little different.

**Insert Availability**

**Event Details**

Event Owner: Jane@company.com

Event Title: Product Demo

Duration: 30 mins

Event Location: Enter where the event is taking place...

Description: Quick demo of the features that will best highlight the benefits of our product for you company

**Attendees**

Add Attendee: example@example.com

Visible Calendars: Jane@company.com (Event Owner)

No Calendar Access: joanie@123abc.com

Calendar: July 19, 2020 - July 25, 2020 | Timezone: America/Los\_Angeles | Today

Calendar Grid:

| Time  | Mon 20 | Tue 21        | Wed 22 | Thu 23        | Fri 24 | Sat 25 | Sun 26 |
|-------|--------|---------------|--------|---------------|--------|--------|--------|
| 9 AM  |        |               |        |               |        |        |        |
| 10 AM |        |               |        |               |        |        |        |
| 11 AM |        | 11:00 - 11:30 |        |               |        |        |        |
| 12 PM |        |               |        |               |        |        |        |
| 1 PM  |        | 13:00 - 13:30 |        | 12:30 - 13:00 |        |        |        |
| 2 PM  |        |               |        |               |        |        |        |
| 3 PM  |        |               |        |               |        |        |        |

3 time slots selected | Cancel | Add to Email

SEE ALSO:

[Easily Coordinate When to Meet with Insert Free Time in Lightning Experience](#)

[Salesforce Help: Considerations for Scheduling Meetings with Availability \(can be outdated or unavailable during release preview\)](#)

## Lightning Sync for Google: Not Available for New Salesforce Customers

Lightning Sync isn't available for new Salesforce customers. If you're exploring contact and event sync, we recommend Einstein Activity Capture. Einstein Activity Capture offers sync plus even more productivity-boosting features. Keep reading to learn more about the change in Lightning Sync availability and the latest feature enhancements available for Einstein Activity Capture. Current customers can continue using Lightning Sync.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Who:** Lightning Sync isn't available for customers who purchase Salesforce after the Winter '21 release. After Winter '21, no Lightning Sync enhancements will be introduced. But customers who purchased Salesforce before Winter '21 can still access and [enable Lightning Sync for users with the appropriate Salesforce licenses](#). And Lightning Sync continues to sync contacts and events for current users.

**Why:** We heard customer requests for more flexible connection options and optimized features. To offer you the best in Google integration, we're focusing our development efforts on one sync product: Einstein Activity Capture.

With Einstein Activity Capture, sales reps get even more productivity features than they did with Lightning Sync. To read about all the benefits, see [What Does Einstein Activity Capture Do?](#)

And if you considered Einstein Activity Capture in the past, you're probably most interested in our Winter '21 improvements. For example, now you can choose to sync contacts and events from Salesforce to Google only. To learn more about what's offered in Winter '21, check out the [Einstein Activity Capture release notes](#).

To learn more about the change in Lightning Sync availability, see [Lightning Sync: Not Available for New Salesforce Customers in Winter '21](#).

**SEE ALSO:**

[Salesforce Help: Compare Einstein Activity Capture and Lightning Sync \(can be outdated or unavailable during release preview\)](#)

## Integration with Microsoft®: Manual Email Logging with Einstein Activity Capture Enabled, Support for Shared Mailboxes, Changes to Lightning Sync and Salesforce for Outlook Availability

Sales reps can manually log emails in the Outlook integration when Einstein Activity Capture has emails disabled. Sales reps can now log emails and events to Salesforce from Outlook Shared Folders and from Delegate Access Mailboxes. Lightning Sync isn't available for new Salesforce customers. Salesforce for Outlook will no longer function when extended support for Microsoft® Internet Explorer 11 ends in December 2020.

**IN THIS SECTION:**

### [Microsoft Teams Integration: Bring Salesforce and Microsoft Teams Together \(Pilot\)](#)

Your sales and service teams use Salesforce to manage customer relationships. They also chat in Microsoft® Teams and discuss topics relevant to their sales pipeline and service cases. The Teams Integration provides context about Salesforce records from Teams channels and one-on-one chat conversations, eliminating switching between applications. Salesforce users can mention Salesforce records in Teams to facilitate collaboration. They can preview details of records that others post, pin records to channel tabs for easy access, and keep records up to date with inline editing. Reps can also post important moments to Salesforce record Chatter feeds, all directly from Teams.

### [Outlook® Integration: Manual Email Logging with Einstein Activity Capture, Shared Mailbox Support, and Insert Availability Improvements](#)

Reps can manually log emails in the Outlook integration when Einstein Activity Capture has emails disabled. Reps can also log emails and events from Outlook Shared Folders and Delegate Access Mailboxes. Plus, the Insert Availability window in the Outlook integration with Inbox has stylistic and accessibility updates.

### [Lightning Sync for Microsoft® Exchange: Availability Changes and Required Setup Adjustments](#)

Lightning Sync isn't available for new Salesforce customers. Current customers on Microsoft Office 365® must review their settings and prepare for Basic Authentication retirement, scheduled for the second half of 2021.

### [Salesforce for Outlook: Pending Retirement and Restoring Access Temporarily](#)

Salesforce for Outlook retires in December 2020. Learn about our next-generation Microsoft products and how to plan your move. And for customers who are affected by the browser support changes before retirement, learn how to reconnect until December.

## Microsoft Teams Integration: Bring Salesforce and Microsoft Teams Together (Pilot)

Your sales and service teams use Salesforce to manage customer relationships. They also chat in Microsoft® Teams and discuss topics relevant to their sales pipeline and service cases. The Teams Integration provides context about Salesforce records from Teams channels and one-on-one chat conversations, eliminating switching between applications. Salesforce users can mention Salesforce records in Teams to facilitate collaboration. They can preview details of records that others post, pin records to channel tabs for easy access, and keep records up to date with inline editing. Reps can also post important moments to Salesforce record Chatter feeds, all directly from Teams.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions.

 **Note:** We provide the Teams Integration to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. Feature isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features. You can provide feedback and suggestions for the Teams Integration in the [Lightning Now](#) group in the Trailblazer Community.

**Who:** The Teams Integration is available to Salesforce orgs with either Sales or Service Cloud. When enabled, the integration features are available through the Salesforce app in desktop, mobile, and web versions Teams.

**How:** For information about joining the pilot, contact your Salesforce account executive.

SEE ALSO:

[Salesforce Help: Microsoft Teams Integration \(Pilot\) \(can be outdated or unavailable during release preview\)](#)

## Outlook® Integration: Manual Email Logging with Einstein Activity Capture, Shared Mailbox Support, and Insert Availability Improvements

Reps can manually log emails in the Outlook integration when Einstein Activity Capture has emails disabled. Reps can also log emails and events from Outlook Shared Folders and Delegate Access Mailboxes. Plus, the Insert Availability window in the Outlook integration with Inbox has stylistic and accessibility updates.

IN THIS SECTION:

[Continued Support for the Outlook Integration in Older Versions of Outlook and Windows](#)

We are continuing support for the Outlook integration in Outlook 2013, Outlook 2016, and volume-licensed versions of Outlook 2019 through the end of December 2021. Previously, we announced that Outlook integration users running these versions would lose access to the integration when support for Internet Explorer 11 in Lightning Experience ended in December 2020. This continued support applies only to the Outlook integration. It doesn't apply to Salesforce for Outlook or using Internet Explorer 11 to access Lightning Experience.

[Manually Log Emails from the Outlook Integration When Einstein Activity Capture Is On](#)

If your Einstein Activity Capture configuration has emails disabled, reps can now log emails manually from the Outlook integration. Previously, if emails were disabled in the configuration, users weren't shown an option to log emails.

[Shared Mailbox and Calendar Support in the Outlook Integration](#)

Sales reps can now log emails and events to Salesforce from Outlook Shared Folders and from Delegate Access Mailboxes. They can also create, view, and edit Salesforce records directly from Outlook. For example, a rep receives delegate access to another rep's Outlook mailbox and calendar. That rep can now log emails and events from the shared account to Salesforce. Or, if sales reps share a public email alias such as info@company123.com, they can now log communications from that address to Salesforce records.

[Insert Availability Improvements in the Outlook Integration with Inbox](#)

The Insert Availability window now has stylistic updates in the Outlook integration with Inbox. And, it's set up for accessibility and WCAG 2.0 compliance, localization, and internationalization. All the great features, such as defining meeting details, selecting attendees, and sending your available times to meet are still there. If you also compose emails from Lightning Experience, you can now use the feature there to coordinate meeting times with customers and prospects.

SEE ALSO:

[Review the Org-Level Email Tracking Setting for Salesforce Inbox \(Update\)](#)

## Continued Support for the Outlook Integration in Older Versions of Outlook and Windows

We are continuing support for the Outlook integration in Outlook 2013, Outlook 2016, and volume-licensed versions of Outlook 2019 through the end of December 2021. Previously, we announced that Outlook integration users running these versions would lose access to the integration when support for Internet Explorer 11 in Lightning Experience ended in December 2020. This continued support applies only to the Outlook integration. It doesn't apply to Salesforce for Outlook or using Internet Explorer 11 to access Lightning Experience.

**Where:** This change applies to the Outlook integration, formerly known as Lightning for Outlook, in all editions.

**Who:** This change applies to all users running the Outlook integration in older versions of Outlook, including Outlook 2013, Outlook 2016, or volume-licensed Outlook 2019.

**Why:** We heard you. Now isn't the best time to upgrade your systems to continue using the valuable features in the integration. To continue using the Outlook integration after the end of 2021, make plans now to upgrade. After December 2021 you need Office version 16.0.11629 and later, and Windows 10 versions 1903 and later.

To ensure that you have the latest Microsoft security and product updates, we always recommend running the latest versions of Outlook and Windows. Plus, the Outlook integration is built on the Microsoft Add-in Framework. Original versions of that framework use Internet Explorer 11 to launch the Salesforce add-in from desktop versions of Outlook. That requirement was true for all add-ins built on that framework, not just the Salesforce add-in. The latest versions of the Add-in Framework use Microsoft Edge to launch the add-in. Edge is the native browser available in newer versions of Windows. We continue to build the Outlook integration on the latest framework version to use the latest technology.

**How:** The Outlook integration runs as it has in previous releases, even on older versions of Outlook and Windows. But Lightning Experience support for Internet Explorer ends on December 31, 2020. Errors can then result if reps use older versions to launch Salesforce from the integration.

SEE ALSO:

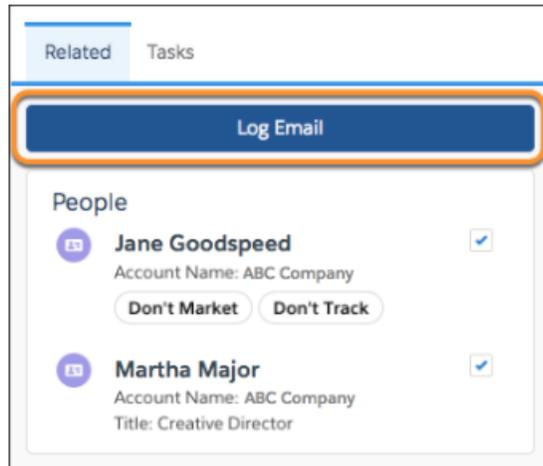
[Salesforce Help: Outlook Integration System Requirements \(can be outdated or unavailable during release preview\)](#)

## Manually Log Emails from the Outlook Integration When Einstein Activity Capture Is On

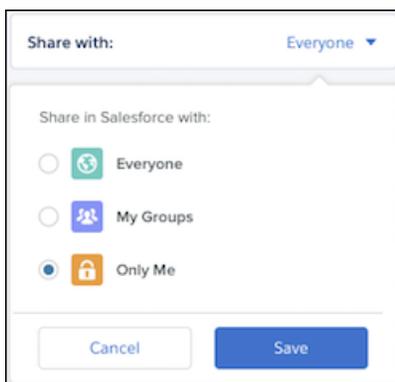
If your Einstein Activity Capture configuration has emails disabled, reps can now log emails manually from the Outlook integration. Previously, if emails were disabled in the configuration, users weren't shown an option to log emails.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, and Unlimited editions.

**Who:** When Einstein Activity Capture is enabled, users who are part of an Einstein Activity Capture configuration that doesn't include email capture see an option to log an email.



If a user is part of an Einstein Activity Capture configuration that has emails enabled, their emails are captured and logged to Salesforce automatically. These users see the sharing options available for their Einstein Activity Capture configuration.



SEE ALSO:

[Salesforce Help: Select Who Can Use Einstein Activity Capture \(can be outdated or unavailable during release preview\)](#)

## Shared Mailbox and Calendar Support in the Outlook Integration

Sales reps can now log emails and events to Salesforce from Outlook Shared Folders and from Delegate Access Mailboxes. They can also create, view, and edit Salesforce records directly from Outlook. For example, a rep receives delegate access to another rep's Outlook mailbox and calendar. That rep can now log emails and events from the shared account to Salesforce. Or, if sales reps share a public email alias such as info@company123.com, they can now log communications from that address to Salesforce records.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Who:** Shared mailbox support is available to customers whose Salesforce orgs have Enhanced Email enabled and meet the following requirements:

- Exchange server is online
- Email client is one of the following:
  - Microsoft 365 (also called Office 365) subscription version 1910 (build 12130.20272) or later
  - Office 2019 one-time purchase (retail) with a build version 1910 (build 12130.20272) or later
  - Outlook on the web

**How:** Reps access the integration from a shared mailbox or calendar, just like they would from their primary mailbox or calendar. Because of the nature of a shared inbox, some Salesforce Inbox productivity features, such as email tracking and insert availability, aren't fully supported. For example, email opens are only visible in the sending user's engagement feed. When inserting availability, only the current user's availability is shown, not the shared mailbox availability.

SEE ALSO:

[Salesforce Help: Considerations for Outlook Shared Mailboxes and Calendars in the Outlook Integration \(can be outdated or unavailable during release preview\)](#)

## Insert Availability Improvements in the Outlook Integration with Inbox

The Insert Availability window now has stylistic updates in the Outlook integration with Inbox. And, it's set up for accessibility and WCAG 2.0 compliance, localization, and internationalization. All the great features, such as defining meeting details, selecting attendees, and sending your available times to meet are still there. If you also compose emails from Lightning Experience, you can now use the feature there to coordinate meeting times with customers and prospects.

**Where:** This change applies to Salesforce Inbox, available for an extra cost in Group, Professional, Enterprise, Performance, Unlimited, and Developer editions, and at no cost in Essentials editions.

**How:** There's no change to how you set up Insert Availability, and reps still access it using the Availability option when composing an email. It just looks a little different.

**Insert Availability**

Event Details

July 19, 2020 - July 25, 2020 Timezone America/Los\_Angeles < > Today

\* Event Owner Jane@company.com

\* Event Title Product Demo

\* Duration 30 mins

Event Location Enter where the event is taking place...

Description Quick demo of the features that will best highlight the benefits of our product for you company

Attendees

Add Attendee example@example.com

Visible Calendars Jane@company.com Event Owner

No Calendar Access joanie@123abc.com X

3 time slots selected Cancel Add to Email

SEE ALSO:

[Easily Coordinate When to Meet with Insert Free Time in Lightning Experience](#)

[Salesforce Help: Considerations for Scheduling Meetings with Availability \(can be outdated or unavailable during release preview\)](#)

## Lightning Sync for Microsoft® Exchange: Availability Changes and Required Setup Adjustments

Lightning Sync isn't available for new Salesforce customers. Current customers on Microsoft Office 365® must review their settings and prepare for Basic Authentication retirement, scheduled for the second half of 2021.

### IN THIS SECTION:

#### [Lightning Sync Not Available for New Salesforce Customers](#)

If you're exploring contact and event sync for the first time, we recommend Einstein Activity Capture. Einstein Activity Capture offers sync plus even more productivity-boosting features. Keep reading to learn more about the change in Lightning Sync availability and the latest feature enhancements available for Einstein Activity Capture. Current customers can continue using Lightning Sync.

#### [Required Setting Changes for Some Microsoft Office 365 Customers](#)

Microsoft® has moved the Basic Authentication retirement for Microsoft Office 365® and Exchange Online to the second half of 2021. If you're an Office 365 customer using a service account as your connection method, contacts and events stop syncing at that time. To avoid a sync interruption, work with your Microsoft admin or IT professional to update your Lightning Sync connection method. Or consider moving to Einstein Activity Capture.

## Lightning Sync Not Available for New Salesforce Customers

If you're exploring contact and event sync for the first time, we recommend Einstein Activity Capture. Einstein Activity Capture offers sync plus even more productivity-boosting features. Keep reading to learn more about the change in Lightning Sync availability and the latest feature enhancements available for Einstein Activity Capture. Current customers can continue using Lightning Sync.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Who:** Lightning Sync isn't available for customers who purchase Salesforce after the Winter '21 release. After Winter '21, no Lightning Sync enhancements will be introduced. But customers who purchased Salesforce before Winter '21 can still access and [enable Lightning Sync for users with the appropriate Salesforce licenses](#). And Lightning Sync continues to sync contacts and events for current users.

**Why:** We heard customer requests for more flexible connection options and optimized features. To offer you the best in Microsoft integration, we're focusing our development efforts on one sync product: Einstein Activity Capture.

With Einstein Activity Capture, sales reps get even more productivity features than they did with Lightning Sync. To read about the benefits, see [What Does Einstein Activity Capture Do?](#)

And if you considered Einstein Activity Capture in the past, you're probably most interested in our Winter '21 improvements.

- Microsoft Office 365 users get new options for connecting to Salesforce: an org-level connection or a service account. Both connection methods provide the security of OAuth 2.0. Plus, users aren't required to connect their own accounts, which simplifies the rollout process.
- You can choose to sync contacts and events from Salesforce to Microsoft Exchange only.

To learn more about what's offered in Winter '21, check out the [Einstein Activity Capture release notes](#).

To learn more about the change in Lightning Sync availability, see [Lightning Sync: Not Available for New Salesforce Customers Starting in Winter '21](#).

### SEE ALSO:

[Salesforce Help: Compare Einstein Activity Capture and Lightning Sync \(can be outdated or unavailable during release preview\)](#)

## Required Setting Changes for Some Microsoft Office 365 Customers

Microsoft® has moved the Basic Authentication retirement for Microsoft Office 365® and Exchange Online to the second half of 2021. If you're an Office 365 customer using a service account as your connection method, contacts and events stop syncing at that time. To avoid a sync interruption, work with your Microsoft admin or IT professional to update your Lightning Sync connection method. Or consider moving to Einstein Activity Capture.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Who:** This retirement affects these customers only:

- Current Lightning Sync users on Office 365 with Exchange Online who use a service account to connect to Salesforce.
- Current Salesforce customers who intend to set up Lightning Sync but whose Microsoft tenants were created after October 2020. For these customers, basic authentication isn't available, and an alternative authentication service is required to use Lightning Sync.

These customers aren't affected:

- Customers on Exchange 2016® or Exchange 2013® on-premise servers who connect to Salesforce using the service account connection method. Microsoft hasn't announced retirement for basic authentication for those servers.
- Customers on Office 365 who connect to Salesforce using the OAuth 2.0 connection method.

**Why:** Some Lightning Sync customers using the service account connection method are authenticating their Microsoft servers with Salesforce using Basic Authentication. When Basic Authentication is retired, contacts and events stop syncing for these customers.

**How:** To avoid a sync interruption, work with the Microsoft admin or IT professional at your company to verify whether the retirement impacts you. Then, review the available solutions and select the one that works best for you. See [Adjust Your Sync Setup Before Basic Authentication Retirement](#).

SEE ALSO:

[External Link: Basic Authentication and Exchange Online – April 2020 Update](#)

[Salesforce Help: Lightning Sync System Requirements \(can be outdated or unavailable during release preview\)](#)

## Salesforce for Outlook: Pending Retirement and Restoring Access Temporarily

Salesforce for Outlook retires in December 2020. Learn about our next-generation Microsoft products and how to plan your move. And for customers who are affected by the browser support changes before retirement, learn how to reconnect until December.

IN THIS SECTION:

[Salesforce for Outlook Is Being Retired in December 2020](#)

But the good news is that we continue to improve our next-generation products, Outlook Integration and Einstein Activity Capture. Keep reading to learn how to make the move.

[Restore Access If Service Is Interrupted Before December 2020](#)

Recent changes in Microsoft® Internet Explorer® 11 (IE11) support can interrupt service for Salesforce for Outlook users before the Salesforce for Outlook retirement. Get details on how to see if your users are affected and how to restore access.

[Find Version-Specific Salesforce for Outlook Release Notes](#)

Wondering about the updates available in each Salesforce for Outlook version? Find those version-specific release notes in the Outlook/Gmail integrations and Inbox Trailblazer Community.

## Salesforce for Outlook Is Being Retired in December 2020

But the good news is that we continue to improve our next-generation products, Outlook Integration and Einstein Activity Capture. Keep reading to learn how to make the move.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Contact Manager, Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**When:** Salesforce for Outlook will be retired in December 2020.

**Why:** After retirement, Salesforce for Outlook can't sync contacts, events, or tasks between Outlook and Salesforce. Likewise, the Salesforce for Outlook Side Panel can't connect to Salesforce, so sales reps can't work with their Salesforce records from Microsoft Outlook®.

To continue integrating Outlook and Salesforce, we encourage customers to explore our suggested next-generation product options, Outlook Integration and Einstein Activity Capture.

**How:** To learn more about retirement, see [Salesforce for Outlook Retirement](#). For guidance on how to make the move to the latest products, check out our migration guide, [Move from Salesforce for Outlook to the Next-Generation Products](#). And check out release notes for [Outlook Integration](#) and [Einstein Activity Capture](#) to learn what's new for our next-generation products in Winter '21.

### SEE ALSO:

[Supported Browsers for Lightning Experience](#)

[Knowledge Article: Extended Support for Accessing Lightning Experience Using Microsoft Internet Explorer 11](#)

## Restore Access If Service Is Interrupted Before December 2020

Recent changes in Microsoft® Internet Explorer® 11 (IE11) support can interrupt service for Salesforce for Outlook users before the Salesforce for Outlook retirement. Get details on how to see if your users are affected and how to restore access.

**Where:** This change applies to Lightning Experience in Contact Manager, Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Who:** Salesforce for Outlook users can experience a service interruption before the December 2020 retirement when they meet either of these scenarios.

- Your Salesforce org or the user doesn't have access to Salesforce Classic.
- Your company has opted not to [extend Microsoft Internet Explorer 11 support until December 31, 2020](#).

**Why:** In 2016, Salesforce stopped supporting Lightning Experience on IE11. Because Salesforce for Outlook relies on IE11 to display Salesforce from Microsoft Outlook®, the IE11 access block also affects Salesforce for Outlook users.

**How:** To restore Salesforce for Outlook access for users, take one of these suggested workarounds until the product is retired in December 2020.

- Opt in to extended support for IE11.
- For customers whose Salesforce subscriptions offer access to Salesforce Classic, admins can also restore Salesforce for Outlook by providing users access to Salesforce Classic.

Or, consider moving to our next-generation products, Outlook Integration and Einstein Activity Capture.

For steps on restoring access and details on our next-generation products, see [Salesforce for Outlook No Longer Connects for Some Customers Working from Lightning Experience](#).

SEE ALSO:

[Supported Browsers for Lightning Experience](#)

[Salesforce Help: Outlook and Gmail Integration on Desktop \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Einstein Activity Capture \(can be outdated or unavailable during release preview\)](#)

## Find Version-Specific Salesforce for Outlook Release Notes

Wondering about the updates available in each Salesforce for Outlook version? Find those version-specific release notes in the Outlook/Gmail integrations and Inbox Trailblazer Community.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Contact Manager, Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

[Salesforce Trailblazer Community: Salesforce for Outlook Release Notes](#)

## Salesforce CPQ and Billing: Product Recommendations, Quote Fields, Asset Lifecycle Management, Standalone Orders

Salesforce CPQ can now display complementary products when reps are creating a quote, and you can control quote fields dynamically. Salesforce Billing customers can now get insight into what customers have bought, and create standalone orders.

IN THIS SECTION:

[Salesforce CPQ: Product Recommendations, Dynamic Quote Fields, and Amendment Improvements](#)

Show complementary products on quotes by using a new product recommendations plugin. Show relevant fields on quotes, depending on the business unit, product, or territory. And sales reps can create add-ons on amendment quotes while avoiding backdated amendments with invalid start dates.

[Salesforce Billing: Asset Lifecycle Management, Orders Without CPQ Quotes, Financial Transaction Reports, and Alignment for Canceled Billing Calculations](#)

Reps can now get visibility into what customers have bought, using dashboards that show quantity, amount, and monthly recurring revenue throughout an asset's lifecycle. Create orders and order products without ordering them from a CPQ quote. Gather information about financial actions and store it for reporting and ERP integration. And align canceled billing calculations between Salesforce CPQ and Salesforce Billing.

SEE ALSO:

[Knowledge Article: New Objects, Fields, and Permissions in Salesforce CPQ and Billing Winter '21 \(can be outdated or unavailable during release preview\)](#)

## Salesforce CPQ: Product Recommendations, Dynamic Quote Fields, and Amendment Improvements

Show complementary products on quotes by using a new product recommendations plugin. Show relevant fields on quotes, depending on the business unit, product, or territory. And sales reps can create add-ons on amendment quotes while avoiding backdated amendments with invalid start dates.

 **Note:** Salesforce CPQ is offered for an extra cost. For pricing, contact your Salesforce account executive.

### IN THIS SECTION:

#### [Help Sales Reps Sell More with Product Recommendations in the Quote Line Editor](#)

Help your sales reps sell more, and make quoting more efficient. Use the Salesforce CPQ Product Recommendations Plugin to give your sales reps suggestions of complementary products related to the products on their quotes. A new button on the quote line editor takes sales reps to a Product Recommendations page where they can add recommended products to quotes.

#### [Dynamically Control Quote Fields Shown in the Quote Line Editor](#)

Tailor the quote fields that you show in the quote line editor dynamically so sales reps see only the fields that they need. You save sales reps time and avoid extraneous information by showing quote fields that are relevant to specific business units, products, or territories. Create a custom field to dynamically show or hide quote field sets, and use a picklist or formula to manage the field sets.

#### [Sell Add-On Products on Amendments and Prevent Backdated Amendments at the Same Time](#)

Your sales reps can now sell add-on products, and they're prevented from creating amendments with start dates before existing amendments' start dates. The backdated amendment restriction introduced in Spring '20 is updated to allow add-on products or subscriptions on amendment quotes. Previously, if a sales rep included a new product or subscription, the restriction blocked the amendment quotes from being saved.

#### [Connect CPQ to B2B Commerce with Solution Kits](#)

Cross-cloud solution kits help you tackle complex use cases that lead to customer dissatisfaction. Find out how to use the CPQ Connector to integrate B2B Commerce with CPQ billing and order information to improve the revenue management process.

#### [Validation Was Added to Ensure Unique Values for Number Field on Quote Lines](#)

To ensure correct prices and other data, a new validation ensures that values for the Number field on quote lines are unique. The validation skips lines with a null value.

#### [Permissions for Activating Order Products in Orgs with Usage-Based Pricing Were Changed](#)

When the CPQ package setting Enable Usage Based Pricing is active, activating an order product now requires Read permissions on consumption schedules, consumption rates, order product consumption schedules, and order product consumption rates. Previously, these permissions were required only when activating an order product related to a product with a consumption schedule.

### SEE ALSO:

[Knowledge Article: New Objects, Fields, and Permissions in Salesforce CPQ and Billing Winter '21 \(can be outdated or unavailable during release preview\)](#)

## Help Sales Reps Sell More with Product Recommendations in the Quote Line Editor

Help your sales reps sell more, and make quoting more efficient. Use the Salesforce CPQ Product Recommendations Plugin to give your sales reps suggestions of complementary products related to the products on their quotes. A new button on the quote line editor takes sales reps to a Product Recommendations page where they can add recommended products to quotes.

**Where:** This change applies to Salesforce Classic and Lightning Experience in all Salesforce CPQ editions.

**How:** On the Plugins tab in the settings editor, select **Product Recommendations Plugin**. To add the **Add Recommendations** button in the quote line editor, enable the Add Recommendations custom action button.

To fully enable the product recommendations feature, you must provide your own implementation of the plugin interface. You can create your own recommendation engine or utilize a third-party service.

SEE ALSO:

[Recommended Products Plugin Guide \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Custom Actions \(can be outdated or unavailable during release preview\)](#)

## Dynamically Control Quote Fields Shown in the Quote Line Editor

Tailor the quote fields that you show in the quote line editor dynamically so sales reps see only the fields that they need. You save sales reps time and avoid extraneous information by showing quote fields that are relevant to specific business units, products, or territories. Create a custom field to dynamically show or hide quote field sets, and use a picklist or formula to manage the field sets.

**Where:** This change applies to Salesforce Classic and Lightning Experience in all Salesforce CPQ editions.

**Why:** For example, Sales Team A sells subscription products, and Sales Team B sells one-time products. Using the custom field to dynamically control the quote field set, you can show quote fields on the quote line editor tailored to each sales team's product type. Sales Team A sees quote fields related to subscription products, such as start date, end date, and subscription term. Sales Team B sees the quote fields relevant to one-time products.

**How:** Create a custom field and enter a name. In the API name field, replace the auto-populated name with `HeaderFieldSetName`.

To give users control of the fields that are displayed, set the field type to **picklist**. Populate the options with the API names of field sets. Add the new custom field to your field set and save. The user's field set is displayed in the header section of the quote line editor. Make sure to add the custom field to all quote field sets.

To control the fields that are displayed with a formula, set the field type to **formula**. Create a formula to resolve to the API name of the field set. Use the API name for the field sets that include the quote fields that you want to show, and ensure that it returns a text string. Add the new custom field to your field set and save.

SEE ALSO:

[Knowledge Article: Dynamically Display Salesforce CPQ Quote Fields in the Quote Line Editor](#)

[Knowledge Article: Salesforce CPQ Special Fields](#)

## Sell Add-On Products on Amendments and Prevent Backdated Amendments at the Same Time

Your sales reps can now sell add-on products, and they're prevented from creating amendments with start dates before existing amendments' start dates. The backdated amendment restriction introduced in Spring '20 is updated to allow add-on products or subscriptions on amendment quotes. Previously, if a sales rep included a new product or subscription, the restriction blocked the amendment quotes from being saved.

**Where:** This change applies to Lightning Experience and Salesforce Classic in all Salesforce CPQ editions.

**How:** To access this update to the backdated amendment restriction, make sure to use the Winter '21 release.

SEE ALSO:

[Salesforce Help: Guidelines for Amending Subscription Start Dates \(can be outdated or unavailable during release preview\)](#)

## Connect CPQ to B2B Commerce with Solution Kits

Cross-cloud solution kits help you tackle complex use cases that lead to customer dissatisfaction. Find out how to use the CPQ Connector to integrate B2B Commerce with CPQ billing and order information to improve the revenue management process.

### IN THIS SECTION:

#### [Synchronize Product and Pricing Data Solution Kit](#)

Establish a single source of truth for products and pricing data in CPQ and B2B Commerce.

#### [Link Cart to Quote Solution Kit](#)

Integrate B2B Commerce carts with CPQ to allow sales representatives to finalize quotes and customers to complete orders.

#### [Link Cart to Cash Solution Kit](#)

Connect B2B Commerce with CPQ billing and order information to improve the revenue management process.

## Synchronize Product and Pricing Data Solution Kit

Establish a single source of truth for products and pricing data in CPQ and B2B Commerce.

**Who:** Businesses who want to integrate Salesforce CPQ and B2B Commerce to sync data about products.

**Why:** Simplify implementation by getting our recommendations for specific products, configurations, and best practices to resolve this issue.

**How:** Check out the complete solution kit [in Salesforce Help](#) or [download it as a PDF](#). This solution kit is part of the Transform the Consumer Experience Customer 360 Guide.

## Link Cart to Quote Solution Kit

Integrate B2B Commerce carts with CPQ to allow sales representatives to finalize quotes and customers to complete orders.

**Who:** Businesses who want to integrate Salesforce CPQ and B2B Commerce to link carts to quotes.

**Why:** Simplify implementation by getting our recommendations for specific products, configurations, and best practices to resolve this issue.

**How:** Check out the complete solution kit [in Salesforce Help](#) or [download it as a PDF](#). This solution kit is part of the Transform the Consumer Experience Customer 360 Guide.

## Link Cart to Cash Solution Kit

Connect B2B Commerce with CPQ billing and order information to improve the revenue management process.

**Who:** Businesses who want to integrate Salesforce CPQ and B2B Commerce to link cart data to cash flow data.

**Why:** Simplify implementation by getting our recommendations for specific products, configurations, and best practices to resolve this issue.

**How:** Check out the complete solution kit [in Salesforce Help](#) or [download it as a PDF](#). This solution kit is part of the Transform the Consumer Experience Customer 360 Guide.

## Validation Was Added to Ensure Unique Values for Number Field on Quote Lines

To ensure correct prices and other data, a new validation ensures that values for the Number field on quote lines are unique. The validation skips lines with a null value.

**Where:** This change applies to Lightning Experience and Salesforce Classic in all Salesforce CPQ editions.

**Why:** The Number field (API name `Number__c`, on the `SBOQ.QuoteLine` object) determines the order of lines in a quote or quote line group. The field can be populated automatically or manipulated by custom code, automation, or other means. Previously, two or more quote lines could have the same Number value, resulting in inaccurate pricing or transposition of other data among lines.

## Permissions for Activating Order Products in Orgs with Usage-Based Pricing Were Changed

When the CPQ package setting Enable Usage Based Pricing is active, activating an order product now requires Read permissions on consumption schedules, consumption rates, order product consumption schedules, and order product consumption rates. Previously, these permissions were required only when activating an order product related to a product with a consumption schedule.

**Where:** This change applies to Salesforce Lightning Experience and Salesforce Classic in Salesforce CPQ.

## Salesforce Billing: Asset Lifecycle Management, Orders Without CPQ Quotes, Financial Transaction Reports, and Alignment for Canceled Billing Calculations

Reps can now get visibility into what customers have bought, using dashboards that show quantity, amount, and monthly recurring revenue throughout an asset's lifecycle. Create orders and order products without ordering them from a CPQ quote. Gather information about financial actions and store it for reporting and ERP integration. And align canceled billing calculations between Salesforce CPQ and Salesforce Billing.

 **Note:** You need Salesforce CPQ to install Salesforce Billing. Some subscriptions offer this package for an extra cost. For pricing, contact your Salesforce account executive.

### IN THIS SECTION:

#### [Understand What Your Customers Have Bought by Using Customer Asset Lifecycle Management](#)

Use Customer Asset Lifecycle Management to provide visibility into products your customers have bought, from initial sale through the end date of a subscription or service. Account, sales, and service reps can now see an asset's quantity, amount, and monthly recurring revenue (MRR) at any point during an asset's lifecycle. They can also see related invoice lines, the source of a change, and other information. Your business consolidates purchases in one system, making subscriptions and other complex products easier to manage, and showing trends in a dashboard and reports. Developers or integrators automate creation of, changes to, and cancellation of lifecycle-managed assets using new objects and fields that enhance the Asset object.

#### [Create Orders and Order Products Without CPQ Quotes](#)

Manage your orders and order products in Salesforce and Salesforce Billing without first creating a CPQ quote. You can now create an order and its order products on your own or through API and then pass them to Salesforce Billing. We call this type of order a standalone order. They're useful if you manage your quotes and opportunities in an external platform but plan to use Salesforce Billing for order management and billing.

#### [Gather Information About Financial Actions on Salesforce Billing Objects](#)

Gather information about financial actions and store it for reporting and ERP integration. Finance transaction records help you track financial transactions based on actions taken in Salesforce Billing, allowing you to simplify your ERP integration. Finance balance snapshots help you track balance changes over time and report on historical balances or balances as of a certain date. Use Salesforce and Tableau reports to track important financial information and address aging or bad debt circumstances across all the records affected by a financial action.

#### [Align Cancellation and Amendment Calculations Based on Billing Periods](#)

We made it easier to align canceled billing calculations between Salesforce CPQ and Salesforce Billing.

### Demonstrate Salesforce Billing Payment Functionality with Test Gateway Adapters

Now it's easier to test Salesforce Billing payment features and demonstrate them with partners and potential customers. You can provide payment demonstrations with a test payment gateway adapter that doesn't require a connection to an established payment gateway.

### Capture Externally Authorized Payments in Salesforce Billing

Capture externally processed payment authorizations and manage them in Salesforce Billing.

### Billing Period Creation Logic Was Updated

We fixed an issue where Salesforce Billing calculated billing periods incorrectly. Previously, Salesforce Billing would create incorrect billing periods following a period where the final month did not contain the order product's billing day of month. The offset billing periods would cause unexpected invoice line balances for customers.

#### SEE ALSO:

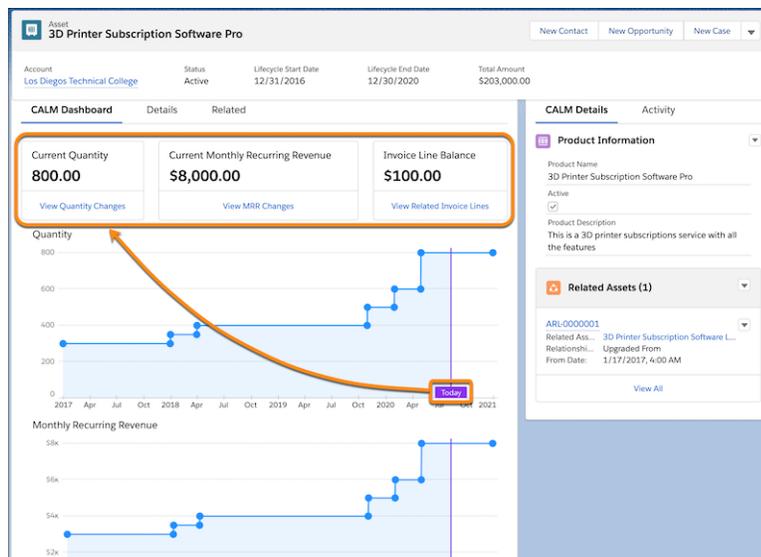
[Knowledge Article: New Objects, Fields, and Permissions in Salesforce CPQ and Billing Winter '21 \(can be outdated or unavailable during release preview\)](#)

## Understand What Your Customers Have Bought by Using Customer Asset Lifecycle Management

Use Customer Asset Lifecycle Management to provide visibility into products your customers have bought, from initial sale through the end date of a subscription or service. Account, sales, and service reps can now see an asset's quantity, amount, and monthly recurring revenue (MRR) at any point during an asset's lifecycle. They can also see related invoice lines, the source of a change, and other information. Your business consolidates purchases in one system, making subscriptions and other complex products easier to manage, and showing trends in a dashboard and reports. Developers or integrators automate creation of, changes to, and cancellation of lifecycle-managed assets using new objects and fields that enhance the Asset object.

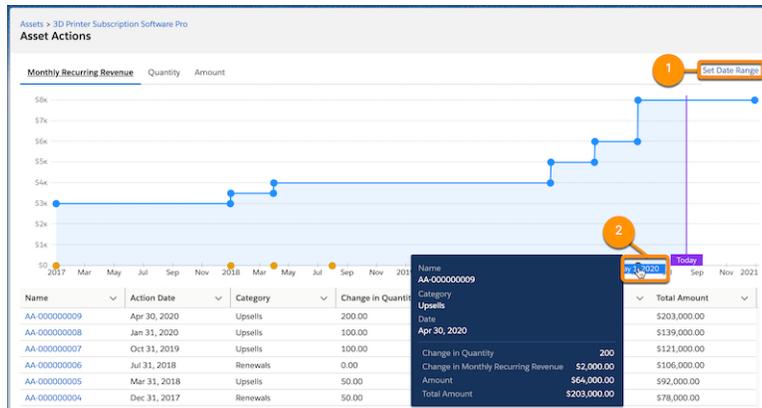
**Where:** This change applies to Lightning Experience in Professional, Enterprise, Unlimited, and Developer editions with Salesforce Billing.

**Why:** The dashboard summarizes a customer's assets as of today's date—whether the assets are physical, subscription, or usage-based products, or professional or aftermarket services. Charts in the dashboard show changes in quantity and MRR throughout the asset's lifecycle.



A background process that updates the dashboard and related pages runs nightly at 1:00 AM in the time zone of your org's server.

Using the **View Changes** dashboard links, reps can see charts and a related list showing details of changes from beginning to end of the asset's lifecycle. Reps can set the date range they want to see (1) and, in a chart, hover over a dot for more details (2). With this visibility over time, reps can track trends: Is a customer renewing? Are they adding licenses as they grow?



A developer or integrator can include the following:

- The sources of an asset action—an order product or a work order line item, or an external reference. To see them, click the name of the asset action and then the Related tab.
- A business category for each change, such as initial sale or renewals. Reps can include these categories in reports to understand where revenue is rising or falling.

**View Related Invoice Lines** opens the invoice lines related list.

| Product Name                         | Invoice  | Due Date | Total Am... | Payme... | Balance  | Days Pa... |
|--------------------------------------|----------|----------|-------------|----------|----------|------------|
| 3D Printer Subscription Software Pro | INV-0000 | 8/6/2020 | \$100.00    | \$0.00   | \$100.00 | 13         |

**How:** Enable the **Allow access to Asset lifecycle management APIs** permission for developers and Salesforce admins.

First, your developer integrates Customer Asset Lifecycle Management with sales or other channels, from Salesforce or third-party ecommerce, quoting, order management, or other applications. They use the Connect REST API to automate creation of, changes to, and cancellation of lifecycle-managed assets.

Then, in Setup, you add two Lightning App Builder components to the Asset page: one for the dashboard, and one for each chart. Configure new lifecycle-managed objects and fields to support your business process, and give reps access to lifecycle-managed assets using field-level security.

SEE ALSO:

[Salesforce Help: Understand What Your Customers Have Bought by Using Customer Asset Lifecycle Management \(can be outdated or unavailable during release preview\)](#)

## Create Orders and Order Products Without CPQ Quotes

Manage your orders and order products in Salesforce and Salesforce Billing without first creating a CPQ quote. You can now create an order and its order products on your own or through API and then pass them to Salesforce Billing. We call this type of order a standalone order. They're useful if you manage your quotes and opportunities in an external platform but plan to use Salesforce Billing for order management and billing.

**Where:** This change applies to Salesforce Lightning Experience and Salesforce Billing.

**How:** Orders and order products created in Salesforce CPQ have several field values inherited from parent products and quote lines. When you create an order without CPQ, you must provide these values on your own or through API. We introduced validations that ensure your standalone orders and order products are ready for invoicing and other Salesforce Billing features. Enable them by going to Salesforce Billing package settings and selecting the Enable Billing Order Validations setting.

 **Important:** You still need the Salesforce CPQ package installed to create standalone orders and order products. While you won't use any Salesforce CPQ features or objects, Salesforce Billing still runs internal validations against the CPQ package for several features and workflows.

SEE ALSO:

[Salesforce Help: Set Up Standalone Orders \(can be outdated or unavailable during release preview\)](#)

## Gather Information About Financial Actions on Salesforce Billing Objects

Gather information about financial actions and store it for reporting and ERP integration. Finance transaction records help you track financial transactions based on actions taken in Salesforce Billing, allowing you to simplify your ERP integration. Finance balance snapshots help you track balance changes over time and report on historical balances or balances as of a certain date. Use Salesforce and Tableau reports to track important financial information and address aging or bad debt circumstances across all the records affected by a financial action.

**Where:** This change applies to Salesforce Lightning Experience and Salesforce Classic in Salesforce Billing.

**How:** Create a finance transaction and populate it with information about the state of a record following a financial action in Salesforce Billing. For example, you could create a finance transaction when you post an invoice to a customer, then create another transaction when the customer pays an invoice. Each transaction records the financial data for the invoice posting and invoice payment respectively.

When you save a finance transaction related to an invoice, payment, refund, credit note, or debit note, Salesforce Billing creates a finance balance snapshot. The snapshot represents the balances of an invoice, payment, refund, credit note, or debit note over time following a financial action. You can review your finance balance snapshots to track the changes to your invoice balance over time.

We recommend running reports to view groups of finance balance snapshots filtered by values such as record ID, legal entity, and account. This process allows you to track the changes made to key financial entities over their lifecycle.

 **Note:** Finance transactions and finance balance snapshots are Salesforce objects. However, they're available only to Salesforce Billing users.

SEE ALSO:

[Salesforce Help: Finance Logging \(can be outdated or unavailable during release preview\)](#)

## Align Cancellation and Amendment Calculations Based on Billing Periods

We made it easier to align canceled billing calculations between Salesforce CPQ and Salesforce Billing.

**Where:** This change applies to Salesforce Lightning Experience and Salesforce Classic in Salesforce Billing.

**Why:** Salesforce CPQ and Salesforce Billing use different formulas for calculating proration periods. Depending on your order product's billing fields, Salesforce Billing may split your order product's overall term into more or fewer proration periods than were used in CPQ. If you cancel an order product while CPQ and Billing have different numbers of proration periods, the canceled amount in Salesforce Billing may not be the same as the canceled amount in Salesforce CPQ.

We added the Proration Day of Month (Calendar Monthly + Daily) to the Subscription Prorate Precision package setting. We also added a Proration Day of Month field to the quote. While Proration Day of Month (Calendar Monthly + Daily) is active, Salesforce CPQ calculates proration periods based off the quote's proration day of month. If your quote's proration day of month matches the billing day of month on any resulting orders, CPQ and Billing will use the same proration periods for your order product.

**How:** If you want to align your CPQ and Billing proration periods so that your cancellation amounts are always the same, select Proration Day of Month (Calendar Monthly + Daily). Then, go to your quote and set its Proration Day of Month field to the same value as the billing day of month that you plan to use for the quote's orders.

SEE ALSO:

[Salesforce Help: Align CPQ and Billing Cancellation Based on Billing Periods \(can be outdated or unavailable during release preview\)](#)

## Demonstrate Salesforce Billing Payment Functionality with Test Gateway Adapters

Now it's easier to test Salesforce Billing payment features and demonstrate them with partners and potential customers. You can provide payment demonstrations with a test payment gateway adapter that doesn't require a connection to an established payment gateway.

**Where:** This change applies to Salesforce Lightning Experience and Salesforce Classic in Salesforce Billing.

**Why:** Previously, demonstrating or testing Salesforce Billing payment features required a connection to a payment gateway. But gateway connections sometimes failed if you didn't have access to a fully implemented payment gateway adapter or if the demonstration was part of a sandbox org. You can now configure a test gateway adapter that passes payment information to a sample payment gateway built only for demonstrations and tests.

The test gateway sends a failure, success, or indeterminate response based on predefined input values so you can quickly demonstrate your integration's response processes. You can quickly test your integrations or provide demonstrations for customers without setting up connections.

**How:** We provide the test payment gateway adapter code as an open-sourced project and an unmanaged package. You can find more information and a walkthrough for configuring it in our [Mock Adapter Reference Documentation](#).

## Capture Externally Authorized Payments in Salesforce Billing

Capture externally processed payment authorizations and manage them in Salesforce Billing.

**Where:** This change applies to Salesforce Lightning Experience and Salesforce Classic in Salesforce Billing.

**Why:** Previously, Salesforce Billing Payment API didn't support capturing payment authorizations from external systems. You can now record a payment authorization made in an external system and capture it in Salesforce Billing. You can then use Salesforce Billing to capture the payment later and manage the payment lifecycle.

**How:** First, synchronize your external authorization to the Payment Authorization object in Salesforce Billing. You can then use the CaptureTransaction API, which accepts a payment authorization record and the amount of a payment to capture as its input parameters. Following a successful transaction, Salesforce Billing creates a posted payment record. The payment record has a relation to the payment authorization record. The CaptureTransaction API also sends back a response with a success message.

If the transaction failed, the CaptureTransaction API sends back a response with an error message.

## Billing Period Creation Logic Was Updated

We fixed an issue where Salesforce Billing calculated billing periods incorrectly. Previously, Salesforce Billing would create incorrect billing periods following a period where the final month did not contain the order product's billing day of month. The offset billing periods would cause unexpected invoice line balances for customers.

**Where:** This change applies to Salesforce Lightning Experience and Salesforce Classic in Salesforce Billing.

**Why:** Sometimes, a billing period falls in a month that doesn't contain the exact number of the Billing Day of Month or Override Billing Day of Month fields. In these cases, Salesforce Billing incorrectly places the order product's end date at the final day of the month. But this configuration prevents the next billing period from having a start date that's on or closest to the billing day of month.

For example, you have a monthly order product that runs from 01/25/20 through 06/24/20 with a Billing Day of Month set to 31. Let's look at the first five invoice lines that the order product generates.

### Before Fix

- Period 1: 01/25/20 through 01/30/20
  - This partial period allows the next period to start on the billing day of month as expected.
- Period 2: 01/31 through 02/29
  - Salesforce Billing set the end date to 02/29 because February doesn't have a 31st date. But this configuration causes the next period to start on 03/01, rather than 02/29 as expected.
- Period 3: 03/01 through 03/30
- Period 4: 03/31 through 04/30
  - Salesforce Billing set the end date to 04/30 as April doesn't have a 31st date. But this configuration causes the next period to start on 05/01, rather than 04/30 as expected.
- Period 5: 05/01 through 05/30

In Salesforce Billing Winter '21 and later, the second and fourth billing periods instead end one day before the last day of the month. This configuration allows the third and fifth periods to start on their month's closest day to the billing day of month, as expected.

### After Fix

- Period 1: 01/25/20 through 01/30/20
- Period 2: 01/31/20 through 02/28/20
- Period 3: 02/29/20 through 03/30/20
  - The 29th is the closest day in February to your billing day of month.
- Period 4: 03/31/20 through 04/29/20
- Period 5: 04/30/20 through 05/30/20
  - The 30th is the closest day in April to your billing day of month.

## Other Changes in the Sales Cloud

Learn about other changes we've made to improve usability.

### IN THIS SECTION:

[Review the Org-Level Email Tracking Setting for Salesforce Inbox \(Update\)](#)

This update corrects an inconsistency when Salesforce Inbox email tracking is disabled, but tracking features are still available to users and tracking information is still collected.

## Review the Org-Level Email Tracking Setting for Salesforce Inbox (Update)

This update corrects an inconsistency when Salesforce Inbox email tracking is disabled, but tracking features are still available to users and tracking information is still collected.

**Where:** This change applies to Salesforce Inbox, available for an extra cost in Group, Professional, Enterprise, Performance, Unlimited, and Developer editions, and at no cost in Essentials editions.

**When:** Salesforce enforces this update in Winter '21 Patch 14. To get the major release upgrade date for your instance, go to [Trust Status](#), search for your instance, and click the maintenance tab.

**Why:** With this update, the Email Tracking setting on the Inbox Setup Assistant page correctly reflects whether the feature is enabled or disabled. When disabled, email tracking features aren't available to Inbox users and Salesforce doesn't collect any information about a recipient's engagement with an email.

**How:** If the Email Tracking setting is enabled, there's no change to your org. Reps are still able to use tracking features in Inbox. If the setting is disabled or you choose to set it to disabled, this update turns off the tracking features. Tracking information is no longer collected.

SEE ALSO:

[Release Updates](#)

## Industries: Document Management, Forecasting, Public Service Optimization, and Much More

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Our industry-specific solutions work even harder in Winter '21 to bring you closer to your customers. Health Cloud brings you streamlined document management for patient intake, along with new inventory management and sales forecasting capabilities. Financial Services Cloud unveils a new community portal template, compliant data sharing, and improved record rollups. Consumer Goods Cloud helps you plan store visits and keep shelves stocked, and Manufacturing Cloud gives you finer control over rebates and account forecasts. Our new data processing engine works behind the scenes to help you leverage your Salesforce data for bigger business impact. On top of all that, meet the newest addition to our lineup of industry-specific solutions: Public Sector Cloud, with advanced support for government service providers and users!

IN THIS SECTION:

[Health Cloud: Intelligent Document Automation and Inventory Management](#)

Patient intake can be a major pain point for efficient health care delivery. Our new document and referral management features make it easier to match patients with the programs and services they need. Intelligent Sales has also leveled up to help your sales reps do trailblazing work in the field with inventory management on the mobile app and product serialization.

[Financial Services Cloud: New Community Portal Template, Compliant Data Sharing, Improved Record Rollups, and More Great New Stuff](#)

Enrich customer experience with the new Financial Services portal. Use Compliant Data Sharing to improve your compliance with privacy regulations and company policies. Give users a consolidated view of all household cases by rolling up case records at the household level. Speed up batch record rollups with the new Record Rollup Configuration custom setting.

[Public Sector Cloud: Licensing and Permitting Management Made Simpler, Faster, and Transparent \(Generally Available\)](#)

Public Sector Cloud, built on the Salesforce platform, brings the benefits of digital transformation to governments and public agencies. Now you can build simpler, faster, and more transparent processes that delight your constituents and employees alike.

[Consumer Goods Cloud: Direct Store Delivery, Visit Recommendations, and More](#)

Ensure that sales reps visit the right stores at the right time with Einstein recommended visits. Use delivery tasks to keep your products in stock at stores. Help your sales managers and field reps stay agile with Consumer Goods objects now available on mobile.

[Manufacturing Cloud: Rebates \(Pilot\) and Enhanced Account Forecasting](#)

Run volume and revenue-based rebate programs with Rebate Management. Manage rebate programs and calculate payouts in context by working with your Salesforce data including orders and products. Run rebate calculations flexibly, build trust among partners, and analyze payout information at the end of term or anytime. Define sales agreement renewal period. Select sales agreements for account forecasting. Use opportunity probability to calculate the value of opportunity metrics in account forecasts.

[Batch Management: Processing Large Volumes of Data with a Few Clicks \(Pilot\)](#)

Process millions of records in your Salesforce org using Batch Management. Track the status and health of batch jobs using Monitor Workflow Services.

[Data Processing Engine: Transform Data in Your Org in a Whole New Way \(Pilot\)](#)

Extract data from standard objects and custom objects in your Salesforce org and transform it based on your business requirements. Then update or create records with the transformed data.

## Health Cloud: Intelligent Document Automation and Inventory Management

Patient intake can be a major pain point for efficient health care delivery. Our new document and referral management features make it easier to match patients with the programs and services they need. Intelligent Sales has also leveled up to help your sales reps do trailblazing work in the field with inventory management on the mobile app and product serialization.

### IN THIS SECTION:

[Intelligent Document Automation: Streamline Intake for Patient Services and Support](#)

Reduce the time it takes to move a patient into the care they need. Jump directly from receiving a document to creating a patient record or enrolling the patient in a program, all in one easy-to-use interface.

[Intelligent Sales: Field Inventory Management on Mobile, Product Serialization, and More](#)

Intelligent Sales is even better now with added support for product serialization and field inventory management on your phone. Your reps can now manage their inventory on the go using the Intelligent Sales mobile app. They can also track products across visits and transfer requests using serial numbers.

[Health Cloud Has New and Changed Objects](#)

Access more data through these new and changed Health Cloud objects

[Health Cloud Has New App Builder Components](#)

Create or customize your Health Cloud pages with these new components in the Lightning App Builder.

## Intelligent Document Automation: Streamline Intake for Patient Services and Support

Reduce the time it takes to move a patient into the care they need. Jump directly from receiving a document to creating a patient record or enrolling the patient in a program, all in one easy-to-use interface.

**Where:** This change applies to Lightning Experience in Enterprise and Unlimited editions where Health Cloud is enabled.

**Who:** To use this feature, you must have the Health Cloud license provisioned in Salesforce.

- All users need the Health Cloud and Health Cloud Platform permission set licenses.
- The intake coordinator needs the View Setup and Configuration, Document Checklist, and Health Cloud Foundation permissions.
- Users need full access to the Document Checklist Item, Location, Received Document, and OCR Document Scan Result objects.

**Why:** Built on the Salesforce platform, intelligent document automation supports faster time-to-market with a robust feature set. Einstein-powered artificial intelligence enables you to develop your own unique scoring algorithms and use OCR technology. You can bundle offerings from our partner ecosystem, such as integration or eligibility checking. There's also a new standard report type you can use to track the progress of your documents.

#### IN THIS SECTION:

##### [Process Home Health Documents Better](#)

Like it or not, there's a lot of paperwork involved in getting a patient into a care program. We can't reduce the number of documents you have to process, but we made it easier to work with them all in one place—no more juggling faxes, emails and paper.

##### [Get a Handle on Referrals](#)

Health Cloud offers a consolidated workspace for all your referral sources. Get higher provider and patient satisfaction by speeding up turnaround times for processing referrals, increasing conversion rates, and reducing errors.

##### [Extract Patient Data from Documents](#)

Einstein Form Reader makes it easier to get the right data out of the right documents fast—even if they're handwritten forms. You can manage all the required documentation in one place, and define follow-up actions based on what's in the document.

##### [Encrypt Data in Home Health Intake Documents](#)

For increased security and compliance, consider using Platform Encryption to protect data extracted from incoming documents as part of the health care intake process.

## Process Home Health Documents Better

Like it or not, there's a lot of paperwork involved in getting a patient into a care program. We can't reduce the number of documents you have to process, but we made it easier to work with them all in one place—no more juggling faxes, emails and paper.

**Where:** This change applies to Lightning Experience in Enterprise and Unlimited editions where Health Cloud is enabled.

**Who:** To use this feature, you must have the Health Cloud license provisioned in Salesforce.

**Why:** When an intake coordinator brings a patient into a home health service or a case manager enrolls a patient in a program, routing the necessary documents and faxes through a third-party system can result in a disjointed experience. All those manual steps can increase the chance of mistakes and delays. Now all that information is integrated into document checklists so workers can efficiently and accurately put it to work for patients.

## Get a Handle on Referrals

Health Cloud offers a consolidated workspace for all your referral sources. Get higher provider and patient satisfaction by speeding up turnaround times for processing referrals, increasing conversion rates, and reducing errors.

**Where:** This change applies to Lightning Experience in Enterprise and Unlimited editions where Health Cloud is enabled.

**Who:** To use this feature, you must have the Health Cloud license provisioned in Salesforce. Users need the Health Cloud and Health Cloud Platform permission set licenses.

**Why:** Easier routing of faxes and digital documents allows you to aggregate data and build more value into your referring provider relationships.

## Extract Patient Data from Documents

Einstein Form Reader makes it easier to get the right data out of the right documents fast—even if they're handwritten forms. You can manage all the required documentation in one place, and define follow-up actions based on what's in the document.

**Where:** This change applies to Lightning Experience in Enterprise and Unlimited editions where Health Cloud is enabled.

**Who:** To use this feature, you must have the Health Cloud license provisioned in Salesforce. Users need the Health Cloud and Health Cloud Platform permission set licenses.

**Why:** When a case manager enrolls a patient in a program or brings a patient into a home health service, routing the necessary documents and faxes through a third-party system can result in a disjointed experience. All those manual steps can increase the chance of mistakes and delays.

## Encrypt Data in Home Health Intake Documents

For increased security and compliance, consider using Platform Encryption to protect data extracted from incoming documents as part of the health care intake process.

**Who:** Administrators with the Health Cloud Platform and the Shield Platform Encryption permission set licenses can encrypt fields in Health Cloud fields.

**Where:** This change applies to Lightning Experience in Enterprise and Unlimited editions where Health Cloud is enabled.

**Why:**

You can encrypt two kinds of information in patient forms.

- The OCR Document Scan Result object contains patient information, such as diagnoses or prescriptions, extracted from documents used in the patient intake process. The `ExtractedValues` field in this object is encryptable.
- The Ocr Scan Result Template Mapping object defines how data from scanned documents is stored. The `MappedFields` field in this object is encryptable.

Both fields are of type `StringPlusClob` with max length 131072.

SEE ALSO:

[Protect Your Health Data with Salesforce Shield](#)

## Intelligent Sales: Field Inventory Management on Mobile, Product Serialization, and More

Intelligent Sales is even better now with added support for product serialization and field inventory management on your phone. Your reps can now manage their inventory on the go using the Intelligent Sales mobile app. They can also track products across visits and transfer requests using serial numbers.

IN THIS SECTION:

[Manage Your Inventory on the Go](#)

Reps can now manage their field inventory using the Intelligent Sales mobile app instead of lugging around a laptop. In addition to visit schedules, reps have access to visit creation, transfer requests, and product shortfall projections, all from the convenience of their phones.

[Track Products Using Serial Numbers](#)

Your reps are accountable for the products they handle. If your products are serialized, reps can now use those serial numbers in product transfers and order authorizations.

[Track Serial Numbers in Orders Authorized in a Visit](#)

We updated the Order Authorization flow to support serialized products. A barcode scanner is built into the flow to make it easier for your reps to record serial numbers in orders authorized in a visit.

### Stay On Top of Transfer Requests with Chatter Post Notifications

Transfer requests have fewer chances of going unseen now, with automated Chatter notifications that are posted when a request is raised or updated. When a rep raises a transfer request, the rep who receives the request gets a Chatter post notifying them of the request and its details. Similarly, when a rep updates a request as accepted, rejected, or received, the other rep gets a Chatter post notifying them with the details.

### Other Changes in Intelligent Sales

We made some more changes to Intelligent Sales that improve usability.

## Manage Your Inventory on the Go

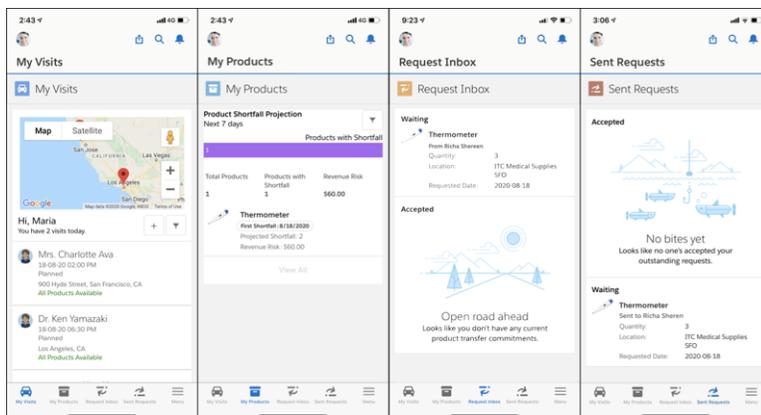
Reps can now manage their field inventory using the Intelligent Sales mobile app instead of lugging around a laptop. In addition to visit schedules, reps have access to visit creation, transfer requests, and product shortfall projections, all from the convenience of their phones.

**Where:** These changes apply to Lightning Experience and all versions of the Salesforce app in Enterprise and Unlimited editions where Health Cloud is enabled.

**Who:** To use Intelligent Sales for Health Cloud, your Salesforce org and users must have the Health Cloud and Health Cloud Add-On licenses provisioned.

**Why:** We have four pages in the mobile app that help reps manage their inventory efficiently.

- My Visits: See visit appointments and shortfall status for the selected time period. Schedule visits on the go.
- My Products: Get detailed information about visit-based shortfall projections and the associated revenue risk. Request product transfers as necessary.
- Request Inbox: View and act on the transfer requests received.
- Sent Requests: View the status of transfer requests sent, and mark products as received after a transfer request is completed.



**How:** Enable the Intelligent Sales and Visit Inventory Management org prefs.

## Track Products Using Serial Numbers

Your reps are accountable for the products they handle. If your products are serialized, reps can now use those serial numbers in product transfers and order authorizations.

**Where:** These changes apply to Lightning Experience and all versions of the Salesforce app in Enterprise and Unlimited editions where Health Cloud is enabled.

**Who:** To use Intelligent Sales for Health Cloud, your Salesforce org and users must have the Health Cloud and Health Cloud Add-On licenses provisioned.

**Why:** Associating serial numbers with products helps you track product movement across transfers and surgical visits. A bar code scanner in the mobile app lets your reps quickly scan products in. Add serial numbers to products using the desktop app, and then your reps can use those serial numbers in visits and transfers on the mobile app.

**How:** Enable the Intelligent Sales and Visit Inventory Management org prefs.

 **Note:**

- To use the barcode scanner, the mobile device used must have a camera. The desktop app doesn't support the barcode scanner.
- In barcode scanning, the Android app uses the Zebra Crossing library. The iOS app uses Apple's built-in libraries, except for `AVMetadataObjectTypeFace`. For details, see [AVMetadataObjectType](#).

SEE ALSO:

[Supported Barcodes](#)

## Track Serial Numbers in Orders Authorized in a Visit

We updated the Order Authorization flow to support serialized products. A barcode scanner is built into the flow to make it easier for your reps to record serial numbers in orders authorized in a visit.

**Where:** These changes apply to Lightning Experience and all versions of the Salesforce app in Enterprise and Unlimited editions where Health Cloud is enabled.

**Who:** To use Intelligent Sales for Health Cloud, your Salesforce org and users must have the Health Cloud and Health Cloud Add-On licenses provisioned.

**How:** Add the Order Authorization flow to the action plan template you set up for visits.

## Stay On Top of Transfer Requests with Chatter Post Notifications

Transfer requests have fewer chances of going unseen now, with automated Chatter notifications that are posted when a request is raised or updated. When a rep raises a transfer request, the rep who receives the request gets a Chatter post notifying them of the request and its details. Similarly, when a rep updates a request as accepted, rejected, or received, the other rep gets a Chatter post notifying them with the details.

**Where:** These changes apply to Lightning Experience and all versions of the Salesforce app in Enterprise and Unlimited editions where Health Cloud is enabled.

**Who:** To use Intelligent Sales for Health Cloud, your Salesforce org and users must have the Health Cloud and Health Cloud Add-On licenses provisioned.

**How:** Enable the Intelligent Sales and Visit Inventory Management org prefs.

## Other Changes in Intelligent Sales

We made some more changes to Intelligent Sales that improve usability.

- Visit Schedule is renamed to My Visits in the mobile app.
- Four global shortcuts at the bottom of the screen in the mobile app get you to the My Visits, My Products, Request Inbox, and Sent Requests pages from anywhere in the Intelligent Sales app.
- Set the filter to Today and the My Visits page shows a map with visit locations in the mobile app.
- The Recalculate option is removed from the Products tab in the Visits page and the Inventory tab in the Products page. The inventory numbers are now refreshed every time an inventory-affecting event occurs.
- The Product Availability Projection and My Visits components now let you filter visits and shortfalls up to 90 days.
- You can't mark a transfer request as received from the product transfer record anymore. Mark a request as received from the Sent Requests page of the Intelligent Sales mobile app to automatically update the product transfer record.

## Health Cloud Has New and Changed Objects

Access more data through these new and changed Health Cloud objects

### Health Cloud

#### Group related code sets

Use the new `CodeSetBundle` object.

#### Store detailed information about a person's name

Use the new `PersonName` object.

#### Specify the rank of preference for a person's contact number

Use the new `PreferenceRank` field on the `ContactPointPhone` object.

#### Specify type of use for a person's contact number

Use the new `UsageType` field on the `ContactPointPhone` object.

### Intelligent Document Management

#### Rotate, split, and extract text from user-supplied documents.

Use the new `ReceivedDocument` object.

#### Associate a user-supplied document with a document checklist item.

Use the new `ReceivedDocument` lookup field on the `DocumentChecklistItem` object.

## Intelligent Sales

### Mark products as ready for serialization

Use the new `IsSerialized` field on the `Product2` object.

### Specify the dates your reps need product transfers to happen

Use the `NeedByDate` field on the `ProductRequest` object.

### Connect a product request record to a product transfer record

Use the `ProductRequestLineItemNumber`, `NeedByDate`, `ParentId`, `Product2Id`, and `QuantityRequested` fields on the `ProductRequestLineItem` object.

### Associate Serial Numbers to Products

Use the new `SerializedProduct` object.

## Einstein Form Reader

### View information extracted from a form

Use the new `OcrDocumentScanResult` object.

### Add a sample document or document type that's used as reference while extracting and mapping information from a form

Use the new `OcrSampleDocument` object.

### Specify the form field value that's extracted and mapped to a Salesforce object record

Use the new `OcrSampleDocumentField` object.

### Specify the mapping between a form field and a Salesforce object field

Use the new `OcrTargetObjFieldMapping` object.

### Specify the Salesforce object to which form information is mapped

Use the new `OcrTargetObject` object.

### Specify the mapping between a form and a Salesforce object

Use the new `OcrTemplate` object.

### Associate template form with a customer form

Use the new `OcrTemplateSampleDocument` object.

## Health Cloud Has New App Builder Components

Create or customize your Health Cloud pages with these new components in the Lightning App Builder.

## Intelligent Sales Mobile App

### View open cases and open orders on the account your rep is visiting

Use the new `Visit Account Info - Health Cloud` component. You can add this component to Visit record pages for mobile.

### View products added to a visit

Use the new `Visit Products - Health Cloud` component. You can add this component to Visit record pages for mobile.

# Financial Services Cloud: New Community Portal Template, Compliant Data Sharing, Improved Record Rollups, and More Great New Stuff

Enrich customer experience with the new Financial Services portal. Use Compliant Data Sharing to improve your compliance with privacy regulations and company policies. Give users a consolidated view of all household cases by rolling up case records at the household level. Speed up batch record rollups with the new Record Rollup Configuration custom setting.

## IN THIS SECTION:

### [Mortgage for Financial Services Cloud: Enhanced Customer Experience with Pre-Built Community and New Flow](#)

Configure and brand a self-service Financial Services Client Portal to reduce call center traffic by letting borrowers apply for their loans. Use a streamlined API from a single URL to create or update a loan application in Salesforce or from an external loan origination system. The Mortgage Business API can also upsert Account and Opportunity records, which previously required separate API calls.

### [Insurance for Financial Services Cloud: Consolidated View of Household Policies, Record Type Filter on Policies, and Support for Account Relationships](#)

Add the enhanced Policy component to the Household page to give agents an at-a-glance view of all policies in a household. New options on the Policy component give you greater control over the information you want to display on the component. And now we support account relationships on key Insurance objects to let you easily manage external users' access to Insurance records.

### [Compliant Data Sharing: Advanced Data Sharing Configuration to Improve Compliance \(GA\)](#)

Improve compliance with data sharing regulations and company policies by using the new Compliant Data Sharing (CDS) feature. Control what information gets shared with whom, without writing complex code.

### [Actionable Relationship Center: Manage Complex Relationships and Related Lists](#)

Create and edit account and contact relationships and other related records in one convenient interface using Actionable Relationship Center (ARC). ARC displays complex relationships and related lists at-a-glance. Now you can create and edit relationships and related records from the same interface. ARC now does nearly everything the Relationship Map component can do, and displays related lists also.

### [Stay Productive with Financial Services Cloud Lightning Components for Mobile](#)

Boost remote user productivity by including Financial Services Cloud Lightning Components in the Salesforce mobile app.

### [Record Rollups for Financial Services Cloud](#)

Improve record rollup performance with these enhancements.

### [Encrypt Identity Document Fields](#)

You can now encrypt fields on the documents you use to identify Financial Services Cloud clients. When you encrypt the Document Number, Issue Date, and Expiration Date fields, you add another layer of protection to the data your clients entrust to your care.

### [Einstein App Enhancements](#)

Use the new Predict apps in Einstein Analytics to increase your Wealth Management capabilities. Powered by Einstein Discovery stories, the new Predict apps create predictions on the churn of your client accounts and the likelihood to grow your account assets. Mortgage for Analytics increases mortgage sales by prioritizing customer mortgage applications

### [New and Changed Financial Services Cloud Object Fields](#)

Do more with the new and updated Financial Services Cloud objects.

### [New and Changed Financial Services Cloud Metadata Types](#)

Do more with the new and changed metadata types.

### [REST API](#)

Financial Services Cloud REST API includes enhanced calls.

## Mortgage for Financial Services Cloud: Enhanced Customer Experience with Pre-Built Community and New Flow

Configure and brand a self-service Financial Services Client Portal to reduce call center traffic by letting borrowers apply for their loans. Use a streamlined API from a single URL to create or update a loan application in Salesforce or from an external loan origination system. The Mortgage Business API can also upsert Account and Opportunity records, which previously required separate API calls.

### IN THIS SECTION:

#### [Use a Financial Services Community to Speed Loan Processing and Empower Loan Officers](#)

Let customers manage their own mortgage applications and financial accounts using a prebuilt Financial Services Client Portal community. Borrowers can apply for loans, upload documents, monitor application status, and view frequently asked questions. To request help with applications or loans, your customers can log a case, which is seamlessly integrated with Salesforce case management and Chatter.

#### [New Financial Services Cloud Flow and Flow Screen Components](#)

The new Create a Case standard flow template lets customers create a customer service case based on a financial account, loan, or other circumstance. New Flow Screen Components, Button Picklist from Account ID and Section Summary View, give you more options for displaying and gathering information in screen flows.

#### [Use New Summary View Lightning App Builder Component](#)

Add a financial services or loan application summary to page layouts in Lightning App Builder. Use the Summary View component, which contains records that correspond to sections of the Universal Residential Loan Application, on Residential Loan Application page layouts.

#### [Get Notifications of Changes to Mortgage Object Records](#)

With Change Data Capture, you can now receive notifications of record changes in Mortgage objects.

#### [Create or Update Loan Applications and Upsert Records from a Single Endpoint](#)

The new and enhanced mortgage API streamlines APIs from the prior release. With it you can create or update a Salesforce or externally sourced loan application from the same URL. An Upsert endpoint lets you patch inputs to create Account and Opportunity records in Salesforce.

#### [Create a Loan Forbearance Solution](#)

Get a handle on the high volume of requests for loan modifications occasioned by the COVID-19 pandemic economy. Salesforce Cross-Cloud tools provide digital channels to address borrower needs responsively while reducing traffic to call centers and adding visibility to the process.

## Use a Financial Services Community to Speed Loan Processing and Empower Loan Officers

Let customers manage their own mortgage applications and financial accounts using a prebuilt Financial Services Client Portal community. Borrowers can apply for loans, upload documents, monitor application status, and view frequently asked questions. To request help with applications or loans, your customers can log a case, which is seamlessly integrated with Salesforce case management and Chatter.

**Where:** This change applies to Lightning Experience and all versions of the mobile app in Professional, Enterprise, and Unlimited editions where Financial Services Cloud is enabled.

**Why:** The cloud-based community adds value for everyone. Borrowers can quickly apply for loans, upload required documents, and browse knowledge base articles. Loan officers can speed processing and work with stakeholders to pass title, insurance, and other milestones. The community has support for self-serve case creation and management, including forbearance requests.

**How:** Build out and brand a self-service Financial Services Client Portal with a new community template. Then customize the client journey with the mortgage flow screen components.

## IN THIS SECTION:

[Configure a Self-Service Community with the New Financial Services Client Portal](#)

Offer a self-guided loan application and financial account experience for your customers by configuring the Financial Services Client Portal. Enable prebuilt components to start a loan application, browse knowledge base articles, display application summaries, and launch a self-service flow to request help.

[Customize Your Community with New Financial Services Components](#)

Three new flow screen components add power and flexibility to your screen flow interactions with users and are available in Experience Builder.

## Configure a Self-Service Community with the New Financial Services Client Portal

Offer a self-guided loan application and financial account experience for your customers by configuring the Financial Services Client Portal. Enable prebuilt components to start a loan application, browse knowledge base articles, display application summaries, and launch a self-service flow to request help.

**Where:** This change applies to Lightning Experience and all versions of the mobile app in Professional, Enterprise, and Unlimited editions where Financial Services Cloud is enabled.

## Customize Your Community with New Financial Services Components

Three new flow screen components add power and flexibility to your screen flow interactions with users and are available in Experience Builder.

**Where:** This change applies to Lightning Experience and all versions of the mobile app in Professional, Enterprise, and Unlimited editions where Financial Services Cloud is enabled.

**Why:** Create flow screens that show data in the most effective way to reach your financial services customers:

- **Open Loan Application** shows the most recently updated, non-closed loan application for the user.
- **Mortgage Flow Launcher** lets community users launch the financial services cloud flows.
- **Summary View** shows summary sections for selected mortgage objects based on the Unified Residential Loan Application (URLA).

**How:** Add a component to your community in Experience Builder.

## New Financial Services Cloud Flow and Flow Screen Components

The new Create a Case standard flow template lets customers create a customer service case based on a financial account, loan, or other circumstance. New Flow Screen Components, Button Picklist from Account ID and Section Summary View, give you more options for displaying and gathering information in screen flows.

## IN THIS SECTION:

[Add a Self-Service Help Standard Flow Template](#)

Let customers create a customer service case and upload supporting documents using the new Create a Case standard flow template.

[Use New Flow Screen Elements for Financial Services Communities](#)

Use new flow screen components to build or enhance self-guided customer communities.

## Add a Self-Service Help Standard Flow Template

Let customers create a customer service case and upload supporting documents using the new Create a Case standard flow template.

**Where:** This change applies to Lightning Experience and all versions of the mobile app in Professional, Enterprise, and Unlimited editions where Financial Services Cloud is enabled.

**Why:** Empower customers to request help via an integrated digital channel that automatically attaches relevant account records and any uploaded support documents, reducing call traffic to your troubleshooting desk.

**How:** To create a custom flow, clone an existing standard flow. You can also select the Mortgage flow type and then select a standard flow as the template. Build, test, and activate your custom flow, and then expose it on the community portal using a guided action or the Mortgage Flow Launcher.

## Use New Flow Screen Elements for Financial Services Communities

Use new flow screen components to build or enhance self-guided customer communities.

**Where:** This change applies to Lightning Experience and all versions of the mobile app in Professional, Enterprise, and Unlimited editions where Financial Services Cloud is enabled.

**Why:** New options to create flow screens that display data in the most effective way to all users:

- **Button Picklist from Account Id** displays relevant information about all residential loan application and financial account records associated with the account ID of the logged in user in a button picklist.
- **Section Summary View** displays summary sections for selected mortgage objects based on the Unified Residential Loan Application (URLA).

**How:** Add a flow screen component to a screen element in flows.

## Use New Summary View Lightning App Builder Component

Add a financial services or loan application summary to page layouts in Lightning App Builder. Use the Summary View component, which contains records that correspond to sections of the Universal Residential Loan Application, on Residential Loan Application page layouts.

**Where:** This change applies to Lightning Experience and all versions of the mobile app in Professional, Enterprise, and Unlimited editions where Financial Services Cloud is enabled.

**Why:** Use the new Summary View component, available in Lightning App Builder, to add useful information to a residential loan application page. You can render the information in read-only or view-edit mode.

**How:** Edit a residential loan application record page in Lightning App Builder. Drag the Summary View from the component list, then edit it and set the mode to read-only or view-edit.

## Get Notifications of Changes to Mortgage Object Records

With Change Data Capture, you can now receive notifications of record changes in Mortgage objects.

**Where:** This change applies to Lightning Experience and Enterprise and Unlimited editions where Financial Services Cloud is enabled.

**Why:** Prompt notification of changes to mortgage records can help speed approval of loan applications. Change Data Capture publishes change events, which represent changes to Salesforce records. Changes include creation of a new record, updates to an existing record, deletion of a record, and undeletion of a record.

## Create or Update Loan Applications and Upsert Records from a Single Endpoint

The new and enhanced mortgage API streamlines APIs from the prior release. With it you can create or update a Salesforce or externally sourced loan application from the same URL. An Upsert endpoint lets you patch inputs to create Account and Opportunity records in Salesforce.

**Where:** This change applies to Lightning Experience and all versions of the mobile app in Professional, Enterprise, and Unlimited editions where Financial Services Cloud is enabled.

## Create a Loan Forbearance Solution

Get a handle on the high volume of requests for loan modifications occasioned by the COVID-19 pandemic economy. Salesforce Cross-Cloud tools provide digital channels to address borrower needs responsively while reducing traffic to call centers and adding visibility to the process.

**Who:** Lending institutions with residential loan portfolios.

**Why:** The Loan Forbearance solution is a guide to configuring cross-cloud Salesforce products to work together. The key components are Marketing Cloud, Community Portal, Einstein Bots, and Service Cloud. Salesforce administrators also build dashboards to track and analyze the solution.

**How:** Check out the complete [Loan Forbearance Solution Kit](#).

## Insurance for Financial Services Cloud: Consolidated View of Household Policies, Record Type Filter on Policies, and Support for Account Relationships

Add the enhanced Policy component to the Household page to give agents an at-a-glance view of all policies in a household. New options on the Policy component give you greater control over the information you want to display on the component. And now we support account relationships on key Insurance objects to let you easily manage external users' access to Insurance records.

### IN THIS SECTION:

#### [Policy Component: Household Policies, Record Type Filters, and More](#)

Add the Policy component to a Household page and let your agents view all household policies in one place. Use record type filters to tailor the information on the Policy component to best suit your agents' needs. With the new New Policy button on the Policy component, agents can quickly add policy records without leaving the page they're on.

#### [Simplify Partner Access to Insurance Records with Account Relationships](#)

Remove the complexity from sharing data with your partner distributors by creating external account hierarchies and account relationships for claim, customer property, business milestone, insurance policy, and person life event records. With account relationships, you can model your policy distribution channels without creating multiple public groups or handling complex data sharing rules.

#### [Print Insurance Record Details with Printable View](#)

Use the Printable View button on Insurance record details in Lightning communities to generate a condensed, minimalist view for printing.

#### [Analytics for Insurance: Predictive App Template, Date Filtering, and Data Access for Sales Managers](#)

Use predictions from the Einstein Discovery for Insurance Analytics app to help retain customers. You can use the fiscal calendar to filter data in your dashboards. Customize data access to sales managers so that they can view only the data of users below them in the hierarchy.

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## IN THIS SECTION:

[Give Agents a Consolidated View of All Household Policies](#)

The powerful and versatile Policy component is now supported on the Household page. With an at-a-glance view of all household policies and related metrics on the Policy component, agents can easily identify new opportunities and devise cross-sell and upsell plans.

[Streamline Policy List and Related Metrics](#)

Unclutter the Policy component, and show just the information that helps your agents better understand and address their clients' needs. When you exclude a policy record type, those policies no longer appear in the list of policies or in any policy-related metrics on the Policy component.

[Add Policy Records Directly from the Policy Component](#)

The Policy component has a new New Policy button that lets agents add policy records without leaving the page they're on. For example, when an agent learns about competitors' policies with a client, the agent can add records for those policies directly from the Policy component.

## Give Agents a Consolidated View of All Household Policies

The powerful and versatile Policy component is now supported on the Household page. With an at-a-glance view of all household policies and related metrics on the Policy component, agents can easily identify new opportunities and devise cross-sell and upsell plans.

**Where:** This change applies to Lightning Experience in Enterprise, Professional, and Unlimited editions where Financial Services Cloud is enabled.

**Who:** Users need the FSC Insurance permission set to use this feature.

**How:** Edit the household record page, and drag the Policy component on the page.

## SEE ALSO:

[Financial Services Cloud Administrator Guide: Give Agents a Consolidated View of Household Policies and Claims \(can be outdated or unavailable during release preview\)](#)

## Streamline Policy List and Related Metrics

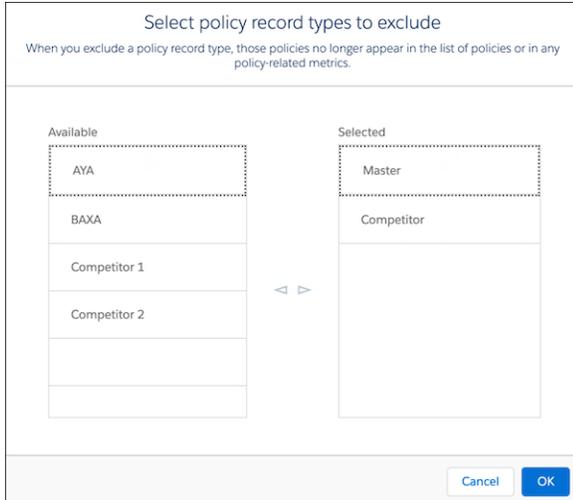
Unclutter the Policy component, and show just the information that helps your agents better understand and address their clients' needs. When you exclude a policy record type, those policies no longer appear in the list of policies or in any policy-related metrics on the Policy component.

**Where:** This change applies to Lightning Experience in Enterprise, Professional, and Unlimited editions where Financial Services Cloud is enabled.

**Who:** Users need the FSC Insurance permission set to use this feature.

**Why:** Use record type filters to show different sets of policies on different instances of the Policy component. For example, you can have two instances of the Policy component on a policyholder record page—one for your policies and another for your competitors' policies. With a side-by-side view of your policies and competitors' policies, agents can identify cross-sell and upsell opportunities.

**How:** Edit the record page, and select the Policy component. In the properties pane, click **Select**, and then select the policy record types that you want to exclude.



SEE ALSO:

[Financial Services Cloud Administrator Guide: Filter Policies by Policy Record Type \(can be outdated or unavailable during release preview\)](#)

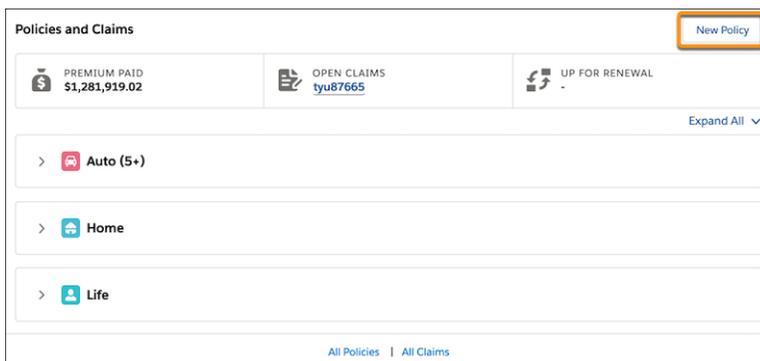
### Add Policy Records Directly from the Policy Component

The Policy component has a new New Policy button that lets agents add policy records without leaving the page they're on. For example, when an agent learns about competitors' policies with a client, the agent can add records for those policies directly from the Policy component.

**Where:** This change applies to Lightning Experience in Enterprise, Professional, and Unlimited editions where Financial Services Cloud is enabled.

**Who:** Users need the FSC Insurance permission set to use this feature.

**How:** On the Policy component, click **New Policy**.



## Simplify Partner Access to Insurance Records with Account Relationships

Remove the complexity from sharing data with your partner distributors by creating external account hierarchies and account relationships for claim, customer property, business milestone, insurance policy, and person life event records. With account relationships, you can model your policy distribution channels without creating multiple public groups or handling complex data sharing rules.

**Where:** This change applies to Lightning Experience in Enterprise, Professional, and Unlimited editions where Financial Services Cloud is enabled.

**Who:** External users with Partner Community and Customer Community Plus licenses have access to account relationships. The Create and Set Up Communities permission is required for users who want to create and manage account relationship data sharing rules.

**Why:** The Claim, Customer Property, Business Milestone, Insurance Policy, and Person Life Event objects now support account relationships.

## Print Insurance Record Details with Printable View

Use the Printable View button on Insurance record details in Lightning communities to generate a condensed, minimalist view for printing.

**Where:** This change applies to Lightning Experience in Enterprise, Professional, and Unlimited editions where Financial Services Cloud is enabled.

**How:** Select **Printable View** from a list or record detail.

Printable View supports record details for these objects:

- Insurance Policy
- Insurance Policy Coverage
- Insurance Policy Asset
- Insurance Policy Participant
- Claim
- Claim Item
- Claim Participant

## Analytics for Insurance: Predictive App Template, Date Filtering, and Data Access for Sales Managers

Use predictions from the Einstein Discovery for Insurance Analytics app to help retain customers. You can use the fiscal calendar to filter data in your dashboards. Customize data access to sales managers so that they can view only the data of users below them in the hierarchy.

### IN THIS SECTION:

#### [Maximize Policy Renewals with Einstein Discovery for Insurance Analytics](#)

Use the Einstein Discovery for Insurance Analytics template to create an app that gives you insights on the likelihood of policy renewals and helps you retain customers.

#### [Filter Data by Fiscal Calendar](#)

Filter your dashboards' data by fiscal years, months, or quarters based on the standard fiscal calendar settings in your Salesforce org.

#### [Customize Data Access for Sales Managers](#)

Save sales managers time by letting them see only the data that belongs to users below them in the hierarchy.

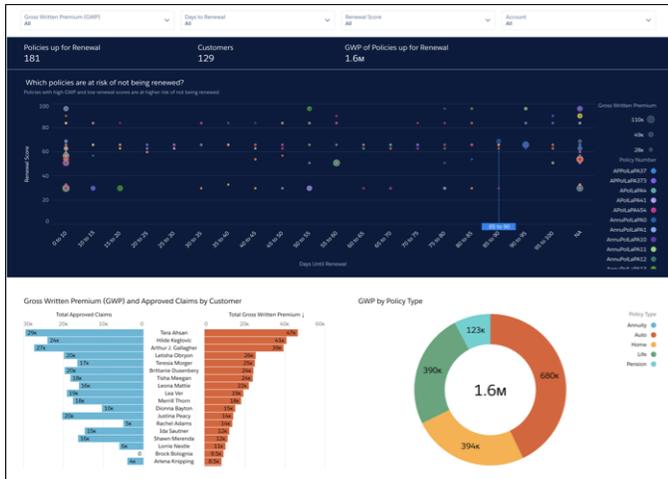
## Maximize Policy Renewals with Einstein Discovery for Insurance Analytics

Use the Einstein Discovery for Insurance Analytics template to create an app that gives you insights on the likelihood of policy renewals and helps you retain customers.

**Where:** This change applies to Lightning Experience in Professional, Performance, and Unlimited editions where Financial Services Cloud for Insurance is enabled.

**Who:** To create an app from the Einstein Discovery for Insurance Analytics template, you must have the FSC Analytics Plus add-on license.

**Why:** The dashboard visualizations help you focus on policies with high gross written premium and low renewal probability.



**How:** Go to Analytics Studio, click **Create**, and select **App**. Select **Einstein Discovery for Insurance Analytics**, and follow the instructions in the wizard to create your app.

## Filter Data by Fiscal Calendar

Filter your dashboards' data by fiscal years, months, or quarters based on the standard fiscal calendar settings in your Salesforce org.

**Where:** This change applies to Lightning Experience in Professional, Performance, and Unlimited editions where Financial Services Cloud for Insurance is enabled.

**Who:** To create an app from the Analytics for Insurance template, you must have the FSC Analytics Plus add-on license.

**How:** Go to Analytics Studio, click **Create**, and select **App**. Select **Analytics for Insurance**, and follow the instructions in the wizard to create your app.

## Customize Data Access for Sales Managers

Save sales managers time by letting them see only the data that belongs to users below them in the hierarchy.

**Where:** This change applies to Lightning Experience in Professional, Performance, and Unlimited editions where Financial Services Cloud for Insurance is enabled.

**Who:** To create an app from the Analytics for Insurance template, you must have the FSC Analytics Plus add-on license.

**How:** Use the configuration wizard to add the User Manager Hierarchy security predicate to your app.

## Compliant Data Sharing: Advanced Data Sharing Configuration to Improve Compliance (GA)

Improve compliance with data sharing regulations and company policies by using the new Compliant Data Sharing (CDS) feature. Control what information gets shared with whom, without writing complex code.

**Where:** This change applies to Lightning Experience in Professional, Enterprise, and Unlimited editions where Financial Services Cloud is enabled.

**Why:** Financial services firms want to follow privacy regulations and company data sharing policies when sharing client or deal data that contains confidential or material nonpublic information. Such data should only be accessible by users who need it based on their role regarding a specific client or deal.

Compliant Data Sharing features make it easier to control who can access specific records. CDS works seamlessly with existing Salesforce data sharing features. It provides extra access rules, but otherwise does not override sharing behavior from existing features.

**How:** First, clone the Financial Services Cloud Extension permission set. Add the user permissions **Configure Compliant Data Sharing** and **Use Compliant Data Sharing** to the cloned permission set. Assign the permission set to users or user profiles that require access to Compliant Data Sharing.

To enable CDS features for specific objects, go to **Compliant Data Sharing > Object Enablement Settings** in Setup. Select the objects that would benefit from enhanced data sharing rules. As of the Winter '21 release, CDS can be applied to Account and Opportunity objects.

Also in Setup, define **Participant Roles** for each object. A Participant Role defines the access level for any user assigned to that role for a specific record. For example, a Senior Banker role can get full Read/Write access to an opportunity record, while an Associate role gets Read Only access.

Add the Account Participant related list to account page layouts, and the Opportunity Participant related list to opportunity page layouts. Manage sharing assignments in the participant related list for each object. For example, the Account Participant related list lets users assign people to roles for a specific account record. When a user is assigned to a role, they get record access based on the role's default access level.

## Actionable Relationship Center: Manage Complex Relationships and Related Lists

Create and edit account and contact relationships and other related records in one convenient interface using Actionable Relationship Center (ARC). ARC displays complex relationships and related lists at-a-glance. Now you can create and edit relationships and related records from the same interface. ARC now does nearly everything the Relationship Map component can do, and displays related lists also.

**Where:** This change applies to Lightning Experience in Professional, Enterprise, and Unlimited editions where Financial Services Cloud is enabled.

**Why:** It's often faster and easier to manage data from one dynamic component than by switching among multiple pages. You can now perform common relationship management tasks directly in the ARC interface.

**How:** Add the **Relationships - Financial Services Cloud** standard component to place ARC in a page layout. Then assign the Financial Services Cloud Extension permission to users or user profiles that need access to ARC.

Use the **New** button on an account, contact, relationship, or related list card to create a record. Take advantage of contextual menus and the **Edit Relationship** menu item to change relationships and related records.

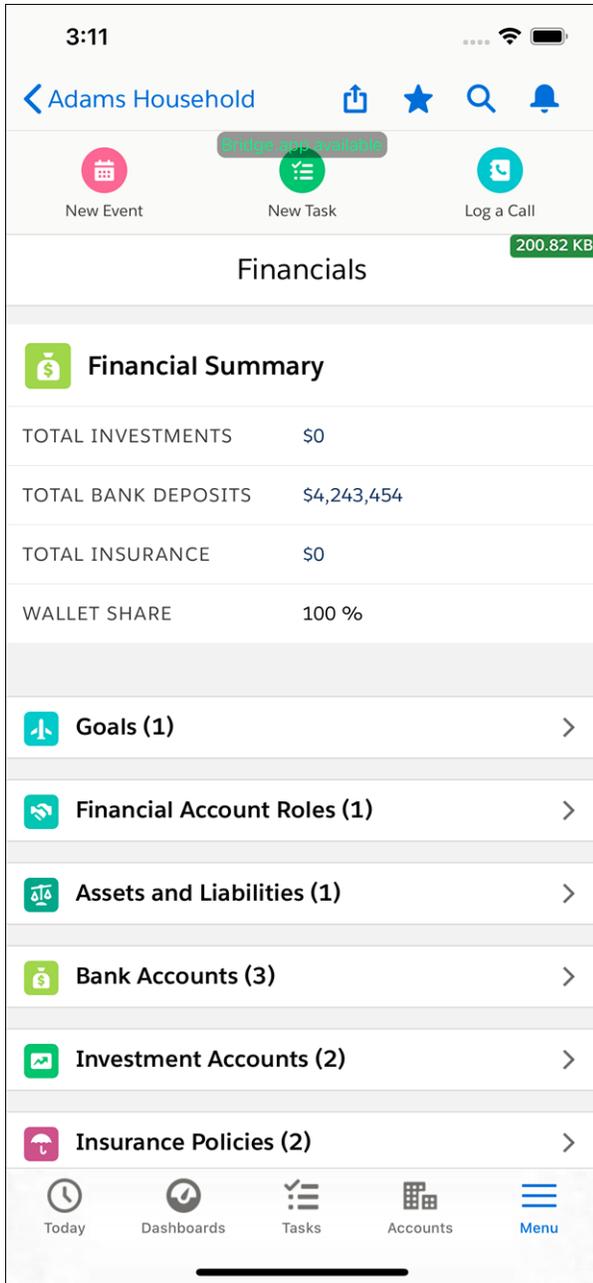
## Stay Productive with Financial Services Cloud Lightning Components for Mobile

Boost remote user productivity by including Financial Services Cloud Lightning Components in the Salesforce mobile app.

**Where:** This change applies to Lightning Experience in Professional, Enterprise, and Unlimited editions where Financial Services Cloud is enabled.

**Why:** Give Salesforce Mobile users access to the features that they need to stay productive away from their desks.

**How:** You can access Financial Services Cloud Lightning Components in the Salesforce mobile app for iOS and Android.



Enable pages for the Phone form factor in Lightning App Builder so those pages appear on mobile devices. Use Lightning App Builder to add components to new or existing page layouts.

The following table describes the Financial Services Cloud components that are now mobile-enabled.

**Table 1: Mobile-Enabled Components**

| Component              | Description  |
|------------------------|--|
| Action Plan            | View action plans and task items.  |
| Assets and Liabilities | View, edit, and create Assets and Liabilities records for all kinds of accounts. |

| Component                     | Description  |
|-------------------------------|--|
| <b>Bank Account</b>           | View, edit, and create Bank Account records for all kinds of accounts.   |
| <b>Client Record Detail</b>   | View Client Record Detail for all kinds of accounts.   |
| <b>Financial Account Role</b> | View, edit, and create Financial Account Roles for all kinds of accounts.  |
| <b>Financial Goal</b>         | View Financial Goals for Household and Person accounts. Edit and create Financial Goals for Household accounts only.         |
| <b>Financial Summary</b>      | View Financial Summary information for all kinds of accounts.  |
| <b>Insurance Policy</b>       | View, edit, and create Insurance Policy records for all kinds of accounts.   |
| <b>Investment Account</b>     | View, edit, and create Investment Accounts for all kinds of accounts.  |
| <b>Related Accounts</b>       | View Related Accounts for all kinds of accounts. Edit and create Related Accounts for Households and Business Accounts only. |
| <b>Related Contacts</b>       | View Related Contacts for Households and Business Accounts only.   |

## Record Rollups for Financial Services Cloud

Improve record rollup performance with these enhancements.

### IN THIS SECTION:

#### [Gain Visibility into Household Cases with Case Record Rollups](#)

Give your users a consolidated view of all the cases a household owns by rolling up case records at the household level. Agents can keep track of and focus on all active cases of a household in one place without going through multiple related lists.

#### [Optimize Record Rollups](#)

Use the new Record Rollup Optimization (Beta) org preference to improve record rollup performance.

#### [Get Improved Performance and Granular Control Over Batch Record Rollups](#)

Experience faster record rollups at the household level when performing rollups in batches. The new Record Rollup Configuration custom setting lets you configure various rollup settings for each object individually. For example, you can define a batch size to limit the number of records in each batch. When you run the batch job to roll up records, these settings help improve the performance of the batch job.

## Gain Visibility into Household Cases with Case Record Rollups

Give your users a consolidated view of all the cases a household owns by rolling up case records at the household level. Agents can keep track of and focus on all active cases of a household in one place without going through multiple related lists.

**Where:** This change applies to Lightning Experience in Enterprise, Professional, and Unlimited editions where Financial Services Cloud is enabled.

**How:** Add the Household Cases related list to the Household page layout.

## Optimize Record Rollups

Use the new Record Rollup Optimization (Beta) org preference to improve record rollup performance.

**Where:** This change applies to Lightning Experience in Enterprise, Professional, and Unlimited editions where Financial Services Cloud is enabled.

**How:** From Setup, under Financial Services General Settings, enable Record Rollup Optimization (Beta).

SEE ALSO:

[Get Improved Performance and Granular Control Over Batch Record Rollups](#)

## Get Improved Performance and Granular Control Over Batch Record Rollups

Experience faster record rollups at the household level when performing rollups in batches. The new Record Rollup Configuration custom setting lets you configure various rollup settings for each object individually. For example, you can define a batch size to limit the number of records in each batch. When you run the batch job to roll up records, these settings help improve the performance of the batch job.

**Where:** This change applies to Lightning Experience in Enterprise, Professional, and Unlimited editions where Financial Services Cloud is enabled.

**How:** On the Custom Settings page in Setup, click **Manage** next to Record Rollup Configuration. Then click **New** to add objects and define rollup settings for them.

| Action                                     | Name                         | Object API Name            | Settings Active | Rollup Start Date  | Rollup End Date    | Batch Size | Skip Unchanged Household Updates | Skip Triggers |
|--|------------------------------|----------------------------|-----------------|--------------------|--------------------|------------|----------------------------------|---------------|
| <a href="#">Edit</a>   <a href="#">Del</a> | Case                         | Case                       | ✓               | 8/12/2020, 4:11 AM | 8/14/2020, 7:56 AM | 100        | <input type="checkbox"/>         | ✓             |
| <a href="#">Edit</a>   <a href="#">Del</a> | Claim                        | Claim                      | ✓               | 8/12/2020, 2:31 AM | 8/14/2020, 7:56 AM | 100        | <input type="checkbox"/>         | ✓             |
| <a href="#">Edit</a>   <a href="#">Del</a> | Financial Account            | FinancialAccount_c         | ✓               | 8/12/2020, 3:08 AM | 8/14/2020, 7:56 AM | 2,000      | <input type="checkbox"/>         | ✓             |
| <a href="#">Edit</a>   <a href="#">Del</a> | Insurance Policy Participant | InsurancePolicyParticipant | ✓               | 8/12/2020, 3:44 AM | 8/14/2020, 7:57 AM | 200        | <input type="checkbox"/>         | ✓             |
| <a href="#">Edit</a>   <a href="#">Del</a> | Insurance Policy             | InsurancePolicy            | ✓               | 8/12/2020, 4:11 AM | 8/14/2020, 7:56 AM | 100        | <input type="checkbox"/>         | ✓             |



**Note:** If you enabled the new Record Rollup Optimization (Beta) org preference, use the new HouseholdAssignmentBatchable batch job instead of GroupAssignmentBatchable to roll up records in batches.

SEE ALSO:

[Optimize Record Rollups](#)

## Encrypt Identity Document Fields

You can now encrypt fields on the documents you use to identify Financial Services Cloud clients. When you encrypt the Document Number, Issue Date, and Expiration Date fields, you add another layer of protection to the data your clients entrust to your care.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, and Unlimited editions where both Financial Services Cloud and Shield Platform Encryption are enabled.

**How:** On the Encryption Policy page in Setup, click **Encrypt Fields**. Then click **Edit** and select a field. You can apply the deterministic encryption scheme to the Document Number field.

SEE ALSO:

[Which Standard Fields Can I Encrypt?](#)

## Einstein App Enhancements

Use the new Predict apps in Einstein Analytics to increase your Wealth Management capabilities. Powered by Einstein Discovery stories, the new Predict apps create predictions on the churn of your client accounts and the likelihood to grow your account assets. Mortgage for Analytics increases mortgage sales by prioritizing customer mortgage applications

IN THIS SECTION:

[Predict Client Churn Risk for Wealth Management](#)

The Predict Client Churn Risk for Wealth Management Analytics app allows financial advisors to intelligently predict customer churn. The app prescribes corrective actions to help minimize occurrences of churn using the power of Einstein Discovery. Use the template to create the app with dashboard visualizations of the predictive risk of account churn.

[Predict the Likelihood to Add Assets for Wealth Management](#)

The Predict Likelihood to Add Assets for Wealth Management Analytics app allows financial advisors to intelligently forecast the likelihood of adding assets to accounts. The app prescribes actions on how to increase the likelihood using the power of Einstein Discovery. Use the template to create the app with an embedded dashboard visualization of the predictive likelihood to add assets to an account.

[Increase Sales with the Analytics for Mortgage App](#)

Analytics for Mortgage empowers loan officers and managers to drive increased mortgage sales by helping prioritize the customer leads and mortgage applications to focus on.

### Predict Client Churn Risk for Wealth Management

The Predict Client Churn Risk for Wealth Management Analytics app allows financial advisors to intelligently predict customer churn. The app prescribes corrective actions to help minimize occurrences of churn using the power of Einstein Discovery. Use the template to create the app with dashboard visualizations of the predictive risk of account churn.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** In Analytics Studio, click **Create** and select **App**. Find and select **Predict Client Churn Risk for Wealth Management Analytics**. Then follow the instructions in the wizard to create your app.

### Predict the Likelihood to Add Assets for Wealth Management

The Predict Likelihood to Add Assets for Wealth Management Analytics app allows financial advisors to intelligently forecast the likelihood of adding assets to accounts. The app prescribes actions on how to increase the likelihood using the power of Einstein Discovery. Use the template to create the app with an embedded dashboard visualization of the predictive likelihood to add assets to an account.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** In Analytics Studio, click **Create** and select **App**. Find and select **Predict Likelihood to Add Assets for Wealth Management Analytics**. Then follow the instructions in the wizard to create your app.

## Increase Sales with the Analytics for Mortgage App

Analytics for Mortgage empowers loan officers and managers to drive increased mortgage sales by helping prioritize the customer leads and mortgage applications to focus on.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** In Analytics Studio, click **Create** and select **App**. Find and select **Analytics for Mortgage**. Then follow the instructions in the wizard to create your app.

## New and Changed Financial Services Cloud Object Fields

Do more with the new and updated Financial Services Cloud objects.

### Relationship Map

#### Get an expanded view of hierarchical client relationships in the Relationship Map.

Use the values in the new `AssociationType` field on the `AccountAccountRelation` object.

### Compliant Data Sharing

#### Define access levels by role for supported objects.

Use the new `ParticipantRole` object.

#### Assign a user to a participant role for an account record.

Use the new `AccountParticipant` object.

#### Assign a user to a participant role for an opportunity record.

Use the new `OpportunityParticipant` object.

## New and Changed Financial Services Cloud Metadata Types

Do more with the new and changed metadata types.

### Insurance

#### Create account relationships for business milestones, claims, customer properties, insurance policies, and person life events

Use the new values in the `entityType` and `accountToCriteriaField` fields on the `AccountRelationshipShareRule` metadata type.

- The `entityType` field shows these additional values for Insurance for Financial Services Cloud.
  - `BusinessMilestone`
  - `Claim`
  - `CustomerProperty`
  - `InsurancePolicy`
  - `PersonLifeEvent`
- The `accountToCriteriaField` field shows these additional values for Insurance for Financial Services Cloud.
  - `BusinessMilestone.OwnerId`

- `BusinessMilestone.PrimaryAccountId`
- `Claim.AccountId`
- `Claim.OwnerId`
- `CustomerProperty.OwnerId`
- `CustomerProperty.PrimaryOwnerId`
- `InsurancePolicy.NameInsuredId`
- `InsurancePolicy.OwnerId`
- `PersonLifeEvent.OwnerId`

## Industries Settings

### Enable Compliant Data Sharing features for accounts and opportunities

Use the new `enableCompliantDataSharingForAccount` and `enableCompliantDataSharingForOpportunity` fields on the `IndustriesSettings` metadata type.

### Enable optimized record rollup calculations (beta)

Use the new `enableRecordRollup` field on the `IndustriesSettings` metadata type.

## REST API

Financial Services Cloud REST API includes enhanced calls.

## Mortgage

### Create or Update Mortgage Applications Passing a Salesforce or External Lender ID

Make a PATCH request to

`/services/data/v50.0/connect/financialservices/mortgages/id/<Salesforce Id of ResidentialLoanApplication record>` to create or update an existing mortgage application using a Salesforce record ID.

Make a PATCH request to

`/services/data/v50.0/connect/financialservices/mortgages/externalId/<External Id of ResidentialLoanApplication record>` to create or update an existing mortgage application using an external record ID.

In response, a `"created": false/true` affirms a new record was created. If `false` is returned, the existing mortgage application is updated.

### Generate Account or Opportunity Records when Creating or Upserting a Mortgage Application

Create or Upsert a mortgage application with linked Account or Opportunity records by including `accountId` or `opportunityId` or their objects in a POST or PATCH request.

If both `accountId` (or `opportunityId`) and `account` (or `opportunity`) objects are passed as input, Ids are given preference and objects ignored.

Pass Account and Opportunity objects only for new mortgage applications using the POST API or Upsert in create mode. Account and Opportunity objects are not valid inputs when upserting an existing record.

The API supports creating, but not updating existing, Account and Opportunity records.

## Public Sector Cloud: Licensing and Permitting Management Made Simpler, Faster, and Transparent (Generally Available)

Public Sector Cloud, built on the Salesforce platform, brings the benefits of digital transformation to governments and public agencies. Now you can build simpler, faster, and more transparent processes that delight your constituents and employees alike.

### IN THIS SECTION:

#### [Transform Government Services with Public Sector Cloud](#)

You can't run a government agency without licensing, permitting, and enforcement processes, but now you can make them less of a pain point for users on both sides of the counter. Salesforce Public Sector Cloud lets reviewers and inspectors process applications, manage inspections, and encourage regulatory compliance at a whole new level of efficiency.

#### [Define Diverse Authorization Processes with Easily Configurable Data Model](#)

Create authorization processes in a flash with the powerful Public Sector Cloud data model. By defining values for a few key parameters, you can configure authorization processes for various licenses, permits, registrations, and certifications.

#### [Give a Consolidated View of Applications with the Hierarchical View Component](#)

Help your application reviewers easily and efficiently manage applications. When you add the Hierarchical View component to an account record page, application reviewers get a consolidated view of account's applications, inspections, violations, enforcement actions, and public complaints. With greater visibility into these details, reviewers can better understand and address constituents' licensing and permitting needs.

#### [Plan Effective Inspections with the Inspection Management Mobile App](#)

The Public Sector: Inspection Management mobile app provides field inspectors with visit details such as locations to visit, priority, estimated visit time, and even navigation instructions. Field inspectors can view inspection details and special instructions and record their findings right in the mobile app. They can also check the associated regulatory codes and attach files when they enter their observations.

#### [Create a Feature-Rich Portal for Constituents' Licensing and Permitting Needs](#)

Offer your constituents a comprehensive view of their licensing and permitting processes by creating a portal that functions as a one-stop shop. With the portal, constituents can apply for and renew licenses and permits, see their applications, scheduled inspections, violations, and enforcement actions. And they can file complaints against a business and get notifications when action is taken on a complaint. You can also use the knowledge management features of the portal to create a treasure trove of articles for constituents and provide them a digital engagement platform.

#### [Help Constituents Plan and Prioritize Applications](#)

Save constituents time and help them avoid rejected applications by publishing permit dependency information on your portal. When constituents search for a business type, they can see all the permits and licenses required for that business type. They can also see the order in which to apply for permits and licenses, smoothing their path to approval.

#### [Accommodate Diverse Licensing and Permitting Needs with Dynamic Forms](#)

Use Vlocity Omniscript designer to create dynamic assessment or application forms for licenses and permits. A dynamic form uses the response from one step to populate the elements of the next step. For example, a dynamic application form for a building permit automatically populates the next field based on whether the user selects residential or commercial as the building type.

#### [Issue Licenses and Permits Faster with Automated Approval Processes](#)

Automate approval processes by specifying the sequence of steps required to approve license or permit applications. Each step determines which records advance to the next step, and who to assign approval requests to. You can also automate the field updates to indicate the status of an application after a step is completed. And you can associate actions such as email alerts to notify applicants when their application's status changes.

### [Track Code Violations and Enforce Compliance to Regulatory Standards](#)

Set up an automated process to ensure that businesses and individuals comply with regulatory standards. Define code violations and enforcement actions, and map them to assessment indicator results. When an inspector enters an assessment that indicates a violation, applicants and reviewers can see that violation and take necessary action. If the applicants fail to comply, a compliance officer can initiate an enforcement action.

### [Public Sector Cloud Has New Objects](#)

Salesforce Public Sector Cloud provides a rich set of standard and custom objects to store and access information.

### [Public Sector Cloud Has New Metadata Type](#)

Map object record types to an application with Public Sector Cloud's new metadata types.

## Transform Government Services with Public Sector Cloud

You can't run a government agency without licensing, permitting, and enforcement processes, but now you can make them less of a pain point for users on both sides of the counter. Salesforce Public Sector Cloud lets reviewers and inspectors process applications, manage inspections, and encourage regulatory compliance at a whole new level of efficiency.

**Where:** This change applies to Lightning Experience in Developer, Enterprise, and Unlimited editions where Public Sector Cloud is enabled.

**Why:** Constituents can use your Public Sector Cloud portal to apply for licenses and permits, track applications, schedule inspections, and monitor violations and enforcement actions. And the portal employs the powerful knowledge management features of the Salesforce platform to help you keep constituents informed and engaged. Keeping constituents in the loop can help increase compliance rates for licenses and permits.

## Define Diverse Authorization Processes with Easily Configurable Data Model

Create authorization processes in a flash with the powerful Public Sector Cloud data model. By defining values for a few key parameters, you can configure authorization processes for various licenses, permits, registrations, and certifications.

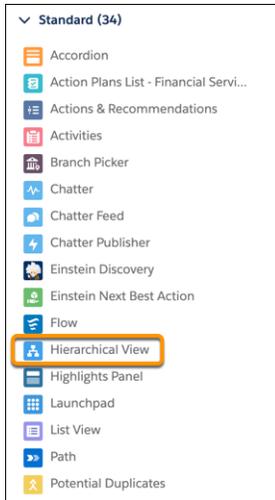
**Where:** This change applies to Lightning Experience in Developer, Enterprise, and Unlimited editions where Public Sector Cloud is enabled.

## Give a Consolidated View of Applications with the Hierarchical View Component

Help your application reviewers easily and efficiently manage applications. When you add the Hierarchical View component to an account record page, application reviewers get a consolidated view of account's applications, inspections, violations, enforcement actions, and public complaints. With greater visibility into these details, reviewers can better understand and address constituents' licensing and permitting needs.

**Where:** This change applies to Lightning Experience in Developer, Enterprise, and Unlimited editions where Public Sector Cloud is enabled.

**How:** Drag the Hierarchical View component to the account, application, inspection, case, or complaint record page.

**SEE ALSO:**

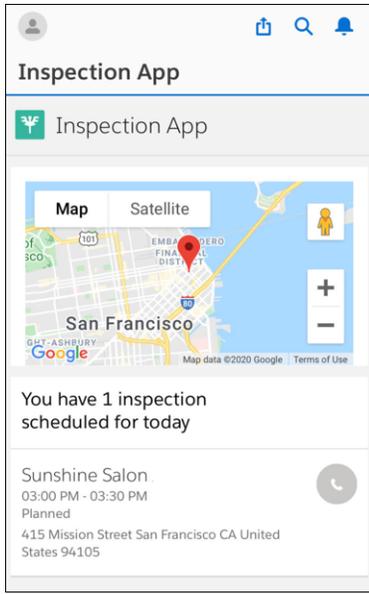
[Salesforce Help: Configure Unified View of Government \(can be outdated or unavailable during release preview\)](#)

## Plan Effective Inspections with the Inspection Management Mobile App

The Public Sector: Inspection Management mobile app provides field inspectors with visit details such as locations to visit, priority, estimated visit time, and even navigation instructions. Field inspectors can view inspection details and special instructions and record their findings right in the mobile app. They can also check the associated regulatory codes and attach files when they enter their observations.

**Where:** This change applies to Lightning Experience in Developer, Enterprise, and Unlimited editions where Public Sector Cloud is enabled.

**How:** Launch the Salesforce App on your mobile device. From the App Launcher, select **Public Sector: Inspection Management** and tap **Visits**.



SEE ALSO:

[Salesforce Help: Configure Inspections \(can be outdated or unavailable during release preview\)](#)

## Create a Feature-Rich Portal for Constituents' Licensing and Permitting Needs

Offer your constituents a comprehensive view of their licensing and permitting processes by creating a portal that functions as a one-stop shop. With the portal, constituents can apply for and renew licenses and permits, see their applications, scheduled inspections, violations, and enforcement actions. And they can file complaints against a business and get notifications when action is taken on a complaint. You can also use the knowledge management features of the portal to create a treasure trove of articles for constituents and provide them a digital engagement platform.

**Where:** This change applies to Lightning Experience in Developer, Enterprise, and Unlimited editions where Public Sector Cloud is enabled.

**Who:** Users need the Licensing and Permitting Management For Communities permission set to use this feature.

**How:** To configure your Salesforce Communities page, click Experience Builder from the menu, and drag components to the page.



SEE ALSO:

[Salesforce Help: Manage Salesforce Communities \(can be outdated or unavailable during release preview\)](#)

## Help Constituents Plan and Prioritize Applications

Save constituents time and help them avoid rejected applications by publishing permit dependency information on your portal. When constituents search for a business type, they can see all the permits and licenses required for that business type. They can also see the order in which to apply for permits and licenses, smoothing their path to approval.

**Where:** This change applies to Lightning Experience in Developer, Enterprise, and Unlimited editions where Public Sector Cloud is enabled.

**How:** Define the dependency using the Business Regulatory Authorization Type Dependency object.

SEE ALSO:

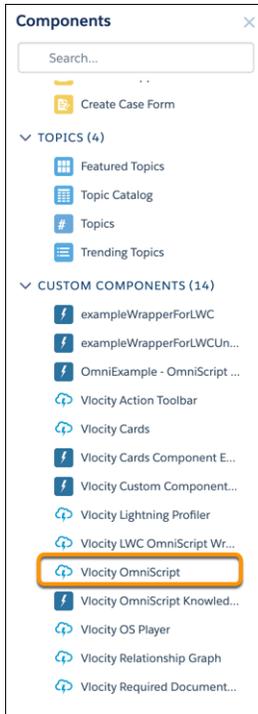
[Salesforce Help: Configure Business Regulatory Authorization Type Dependencies \(can be outdated or unavailable during release preview\)](#)

## Accommodate Diverse Licensing and Permitting Needs with Dynamic Forms

Use Vlocity Omniscrypt designer to create dynamic assessment or application forms for licenses and permits. A dynamic form uses the response from one step to populate the elements of the next step. For example, a dynamic application form for a building permit automatically populates the next field based on whether the user selects residential or commercial as the building type.

**Where:** This change applies to Lightning Experience in Developer, Enterprise, and Unlimited editions where Public Sector Cloud is enabled.

**How:** Create and save a dynamic form in Vlocity Omniscrypt designer. To add the form to your Salesforce Community page, use the Vlocity Omniscrypt component in Experience Builder.



SEE ALSO:

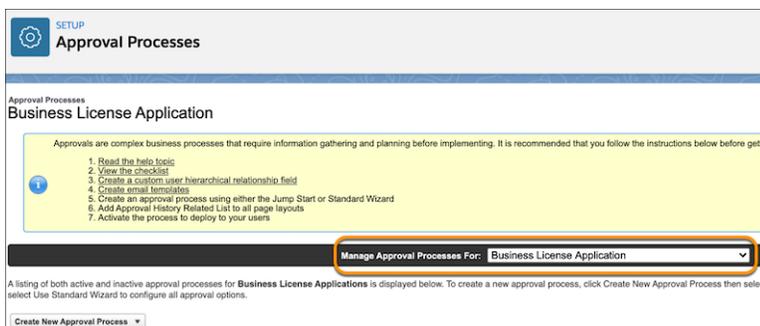
[Salesforce Help: Design License Assessment and Application Forms \(can be outdated or unavailable during release preview\)](#)

## Issue Licenses and Permits Faster with Automated Approval Processes

Automate approval processes by specifying the sequence of steps required to approve license or permit applications. Each step determines which records advance to the next step, and who to assign approval requests to. You can also automate the field updates to indicate the status of an application after a step is completed. And you can associate actions such as email alerts to notify applicants when their application's status changes.

**Where:** This change applies to Lightning Experience in Developer, Enterprise, and Unlimited editions where Public Sector Cloud is enabled.

**How:** From Setup, select **Approval Processes**. From the Manage Approval Processes For list, select an application process.



SEE ALSO:

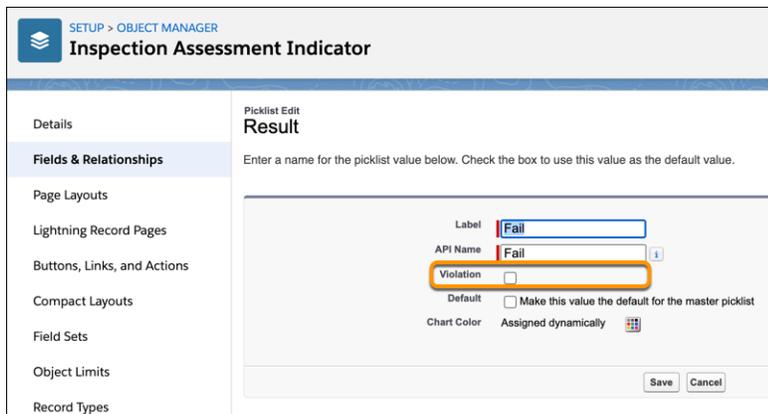
[Salesforce Help: Set Up License Application Approval Process \(can be outdated or unavailable during release preview\)](#)

## Track Code Violations and Enforce Compliance to Regulatory Standards

Set up an automated process to ensure that businesses and individuals comply with regulatory standards. Define code violations and enforcement actions, and map them to assessment indicator results. When an inspector enters an assessment that indicates a violation, applicants and reviewers can see that violation and take necessary action. If the applicants fail to comply, a compliance officer can initiate an enforcement action.

**Where:** This change applies to Lightning Experience in Developer, Enterprise, and Unlimited editions where Public Sector Cloud is enabled.

**How:** From Object Manager, find and open Inspection Assessment Indicator. Create a picklist value on the Result field and mark it as a violation.



SEE ALSO:

[Salesforce Help: Create a Violation Enforcement Action \(can be outdated or unavailable during release preview\)](#)

## Public Sector Cloud Has New Objects

Salesforce Public Sector Cloud provides a rich set of standard and custom objects to store and access information.

**Where:** This change applies to Lightning Experience in Developer, Enterprise, and Unlimited editions where Public Sector Cloud is enabled.

### Store information related to the association between an asset and the application for the license of that asset

Use the new `AuthApplicationAsset` object.

### Create and store operating hours during which an authorization is valid for a place

Use the new `AuthLocationAccessSchedule` object.

### Store information related to the association between a location and the application for the license of that location

Use the new `AuthApplicationPlace` object.

### Store information related to the association of a permit to the permit dependency in a given business context

Use the new `BusRegAuthTypeDependency` object.

### Store details about the business on the license or permit application.

Use the new `BusinessProfile` object.

### Store information related to the association of business activities and the licenses or permits applicable for them

Use the new `BusinessRegulatoryAuthType` object.

### Create an authorization that can be issued by a regulatory agency

Use the new `BusinessLicense` object.

**Store an application form submitted by a business owner**

Use the new `BusinessLicenseApplication` object.

**Create an association between authorization activity and license or permit type**

Use the new `BusRegAuthorizationType` object.

**Create a category of activity both business and individual**

Use the new `BusinessType` object.

**Create and store an instance of a training course with location and date details of training courses**

Use the new `CourseOffering` object.

**Create and store examinations authorized by a government authority that qualify a license or permit**

Use the new `Examination` object.

**Create and store the assessment indicators recorded during an inspection**

Use the new `InspectionAssessmentInd` object.

**Store the license or permit application form submitted by an individual**

Use the new `IndividualApplication` object.

**Create and store a type of inspection or assessment conducted during a visit**

Use the new `InspectionType` object.

**Store information related to the examinations taken by a person**

Use the new `PersonExamination` object.

**Store the saved applications and pre-screening forms**

Use the new `PreliminaryApplicationRef` object.

**Store the complaints submitted by public users**

Use the new `PublicComplaint` object.

**Create an organization or government agency that provides authorization**

Use the new `RegulatoryAuthority` object.

**Create common attributes used for different types of license or permit applications for businesses or occupations**

Use the new `RegulatoryAuthApplication` object.

**Create an authorization that can be issued by the regulatory body**

Use the new `RegulatoryAuthorizationType` object.

**Create an association between an authorization type and a product**

Use the new `RegAuthorizationTypeProduct` object.

**Store information related to the regulation code enforced by the regulatory body**

Use the new `RegulatoryCode` object.

**Store the regulatory codes and the assessment indicator definitions associated with them**

Use the new `RegulatoryCodeAssessmentInd` object.

**Store the regulatory code violations captured across multiple follow-up inspections**

Use the new `RegulatoryCodeViolation` object.

**Store the trainings completed by a person**

Use the new `TrainingParticipant` object.

**Store trainings authorized by a government authority that qualify a license or permit**

Use the new `TrnCourse` object.

**Create and store the action that a regulatory authority takes to address violations**

Use the new `ViolationEnforcementAction` object.

**Create and store violations types for licenses and permits**

Use the new `ViolationType` object.

**Create and store violation types associated with assessment indicator definitions**

Use the new `ViolationTypeAssessmentInd` object.

## Public Sector Cloud Has New Metadata Type

Map object record types to an application with Public Sector Cloud's new metadata types.

**Maps object record types to an application**

Use the new `ApplicationRecordTypeConfig` object. Introduced in API version 50.0.

## Consumer Goods Cloud: Direct Store Delivery, Visit Recommendations, and More

Ensure that sales reps visit the right stores at the right time with Einstein recommended visits. Use delivery tasks to keep your products in stock at stores. Help your sales managers and field reps stay agile with Consumer Goods objects now available on mobile.

**IN THIS SECTION:**[Einstein Visit Recommendations: Plan Visits to the Right Stores at the Right Time](#)

Sales managers can stop worrying about which stores their sales reps must visit next because Einstein does it for them. Visit recommendations are based on and tailored to address your unique business requirements. Create one or more strategies based on your business requirements in Einstein Next Best Action.

[Ensure Timely Deliveries to Stores with Delivery Tasks](#)

When sales managers view all the orders from their region, they can prioritize orders based on store performance. Sales managers can create and assign delivery tasks to drivers, who can see the delivery tasks on their mobile devices.

[Visit Execution: More Flexibility and Improved Productivity](#)

Sales managers can now create custom tasks with standard Consumer Goods objects. And field reps are more flexible because they can take charge of their day and capture more during visits.

[Other Changes to Consumer Goods Cloud](#)

Learn about other small but important improvements to Consumer Goods Cloud.

[Enhance Your Stores' Retail Execution](#)

The new Einstein Analytics for Consumer Goods dashboards give you easy access to retail execution KPIs that help you perform merchandiser activities effectively. Get actionable insights on store compliance, last store visit, inventory compliance, product performance, and account hierarchy. Field reps can use the Field Representative Summary dashboard to track their performance and compare it with their team's average. Customize your app to ensure that a sales manager can see only data that belongs to users below them in the hierarchy.

[Consumer Goods Cloud Has New Objects](#)

Do more with the new Consumer Goods Cloud and Einstein Visit Recommendations objects.

## Einstein Visit Recommendations: Plan Visits to the Right Stores at the Right Time

Sales managers can stop worrying about which stores their sales reps must visit next because Einstein does it for them. Visit recommendations are based on and tailored to address your unique business requirements. Create one or more strategies based on your business requirements in Einstein Next Best Action.

**Where:** This change applies to Lightning Experience in Developer, Performance, Enterprise, and Unlimited Editions where Consumer Goods Cloud is enabled.

**Who:** Users need the Retail Execution Lightning Plus permission set to use this feature.

**How:** In Setup, search for and select **Einstein Visit Recommendations**. Turn on Einstein Visit Recommendation. In Next Best Action, define a strategy that provides the business logic for Einstein to provide recommendations. Sales managers and field reps can now create visit recommendation requests for a time period that Einstein uses to make visit recommendations.

**New AI Visit Recommendation Request**

Description  
 Visit recommendations for Astro's Team for the week of September 14

\* Start Date ? Sep 14, 2020 ? End Date ? Sep 18, 2020

\* Visit Site Type Retail Store ? Number Of Visits Per Day ? 10

\* Recommendation Strategy ? Get Recommendations for Astro's Team

Cancel Next

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SEE ALSO:

[Salesforce Help: Einstein Visit Recommendations \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Delete Recommendations \(can be outdated or unavailable during release preview\)](#)

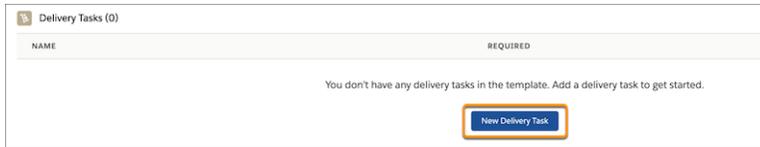
## Ensure Timely Deliveries to Stores with Delivery Tasks

When sales managers view all the orders from their region, they can prioritize orders based on store performance. Sales managers can create and assign delivery tasks to drivers, who can see the delivery tasks on their mobile devices.

**Where:** This change applies to Lightning Experience in Developer, Performance, Enterprise, and Unlimited Editions where Consumer Goods Cloud is enabled.

**Who:** Users need the Lightning Direct Store Delivery permission set to use this feature.

**How:** To create a delivery task, use an action plan template. Assign the template to a visit to add the delivery task to the visit. After drivers complete their deliveries, they can record the number of items delivered.

**SEE ALSO:**

[Salesforce Help: Associate Delivery Task to Action Plan Template \(can be outdated or unavailable during release preview\)](#)

## Visit Execution: More Flexibility and Improved Productivity

Sales managers can now create custom tasks with standard Consumer Goods objects. And field reps are more flexible because they can take charge of their day and capture more during visits.

**IN THIS SECTION:**

### [Create Custom Tasks Based on Standard Consumer Goods Objects](#)

Sales managers can quickly create custom tasks on any standard Consumer Goods object for which the HasActivities attribute is enabled. Creating a custom task no longer requires creating a custom object first. For example, to capture information about a store's performance, a sales manager can create a custom task with the Retail Store object.

### [Filter and Sort Your Visits](#)

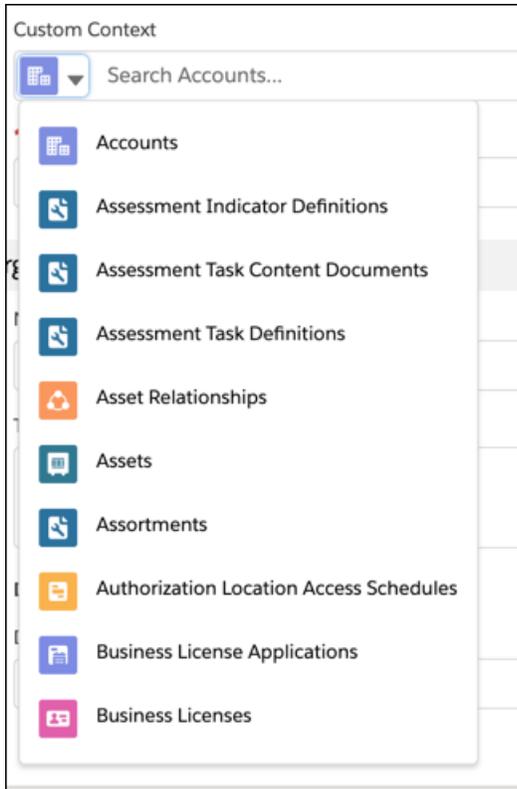
Field reps have a new option to help them stay on top of their visits. They can filter their visits based on date, priority, and status. They can also sort their visits by date and time, optimized route, or priority. The default visit list is sorted by planned start time and filtered by today's date.

## Create Custom Tasks Based on Standard Consumer Goods Objects

Sales managers can quickly create custom tasks on any standard Consumer Goods object for which the HasActivities attribute is enabled. Creating a custom task no longer requires creating a custom object first. For example, to capture information about a store's performance, a sales manager can create a custom task with the Retail Store object.

**Where:** This change applies to Lightning Experience in Developer, Performance, Enterprise, and Unlimited Editions where Consumer Goods Cloud is enabled.

**How:** To create a custom task, select a standard Consumer Goods object in the Custom Context field.



SEE ALSO:

[Salesforce Help: Create a Retail Store KPI \(can be outdated or unavailable during release preview\)](#)

## Filter and Sort Your Visits

Field reps have a new option to help them stay on top of their visits. They can filter their visits based on date, priority, and status. They can also sort their visits by date and time, optimized route, or priority. The default visit list is sorted by planned start time and filtered by today's date.

**Where:** This change applies to Lightning Experience in Developer, Performance, Enterprise, and Unlimited Editions where Consumer Goods Cloud is enabled.

**How:** On the Visits list page, click the filter and sort icon.

## Other Changes to Consumer Goods Cloud

Learn about other small but important improvements to Consumer Goods Cloud.

**Where:** This change applies to Lightning Experience in Developer, Performance, Enterprise, and Unlimited Editions where Consumer Goods Cloud is enabled.

**Why:** You can now easily access more Consumer Goods objects from mobile devices, Salesforce App Launcher, and Salesforce Communities.

### Enjoy greater flexibility on the go

More Consumer Goods Cloud are now accessible from mobile devices. Sales managers and field reps can now manage promotions, stores, visits, and more while they're on the go.

### More objects in App Launcher

The Assessment Task Order, Assortment Product, In-Store Location, Promotion Channel, Promotion Product Category, Store Action Plan Template, Store Assortment, Store Product, and Promotion Product objects are now available in the Salesforce App Launcher.

### Build stronger relationships with partners through communities

Consumer Goods Cloud are now available in Salesforce Communities. For information about contractual restrictions for using Consumer Goods Cloud in Salesforce Communities, contact your Salesforce account executive.

### Add location maps and visit lists to visit record pages

Use the new Consumer Goods Visit Location Map and Consumer Goods Visit List components.

### Consumer Goods App has a new icon in App Launcher

The new icon resonates better with the Consumer Goods application.



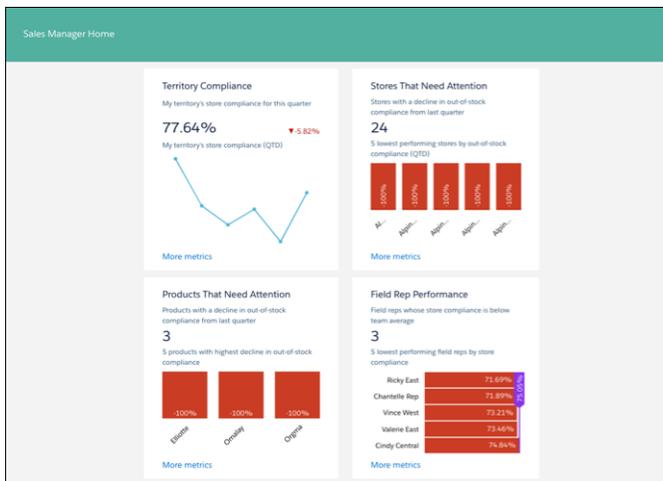
## Enhance Your Stores' Retail Execution

The new Einstein Analytics for Consumer Goods dashboards give you easy access to retail execution KPIs that help you perform merchandiser activities effectively. Get actionable insights on store compliance, last store visit, inventory compliance, product performance, and account hierarchy. Field reps can use the Field Representative Summary dashboard to track their performance and compare it with their team's average. Customize your app to ensure that a sales manager can see only data that belongs to users below them in the hierarchy.

**Where:** This change applies to Lightning Experience and all versions of the Salesforce app in Professional, Performance, and Unlimited editions where Consumer Goods Cloud is enabled.

**Who:** Analytics for Consumer Goods is only for Salesforce Consumer Goods Cloud users. To create an app from the Einstein Analytics for Consumer Goods template, you must also have the Einstein Analytics for Consumer Goods add-on license. The new Einstein Analytics for Consumer Goods dashboards are available to users with the Merchandiser and Contractor SKU.

**Why:** Help your managers and field reps improve retail execution in their stores.



## Consumer Goods Cloud Has New Objects

Do more with the new Consumer Goods Cloud and Einstein Visit Recommendations objects.

**Where:** This change applies to Lightning Experience in Developer, Performance, Enterprise, and Unlimited Editions where Consumer Goods Cloud is enabled.

**Who:** To access this Consumer Goods Cloud object, users need Lightning Direct Store Delivery permission set. And to access these Einstein Visit Recommendations objects, users need the Lightning Retail Execution Plus permission set.

#### **Associate shipments with a visit**

Use the new `DeliveryTask` object.

### **New Fields on the RetailVisitKpi Object**

#### **Identify the visit associated with the RetailVisitKPI**

Use the new `Visit` field on the `RetailVisitKpi` object.

#### **Identify the RetailStoreKPI associated with the RetailVisitKPI**

Use the new `RetailStoreKPI` field on the `RetailVisitKpi` object.

### **New Objects for Einstein Visit Recommendations**

#### **Get statistical information about a store visit**

Use the new `AiVisitSummary` object.

#### **Create requests to generate visit recommendations**

Use the new `AiVisitRecommendationRequest` object.

#### **View all visit recommendations**

Use the new `AiVisitRecommendation` object.

## **Manufacturing Cloud: Rebates (Pilot) and Enhanced Account Forecasting**

Run volume and revenue-based rebate programs with Rebate Management. Manage rebate programs and calculate payouts in context by working with your Salesforce data including orders and products. Run rebate calculations flexibly, build trust among partners, and analyze payout information at the end of term or anytime. Define sales agreement renewal period. Select sales agreements for account forecasting. Use opportunity probability to calculate the value of opportunity metrics in account forecasts.

#### **IN THIS SECTION:**

##### [Rebate Management: One-Stop Solution for Processing Rebates \(Pilot\)](#)

Create rebate programs and specify the type of rebate, eligibility rules, and benefit structure including thresholds. Rebate payouts get processed at the cadence you select with the detail you want. Use the Manufacturing community template to collaborate with your partners. Get actionable insights on your rebates with Einstein Analytics for Rebates.

##### [Renew Sales Agreements and Calculate Account Forecasts with Greater Flexibility](#)

Determine the start of the sales agreement renewal period by specifying the day count before the end date. Get more accurate account forecasts by selecting the sales agreements to consider for forecasting. Use the opportunity probability percentage to calculate the opportunity metric values in account forecasts.

##### [Use Manufacturing Partner Community Template with Lightning External Apps Licenses](#)

The Manufacturing community template is available with Lightning External Apps and Lightning External Apps Plus licenses.

##### [Einstein Analytics for Manufacturing: Target Analysis and Data Access Control for Managers](#)

Use the new Einstein Analytics for Manufacturing dashboards to track your performance against revenue targets. You can customize data access to sales managers so that they can view only data of users below them in the hierarchy.

[Changed Manufacturing Cloud Metadata Types](#)

Do more with these changed Manufacturing Cloud metadata types.

[Changed Manufacturing Cloud Tooling API Objects](#)

Do more with the changed Manufacturing Cloud Tooling API objects.

## Rebate Management: One-Stop Solution for Processing Rebates (Pilot)

Create rebate programs and specify the type of rebate, eligibility rules, and benefit structure including thresholds. Rebate payouts get processed at the cadence you select with the detail you want. Use the Manufacturing community template to collaborate with your partners. Get actionable insights on your rebates with Einstein Analytics for Rebates.



**Note:** We provide Rebates to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. Rebates isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features.

### IN THIS SECTION:

[Define Rebate Programs to Easily Calculate Rebate Amounts \(Pilot\)](#)

Set up volume and revenue-based rebate programs and define the rebate payout frequency. Seamlessly integrate your Salesforce accounts with rebate programs by enrolling accounts as members in eligible programs. Create program types for every transaction, aggregated transactions, or by defining custom types. Specify a percentage of revenue or an amount per unit, or define your own rebate calculation rules.

[Process Rebate Payouts \(Pilot\)](#)

Define the payout calculation criteria and wait for the back-end processing to complete. Customize the calculation process using the flexible and extensible back-end process. View the payout details after the calculation process is complete. Track if the rebate payouts are processed, the date on which the payouts are generated, and the payout status.

[Keep Your Partners Informed on Rebates Through Communities \(Pilot\)](#)

Increase trust with your partners by collaborating using the Manufacturing community template.

## Define Rebate Programs to Easily Calculate Rebate Amounts (Pilot)

Set up volume and revenue-based rebate programs and define the rebate payout frequency. Seamlessly integrate your Salesforce accounts with rebate programs by enrolling accounts as members in eligible programs. Create program types for every transaction, aggregated transactions, or by defining custom types. Specify a percentage of revenue or an amount per unit, or define your own rebate calculation rules.



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**Where:** This change applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

**How:** Create rebate programs and add members to the programs. Create payout periods and rebate program types.

View all the details associated with a rebate program in related lists of program records.

Rebate Type  
**Monthly Volume Rebate (excl Parts)**

Rebate Program: [Annual Rebate Program](#)    Measure Type: Amount per Unit    Status: Active    Benefit Qualifier Field: Total Transaction

**Details**    Related    Benefits

Information

Name: Monthly Volume Rebate (excl Parts)    Status: Active

Rebate Program: [Annual Rebate Program](#)

Calculation Information

Calculation Type: Aggregate Based    Calculation Definition: Aggregate By Member (Saveas)

Aggregation Object: Member Aggregate

Benefit Information

Measure Type: Amount per Unit    Measure Field: Total Quantity

Benefit Qualifier Field: Total Transaction

> Additional Information

View the benefits for each rebate type in the rebate type records.

Rebate Type  
**Volume Rebate**

Rebate Program: [Rebate Program](#)    Measure Type: Amount per Unit    Status: Active    Benefit Qualifier Field: Total Quantity

**Details**    Related    Benefits

Benefits New

| Name           | Minimum | Maximum | Benefit | Status |
|----------------|---------|---------|---------|--------|
| \$10 per unit  | 0       | 100     | 10      | Active |
| \$100 per unit | 101     | 1,000   | 100     | Active |
| \$150 per unit | 1,001   | 10,000  | 150     | Active |
| \$250 per unit | 10,001  |         | 200     | Active |

## Process Rebate Payouts (Pilot)

Define the payout calculation criteria and wait for the back-end processing to complete. Customize the calculation process using the flexible and extensible back-end process. View the payout details after the calculation process is complete. Track if the rebate payouts are processed, the date on which the payouts are generated, and the payout status.

-  **Note:** We provide Rebates to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. Rebates isn't generally available unless or until Salesforce announces its general availability in documentation or in

press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features.

**Where:** This change applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

**How:** View the payout details in the Payout tab of rebate program member records.

| Member   |                       |   |                         |   |            |
|--|-----------------------|---|-------------------------|---|------------|
| Ursa Major   |                       |   |                         |   |            |
| Account  | Program               | Status  |                         |   |            |
| Ursa Major   | Annual Rebate Program | Active  |                         |   |            |
| Details   Related <b>Payout</b>  |                       |   |                         |   |            |
| <b>Summary</b>   | Account               | Rebate  | Adjustment              | Payout  |            |
|  | Ursa Major            | USD 178,720.90  | USD 0.00                | USD 178,720.90  |            |
| Summary by Rebate Type <span style="float: right;">&lt; &gt;</span>  |                       |   |                         |   |            |
| <b>Monthly Volume Rebate (excl Parts)</b><br>Rebate: USD 138,073.00    Measure Type: Amount per Unit<br>Benefit Qualifier Value: 0.00    Measure Value: 138,073.00 |                       | <b>Monthly Volume Rebate (Parts)</b><br>Rebate: USD 5,464.80    Measure Type: Amount per Unit<br>Benefit Qualifier Value: 0.00    Measure Value: 4,554.00 |                         | <b>% of Revenue Monthly (All Accessori</b><br>Rebate: USD 1,387.60    Measure Type: Amount per Unit<br>Benefit Qualifier Value: 6,938.00    Measure Value: 6,938.00 |            |
| > August FY 2020 <span style="float: right;">Total Payout: USD 0.00</span>   |                       |   |                         |   |            |
| < July FY 2020 <span style="float: right;">Total Payout: USD 171,275.90</span>   |                       |   |                         |   |            |
| Status   | Start Date            | End Date  | Payout Calculation Date | Rebate  | Adjustment |
| Under Review   | 7/1/2020              | 7/31/2020   | 8/10/2020               | USD 171,275.90  | USD 0.00   |
| <b>Monthly Volume Rebate (excl Parts)</b> <span style="float: right;">Show Source Details</span>   |                       | Rebate: USD 130,628.00    Measure Type: Amount per Unit    Total Benefit Qualifier Value: 0.00    Total Measure Value: 130,628.00                         |                         |   |            |
| <b>Monthly Volume Rebate (Parts)</b> <span style="float: right;">Show Source Details</span>  |                       | Rebate: USD 5,464.80    Measure Type: Amount per Unit    Total Benefit Qualifier Value: 0.00    Total Measure Value: 4,554.00                             |                         |   |            |
| <b>% of Revenue Monthly (All Accessories)</b> <span style="float: right;">Show Source Details</span>   |                       | Rebate: USD 1,387.60    Measure Type: Amount per Unit    Total Benefit Qualifier Value: 6,938.00    Total Measure Value: 6,938.00                         |                         |   |            |
| <b>BDF (Business Development Fund)</b> <span style="float: right;">Show Source Details</span>  |                       | Rebate: USD 33,795.50    Measure Type: Amount per Unit    Total Benefit Qualifier Value: 0.00    Total Measure Value: 135,182.00                          |                         |   |            |
| <b>Min Volume Commitment (Bulk)</b> <span style="float: right;">Show Source Details</span>   |                       | Rebate: USD 0.00    Measure Type: Percentage of Revenue    Total Benefit Qualifier Value: 0.00    Total Measure Value: 135,182.00                         |                         |   |            |

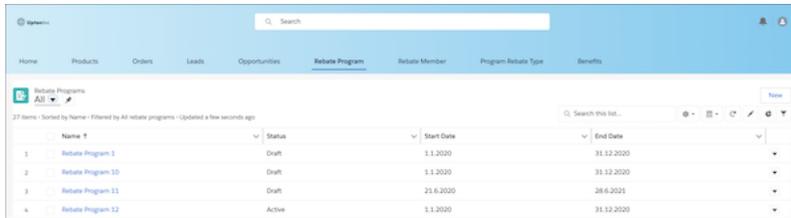
## Keep Your Partners Informed on Rebates Through Communities (Pilot)

Increase trust with your partners by collaborating using the Manufacturing community template.

 **Note:** We provide Rebates to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. Rebates isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features.

**Where:** This change applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

**How:** Use Rebates objects in the Manufacturing partner community by enabling them. The objects can be embedded in your community template.



| Name              | Status | Start Date | End Date   |
|-------------------|--------|------------|------------|
| Rebate Program 1  | Draft  | 1.1.2020   | 31.12.2020 |
| Rebate Program 10 | Draft  | 1.1.2020   | 31.12.2020 |
| Rebate Program 11 | Draft  | 23.6.2020  | 28.6.2021  |
| Rebate Program 12 | Active | 1.1.2020   | 31.12.2020 |

## Renew Sales Agreements and Calculate Account Forecasts with Greater Flexibility

Determine the start of the sales agreement renewal period by specifying the day count before the end date. Get more accurate account forecasts by selecting the sales agreements to consider for forecasting. Use the opportunity probability percentage to calculate the opportunity metric values in account forecasts.

### IN THIS SECTION:

#### [Be Future Ready by Defining the Start of Sales Agreement Renewal Periods](#)

Plan ahead for upcoming business deals by specifying the number of days that determine the start of the sales agreement renewal period.

#### [Calculate Account Forecasts with Better Precision by Specifying Sales Agreements](#)

Forecast account growth more accurately by selecting a list view with sales agreements to consider when calculating account forecasts. The sales agreements in the selected list view are considered when calculating the sales agreement values in account forecasts.

#### [Use Opportunity Probability in Account Forecasting](#)

Zero in on account forecast values with Opportunity Probability. The probability of opportunities associated with accounts is used to calculate opportunity quantity and revenue values in account forecasts.

## Be Future Ready by Defining the Start of Sales Agreement Renewal Periods

Plan ahead for upcoming business deals by specifying the number of days that determine the start of the sales agreement renewal period.

**Where:** This change applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

**Who:** This feature is available to users with the Manufacturing Cloud license and the Manufacturing Sales Agreements permission set.

**How:** Enter the number of days before the end date of a sales agreement that marks the beginning of the renewal period. This renewal period applies to all sales agreements in your Salesforce org. You can renew a sales agreement only after the renewal period starts. You can renew an agreement even after it has expired.

**Renewal**

The number of days before a sales agreement end date that determines the beginning of the renewal period.

Renewal Days

### SEE ALSO:

[Salesforce Help: Define Renewal Period for Sales Agreements \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Renew a Sales Agreement \(can be outdated or unavailable during release preview\)](#)

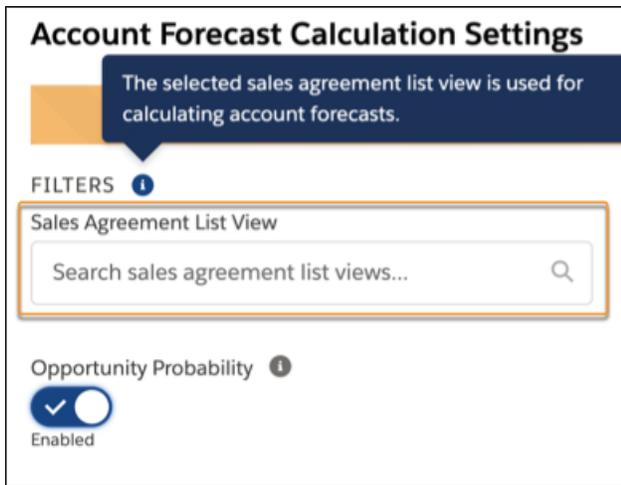
## Calculate Account Forecasts with Better Precision by Specifying Sales Agreements

Forecast account growth more accurately by selecting a list view with sales agreements to consider when calculating account forecasts. The sales agreements in the selected list view are considered when calculating the sales agreement values in account forecasts.

**Where:** This change applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

**Who:** This feature is available to users with the Manufacturing Cloud license and the Manufacturing Account Forecast permission set.

**How:** In the Account Forecasting Setup page, select a list view with sales agreements. After the list view is selected, account forecasts are updated with the latest values only after they are recalculated.



SEE ALSO:

[Salesforce Help: Select Sales Agreement List View for Account Forecasting \(can be outdated or unavailable during release preview\)](#)

## Use Opportunity Probability in Account Forecasting

Zero in on account forecast values with Opportunity Probability. The probability of opportunities associated with accounts is used to calculate opportunity quantity and revenue values in account forecasts.

**Where:** This change applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

**Who:** This feature is available to users with the Manufacturing Cloud license and the Manufacturing Account Forecast permission set.

**How:** In the Account Forecasting Setup page, turn on Opportunity Probability.



SEE ALSO:

[Salesforce Help: Use Opportunity Probability to Calculate Account Forecasts \(can be outdated or unavailable during release preview\)](#)

## Use Manufacturing Partner Community Template with Lightning External Apps Licenses

The Manufacturing community template is available with Lightning External Apps and Lightning External Apps Plus licenses.

**Where:** This change applies to Lightning Experience in Enterprise, Unlimited, and Developer editions.

**Who:** This feature is available to users with the Manufacturing Cloud license and the Manufacturing Sales Agreements permission set.

## Einstein Analytics for Manufacturing: Target Analysis and Data Access Control for Managers

Use the new Einstein Analytics for Manufacturing dashboards to track your performance against revenue targets. You can customize data access to sales managers so that they can view only data of users below them in the hierarchy.

IN THIS SECTION:

[Track Your Sales Performance Against Targets](#)

Use the Team Targets and My Targets dashboards to monitor your performance and your team's performance against revenue targets.

[Customize Data Access for Sales Managers](#)

Save sales managers time by letting them see only the data that belongs to users below them in the hierarchy.

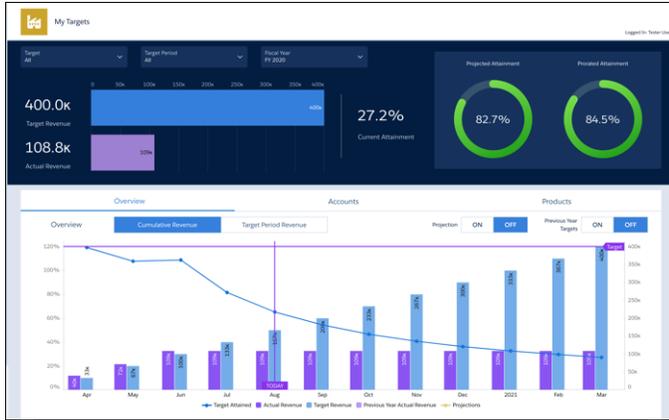
### Track Your Sales Performance Against Targets

Use the Team Targets and My Targets dashboards to monitor your performance and your team's performance against revenue targets.

**Where:** This change applies to Lightning Experience and all versions of the Salesforce app in Developer, Enterprise, and Unlimited editions where Manufacturing Cloud is enabled. Analytics for Manufacturing is only for Salesforce Manufacturing Cloud users.

**Who:** To create an app from the Einstein Analytics for Manufacturing template, you must also have the Manufacturing Analytics Plus add-on license.

**Why:** The dashboard visualizations give account managers and executives a breakdown of their performance against revenue targets for their accounts and products.



**How:** Go to Analytics Studio, click **Create**, and select **App**. Select the **Analytics for Manufacturing** template, and follow the instructions in the wizard to create your app.

### Customize Data Access for Sales Managers

Save sales managers time by letting them see only the data that belongs to users below them in the hierarchy.

**Where:** This change applies to Lightning Experience and all versions of the Salesforce app in Developer, Enterprise, and Unlimited editions where Manufacturing Cloud is enabled. Analytics for Manufacturing is only for Salesforce Manufacturing Cloud users.

**Who:** To create an app from the Einstein Analytics for Manufacturing template, you must also have the Manufacturing Analytics Plus add-on license.

**How:** Use the configuration wizard to add the User Manager Hierarchy security predicate to your app.

### Changed Manufacturing Cloud Metadata Types

Do more with these changed Manufacturing Cloud metadata types.

**Use the probability of opportunities closing to calculate account forecasts**

Use the new `opportunityProbabilityEnabled` field on the `AccountForecastSettings` metadata type.

**Select a list view with sales agreements to consider when calculating account forecasts**

Use the new `salesAgreementFilterId` field on the `AccountForecastSettings` metadata type.

## Changed Manufacturing Cloud Tooling API Objects

Do more with the changed Manufacturing Cloud Tooling API objects.

**Use the probability of opportunities closing to calculate account forecasts**

Use the new `HasOpportunityProbability` field on the `AccountForecastSettings` object.

**Specify the number of days before the end date of sales agreements to determine the start of renewal period**

Use the new `RenewalPeriodDayCount` field on the `SalesAgreementSettings` object.

## Batch Management: Processing Large Volumes of Data with a Few Clicks (Pilot)

Process millions of records in your Salesforce org using Batch Management. Track the status and health of batch jobs using Monitor Workflow Services.

 **Note:** We provide Batch Management to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. Batch Management isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features.

### IN THIS SECTION:

[Define Batch Jobs to Process Large Record Volumes \(Pilot\)](#)

Create batch jobs to process large volumes of data in a flow. Batch jobs process your data in manageable batch job parts. Use batch jobs to automate the execution of complex business processes across multiple objects. Batch jobs are scheduled using scheduled flows.

[Schedule Your Batch Jobs \(Pilot\)](#)

Use scheduled flow to decide when a batch job must run and how frequently it runs. You can use a scheduled flow to run multiple batch jobs together.

[Keep a Close Eye on Your Batch Jobs \(Pilot\)](#)

Monitor the status and the health of a batch job run. Each time a job runs, a new record is created in Monitor Workflow Services. You can track the complete batch job run and its batch job parts. You can also view the list of records that the batch job failed to process.

## Define Batch Jobs to Process Large Record Volumes (Pilot)

Create batch jobs to process large volumes of data in a flow. Batch jobs process your data in manageable batch job parts. Use batch jobs to automate the execution of complex business processes across multiple objects. Batch jobs are scheduled using scheduled flows.

 **Note:** We provide Batch Management to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. Batch Management isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features.

**Where:** Batch Management is only available to participants of the Rebates pilot program. Check with your Salesforce representative for more information on which editions support Batch Management.

**Who:** Your Salesforce org admins can create batch jobs.

**Why:** Flows can process up to 250,000 records a day. Use batch jobs to process more than 250,000 records in manageable batches while staying within the platform limits. Multiple batch jobs can be scheduled together in a flow to process records across multiple objects that are part of the same business process.

**How:** From Setup, search and select **Batch Management**. Click **New**. Define a batch job, and select the business flow for the batch job to run. Click **Next**. Select the flow input variable that uniquely identifies each record. Select the object to process records for and the filter criteria. Click **Save**, and then **Activate**.

The screenshot shows the 'New batch job' configuration form. The fields are as follows:

- Name:** Process Transaction Journals More Than a Year Old
- API Name:** Process\_Transaction\_Journals\_More\_Than\_a\_Year\_Old
- Description:** The batch job processes transaction journals that are more than a year old. This batch job is used by a flow to delete old transaction journals.
- Group:** Loyalty
- Execution Process:** Delete Processed Transaction Journals After a Year
- Batch Size:** 200
- Retry Count:** 2
- Retry Interval:** 1,000

Buttons: Cancel, Next

## Schedule Your Batch Jobs (Pilot)

Use scheduled flow to decide when a batch job must run and how frequently it runs. You can use a scheduled flow to run multiple batch jobs together.



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**Where:** Batch Management is only available to participants of the Rebates pilot program. Check with your Salesforce representative for more information on which editions support Batch Management.

**How:** In a scheduled flow, drag the Action element on to the canvas. Select the Category as **Batch Job**. Search for and select an active batch job.

**New Action**

Filter By: Category

All

**Batch Job**

Users

Decision Table

Group

Rebates

Task

Loyalty

Price books

Feed Item

Case

Action: Process\_Transaction\_Journals\_More\_Than\_a\_Year\_Old

Use values from earlier in the flow to set the inputs for the "Process\_Transaction\_Journals\_More\_Than\_a\_Year\_Old" core action. To use its outputs later in the flow, store them in variables.

\* Label: Run the batch job      \* API Name: Run\_the\_batch\_job

Description: Action to select a batch job that the flow must run.

Nothing to set here  
This core action has no inputs.

Manually assign variables (advanced)

Cancel Done

## Keep a Close Eye on Your Batch Jobs (Pilot)

Monitor the status and the health of a batch job run. Each time a job runs, a new record is created in Monitor Workflow Services. You can track the complete batch job run and its batch job parts. You can also view the list of records that the batch job failed to process.



**Note:** We provide Batch Management to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. Batch Management isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features.

**Where:** Batch Management is only available to participants of the Rebates pilot program. Check with your Salesforce representative for more information on which editions support Batch Management.

**Who:** Your Salesforce org admins can monitor batch job runs using Monitor Workflow Services.

**How:** In Setup, search and select **Monitor Workflow Services**. To view the details of a batch job run, click its record.

**SETUP**  
**Monitor Workflow Services**

Total Runs in Last 24 Hours: 0      Last Run Started:      Failed Runs in Last 24 Hours: 0

**Batch Jobs**  
**All Workflow Services**

50+ Items • Sorted by Type • Filtered by All batch jobs • Updated a few seconds ago

| Name   | Status    | Start Time         | End Time           |
|--|-----------|--------------------|--------------------|
| Process Transaction Journal More Than a Year Old | Completed | 7/16/2020, 6:45 AM | 7/16/2020, 6:45 AM |
| Process Transaction Journal More Than a Year Old | Completed | 7/20/2020, 8:30 PM | 7/20/2020, 8:30 PM |

## Data Processing Engine: Transform Data in Your Org in a Whole New Way (Pilot)

Extract data from standard objects and custom objects in your Salesforce org and transform it based on your business requirements. Then update or create records with the transformed data.

 **Note:** We provide Data Processing Engine to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. Data Processing Engine isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features.

### IN THIS SECTION:

#### [Transform Data with a Few Clicks \(Pilot\)](#)

Data in your Salesforce org is stored across different objects. Use Data Processing Engine to bring all the data in one place and transform it based on your requirements. Start by creating an instance of Data Processing Engine. Then select data sources, define the various configurations, and choose whether you want to use the transformed data to create records or update existing records.

#### [Run Your Data Processing Engine \(Pilot\)](#)

Run an instance of Data Processing Engine to create or update records in your Salesforce org anytime or based on a schedule. You can run an instance after it's activated. Use a flow to define when and how frequently an instance of Data Processing Engine updates your data.

#### [Track What Your Data Processing Engines Are Up To \(Pilot\)](#)

Every time an instance of Data Processing Engine transforms and updates data, a tracking record is created in Monitor Workflow Services. Use the tracking record to view the details of the Data Processing Engine instance's run.

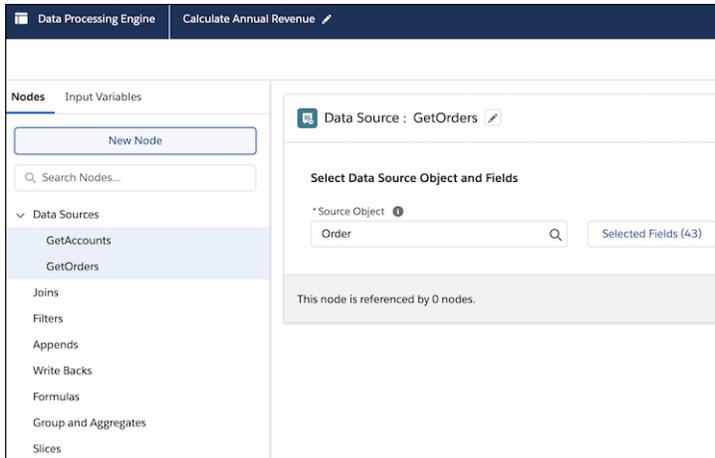
## Transform Data with a Few Clicks (Pilot)

Data in your Salesforce org is stored across different objects. Use Data Processing Engine to bring all the data in one place and transform it based on your requirements. Start by creating an instance of Data Processing Engine. Then select data sources, define the various configurations, and choose whether you want to use the transformed data to create records or update existing records.

 **Note:** We provide Data Processing Engine to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. Data Processing Engine isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features.

**Where:** Data Processing Engine is only available to participants of the Rebates pilot program. Check with your Salesforce representative for more information on which editions support Data Processing Engine.

**How:** From Setup, search and select **Data Processing Engine**. Click **New**. Configure your Data Processing Engine and activate it.



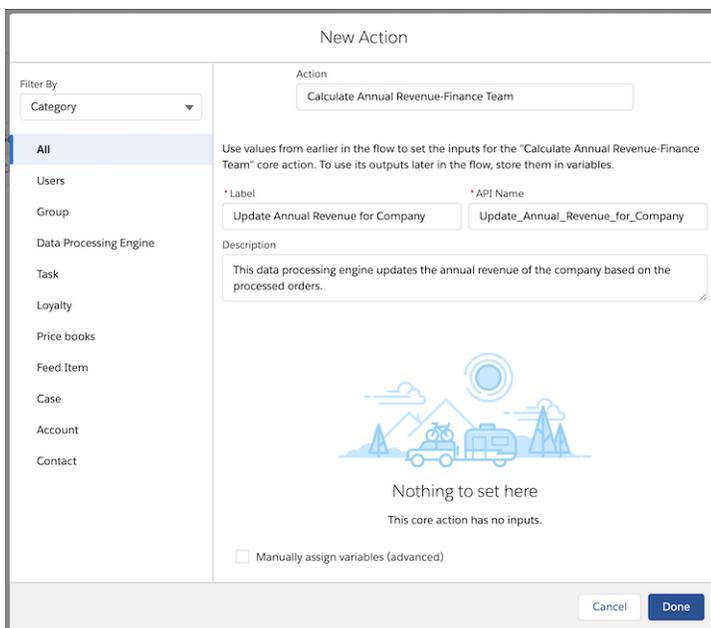
## Run Your Data Processing Engine (Pilot)

Run an instance of Data Processing Engine to create or update records in your Salesforce org anytime or based on a schedule. You can run an instance after it's activated. Use a flow to define when and how frequently an instance of Data Processing Engine updates your data.

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**Where:** Data Processing Engine is only available to participants of the Rebates pilot program. Check with your Salesforce representative for more information on which editions support Data Processing Engine.

**How:** In a flow, drag the **Action** element on to the canvas. Select the Category as **Data Processing Engine**. Search for and select an active Data Processing Engine.



## Track What Your Data Processing Engines Are Up To (Pilot)

Every time an instance of Data Processing Engine transforms and updates data, a tracking record is created in Monitor Workflow Services. Use the tracking record to view the details of the Data Processing Engine instance's run.

 **Note:** We provide Data Processing Engine to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. Data Processing Engine isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features.

**Where:** Data Processing Engine is only available to participants of the Rebates pilot program. Check with your Salesforce representative for more information on which editions support Data Processing Engine.

**How:** In Setup, search for and select **Monitor Workflow Services**. To view the details of a data processing engine run, open the corresponding record.

## Analytics: Einstein Discovery Fast Start Templates, Sync Out for Snowflake, Einstein Discovery Automated Model Refresh

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Analytics includes Reports & Dashboards, Einstein Analytics, and Einstein Discovery. Get Einstein Discovery going more quickly and easily with Fast Start Templates. Export your raw local Salesforce data to your Snowflake data lake without the need for a third-party ETL tool. Automate some of the manual steps required to update your Einstein Discovery predictive models with scheduled model refresh.

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### IN THIS SECTION:

[Reports and Dashboards: Auto Add Fields to Custom Report Types \(Beta\), Report Subscription Attachments](#)

Automatically make new custom fields for a Salesforce object available to all the custom report types based on that object. Get report results in .csv or .xlsx format delivered to your inbox without having to sign in to Salesforce.

[Einstein Analytics: Einstein Discovery Fast Start Templates, Sync Out for Snowflake, Einstein Discovery Automated Model Refresh](#)

Get Einstein Discovery going more quickly and easily with Fast Start Templates. Export your raw local Salesforce data to your Snowflake data lake without the need for a third-party ETL tool. Automate some of the manual steps required to update your Einstein Discovery predictive models with scheduled model refresh.

## Reports and Dashboards: Auto Add Fields to Custom Report Types (Beta), Report Subscription Attachments

Automatically make new custom fields for a Salesforce object available to all the custom report types based on that object. Get report results in .csv or .xlsx format delivered to your inbox without having to sign in to Salesforce.

### IN THIS SECTION:

[Subscribe to Get Report Results Delivered by Email \(Generally Available\)](#)

It's not always convenient to sign in to Salesforce just to view a report. So now you can get the latest report results delivered to your email inbox. As a report subscriber, choose whether to receive the report attachment in .xlsx or .csv format. Then open your email to view the results.

### [Auto Add Fields to Custom Report Types \(Beta\)](#)

It's time-consuming to add new custom fields to your reports, especially when you have many custom report types. Now with Auto Add, custom fields that you add to a Salesforce object are added automatically to all the custom report types based on that object. When you create a report from the custom report type, all the custom fields are right there for you to add to your report.

## Subscribe to Get Report Results Delivered by Email (Generally Available)

It's not always convenient to sign in to Salesforce just to view a report. So now you can get the latest report results delivered to your email inbox. As a report subscriber, choose whether to receive the report attachment in .xlsx or .csv format. Then open your email to view the results.

**Where:** This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** To attach files to a report subscription, subscribe to the report. In the subscription setup, click **Attach File** and then select **Formatted Report** or **Details Only**. Each formatted report is delivered in .xlsx format and included in the body of the email. Each details-only report is attached to the message as a .csv file. For .csv attachments, you can select the encoding type.

### Export View

#### Formatted Report

Export the report as it appears in Salesforce, including the report header, groupings, and filter details.

✓

#### Details Only

Export only the detail rows. Use this to do further calculations or for uploading to other systems.

Format

Comma Delimited .csv
⬆️⬆️

Encoding

ISO-8859-1 (General US & Western Europ
⬆️⬆️

That's all there is to it! The reports that you subscribed to are delivered to your inbox on schedule and in the selected format.

The attached report can include up to 15,000 rows and 30 columns. Additional rows are clipped. To view the entire report in Salesforce, click the report title in the formatted report email or sign in to Salesforce and search for the report.

Report results (Sample Report: Pipeline History) Inbox x

➔ Maria Jimenez  
to me ▾

---

## Sample Report: Pipeline History

As of 8/11/20 at 12:00 PM · Viewing as Maria Jimenez

All opportunities · As of Date: Current and Previous FQ

**Total Historical Amount**  
USD 33,308,319,009.75

| Historical Stage | Prospecting           | Qualification         | Needs Analysis        | Value Proposition     | Id. Decision Makers   | Perception Analysis   | Proposal/Price Quote  | Negotiation/Review    |
|------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| As of Date       | Historical Amount Sum |
| April 2020       | USD 258,564,143.28    | USD 925,850,662.65    | USD 1,613,997,760.83  | USD 2,146,086,487.67  | USD 1,298,176,077.12  | USD 1,092,626,989.76  | USD 799,257,021.81    | USD 423,896,840.24    |
| May 2020         | USD 258,564,143.28    | USD 925,850,662.65    | USD 1,613,997,760.83  | USD 2,146,086,487.67  | USD 1,298,176,077.12  | USD 1,092,626,989.76  | USD 799,257,021.81    | USD 423,896,840.24    |
| June 2020        | USD 259,564,143.28    | USD 925,850,662.65    | USD 1,613,997,760.83  | USD 2,146,086,487.67  | USD 1,298,176,077.12  | USD 1,092,626,989.76  | USD 799,257,021.81    | USD 423,896,840.24    |
| July 2020        | USD 259,564,143.28    | USD 925,850,662.65    | USD 1,613,997,760.83  | USD 2,146,086,487.67  | USD 1,298,176,077.12  | USD 1,092,626,989.76  | USD 799,257,021.81    | USD 423,896,840.24    |
| August 2020      | USD 259,564,143.28    | USD 925,850,662.65    | USD 1,613,997,760.83  | USD 2,146,086,487.67  | USD 1,298,176,077.12  | USD 1,092,626,989.76  | USD 799,257,021.81    | USD 423,896,840.24    |
| <b>Total</b>     | USD 259,564,143.28    | USD 925,850,662.65    | USD 1,613,997,760.83  | USD 2,146,086,487.67  | USD 1,298,176,077.12  | USD 1,092,626,989.76  | USD 799,257,021.81    | USD 423,896,840.24    |

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## Auto Add Fields to Custom Report Types (Beta)

It's time-consuming to add new custom fields to your reports, especially when you have many custom report types. Now with Auto Add, custom fields that you add to a Salesforce object are added automatically to all the custom report types based on that object. When you create a report from the custom report type, all the custom fields are right there for you to add to your report.

**Where:** This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.



**Note:** As a beta feature, Report Subscription Attachments is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for Report Subscription Attachments in the [IdeaExchange](#) or in the [Trailblazer Community](#). For information on enabling this feature in your org, contact Salesforce.

**How:** From Setup, in the Quick Find box, enter *Reports and Dashboards Settings*, and then select **Reports and Dashboards Settings**. Select **Auto add new custom fields to custom report type layouts** and then click **Save**.

You can now add new custom fields to a report built from an existing custom report type from the Fields pane in the report builder. All custom fields for the Salesforce object are automatically included in the Fields list, and you can drag any of them to the Columns list.

The screenshot displays the Salesforce Reports interface for a report titled "Contacts and Accounts All". The interface includes a navigation bar with "Sales", "Home", "Opportunities", "Leads", "Tasks", "Files", "Accounts", and "Contacts". The report is in "REPORT" mode. The main area shows a table with columns "Account Name" and "Last Name". The table is previewing a limited number of records. An orange arrow points to the "Add column..." button in the "Columns" section of the report builder.

| Account Name | Last Name                           |
|--------------|-------------------------------------|
| 2            | Edge Communications                 |
| 3            | Burlington Textiles Corp of America |
| 4            | Pyramid Construction Inc.           |
| 5            | Dickenson plc                       |
| 6            | Grand Hotels & Resorts Ltd          |
| 7            | Grand Hotels & Resorts Ltd          |
| 8            | United Oil & Gas Corp.              |
| 9            | United Oil & Gas Corp.              |

## Einstein Analytics: Einstein Discovery Fast Start Templates, Sync Out for Snowflake, Einstein Discovery Automated Model Refresh

Get Einstein Discovery going more quickly and easily with Fast Start Templates. Export your raw local Salesforce data to your Snowflake data lake without the need for a third-party ETL tool. Automate some of the manual steps required to update your Einstein Discovery predictive models with scheduled model refresh.

### IN THIS SECTION:

[Analytics Data Integration: Sync Out for Snowflake, Data Prep Is Generally Available, Expanded Data Prep Formula Library](#)

Export your raw local Salesforce data to your Snowflake data lake without the need for a third-party ETL tool. The new visual recipe builder, Data Prep, is generally available with even more features. Add more robust calculated columns to your datasets.

[Analytics Prebuilt Apps: Performance Insights on Revenue, Wealth Management Client Churn and Asset Growth, and Increased Mortgage Sales](#)

Help sales teams gain performance insights with Revenue Operations dashboards. Predict and alleviate client churn and forecast the likelihood to grow account assets with the Wealth Management Analytics dashboards and Einstein Discovery stories. Increase mortgage sales by prioritizing which customer mortgage applications to focus on. Use predictions from the Einstein Discovery for Insurance Analytics app to retain customers. Use the fiscal calendar to filter data in your dashboards. Customize data access to sales managers so that they can only view data of users below them in the role hierarchy.

[Analytics App Building: Table Column Control, Customized One-Click Actions, Live Connections to Snowflake \(Generally Available\), Local Time Zones \(Beta\)](#)

Freeze table columns and collapse grouped columns. Customize actions in lenses and dashboards. Exploring data directly in Snowflake, without first loading it into Salesforce or requiring data preparation in datasets, is now generally available. View time-sensitive data in a non-GMT time zone (Beta). Conditionally format dashboard text. Create reusable dashboard components (Pilot). Create auto-install templates for managed packages.

[Einstein Discovery: Custom Improvements Text, High Cardinality, and Enhanced Model Metrics](#)

Customize user prompts for improvements. Enable high cardinality for one variable in a story. Determine whether your data has a normal distribution with the new QQ plot.

[Analytics for Everyone: Watchlist \(Generally Available\), Dynamic Lens Subscriptions \(Generally Available\), Image Security](#)

Track metrics across multiple dashboards and monitor changes over time with Watchlist, which is now generally available and comes enabled in your Salesforce org. Get timely email updates with subscriptions, also now generally available, and subscribe to lenses as well as dashboard widgets. Use new image security controls to prevent sharing or downloading sensitive images of dashboards and lenses.

[What's New In SAQL: Support for Custom Fiscal Year, Multi-Value Field Conversion to Strings](#)

SAQL functionality continues to expand with custom fiscal year support, multi-value fields-to-string functionality, and additional string, math, and date functions.

## Analytics Data Integration: Sync Out for Snowflake, Data Prep Is Generally Available, Expanded Data Prep Formula Library

Export your raw local Salesforce data to your Snowflake data lake without the need for a third-party ETL tool. The new visual recipe builder, Data Prep, is generally available with even more features. Add more robust calculated columns to your datasets.

### IN THIS SECTION:

[Avoid Stale Salesforce Data in Snowflake with Sync Out \(Beta\)](#)

Fresh Salesforce data is vital if you maintain a central Snowflake data lake for processing, analysis, business automation, or storage. For example, give your shipping logistics team the freshest data by merging your account data from your system of record, Salesforce, with your ERP's shipping data in your data lake. Sync Out for Snowflake exports your raw local Salesforce data via Analytics to Snowflake using the Einstein Analytics connector for Snowflake. With Sync Out for Snowflake, keep your Salesforce data in Snowflake up to date using scheduled Data Sync without the need for a third-party ETL tool.

[Write Your Einstein Analytics Datasets to Snowflake from Recipes \(Generally Available\)](#)

The Snowflake Output connector lets you push your prepared data from Analytics into Snowflake when you use Data Prep recipes. You design powerful Data Prep recipes that combine data from multiple sources, add formula fields, and transform data into datasets tailored to your business needs. With the Einstein Analytics connector for Snowflake, datasets are liberated from Analytics and written as a table for you without the need to rebuild relationships and business logic. This feature is now generally available.

[Prepare Data with the Next Generation of Data Prep \(Generally Available\)](#)

The latest version of Data Prep expands on the intuitive, visual interface that allows you to build recipes with clicks. Use the new graphical view of a recipe to see at a glance where data comes from, how it flows through the recipe, and where the results are written. To validate the recipe as you build, preview how raw data is transformed every step of the way. The new version of Data Prep is called Data Prep and the old version is called Data Prep Classic.

[Build Calculated Formula Columns with More Functions in Data Prep](#)

You can now use EA SQL functions with the Data Prep formula transformation to add calculated columns derived from other fields to your dataset. EA SQL is a collection of standard and custom functions for numeric, string, and date data. Previously, you were limited to 18 functions when you built formulas in Data Prep. Now there are more than 40 functions, including `[case]` to create buckets or flags based on field value, and `[datediff()]` to calculate the duration between dates.

### [Calculate Dates with Click-Not-Code Date and Time Transformations](#)

Want to create Data Prep recipe fields based on date column calculations with clicks instead of manual queries? Check out the new predefined date formula transformations. With the `Now` transformation, you can insert a column with the current date and time in a specified format. Use `Date Difference` to calculate the duration between two selected date columns, like the time it takes for support to close cases by subtracting the created date from the closed date. And use the `Add or Subtract Days or Months` function to time travel to visit the dinosaurs. Just kidding, it lets you add or subtract days or months from a date column.

### [Quickly Calculate Statistics with Aggregate Functions](#)

Calculate more aggregates in recipes using the new Aggregate node functions `STDDEV` (sample standard deviation), `STDDEV_P` (population standard deviation), `VAR` (sample variance), and `VAR_P` (population variance). For example, a realty company calculates the average price of all homes sold in San Francisco in April 2020. To determine how spread out these home prices are, the realty company calculates the population standard deviation using the `STDDEV_P` function.

### [View More Previews in Recipes](#)

Each user can initiate up to 4,000 previews an hour in Data Prep. Previously, the maximum previews per hour per user was 2,000. Each time you click a node or transformation to preview its results, the preview count increases.

### [Manage Row-Level Security for Data Prep Recipes](#)

Sharing inheritance is now available for datasets created from Data Prep recipes. Sharing inheritance increases access accuracy and reduces the need for complicated security predicates for most objects and situations. For example, a quarterly pipeline dashboard automatically shows each rep only their own opportunities, and their managers can see opportunities of the team, following the opportunity sharing rules. Previously, sharing inheritance was only available for datasets created by a dataflow.

### [Edit a Dataset with One Click from Data Manager](#)

Clicking a dataset link in the Data tab of Data Manager now opens the dataset properties page, where you can edit the dataset. Previously, the link created a recipe with the dataset as the source.

### [Monitor and Update Auto-Installed Analytics Apps from Setup](#)

Easily see which Analytics apps are automatically installed in your Salesforce org with the new Auto-Installed Apps page. You can update the app, view logs on the app status, delete apps no longer in use, and monitor auto-install requests.

## Avoid Stale Salesforce Data in Snowflake with Sync Out (Beta)

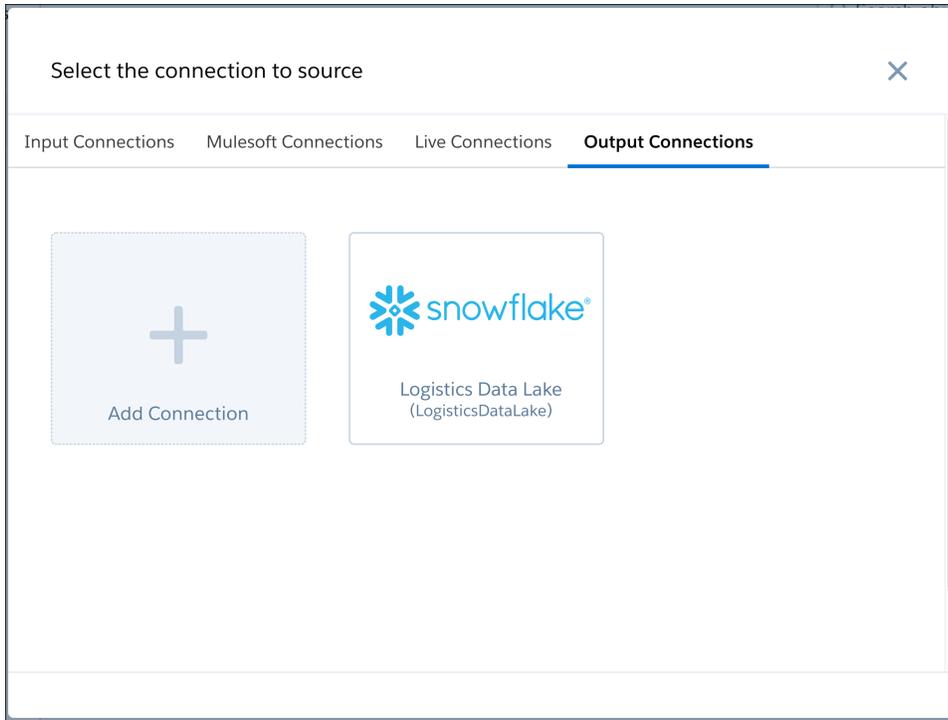
Fresh Salesforce data is vital if you maintain a central Snowflake data lake for processing, analysis, business automation, or storage. For example, give your shipping logistics team the freshest data by merging your account data from your system of record, Salesforce, with your ERP's shipping data in your data lake. Sync Out for Snowflake exports your raw local Salesforce data via Analytics to Snowflake using the Einstein Analytics connector for Snowflake. With Sync Out for Snowflake, keep your Salesforce data in Snowflake up to date using scheduled Data Sync without the need for a third-party ETL tool.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

 **Note:** As a beta feature, Sync Out for Snowflake is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for Sync Out for Snowflake in the [Einstein Analytics Pilot and Beta Connectors group](#) in the Trailblazer Community.

**Why:** You can use a Data Prep recipe output node to push data to Snowflake, but this augmentation adds a layer of processing. With Sync Out for Snowflake, you can push the data in the same condition as Analytics received it from Salesforce, with no additional processing time.

**How:** Contact your Salesforce account representative to enable Sync Out for Snowflake. Turn on Sync Out for Snowflake in Analytics Setup. On the Connect tab of the Data Manager, click Connect to Data. Add a connection on the Output Connections tab and configure it with your Snowflake account information.



Back on the Connect tab, find the local Salesforce connection with data you want to export to Snowflake. For our example, this local connection includes the account object. Select the down arrow (▼) next to the connection and click **Sync Out**.

The screenshot shows the Salesforce Connect interface. At the top, there's a 'Connect' header with a 'Connect to Data' button and a search bar. Below, there are two tabs: 'Input Connections' (selected) and 'Output Connections'. The 'Input Connections' section shows a list of connections:

- SFDC\_LOCAL (Not scheduled)
- SFDC\_LOCAL\_DAILY (Not scheduled)

Below this is a table with columns: OBJECT, FIELDS, FILTER, CONNECTION, MODIFIED, and LAST. The table contains one row for the 'Account' object:

| OBJECT  | FIELDS | FILTER | CONNECTION  | MODIFIED      | LAST |
|---------|--------|--------|-------------|---------------|------|
| Account | 8      |        | Incremental | Today at 10:2 |      |

A context menu is open over the 'Account' row, showing options: Schedule, Notifications, Run Now, and Sync Out (highlighted with an orange border).

Sync Out runs as the data sync completes for each local object. For our example, after Data Sync pulls data from the account object into Analytics, Sync Out would then push the same account data to Snowflake.

SEE ALSO:

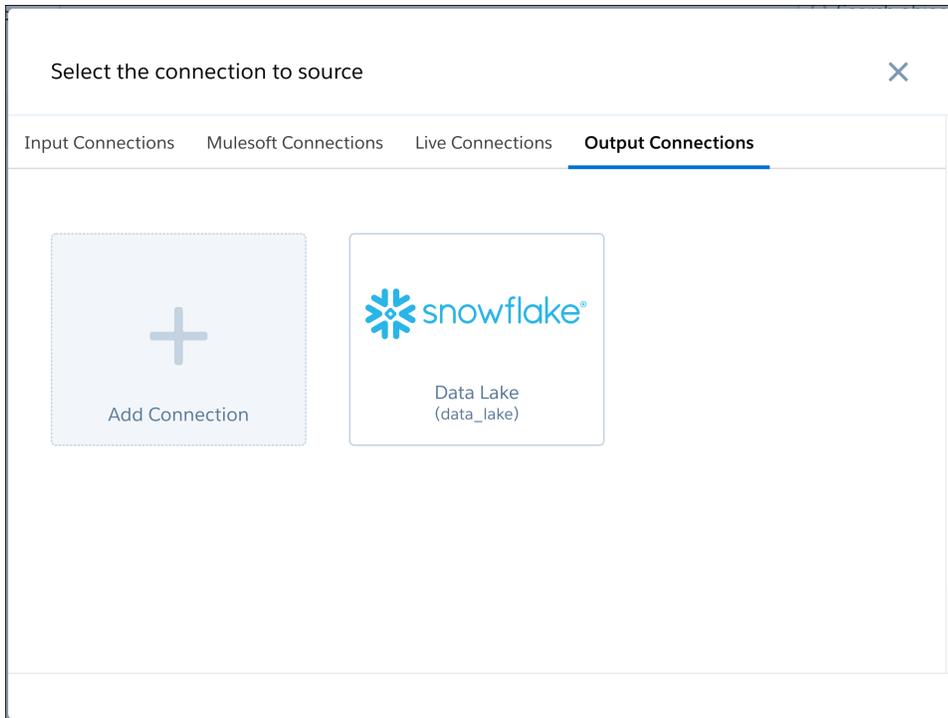
[Salesforce Help: Snowflake Output Connection](#)

## Write Your Einstein Analytics Datasets to Snowflake from Recipes (Generally Available)

The Snowflake Output connector lets you push your prepared data from Analytics into Snowflake when you use Data Prep recipes. You design powerful Data Prep recipes that combine data from multiple sources, add formula fields, and transform data into datasets tailored to your business needs. With the Einstein Analytics connector for Snowflake, datasets are liberated from Analytics and written as a table for you without the need to rebuild relationships and business logic. This feature is now generally available.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** On the Connect tab of the Data Manager, click Connect to Data. Add a connection on the Output Connections tab and configure it with your Snowflake account information.



Build your recipe with Data Prep. In an Output node, select to write to the Output Connection (1). Choose the Snowflake connection to push data to (2) and the Snowflake object that receives the data (3). Map recipe columns to their equivalent external object columns (4).

The screenshot displays the configuration for a Snowflake Output in Einstein Analytics. The interface is divided into several sections:

- Header:** "Snowflake Output" with a Snowflake logo.
- Configuration Section:**
  - Write To (1):** A dropdown menu set to "Output Connection".
  - \* Connection Name (2):** A dropdown menu set to "SnowflakeOutput".
  - \* Object Name (3):** A dropdown menu set to "CONTACT".
- Mapping Section:** A table titled "Map recipe columns to external object columns."
 

| Recipe        | CONTACT   |
|---------------|-----------|
| Aa Account... | Aa ID (4) |
| Aa StageN...  | Aa NAME   |
- Preview Section:** A table showing a list of account IDs under the "Preview" tab.
 

| Preview            | Columns |
|--------------------|---------|
| Aa AccountId       |         |
| 0013c00001srwLLAAY |         |
| 0013c00001srwLVAAY |         |
| 0013c00001srwKQAAY |         |
| 0013c00001srwoDAAQ |         |
| 0013c00001srwLQAAY |         |
| 0013c00001srwLRAAY |         |
| 0013c00001srwLRAAY |         |
| 0013c00001srwKoAAI |         |
| 0013c00001srwKNAAY |         |
| 0013c00001srwLVAAY |         |
| 0013c00001srwoHAAQ |         |
| 0013c00001srwLVAAY |         |
| 0013c00001srwLVAAY |         |
- Buttons:** "Cancel" and "Apply" buttons at the bottom.

Save the recipe. When the recipe runs, Analytics writes the outcome to Snowflake.

SEE ALSO:

[Salesforce Help: Snowflake Output Connection](#)

## Prepare Data with the Next Generation of Data Prep (Generally Available)

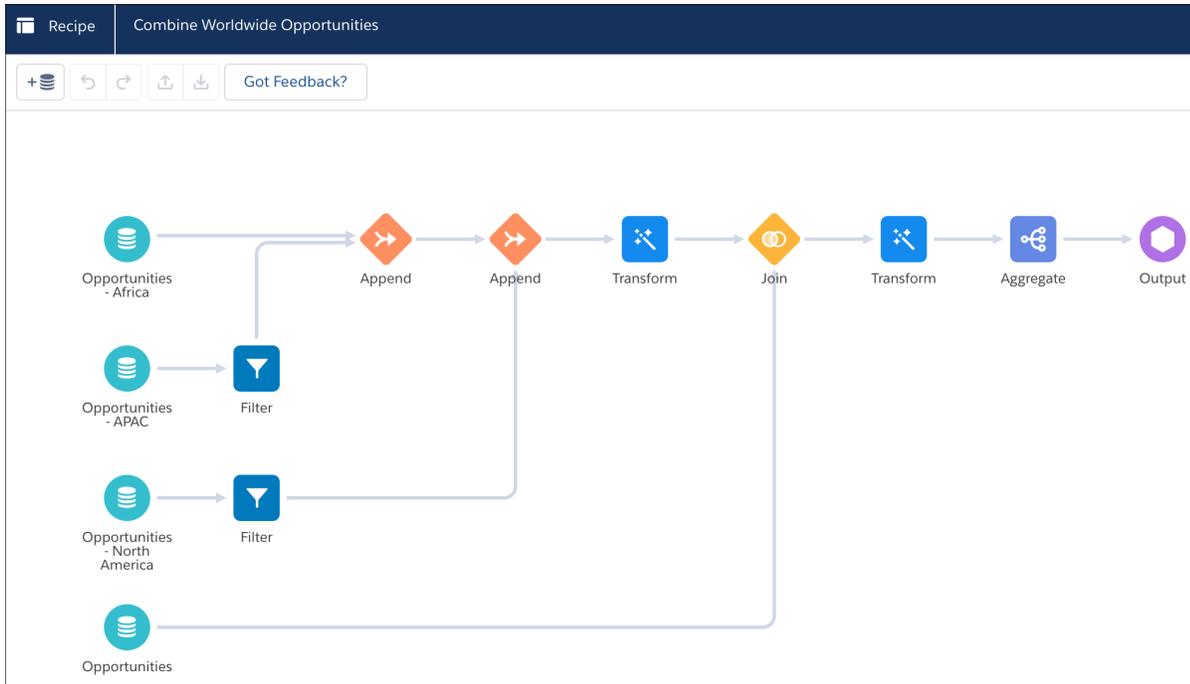
The latest version of Data Prep expands on the intuitive, visual interface that allows you to build recipes with clicks. Use the new graphical view of a recipe to see at a glance where data comes from, how it flows through the recipe, and where the results are written. To validate the recipe as you build, preview how raw data is transformed every step of the way. The new version of Data Prep is called Data Prep and the old version is called Data Prep Classic.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**Who:** To use Data Prep, you must be assigned the Edit Analytics Dataflows or Edit Dataset Recipes user permission.

**Why:** Data Prep graphs are easy to read, even with lots of transformations. *Graph* refers to the graphical representation of the recipe. Unlike a dataflow graph, which can be a bit cluttered, a recipe graph doesn't show every transformation. It shows only inputs (source data), appends, aggregates, filters, joins, and the outputs (where the data is written). It also shows transforms, which are groups of

transformations that change the raw data and convert column types. By hiding lower-level data changes, the graph provides an easier-to-read view of the flow of data. Each object shown in the graph is called a node. A recipe can have multiple Input, Aggregate, Append, Filter, Join, Transform, and Output nodes.



Although the graph doesn't show individual data transformations, you can select a Transform node (1) in the graph to see its transformations in the details area (2).

TRANSFORM Transform

1. FORMULA  
Calculate values: lower([Industry])

2. FORMULA  
Calculate values: concat([Billing\_State\_Province], " - ", [Billing\_Country])

3. FORMULA  
Calculate values: replace([Won], "FALSE", "No")

| Created Date     | External Opp ID | Amount  | Industry Formula   | Billing State/Province ... |
|------------------|-----------------|---------|--------------------|----------------------------|
| 01T00:00:00.000Z | 35              | 136464  | telecommunications | MI - Morocco               |
| 22T00:00:00.000Z | 40              | 266400  | banking            | IL - Morocco               |
| 12T00:00:00.000Z | 69              | 356880  | energy             | VA - Morocco               |
| 08T00:00:00.000Z | 143             | 5198280 | consulting         | FL - Morocco               |
| 01T00:00:00.000Z | 150             | 1876750 | communications     | NH - Morocco               |
| 15T00:00:00.000Z | 172             | 228220  | technology         | MS - South Africa          |
| 22T00:00:00.000Z | 179             | 24536   | electronics        | ID - Morocco               |

As in Data Prep Classic, you can select a transformation step in the left panel to preview the results of that transformation in the Preview tab. And you can select any node in the graph to preview the results of that node.

The screenshot shows the Data Prep interface with three formula steps in the left panel. The second step is selected, and its results are shown in the Preview tab. The table has the following data:

| Created Date     | External Opp ID | Amount  | Industry Formula   | Billing State/Province |
|------------------|-----------------|---------|--------------------|------------------------|
| 01T00:00:00.000Z | 35              | 136464  | telecommunications | MI - Morocco           |
| 22T00:00:00.000Z | 40              | 266400  | banking            | IL - Morocco           |
| 12T00:00:00.000Z | 69              | 356880  | energy             | VA - Morocco           |
| 08T00:00:00.000Z | 143             | 5198280 | consulting         | FL - Morocco           |
| 01T00:00:00.000Z | 150             | 1876750 | communications     | NH - Morocco           |
| 15T00:00:00.000Z | 172             | 228220  | technology         | MS - South Africa      |
| 22T00:00:00.000Z | 179             | 24536   | electronics        | ID - Morocco           |

**How:** To create a Data Prep recipe, click **Create Recipe** in the Recipes tab of Data Manager.

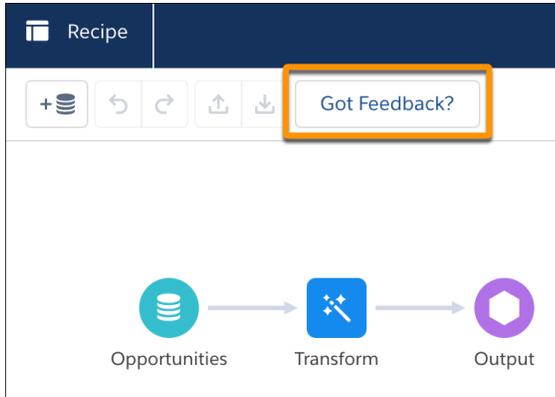
The screenshot shows the Einstein Data Manager interface. The 'Dataflows & Recipes' section is active, and the 'Create Recipe' button is highlighted. Below the button is a search bar and a table of existing recipes:

| Name                          | Last Modified         | Last Modified By | Run Status | Next Run      |
|-------------------------------|-----------------------|------------------|------------|---------------|
| test_upconv_join_MeasureToDii | Jun 13, 2020 at 2:22  | Admin User       | Success    | Not Scheduled |
| test                          | Apr 9, 2020 at 8:57 I | Admin User       | Success    | Not Scheduled |
| Load Covid India Data         | Today at 3:53 PM      | Admin User       | Success    | Not Scheduled |
| Covid-19 Cases by Region      | Yesterday at 11:26 P  | Admin User       | Success    | Not Scheduled |
| r2y_formula                   | Jun 16, 2020 at 9:1C  | Admin User       | Not Run    | Not Scheduled |

Consider the following guidelines when using Data Prep:

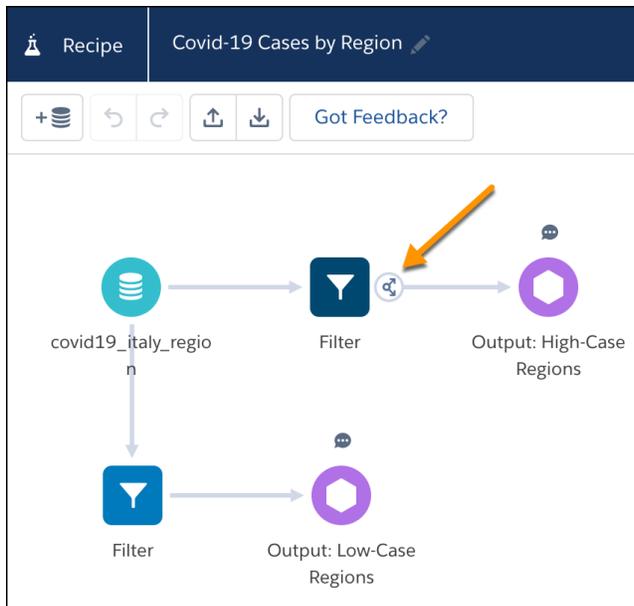
- You can't open recipes created with Data Prep in Data Prep Classic.
- When you open a recipe built with Data Prep Classic, it's upgraded to the new Data Prep version and opens in Data Prep.
- You can no longer create a recipe using Data Prep Classic.

Want to share some feedback about the latest version of Data Prep? Click **Got Feedback** in Data Prep to tell us what's on your mind. We're listening.

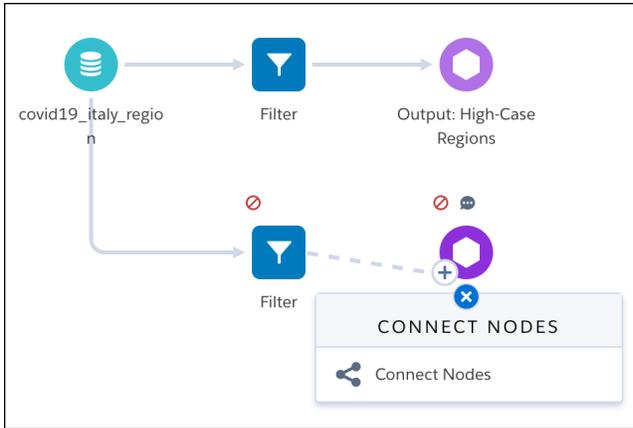


If you tried out our beta version last release, check out some of the new features available this release.

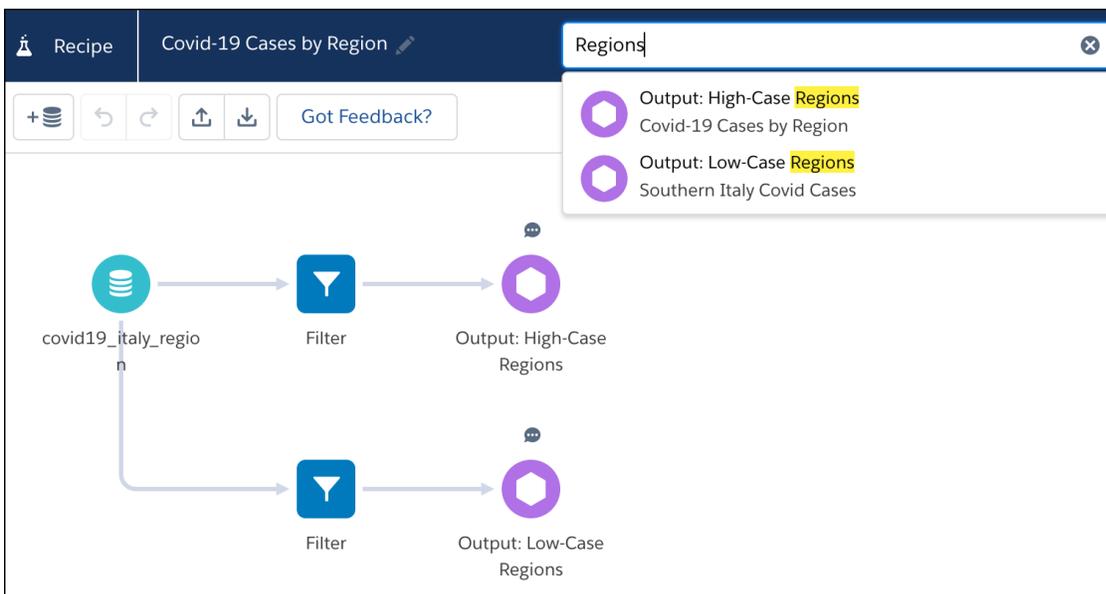
- Run column profiling on the sample data to get key stats about columns, such as the frequency of values and percent of columns with missing values.
- Branch a recipe graph to write to multiple datasets. To branch a recipe at a node, hover over the node and then click the branch icon (🔗).



- Drag to connect nodes in a recipe graph. To connect nodes, drag + to the second node, and drop it on the Connect Nodes option that appears.



- Write formulas using the improved editor with syntax highlighting and autocomplete.
- Perform date calculations using new date functions Date Difference, Now, and Add or Subtract Dates. For more information, see [Calculate Dates with Click-Not-Code Date and Time Transformations](#).
- Build more formulas with the new EA SQL functions, including the Case function. See [Build Calculated Formula Columns with More Functions in Data Prep](#).
- Flatten hierarchies with the new Flatten transformation.
- Perform multi-value lookups and create multi-value fields with the Join node.
- Rename recipes, set node names, and enter node descriptions to help others understand their purpose.
- Search nodes in the graph by name, type, or metadata to quickly locate them. To locate a node, enter the search string, and then select the node.



- Preview up to 5,000 rows instead of 100.

- Manually update your recipe JSON using the download (  ) and upload (  ) buttons.

SEE ALSO:

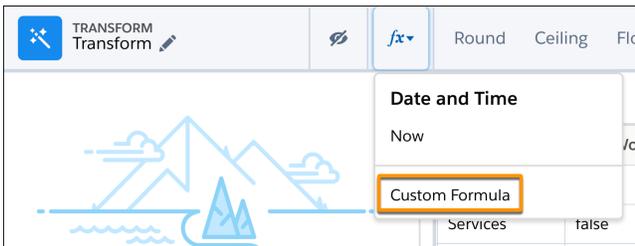
[Salesforce Help: Clean, Transform, and Load Data with Data Prep \(can be outdated or unavailable during release preview\)](#)

## Build Calculated Formula Columns with More Functions in Data Prep

You can now use EA SQL functions with the Data Prep formula transformation to add calculated columns derived from other fields to your dataset. EA SQL is a collection of standard and custom functions for numeric, string, and date data. Previously, you were limited to 18 functions when you built formulas in Data Prep. Now there are more than 40 functions, including `[case]` to create buckets or flags based on field value, and `[datediff()]` to calculate the duration between dates.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** To add a formula transformation, click the Formula button (  ) and select **Custom Formula**.



Create your own calculated columns with the formula editor using function and column selector (1), auto-complete (2), built-in EA SQL function guidance (3), and output type selection (4).

The screenshot shows the 'Formula (New Opportunity Type)' editor. At the top, it says 'Use the Query Editor to design a derived column, based on other fields, using EA SQL queries. [Learn More](#)'. Below this are two tabs: 'Functions' (selected) and 'Columns'. A search bar 'Search Functions...' is present. A list of function categories is shown: 'String Functions (12)', 'Numeric Functions (10)', 'Date & Time Functions', and 'Additional SQL Functions'. Under 'Additional SQL Functions', 'COALESCE' and 'CASE' are listed. The 'CASE' function is highlighted. Below the list, the syntax for the CASE function is shown: 'case primary\_expr(optional) when condition then result\_expr ... else default\_expr end'. A description says 'Handles if/then logic.' and there is a link 'Help with this function'. On the right, a code editor shows the following SQL code: 

```
case
  when Type = "New Business"
  then "NB"
  when Type = "Existing Business"
  then "EB"
  else
  Type
end
```

. Below the editor are settings: 'Output Type' is set to 'Text', 'Precision' is '255', 'Default Value' is 'Enter the value to show if the expression overflows...', 'Show Results In' is 'New Column (and Keep Original)', and 'Column Label' is 'Opportunity Type'. At the bottom right are 'Cancel' and 'Apply' buttons. Four orange circles with numbers 1-4 are overlaid on the image: 1 points to the 'Functions' tab, 2 points to the code editor, 3 points to the 'CASE' function description, and 4 points to the 'Output Type' dropdown.

SEE ALSO:

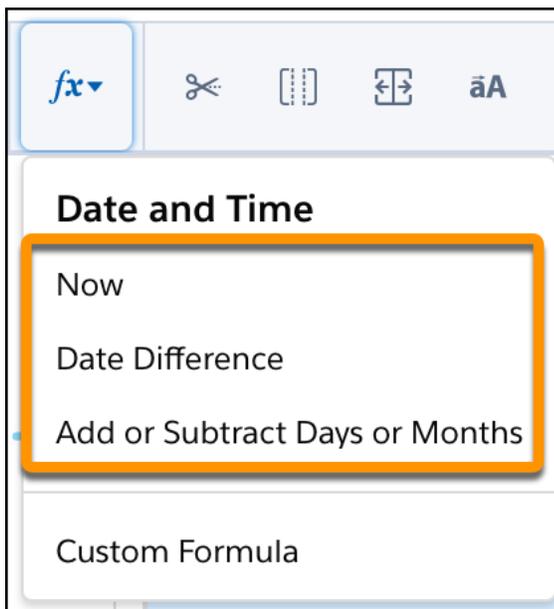
[Salesforce Help: Formula Transformation: Create a Calculated Column Based on an Expression](#)

## Calculate Dates with Click-Not-Code Date and Time Transformations

Want to create Data Prep recipe fields based on date column calculations with clicks instead of manual queries? Check out the new predefined date formula transformations. With the `Now` transformation, you can insert a column with the current date and time in a specified format. Use `Date Difference` to calculate the duration between two selected date columns, like the time it takes for support to close cases by subtracting the created date from the closed date. And use the `Add or Subtract Days or Months` function to time travel to visit the dinosaurs. Just kidding, it lets you add or subtract days or months from a date column.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** To add a date formula transformation, select the Formula button ( `fx` ) and choose the transformation from the list.



Configure the transformation's fields. For example, to calculate age of closed cases, use the `Date Difference` transformation with the Closed Date and Created Date fields.

fx

## Duration Between Dates

Returns the duration between two selected date columns as days, months, or years. [Learn More](#)

Start Date

Closed Date
▼

End Date

Created Date
×

Return Duration In

Days
▼

Show Results In

New Column (and Keep Original)
▼

Column Label

Days to Close

Cancel

Apply

## Quickly Calculate Statistics with Aggregate Functions

Calculate more aggregates in recipes using the new Aggregate node functions STDDEV (sample standard deviation), STDDEVP (population standard deviation), VAR (sample variance), and VARP (population variance). For example, a realty company calculates the average price of all homes sold in San Francisco in April 2020. To determine how spread out these home prices are, the realty company calculates the population standard deviation using the STDDEVP function.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** The new functions appear when you add an aggregate to the Aggregate node.

The screenshot shows the 'Select Aggregate' dialog box in the Einstein Analytics interface. The dialog has a search bar and a table of aggregate functions. The 'Stddev' function is highlighted in orange. The table lists the following aggregate functions and their corresponding columns:

| Aggregate Function | Name                 | API Name              | Source               |
|--------------------|----------------------|-----------------------|----------------------|
| Unique             |                      |                       |                      |
| Sum                | CurrentPositiveCa... | CurrentPositiveCases  | covid19_italy_region |
| Average            | Deaths               | Deaths                | covid19_italy_region |
| Count              | HomeConfinement      | HomeConfinement       | covid19_italy_region |
| Maximum            | HospitalizedPatie... | HospitalizedPatients  | covid19_italy_region |
| Minimum            | IntensiveCarePati... | IntensiveCarePatients | covid19_italy_region |
|                    | Latitude             | Latitude              | covid19_italy_region |
|                    | Longitude            | Longitude             | covid19_italy_region |
|                    | NewPositiveCases     | NewPositiveCases      | covid19_italy_region |

Below the table, there is a preview of the data for the selected aggregate function. The preview shows the following values:

| Aggregate Function           | Value |
|------------------------------|-------|
| Sum of IntensiveCarePatients | 60    |
| Sum of HomeConfinement       | 16    |
| Sum of HospitalizedPatients  | 106   |
| Sum of IntensiveCarePatients | 2     |
| Sum of Latitude              | 93    |
| Sum of Longitude             | 97    |
| Sum of NewPositiveCases      | 30    |
| Sum of Deaths                | 85    |
| Sum of CurrentPositiveCases  | 74    |

## View More Previews in Recipes

Each user can initiate up to 4,000 previews an hour in Data Prep. Previously, the maximum previews per hour per user was 2,000. Each time you click a node or transformation to preview its results, the preview count increases.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

## Manage Row-Level Security for Data Prep Recipes

Sharing inheritance is now available for datasets created from Data Prep recipes. Sharing inheritance increases access accuracy and reduces the need for complicated security predicates for most objects and situations. For example, a quarterly pipeline dashboard automatically shows each rep only their own opportunities, and their managers can see opportunities of the team, following the opportunity sharing rules. Previously, sharing inheritance was only available for datasets created by a dataflow.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** Determine if sharing inheritance is appropriate for your org with [these questions](#), then turn on sharing inheritance from the Analytics section in Setup. Enable sharing inheritance for each synced object to inherit sharing settings from. Sharing inheritance automatically covers row-level security for eligible users and objects from Data Prep recipes. In a Data Prep recipe output node, choose an eligible object as the sharing source (1). Optionally, set the security predicate (2) as a backup for sharing inheritance. In this example, the Opportunity object's sharing settings provide each user's data visibility. If sharing inheritance isn't available, or a user isn't covered, the backup security predicate specifies that users can only see their own records.

The screenshot shows the configuration page for a dataset named 'HighValWonOpts'. The interface includes the following fields and controls:

- Write To:** A dropdown menu set to 'Dataset'.
- \* Dataset Display Label:** A text input field containing 'High Value Won Opportunities'.
- Dataset API Name:** A text input field containing 'HighValWonOpts' with an information icon.
- \* App Location:** A text input field containing 'My Private App' with a close icon.
- Sharing Source:** A search input field containing 'Opportunity' with a magnifying glass icon. A red circle with the number '1' is overlaid on this field.
- Security Predicate:** A text input field containing the predicate `'AccountOwner' == "$User.Name"`. A red circle with the number '2' is overlaid on this field.
- Buttons:** 'Cancel' and 'Apply' buttons at the bottom right.

SEE ALSO:

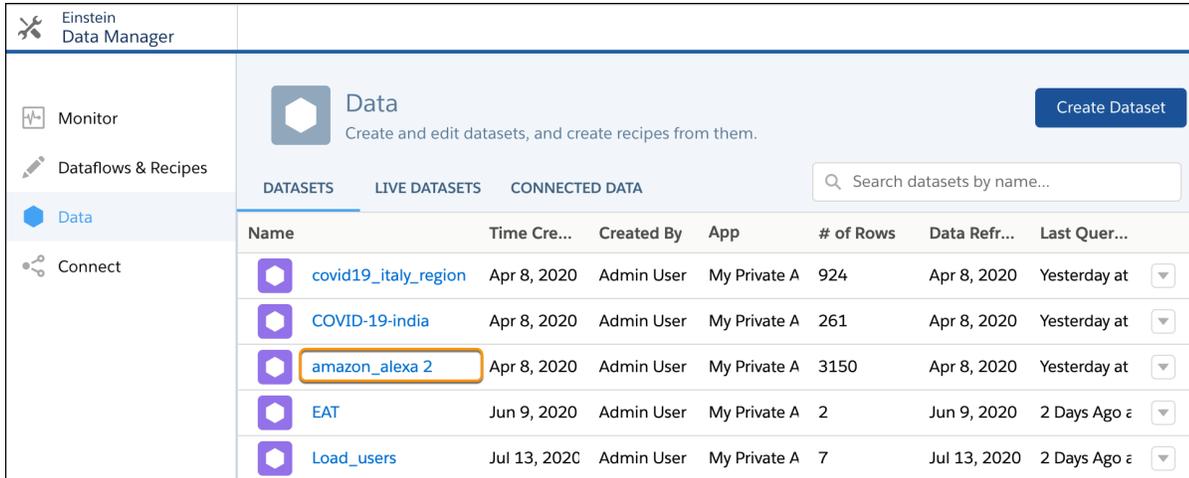
[Salesforce Help: Add Row-Level Security by Inheriting Sharing Rules](#)

## Edit a Dataset with One Click from Data Manager

Clicking a dataset link in the Data tab of Data Manager now opens the dataset properties page, where you can edit the dataset. Previously, the link created a recipe with the dataset as the source.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

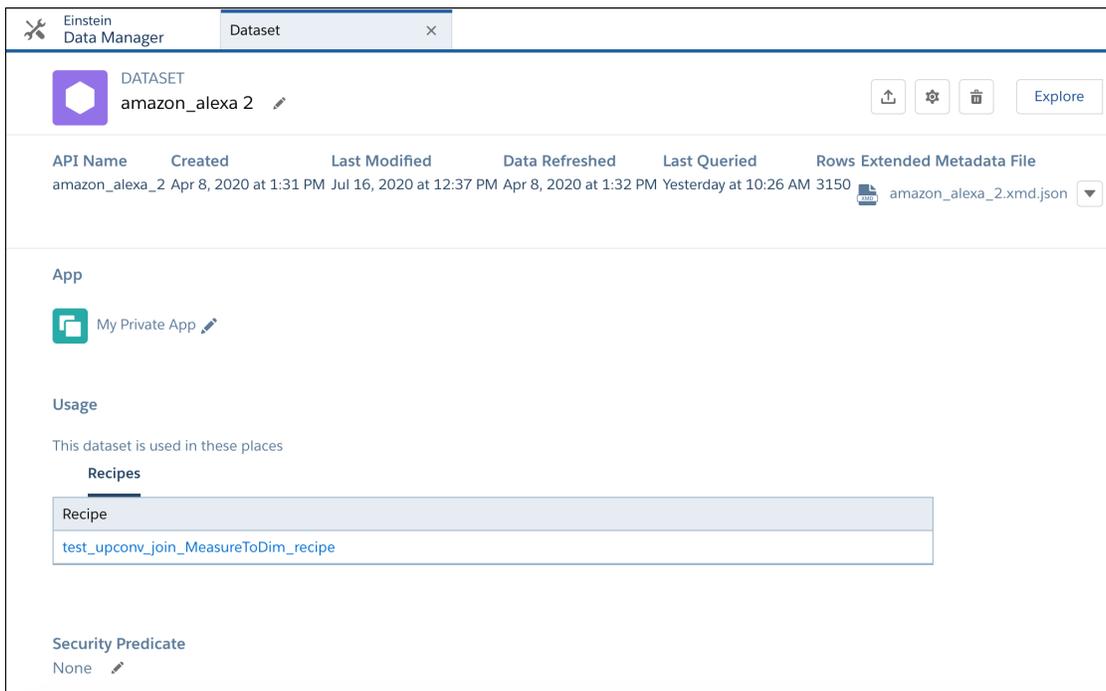
**How:** Click a dataset link on the Data tab.



The screenshot shows the Einstein Data Manager interface. On the left is a navigation menu with options: Monitor, Dataflows & Recipes, Data (selected), and Connect. The main area is titled 'Data' and includes a 'Create Dataset' button and a search bar. Below is a table of datasets:

| Name                 | Time Cre...  | Created By | App          | # of Rows | Data Refr... | Last Quer... |
|----------------------|--------------|------------|--------------|-----------|--------------|--------------|
| covid19_italy_region | Apr 8, 2020  | Admin User | My Private A | 924       | Apr 8, 2020  | Yesterday at |
| COVID-19-india       | Apr 8, 2020  | Admin User | My Private A | 261       | Apr 8, 2020  | Yesterday at |
| amazon_alex_2        | Apr 8, 2020  | Admin User | My Private A | 3150      | Apr 8, 2020  | Yesterday at |
| EAT                  | Jun 9, 2020  | Admin User | My Private A | 2         | Jun 9, 2020  | 2 Days Ago ε |
| Load_users           | Jul 13, 2020 | Admin User | My Private A | 7         | Jul 13, 2020 | 2 Days Ago ε |

You can now view the dataset properties and edit the dataset.



The screenshot shows the 'Dataset' page for 'amazon\_alex\_2'. It includes a header with 'DATASET amazon\_alex\_2' and an 'Explore' button. Below is a table with dataset metadata:

| API Name      | Created                | Last Modified            | Data Refreshed         | Last Queried          | Rows | Extended Metadata File |
|---------------|------------------------|--------------------------|------------------------|-----------------------|------|------------------------|
| amazon_alex_2 | Apr 8, 2020 at 1:31 PM | Jul 16, 2020 at 12:37 PM | Apr 8, 2020 at 1:32 PM | Yesterday at 10:26 AM | 3150 | amazon_alex_2.xmd.json |

Below the table, the 'App' is listed as 'My Private App'. Under 'Usage', it states 'This dataset is used in these places' and lists a 'Recipe' named 'test\_upconv\_join\_MeasureToDim\_recipe'. At the bottom, the 'Security Predicate' is listed as 'None'.

## Monitor and Update Auto-Installed Analytics Apps from Setup

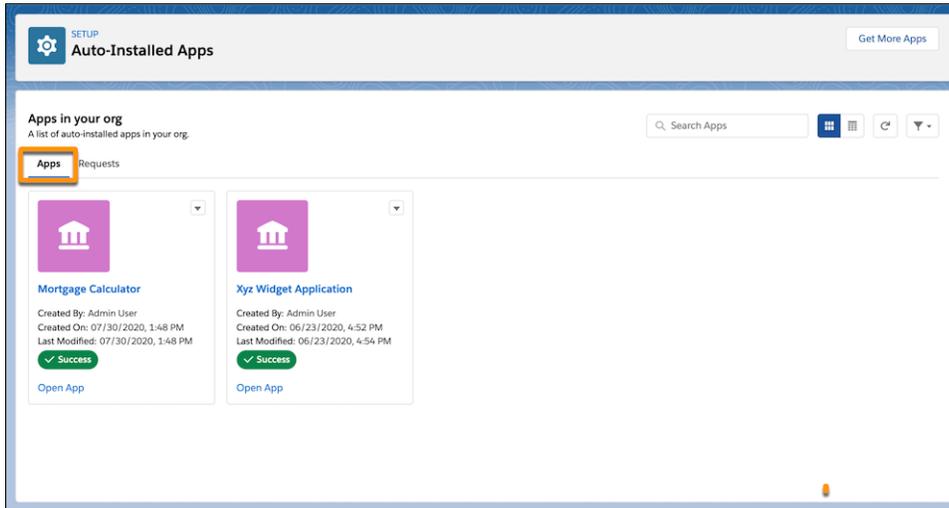
Easily see which Analytics apps are automatically installed in your Salesforce org with the new Auto-Installed Apps page. You can update the app, view logs on the app status, delete apps no longer in use, and monitor auto-install requests.

**Why:** The auto-install framework for templated Analytics apps requires a simple user interface to present actions and debugging to admins. The Auto-Installed App page gives you easy access to information on what apps have been auto-installed and which auto-install requests are running, completed, or failed. Apps can be updated or deleted and requests can be canceled.

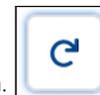
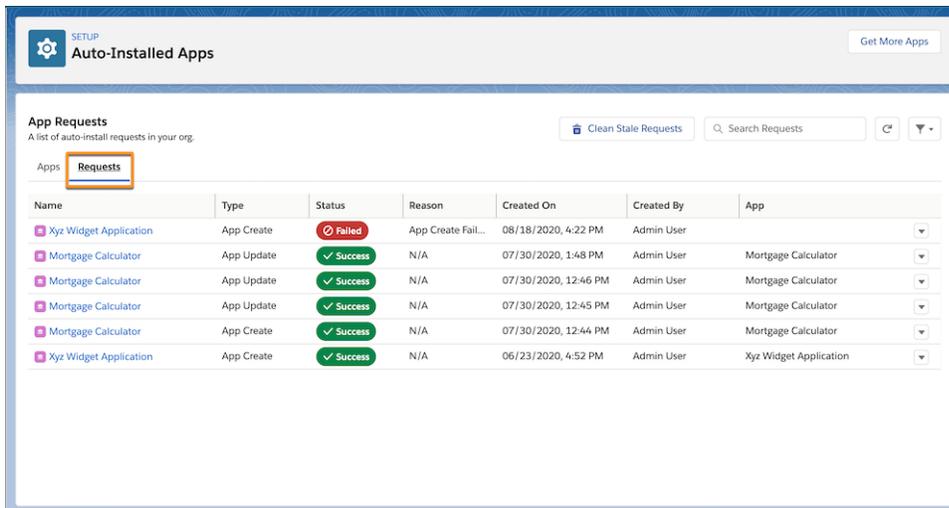
**How:** From **Setup**, in the Quick Find box enter **Auto-Installed Apps**, and then select **Auto-Installed Apps**.

Use the tabs to view either the list of installed Analytics apps or the list of received auto-install requests. The lists show templated apps with the type app or embedded app that are auto-installed.

The default view is the Apps tab with the list of auto-installed apps.



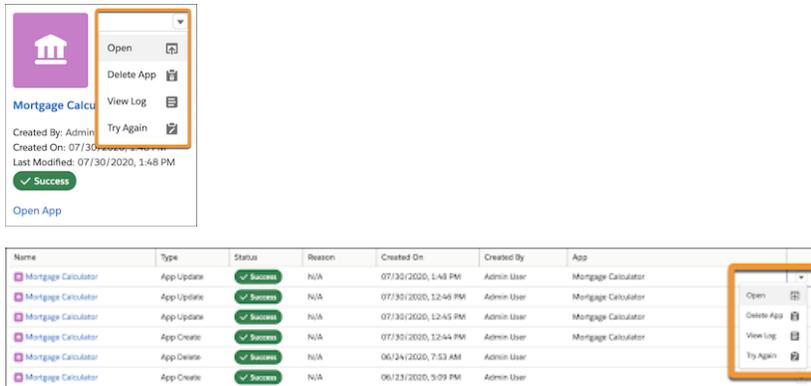
To view the auto-install requests list, click the **Requests** tab.



Each app and auto-install request has a status, which you can update by clicking the refresh icon.

You can perform these actions on completed auto-installed Analytics apps and auto-install requests.

- Open - opens the auto-install details for the app
- Delete Application - Deletes the app using an auto-install request of type `WaveAppDelete`
- View Log - Displays the current auto-install request log for the app
- Try Again - Runs the last auto-install request for the app again: `WaveAppCreate` or `WaveAppDelete`



You can perform these actions on in-progress auto-installed Analytics apps and auto-install requests.

- Open - opens the auto-install details for the app
- Cancel Request - Cancels the current auto install request using an auto-install request of type `WaveAppCancel`

Deleted auto-installed Analytics apps don't appear on the Apps tab, but auto-install requests for deleted apps remain on the Requests tab. These requests don't have the Delete App action.

## Analytics Prebuilt Apps: Performance Insights on Revenue, Wealth Management Client Churn and Asset Growth, and Increased Mortgage Sales

Help sales teams gain performance insights with Revenue Operations dashboards. Predict and alleviate client churn and forecast the likelihood to grow account assets with the Wealth Management Analytics dashboards and Einstein Discovery stories. Increase mortgage sales by prioritizing which customer mortgage applications to focus on. Use predictions from the Einstein Discovery for Insurance Analytics app to retain customers. Use the fiscal calendar to filter data in your dashboards. Customize data access to sales managers so that they can only view data of users below them in the role hierarchy.

### IN THIS SECTION:

#### [Improve Insights into Sales Performance with the Revenue Operations Analytics App](#)

Let sales teams gain performance insights to build stronger pipelines, improve forecast accuracy, and generate more revenue with Revenue Operations Analytics. The Revenue Operations Analytics app assists sales managers and teams in gauging their team performance, revenue forecasting, forecast tracking, and deals overview. It delivers forecasting analytics with a better user experience, better pipeline visibility, and easier deal inspection and forecasting with the use of predictive analytics.

### SEE ALSO:

- [Predict Client Churn Risk for Wealth Management](#)
- [Predict the Likelihood to Add Assets for Wealth Management](#)
- [Increase Sales with the Analytics for Mortgage App](#)
- [Maximize Policy Renewals with Einstein Discovery for Insurance Analytics](#)
- [Filter Data by Fiscal Calendar](#)
- [Customize Data Access for Sales Managers](#)

## Improve Insights into Sales Performance with the Revenue Operations Analytics App

Let sales teams gain performance insights to build stronger pipelines, improve forecast accuracy, and generate more revenue with Revenue Operations Analytics. The Revenue Operations Analytics app assists sales managers and teams in gauging their team performance, revenue forecasting, forecast tracking, and deals overview. It delivers forecasting analytics with a better user experience, better pipeline visibility, and easier deal inspection and forecasting with the use of predictive analytics.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** In Analytics Studio, click **Create** and select **App**. Find and select **Revenue Operations Analytics**. Then follow the instructions in the wizard to create your app.

## Analytics App Building: Table Column Control, Customized One-Click Actions, Live Connections to Snowflake (Generally Available), Local Time Zones (Beta)

Freeze table columns and collapse grouped columns. Customize actions in lenses and dashboards. Exploring data directly in Snowflake, without first loading it into Salesforce or requiring data preparation in datasets, is now generally available. View time-sensitive data in a non-GMT time zone (Beta). Conditionally format dashboard text. Create reusable dashboard components (Pilot). Create auto-install templates for managed packages.

### IN THIS SECTION:

#### [Freeze Some Table Columns, Scroll Through the Rest](#)

You're no longer restricted to having just a compare table's group columns locked in place. Choose which columns stay visible while you scroll through the remaining data. You can now freeze up to five columns in a compare table or values table in explorer and dashboard designer. Also, in dashboard preview mode, you can freeze as many columns as you need.

#### [Expand or Collapse Grouped Columns Faster](#)

Quickly view data rolled up to the next hierarchy level in grouped columns with the expand and collapse layout option for compare tables. Reviewing row details for records within each group in the hierarchy is also now just a click away. Previously, you edited SAQL queries or manually hid and deleted columns for these data views.

#### [Customize One-Click Actions for Dimensions](#)

Take advantage of the new Actions menu in the explorer to set how one-click actions behave on a table's dataset fields in lenses and dashboards. For more efficiency, select the record action you want to invoke for all records in a dimension column. Or, for greater flexibility, choose to view all available one-click actions when you click records in a specific column.

#### [Gain Insights on Data Directly in Snowflake \(Generally Available\)](#)

Run explorations on your data in the Snowflake data platform without loading data into Salesforce or requiring data preparation. After you set up a live connection to Snowflake, you can run queries on Snowflake data associated with the connection in real time. With Einstein Analytics Direct for Snowflake, you can even build dashboard charts and tables based on the queries that you run on this data.

#### [Add Accuracy to Your Insights with Date and Time Data in Your Local Time Zone \(Beta\)](#)

Want to break free from GMT and view time-sensitive dashboard data in another time zone? We've got you covered. Now you can view dashboard data in the time zone that matters most to your business. In case you didn't know, dashboard data is converted to the GMT time zone. That means when your California-based support team creates a case late on Wednesday (in California time), the creation date could suddenly change to early Thursday in their customer support dashboard. With Single Custom Time Zone, you can ensure that time-sensitive data is more precise and relevant to your global audience.

### [Emphasize Key Metrics in Dashboard Text with Conditional Formatting](#)

Now in addition to numbers, tables, and charts, you can apply conditional formatting to your dashboard text. Conditional formatting is an easy way to make important insights pop when you assign colors based on specific values. For example, change quarterly sales numbers to green when they go above your target.

### [Protect Data in Embedded Dashboards with Locked or Hidden Filters](#)

When filters on embedded dashboards aren't locked or hidden, users can modify or delete both external and global filters, exposing more data. The new lock and hide options for filters are an easy way to configure embedded dashboards so users see only the data that you want them to see. And, with the updated dashboard reset action, you can now return an embedded dashboard to its initial embedded state.

### [Save Time Creating and Managing Dashboards with Reusable Dashboard Components \(Pilot\)](#)

Want to easily reuse the same charts, tables, filters, text, and more in multiple dashboards? Want to manage everything in one place? Meet dashboard components. They're a new type of dashboard widget that can contain other widgets and pages. Best of all, they're a great way to fast-track how you create and manage dashboards with clicks instead of code.

### [Develop Analytics Templates for Auto Installation](#)

Minimize the user interaction required to manually create Analytics apps from the template wizard in Analytics Studio by developing templates that use the auto-install framework. The framework installs templated Analytics app in orgs via managed packages automatically. The dashboards created for these applications can be embedded in Lightning Experience pages, allowing users to interact with Einstein Analytics directly in Salesforce pages.

### [View Einstein Analytics Data Downloads in Your Event Log Files](#)

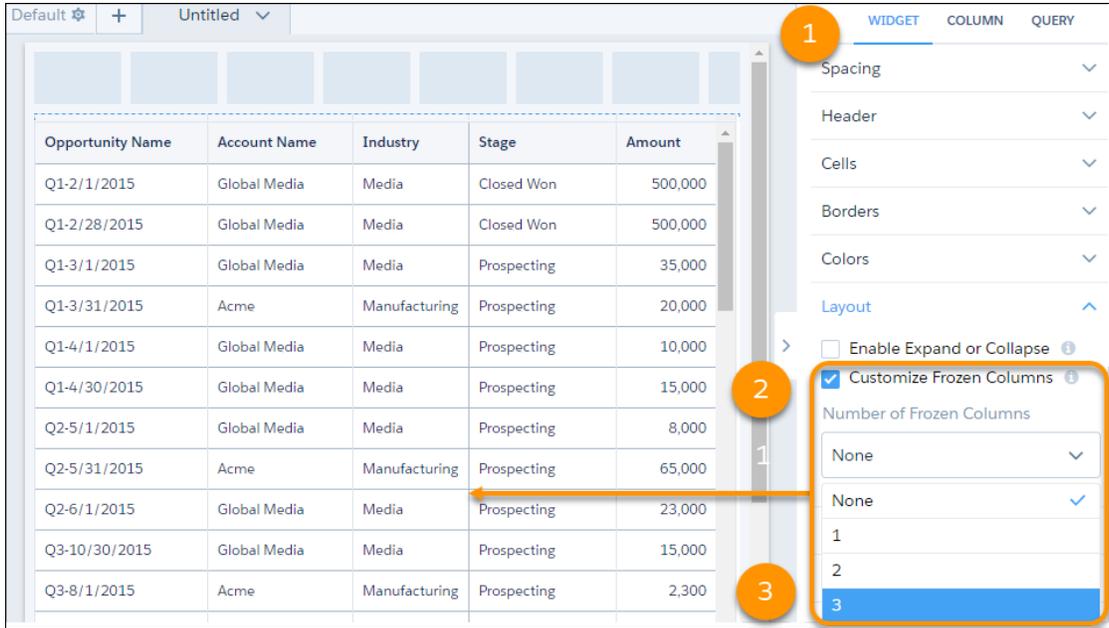
For tracking, security, or compliance, you can now access logs of data downloads from Einstein Analytics. The download logs exposed in Event Monitoring include session id, user id, asset type and id, dataset id, Salesforce user type, download format (PNG, EXCEL, or CSV), and number of rows downloaded. Use the download log data to create your own datasets and dashboards.

## Freeze Some Table Columns, Scroll Through the Rest

You're no longer restricted to having just a compare table's group columns locked in place. Choose which columns stay visible while you scroll through the remaining data. You can now freeze up to five columns in a compare table or values table in explorer and dashboard designer. Also, in dashboard preview mode, you can freeze as many columns as you need.

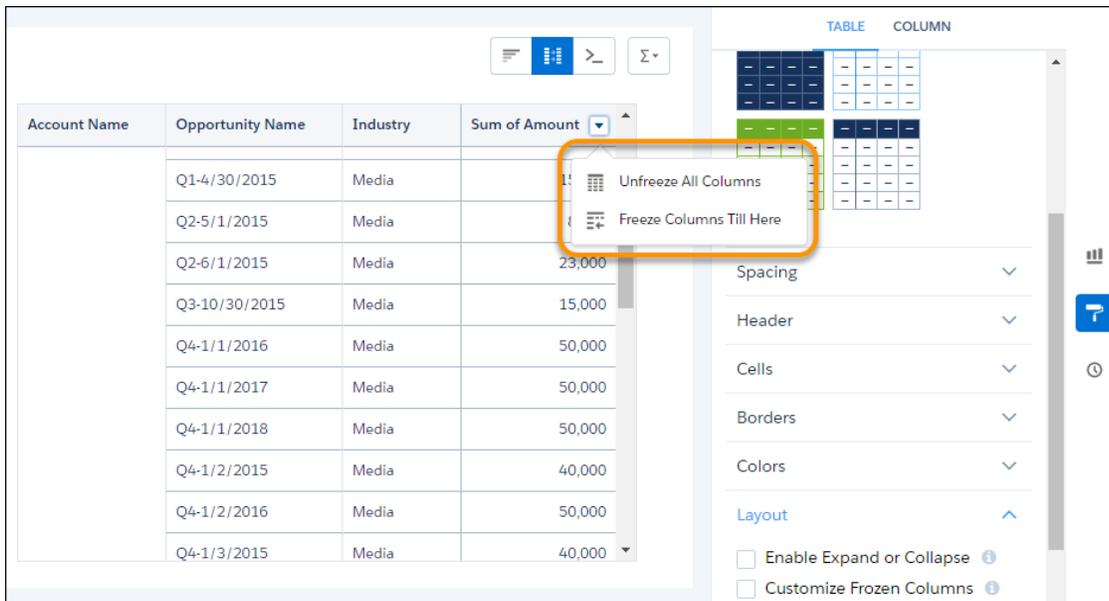
**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** In the dashboard designer, go to the widget properties panel (1). Select **Customize Frozen Columns** in the Layout section (2) and set the number of table columns to freeze (3). A dark gray line indicates the end of the freeze pane.



To access this setting from the explorer, go to the Layout section in the table properties panel.

For the shortcut menu to freeze and unfreeze columns, or to access this feature in dashboard preview mode, hover over the header of the last column you want to freeze. In the dropdown menu, select **Freeze Columns Till Here**.



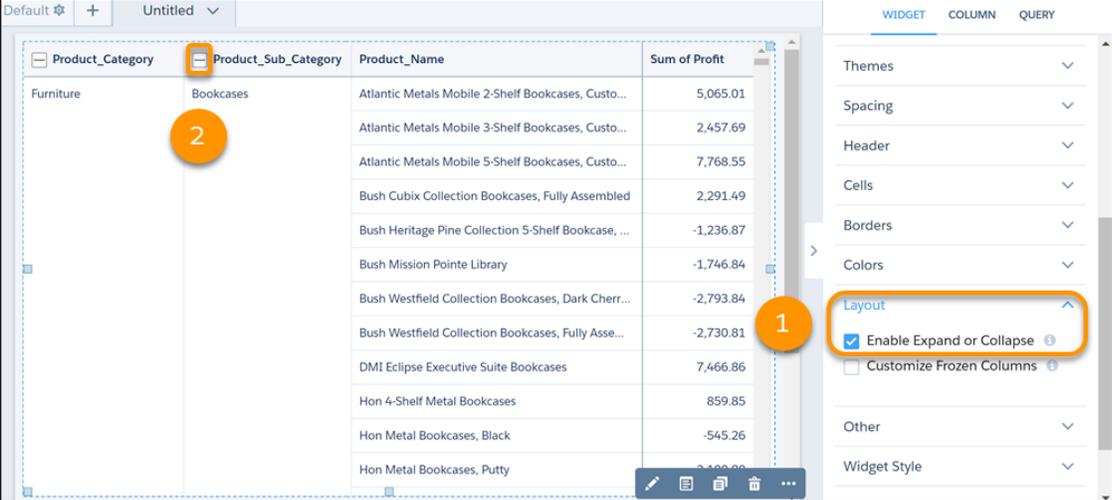
### Expand or Collapse Grouped Columns Faster

Quickly view data rolled up to the next hierarchy level in grouped columns with the expand and collapse layout option for compare tables. Reviewing row details for records within each group in the hierarchy is also now just a click away. Previously, you edited SAQL queries or manually hid and deleted columns for these data views.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

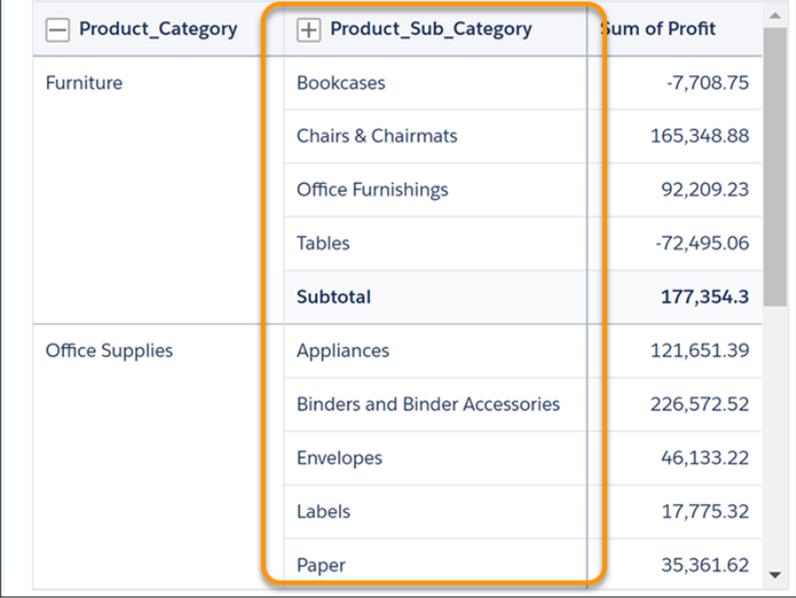
**Why:** Let's say you're analyzing your business sales report. In the compare table grouped by product category, subcategory and name, rolling up the products to its subcategories makes it easier to determine your top-selling subcategories.

**How:** In the dashboard designer's widget properties panel, select **Enable Expand or Collapse** in the Layout section (1). In this example, to roll up product records to product subcategory, click  next to Product Subcategory (2).



The screenshot shows a dashboard designer interface. On the left, a table is displayed with the following columns: Product\_Category, Product\_Sub\_Category, Product\_Name, and Sum of Profit. The Product\_Sub\_Category column is currently collapsed, indicated by a minus sign icon. A red circle with the number '2' highlights this icon. On the right, the widget properties panel is open, showing the 'Layout' section. A red circle with the number '1' highlights the 'Enable Expand or Collapse' checkbox, which is checked. Other options in the panel include 'Customize Frozen Columns', 'Other', and 'Widget Style'.

| Product_Category | Product_Sub_Category | Product_Name  | Sum of Profit |
|------------------|----------------------|---|---------------|
| Furniture        | Bookcases            | Atlantic Metals Mobile 2-Shelf Bookcases, Custo...  | 5,065.01      |
|                  |                      | Atlantic Metals Mobile 3-Shelf Bookcases, Custo...  | 2,457.69      |
|                  |                      | Atlantic Metals Mobile 5-Shelf Bookcases, Custo...  | 7,768.55      |
|                  |                      | Bush Cubix Collection Bookcases, Fully Assembled    | 2,291.49      |
|                  |                      | Bush Heritage Pine Collection 5-Shelf Bookcase, ... | -1,236.87     |
|                  |                      | Bush Mission Pointe Library                         | -1,746.84     |
|                  |                      | Bush Westfield Collection Bookcases, Dark Cherr...  | -2,793.84     |
|                  |                      | Bush Westfield Collection Bookcases, Fully Asse...  | -2,730.81     |
|                  |                      | DMI Eclipse Executive Suite Bookcases               | 7,466.86      |
|                  |                      | Hon 4-Shelf Metal Bookcases                         | 859.85        |
|                  |                      | Hon Metal Bookcases, Black                          | -545.26       |
|                  |                      | Hon Metal Bookcases, Putty                          | 2,189.00      |



The screenshot shows the same table as above, but with the Product\_Sub\_Category column expanded. The Furniture category is collapsed, and the Office Supplies category is expanded. The expanded Office Supplies category shows a list of subcategories and their respective profit values. A red box highlights the expanded subcategories.

| Product_Category | Product_Sub_Category           | Sum of Profit    |
|------------------|--------------------------------|------------------|
| Furniture        | Bookcases                      | -7,708.75        |
|                  | Chairs & Chairmats             | 165,348.88       |
|                  | Office Furnishings             | 92,209.23        |
|                  | Tables                         | -72,495.06       |
|                  | <b>Subtotal</b>                | <b>177,354.3</b> |
| Office Supplies  | Appliances                     | 121,651.39       |
|                  | Binders and Binder Accessories | 226,572.52       |
|                  | Envelopes                      | 46,133.22        |
|                  | Labels                         | 17,775.32        |
|                  | Paper                          | 35,361.62        |

To access this setting from the explorer, go to the Layout section in the table properties panel.

## Customize One-Click Actions for Dimensions

Take advantage of the new Actions menu in the explorer to set how one-click actions behave on a table's dataset fields in lenses and dashboards. For more efficiency, select the record action you want to invoke for all records in a dimension column. Or, for greater flexibility, choose to view all available one-click actions when you click records in a specific column.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** Imagine that you want to update opportunity records when you click the Opportunity Name field in the Opportunities dataset.

With Opportunity Name selected in the table mode, in the Column Properties panel, scroll to the Actions section (1). Select **Set up one-click actions** (2). Enable **Select an Action** (3). Alternatively, to view all available actions when you click an opportunity name, select **Open Actions Menu**. From the Salesforce Actions list, select **Update Opportunity** (4). Optionally set a hyperlink color for the Opportunity Name field.

| Opportunity Name             | Opportunity Owner | Sum of Amount |
|------------------------------|-------------------|---------------|
| Opportunity for Abbott636    | John Williams     | 121,490       |
| Opportunity for Adams708     | Nicolas Weaver    | 1,269,390     |
| Opportunity for Adams87      | Chris Riley       | 1,093,390     |
| Opportunity for Adkins111    | Doroth Gardner    | 1,402,500     |
| Opportunity for Aguilar1908  | Irene Kelley      | 3,314,900     |
| Opportunity for Aguilar210   | Nicolas Weaver    | 202,174       |
| Opportunity for Alexander278 | Chris Riley       | 18,960        |
| Opportunity for Alexander455 | Kelly Frazier     | 1,003,750     |
| Opportunity for Alexander954 | Dennis Howard     | 895,135       |
| Opportunity for Allen1162    | Chris Riley       | 1,032,800     |

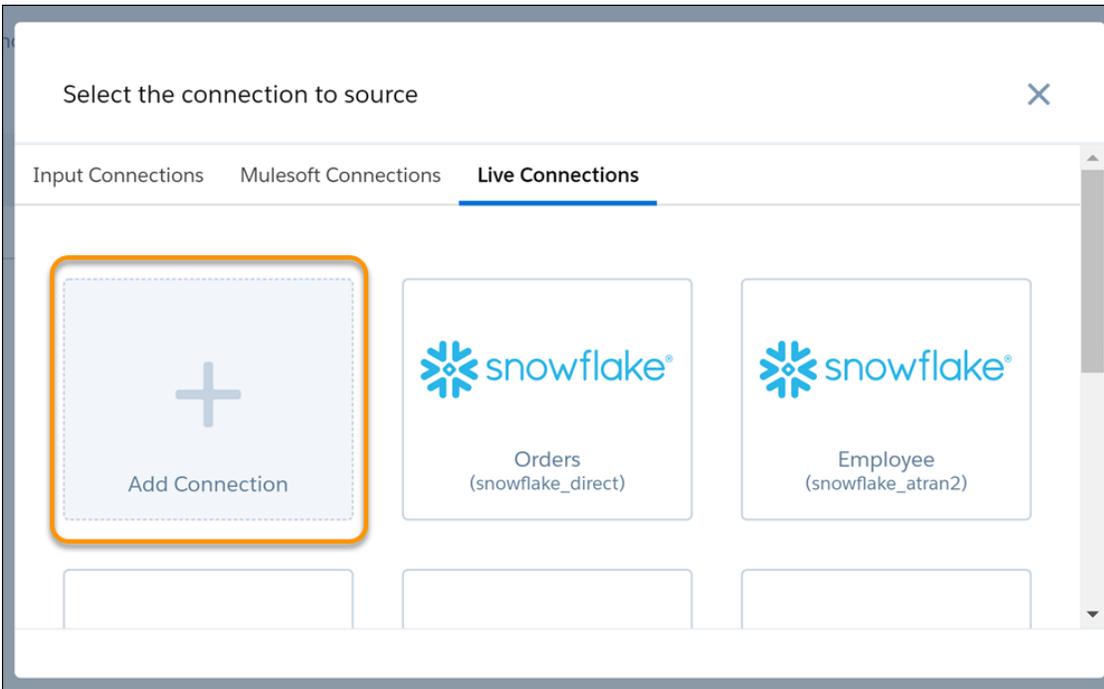
## Gain Insights on Data Directly in Snowflake (Generally Available)

Run explorations on your data in the Snowflake data platform without loading data into Salesforce or requiring data preparation. After you set up a live connection to Snowflake, you can run queries on Snowflake data associated with the connection in real time. With Einstein Analytics Direct for Snowflake, you can even build dashboard charts and tables based on the queries that you run on this data.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** By default, `Enable Einstein Analytics Direct Data for external data sources` is turned on in the Analytics Settings page.

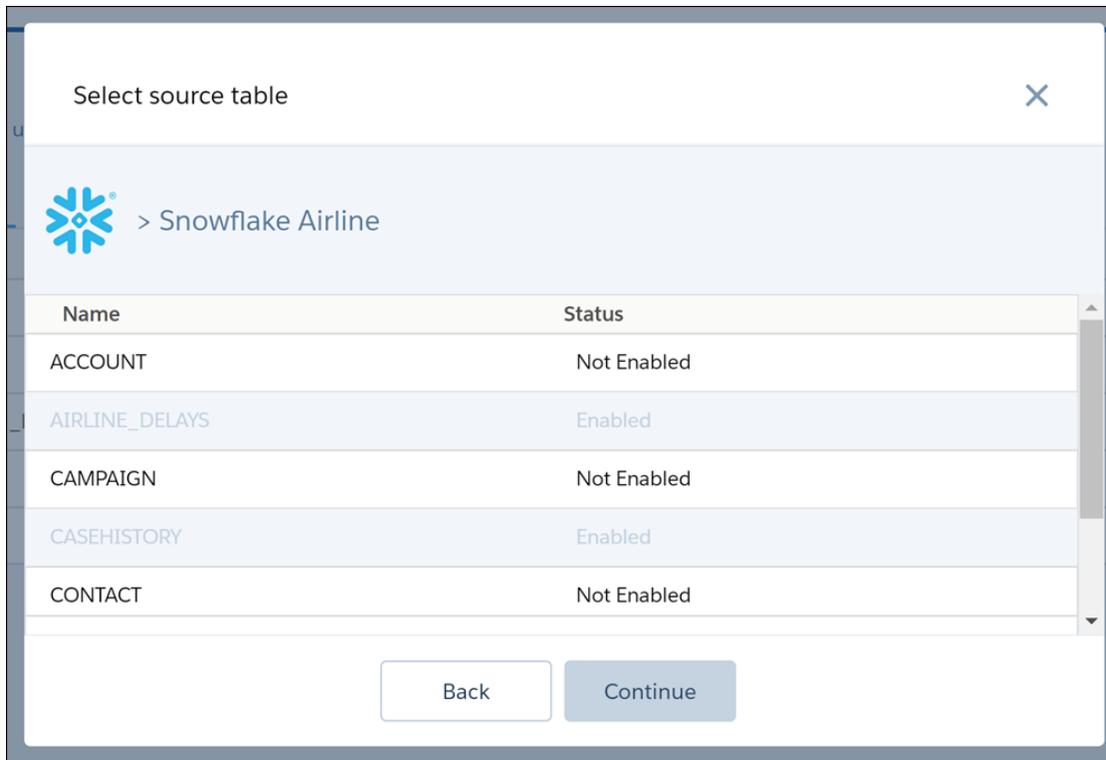
1. On the Connect tab of the Einstein Analytics data manager, click **Connect to Data**.
2. Click **Add Connection** on the Live Connections tab and enter its settings.



When done, click **Save** or **Save and Create Dataset**.

 **Note:** When creating connections to Snowflake, we recommend using a Snowflake user account with read-only access to maintain data security.

3. In the data manager, click the **Data** tab.
4. On the Live Datasets tab, click, **Create Dataset**. Select the connection and enable a Snowflake source table that is available with the connection.



5. Name the live dataset and assign it to an Analytics app. Use the app to control which Salesforce users, roles, and groups have access to explore Snowflake data with the connection. When done, click **Create Live Dataset**.
6. To begin exploring, click the live dataset from the Datasets tab in Analytics Studio.

### Add Accuracy to Your Insights with Date and Time Data in Your Local Time Zone (Beta)

Want to break free from GMT and view time-sensitive dashboard data in another time zone? We've got you covered. Now you can view dashboard data in the time zone that matters most to your business. In case you didn't know, dashboard data is converted to the GMT time zone. That means when your California-based support team creates a case late on Wednesday (in California time), the creation date could suddenly change to early Thursday in their customer support dashboard. With Single Custom Time Zone, you can ensure that time-sensitive data is more precise and relevant to your global audience.

 **Note:** As a beta feature, Single Custom Time Zone is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for Single Custom Time Zone in the [Trailblazer Community](#).

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** Contact your Salesforce account representative to enable Single Custom Time Zone. Turn on Single Custom Time Zone in Analytics Setup and select which time zone to use.

**Important:** This feature can't be disabled after you enable it. We recommend that you thoroughly test Single Custom Time Zone in a sandbox org before you enable it in your production org.

Keep these considerations in mind when using Single Custom Time Zone.

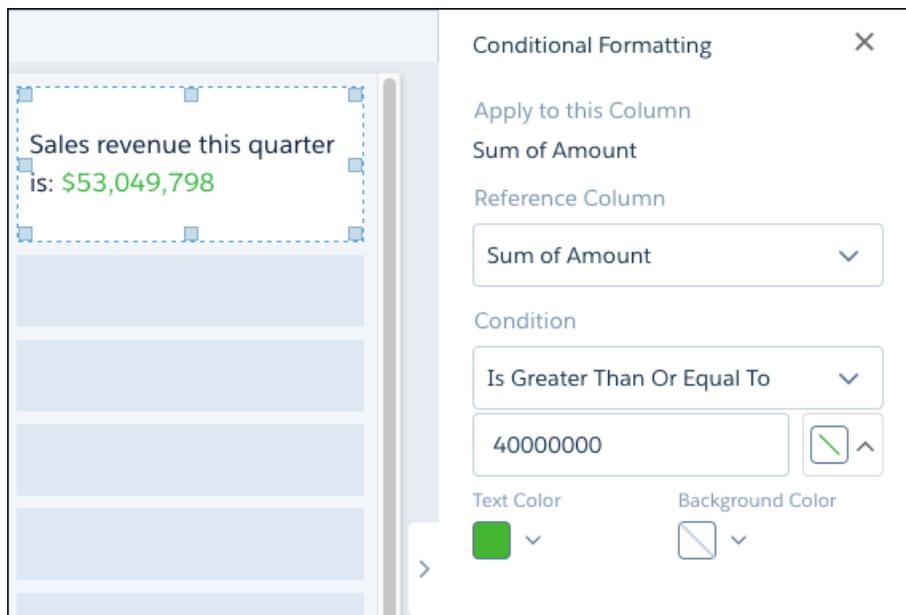
- A time zone is defined at the org level.
- All datasets must be refreshed after enabling Single Custom Time Zone and specifying your default org time zone.
- Existing dashboards remain in the GMT time zone.
- After enabling Single Custom Time Zone, new dashboards can use non-GMT time zones.

## Emphasize Key Metrics in Dashboard Text with Conditional Formatting

Now in addition to numbers, tables, and charts, you can apply conditional formatting to your dashboard text. Conditional formatting is an easy way to make important insights pop when you assign colors based on specific values. For example, change quarterly sales numbers to green when they go above your target.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** Apply conditional formatting to your dynamic text in the widget properties panel in the dashboard designer.



Keep in mind that conditional formatting rules applied to a query also apply to text widgets that use the same query data. However, you can create rules or edit existing rules when you create or edit dashboard text.

SEE ALSO:

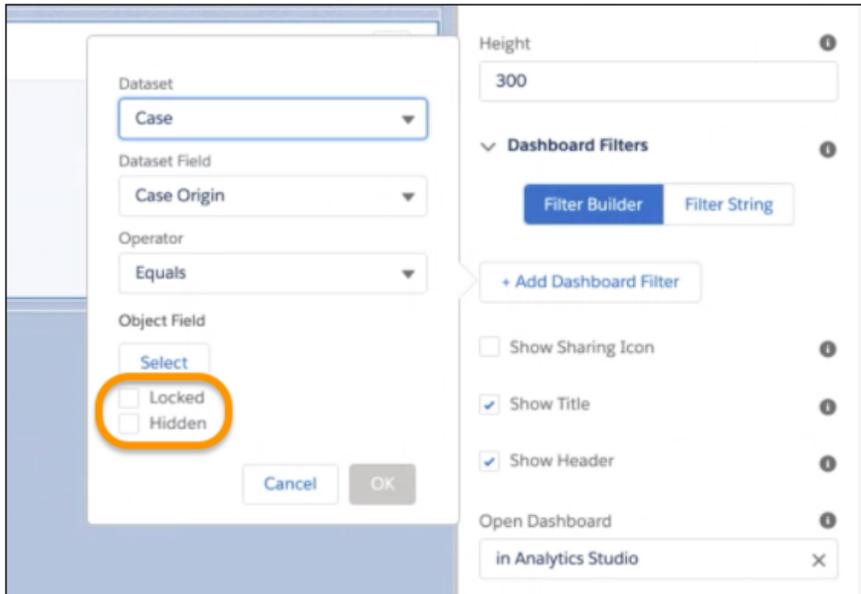
[Salesforce Help: Automatically Highlight Data with Conditional Formatting \(can be outdated or unavailable during release preview\)](#)

## Protect Data in Embedded Dashboards with Locked or Hidden Filters

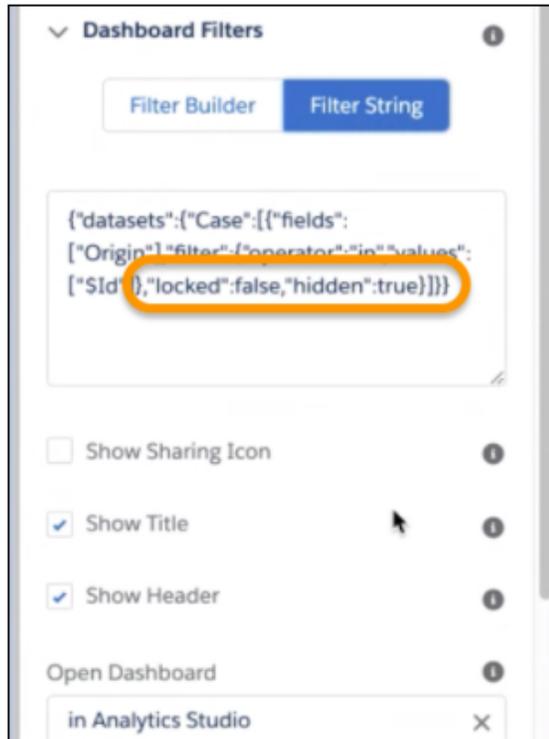
When filters on embedded dashboards aren't locked or hidden, users can modify or delete both external and global filters, exposing more data. The new lock and hide options for filters are an easy way to configure embedded dashboards so users see only the data that you want them to see. And, with the updated dashboard reset action, you can now return an embedded dashboard to its initial embedded state.

**Where:** These changes apply to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** Set the Locked or Hidden option in the Filter Builder in the Lightning App Builder.

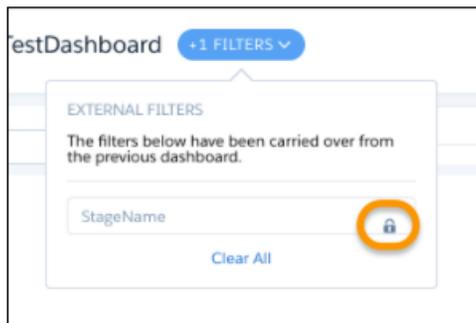


Or add the options in the filter's JSON with a Boolean value. For example, `"locked": false, "hidden": true`.



 **Note:** Locked and hidden options can only be used for filters and not for selections.

With the **Locked** option, the Filters menu appears in the embedded dashboard header, but users can't modify or delete the filters.



With the **Hidden** option, the Filters menu doesn't appear in the embedded dashboard header.

When setting up locked or hidden filters for embedded dashboards, keep in mind the following considerations.

- Locked and hidden filters are applied on the dashboard. If a filter makes a field visible, users see the field even when you've restricted access to filters with one of these options.
- Locked and Hidden options aren't automatically applied in linked dashboards or lens explorations. The options are applied only on the dashboard where specified.
- Locked and Hidden options are applied to a dashboard when embedded or when opened in Einstein Analytics Studio or Analytics tab.

## Save Time Creating and Managing Dashboards with Reusable Dashboard Components (Pilot)

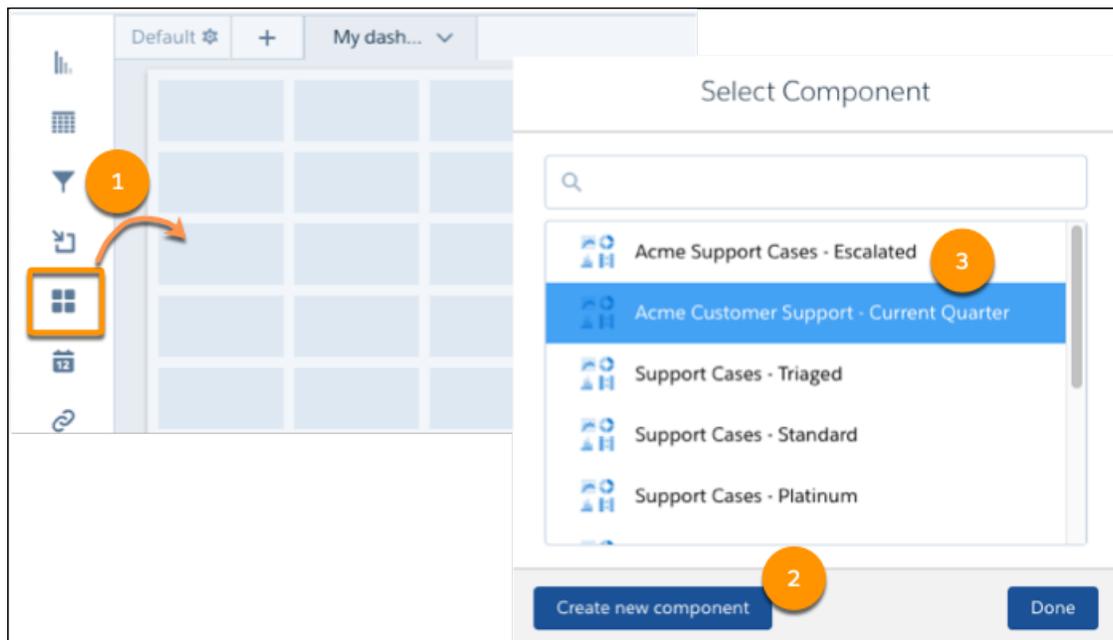
Want to easily reuse the same charts, tables, filters, text, and more in multiple dashboards? Want to manage everything in one place? Meet dashboard components. They're a new type of dashboard widget that can contain other widgets and pages. Best of all, they're a great way to fast-track how you create and manage dashboards with clicks instead of code.

**Note:** We provide Dashboard Components to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. Feature isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features. You can provide feedback and suggestions for Dashboard Components in the [Trailblazer Community](#).

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** Contact your Salesforce account representative to enable dashboard components in your org.

To get started, drop a dashboard component onto a dashboard (1). Create a new component (2) or use an existing one (3).



Add pages, charts, text, filters, and more to your component the same way you create a dashboard. When you save a component, you can use it in other dashboards as much as you want.

**Note:** These features aren't supported in dashboard components.

- Layouts
- Saved views
- Annotations
- Notifications
- Subscriptions
- Widget actions
- Packaging

- Links to dashboard components
- Data source linking in a dashboard component

## Develop Analytics Templates for Auto Installation

Minimize the user interaction required to manually create Analytics apps from the template wizard in Analytics Studio by developing templates that use the auto-install framework. The framework installs templated Analytics app in orgs via managed packages automatically. The dashboards created for these applications can be embedded in Lightning Experience pages, allowing users to interact with Einstein Analytics directly in Salesforce pages.

**Why:** You can design Analytics templates to create Analytics apps that don't need customization or user interaction. The auto-install template framework allows you to package your Analytics template, which when installed in a customer org, auto-installs your Analytics app from the template. Users aren't required to manually create the app from the template wizard in Analytics Studio.

**How:** To specify that your Analytics app template is part of the auto-install framework, create and add the new `auto-install.json` file in the template directory, alongside the `template-info.json` file. Then package your template and distribute it. Installation of the packaged template kicks off the auto-install process for your Analytics app.

Supported template types for this file are `app` and `embeddedapp`.

The `auto-install.json` file allows you to configure the name and type of the auto-install request via the hooks settings. The attributes are:

| Attribute Name           | Type   | Description   |
|--------------------------|--------|---|
| <code>type</code>        | string | The type of auto-install hook. For Winter '21, <code>PackageInstall</code> is the only supported type.                  |
| <code>requestName</code> | string | An optional name for the auto-install request. This name appears on the Auto-Installed Apps Setup page for the request. |

The `auto-install.json` file also allows you to set the app configuration settings. The app configuration settings include:

| Attribute Name                              | Type    | Description   |
|---|---------|---|
| <code>autoShareWithLicensedUsers</code>     | boolean | Indicates whether the app is automatically shared with users that have the <code>AnalyticsViewOnlyEmbeddedApp</code> license ( <code>true</code> ) or not ( <code>false</code> ). |
| <code>autoShareWithOriginator</code>        | boolean | Indicates whether the app is automatically shared with the user who initiated the auto-install request ( <code>true</code> ) or not ( <code>false</code> ).                       |
| <code>deleteAppOnConstructionFailure</code> | boolean | Indicates whether the app is deleted when the auto install request fails due to a construction error ( <code>true</code> ) or not ( <code>false</code> ).                         |
| <code>failOnDuplicateName</code>            | boolean | Indicates whether the app creation fails when an existing app or asset exists with the same developer name ( <code>true</code> ) or not ( <code>false</code> ).                   |
| <code>values</code>                         | Map     | A Map of variable values to use when creating the app. The variable names must correspond to variables defined in the <code>variables.json</code> file.                           |

Sample auto-install.json file:

```
{
  "hooks": [
    {
      "type" : "PackageInstall",
      "requestName" : "Hook for the Auto-Install Template"
    }
  ],
  "configuration" : {
    "appConfiguration" :{
      "failOnDuplicateNames" : false,
      "autoShareWithLicensedUsers" : true,
      "autoShareWithOriginator" : true,
      "deleteAppOnConstructionFailure" : true,
      "values" : {
        "value1" : "testString",
        "value2" : false
      }
    }
  }
}
```

To complete the designation of your template as an auto-install template, add the `autoInstallDefinition` attribute to your `template-info.json` file and the `name` attribute to your `folder.json` file.

## View Einstein Analytics Data Downloads in Your Event Log Files

For tracking, security, or compliance, you can now access logs of data downloads from Einstein Analytics. The download logs exposed in Event Monitoring include session id, user id, asset type and id, dataset id, Salesforce user type, download format (PNG, EXCEL, or CSV), and number of rows downloaded. Use the download log data to create your own datasets and dashboards.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** If you're an Event Monitoring customer, you automatically get the `WAVE_DOWNLOAD_EVENT` fields in event log data when your users work in Analytics.

SEE ALSO:

[EventLogFile Supported Event Types: Wave Download Event Type \(can be outdated or unavailable during release preview\)](#)

## Einstein Discovery: Custom Improvements Text, High Cardinality, and Enhanced Model Metrics

Customize user prompts for improvements. Enable high cardinality for one variable in a story. Determine whether your data has a normal distribution with the new QQ plot.

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## IN THIS SECTION:

[Guide User Actions with Custom Improvement Text](#)

Einstein Discovery improvements are suggested actions that users can take to improve predicted outcomes. Previously, these suggestions used generic, impersonal text. Now you can customize this text to provide targeted, more specific instructions. You can communicate your organization's recommended practices within the context of your business operations using a tone that reflects your organization's culture. Direct your users to the best possible outcomes.

[Enable High Cardinality for One Variable in a Story](#)

High cardinality variables can be hard to interpret and visualize due to their high number of unique values. For this reason, Einstein Discovery ignored unique values above 100 in these variables or grouped them into a reserve category. Now you can add high cardinality variables to a story. Einstein Discovery automatically alerts you when it detects variables containing more than 100 unique values. You can either let Einstein Discovery handle these variables as before, or control how the variables are used.

[Visually Determine Whether Your Data Is Normally Distributed](#)

For regression models, one of the key assumptions is that the residual errors for the outcome variable are normally distributed. Use the new QQ (quantile-quantile) plot to quickly check this assumption and determine whether and how residual errors depart from normality. If the QQ plot shows your residual errors to be approximately linear, then you can be confident that your model satisfies the normal distribution assumption.

[Update Your Models Regularly with Automatic Refresh](#)

Over time, a deployed model's performance can drift. The model becomes less accurate in predicting outcomes due to changes in the business environment, data, or requirements. To combat drift, refresh your model occasionally by adjusting story settings, retraining it on newer data, and redeploying it. With automatic refresh, you can now schedule weekly or monthly model updates. Unattended refreshes give you peace of mind knowing that your models are regularly updated to reflect the latest, best version.

[Stay Informed with Dataset Change Notifications and Applied Filters](#)

We've made it easier to get more accurate insights with notifications of changes to the underlying dataset, and at-a-glance visibility of variable filters. When a story is updated, dataset changes that impact your story triggers a notification banner. The alert prompts you to review your settings and consider creating a new story version based on the latest available data. Filters applied to story variables are now more easily seen within story settings, so you can easily focus or expand your data analysis

[Embed Predictions in Your Dataset During Data Prep](#)

Give your predictions direct-to-dashboard visibility. Use the new Einstein Predict transformation for Data Prep to calculate and store predictions in your dataset. You can even store descriptions of top predictors and improvements. When you run a recipe with an Einstein Predict node, Einstein estimates and saves predicted outcomes on a row-by-row basis. Populate your datasets with predictive and prescriptive intelligence to quickly evaluate predictions across a large set of data, assess multiple models before deploying them into production, and aggregate this information in a dashboard.

[Minimize Disparate Impact in Your Stories with Sensitive Variables](#)

In Einstein Discovery, you can identify and use variables that have the potential of bias in your story. It's important to monitor these sensitive variables to ensure that they don't negatively influence story insights. If recent story updates are affecting sensitive variables, Einstein Discovery may warn you of disparate impact, meaning other variables are being treated unequally in your model. A model trained on data with disparate impact can produce biased predictions.

[Jump-Start Story Creation Using Templates](#)

Not sure where to begin with identifying winning deals or shortening deal cycles? Let the templates build the app, prep and load data, then create a story version using the best practices to meet your goals. Review completed story findings, and then customize the story to meet your needs.

[Get Better Tuned XGBoost and GBM Models](#)

We improved the accuracy of models that are based on the XGBoost and GBM algorithms. We tuned internal settings for these models, so this change is automatic. If you compare model metrics between a model created in this release and a model created in a previous release, the metrics may differ.

### [Implement External Models in Your Salesforce Org \(Pilot\)](#)

Augment your predictive powers with externally built models that you can quickly start using in your production environment. In addition to the amazing models that Einstein Discovery builds from your stories, you can now upload and deploy models that are created outside of Salesforce. Your data scientists can use their favorite modeling tools to design, build, test, and tune TensorFlow models. Then, simply upload and deploy these carefully crafted models into your Salesforce org. Your users are up and running quickly, and using the model's predictions to achieve better outcomes.

### [Build Accurate Models Using Random Forest Algorithms \(Pilot\)](#)

Einstein Discovery now adds a fourth type of model that is based on a modeling algorithm known as *random forest*. Einstein Discovery uses this supervised learning algorithm to create highly accurate models via multiple decision trees, randomization, and other optimization techniques. You can compare a random forest model with other types of models to determine whether this algorithm provides better accuracy for your story.

### [Annotate Story Versions with Descriptions](#)

Ever forget the exact changes that were made in a story version? Maybe why a change was made or who made the change? Now you can add informative and detailed descriptions that provide clarity, accountability, while avoiding redundant work.

### [Cancel Story Creation During Analysis](#)

Ever wanted to include a last-minute change before clicking Create Story, but had to wait for it to finish just to delete it? You now have the option of interrupting a story after submitting it. No more searching for the story then manually deleting it.

### [Load Einstein Discovery Stories Faster](#)

Stories with a lot of insights can take longer to load. Einstein Discovery now opens with a story's top 15 insights, then loads more insights as you search for them. Top insights include all first order insights followed by the second order to complete the list.

#### SEE ALSO:

[Salesforce Einstein: Build Bots Faster with Templates, Make Opportunity Scoring More Relevant with Filters, and Search Personalization Is Generally Available](#)

## Guide User Actions with Custom Improvement Text

Einstein Discovery improvements are suggested actions that users can take to improve predicted outcomes. Previously, these suggestions used generic, impersonal text. Now you can customize this text to provide targeted, more specific instructions. You can communicate your organization's recommended practices within the context of your business operations using a tone that reflects your organization's culture. Direct your users to the best possible outcomes.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** You can customize improvement text in two places:

- During deployment using the Deployment Wizard, or
- After deployment using Model Manager

 **Note:** The screens in both places are nearly identical.

The Deployment Wizard prompts you during deployment. Enable improvements for one or more variables, and then select **Specify custom text**.

Deploy Model

**Select variables to enable improvements**

An improvement is a suggested action that a user can take to improve the likelihood of a desired outcome. Select variables that your organization can control, such as deciding which marketing campaign to use for a particular customer. Do not enable improvements for any variables that cannot be controlled, such as customer address information.

| Variable  | Type   |
|---|--------|
| <input type="checkbox"/> Total Charges            | number |
| <input checked="" type="checkbox"/> PaymentMethod | text   |
| <input type="checkbox"/> DeviceProtection         | text   |
| <input type="checkbox"/> Partner                  | text   |
| <input type="checkbox"/> Contract                 | text   |
| <input type="checkbox"/> OnlineBackup             | text   |
| <input type="checkbox"/> Paperless Billing        | text   |
| <input type="checkbox"/> TechSupport              | text   |
| <input type="checkbox"/> InternetService          | text   |
| <input type="checkbox"/> OnlineSecurity           | text   |
| <input type="checkbox"/> StreamingTV              | text   |
| <input type="checkbox"/> StreamingMovies          | text   |

**What user text do you want to display for improvements?**

Use the default text

Specify custom text

In Model Manager, open a prediction, select a model, select **Edit Settings** from the dropdown, and click the **Improvements** subtab. Enable improvements for one or more variables, and then select **Specify custom text**.

**What user text do you want to display for improvements?**

Use the default text

Specify custom text

**StreamingTV** Text Options

| Suggested Value | Custom Text                        |
|-----------------|------------------------------------|
| Any value ⓘ     | <input type="checkbox"/> Customize |

[Add](#)

For each text variable that you want to customize, click **Add** and specify one or more text values and their associated custom user prompts.

**StreamingTV** Text Options

| Suggested Value | Custom Text   |
|-----------------|---|
| basic ×         | <input checked="" type="checkbox"/> Customize Upgrade to Premium <span style="float: right;">🗑️</span>        |
| inactive ×      | <input checked="" type="checkbox"/> Customize Activate Internet Service <span style="float: right;">🗑️</span> |
| Any value ⓘ     | <input type="checkbox"/> Customize  |

[Add](#)

For each number variable that you want to customize, specify the custom text you want for increasing or decreasing the value.

| Fare            |                    | Text Options |
|-----------------|--------------------|--------------|
| Suggested Value | Custom Text        |              |
| Increase value  | Use default text ▼ |              |
| Decrease value  | Use default text ▼ |              |

Save your changes. Einstein Discovery communicates with your users using your custom improvements messaging.

SEE ALSO:

[Einstein Discovery: Custom Improvements Text, High Cardinality, and Enhanced Model Metrics](#)

### Enable High Cardinality for One Variable in a Story

High cardinality variables can be hard to interpret and visualize due to their high number of unique values. For this reason, Einstein Discovery ignored unique values above 100 in these variables or grouped them into a reserve category. Now you can add high cardinality variables to a story. Einstein Discovery automatically alerts you when it detects variables containing more than 100 unique values. You can either let Einstein Discovery handle these variables as before, or control how the variables are used.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** You can include one high cardinality variable, with a maximum of 200 unique values, in a story. All other variables are limited to 100 unique values. You can also combine field values to minimize unique values.

Here's a sampling of a high cardinality variable, Industry. We want to use the variable, however, it contains a high number of unique values.

| SIC Description                  | Value |
|----------------------------------|-------|
| Actors                           | 1     |
| Activity centre (sports)         | 1     |
| Actual services                  | 1     |
| Actuator (electro-magnet...)     | 1     |
| Actuator for hydraulic equi...   | 1     |
| Adding machines (wholes...       | 1     |
| Adhesive binding of books...     | 1     |
| Adhesive dressings, catgut...    | 1     |
| Adhesive labels of plastic...    | 1     |
| Adhesive repair material ...     | 1     |
| Adjustable seat mechanis...      | 1     |
| Adjuster (insurance)             | 1     |
| Administration and operat...     | 1     |
| Administration of defens...      | 1     |
| Adoption activities (chari...    | 1     |
| Adults' fur and leather cl...    | 1     |
| Adventure playground             | 1     |
| Advertising agencies             | 1     |
| Advertising catalogue prin...    | 1     |
| Advertising film production      | 1     |
| Advertising light (manufa...     | 1     |
| Advertising material publis...   | 1     |
| Advertising newspaper pu...      | 1     |
| Advertising space or time (...)  | 1     |
| Advertising video producti...    | 1     |
| Advisory and pre-design ar...    | 1     |
| Advisory services in conne...    | 1     |
| Advisory, conciliation and ...   | 1     |
| Advocate of the Scottish bar     | 1     |
| Adze (manufacture)               | 1     |
| Aerated water (manufactu...      | 1     |
| Aeration plant for effluent ...  | 1     |
| Aerial (domestic) (manufa...     | 1     |
| Aerial cable-ways operation      | 1     |
| Aerial erection (domestic)       | 1     |
| Aerial mast (self supportin...   | 1     |
| Aerial photography (other ...    | 1     |
| Aerial photography for cal...    | 1     |
| Aerial ropeway and cablew...     | 1     |
| Aero engine manufacture ...      | 1     |
| Aerodrome                        | 1     |
| Aerographing (manufactur...      | 1     |
| Aeroplane cleaning (non-s...     | 1     |
| Aerosol cans made of met...      | 1     |
| Aerosol filling on a fee or c... | 1     |
| After shave lotion (manufa...    | 1     |
| Agents and agencies in eri...    | 1     |
| Agglomeration of coke (ma...     | 1     |
| Agglomeration of coke (m...      | 1     |
| Agistment services on a fe...    | 1     |
| Agricultural and forestry m...   | 1     |

Click **Edit Story**, select the high cardinality variable, then choose your possible actions on the Alerts tab.

| VARIABLE            | CORRELATION   |
|---------------------|---|
| # Amount (MAXIMIZE) | N/A   |
| A Type              | 23.4%   |
| # Discount          | 16.5%   |
| A Region            | 14.5%   |
| A Owner             | 12.9%   |
| A Account Status    | 8.2%  |
| # Close Date        | 4.8%  |
| A Account           | 3.3%  |
| A Name              | 3.1%  |
| A Lead Source       | 1.9%  |
| A Product Type      | 1.8%  |
| # # of Activities   | 1.7%  |
| A Industry          | 0.4% <span style="color: orange;">▲ High Cardinality</span> |

**High Cardinality**

This variable has 125 unique text values (categories). Einstein allows up to 100 unique categories per variable, although you can override this limit for one variable per story.

**Possible Actions**

- Combine remaining values into Other (Recommended)
- Allow high cardinality for Industry

You can also limit the number of unique values in a variable by excluding values from the story. Click the variable's **Settings** tab and deselect the values.

**Industry**

Alerts **Settings**

This variable contains sensitive data

**Values**      Unchecked values: Filter out ▼

Search values...

| VALUE NAME   | COUNT  |
|--|--------|
| <input checked="" type="checkbox"/> Agriculture        | 21,366 |
| <input checked="" type="checkbox"/> Banking            | 18,674 |
| <input checked="" type="checkbox"/> Education          | 1,583  |
| <input checked="" type="checkbox"/> Financial Services | 242    |
| <input checked="" type="checkbox"/> Government         | 2,424  |
| <input checked="" type="checkbox"/> Hospitality        | 11,424 |
| <input checked="" type="checkbox"/> Insurance          | 35,521 |
| <input checked="" type="checkbox"/> Legal              | 42,249 |

SEE ALSO:

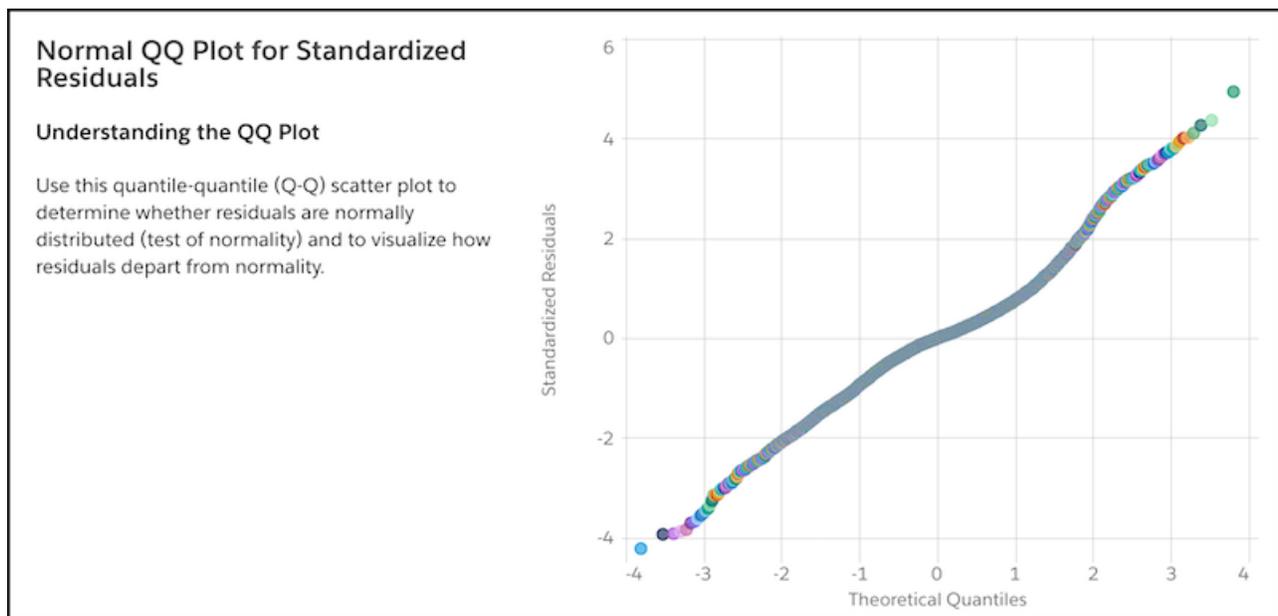
[Einstein Discovery: Custom Improvements Text, High Cardinality, and Enhanced Model Metrics](#)

## Visually Determine Whether Your Data Is Normally Distributed

For regression models, one of the key assumptions is that the residual errors for the outcome variable are normally distributed. Use the new QQ (quantile-quantile) plot to quickly check this assumption and determine whether and how residual errors depart from normality. If the QQ plot shows your residual errors to be approximately linear, then you can be confident that your model satisfies the normal distribution assumption.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** For a regression model, open Model Metrics, click **Model Evaluation**. On the Overall Performance subtab, scroll down to the Normal QQ Plot for Standardized Residuals. This example plot is visually linear, which confirms the assumption of a normal distribution.



If the plot is not linear, then consider revisiting the normal distribution assumption and investigate your data.

SEE ALSO:

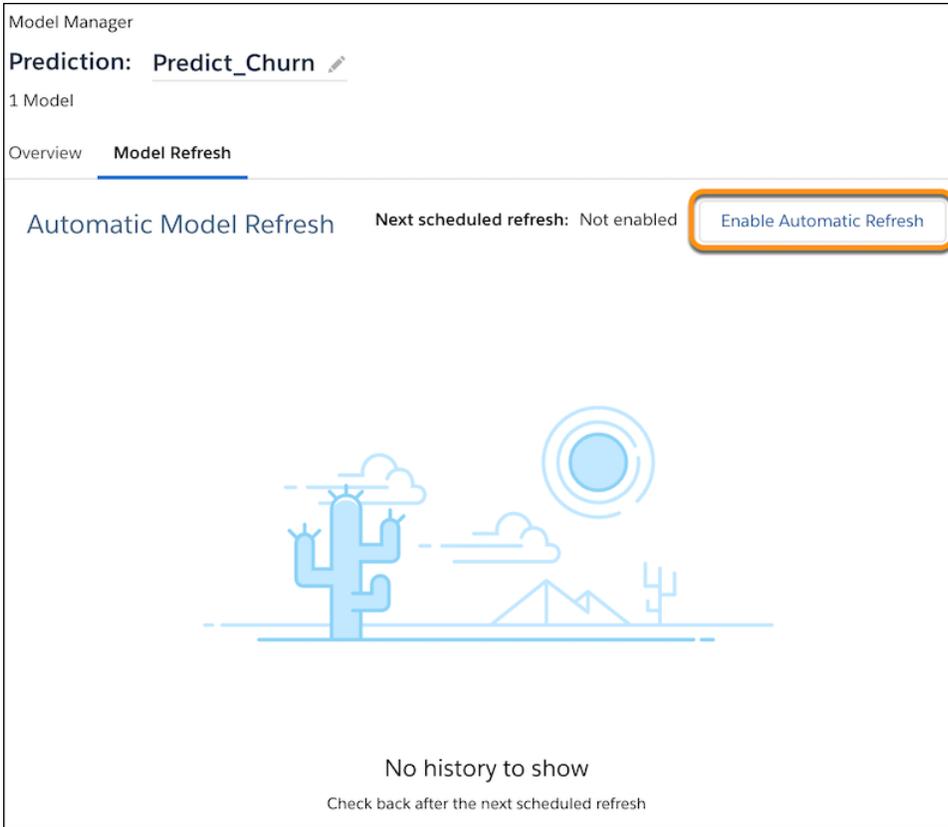
[Einstein Discovery: Custom Improvements Text, High Cardinality, and Enhanced Model Metrics](#)

## Update Your Models Regularly with Automatic Refresh

Over time, a deployed model's performance can drift. The model becomes less accurate in predicting outcomes due to changes in the business environment, data, or requirements. To combat drift, refresh your model occasionally by adjusting story settings, retraining it on newer data, and redeploying it. With automatic refresh, you can now schedule weekly or monthly model updates. Unattended refreshes give you peace of mind knowing that your models are regularly updated to reflect the latest, best version.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** In Model Manager, view a prediction, click the **Model Refresh** subtab, and click **Enable Automatic Refresh**.



Configure the refresh job settings, including frequency (monthly or weekly), day, and time that you want to refresh. Specify other settings as needed, such as adding users to notify when the model is refreshed, and then save your changes.

### Configure Model Refresh

**Schedule**

Refresh Frequency  
Monthly

Day of the Month  
1 [Use relative date](#)

Start Time  
12:00 AM

**Refresh Settings**

Models to Refresh  
 Churn

Refresh Warning Threshold  
5 %

Re-score records after refresh  Disabled

Who should be notified when the model is refresh?

Send email to  
Admin User  
[Edit Recipients](#)

[Cancel](#) [Save](#)

Whenever the refresh job completes, subscribed recipients receive an email notification, and the Model Refresh page displays the job history.

Model Manager: Prediction  
Increase Revenue [Refreshes Automatically](#) [Analyze Accuracy](#)

Overview Scoring **Model Refresh** Settings

Automatic Model Refresh [Learn more](#) Next scheduled refresh: 1/1/2020 at 12:00 AM [Refresh Now](#) [Edit Refresh Settings](#)

**Refresh History**

|  |  |
|--|--|
| 12/1/2019 at 12:00AM<br>✔ All models refreshed successfully. | <p><b>Refresh Details</b></p> <p>Schedule: Monthly, Day 1 at 12:00 AM<br/>Created by: Joe Smith<br/>Re-score Records: No</p> <p>Asia Pacific Model<br/>✔ Success<br/><a href="#">View Story</a></p> <p>European Model<br/>✔ Success<br/><a href="#">View Story</a></p> <p>Latin America Model<br/>✔ Success<br/><a href="#">View Story</a></p> |
|--|--|

## SEE ALSO:

[Einstein Discovery: Custom Improvements Text, High Cardinality, and Enhanced Model Metrics](#)

## Stay Informed with Dataset Change Notifications and Applied Filters

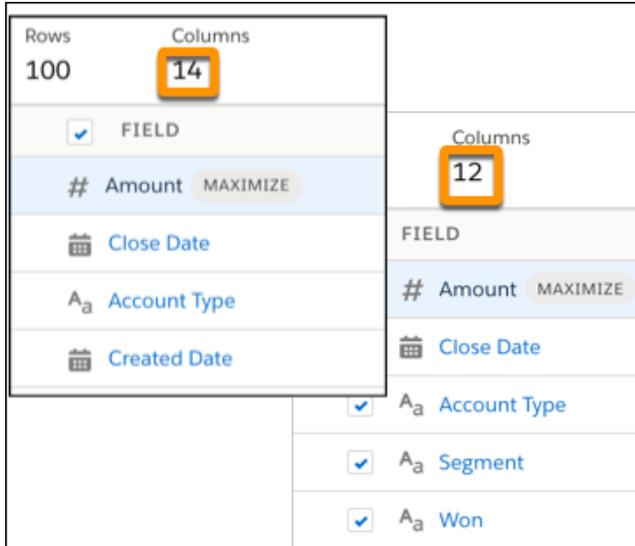
We've made it easier to get more accurate insights with notifications of changes to the underlying dataset, and at-a-glance visibility of variable filters. When a story is updated, dataset changes that impact your story triggers a notification banner. The alert prompts you to review your settings and consider creating a new story version based on the latest available data. Filters applied to story variables are now more easily seen within story settings, so you can easily focus or expand your data analysis

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** To review changes to the underlying dataset, click **Edit Story** then click the **banner** to see the updates.

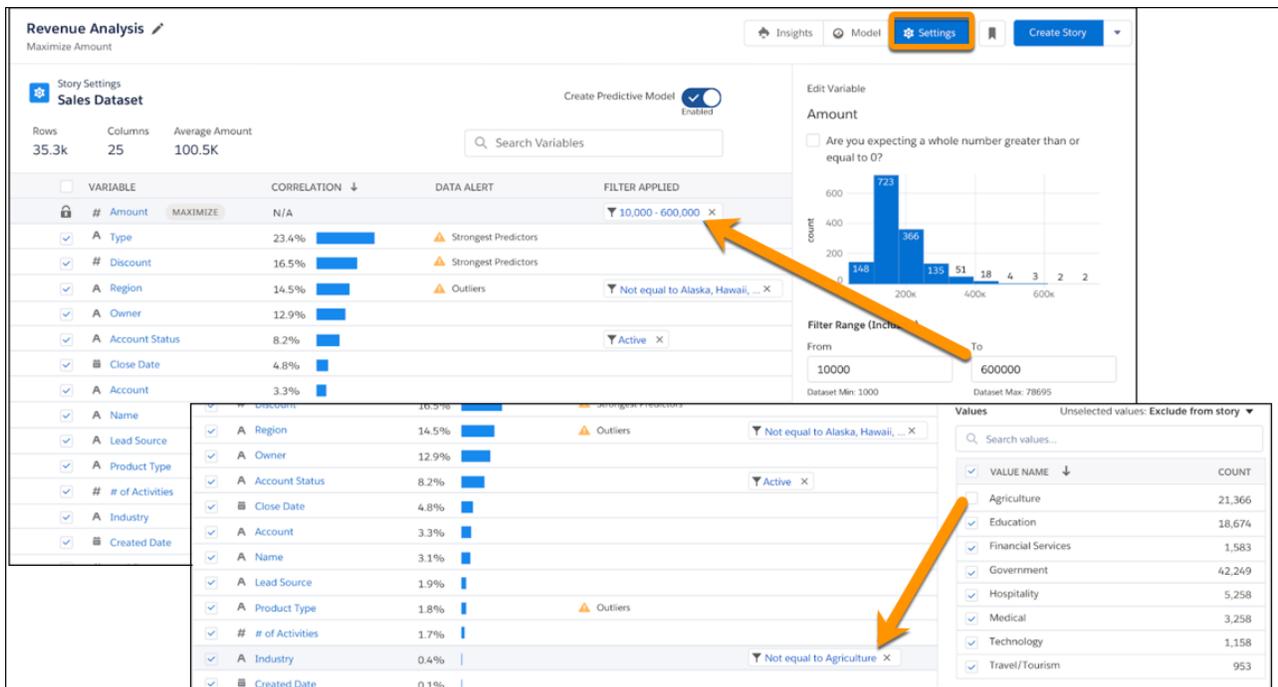
**i** The dataset used to create this story has changed. To review your story settings using the latest data, [click here](#)

In this example, the current story version has 14 columns (1). After clicking the notification, it shows are 12 columns (2) in the updated dataset.



Click **Update Story** to accept the changes or close story settings to ignore the notification.

View filters by clicking **Edit Story** to open story settings. Filters are listed in the **FILTER APPLIED** column.



To take advantage of the improved filtering and preserve filters from previous versions, update their filter settings and save them in a new story version.

SEE ALSO:

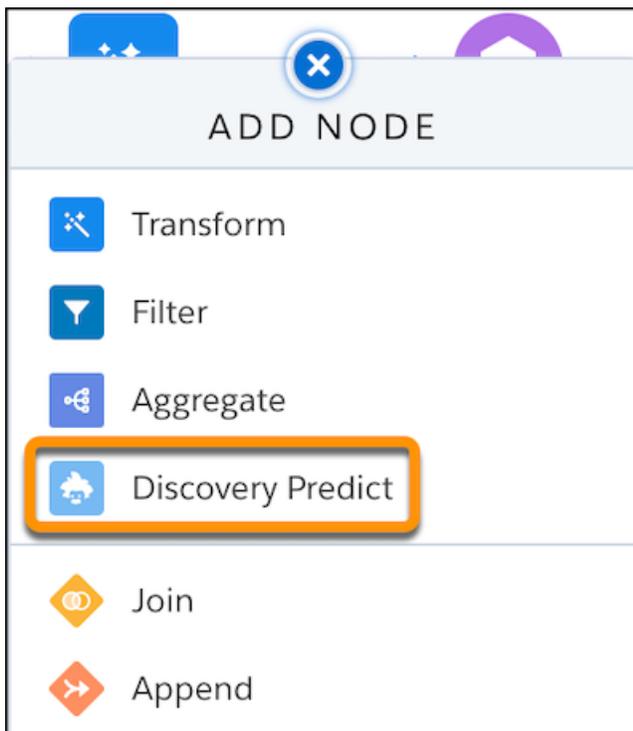
[Einstein Discovery: Custom Improvements Text, High Cardinality, and Enhanced Model Metrics](#)

## Embed Predictions in Your Dataset During Data Prep

Give your predictions direct-to-dashboard visibility. Use the new Einstein Predict transformation for Data Prep to calculate and store predictions in your dataset. You can even store descriptions of top predictors and improvements. When you run a recipe with an Einstein Predict node, Einstein estimates and saves predicted outcomes on a row-by-row basis. Populate your datasets with predictive and prescriptive intelligence to quickly evaluate predictions across a large set of data, assess multiple models before deploying them into production, and aggregate this information in a dashboard.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** In Data Prep, open a recipe that has at least one Input node. Select the Add Node button (+) between two nodes or at the end of the recipe, and select **Discovery Predict**.



Select an Einstein Discovery prediction deployed in your org, and then map all prediction fields to the recipe.

| Customer | StageName | State      | Close date               | Household Income | Revenue |
|----------|-----------|------------|--------------------------|------------------|---------|
| Cust1    | Discovery | Arizona    | 2017-12-12T00:00:00.000Z | 27500            | 800     |
| Cust2    | Discovery | California | 2017-12-12T00:00:00.000Z | 78500            | 800     |
| Cust3    | Discovery | Texas      | 2017-12-12T00:00:00.000Z | 160000           | 1400    |
| Cust4    | Discovery | Florida    | 2017-12-12T00:00:00.000Z | 97000            | 1050    |
| Cust5    | Discovery | Hawaii     | 2017-12-12T00:00:00.000Z | 177500           | 900     |
| Cust6    | Discovery | New York   | 2017-12-12T00:00:00.000Z | 124500           | 1250    |
| Cust7    | Discovery | Nevada     | 2017-12-12T00:00:00.000Z | 43500            | 900     |
| Cust8    | Discovery | Wisconsin  | 2017-12-12T00:00:00.000Z | 83500            | 900     |
| Cust9    | Discovery | Delaware   | 2017-12-12T00:00:00.000Z | 112500           | 1050    |
| Cust10   | Discovery | Washington | 2017-12-12T00:00:00.000Z | 186000           | 950     |
| Cust11   | Discovery | Arizona    | 2017-12-12T00:00:00.000Z | 101000           | 900     |
| Cust12   | Discovery | California | 2017-12-12T00:00:00.000Z | 163000           | 1200    |

Optionally, you can store top predictors and improvements in the dataset for quick and easy display on a dashboard.

SEE ALSO:

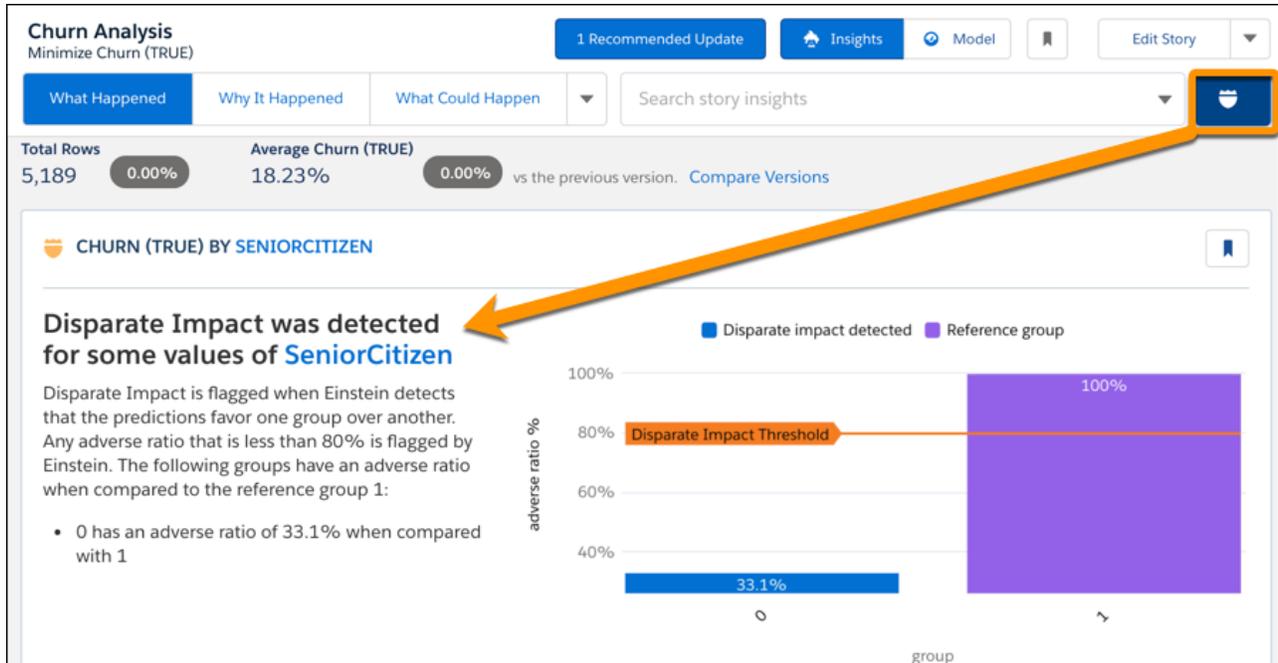
[Einstein Discovery: Custom Improvements Text, High Cardinality, and Enhanced Model Metrics](#)

## Minimize Disparate Impact in Your Stories with Sensitive Variables

In Einstein Discovery, you can identify and use variables that have the potential of bias in your story. It's important to monitor these sensitive variables to ensure that they don't negatively influence story insights. If recent story updates are affecting sensitive variables, Einstein Discovery may warn you of disparate impact, meaning other variables are being treated unequally in your model. A model trained on data with disparate impact can produce biased predictions.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** Disparate impact gets flagged in the story version where it occurs. Click the **shield** icon to review the insights.



Revisit your model, filter out sensitive variables, and investigate their insights. Use the details collected to help you decide if these sensitive variables serve your analysis or if they are to be removed.

SEE ALSO:

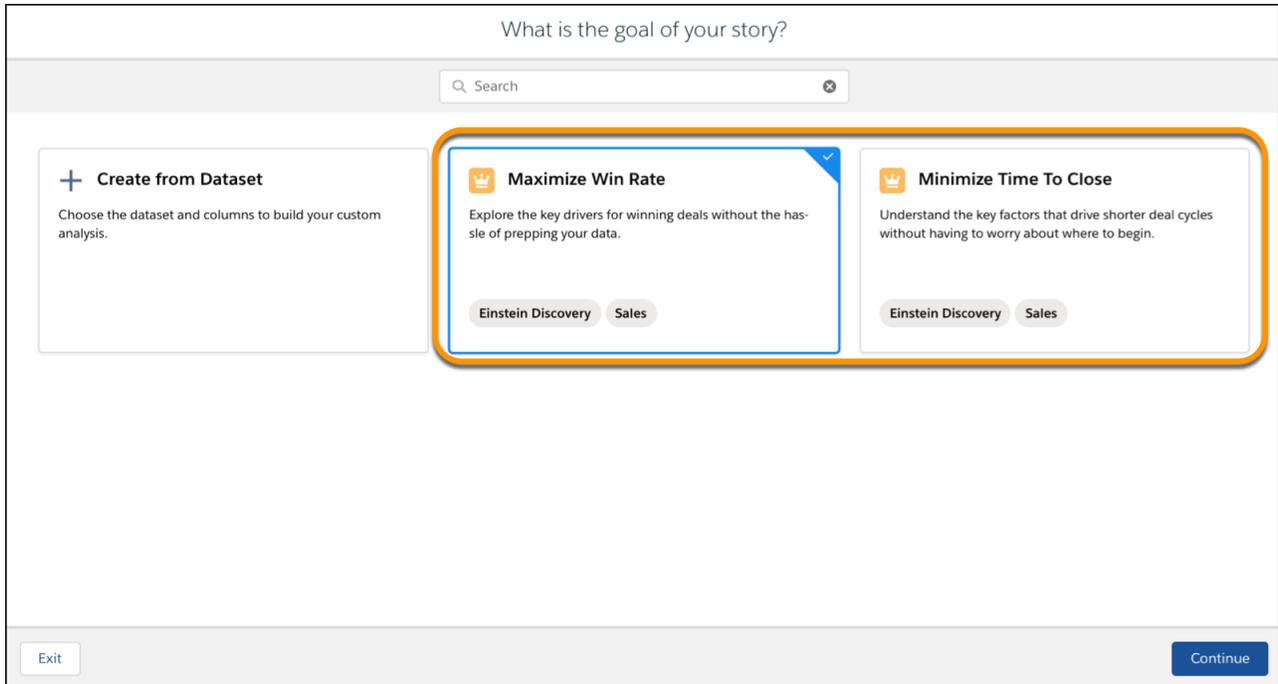
[Einstein Discovery: Custom Improvements Text, High Cardinality, and Enhanced Model Metrics](#)

## Jump-Start Story Creation Using Templates

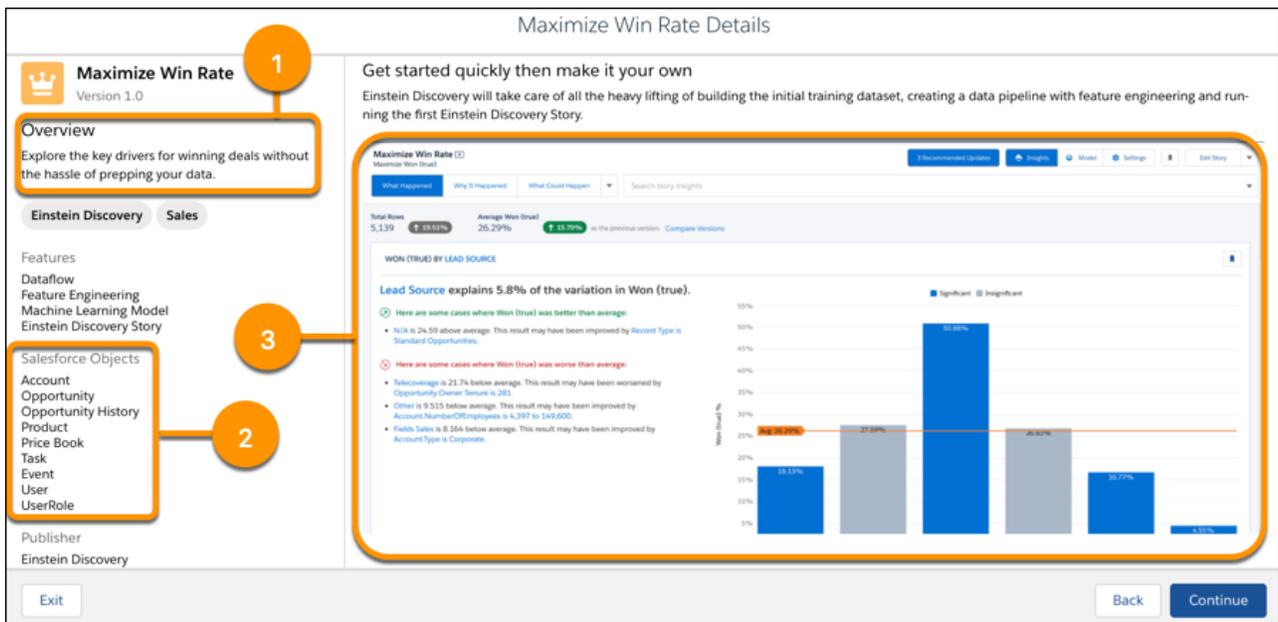
Not sure where to begin with identifying winning deals or shortening deal cycles? Let the templates build the app, prep and load data, then create a story version using the best practices to meet your goals. Review completed story findings, and then customize the story to meet your needs.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** In Analytics Studio, click **Create** then **Story**. Select one of the listed templates.



The template overview includes a description (1), a list of supported objects (2), and sample insights (3).



SEE ALSO:

[Einstein Discovery: Custom Improvements Text, High Cardinality, and Enhanced Model Metrics](#)

### Get Better Tuned XGBoost and GBM Models

We improved the accuracy of models that are based on the XGBoost and GBM algorithms. We tuned internal settings for these models, so this change is automatic. If you compare model metrics between a model created in this release and a model created in a previous release, the metrics may differ.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

SEE ALSO:

[Einstein Discovery: Custom Improvements Text, High Cardinality, and Enhanced Model Metrics](#)

## Implement External Models in Your Salesforce Org (Pilot)

Augment your predictive powers with externally built models that you can quickly start using in your production environment. In addition to the amazing models that Einstein Discovery builds from your stories, you can now upload and deploy models that are created outside of Salesforce. Your data scientists can use their favorite modeling tools to design, build, test, and tune TensorFlow models. Then, simply upload and deploy these carefully crafted models into your Salesforce org. Your users are up and running quickly, and using the model's predictions to achieve better outcomes.

 **Note:** We support external model import functionality to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. External model import is not generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only based on generally available products and features. You can provide feedback and suggestions for external model import in the applicable IdeaExchange group in the Trailblazer Community.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

 **Note:** This pilot supports TensorFlow models only. You must bundle all associated model files in a Zip file.

**How:** Open Model Manager and click **Upload** to launch the Upload Model wizard.

## Upload a Model

This wizard guides you through the steps to upload an external model to Salesforce.

### Enter model details

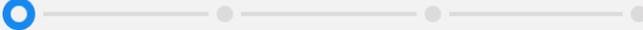
\* Model Name

Description

**Model Type**

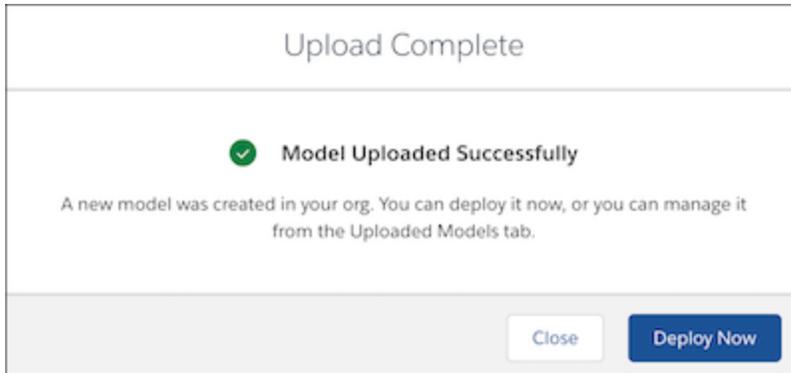
Regression  
 Binary Classification

Model Runtime ⓘ





Specify details about this model, then click **Next** to specify all model variables and select the outcome the model predicts. Select the Zip file containing the TensorFlow model files and click **Done**. You can either deploy this model immediately into your Salesforce environment, or click **Close** to add it to the Uploaded Files tab for later deployment.



SEE ALSO:

[Einstein Discovery: Custom Improvements Text, High Cardinality, and Enhanced Model Metrics](#)

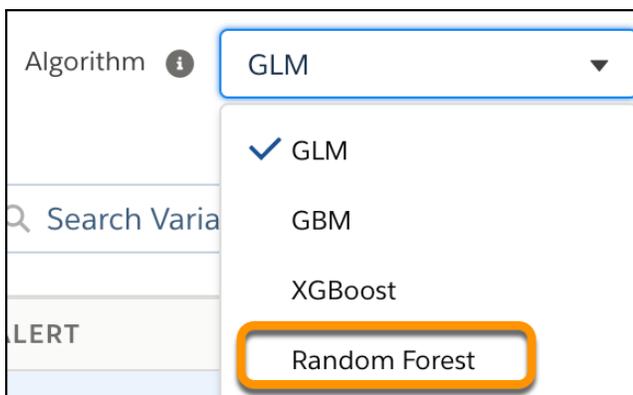
## Build Accurate Models Using Random Forest Algorithms (Pilot)

Einstein Discovery now adds a fourth type of model that is based on a modeling algorithm known as *random forest*. Einstein Discovery uses this supervised learning algorithm to create highly accurate models via multiple decision trees, randomization, and other optimization techniques. You can compare a random forest model with other types of models to determine whether this algorithm provides better accuracy for your story.

 **Note:** We provide random forest model functionality to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. Random forest models are not generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only based on generally available products and features. You can provide feedback and suggestions for random forest models in the applicable IdeaExchange group in the Trailblazer Community.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** In story setup, click the **Algorithm** list and select **Random Forest (Pilot)**.



After creating the story, go to Model Metrics and compare the accuracy of this model with models created using other algorithms.

 **Note:** For the pilot, random forest models are interpretable—the results of their analysis show up in the Why It Happened tab—but they cannot be deployed.

SEE ALSO:

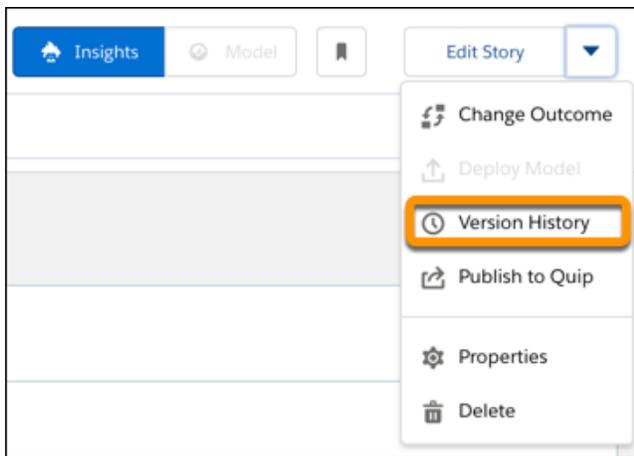
[Einstein Discovery: Custom Improvements Text, High Cardinality, and Enhanced Model Metrics](#)

## Annotate Story Versions with Descriptions

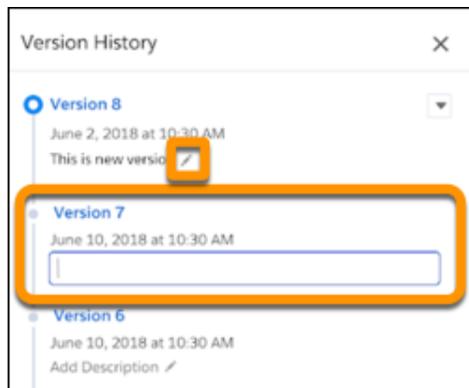
Ever forget the exact changes that were made in a story version? Maybe why a change was made or who made the change? Now you can add informative and detailed descriptions that provide clarity, accountability, while avoiding redundant work.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** To add a description, click the dropdown menu next to Edit Story then click **Version History**.



Click the edit icon for the version to update.



SEE ALSO:

[Einstein Discovery: Custom Improvements Text, High Cardinality, and Enhanced Model Metrics](#)

## Cancel Story Creation During Analysis

Ever wanted to include a last-minute change before clicking Create Story, but had to wait for it to finish just to delete it? You now have the option of interrupting a story after submitting it. No more searching for the story then manually deleting it.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** The **Cancel Story** button appears after initiating a new story or revision. Click the button to halt the process.



Canceling a new story returns you to the Home page. Canceling a revision returns you to the current story version.

SEE ALSO:

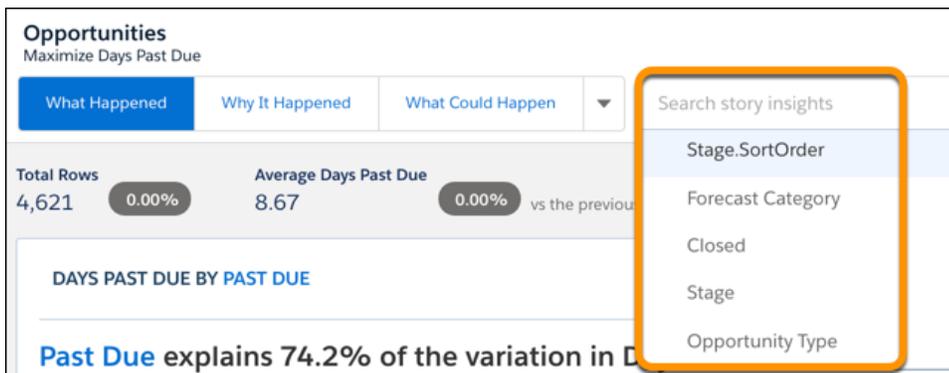
[Einstein Discovery: Custom Improvements Text, High Cardinality, and Enhanced Model Metrics](#)

## Load Einstein Discovery Stories Faster

Stories with a lot of insights can take longer to load. Einstein Discovery now opens with a story's top 15 insights, then loads more insights as you search for them. Top insights include all first order insights followed by the second order to complete the list.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** Open a story to automatically load the top insights. Load more insights by scrolling towards the bottom of the list or use search to retrieve related insights.



SEE ALSO:

[Einstein Discovery: Custom Improvements Text, High Cardinality, and Enhanced Model Metrics](#)

## Analytics for Everyone: Watchlist (Generally Available), Dynamic Lens Subscriptions (Generally Available), Image Security

Track metrics across multiple dashboards and monitor changes over time with Watchlist, which is now generally available and comes enabled in your Salesforce org. Get timely email updates with subscriptions, also now generally available, and subscribe to lenses as well as dashboard widgets. Use new image security controls to prevent sharing or downloading sensitive images of dashboards and lenses.

## IN THIS SECTION:

[Monitor Important Metrics with the Einstein Analytics Watchlist \(Generally Available\)](#)

The Einstein Analytics Watchlist gives you the advantage of capturing and tracking up to 20 KPIs across different dashboards, plus historical trending. Track your metrics in one place, meaning no more switching between dashboards to see what's changed. This feature is now generally available.

[Subscribe to Lenses and Dashboard Widgets for Timely Email Updates \(Generally Available\)](#)

No more hunting for the metrics, charts, and tables that you routinely consult. Let them come to you in daily or weekly emails. Subscriptions are generally available, and now you can subscribe to lenses as well as dashboard widgets. Lens subscriptions work the same as widget subscriptions, with one exception. While a widget subscription is based on a snapshot of your query, a lens subscription is dynamic. This means any change saved to a subscribed lens is automatically reflected in the subscription email and preview.

[Control Who Shares Dashboard and Lens Images](#)

Restrict image downloads and shares with a new setting and new permission. By default, all users can share images of lenses, dashboard widgets, and whole dashboards that contain your org's data. Use the new controls to prevent users or profiles from sharing sensitive images.

[Get Ready for the Winter '21 Versions of Einstein Analytics for iOS and Android](#)

Check this page in coming weeks to learn what's new in mobile. Access early previews of the Analytics mobile apps by signing up for our beta channel at <https://mobileanalyticsbeta.salesforce.com>.

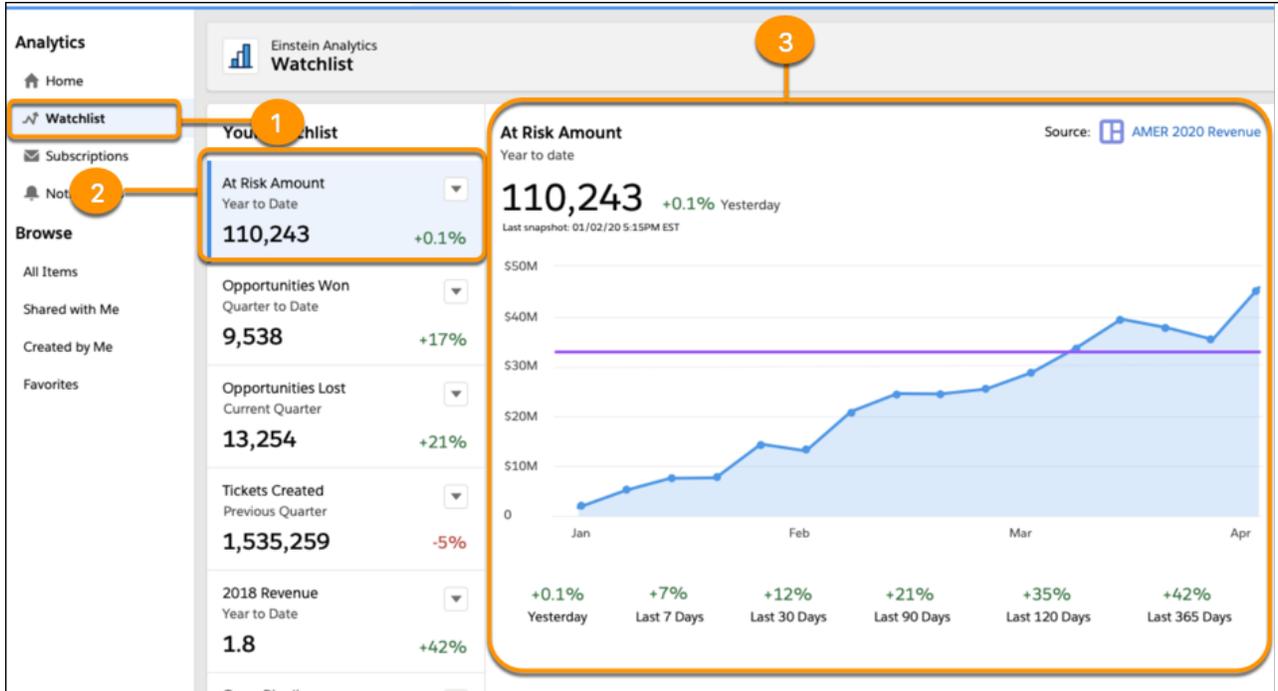
## Monitor Important Metrics with the Einstein Analytics Watchlist (Generally Available)

The Einstein Analytics Watchlist gives you the advantage of capturing and tracking up to 20 KPIs across different dashboards, plus historical trending. Track your metrics in one place, meaning no more switching between dashboards to see what's changed. This feature is now generally available.

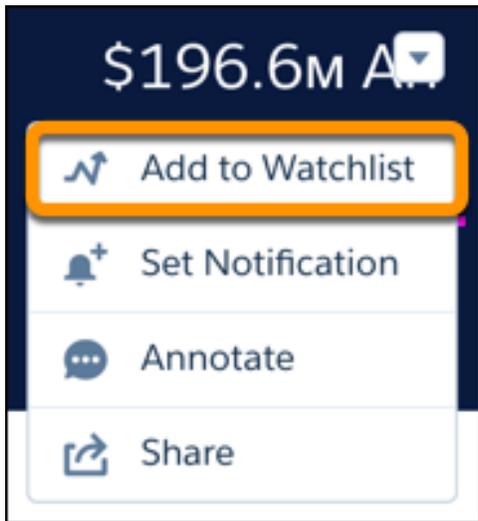
**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** Watchlist is automatically enabled on your org, but you can disable it. From Setup, in the Quick Find box, enter **Analytics**, and then select **Settings**. Deselect **Enable Watchlist**.

With the Watchlist (1), users can create a personalized list of up to 20 metrics. Click Watchlist items to view metric values (2), and timeline charts (3).



No more switching between dashboards to see what has changed, users can quickly and easily track their metrics all in one place. Get your Watchlist started by adding metrics directly from a dashboard. Simply select **Add to Watchlist** from a widget's menu.



Give the metric a name (1), select how positive and negative changes are reported (2), and add an optional reference line (3) for trend comparisons.

### Add to Watchlist

Metric Name

Use symbols (% , \$, and so on) in your metric name to signify value, "Revenue (£)".

**Change Format**

Standard: An increase in change is optimistic (e.g. +5%).

Reversed: An increase in change is pessimistic (e.g. -5%).

---

**Reference Lines** ×

Value

Label

Color

Snapshots occur daily, and you can expect to see your metrics and charts on your Watchlist 24 hours after adding them.

## Subscribe to Lenses and Dashboard Widgets for Timely Email Updates (Generally Available)

No more hunting for the metrics, charts, and tables that you routinely consult. Let them come to you in daily or weekly emails. Subscriptions are generally available, and now you can subscribe to lenses as well as dashboard widgets. Lens subscriptions work the same as widget subscriptions, with one exception. While a widget subscription is based on a snapshot of your query, a lens subscription is dynamic. This means any change saved to a subscribed lens is automatically reflected in the subscription email and preview.

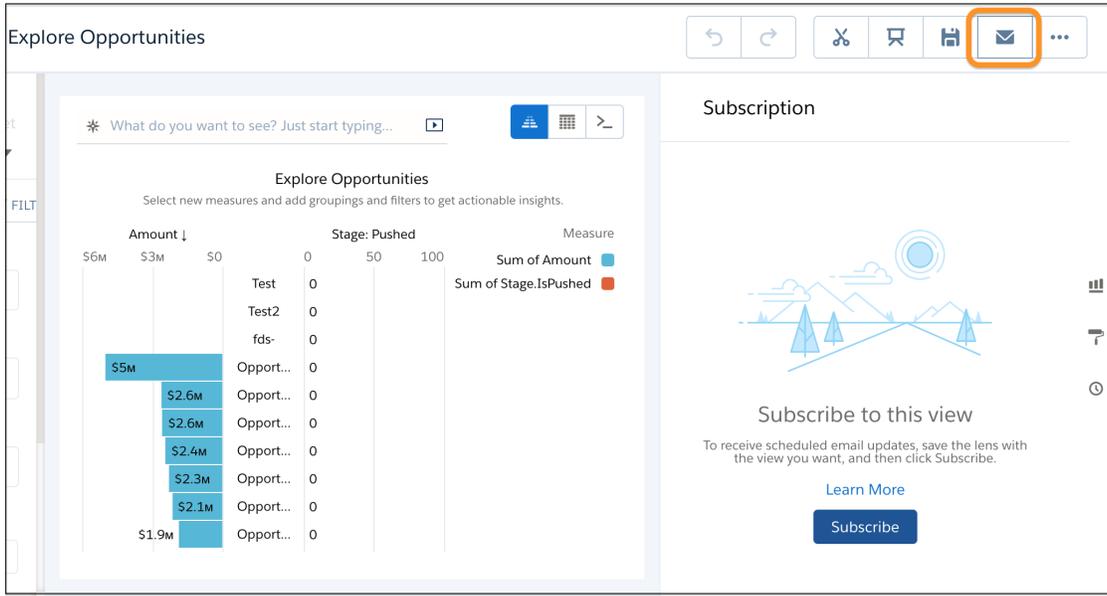
**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**Who:** To access subscriptions, users need the Use Subscription Emails user permission in a permission set associated with an Einstein Analytics Growth or Einstein Analytics Plus license. To subscribe to tables and receive email with the table data in attached .csv files, users also need the Download Analytics Data user permission. Note that the permission we used for the beta feature, Subscribe to Einstein Analytics Tables, is no longer available.

**How:** Assign the Use Subscription Emails permission for users or profiles that you want to allow to receive email with your org's data. Note that the org preference we used for the beta feature, **Enable email subscriptions to Einstein Analytics dashboard widgets**, is no longer available in Analytics Settings.

 **Important:** Existing subscriptions continue to be available, but you must assign the new permission for users to access them.

To subscribe to a lens, first save it in explorer. Then click the Show Subscriptions icon () to open the Subscription panel, and click **Subscribe**.



You can subscribe to any lens that is saved in SAQL format in the explorer. If you must convert a lens to SAQL, we let you know when you try to subscribe. To convert to SAQL, open Query Mode, click **Run Query**, and then save the lens.

The screenshot shows the Einstein Analytics interface in Query Mode. The "Query" editor is open, displaying a SAQL query. The "Run Query" button is highlighted with an orange box. Below the query editor, a table with columns "Opportunity Name", "Sum of Amount", and "Sum of Stage.IsPushed" is visible.

```

1 q = load "opportunity1";
2 q = filter q by 'IsClosed' == "false";
3 q = group q by 'Name';
4 q = foreach q generate 'Name' as 'Name', sum('Amount') as 'sum_Amount', sum('Stage
   .IsPushed') as 'sum_Stage.IsPushed';
5 q = order q by 'sum_Amount' desc;
6 q = limit q 2000;

```

**Note:** Because a lens subscription is dynamically in sync with its lens, you can't delete a lens while there's a subscription to it.

SEE ALSO:

[Salesforce Help: Get Scheduled Updates with Email Subscriptions \(can be outdated or unavailable during release preview\)](#)

## Control Who Shares Dashboard and Lens Images

Restrict image downloads and shares with a new setting and new permission. By default, all users can share images of lenses, dashboard widgets, and whole dashboards that contain your org's data. Use the new controls to prevent users or profiles from sharing sensitive images.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**How:** From Setup, in the Quick Find box, enter *analytics*, and then select **Settings**. On the Settings page, select **Secure Image Sharing and Downloading**. This setting blocks image sharing for everyone in your org.

Now you can allow image sharing by user or profile. From Setup, in the Quick Find box, enter *users*, and then select **Permission Sets**. Edit the permission set where you want to enable image sharing, open System Permissions, and then select **Share Analytics Images**.

With the Share Analytics Images user permission enabled, users can do the following actions with images of lenses, dashboard widgets, and whole dashboards.

- Download .png images
- Export images to Quip
- Post images to Chatter
- Include images in annotations
- Share images from conversational explorations and subscription previews

## Get Ready for the Winter '21 Versions of Einstein Analytics for iOS and Android

Check this page in coming weeks to learn what's new in mobile. Access early previews of the Analytics mobile apps by signing up for our beta channel at <https://mobileanalyticsbeta.salesforce.com>.

**Where:** These changes apply to Einstein Analytics for iOS and Android. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited Editions.

## What's New In SAQL: Support for Custom Fiscal Year, Multi-Value Field Conversion to Strings

SAQL functionality continues to expand with custom fiscal year support, multi-value fields-to-string functionality, and additional string, math, and date functions.

### IN THIS SECTION:

#### [Get Custom Fiscal Year Support in Einstein Analytics \(Generally Available\)](#)

Einstein Analytics can now inherit custom fiscal years defined in Salesforce. After they're inherited, you can create dashboards and write SAQL queries that use this data.

#### [Convert Multi-Value Fields to String Fields in SAQL](#)

Querying multi-value fields presents a challenge: Only one item appears in query results. By converting each set of multiple values to a single, alphabetical, delimited string, a new SAQL function, `mv_to_string()`, shows all items in a multi-value field. The field remains multi-value in the dataset. This change applies to the query projection and results only.

#### [Write Local Time Zone-Specific Queries with Single Custom Time Zone \(Beta\)](#)

Einstein Analytics now supports local time zone information in dashboards and SAQL queries. When you enable this feature, you can use the `DateTime` and `DateOnly` fields to write queries that pertain to a local time zone as opposed to GMT. Using the local time zone makes your query results more meaningful for a global audience. To learn more, see [Add Accuracy to Your Insights with Date and Time Data in Your Local Time Zone \(Beta\)](#) on page 273.

#### [Use Trigonometry and ASCII Conversion Functions in SAQL Queries](#)

Implement the same functionality as your other favorite query languages with SAQL's trigonometry and ASCII conversion functions.

[Access Date Information With More Functions for Fiscal Year Data](#)

From the team who brought you functions to retrieve the last day of a week, month, quarter, or year comes the same functionality for the first days. In addition to new first day functions, both first- and last- date functions are now available for fiscal year data. These functions work the same, but have the `fiscal` prefix.

## Get Custom Fiscal Year Support in Einstein Analytics (Generally Available)

Einstein Analytics can now inherit custom fiscal years defined in Salesforce. After they're inherited, you can create dashboards and write SAQL queries that use this data.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**Who:** To use SAQL, you must have an Analytics Platform license.

**How:** If you haven't already defined a custom fiscal year in Salesforce Setup, see [Salesforce Help](#).

Here's how to inherit a custom fiscal year in Einstein Analytics.

1. From Setup, in the Quick Find box, enter *Analytics*, and then select **Settings**.

2. Select **Inherit the custom fiscal year defined in Salesforce Setup**, and then click **Save**.

When selected, Einstein Analytics displays fiscal date values and filters based on the custom fiscal year defined in Salesforce Setup. When unselected, Einstein Analytics bases date values and filters on a standard fiscal year.

3. Choose which date to base fiscal year on.

a. **End Date**—If your fiscal year starts in April 2020 and ends in March 2021, your fiscal year is 2021.

b. **Start Date**—If your fiscal year starts in April 2020 and ends in March 2021, your fiscal year is 2020.

4. Click **Save**.

Custom fiscal year data is available on a per-dataset basis after each dataset's dataflow runs. Before working with custom fiscal year data in SAQL, make sure to run your dataflows after you define your custom fiscal year in Salesforce.

Einstein Analytics indicates custom fiscal year data by creating new fields that have the suffix `_Fiscal`. It evaluates the date fields to ensure that every record falls into the Fiscal Year, Fiscal Quarter, Fiscal Month, and Fiscal Week as defined in Salesforce Setup.

This SAQL query groups by the custom fiscal year field and shows the number of opportunities for each year. The `CreatedDate_Year_Fiscal` field has the `_Fiscal` suffix.

```
q = load "opportunities";
q = group q by 'CreatedDate_Year_Fiscal';
q = foreach q generate
'CreatedDate_Year_Fiscal' as 'Fiscal Year',
count() as 'count';
q = order q by 'CreatedDate_Year_Fiscal' asc;
q = limit q 2000;
```

| Fiscal Year | Count |
|-------------|-------|
| 2017        | 2     |
| 2018        | 1     |
| 2019        | 1     |
| 2020        | 1     |

| Fiscal Year | Count |
|-------------|-------|
| 2021        | 1     |
| 2022        | 1     |

## Convert Multi-Value Fields to String Fields in SAQL

Querying multi-value fields presents a challenge: Only one item appears in query results. By converting each set of multiple values to a single, alphabetical, delimited string, a new SAQL function, `mv_to_string()`, shows all items in a multi-value field. The field remains multi-value in the dataset. This change applies to the query projection and results only.

**Where:** This feature is available in Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**Who:** To use SAQL, you must have an Analytics Platform license.

**Why:** Say that you have a dataset that tracks which salespeople work with each account. The dataset has two columns: Account and Account Team, and Account Team is a multi-value field.

A simple query returns each account and the people working on that account, but the Account Team field shows only one person working on each account, even though there are more people.

```
q = load "Accounts"
q = foreach q generate
  'Account' as 'Account',
  'Account_Team' as 'Account Team';
```

| Account         | Account Team    |
|-----------------|-----------------|
| Acme            | Fred Williamson |
| DTC Electronics | Brian Alison    |
| Salesforce      | Nadia Smith     |

With the `mv_to_string()` function, analysts can convert the Account Team field from multi-value to an alphabetically sorted, delimited string. When converted to a string, the query results show everyone on each account team. And analysts can work with any of the SAQL string functions, for example, to search for names.

**How:** To convert a multi-value field to a string, invoke the `mv_to_string()` function.

```
q = load "Accounts";
q = foreach q generate
  'Account' as 'Account',
  mv_to_string('Account_Team') as 'Account Team';
```

The query now returns values of Accounts Team as a string delimited by a comma and a space (,)—the default delimiter—in alphabetical order.

| Account         | Account Team                              |
|-----------------|---|
| Acme            | Fred Williamson, Hank Chen, Sarah Vasquez |
| DTC Electronics | Brian Alison, Tessa McNaley               |

| Account    | Account Team |
|------------|--------------|
| Salesforce | Nadia Smith  |

To return a string with a custom delimiter, specify the delimiter as a string when invoking `mv_to_string()`.

```
q = load "Accounts";
q = foreach q generate
  'Account' as 'Account';
  mv_to_string('Account_Team', ";;") as 'Account Team';
```

The query returns the values of Accounts Team delimited by two semicolons (;;) in alphabetical order.

| Account         | Account Team                              |
|-----------------|---|
| Acme            | Fred Williamson;;Hank Chen;;Sarah Vasquez |
| DTC Electronics | Brian Alison;;Tessa McNaley               |
| Salesforce      | Nadia Smith                               |

`mv_to_string()` applies to non-grouped dimensions only. You can run filtering or grouping on a multi-value field post-projection.

Here's the syntax of the `mv_to_string()` function.

```
mv_to_string(multi-value_column_name, delimiter)
```

*multi-value\_column\_name*

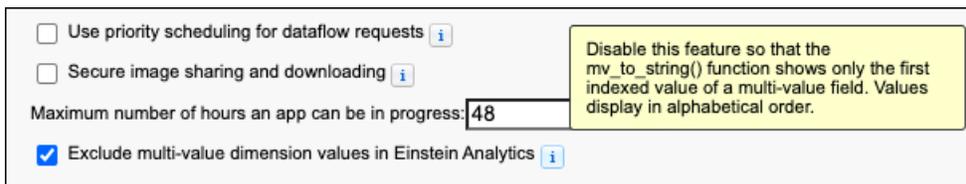
Name of the multi-value field to be converted to a string.

*delimiter*

Optional. The characters used to delimit values in the converted string. Maximum length is 2 characters. Default value is a comma followed by a space (,).

 **Note:** In order for `mv_to_string` to display all values of a multi-value field, dataset registration requires extra indexing. That indexing can slow registration down. If this is a concern, you can disable this feature in Setup. If you run `mv_to_string()` with the indexing turned off, the function returns the first value in the first field only.

1. Enter *Analytics* in the **Quick Find** box.
2. Select **Settings** from the list of Analytics options.
3. In Settings, click the checkbox for **Exclude multi-value dimension values in Einstein Analytics**.



Use priority scheduling for dataflow requests 

Secure image sharing and downloading 

Maximum number of hours an app can be in progress:

Exclude multi-value dimension values in Einstein Analytics 

Disable this feature so that the `mv_to_string()` function shows only the first indexed value of a multi-value field. Values display in alphabetical order.

SEE ALSO:

[Analytics SAQL Reference: mv\\_to\\_string\(\)](#)

## Write Local Time Zone-Specific Queries with Single Custom Time Zone (Beta)

Einstein Analytics now supports local time zone information in dashboards and SAQL queries. When you enable this feature, you can use the `DateTImE` and `DateOnLy` fields to write queries that pertain to a local time zone as opposed to GMT. Using the local time zone makes your query results more meaningful for a global audience. To learn more, see [Add Accuracy to Your Insights with Date and Time Data in Your Local Time Zone \(Beta\)](#) on page 273.

## Use Trigonometry and ASCII Conversion Functions in SAQL Queries

Implement the same functionality as your other favorite query languages with SAQL's trigonometry and ASCII conversion functions.

**Where:** This change applies to Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**Who:** To use SAQL, you must have an Analytics Platform license.

**How:** The following functions are new.

### Math

- `pi (n)`
- `degrees (n)`
- `radians (n)`
- `sin (n)`
- `cos (n)`
- `tan (n)`
- `asin (n)`
- `acos (n)`
- `atan (n)`
- `sign (n)`

The trigonometry functions follow this pattern:

```
q = foreach q generate trigFunction(measurement) as value;
```

As an example, let's find the cosine of 60 degrees.

```
q = foreach q generate cos(radians(60)) as cosine;
```

First, the `radians ()` function converts 60 degrees to radians, which returns 1.0472. For those of you who remember geometry, that's  $\pi/6$ .

Then, it takes the cosine of 1.0472.

```
q = foreach q generate cos(1.0472) as cosine;
```

This query returns the value of approximately 0.5.

### String

- `ascii (n)`
- `chr (n)`

You can now convert the ASCII value of a character to UTF-8 and vice versa. Here's an example.

```
q = foreach q generate ascii("a") as int_value;
```

This query returns 97.

Now, let's convert the UTF-8 value back to ASCII

```
q = foreach generate chr(97) as char_value;
```

This query returns the character "a".

SEE ALSO:

[Analytics SAQL Reference: Math Functions](#)

[Analytics SAQL Reference: String Functions](#)

## Access Date Information With More Functions for Fiscal Year Data

From the team who brought you functions to retrieve the last day of a week, month, quarter, or year comes the same functionality for the first days. In addition to new first day functions, both first- and last- date functions are now available for fiscal year data. These functions work the same, but have the `fiscal` prefix.

**Where:** This feature is available in Einstein Analytics in Lightning Experience and Salesforce Classic. Einstein Analytics is available in Developer Edition and for an extra cost in Enterprise, Performance, and Unlimited editions.

**Who:** To use SAQL, you must have an Analytics Platform license.

**How:** Here are the new date functions available in SAQL.

### Standard Year Dates

- `week_first_day`
- `month_first_day`
- `quarter_first_day`
- `year_first_day`

### Fiscal Year Dates

- `fiscal_week_first_day`
- `fiscal_month_first_day`
- `fiscal_quarter_first_day`
- `fiscal_year_first_day`
- `fiscal_week_last_day`
- `fiscal_month_last_day`
- `fiscal_quarter_last_day`
- `fiscal_year_last_day`

Use them in a `foreach()` statement. You cannot use them in `group by`, `order by`, or `filter` statements.

 **Note:** You can't use fiscal date functions in recipes and dataflow transformations.

For both standard calendar year and fiscal year dates, follow this pattern:

```
q = foreach q generate timeSegment_firstOrLast_day(toDate('DateFieldName')) as
'TimeSegment FirstOrLast Day';
```

This example query uses a dataset of sales opportunities to return the first day of each month for the first five Close\_Date\_sec\_epoch fields. The opportunity closing dates are in Unix Epoch Time.

```
q = load "DTC_Opportunity";
q = foreach q generate month_first_day(toDate('Close_Date_sec_epoch')) as 'Month First
Day';
q = limit q 5;
```

Here are the query results.

| # | Account Team        |
|---|---------------------|
| 1 | 2015-11-01 00:00:00 |
| 2 | 2016-03-01 00:00:00 |
| 3 | 2016-09-01 00:00:00 |
| 4 | 2016-08-01 00:00:00 |
| 5 | 2016-06-01 00:00:00 |

To learn more about accessing custom fiscal year data in Einstein Analytics, see [Get Custom Fiscal Year Support in Einstein Analytics \(Generally Available\)](#) on page 304.

#### SEE ALSO:

[Analytics SAQL Reference: Work with Custom Fiscal Year Data](#)

[Analytics SAQL Reference: Last Day in the Week, Month, Quarter, or Year](#)

[Analytics SAQL Reference: First Day in the Week, Month, Quarter, or Year](#)

[Salesforce Help: Date Formats and Fiscal Dates for Source Data](#)

## Salesforce Einstein: Build Bots Faster with Templates, Make Opportunity Scoring More Relevant with Filters, and Search Personalization Is Generally Available

Bots are faster to build and more collaborative with intent model enhancements. Opportunity Scoring has filters to let you decide which records and fields are considered. Personalization tailors search results to the way each user works in Salesforce.

Learn about these Einstein features and more!

### Salesforce Overall

[Einstein Search: Personalization \(Generally Available\), Easier Setup at the Org Level, Smarter Natural Language Searches \(Beta\), and Searchable Renamed Objects Using Natural Language Search](#)

Personalization is now generally available. Enable this feature and all other features at the org level with just a few clicks. Get better natural language searches (beta) now that common words are ignored, and go ahead and rename an object supported by natural language search. Einstein Search can find it.

## Service

### **Einstein Bots: Everyone Can Bot with Intro Template, Intent Model Enhancements, and New Permissions**

This Einstein Bots release is all about bringing more bots to more people. Get started with Bots faster by creating a bot from a template in Guided Setup. Build robust intent models with Input Recommender, and invite more team members to build and manage your intent model with enhanced permissions. We're adding three new languages and innovative accessibility features to Map View. And you can add custom context variables to your bot to capture important incoming information about your customers.

## Sales

### **Sales Cloud Einstein: More Control of the Opportunity Scoring Model, Global Models for Lead Scoring, and Big Improvements to Einstein Activity Capture**

When setting up Einstein Opportunity Scoring, choose to have Einstein look only at certain opportunity records and custom fields. Use Einstein Lead Scoring even when you don't have enough data of your own. And get more out of Einstein Activity Capture with new connection and configuration options.

## Industries

### **Einstein Visit Recommendations: Plan Visits to the Right Stores at the Right Time**

Sales managers can stop worrying about which stores their sales reps must visit next because Einstein does it for them. Visit recommendations are based on and tailored to address your unique business requirements. Create one or more strategies based on your business requirements in Einstein Next Best Action.

## Analytics

### **Einstein Discovery: Custom Improvements Text, High Cardinality, and Enhanced Model Metrics**

Customize user prompts for improvements. Enable high cardinality for one variable in a story. Determine whether your data has a normal distribution with the new QQ plot.

## Customization

### **Einstein Builders: Deliver Personalized Recommendations (Beta), and Show Confidence Range and Top Predictors on Records for Numeric Predictions**

Einstein Recommendation Builder delivers personalized, AI-driven recommendations of anything to anyone. Einstein Prediction Builder supports record-level insights for numeric predictions.

## Development

### **Einstein Vision and Language: Image Recognition and Natural Language Processing**

Not a data scientist or machine-learning expert but still want to integrate AI into your apps? Use the Einstein Vision and Language APIs to easily AI-enable your apps with image recognition and natural language processing. Using the Einstein Vision APIs, you can leverage

pre-trained classifiers or train custom classifiers to solve a vast array of image recognition use cases. With the Einstein Language APIs, you can harness the power of natural language processing to analyze text and infer the sentiment or intent behind the text. Make your apps smarter and look like a genius at the same time.

## Commerce: Process Exceptions for Order Management and Enhanced Lightning B2B Commerce Capabilities

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Check out what's new in Salesforce Order Management and Lightning B2B Commerce.

### IN THIS SECTION:

[Salesforce Order Management: Process Exception Management, Order Summary Flows, Custom Payment Methods, and Custom Order Summary Numbers and Statuses](#)

Enhancements to Salesforce Order Management include the addition of tools to help you detect and respond to issues—process exceptions—that interrupt normal order processing, new and updated order summary flows, the ability to configure custom payment methods, and the ability to create order summaries with custom numbers and statuses.

[Lightning B2B Commerce: New Components for Deliveries and Order Summaries, Enhancements to Searchability, an Integration Dashboard, and the New Price Book Workspace](#)

Enhancements to Lightning B2B Commerce include two new components to help manage orders and deliveries. Improved searchability; allows flexibility around marking products searchable, improves messaging for no search results, and bookmarks search results that customers want to retain. Timeout limits ensure that buyers are seeing the most up-to-date information. The Product workspace has been enhanced to provide a bigger picture of your products. The new Pricing workspace provides a one-stop-shop for managing price books. And the integration dashboard helps you manage your integrations in one place.

## Salesforce Order Management: Process Exception Management, Order Summary Flows, Custom Payment Methods, and Custom Order Summary Numbers and Statuses

Enhancements to Salesforce Order Management include the addition of tools to help you detect and respond to issues—process exceptions—that interrupt normal order processing, new and updated order summary flows, the ability to configure custom payment methods, and the ability to create order summaries with custom numbers and statuses.

### IN THIS SECTION:

[Manage Order Process Exceptions](#)

Get real-time alerts when normal order processing is interrupted, and quickly identify, troubleshoot, and resolve issues to minimize customer impact.

[Access New and Updated Order Management Flows](#)

The Create Order Summary flow has been updated and a new Create Process Exception flow has been added.

[Create Order Summaries with Custom Numbers and Statuses](#)

When calling the Create Order Summary core action, you can specify values for the order summary number and status instead of changing the default values later.

### [Handle Custom Payment Methods](#)

Does your Salesforce B2C Commerce storefront accept custom or unusual payment methods? Now you can configure the integration to handle them by creating Gateway Provider Payment Method Type records. Learn how in the *Salesforce Order Management Implementation Guide*.

## Manage Order Process Exceptions

Get real-time alerts when normal order processing is interrupted, and quickly identify, troubleshoot, and resolve issues to minimize customer impact.

**Where:** This change applies to Salesforce Order Management, which is available for an additional cost in Lightning Experience in Enterprise, Unlimited, and Developer editions.

**Who:** This change is available to users with the Process Exception permission.

**Why:**

Salesforce Order Management lets you automate order processing across every stage in the order lifecycle. However, there are key steps in the order lifecycle during which failures can occur and interrupt order processing. A process exception occurs when there is a processing failure on an order summary and a separate process is required to resolve the issue before order processing can continue. Process exceptions can include failed fraud checks or payment captures, lack of available inventory, or issues with shipping carriers.

When a process exception occurs, Salesforce Order Management creates a process exception notification that displays across the top of the Order Summary page. You can see a list of all order summaries with process exceptions by selecting the Process Exceptions list view page from the Navigation bar. Select a record to see details for the process exception.

SEE ALSO:

[Salesforce Help: Process Exception Management \(can be outdated or unavailable during release preview\)](#)

## Access New and Updated Order Management Flows

The Create Order Summary flow has been updated and a new Create Process Exception flow has been added.

**Where:** This change applies to Salesforce Order Management, which is available for an additional cost in Lightning Experience in Enterprise, Unlimited, and Developer editions.

**Why:** The Create Order Summary flow has been updated to use a record type trigger for initiation, instead of a Process Builder flow. This means that you only need to clone the Flow Builder flow for this release. The Process Builder flow included in previous releases is no longer required.

A new Create Process Exception flow has been added to support the new process exception management feature. This flow uses the ProcessExceptionEvent platform event trigger to create a process exception.

## Create Order Summaries with Custom Numbers and Statuses

When calling the Create Order Summary core action, you can specify values for the order summary number and status instead of changing the default values later.

**Where:** This change applies to Salesforce Order Management, which is available for an additional cost in Lightning Experience in Enterprise, Unlimited, and Developer editions.

## Handle Custom Payment Methods

Does your Salesforce B2C Commerce storefront accept custom or unusual payment methods? Now you can configure the integration to handle them by creating Gateway Provider Payment Method Type records. Learn how in the *Salesforce Order Management Implementation Guide*.

**Where:** This change applies to Salesforce Order Management, which is available for an additional cost in Lightning Experience in Enterprise, Unlimited, and Developer editions.

## Lightning B2B Commerce: New Components for Deliveries and Order Summaries, Enhancements to Searchability, an Integration Dashboard, and the New Price Book Workspace

Enhancements to Lightning B2B Commerce include two new components to help manage orders and deliveries. Improved searchability; allows flexibility around marking products searchable, improves messaging for no search results, and bookmarks search results that customers want to retain. Timeout limits ensure that buyers are seeing the most up-to-date information. The Product workspace has been enhanced to provide a bigger picture of your products. The new Pricing workspace provides a one-stop-shop for managing price books. And the integration dashboard helps you manage your integrations in one place.

### IN THIS SECTION:

#### [Let External Users Buy for or Manage Users on External Managed Accounts](#)

Authorize external users to buy for other accounts and manage other account members from external managed accounts.

#### [Use Improved Order Summary Components](#)

It's never too soon to start making improvements. The updated order summary page has four new components: Order Summary Details, Order Summary Details Header, Order Summary Amount, and Order Summary Products. Now the order summary page looks and feels like other Lightning B2B Commerce pages, includes product images, and is mobile responsive and efficient. It also separates shipping charges from the products list. Best part: the components are all easily set up in Experience Builder. What about the old components? We removed them from the palette, but that doesn't affect anything that you built with them. If you delete the components from a page though, you can only add the new versions.

#### [Provide Accurate Checkout Information with Time to Live](#)

Timeout limits ensure that your buyers are getting up-to-date product information, including inventory and pricing. Use Time to Live (TTL) to set a timeout limit on your B2B Commerce checkout. Set limits appropriate to your organization and provide users with an easy path back to their cart.

#### [Connect Faster with the B2B Commerce Integration Dashboard](#)

See all your integrations in one place and manage them with a few clicks. An admin can now work in the Commerce app to accomplish what used to require code and developer know-how.

#### [Present Your Delivery Options with the Delivery Method Component](#)

With the new Delivery Method component for B2B Commerce, you can easily present and manage your delivery methods. The component functions as a subflow within the Checkout Flow and is included in the Checkout Flow Template.

#### [Give Buyers Clear Information About Volume Discounts](#)

The Tiered Pricing section of the Product Detail Card component got a makeover. The component property editor section name is now Tiered Discounts to clarify its purpose. And new settings let you enter headers for the quantity and discount rows.

#### [Manage Your B2B Commerce Pricing in the Pricing Workspace](#)

Get a full picture of your pricing strategy by viewing all your price books, or price book entries, at the same time. Use advanced filters, bulk actions, and bulk activation to quickly update multiple products.

[See All Your Products in One Place and Take Action on Them](#)

Product Workspace displays all products in your org, regardless of the store that they are associated with. New filter options make it easy to find which stores are associated with your product and easier to tailor your search results.

[View Associated Stores and Manage Searchability on Products](#)

Easily view which stores a product is associated with directly on the product record. The Stores tab displays all stores that a product is associated with. You can also mark products as Searchable or Not Searchable in a store from the Stores list.

[Associate Your Buyer Groups to Stores to See Pricing and Entitlements](#)

When a price book or entitlement is associated with a buyer group, make sure to connect that buyer group to your store. Buyer group price books and entitlements are only displayed in the store if the buyer group is also associated with that store. Previously, entitlements and price books were available globally after they were assigned to a buyer group and store assignment wasn't required.

[Bookmark Store Search Results](#)

Search components now have a mechanism for retaining results URLs, which means users can search in your store and bookmark their results. When users find the goods, they can get back to them easily without running another search.

[Get an Effortless No-Search-Results Experience](#)

The No Search Results page now comes populated with a no-results image and message. Right out of the box, when a search returns no results customers see a meaningful, professional looking message.

[Show or Hide Breadcrumbs in Product Search Results](#)

You can decide on the best search experience for your customers with a new configuration setting on the Results Layout component. Use the setting to show or hide navigational breadcrumbs on product search results.

[Add All Cart Items, Rename, and Delete Lists \(Beta\)](#)

A new set of features makes lists more flexible and easier than ever to work with. Buyers can add all cart items to a list in one action, rename their lists, and delete the lists that aren't useful anymore.

[Dismiss Cart Errors for Good](#)

When buyers trigger cart errors, they can dismiss them. Previously, when a cart error popped up, it stayed up. Now buyers never see the error again unless another action triggers the same error type.

## Let External Users Buy for or Manage Users on External Managed Accounts

Authorize external users to buy for other accounts and manage other account members from external managed accounts.

**Where:** This feature is new in Lightning Experience, in Unlimited, Enterprise, Performance, and Developer editions.

**Who:** This change applied to users with a B2B Commerce license.

**Why:** With Authorized Access, the managing user of an external managed account can manage permission sets for other users, reset passwords, and activate, deactivate, or add members to the target account. They can also make purchases from the target account.

**How:** The user requires the following permissions to be authorized additional access to the target account:

- **Buy For**—B2B Commerce User permission.
- **Manage Users**—Delegated External User Administrator.

When configuring an external managed account, you have the option of selecting **Manage Users** and **Buy For** under Authorized Access. If Manage Users is selected, the managing user can access the Account Management page on the target account and manage members from there. If Buy For is selected, the managing user can make purchases from the target account.

## Configure External Managed Account

**Managed By**

\* Account ? Account A X

\* User ? Search Users...

**Target Account**

\* Account ? Search Accounts...

**Authorized Access** ?

Available Access

- Buy For
- Manage Users

Selected Access

## SEE ALSO:

- [Allow Buyers to Buy for and Manage Other Accounts with Account Switcher](#)
- [Delegate External User Administration](#)

## Use Improved Order Summary Components

It's never too soon to start making improvements. The updated order summary page has four new components: Order Summary Details, Order Summary Details Header, Order Summary Amount, and Order Summary Products. Now the order summary page looks and feels like other Lightning B2B Commerce pages, includes product images, and is mobile responsive and efficient. It also separates shipping charges from the products list. Best part: the components are all easily set up in Experience Builder. What about the old components? We removed them from the palette, but that doesn't affect anything that you built with them. If you delete the components from a page though, you can only add the new versions.

**Where:** This feature is new in Lightning Experience, in Personal, Enterprise, Performance, and Developer editions.

**Who:** This feature is available to users with a B2B Commerce license.

## Provide Accurate Checkout Information with Time to Live

Timeout limits ensure that your buyers are getting up-to-date product information, including inventory and pricing. Use Time to Live (TTL) to set a timeout limit on your B2B Commerce checkout. Set limits appropriate to your organization and provide users with an easy path back to their cart.

**Where:** This change applies to Lightning Experience, in Personal, Enterprise, Performance, and Developer editions.

**Who:** This feature is available to users with a B2B Commerce license.

**Why:** Using Salesforce APIs, set time limits on your checkout experience. If a buyer user starts the checkout process, but doesn't complete the order, there's a chance that inventory and pricing information changes. Prevent users from finishing their checkout with incorrect information by setting limits on the amount of time a checkout can take. If the user exceeds the time limit, they can return to the cart and start over with fresh callouts to third-party services and a fresh cart.

## Connect Faster with the B2B Commerce Integration Dashboard

See all your integrations in one place and manage them with a few clicks. An admin can now work in the Commerce app to accomplish what used to require code and developer know-how.

**Where:** This change applies to Lightning Experience, in Personal, Enterprise, Performance, and Developer editions.

**Who:** This feature is available to users with a B2B Commerce license.

**Why:** Access the Integration Dashboard to see all your active and available integrations and the integration type. Integration types include Apex, Flow, Payment Gateway, and Salesforce Internal. Switch your currently mapped integration with a new integration that you already created. Easily find help when you have integration questions with linked documentation.

**How:** Navigate to your store landing page. Under **Manage Your Store**, select **Administration > Store Integrations**.

## Present Your Delivery Options with the Delivery Method Component

With the new Delivery Method component for B2B Commerce, you can easily present and manage your delivery methods. The component functions as a subflow within the Checkout Flow and is included in the Checkout Flow Template.

**Where:** This change applies to Lightning Experience, in Personal, Enterprise, Performance, and Developer editions.

**Who:** This feature is available to users with a B2B Commerce license.

**Why:** The Delivery Method component displays your delivery methods during checkout.

## Give Buyers Clear Information About Volume Discounts

The Tiered Pricing section of the Product Detail Card component got a makeover. The component property editor section name is now Tiered Discounts to clarify its purpose. And new settings let you enter headers for the quantity and discount rows.

**Where:** This feature is available in Lightning Experience, in Personal, Enterprise, Performance, and Developer editions.

**Why:** Reward your best customers with discounts when they buy in high volumes. As the quantity rises, give them a clear picture of the discounts that they can expect.

| TIER DISCOUNT            |           |           |           |           |           |
|--------------------------|-----------|-----------|-----------|-----------|-----------|
| <b>Quantity</b>          | 100 - 200 | 201 - 300 | 301 - 400 | 401 - 500 | 501 - 600 |
| <b>Discount per Unit</b> | 10%       | 15%       | 20%       | US\$75.00 | 30%       |

**How:** You can see these changes when you place a new Product Detail Card on a page. For existing placements, you can edit the component and revise headings and row labels in component properties.

## Manage Your B2B Commerce Pricing in the Pricing Workspace

Get a full picture of your pricing strategy by viewing all your price books, or price book entries, at the same time. Use advanced filters, bulk actions, and bulk activation to quickly update multiple products.

**Where:** This change applies to Lightning Experience, in Personal, Enterprise, Performance, and Developer editions.

**Who:** This feature is available to users with a B2B Commerce license.

**Why:** The Pricing Workspace is a one stop shop for your store pricing. Within the workspace you can:

- Use advanced filters to efficiently find your data. Filter on pricing fields, store assignments, buyer groups, and price adjustments.
- Use bulk actions to quickly manage assignments. Assign multiple price books to a store or buyer group using a single flow.
- Use bulk actions to adjust pricing. Adjust price book entries by percentage and absolute amounts.
- Use bulk activation and deactivation to quickly take price books and price book entries on or offline.

## See All Your Products in One Place and Take Action on Them

Product Workspace displays all products in your org, regardless of the store that they are associated with. New filter options make it easy to find which stores are associated with your product and easier to tailor your search results.

**Where:** This feature is new in Lightning Experience, in Personal, Enterprise, Performance, and Developer editions.

**Who:** This feature is available to users with a B2B Commerce license.

**Why:** Because some products are associated with more than one store and can have different searchability settings by store, it's easier to manage a product if you can see the whole picture. Filter the Product hybrid list by Store to view and take actions on all products associated with a specific store. You can also edit filter values rather than removing and replacing them, which makes it easy to tailor your filter search results.

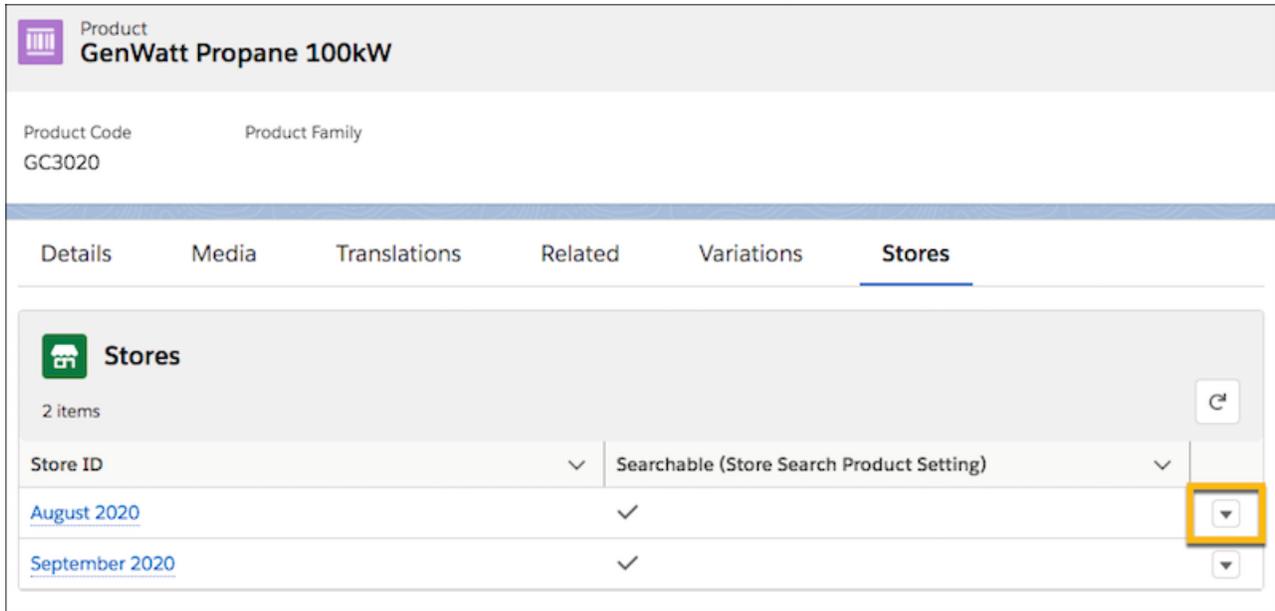
## View Associated Stores and Manage Searchability on Products

Easily view which stores a product is associated with directly on the product record. The Stores tab displays all stores that a product is associated with. You can also mark products as Searchable or Not Searchable in a store from the Stores list.

**Where:** This feature is new in Lightning Experience, in Personal, Enterprise, Performance, and Developer editions.

**Who:** This feature is available to users with a B2B Commerce license.

**Why:** Managing stores and store searchability from a product makes it easier to keep track of where product is showing up when you need to update it.



## Associate Your Buyer Groups to Stores to See Pricing and Entitlements

When a price book or entitlement is associated with a buyer group, make sure to connect that buyer group to your store. Buyer group price books and entitlements are only displayed in the store if the buyer group is also associated with that store. Previously, entitlements and price books were available globally after they were assigned to a buyer group and store assignment wasn't required.

**Where:** This change applies to Lightning Experience, in Personal, Enterprise, Performance, and Developer editions.

**Who:** This feature is available to users with a B2B Commerce license.

## Bookmark Store Search Results

Search components now have a mechanism for retaining results URLs, which means users can search in your store and bookmark their results. When users find the goods, they can get back to them easily without running another search.

**Where:** This feature is available in Lightning Experience, in Personal, Enterprise, Performance, and Developer editions.

## Get an Effortless No-Search-Results Experience

The No Search Results page now comes populated with a no-results image and message. Right out of the box, when a search returns no results customers see a meaningful, professional looking message.

**Where:** This feature is available in Lightning Experience, in Personal, Enterprise, Performance, and Developer editions.

**How:** You can see this change when you create a store. Your existing stores continue to use the old No Search Results page. For the new page, leave the message as is or edit it to add or replace it with your own words or image. We created the message using the HTML Editor component, so revising is a breeze. In Experience Builder, click the HTML Editor component, then in the property editor, click **Edit Markup**.



 **Note:** If you already have a store but you'd like to use the new No Search Results page, use page variations to bring it in. For more information, see [Salesforce Help](#).

SEE ALSO:

[Salesforce Help: Set Up a No Search Results Page \(can be outdated or unavailable during release preview\)](#)

## Show or Hide Breadcrumbs in Product Search Results

You can decide on the best search experience for your customers with a new configuration setting on the Results Layout component. Use the setting to show or hide navigational breadcrumbs on product search results.

**Where:** This feature is available in Lightning Experience, in Personal, Enterprise, Performance, and Developer editions.

**How:** In Experience Builder, open the Search Results page and select the Results Layout component. In the component property editor, select to show breadcrumbs and make style choices for them. Breadcrumbs are shown by default.

## Add All Cart Items, Rename, and Delete Lists (Beta)

A new set of features makes lists more flexible and easier than ever to work with. Buyers can add all cart items to a list in one action, rename their lists, and delete the lists that aren't useful anymore.

**Where:** This feature is available in Lightning Experience, in Personal, Enterprise, Performance, and Developer editions.

 **Note:** As a beta feature, My Lists is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use lists at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of lists within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of lists. You can provide feedback and suggestions for lists in the IdeaExchange/X group in the Trailblazer Community [B2B Wish List Beta Feedback](#).

**How:** From a cart, buyers can add all cart items to a list with the Add All Items to Cart link. From the My Lists page, buyers can select the Rename or Delete action from the row actions menu on a list.

## Dismiss Cart Errors for Good

When buyers trigger cart errors, they can dismiss them. Previously, when a cart error popped up, it stayed up. Now buyers never see the error again unless another action triggers the same error type.

**Where:** This feature is available in Lightning Experience, in Personal, Enterprise, Performance, and Developer editions.

## Communities: New Audience Criteria, Enhanced Build Your Own (LWC) Template, and Better Guest User Security

Communities elves have been hard at work this release delivering new features and enhancements. Take advantage of more granular audience criteria that let you vary record detail pages based on record fields. The latest Build Your Own (LWC) template is packed with changes, including support for an upgraded version of Lightning Locker, custom URL paths, and SEO. And your data is more secure than ever with the enforcement of several guest user security settings that were introduced in previous releases.



**Tip:** There's lots of Lightning striking Salesforce these days—Lightning Experience, the Lightning framework, Lightning web components—and it can be tricky to know how it all applies to Communities. Here's the rundown.

Lightning communities use the same underlying technology as Lightning Experience—namely, the Lightning Platform and Lightning components—but you aren't required to enable Lightning Experience to use them.

Also check out the [Lightning Components section of the release notes](#) for changes that affect community users.

### EDITIONS

Available in: **Enterprise, Performance, Unlimited, and Developer** Editions

### IN THIS SECTION:

#### [Lightning Communities: Field-Based Audience Criteria, Improved Page Management, and Printable View](#)

Use audience criteria based on record fields to vary what users see on a detail page. Organize and manage your community pages in Experience Builder. And use the new printable view to print community record details and lists.

#### [Developer Productivity: Do More, More Easily](#)

Develop communities more efficiently with enhancements to the Build Your Own (LWC) template and improved `lightning:hasPageReference` and `lightning:navigation` support.

#### [Guest User: Guest User Security Policies Enforced](#)

In Winter '21, Salesforce is enforcing guest user security policies introduced in the past few releases, such as the Secure guest user record access setting. Also, Salesforce is reducing object permissions for guest users.

#### [Security and Sharing: Multi-factor Authentication, Customizable Security Notifications](#)

Enable SMS as a multi-factor authentication method for your external users. Customize the security notifications community members receive when they change their email address.

#### [Other Changes in Communities](#)

Learn about smaller changes that improve your experience with communities.

## Lightning Communities: Field-Based Audience Criteria, Improved Page Management, and Printable View

Use audience criteria based on record fields to vary what users see on a detail page. Organize and manage your community pages in Experience Builder. And use the new printable view to print community record details and lists.

### IN THIS SECTION:

#### [Prepare Your Community for Upcoming CSP Changes](#)

In Spring '21 (February 2021), the **Allow Inline Scripts and Script Access to Any Third-party Host** CSP setting is being removed. If your community was created before Spring '19 and currently uses this setting, now is the time to prepare.

#### [Manage Your Pages and URLs with the Pages Menu](#)

Now it's easier to organize and restructure your pages and page URLs in Experience Builder. Edit your pages to suit your content needs with the Pages menu and see these updates in your live site's URL.

#### [Apply Audiences to Record Detail Pages with Record-Based Criteria](#)

You can now vary what people see on a record detail page using audience criteria based on record fields. For example, you can display different theme layouts when someone is looking at a coffee machine or a box of tea, or different pages for high-value and low-value opportunities. Also, we moved record criteria from the advanced section into the main body of the editor, so you can easily combine it with user criteria to create custom formulas.

#### [Print Lightning Community Record Details and Lists with Printable View](#)

Use the Printable View button on record details and record lists in Lightning communities to generate a condensed, minimalist view for printing.

#### [Package Tile Menus in Bolt Solutions](#)

You can now package a tile menu with Bolt Solutions, and distribute them. All the properties of the tile menu are included in the package, but admins have to associate a navigation menu to the tile menu after the Bolt Solution is installed.

#### [Let External Users Manage Other Users with External Managed Accounts](#)

Allow external users to switch to other external accounts using the Account Switcher component. And authorize access to manage the other accounts' users.

#### [Topic ID Field Added Back to Topics Components](#)

In Spring '20, we removed the Topic ID field from the Related Topics List, Topic Description, and Topic Metrics components. In Winter '21, we're bringing the dynamically generated field back for those components.

## Prepare Your Community for Upcoming CSP Changes

In Spring '21 (February 2021), the **Allow Inline Scripts and Script Access to Any Third-party Host** CSP setting is being removed. If your community was created before Spring '19 and currently uses this setting, now is the time to prepare.

**Where:** This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

**Why:** The **Allow Inline Scripts and Script Access to Any Third-party Host** CSP option allows access to all third-party hosts and provides no added security. So to improve security for all communities, the setting is being removed in Spring '21.

To prepare for that change and ensure that you have adequate time for testing, we recommend switching your community to a more secure option now. You can choose from the following security levels.

| Security Level   | Description  |
|--|--|
| Strict CSP: Block Access to Inline Scripts and All Hosts       | Provides maximum security. <ul style="list-style-type: none"> <li>• Blocks the execution of all inline scripts and all requests for remote JavaScript files.</li> <li>• Allows the display of non-script resources, such as images, from third-party hosts that are explicitly allowed.</li> <li>• Lightning Locker is turned on.</li> </ul>         |
| Relaxed CSP: Permit Access to Inline Scripts and Allowed Hosts | Provides moderate security. <ul style="list-style-type: none"> <li>• Allows inline scripts to run in your site.</li> <li>• Allows the loading of remote JavaScript files and the display of non-script resources, such as images, from third-party hosts that are explicitly allowed.</li> <li>• Allows you to turn off Lightning Locker.</li> </ul> |

## SEE ALSO:

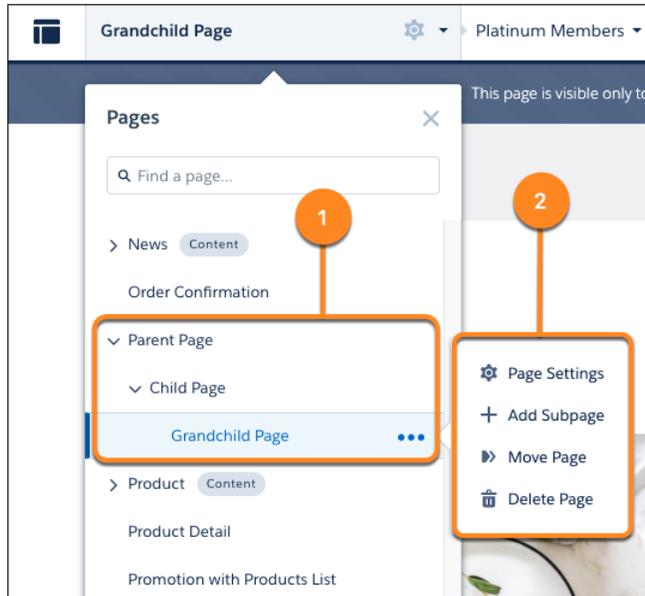
[Salesforce Help: CSP and Lightning Locker in Lightning Communities \(can be outdated or unavailable during release preview\)](#)

## Manage Your Pages and URLs with the Pages Menu

Now it's easier to organize and restructure your pages and page URLs in Experience Builder. Edit your pages to suit your content needs with the Pages menu and see these updates in your live site's URL.

**Where:** This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

**How:** In Experience Builder, navigate to the Pages menu panel. Create your own page hierarchy (1) in seconds when you open the Page Action menu (2) and click **Add Subpage**.



Build out your site's hierarchy with up to six page levels by nesting a standard, object, or content page under an existing page.

Manage the URLs for each page after creating your page hierarchy. Click **Page Settings** from the Page Action menu to edit the page's properties, including the page name and URL. You can change your page hierarchy at any time by clicking **Move Page** from the Page Action menu. No need to worry about the URL because your subpage URL automatically updates to reflect your changes.

Name ⓘ

URL ⓘ

[Change URL](#)

The site URL for each page reflects the structure you set up in Experience Builder when you share the live site with your users.



## Apply Audiences to Record Detail Pages with Record-Based Criteria

You can now vary what people see on a record detail page using audience criteria based on record fields. For example, you can display different theme layouts when someone is looking at a coffee machine or a box of tea, or different pages for high-value and low-value opportunities. Also, we moved record criteria from the advanced section into the main body of the editor, so you can easily combine it with user criteria to create custom formulas.

**Where:** This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

**Why:** Record-based criteria has been around for a while, but was limited to only one field type: record type. In Winter '21, we expanded the types of fields that can be used to vary a record detail experience to offer you a more powerful option. As a result, many of the fields on common objects, like opportunities, can be used as the basis for varying the record detail experience.

To create the opportunity example, select the value field on an opportunity record, and assign an amount. Using the Greater Than operator, assign a minimum value, and apply the audience to a page. Opportunities with a value higher than what was assigned see one version of the page while all others see a different version.

You can create record-based criteria using these objects:

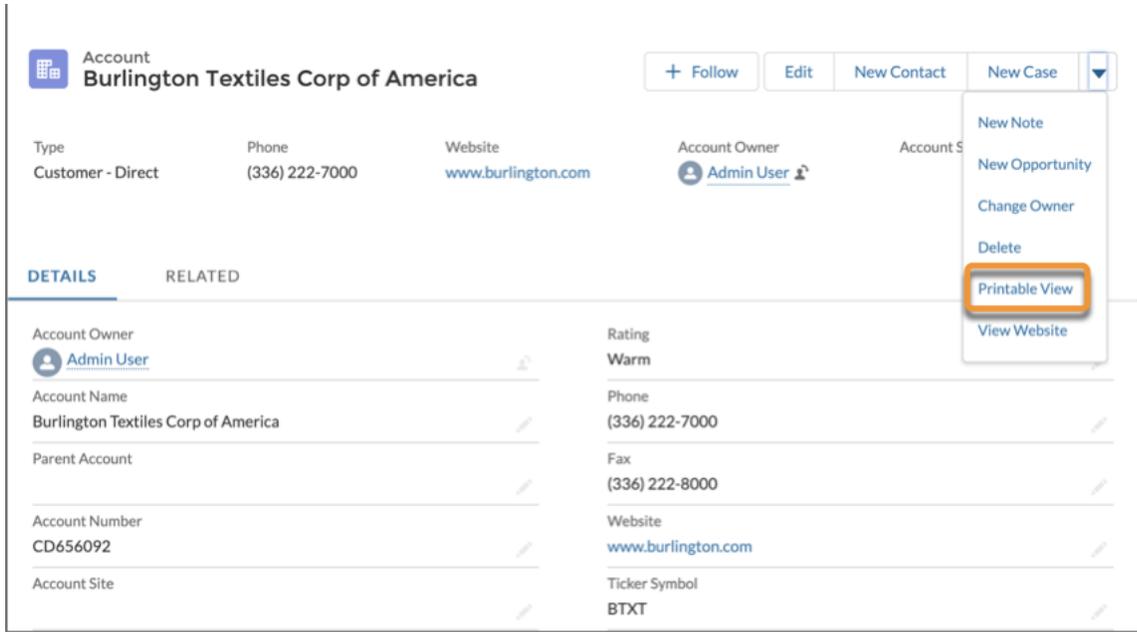
- Account
- Asset
- Campaign
- Case
- Contact
- Contract
- Lead
- Opportunity
- Product2
- ProductCategory
- Quote
- Custom Objects
- Any object with at least one record type (only some fields available)

## Print Lightning Community Record Details and Lists with Printable View

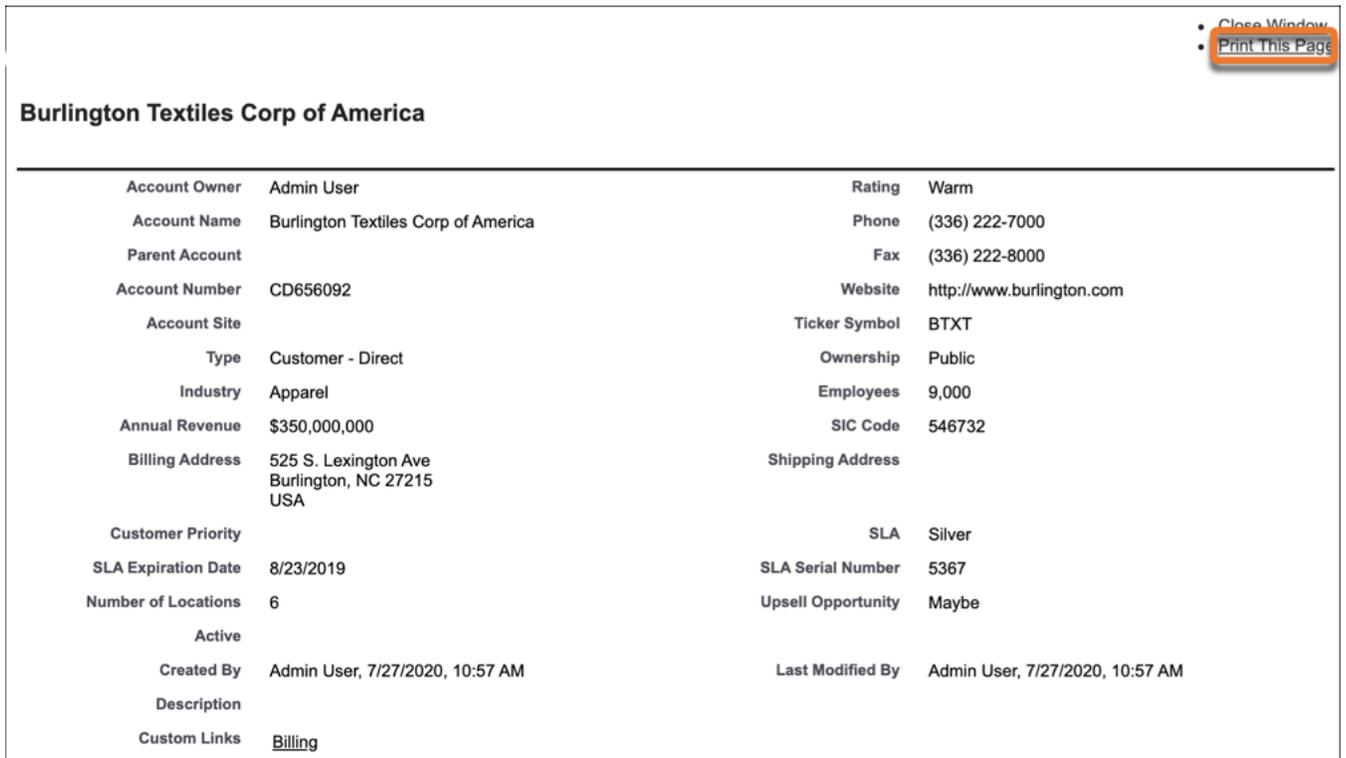
Use the Printable View button on record details and record lists in Lightning communities to generate a condensed, minimalist view for printing.

**Where:** This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

**How:** Select **Printable View** from a list or record detail.



The columns and fields shown on the printable view reflect your page layout or related list preferences.



Printable View supports these objects for record detail:

- Accounts
- Campaigns

- Cases
- Contacts
- Contracts
- Custom objects
- Leads
- Opportunities
- Orders

Printable View supports these objects for record lists:

- Accounts
- Activities
- Campaigns
- Cases
- Contacts
- Contracts
- Custom objects
- Documents
- Leads
- Opportunities
- Permission sets
- Price books
- Profiles
- Products
- Solutions

Printable View isn't available on the Recently Viewed lists or for related lists. Search results or related list quick filters aren't used when generating the printable view.

## Package Tile Menus in Bolt Solutions

You can now package a tile menu with Bolt Solutions, and distribute them. All the properties of the tile menu are included in the package, but admins have to associate a navigation menu to the tile menu after the Bolt Solution is installed.

**Where:** This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

## Let External Users Manage Other Users with External Managed Accounts

Allow external users to switch to other external accounts using the Account Switcher component. And authorize access to manage the other accounts' users.

**Where:** This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

**Who:** This change applies to external users. Users with the Delegated External User Administration permission can managed other users.

**Why:** Configure an external managed account to designate a user who can switch to another account. If the account uses a Builder component that contains the attribute `accountId`, you can use the value `{!CurrentUser.effectiveAccountId}` for that attribute to update component information when Account Switcher is used.

To drive new behavior based on the account switcher, create a custom component and use the account ID `{!CurrentUser.effectiveAccountId}`.

With Authorized Access, the managing user of an external managed account can manage permission sets for other users, reset passwords, and activate, deactivate, or add members to the target account.

**How:** When configuring an external managed account, you have the option of selecting **Manage Users** under Authorized Access. After you select the access and the external managed account is saved, the managing user can access Account Management on the target account. They can manage members of the target account from there.

## Topic ID Field Added Back to Topics Components

In Spring '20, we removed the Topic ID field from the Related Topics List, Topic Description, and Topic Metrics components. In Winter '21, we're bringing the dynamically generated field back for those components.

**Where:** This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

## Developer Productivity: Do More, More Easily

Develop communities more efficiently with enhancements to the Build Your Own (LWC) template and improved `lightning:hasPageReference` and `lightning:navigation` support.

### IN THIS SECTION:

#### [Build Fast, Efficient Experiences with the LWC-Based Template \(Pilot\)](#)

Develop communities that load quickly and scale well using the Build Your Own (LWC) template. Based on Lightning Web Components (LWC), a programming model that delivers exceptional performance, this lightweight template supports fully custom solutions. The template, now available as a pilot, includes some changes since the previous release.

#### [Communities Now Support `lightning:hasPageReference` and Default Field Values in `lightning:navigation`](#)

Communities now support `lightning:hasPageReference` for action overrides, and default field values in `lightning:navigation`. Previously, default field values weren't supported in `lightning:navigation`.

## Build Fast, Efficient Experiences with the LWC-Based Template (Pilot)

Develop communities that load quickly and scale well using the Build Your Own (LWC) template. Based on Lightning Web Components (LWC), a programming model that delivers exceptional performance, this lightweight template supports fully custom solutions. The template, now available as a pilot, includes some changes since the previous release.

**Where:** This change applies to communities accessed through Lightning Experience and Salesforce Classic. The template is available as a developer preview in Developer editions, or as a pilot program in Enterprise, Performance, and Unlimited editions.

 **Note:** We provide the Build Your Own (LWC) template to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance.

Alternatively, you can access a developer preview of the template in Developer editions without signing up for the pilot program. Developer preview participants can create up to 100 sites, whereas pilot participants can create only two.

Regardless of edition, the template isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features. You can provide feedback and suggestions for the template in the [Lightning Web Runtime Communities group in the Trailblazer Community](#).

**Why:** Since the previous release, we added support for:

- An upgraded version of Lightning Locker that supports cross-namespace communication
- Custom URL paths for unauthenticated sites, meaning no more `/s` cluttering up your site's URL—for example, `https://mycustomdomain.com/mypage`
- Accessibility features, including screen readers and F6 navigation, which makes it easier to navigate web pages via keyboard
- Search engine optimization (SEO) by including a sitemap that lets search engines crawl public pages
- A new HTML Editor component that lets you add and edit custom markup
- The following `@salesforce` modules:
  - `@salesforce/client`
  - `@salesforce/customPermission`
  - `@salesforce/userPermission`



**Tip:** Build Your Own (LWC) is a minimal template that provides few components and only the most essential pages. The template is best suited to developers who are comfortable developing Lightning web components and working with Salesforce DX, User Interface API, and Apex.

**How:** To start using the template, from Setup, in the Quick Find box, enter *Communities Settings*, and then select **Communities Settings**. Select **Enable the Build Your Own (LWC) template**, and save your changes.

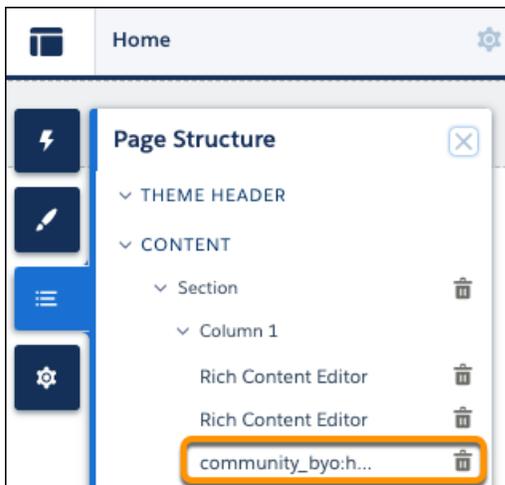
After you enable the template, it appears in the community creation wizard.

The screenshot shows the 'Choose the Experience You Love' screen in the Salesforce community creation wizard. It features three template cards:

- Build Your Own (LWC)** (highlighted with an orange border):
  - by Salesforce
  - Unparalleled Performance
  - Unparalleled Performance - Standards-Based Customization
  - Develop blazing fast digital experiences with Lightning Web Components, a new programming...
- Help Center**:
  - by Salesforce
  - Self-Service - Curated Knowledge - Case Deflection - Guest Case Creation
  - Give your customers the answers they're looking for. Customers can search for and read articles and...
- Customer Account Portal**:
  - by Salesforce
  - Record Management - Third-Party Integration - Streamlined Profile - Knowledge Base
  - Create a responsive portal where customers can access knowledge articles, view and update their...

**Important:** For previous developer preview participants, you must remove two old components to ensure that the Home and Error pages render correctly.

In Experience Builder, open the Home page, and delete the **community\_byo:home** component from the Page Structure pane. For the Error page, delete the **community\_byo:error** component.



## Communities Now Support `lightning:hasPageReference` and Default Field Values in `lightning:navigation`

Communities now support `lightning:hasPageReference` for action overrides, and default field values in `lightning:navigation`. Previously, default field values weren't supported in `lightning:navigation`.

**Where:** This change applies to all communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

## Guest User: Guest User Security Policies Enforced

In Winter '21, Salesforce is enforcing guest user security policies introduced in the past few releases, such as the Secure guest user record access setting. Also, Salesforce is reducing object permissions for guest users.

### IN THIS SECTION:

#### [Secure Guest User Record Access Can't Be Disabled](#)

The Secure guest user record access setting was enabled in Summer '20, but could still be disabled during that release. To safeguard your Salesforce org's data, in Winter '21, this setting is enabled in all orgs with communities or sites and can't be disabled. The Secure guest user record access setting enforces private org-wide defaults for guest users and requires that you use guest user sharing rules to open up record access. You also can't add guest users to groups or queues or grant guest users record access through manual sharing or Apex managed sharing.

#### [Automatically Assign Records Created by Guest Users to a Default Owner \(Previously Released Update\)](#)

To increase the security of your Salesforce data, guest users are no longer automatically the owner of records they create. The Assign new records created by guest users to the default owner setting is automatically enabled in all orgs with communities, and can't be disabled. When a guest user creates a record, the record is assigned to a default active user in the org, who becomes the owner.

### [Reduce Object Permissions for Guest Users](#)

With the Winter '21 release, Salesforce is disabling the View All Data, Modify All Data, edit, and delete object permissions for guest users in existing orgs. These permissions are removed from orgs created in Winter '21 and later. For existing orgs, reduce object permissions for guest users if they have View All Data, Modify All Data, edit, or delete permissions on a standard or custom object.

### [Opt Out of Enforcing Guest User Object Permission Changes \(Previously Released Update\)](#)

For Salesforce orgs created before Winter '21, this update opts your org out of enforcing guest user object permission changes aimed at increasing your data security.

### [View All Users Permission to be Removed in Guest User Profiles in Spring '21 \(Previously Released Update, Enforced\)](#)

Guest users typically don't need access to view all users in a Salesforce org, so to promote data security, we disabled the View All Users permission in guest user profiles with the Summer '20 release. The permission will be removed from all guest user profiles with the Spring '21 release. We recommend that you check guest user access and deselect the View All Users permission in all your guest user profiles.

### [Let Guest Users See Other Members of This Community Setting Disabled](#)

With the Winter '21 release, the setting, Let guest users see other members of this community, is turned off by default in all Salesforce orgs that have active communities with at least one community created before the Winter '20 release.

### [Improved Security for Managed Topic Images](#)

Managed topic images that were uploaded before Winter '21 are stored as documents and are public. Guest users can see these featured and navigational topic images even in private and unpublished communities. To improve security, new images associated with featured and navigational topics are stored as asset files and are private. Ensure that guest users in your community can see these new images.

### [Override Entity Permissions When Using `<apex:inputField>`](#)

The new `ignoreEditPermissionForRendering` attribute on `<apex:inputField>` allows you to override entity edit permissions for users, even when the underlying permission on the object doesn't allow edits. This override affects all users but is intended to be used only for guest users. This attribute works only with a custom controller in without sharing mode.

## Secure Guest User Record Access Can't Be Disabled

The Secure guest user record access setting was enabled in Summer '20, but could still be disabled during that release. To safeguard your Salesforce org's data, in Winter '21, this setting is enabled in all orgs with communities or sites and can't be disabled. The Secure guest user record access setting enforces private org-wide defaults for guest users and requires that you use guest user sharing rules to open up record access. You also can't add guest users to groups or queues or grant guest users record access through manual sharing or Apex managed sharing.

**Where:** This change applies to orgs with active communities and sites in Enterprise, Essentials, Unlimited, Performance, and Developer editions.

**When:** The timelines for the rollout and enforcement of this setting are published in [Guest User Security Policies and Timelines](#).

SEE ALSO:

[Salesforce Help: Secure Your Community or Portal \(can be outdated or unavailable during release preview\)](#)

[Summer '20 Release Note: Secure Guest Users' Org-Wide Defaults and Sharing Model \(Previously Released Security Alert, Enforced\)](#)

## Automatically Assign Records Created by Guest Users to a Default Owner (Previously Released Update)

To increase the security of your Salesforce data, guest users are no longer automatically the owner of records they create. The Assign new records created by guest users to the default owner setting is automatically enabled in all orgs with communities, and can't be disabled. When a guest user creates a record, the record is assigned to a default active user in the org, who becomes the owner.

**Where:** This change applies to orgs with active communities in Enterprise, Essentials, Unlimited, Performance, and Developer editions.

**How:** In newly created communities, Salesforce automatically assigns the user who created the community as the default owner of all records created by guest users. Change the default owner in the Administration workspace of your community, under Preferences.

 **Note:** Existing records in the org that are already owned by guest users aren't impacted by this change. However, to improve data security, we still recommend transferring ownership of records owned by guest users to another user in your org.

SEE ALSO:

[Salesforce Help: Secure Your Community or Portal \(can be outdated or unavailable during release preview\)](#)

## Reduce Object Permissions for Guest Users

With the Winter '21 release, Salesforce is disabling the View All Data, Modify All Data, edit, and delete object permissions for guest users in existing orgs. These permissions are removed from orgs created in Winter '21 and later. For existing orgs, reduce object permissions for guest users if they have View All Data, Modify All Data, edit, or delete permissions on a standard or custom object.

**Where:** This change applies to all Salesforce orgs created before the Winter '21 release, with one or more standard or custom objects with View All Data, Modify All Data, edit, or delete permissions enabled for guest users. Orgs created in Winter '21 and after don't allow these permissions.

**How:** If the Reduce Object Permissions for Guest Users security alert appears in your org, you must act to secure your org data. If you see the security alert, your org data could be exposed to guest users because you have one or more standard or custom objects with View All Data, Modify All Data, edit, or delete permissions enabled for guest users. If you see the security alert in your org, follow the step-by-step recommendations.

Salesforce strongly recommends that you closely check your org's guest user profiles, permission sets, and permission set groups to ensure that the settings aren't enabled for any standard or custom objects. If the settings are enabled, disable them and test your org's configuration before the Winter '21 release.

 **Important:** If a permission set or permission set group is assigned to the guest user and grants Modify All Data, View All Data, edit, or delete, to custom objects, or Order, Contract, Survey Response, ProfileSkillUser, and ProfileSkillEndorsement, then the guest user is removed from the permission set or permission set group. If any other permissions were granted using the same permission set or permission set group, the guest user can no longer access them. If your guest user is removed with the Winter '21 release, you can simply reassign the guest user to the permission set or permission set group. But starting with the Spring '21 release, you can no longer assign Modify All Data, View All Data, edit, or delete permissions to guest users, even with a permission set or permission set group.

In orgs created in Winter '21 and later, these permissions are permanently removed and can't be enabled for guest users.

SEE ALSO:

[Opt Out of Enforcing Guest User Object Permission Changes \(Previously Released Update\)](#)

[Salesforce Help: Secure Your Community or Portal \(can be outdated or unavailable during release preview\)](#)

## Opt Out of Enforcing Guest User Object Permission Changes (Previously Released Update)

For Salesforce orgs created before Winter '21, this update opts your org out of enforcing guest user object permission changes aimed at increasing your data security.

**Where:** This update applies to all Salesforce Sites (formerly Force.com Sites), Site.com sites, and communities that have guest user access enabled.

**Why:** Activating the Opt Out of Enforcing Guest User Object Permission Changes update keeps the following permissions unchanged. If they are enabled, they remain enabled, and if they are disabled, they remain disabled.

- Edit, delete, Modify All Data, and View All Data for custom objects.
- Edit, delete, Modify All Data, and View All Data for the following standard objects: Order, Contract, Survey Response, ProfileSkillUser, and ProfileSkillEndorsement.

These permissions are scheduled to be turned off for custom objects and the previous standard objects with the rollout of the Winter '21 release. But you can still enable them to meet your business needs. After your org updates with the Winter '21 release, you can no longer activate this update.

If you opt out, your opt-out period is only valid for the Winter '21 release. With the Spring '21 release, these permissions are permanently removed for guest users, and can no longer be enabled.

Salesforce strongly recommends that you closely check your org's guest user profiles, permission sets, and permission set groups to ensure that the settings aren't enabled for any standard or custom objects. If the settings are enabled, disable them, and test your org's configuration before the Winter '21 release. Salesforce understands that some customers require more time to comply with removing the permissions from guest user profiles. This update gives you ample time to get ready.

 **Important:** If a permission set or permission set group is assigned to the guest user and grants edit, delete, Modify All Data, or View All Data to custom objects, or Order, Contract, Survey Response, ProfileSkillUser, and ProfileSkillEndorsement, then the guest user is removed from the permission set or permission set group. If any other permissions were granted using the same permission set or permission set group, the guest user can no longer access them. Use this opt-out to stop the removal of the guest user from permission sets or permission set group. If your guest user is removed with the Winter '21 release, you can simply reassign the guest user to the permission set or permission set group. But starting with the Spring '21 release, you can no longer assign Modify All Data, View All Data, edit, or delete permissions to guest users, even with a permission set or permission set group.

SEE ALSO:

[Salesforce Help: Secure Your Community or Portal \(can be outdated or unavailable during release preview\)](#)

## View All Users Permission to be Removed in Guest User Profiles in Spring '21 (Previously Released Update, Enforced)

Guest users typically don't need access to view all users in a Salesforce org, so to promote data security, we disabled the View All Users permission in guest user profiles with the Summer '20 release. The permission will be removed from all guest user profiles with the Spring '21 release. We recommend that you check guest user access and deselect the View All Users permission in all your guest user profiles.

**Where:** This change applies to orgs with active communities in Enterprise, Essentials, Unlimited, Performance, and Developer editions.

**When:** The timelines for the rollout and enforcement of this setting are published in [Guest User Security Policies and Timelines](#).

SEE ALSO:

[Salesforce Help: Secure Your Community or Portal \(can be outdated or unavailable during release preview\)](#)

## Let Guest Users See Other Members of This Community Setting Disabled

With the Winter '21 release, the setting, Let guest users see other members of this community, is turned off by default in all Salesforce orgs that have active communities with at least one community created before the Winter '20 release.

**Where:** The update is visible in Salesforce orgs with active communities in Enterprise, Essentials, Unlimited, Performance, and Developer editions.

**Why:** The community-specific setting, Let guest users see other members of this community, lets admins control guest user visibility independently from other community user visibility settings.

Depending on your security configuration, this setting could allow a guest user, essentially anyone on the internet, to access community users' personally identifying information. This information can include first and last name, email, custom, and other fields.

To protect your customer data and privacy, Salesforce is turning off the Let guest users see other members of this community setting for all communities.

Depending on your business needs, enabling this setting and allowing guest users to see one another could be required for your site to function properly. Therefore, we ask you to reassess and validate whether your business requires this setting. We encourage you to work towards modifying your site's customization to allow this setting to be disabled. Limiting guest user visibility to other community users is a Salesforce security best practice.

If you already turned off this setting for all your communities and tested your implementation, then you aren't impacted by the Winter '21 release.

To turn the setting back on, access your community's Workspaces, and enable the setting under **Administration > Preferences**.

## Improved Security for Managed Topic Images

Managed topic images that were uploaded before Winter '21 are stored as documents and are public. Guest users can see these featured and navigational topic images even in private and unpublished communities. To improve security, new images associated with featured and navigational topics are stored as asset files and are private. Ensure that guest users in your community can see these new images.

**Where:** This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

**How:** To allow guest users to see new featured and navigational topic images in your community, select **Let guest users view asset files and CMS content available to the community** in **Administration > Preferences** in Experience Workspaces. This selection also allows guest users to see images associated with recognition badges, community branding, and account branding.

If you don't want images that were uploaded before Winter '21 to be public, delete them and upload them again in **Content Management > Topics** in Experience Workspaces.

## Override Entity Permissions When Using `<apex:inputField>`

The new `ignoreEditPermissionForRendering` attribute on `<apex:inputField>` allows you to override entity edit permissions for users, even when the underlying permission on the object doesn't allow edits. This override affects all users but is intended to be used only for guest users. This attribute works only with a custom controller in without sharing mode.

**Where:** This change applies to Salesforce orgs in Enterprise, Performance, Unlimited, and Developer editions.

**How:** This attribute bypasses entity edit permissions and field-level security edit checks, so any form field that uses `<apex:inputField>` with this attribute is open for edit. To validate fields or block edit access when using this attribute, use additional checks in the page's custom Apex controller.

 **Warning:** Salesforce is not responsible for any exposure of your data to unauthenticated users based on this change from default settings.

## Security and Sharing: Multi-factor Authentication, Customizable Security Notifications

Enable SMS as a multi-factor authentication method for your external users. Customize the security notifications community members receive when they change their email address.

### IN THIS SECTION:

#### [Let Users Authenticate by SMS](#)

You can now allow your external users to use SMS as a multi-factor authentication method. No need for downloading special apps—verification can be as easy as getting a text message.

#### [Customize Notifications for Changing Email Addresses](#)

Use customizable email templates for the security notifications customers receive when they change their email address.

### Let Users Authenticate by SMS

You can now allow your external users to use SMS as a multi-factor authentication method. No need for downloading special apps—verification can be as easy as getting a text message.

**Where:** This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

### SEE ALSO:

[Let Your Community Users, Customers, and Partners Verify Their Identities with SMS](#)

### Customize Notifications for Changing Email Addresses

Use customizable email templates for the security notifications customers receive when they change their email address.

**Where:** This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

### SEE ALSO:

[Put Your Own Spin on Your Community's Email Address Change Verification Emails](#)

### Other Changes in Communities

Learn about smaller changes that improve your experience with communities.

## IN THIS SECTION:

[Trusted Site Paths for Lightning Communities Are Case-Sensitive](#)

We fixed an issue where the URL path for a trusted site in a Lightning community was used incorrectly in an all lowercase format. We now use the URL path exactly as you enter it. This change avoids the issue of a trusted site being unexpectedly blocked.

[User Settings and User Profile Summary & Image Components Were Replaced](#)

Because of updated versions of the components, the old User Settings and the User Profile Summary & Image components are deprecated. For the same functionality, and a bunch more features, use Customizable User Settings, User Profile Summary, and User Profile Image components instead.

[Enable Article Sharing for High-Volume Community Users](#)

High-volume community users can now use sharing sets and share groups to share Knowledge articles.

[Personalize Communities with Code Settings for Embedded Chat and Channel Menu](#)

Invite customers to chat in your Salesforce community for a more personalized experience. In Experience Builder, you can add Code Setting Name property to the Embedded Chat component to load custom JavaScript that appear as pop-up invitations for visitors.

## Trusted Site Paths for Lightning Communities Are Case-Sensitive

We fixed an issue where the URL path for a trusted site in a Lightning community was used incorrectly in an all lowercase format. We now use the URL path exactly as you enter it. This change avoids the issue of a trusted site being unexpectedly blocked.

**Where:** This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

**Why:** Previously, if you saved a trusted site with a URL path of `example.com/folder/other/MyScript.js`, the trusted site was used as `example.com/folder/other/myscript.js` (all lowercase).

We now use the expected trusted site URL path of `example.com/folder/other/MyScript.js`.

## SEE ALSO:

[Salesforce Help: Select a Security Level in Lightning Communities \(can be outdated or unavailable during release preview\)](#)

## User Settings and User Profile Summary & Image Components Were Replaced

Because of updated versions of the components, the old User Settings and the User Profile Summary & Image components are deprecated. For the same functionality, and a bunch more features, use Customizable User Settings, User Profile Summary, and User Profile Image components instead.

**Where:** This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Enterprise, Essentials, Performance, Unlimited, and Developer editions.

## Enable Article Sharing for High-Volume Community Users

High-volume community users can now use sharing sets and share groups to share Knowledge articles.

**Where:** This change applies to communities in Enterprise, Essentials, Performance, Developer, and Unlimited editions, using Lightning Knowledge. Not available in Salesforce Classic.

**How:** To share articles with high-volume community users, first turn on standard Salesforce sharing for Knowledge. From Setup, find the Knowledge Settings page, and click **Edit**. Under Sharing Settings, enable **Use standard Salesforce sharing**, and click **Save**.

After standard sharing is enabled, you can use sharing sets and share groups to share articles.

SEE ALSO:

[Use Knowledge Sharing with Guest Users and High-Volume Community Users](#)

## Personalize Communities with Code Settings for Embedded Chat and Channel Menu

Invite customers to chat in your Salesforce community for a more personalized experience. In Experience Builder, you can add Code Setting Name property to the Embedded Chat component to load custom JavaScript that appear as pop-up invitations for visitors.

**Where:** This change applies to Lightning communities accessed through Lightning Experience in Essentials, Professional, Performance, and Unlimited editions.

SEE ALSO:

[Customize Communities with Code Settings for Embedded Chat and Channel Menu](#)

## Salesforce CMS: Content Delivery Network, Local Content Import, and Folders

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Share your public content with a content delivery network (CDN), import images and documents from your local drive to Salesforce CMS, and organize your CMS content with folders.

IN THIS SECTION:

[Serve CMS Content with a Content Delivery Network \(CDN\)](#)

Deliver Salesforce CMS content to your users with higher performance than ever through a CDN. A CDN is a distributed group of servers that work together to deliver your content quickly and efficiently. Readily connect content to your sites through Community Cloud or to custom applications through public channels. And conveniently share your email marketing content and templates from Salesforce CMS with Marketing Email in Lightning.

[Import Local Images and Documents to Salesforce CMS](#)

Import content such as images and documents into a workspace in Salesforce CMS directly from your .zip archive, without having to reference it from a web source.

[Organize Salesforce CMS Content with Folders](#)

Create and edit folders to easily organize content in your Salesforce CMS workspace, and share links to folders with others in your org.

[Salesforce CMS Now Supports Knowledge Articles in the CMS Collections Component](#)

Create a Knowledge collection from a list view and visualize the collection with the Salesforce CMS Collection component.

[Add Content More Easily with the Enhanced Rich Text Editor](#)

Enjoy a larger text editing block to copy and paste tables, and view videos in full screen.

[Salesforce CMS Apps and Tabs Are Enabled by Default](#)

The Salesforce CMS app and its tabs are now enabled by default in the App Launcher for new orgs and all standard user profiles. Previously, you had to manually enable them for your users.

### [Filter by Content Type in Salesforce CMS](#)

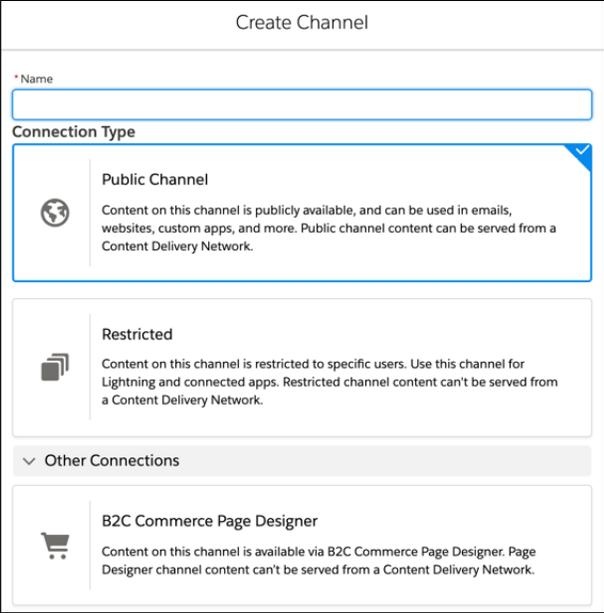
Quickly find content in the Salesforce CMS app, single items, or collections with a content type filter and search ability for a filtered list.

## Serve CMS Content with a Content Delivery Network (CDN)

Deliver Salesforce CMS content to your users with higher performance than ever through a CDN. A CDN is a distributed group of servers that work together to deliver your content quickly and efficiently. Readily connect content to your sites through Community Cloud or to custom applications through public channels. And conveniently share your email marketing content and templates from Salesforce CMS with Marketing Email in Lightning.

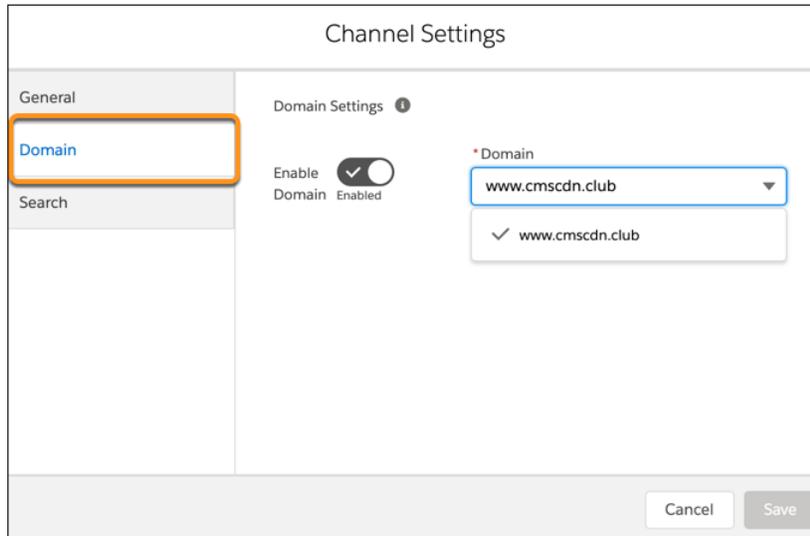
**Where:** This change applies to Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions.

**How:** Serve your content from a CDN such as our CDN partner, Akamai, or use one of your own. To create a public channel, open the CMS Channels page in the Salesforce CMS app, click **Create Channel**, and select **Public Channel**.



Then, on the CMS Channels page, click  > **Edit** beside your public channel.

In the Channel Settings window, you can configure a domain that links content from your public channel to the CDN and seamlessly deliver content to your users.



**Tip:** To serve content to your website through Community Cloud, configure a CDN for your community in Setup instead of in the Salesforce CMS app.

Share email marketing content and templates from Salesforce CMS with the Lightning Content Builder. Add a domain, create, or select a workspace and channel in CMS. Then, designate a channel to use with the Lightning Content Builder.

SEE ALSO:

[Source Images from Salesforce CMS for Lightning Content Builder](#)

[Salesforce Help: Salesforce CMS Content Delivery Network \(CDN\) Overview \(can be outdated or unavailable during release preview\)](#)

## Import Local Images and Documents to Salesforce CMS

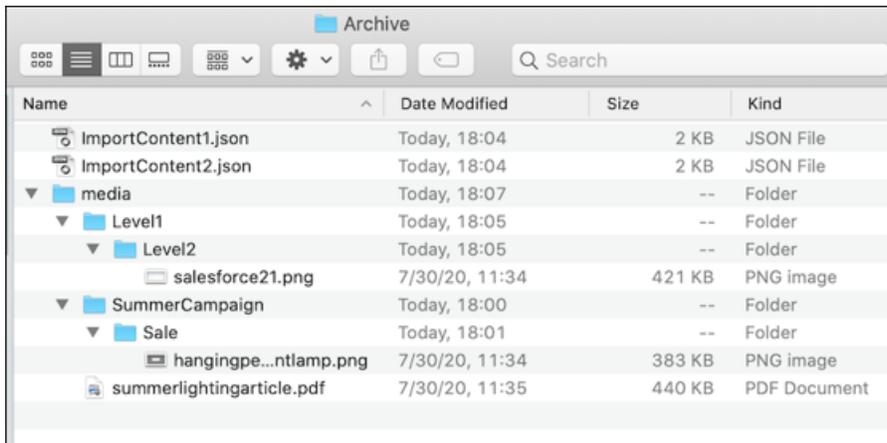
Import content such as images and documents into a workspace in Salesforce CMS directly from your .zip archive, without having to reference it from a web source.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions.

**Who:** To import content, you must have a content admin role in that CMS workspace or be a Salesforce admin.

**How:** On your computer, create a folder named `media` and save local content for import in this folder. When you enter the content details into a JSON file, use the `ref` attribute to reference the local image or document filename and its location inside of the media folder. For example, if an image is called `salesforce21.png` and is nested in a folder called `Level 2`, add the reference as

Level1/Level2/salesforce21.png. Add the media folder to the location of the JSON files and create a .zip archive.



**Note:** You can still use the `url` attribute with a path to the file to import images from a web source. At least one source, `ref` or `url`, is required and only one can be used per content object.

Here's an example of the JSON structure for importing images.

```
{
  "content": [
    {
      "type": "cms_image",
      "urlName": "lampplus",
      "status": "Draft",
      "body": {
        "title": "Hanging Pendant Lamp with Bluetooth Accessibility",
        "altText": "Hanging Pendant Lamp with Bluetooth Accessibility",
        "source": {
          "ref": "SummerCampaign/Sale/hangingpendantlamp.png"
        }
      }
    },
    {
      "type": "cms_image",
      "urlName": "lampplus",
      "status": "Published",
      "body": {
        "title": "Modern Table Lamps Set of 2 with USB Gold Metal for Living Room Bedroom Bedside",
        "altText": "Modern Table Lamps Set of 2 with USB Gold Metal for Living Room Bedroom Bedside",
        "thumbUrl": "https://myimageurl.com/images/g/wP8AAOSw3S1ct-iC/s-l640.jpg",
        "source": {
          "url": "https://myimageurl.com/images/g/wP8AAOSw3S1ct-iC/s-l640.jpg"
        }
      }
    }
  ]
}
```

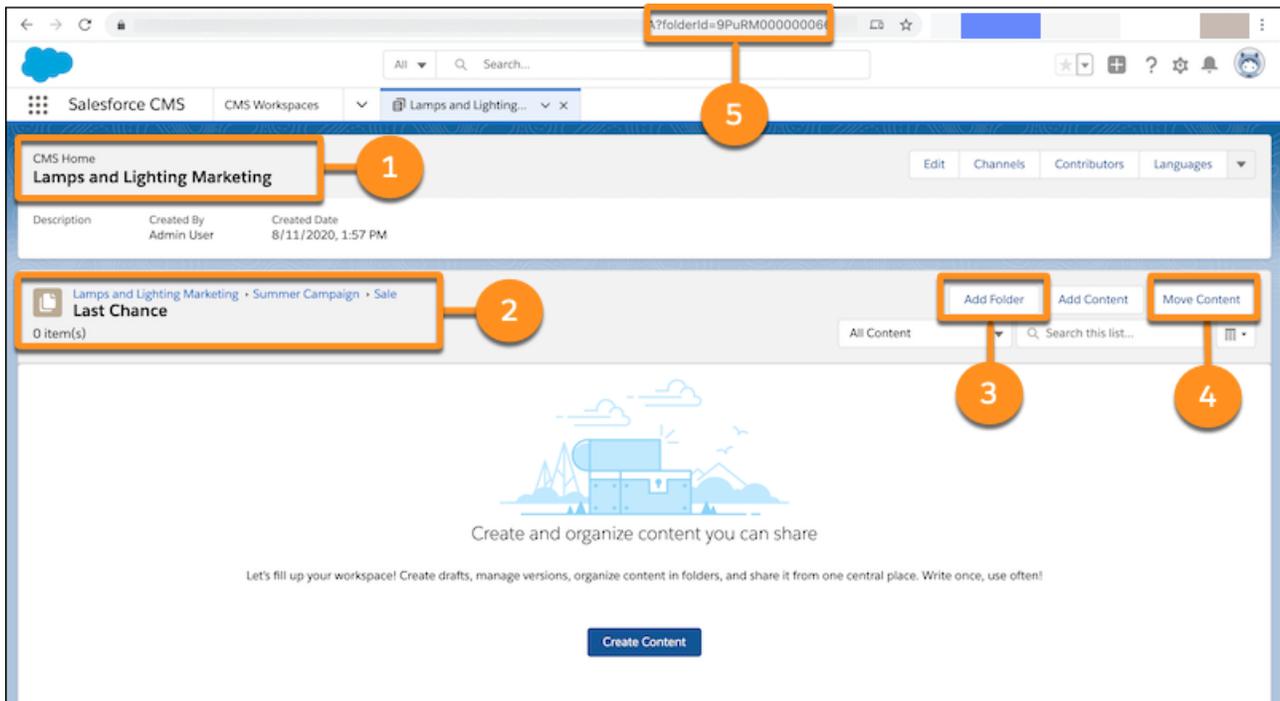
## Organize Salesforce CMS Content with Folders

Create and edit folders to easily organize content in your Salesforce CMS workspace, and share links to folders with others in your org.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions.

**Who:** To create and edit folders, you must have a content admin role in that CMS workspace or be a Salesforce admin.

**Why:** Now it's easier to organize all content types into folders. In your workspace (1) create folders with a hierarchy of up to five levels (2) with the click of a button (3). Edit and rename folders to fine-tune your CMS, and delete empty folders you no longer need. Add content directly to folders and move content within folders (4). Each folder has a unique folder ID that appears in the URL (5). This means you can bookmark the URL to find a folder quickly and share the link to specific folders with other members of the workspace.



## Salesforce CMS Now Supports Knowledge Articles in the CMS Collections Component

Create a Knowledge collection from a list view and visualize the collection with the Salesforce CMS Collection component.

**Where:** This change applies to Lightning communities using Salesforce CMS, accessed through Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions.

**Who:** To create Salesforce CRM collections for Salesforce CMS, you must have a content admin role in the community or be a Salesforce admin.

**How:** In Salesforce CMS add a CRM connection for Knowledge to allowlist knowledge articles. Then create a CRM collection for Salesforce CMS and curate a collection of knowledge articles by referencing a knowledge list view. Use that collection in the CMS Collection component.

**Note:** Knowledge list views can support translations of knowledge articles. When you curate the collection make sure to complete the language field. Try personalizing your Knowledge collection for different audiences and create personalized components.

SEE ALSO:

[Add CRM Connections in Salesforce CMS](#)

[Create Salesforce CRM Collections for Salesforce CMS](#)

[Create Personalized Components](#)

[Personalization Using Audience Targeting](#)

## Add Content More Easily with the Enhanced Rich Text Editor

Enjoy a larger text editing block to copy and paste tables, and view videos in full screen.

**Where:** This change applies Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions.

**Who:** To create and edit content, you must have a content admin role in that CMS workspace or be a Salesforce admin.

**Why:** Previously, videos weren't viewable in full screen after being added to the rich text editor. Now you can view videos in full screen in unpublished and published content. And when you publish the content, your users can view the video in full screen too.

Salesforce CMS now supports videos from the provider Appinium in published content.

If you ever wanted the rich text editor to be a bit bigger and the ability to copy and paste tables, you're in luck! With the latest enhancements, the editor increases in size as you add content, and you can also copy and paste tables.

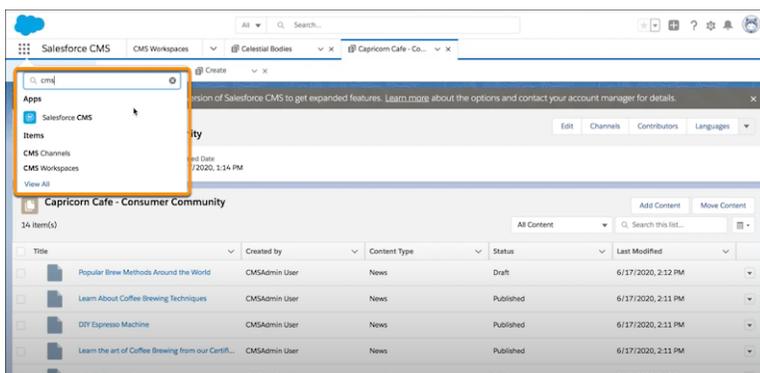
## Salesforce CMS Apps and Tabs Are Enabled by Default

The Salesforce CMS app and its tabs are now enabled by default in the App Launcher for new orgs and all standard user profiles. Previously, you had to manually enable them for your users.

**Where:** This change applies Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions.

**Who:** All standard user profiles.

**Why:** The Salesforce CMS app and tabs, such as CMS Channels and CMS Workspaces, are easier than ever to find with a searchable list.



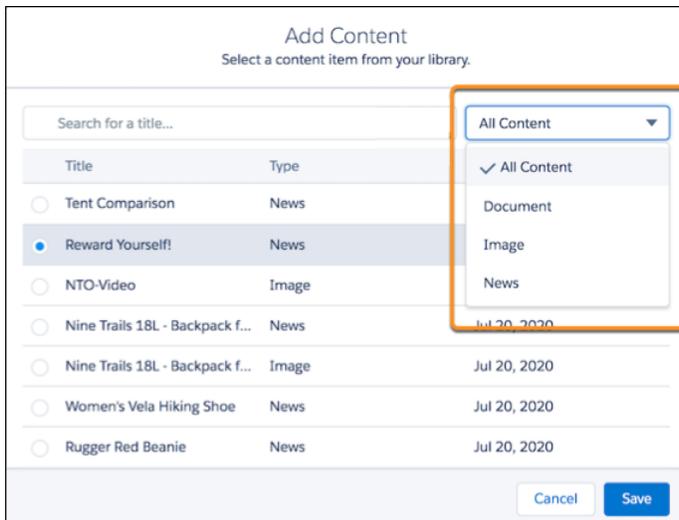
## Filter by Content Type in Salesforce CMS

Quickly find content in the Salesforce CMS app, single items, or collections with a content type filter and search ability for a filtered list.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions.

**Who:** To create and edit content, you must have a content admin role in that CMS workspace or be a Salesforce admin.

**Why:** Find your published content more easily by filtering by content type, and then paring down to the specific file you want to use. Streamline the search for collections of your CMS content and Salesforce CRM data as well.



## Files: Retired Support for Adobe Flash Rendition

Switch your file rendition in Connect REST API from Adobe Flash to SVG.

### Switch Your File Rendition in Connect REST API

With Winter '21, Connect REST API stops creating Adobe Flash renditions. Switch to SVG renditions.

**Where:** This change applies to Lightning Experience and Salesforce Classic in every edition, except Professional.

**How:** Use the [Connect REST API File Preview resource](#) to get an SVG rendition.

## Mobile: Productivity Features and More Convenient Navigation

Get more done in the Salesforce mobile app with launchpad, activity timeline, and other productivity boosters. Notifications features give you even more control over your custom notifications. Mobile Publisher for Communities now supports Marketing Cloud push notifications (Pilot). Experience the future of CRM with Salesforce Anywhere's real-time alerts, chat, and suggested actions (Beta).

### IN THIS SECTION:

#### [Salesforce Mobile App: Navigation and Productivity Enhancements](#)

Launchpad shortcuts, improved scrolling, and the iOS Quick Navigation widget make navigation a breeze. Report highlights and the activity timeline give iOS users the information they need at a glance.

#### [Notifications: Tighter Security and More Flexible Navigation](#)

A newly announced release update gives you more control over which of your users can trigger the Send Custom Notification action. Use the new Target Page Reference field to specify a new kind of navigation target for your custom notifications.

[Mobile Publisher for Communities: Marketing Cloud Notifications \(Pilot\), Barcode Scanner Plugin, and More](#)

Mobile Publisher for Communities now supports Marketing Cloud push notifications. Use the mobile device camera to scan barcodes. Create and customize the navigation menu for your communities users.

[Salesforce Anywhere: Plan and Accelerate Your Business in Real Time \(Beta\)](#)

Salesforce Anywhere is the future experience of CRM — making Salesforce real time. Get alerts about changes to the Salesforce data you care about. Update your Salesforce data in just a few taps with suggested actions. Collaborate in context with chat. Search and view your Salesforce data. And integrate Salesforce Anywhere chat and alerts into your business processes with Lightning Flow and Process Builder.

## Salesforce Mobile App: Navigation and Productivity Enhancements

Launchpad shortcuts, improved scrolling, and the iOS Quick Navigation widget make navigation a breeze. Report highlights and the activity timeline give iOS users the information they need at a glance.

### IN THIS SECTION:

[Everything That's New in the Salesforce Mobile App](#)

Our latest round of new and improved Salesforce mobile app features makes it easier to access Salesforce on the go.

## Everything That's New in the Salesforce Mobile App

Our latest round of new and improved Salesforce mobile app features makes it easier to access Salesforce on the go.

The new Salesforce mobile app is available for all editions, except Database.com, without an additional license. Your org's Salesforce edition and licenses, as well as a user's assigned profile and permission sets, determines the Salesforce data and features that are available to each user.

Most features become available for the Salesforce mobile app the week of October 19, 2020.

| Salesforce App Enhancements and Changes  | Salesforce for Android | Salesforce for iOS | Set Up in the Full Site |
|--|------------------------|--------------------|-------------------------|
| <b>Browser and Operating System</b>  |                        |                    |                         |
| <a href="#">Salesforce Mobile App Requirements Have Changed</a> on page 344                            | ✓                      | ✓                  |                         |
| <b>Navigation and Actions</b>  |                        |                    |                         |
| <a href="#">Create Shortcuts to Users' Essential Pages</a> on page 345                                 | ✓                      | ✓                  | ✓                       |
| <a href="#">Tap Into Salesforce from Your Home Screen with the Quick Navigation Widget</a> on page 346 |                        | ✓                  |                         |
| <a href="#">Cruise Through the App with Improved Scrolling</a> on page 346                             | ✓                      | ✓                  |                         |
| <b>Productivity Features</b>   |                        |                    |                         |
| <a href="#">Keep Track of Your Activities with Activity Timeline on iOS</a> on page 346                |                        | ✓                  |                         |
| <a href="#">Get to the Point with Report Highlights</a> on page 347                                    |                        | ✓                  |                         |
| <b>Industries</b>  |                        |                    |                         |

| Salesforce App Enhancements and Changes   | Salesforce for Android | Salesforce for iOS | Set Up in the Full Site |
|---|------------------------|--------------------|-------------------------|
| <a href="#">Stay Productive with Financial Services Cloud Lightning Components for Mobile</a> on page 347 | ✓                      | ✓                  | ✓                       |

SEE ALSO:

[Get Forecasts on the Go](#)

## Salesforce Mobile App Requirements Have Changed

Salesforce is revising the requirements for using the Salesforce mobile app for iOS and Android. Learn about the mobile platform requirements and the devices that we use for feature and performance testing as we continue to improve the Salesforce experience.

### Mobile Devices Used for Salesforce Testing

Salesforce performs automated and manual testing of the Salesforce mobile app for iOS and Android on a select set of mobile devices. This is the list of devices for Winter '21.

| Platform       | Phones   | Tablets   |
|----------------|--|---|
| <b>Android</b> | <ul style="list-style-type: none"> <li>• Google Pixel 4 XL</li> <li>• Google Pixel 3</li> <li>• Samsung Galaxy S10 / S10+</li> <li>• Samsung Galaxy S9 / S9+</li> <li>• Samsung Galaxy S8 / S8+</li> <li>• Samsung Galaxy S7</li> <li>• Samsung Galaxy Note 10+</li> <li>• Samsung Galaxy Note 9</li> <li>• Samsung Galaxy Note 8</li> </ul> |   |
| <b>iOS</b>     | <ul style="list-style-type: none"> <li>• iPhone 11 Pro / Pro Max</li> <li>• iPhone 11</li> <li>• iPhone XR</li> <li>• iPhone XS / XS Max</li> <li>• iPhone X</li> <li>• iPhone 8 / 8 Plus</li> <li>• iPhone 7 / 7 Plus</li> <li>• iPhone SE</li> <li>• iPhone 6S</li> <li>• iPhone 6</li> </ul>  | <ul style="list-style-type: none"> <li>• iPad Pro 10.5"</li> <li>• iPad Air 2</li> <li>• iPad Mini 4</li> </ul> |

Customers aren't blocked from using Salesforce on untested devices that meet current platform requirements. Salesforce might not be able to replicate some issues for customers using Salesforce on untested devices due to manufacturer-specific customizations.

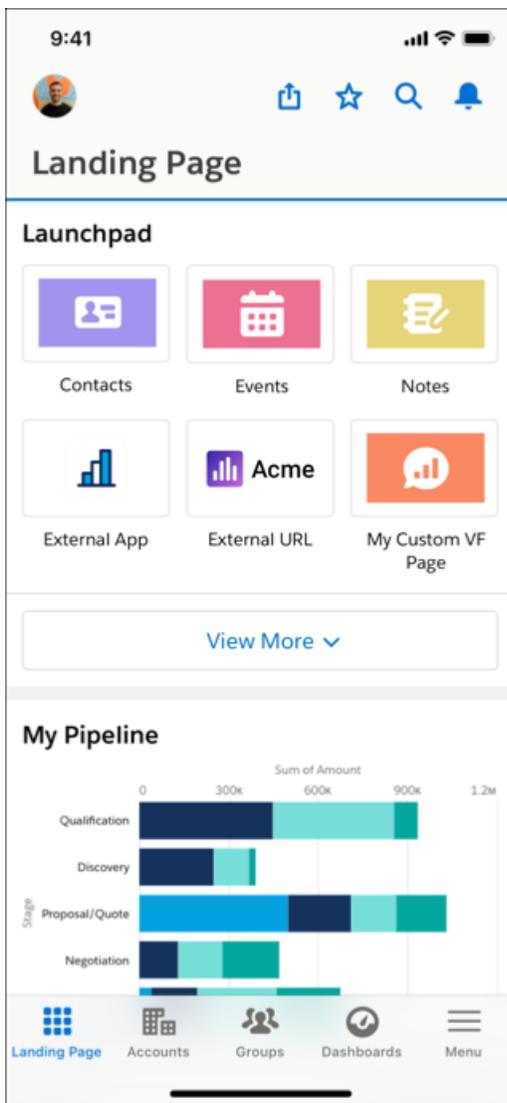
To allow for innovation and to keep Salesforce current in the rapidly evolving mobile market, the list of Salesforce-tested devices is subject to change at the sole discretion of Salesforce, with or without advance notice.

## Create Shortcuts to Users' Essential Pages

Set up a mobile launchpad to let users quickly access the information they need. Use the Launchpad Lightning web component to add links to Lightning pages on mobile and desktop. Internal links open in the Salesforce mobile app, while external links open in a mobile browser window.

**Where:** This change applies to Lightning Experience and the Salesforce mobile app for iOS and Android in all editions, except Database.com.

**Why:** We know that users pull up the app for a quick look at important information, but it can take a lot of taps to get to the right place. The mobile launchpad lets users access that information in fewer taps.



**How:** Add the Launchpad Lightning web component to a Lightning page. Add up to 20 items to the launchpad. Users see the first six items on the page, with the option to view more. After you click **Save**, view your launchpad by navigating to that page in the Salesforce mobile app or on desktop.

SEE ALSO:

[Salesforce Help: Create a Custom Launchpad for the Salesforce Mobile App \(can be outdated or unavailable during release preview\)](#)

## Tap Into Salesforce from Your Home Screen with the Quick Navigation Widget

Use the Salesforce Quick Navigation widget to get to your most important items, right from the home screen of your iOS device. The widget displays the first four navigation items of the navigation bar of the Lightning app you most recently accessed in the Salesforce mobile app, including Mobile Only. And if you personalize your navigation items for a Lightning app, the widget stays up to date.

**Where:** This change applies to the Salesforce mobile app for iOS in all editions, except Database.com.

**When:** This change is available to users running iOS 14 or higher the week of October 19, 2020.

**How:** To get the Salesforce Quick Navigation widget, press and hold anywhere on your Home Screen. Tap the **+** icon, then search for *Salesforce Navigation*. Select the **Salesforce Quick Navigation** widget, and add it to your Home Screen.

## Cruise Through the App with Improved Scrolling

We heard your feedback and upgraded the way that you navigate the Salesforce mobile app. With these updates, you enjoy a smoother experience when you scroll through pages and refresh the app. You can also copy and paste directly in the app.

**Where:** This change applies to the Salesforce mobile app for iOS and Android in all editions, except Database.com.

**When:** This change is available the week of October 19, 2020.

**Why:** Improved scrolling is even better for users who have assistive technologies enabled, especially screen readers. This improvement removes the screen scrolling buttons that were previously enabled when VoiceOver was running on iOS devices.

## Keep Track of Your Activities with Activity Timeline on iOS

You spoke and we listened. The activity timeline is now available in the Salesforce mobile app for leads, opportunities, accounts, and contacts. On these record types, iOS users can view all of the tasks, events, and emails associated with a record in one convenient feed. Previously, admins had to create a related list with the activity history view to track activities in the mobile app.

**Where:** This change applies to version 226.030 or higher of the Salesforce mobile app for iOS in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Why:** It's easy to see why end users are big fans of the activity timeline. Activity timeline helps them to pick up where they left off and focus on their next steps. It appears at the bottom of record pages, above the navigation bar, so it's easier to get to than an activity history related list. It's also simpler to follow because all activities are listed in chronological order.

 **Note:** Filter and search aren't supported for the mobile activity timeline.

**How:** The mobile activity timeline is enabled by default on supported record types, but you can choose to disable it for all users by adding a connected app custom attribute. In Setup, in the Quick Find box, enter *Connected Apps*, select **Manage Connected Apps**, then click the name of the connected app you want to modify. In the Custom Attributes section on the connected app page, click **New**. Enter *DISABLE\_ACTIVITY\_TIMELINE* for the attribute key and *"true"* for the attribute value.

SEE ALSO:

[Salesforce Help: Activity Timeline Customization Considerations \(can be outdated or unavailable during release preview\)](#)

## Get to the Point with Report Highlights

Users can get a high-level overview of their reports on the Salesforce mobile app. Report Highlights shows summaries of up to eight key metrics, including average amounts, grand totals, subtotals, record counts, and formula column results. For summary and matrix reports, users can also see totals for groups based on the first-level group field.

**Where:** This change applies to Version 226 and higher of the Salesforce mobile app for iOS in all editions, except Database.com.

**Why:** When users view reports on a mobile device, they want information at a glance, instead of scrolling (and scrolling) through a long, detailed report table. Summed totals help them get in and out of their data, and on with their day.

Users can customize the metrics that appear in Report Highlights from the report run page on Lightning Experience desktop.

SEE ALSO:

[Salesforce Help: Customize Report Views in the Run Page](#)

## Stay Productive with Financial Services Cloud Lightning Components for Mobile

Boost remote user productivity by including Financial Services Cloud Lightning Components in the Salesforce mobile app.

**Where:** This change applies to Lightning Experience in Professional, Enterprise, and Unlimited editions where Financial Services Cloud is enabled.

**Why:** Give Salesforce Mobile users access to the Financial Services Cloud features that they need to stay productive away from their desks.

SEE ALSO:

[Stay Productive with Financial Services Cloud Lightning Components for Mobile](#)

## Notifications: Tighter Security and More Flexible Navigation

A newly announced release update gives you more control over which of your users can trigger the Send Custom Notification action. Use the new Target Page Reference field to specify a new kind of navigation target for your custom notifications.

IN THIS SECTION:

[Require User Permission for the Send Custom Notification Action \(Update\)](#)

This update gives you more control over which of your users can trigger the Send Custom Notification action. When this update is activated, a user must have the Send Custom Notifications user permission to trigger the Send Custom Notification action in flows that run in user context, REST API calls, or Apex callouts. Use the Send Custom Notifications user permission to improve the security of your Salesforce org and limit custom notifications to desired users and use cases.

[Send Your Custom Notification Recipients to New Places with Page Reference Navigation](#)

Use the new Target Page Reference field on the Send Custom Notification action to specify navigation targets for your custom notifications sent via flow or REST API. Previously, only the Target ID field was available for custom notification navigation and only a record ID could be specified as a navigation target. Now your custom push and in-app notifications can navigate to any page that's accessible via the PageReference class, such as a Lightning app or an external URL.

## Require User Permission for the Send Custom Notification Action (Update)

This update gives you more control over which of your users can trigger the Send Custom Notification action. When this update is activated, a user must have the Send Custom Notifications user permission to trigger the Send Custom Notification action in flows that run in user context, REST API calls, or Apex callouts. Use the Send Custom Notifications user permission to improve the security of your Salesforce org and limit custom notifications to desired users and use cases.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**When:** Salesforce enforces this update for existing orgs in Spring '21. Salesforce enforces this update for orgs created in Winter '21 or later beginning in Winter '21. To get the major release upgrade date for your instance, go to [Trust Status](#), search for your instance, and click the maintenance tab.

**How:** When this update is activated, a user must have the Send Custom Notifications user permission to trigger the Send Custom Notification action in flows that run in user context, REST API calls, or Apex callouts. Because most flows, REST API calls, and Apex callouts that trigger the REST API run in user context by default, they enforce the running user's permissions. If a user without the permission launches a flow that runs in user context, a REST API call, or an Apex callout that contains the Send Custom Notification action, the flow, REST API call, or API callout results in an error and no custom notifications are sent.

To ensure that custom notifications continue to be triggered and sent as expected, review your existing flows, REST API calls, and Apex callouts that send custom notifications. If necessary, modify them according to the recommendations in the Require User Permission for the Send Custom Notification Action release update in the Release Updates node in Setup.

You don't need to review or modify your processes or flows that run in system context that send custom notifications. Because processes and some flows run in system context by default, they don't enforce the running user's permissions. The Send Custom Notification action is triggered, and notifications are sent as expected.

But you can choose to restrict the users who can trigger custom notifications in processes and flows that run in system context. Recreate your process or flow as a flow that runs in user context. Then assign the Send Custom Notifications user permission to users you want to be able to launch your flow.

### SEE ALSO:

[Release Updates](#)

[Salesforce Help: Which Context Do Flows Run In?](#)

[Salesforce Help: Send Custom Notifications \(can be outdated or unavailable during release preview\)](#)

## Send Your Custom Notification Recipients to New Places with Page Reference Navigation

Use the new Target Page Reference field on the Send Custom Notification action to specify navigation targets for your custom notifications sent via flow or REST API. Previously, only the Target ID field was available for custom notification navigation and only a record ID could be specified as a navigation target. Now your custom push and in-app notifications can navigate to any page that's accessible via the PageReference class, such as a Lightning app or an external URL.

**Where:** This change applies to Lightning Experience in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer Editions. Custom notifications can be received in Lightning Experience and all versions of the Salesforce mobile app in all editions, except Database.com.

**How:** When you add or modify the Send Custom Notification action in a flow or REST API call, you must specify either a record ID in the Target ID field or a PageReference for the Target Page Reference field on the action.

SEE ALSO:

[Lightning Aura Components Developer Guide: pageReference Types](#)

[Salesforce Help: Flow Core Action: Send Custom Notification \(can be outdated or unavailable during release preview\)](#)

[Actions Developer Guide: Send Custom Notification Actions \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Send Custom Notifications \(can be outdated or unavailable during release preview\)](#)

## Mobile Publisher for Communities: Marketing Cloud Notifications (Pilot), Barcode Scanner Plugin, and More

Mobile Publisher for Communities now supports Marketing Cloud push notifications. Use the mobile device camera to scan barcodes. Create and customize the navigation menu for your communities users.

IN THIS SECTION:

[Configure Marketing Cloud Notifications \(Pilot\)](#)

Marketing Cloud push notifications have come to the Mobile Publisher for Communities app. You can create and send notifications to increase engagement with your community app users.

[Use Your Mobile Device Camera to Scan Barcodes](#)

Mobile Publisher for Communities users can use the camera on their mobile device to scan barcodes, such as a UPC symbol or QR codes.

[Customize How Users Navigate in the Community App \(Pilot\)](#)

Put Mobile Publisher for Communities users' frequently used menu items within easy reach. You can customize the type and order of menu items with the community Experience Builder.

## Configure Marketing Cloud Notifications (Pilot)

Marketing Cloud push notifications have come to the Mobile Publisher for Communities app. You can create and send notifications to increase engagement with your community app users.

**Where:** This change applies to Lightning communities accessed through Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions.

 **Note:** We provide Marketing Cloud Notifications to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. Marketing Cloud Notifications isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only based on generally available products and features.

**When:** This pilot feature is available in the Winter '21 release.

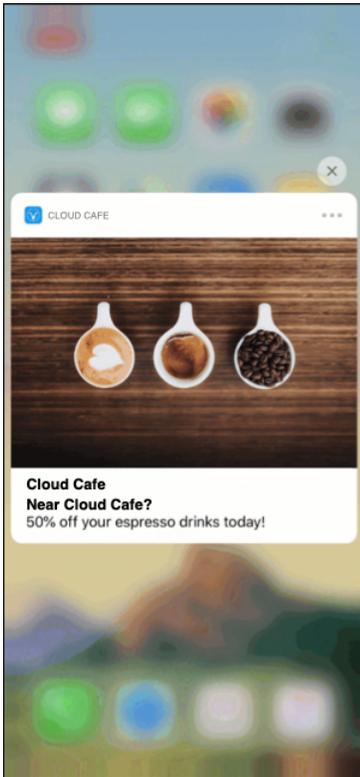
**Who:** Available to orgs that enable the pilot feature and admins who have Lightning Community access.

**Why:** Marketing Cloud notifications lets you target notifications to a specific audience and analyze usage statistics.

**How:** Marketing Cloud MobilePush integration with Mobile Publisher for Communities lets you send both marketing cloud and platform notifications to the same communities app.

Supported Marketing Cloud notification features:

- Rich media push notifications such as images, audio, and video.
- Location-based push notifications.
- OpenDirect push notifications with internal and external links.
- Authenticated and unauthenticated push notifications (user doesn't have to be logged in).
- In-app notifications in varying sizes.



To enable Marketing Cloud notifications for your community apps, enter your Marketing Cloud information and community details into Mobile Publisher. Mobile Publisher builds and publishes your community app capable of receiving Marketing Cloud notifications.

SEE ALSO:

[Salesforce Help: MobilePush](#)

[Salesforce Help: MobilePush OpenDirect](#)

## Use Your Mobile Device Camera to Scan Barcodes

Mobile Publisher for Communities users can use the camera on their mobile device to scan barcodes, such as a UPC symbol or QR codes.

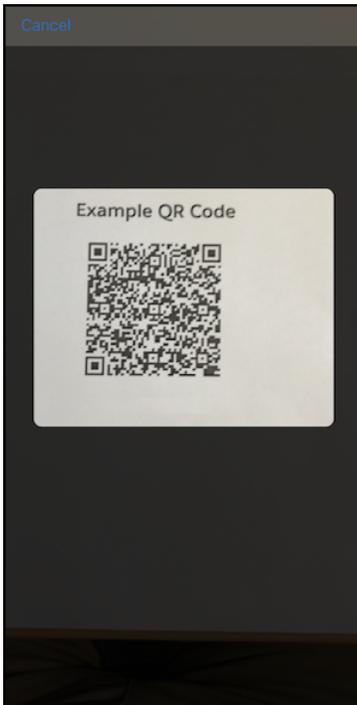
**Where:** This change applies to Lightning communities accessed through Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions.

**When:** Barcode scanner is available in the Winter '21 release.

**Who:** Available for users who can access a Lightning Community and meet mobile device requirements.

**Why:** We want your users to accomplish more while using their communities app on their mobile devices.

**How:** Barcode scanner requires the use of the mobile device camera. The user must grant your communities app access to the camera.



To develop and implement a Lightning component with the barcode scanning feature, use the [BarcodeScanner API](#).

SEE ALSO:

[Lightning Web Components Dev Guide: Scan Barcodes on a Mobile Device](#)

[Salesforce Help: Requirements for Mobile Publisher for Communities](#)

## Customize How Users Navigate in the Community App (Pilot)

Put Mobile Publisher for Communities users' frequently used menu items within easy reach. You can customize the type and order of menu items with the community Experience Builder.

**Where:** This change applies to Lightning communities accessed through Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions.

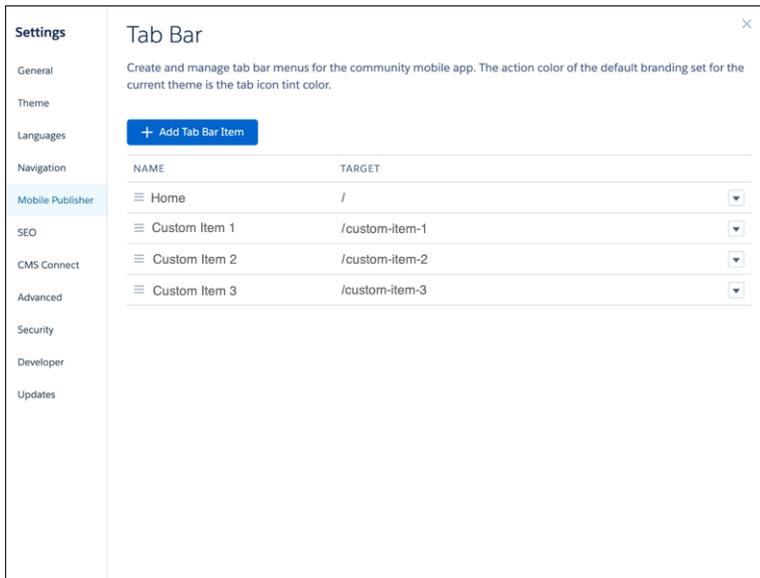
 **Note:** We provide Custom Navigation Tab Bar to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. Custom Navigation Tab Bar isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only based on generally available products and features.

**When:** This pilot feature is available in the Winter '21 release.

**Who:** Available to orgs that enable the pilot feature and admins who have Lightning Community access.

**Why:** We want to make sure that you can tailor the navigation experience for your community app users.

**How:** Use the community Experience Builder to customize the navigation tab bar for your users.



SEE ALSO:

[Salesforce Help: Experience Builder Overview](#)

## Salesforce Anywhere: Plan and Accelerate Your Business in Real Time (Beta)

Salesforce Anywhere is the future experience of CRM — making Salesforce real time. Get alerts about changes to the Salesforce data you care about. Update your Salesforce data in just a few taps with suggested actions. Collaborate in context with chat. Search and view your Salesforce data. And integrate Salesforce Anywhere chat and alerts into your business processes with Lightning Flow and Process Builder.

 **Note:** Salesforce Anywhere is a Non-GA Service and not a “Service” or part of the “Services”, as defined in the Master Subscription Agreement (“MSA”) with Salesforce. Such Non-GA Service is subject to the terms and conditions of the [Universal Pilot Research Agreement](#) (“UPRA”), including the [Data Processing Addendum](#) to the UPRA. Use of this Non-GA Service is at your sole discretion, and any purchase decisions should be made only on the basis of Salesforce generally available products and features. Automatic availability of Salesforce Anywhere depends on your MSA with Salesforce and the type of Services you have purchased. If you do not see Salesforce Anywhere in Setup, contact your Account Executive to get access to Salesforce Anywhere.

Learn about the latest features in the [Salesforce Anywhere Release Notes](#).

SEE ALSO:

[Salesforce Anywhere Overview](#)

# Customization: Lightning Flow Enhancements, More Dynamic Lightning Pages, and Einstein Builder Updates

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Build and test flows with new layout and debug options, and launch flows when records are deleted. Break up your record details and create more flexible Lightning pages with Dynamic Forms and Dynamic Actions in the Lightning App Builder. Recommend anything to anyone with Einstein Recommendation Builder (beta).

## IN THIS SECTION:

### [Lightning Flow: Trigger on Delete, Enhanced Debugging, Multi-Column Screens \(Pilot\), Auto-Layout Canvas \(Beta\), and More Control of Flow Launch, Decisions, Queries, and Filters](#)

Trigger flows to run when records are deleted. Debug flows as another user, and debug autolaunched flows right in the canvas (beta). Optimize the layout of your flow screens with sections and columns (pilot). Let Flow Builder connect and align elements for you (beta). Launch a record-triggered flow or execute a decision outcome only when the record is updated to meet your criteria. Apply custom logic to record queries and condition requirements throughout your flows.

### [Lightning App Builder: Dynamic Forms Is Generally Available, Dynamic Actions Enhancements, and Record Page Performance Analysis](#)

Break up your record details and create more dynamic Lightning pages with Dynamic Forms, now generally available. Discover more ways to add the flexibility and control of dynamic actions to your record pages. Get an analysis of a Lightning record page's runtime performance while you're designing it with Performance Analysis in App Builder.

### [Einstein Builders: Deliver Personalized Recommendations \(Beta\), and Show Confidence Range and Top Predictors on Records for Numeric Predictions](#)

Einstein Recommendation Builder delivers personalized, AI-driven recommendations of anything to anyone. Einstein Prediction Builder supports record-level insights for numeric predictions.

### [Globalization: Translation Import and Export Improvements, New Locale Formats, and a New Platform Language](#)

If a translation import has errors, the email you receive provides more detail and includes the error log as an attachment. Data translation import and export limits are increased, and you can export data translation files for specific languages. Enable new and improved formats for international dates and times via an update. Plus, we added Khmer as a platform-only language.

### [Profiles and Permissions: More Granular Control for Security and a New License Option](#)

Improve your Salesforce org security with new options to restrict permission cloning and to limit the profiles that users can see. Subscribed to a Salesforce managed package? See which customer permissions in the package require a Salesforce license to access them.

### [Salesforce Connect: Restricted Access, HIPAA Compliance, and ID Mapping Limits](#)

We're restricting edit access to certain sensitive fields on external data sources and named credentials. Salesforce Connect is now Health Insurance Portability and Accountability Act (HIPAA) compliant, ensuring that all personally identifiable healthcare information is protected by fraud and theft. We're also enforcing a process that deletes all external object record IDs that haven't been viewed within 365 days to keep ID mappings up to date.

### [Einstein Next Best Action: HIPAA Compliance, Event-Driven Recommendations Based on Call State Changes, and AI-Driven Recommendations Generated by Einstein Recommendation Builder](#)

Store and process protected health information. Create recommendations based on call record field values. Use the new Einstein Load element to deliver personalized recommendations.

### [External Services: Check External Services Version and Recreate Legacy Registrations to Get Ready for Retirement of Legacy External Services in Summer '21](#)

Check your External Services version for Legacy External Services, and recreate legacy registrations to current External Services registrations. Legacy External Services is scheduled for retirement in Summer '21.

[Sharing: Metadata API Deployment Improvements and Secure Guest User Sharing Settings](#)

You can now deploy organization-wide defaults and criteria-based or guest user sharing rule changes through the Metadata API at the same time. To safeguard your Salesforce org's data, we enabled the Secure guest user record access setting in all orgs with communities or sites. This setting can't be disabled.

[Fields: HTML in Labels Rendered as Plain Text and Management for Deleted Fields Available in Lightning Experience](#)

HTML tags in custom field labels are rendered as plain text, and you can now manage deleted fields in Lightning Experience.

[Custom Metadata Types: Support for Geolocation Entities and Metadata Relationship Field Type User Interface Display](#)

You can now create entity particle relationships for geolocation field types. Also, the dropdown menu for the metadata relationship field type shows which entities are supported.

[General Setup: Utility Bar Alignment Customization, Dynamic Submit for Approval Action, and Record Type UI Changes](#)

Customize where your org's utility bar appears on the screen. Display the Submit for Approval action only when a record is eligible for approval. Clearer description text and an updated profile column label for Step 1 of the New Record Type creation process.

## Lightning Flow: Trigger on Delete, Enhanced Debugging, Multi-Column Screens (Pilot), Auto-Layout Canvas (Beta), and More Control of Flow Launch, Decisions, Queries, and Filters

Trigger flows to run when records are deleted. Debug flows as another user, and debug autolaunched flows right in the canvas (beta). Optimize the layout of your flow screens with sections and columns (pilot). Let Flow Builder connect and align elements for you (beta). Launch a record-triggered flow or execute a decision outcome only when the record is updated to meet your criteria. Apply custom logic to record queries and condition requirements throughout your flows.

### EDITIONS

Available in: **Essentials**, **Professional**, **Enterprise**, **Performance**, **Unlimited**, and **Developer** Editions

### IN THIS SECTION:

[Flow Builder: Record-Triggered Flows That Run on Delete, Shiny Debug Options, Multi-Column Flow Screens \(Pilot\), Auto-Layout Canvas \(Beta\), and More Criteria Control](#)

Build a flow to perform actions right before a record is deleted from the database. Test flows as the users who run them, and debug autolaunched flows right in the canvas (beta). Optimize your flow screens with sections and columns (pilot). Eliminate crooked, misaligned connectors with auto-layout (beta). Run flows or execute decision outcomes only when records are updated to meet your criteria. Fine-tune the condition requirements throughout your flows.

[Lightning Flow Management: Run-Time Improvements Delivered by API Version and Triggers in the Flows List View](#)

Control when each flow adopts run-time behavior changes. Quickly see which triggers your autolaunched flows have on the Flows page in Setup.

[Lightning Flow Extensions: Multi-Object Screen Components, Custom UIs for Screen Components and Invocable Actions, and Simplified Import of Actions via External Services \(Pilot\)](#)

Have developers build screen components that work for any object you choose. Enjoy engaging UIs that developers build for the screen components and invocable actions that you add to your flows. Use external services to quickly import public API specifications, and add their actions to your flows (pilot).

[Lightning Flow Release Updates: Process Builder, Invocable Actions, Flow Merge Fields, and Apex Actions](#)

Resume paused interviews in the same context and with the same user access they had before they were paused. Let processes evaluate the original values of record fields. Improve the behaviors and effects of failed invocable actions. Enforce the running user's data access when executing flow merge fields. Respect the public access modifiers for legacy Apex actions. Cancel the "Require User Access to Apex Classes Invoked by Flow" update.

### [Lightning Flow Run-Time Improvements in API Version 50.0](#)

These updates affect only flows and processes that are configured to run on API version 50.0 or later. Versioned updates let you test and adopt run-time behavior changes for individual flows and processes at your convenience. To change the run-time API version of a flow, open it in Flow Builder and edit the flow version properties. To change the run-time API version of a process, open it in Process Builder and click **Edit Properties**.

## Flow Builder: Record-Triggered Flows That Run on Delete, Shiny Debug Options, Multi-Column Flow Screens (Pilot), Auto-Layout Canvas (Beta), and More Criteria Control

Build a flow to perform actions right before a record is deleted from the database. Test flows as the users who run them, and debug autolaunched flows right in the canvas (beta). Optimize your flow screens with sections and columns (pilot). Eliminate crooked, misaligned connectors with auto-layout (beta). Run flows or execute decision outcomes only when records are updated to meet your criteria. Fine-tune the condition requirements throughout your flows.

### IN THIS SECTION:

#### [Trigger a Flow to Run Before a Record is Deleted](#)

In Flow Builder, you can now configure a new record-triggered flow to run before a record is deleted. You no longer need to write Apex code to set this up. This autolaunched flow runs in the background and updates related records when a record is deleted.

#### [Debug Flow Errors in Sandbox Org as Another User](#)

Debugging a flow in a sandbox org is now easier than ever with the ability to debug a flow as another user. When you debug a flow as another user, you can catch flow exceptions such as unexpected permission, sharing, and profile configurations before they occur in production orgs.

#### [Debug Autolaunched Flows Directly on the Canvas \(Beta\)](#)

Now you can debug an autolaunched flow without opening a new browser tab. Just click **Debug on Canvas (Beta)** in Flow Builder and view the path the flow took during the debug run.

#### [Build Multi-Column Screens in Flow Builder \(Pilot\)](#)

Multi-column layouts have hit Flow Builder! You can use the new Section component to arrange your flow screen components into multiple columns without touching a single line of code. Divide each flow screen into multiple sections, and easily modify the number of columns in each section to create effective, visually appealing layouts.

#### [Place Flow Elements Automatically with Auto-Layout \(Beta\)](#)

Our new auto-layout feature makes building flows and aligning elements easier. When auto-layout is enabled on a flow, elements in the canvas are spaced and connected automatically. No more elements positioned slightly out of alignment!

#### [Improve the Performance and Precision of Record-Triggered Flows with Entry Criteria](#)

We've added entry criteria to record-triggered flows, giving you more control over your automation. Instead of configuring the flow to run every time a record is created or edited, you can now configure it to run only when condition requirements are met. This optimization can also significantly reduce your record-triggered flows' impact on your org's performance, depending on the flow.

#### [Create Decision Outcomes that Only Execute When Certain Changes are Made](#)

Now a flow triggered by a record update can take different paths if the record that triggered the flow was edited to meet certain criteria. When you configure a Decision outcome, you can now set that outcome to execute only when the triggering record is updated to meet the condition requirements. This feature allows you to filter out record updates that are unrelated to your flow's use case, and to avoid reprocessing records that previously triggered the flow.

### [Use AND, OR, and Custom Operators Across All Flow Builder Elements](#)

We've taken the condition-defining options you're familiar with in the Decision and Pause elements and extended them consistently across Flow Builder. Specify that you want the condition logic to meet ANY conditions or that you want it to meet ALL conditions. For example, specify contacts with the name Joe OR the city of San Francisco. Or you can provide your own custom logic. We've added these options to the Get Records, Update Records, and Delete Records elements, and to screen elements. You can also find the options in the Start element when configuring schedule- and record-triggered flows, and in record choice sets.

### [Locate a Flow Builder Error with the Click of a Link](#)

If you get an error in Flow Builder, go straight to it instead of hunting through your flow. Flow Builder error messages now include a link, when available, that opens the erroneous element and highlights it on the canvas. The auto-layout canvas and resources don't support highlighting.

### [Easily Access Related Record Data in Autolaunched Flows with Triggers](#)

Now in autolaunched flows with triggers, you no longer need to create Get Records elements to find associated records and retrieve data from them. Instead, when you configure flow elements and resources, you can easily drill down to the field values of a global or record variable's associated records. For example, in a Decision element, drill down from \$Record to Account ID to Customer Priority.

### [Use Your Salesforce Org's Global Variables Everywhere in Flows](#)

Access information about your org or the running user throughout your flows by referencing global variables. Previously, most global variables were available only in flow formulas, and Flow Builder displayed only the first 100 options for each type of global variable. Now you get all global variable options from anywhere in Flow Builder that supports variables. For example, you can easily display the running user's name to personalize your flow screens.

### [View Merge Field Labels in Flow Builder](#)

Now get easy-to-read labels in the form of a pill for merge fields such as global constants and global variables. We're hiding the complexity of the merge field syntax but the syntax is still there if you need it. After you select a merge field and move to another field, the merge field's label appears. The label doesn't change the merge field value. With pills, you can click **X** to remove a merge field. The labels are available only in some areas such as logic elements, data elements, and screen component visibility.

### [Text Template Setting Is Saved](#)

After you save a flow resource as either "View as Rich Text" or "View as Plain Text", the Text Template flow resource remembers your text view setting.

### [Flow Screen Previews of Picklist and Multi-Select Picklist Components Are No Longer Interactive](#)

When you add a component to a screen in Flow Builder, the component appears in the screen canvas. However, the components aren't interactive within the screen canvas. Previously, the picklist and multi-select picklist components were interactive, but not always in ways that were expected or helpful.

## Trigger a Flow to Run Before a Record is Deleted

In Flow Builder, you can now configure a new record-triggered flow to run before a record is deleted. You no longer need to write Apex code to set this up. This autolaunched flow runs in the background and updates related records when a record is deleted.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

## Debug Flow Errors in Sandbox Org as Another User

Debugging a flow in a sandbox org is now easier than ever with the ability to debug a flow as another user. When you debug a flow as another user, you can catch flow exceptions such as unexpected permission, sharing, and profile configurations before they occur in production orgs.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

### Debug Autolaunched Flows Directly on the Canvas (Beta)

Now you can debug an autolaunched flow without opening a new browser tab. Just click **Debug on Canvas (Beta)** in Flow Builder and view the path the flow took during the debug run.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

### Build Multi-Column Screens in Flow Builder (Pilot)

Multi-column layouts have hit Flow Builder! You can use the new Section component to arrange your flow screen components into multiple columns without touching a single line of code. Divide each flow screen into multiple sections, and easily modify the number of columns in each section to create effective, visually appealing layouts.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

### Place Flow Elements Automatically with Auto-Layout (Beta)

Our new auto-layout feature makes building flows and aligning elements easier. When auto-layout is enabled on a flow, elements in the canvas are spaced and connected automatically. No more elements positioned slightly out of alignment!

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### Improve the Performance and Precision of Record-Triggered Flows with Entry Criteria

We've added entry criteria to record-triggered flows, giving you more control over your automation. Instead of configuring the flow to run every time a record is created or edited, you can now configure it to run only when condition requirements are met. This optimization can also significantly reduce your record-triggered flows' impact on your org's performance, depending on the flow.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

### Create Decision Outcomes that Only Execute When Certain Changes are Made

Now a flow triggered by a record update can take different paths if the record that triggered the flow was edited to meet certain criteria. When you configure a Decision outcome, you can now set that outcome to execute only when the triggering record is updated to meet the condition requirements. This feature allows you to filter out record updates that are unrelated to your flow's use case, and to avoid reprocessing records that previously triggered the flow.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

## Use AND, OR, and Custom Operators Across All Flow Builder Elements

We've taken the condition-defining options you're familiar with in the Decision and Pause elements and extended them consistently across Flow Builder. Specify that you want the condition logic to meet ANY conditions or that you want it to meet ALL conditions. For example, specify contacts with the name Joe OR the city of San Francisco. Or you can provide your own custom logic. We've added these options to the Get Records, Update Records, and Delete Records elements, and to screen elements. You can also find the options in the Start element when configuring schedule- and record-triggered flows, and in record choice sets.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

## Locate a Flow Builder Error with the Click of a Link

If you get an error in Flow Builder, go straight to it instead of hunting through your flow. Flow Builder error messages now include a link, when available, that opens the erroneous element and highlights it on the canvas. The auto-layout canvas and resources don't support highlighting.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

## Easily Access Related Record Data in Autolaunched Flows with Triggers

Now in autolaunched flows with triggers, you no longer need to create Get Records elements to find associated records and retrieve data from them. Instead, when you configure flow elements and resources, you can easily drill down to the field values of a global or record variable's associated records. For example, in a Decision element, drill down from \$Record to Account ID to Customer Priority.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

## Use Your Salesforce Org's Global Variables Everywhere in Flows

Access information about your org or the running user throughout your flows by referencing global variables. Previously, most global variables were available only in flow formulas, and Flow Builder displayed only the first 100 options for each type of global variable. Now you get all global variable options from anywhere in Flow Builder that supports variables. For example, you can easily display the running user's name to personalize your flow screens.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

[Salesforce Help: Global Variables \(can be outdated or unavailable during release preview\)](#)

## View Merge Field Labels in Flow Builder

Now get easy-to-read labels in the form of a pill for merge fields such as global constants and global variables. We're hiding the complexity of the merge field syntax but the syntax is still there if you need it. After you select a merge field and move to another field, the merge field's label appears. The label doesn't change the merge field value. With pills, you can click **X** to remove a merge field. The labels are available only in some areas such as logic elements, data elements, and screen component visibility.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

## Text Template Setting Is Saved

After you save a flow resource as either “View as Rich Text” or “View as Plain Text”, the Text Template flow resource remembers your text view setting.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

## Flow Screen Previews of Picklist and Multi-Select Picklist Components Are No Longer Interactive

When you add a component to a screen in Flow Builder, the component appears in the screen canvas. However, the components aren't interactive within the screen canvas. Previously, the picklist and multi-select picklist components were interactive, but not always in ways that were expected or helpful.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

## Lightning Flow Management: Run-Time Improvements Delivered by API Version and Triggers in the Flows List View

Control when each flow adopts run-time behavior changes. Quickly see which triggers your autolaunched flows have on the Flows page in Setup.

### IN THIS SECTION:

#### [Adopt Run-Time Behavior Changes for Individual Flows and Processes at Your Convenience](#)

Some run-time behavior improvements are now delivered by API version, so that you can control when each flow or process adopts those changes. Test the behavior updates and make any necessary configuration changes to individual flows and processes at your convenience.

#### [Quickly See the Triggers of Your Flows on the Flows Page in Setup](#)

Now see which trigger your autolaunched flow has with just a glance at the Flows list view in Setup. In the new Trigger column, see if a flow's trigger is a record, a schedule, or a platform event. For a record-triggered flow, see if it makes before- or after-save updates. You can also discover which trigger an autolaunched flow has by viewing the flow's detail page.

#### [View Flow Labels and Screen Labels in Flow Interview Logs](#)

The Flow Interview Log object includes the new Flow Label field, and the Flow Interview Log Entry object includes the new Element Label field. Include the fields in your custom reports for screen flows so your users get data that's easier to read.

#### [Run Flows in System Context Without Sharing to Access the Recommendation Object for External Users](#)

Now only internal users can access Recommendation object records. Previously, community, portal, and guest users had read-only access to recommendations by invoking a flow that obtained recommendation records for them. To continue those external users' access to recommendations, you can configure the flow to always run in system context without sharing. However, doing so bypasses user permissions and lets the flow create, update, and delete records that the running user can't access directly. Make sure that your flow can access only the records that are appropriate for external users. To configure a flow to always run in system context without sharing, edit the flow version properties.

#### [Trigger Flows to Run When a Record Owner Is Changed in Salesforce Classic](#)

When a user changes the owner of a record via Salesforce Classic, that record change can now launch a record-triggered flow. Previously, only record-owner changes that were made in Lightning Experience could launch record-triggered flows.

## Adopt Run-Time Behavior Changes for Individual Flows and Processes at Your Convenience

Some run-time behavior improvements are now delivered by API version, so that you can control when each flow or process adopts those changes. Test the behavior updates and make any necessary configuration changes to individual flows and processes at your convenience.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

[Lightning Flow Run-Time Improvements in API Version 50.0](#)

## Quickly See the Triggers of Your Flows on the Flows Page in Setup

Now see which trigger your autolaunched flow has with just a glance at the Flows list view in Setup. In the new Trigger column, see if a flow's trigger is a record, a schedule, or a platform event. For a record-triggered flow, see if it makes before- or after-save updates. You can also discover which trigger an autolaunched flow has by viewing the flow's detail page.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

## View Flow Labels and Screen Labels in Flow Interview Logs

The Flow Interview Log object includes the new Flow Label field, and the Flow Interview Log Entry object includes the new Element Label field. Include the fields in your custom reports for screen flows so your users get data that's easier to read.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

## Run Flows in System Context Without Sharing to Access the Recommendation Object for External Users

Now only internal users can access Recommendation object records. Previously, community, portal, and guest users had read-only access to recommendations by invoking a flow that obtained recommendation records for them. To continue those external users' access to recommendations, you can configure the flow to always run in system context without sharing. However, doing so bypasses user permissions and lets the flow create, update, and delete records that the running user can't access directly. Make sure that your flow can access only the records that are appropriate for external users. To configure a flow to always run in system context without sharing, edit the flow version properties.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

[Salesforce Help: Which Context Do Flows Run In? \(can be outdated or unavailable during release preview\)](#)

## Trigger Flows to Run When a Record Owner Is Changed in Salesforce Classic

When a user changes the owner of a record via Salesforce Classic, that record change can now launch a record-triggered flow. Previously, only record-owner changes that were made in Lightning Experience could launch record-triggered flows.

**Where:** This change applies to Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

[Improve the Performance and Precision of Record-Triggered Flows with Entry Criteria](#)

## Lightning Flow Extensions: Multi-Object Screen Components, Custom UIs for Screen Components and Invocable Actions, and Simplified Import of Actions via External Services (Pilot)

Have developers build screen components that work for any object you choose. Enjoy engaging UIs that developers build for the screen components and invocable actions that you add to your flows. Use external services to quickly import public API specifications, and add their actions to your flows (pilot).

IN THIS SECTION:

[Create Flow Screen Components That Work for Multiple Objects \(Generally Available\)](#)

Now developers can create reusable screen components that use the generic `sObject` and `sObject []` data types. They can build one component that works for multiple objects, rather than one component for each individual object. For example, they can build a data table component that works with any collection of records, from accounts and contacts to custom objects.

[Configure Custom Flow Screen Components More Easily \(Generally Available\)](#)

Developers can create custom property editors that make it a snap for you to configure flow screen components in Flow Builder. A custom property editor is a Lightning web component that provides a clean, simple UI for entering input values in the properties pane. This feature is now generally available.

[Use Custom Property Editors in Flow Builder with Actions and Screen Components That Work for Multiple Objects](#)

Developers can now create custom property editors for custom invocable actions and screen components that use the generic `sObject` and `sObject []` data types.

[Easily Add Actions to Flows from Public Web Services \(Pilot\)](#)

External Services can now import a limited number of specifications for public web services. Supported services include Jira, Dropbox, Instagram, Twitter, Mailchimp, eBay, Walmart, GoToMeeting, Trello, and Medium. Activate as many as 25 actions at a time for each API. Add the actions to your flow from the Action element in Flow Builder. External Services also includes support for the OpenAPI 3.0 specification and a new selector that lets you activate and deactivate specific API operations.

### Create Flow Screen Components That Work for Multiple Objects (Generally Available)

Now developers can create reusable screen components that use the generic `sObject` and `sObject []` data types. They can build one component that works for multiple objects, rather than one component for each individual object. For example, they can build a data table component that works with any collection of records, from accounts and contacts to custom objects.

**Where:** This change applies to Lightning web components in Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions.

**How:** Create a custom flow screen Lightning web component, or edit an existing one. In its configuration file, a flow screen component has the target `lightning__FlowScreen`.

1. Define a type that extends the generic `sObject` data type by defining a `<propertyType>`.
2. For each property that maps to the same object, set the property's `type` attribute to `{propertyTypeName}`. If the attribute expects a collection of that object, set the `type` attribute to `{propertyTypeName []}`. For example, if *propertyTypeName* is `T`, use `{T}` or `{T []}`.

You can reference the same property type for single and collection properties. To set the `type` attribute for single or collection variable properties, see the comments in the code example.

```

<!-- myComponent.js-meta.xml -->
<targetConfigs>
  <targetConfig targets="lightning__FlowScreen">

    <!-- Declare a property type that extends SObject for single and collection variable
    properties.-->
    <propertyType name="T" extends="SObject" label="Object" description="Select an
    object." />

    <!--To use a collection of the SObject data type, use the braces in this syntax,
    type="{T[]}".-->
    <property name="tableData" label="Records to Display" type="{T[]}" role="inputOnly"
    required="true"
      description="REQUIRED: Record Collection variable containing the records
    to display in the data table. Make sure to select a variable that matches the selected
    object."/>

    <property name="preSelectedRows" label="Preselected Rows" type="{T[]}"
    role="inputOnly"
      description="Which records should be selected by default when the table
    renders? Select a Record Collection variable that contains those records."/>

    <property name="outputSelectedRows" label="User-Selected Rows" type="{T[]}"
    role="outputOnly"
      description="Which records were selected by the user at runtime? This
    value should be stored in a record collection variable."/>

  </targetConfig>
</targetConfigs>

```

Previously, the example component was tied to one object, such as Account, Contact, or myCustomObject\_\_c. But now developers create one component, and the Flow Builder admin chooses the object each time they use that component.

| Data Table Flow          |               |                  |                     |                |
|--------------------------|---------------|------------------|---------------------|----------------|
| <input type="checkbox"/> | Full Name     | Title            | Department          | Lead Source    |
| <input type="checkbox"/> | Rose Gonzalez | SVP, Procurement | Procurement         | Trade Show     |
| <input type="checkbox"/> | Sean Forbes   | CFO              | Finance             | Trade Show     |
| <input type="checkbox"/> | Andy Young    | SVP, Operations  | Internal Operations | Purchased List |

For this feature, when a flow screen component defines a generic sObject data type, custom objects that the flow references aren't included in the package automatically. To deploy the package successfully, manually add those referenced custom objects to the package.

**Changes Since Beta:** Packaging and changes sets are now supported for flows that include a multi-object flow screen component.

## Configure Custom Flow Screen Components More Easily (Generally Available)

Developers can create custom property editors that make it a snap for you to configure flow screen components in Flow Builder. A custom property editor is a Lightning web component that provides a clean, simple UI for entering input values in the properties pane. This feature is now generally available.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

## Use Custom Property Editors in Flow Builder with Actions and Screen Components That Work for Multiple Objects

Developers can now create custom property editors for custom invocable actions and screen components that use the generic `sObject` and `sObject []` data types.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

## Easily Add Actions to Flows from Public Web Services (Pilot)

External Services can now import a limited number of specifications for public web services. Supported services include Jira, Dropbox, Instagram, Twitter, Mailchimp, eBay, Walmart, GoToMeeting, Trello, and Medium. Activate as many as 25 actions at a time for each API. Add the actions to your flow from the Action element in Flow Builder. External Services also includes support for the OpenAPI 3.0 specification and a new selector that lets you activate and deactivate specific API operations.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions.

 **Note:** We provide External Services API Schema Enhancements to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. External Services API Schema Enhancements isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features. You can provide feedback and suggestions for External Services API Schema Enhancements in the [External Services group in the Trailblazer Community](#).

## Lightning Flow Release Updates: Process Builder, Invocable Actions, Flow Merge Fields, and Apex Actions

Resume paused interviews in the same context and with the same user access they had before they were paused. Let processes evaluate the original values of record fields. Improve the behaviors and effects of failed invocable actions. Enforce the running user's data access when executing flow merge fields. Respect the public access modifiers for legacy Apex actions. Cancel the "Require User Access to Apex Classes Invoked by Flow" update.

### IN THIS SECTION:

#### [Make Paused Flow Interviews Resume in the Same Context with the Same User Access \(Update\)](#)

With this update enabled, paused autolaunched flows always resume in the same context and with the same user access they had before they were paused.

#### [Evaluate Criteria Based on Original Record Values in Process Builder \(Update, Postponed\)](#)

This update, released in Summer '19, was scheduled for auto-activation (enforcement) in Summer '20 and then postponed to Winter '21, but has been postponed again to Winter '22. This release update ensures that a process with multiple criteria and a record update evaluates the *original* value of the field that began the process with a value of null.

#### [Enable Partial Save for Invocable Actions \(Update, Postponed\)](#)

This update, released in Winter '20, was scheduled for auto-activation (enforcement) in Summer '20 and then postponed to Winter '21, but has been postponed again to Spring '21. This release update improves the behaviors and effects of failed invocable actions. It only affects external REST API calls to invocable actions done in bulk. With this update, when invoking a set of actions in a single request, a single failed invocable action no longer causes the entire transaction to fail. Without this update, if a single invocable action fails, other invocable actions within the transaction are rolled back and the entire transaction fails.

#### [Enforce Data Access in Flow Formulas \(Update, Postponed\)](#)

This update, released in Spring '20, was scheduled for auto-activation (enforcement) in Summer '20, but has been postponed to Spring '21. This update enforces the running user's data access when Flow Builder uses a merge field to access a field on a related record.

#### [Make Flows Respect Access Modifiers for Legacy Apex Actions \(Update, Postponed\)](#)

This update, released in Spring '20, was scheduled for auto-activation (enforcement) in Summer '20, but has been postponed to Spring '21. With this release update enabled, developers can trust that their legacy Apex actions are properly protected and available only to other components in their managed packages. This update makes a flow fail if it contains a public legacy Apex action.

#### [Disable Rules for Enforcing Explicit Access to Apex Classes \(Update, Postponed\)](#)

The Disable Rules for Enforcing Explicit Access to Apex Classes update, released in Summer '20, was scheduled for auto-activation (enforcement) in Spring '21, but has been postponed to Summer '21. This release update replaces the Require User Access to Apex Classes Invoked by Flow update. The Disable Rules for Enforcing Explicit Access to Apex Classes update returns orgs to their original state – where users only need access to the flow to be able to run a flow that includes Apex actions.

#### [Check for Null Record Variables or Null Values of Lookup Relationship Fields in Process and Flow Formulas \(Update, Postponed\)](#)

This update, released in Spring '19, was scheduled for auto-activation (enforcement) in Spring '20, but has been postponed to Spring '21. **Note:** This update has already been enabled in Salesforce orgs that received Summer '20 prior to July 10, 2020. If this is the case for your org, you may disable the update if you wish until Spring '21. This update enables process and flow formulas to return null values when the calculations involve a null record variable or null lookup relationship field.

## Make Paused Flow Interviews Resume in the Same Context with the Same User Access (Update)

With this update enabled, paused autolaunched flows always resume in the same context and with the same user access they had before they were paused.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**When:** Salesforce enforces this update in Winter '22. To get the major release upgrade date for your instance, go to [Trust Status](#), search for your instance, and click the maintenance tab.

**Why:** When an autolaunched flow resumes after a time-based resume event, the flow runs in system context without sharing. The flow resumes this way regardless of the context and user access it had before it was paused. With this update enabled, flows resume in the same context and with the same permissions they had before they were paused.

For example, say that a user clicks a custom button to run an autolaunched flow, and that user doesn't have permission to edit Record A. At first, the autolaunched flow runs in user context. But after it's paused and resumed, the flow runs in system context and can edit Record A. Enabling this update prevents such flows from editing records that the running user doesn't have permission to edit.

This update affects only autolaunched flows with Pause elements that are configured to resume at a specific time.

This update improves security in your Salesforce org by preventing you from unintentionally allowing users to create or edit records they don't have access to.

**How:** Autolaunched flow interviews can fail if they're paused and then resumed after a time-based resume event. To avoid failed flow interviews, ensure that running users have the permissions required to execute all flow elements after each Pause element. Alternatively, you can configure autolaunched flows to always run in system context.

To apply this update, from Setup, in the Quick Find box, enter *Release Updates*, and select **Release Updates**. For Make Paused Flow Interviews Resume in the Same Context with the Same User Access, follow the testing and activation steps.

SEE ALSO:

[Release Updates](#)

[Lightning Flow Release Updates: Process Builder, Invocable Actions, Flow Merge Fields, and Apex Actions](#)

## Evaluate Criteria Based on Original Record Values in Process Builder (Update, Postponed)

This update, released in Summer '19, was scheduled for auto-activation (enforcement) in Summer '20 and then postponed to Winter '21, but has been postponed again to Winter '22. This release update ensures that a process with multiple criteria and a record update evaluates the *original* value of the field that began the process with a value of null.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**When:** This update is enforced in the Winter '22 release. To get the major release upgrade date for your instance, go to [Trust Status](#), search for your instance, and click the maintenance tab.

**How:** To apply this update, from Setup, in the Quick Find box, enter *Release Updates*, and select **Release Updates**. For Evaluate Criteria Based on Original Record Values in Process Builder, follow the testing and activation steps.

If you have a process with the **Do you want to execute the actions only when specified changes are made to the record?** option selected, or it uses the *ISCHANGED ()* function in your criteria, this update could cause the process to behave differently.

SEE ALSO:

[Release Updates](#)

[Lightning Flow Release Updates: Process Builder, Invocable Actions, Flow Merge Fields, and Apex Actions](#)

[Summer '20 Release Notes: Evaluate Criteria Based on Original Record Values in Process Builder \(Update, Postponed\)](#)

## Enable Partial Save for Invocable Actions (Update, Postponed)

This update, released in Winter '20, was scheduled for auto-activation (enforcement) in Summer '20 and then postponed to Winter '21, but has been postponed again to Spring '21. This release update improves the behaviors and effects of failed invocable actions. It only affects external REST API calls to invocable actions done in bulk. With this update, when invoking a set of actions in a single request, a single failed invocable action no longer causes the entire transaction to fail. Without this update, if a single invocable action fails, other invocable actions within the transaction are rolled back and the entire transaction fails.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Why:** Without this release update, if one invocable action fails, other invocable actions in the same transaction are rolled back. With this release update, Salesforce tries three times to execute the invocable actions that run successfully and rolls back only the invocable actions that fail to execute. This functionality is called "partial save."

Most invocable action types that are invoked via REST API are enabled with the partial save functionality. However, even with this release update, the following action types don't support partial save functionality:

- Cancel Fulfillment Order
- Cancellation Orders
- Capture Funds

- Content Workspaces
- Create Fulfillment Order
- Create Invoice from Fulfillment Order
- Create Service Report
- External Services
- Generate Work Orders
- Invocable Apex
- Skills-based Routing
- Submit Digital Form Response

Partial save can cause an external callout to occur multiple times, and external callouts can't be rolled back. Repeated external callouts can occur only when a flow is launched from a process or invoked from REST API, and that flow makes multiple attempts to execute the action that's making the external callouts.

Because partial save can make multiple attempts to execute an action, the transaction can take longer than expected. This can cause your org to reach some limits sooner than expected.

**When:** This update is enforced in the Spring '21 release. To get the major release upgrade date for your instance, go to [Trust Status](#), search for your instance, and click the maintenance tab. Before enforcement, or before you activate this release update in your production org, we recommend that you test it in a sandbox or Developer Edition org to make sure that your invocable actions work correctly. If you must work in your production org, do so during off-peak hours.

**How:** To apply this update, from Setup, in the Quick Find box, enter *Release Updates*, and select **Release Updates**. For Enable Partial Save for Invocable Actions, follow the testing and activation steps.

Review any API integrations that use invocable actions to ensure they properly accommodate partial-save behavior.

SEE ALSO:

[Release Updates](#)

[Lightning Flow Release Updates: Process Builder, Invocable Actions, Flow Merge Fields, and Apex Actions](#)

[Summer '20 Release Notes: Enable Partial Save for Invocable Actions \(Update, Postponed\)](#)

## Enforce Data Access in Flow Formulas (Update, Postponed)

This update, released in Spring '20, was scheduled for auto-activation (enforcement) in Summer '20, but has been postponed to Spring '21. This update enforces the running user's data access when Flow Builder uses a merge field to access a field on a related record.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**When:** This update is enforced in the Spring '21 release. To get the major release upgrade date for your instance, go to [Trust Status](#), search for your instance, and click the maintenance tab.

**Why:** With this update enabled, a flow merge field that accesses a related record respects the running user's object permissions, field-level access, and record-level access such as sharing rules.

For example, consider an org that makes contacts private unless the contact owner shares the contact explicitly with other users.

Without this update, when a user who isn't the contact owner runs a flow that uses a merge field to access a field on the contact via the Contact ID field on the case, the flow interview ignores record-level security and accesses the field.

```
{ !caseRecord.Contact.LastName }
```

With this update enabled, the running user's record-level access is enforced, so that flow interview can't access the field.

**How:** We recommend that you test this update in a sandbox before enabling it in your production org. Test all flow paths that use merge fields to access fields on related records that have object-level security, field-level security, or record-level security. For example, test flows that use merge fields to access fields on related records that aren't shared with the running user of the flow.

To apply this update, from Setup, in the Quick Find box, enter *Release Updates*, and select **Release Updates**. For Enforce Data Access in Flow Formulas, follow the testing and activation steps.

If you experience issues, contact Salesforce Customer Support.

SEE ALSO:

[Release Updates](#)

[Lightning Flow Release Updates: Process Builder, Invocable Actions, Flow Merge Fields, and Apex Actions](#)

[Summer '20 Release Notes: Enforce Data Access in Flow Formulas \(Update, Postponed\)](#)

## Make Flows Respect Access Modifiers for Legacy Apex Actions (Update, Postponed)

This update, released in Spring '20, was scheduled for auto-activation (enforcement) in Summer '20, but has been postponed to Spring '21. With this release update enabled, developers can trust that their legacy Apex actions are properly protected and available only to other components in their managed packages. This update makes a flow fail if it contains a public legacy Apex action.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Why:** This update resolves an issue where flows don't respect the public access modifiers for legacy Apex actions. The issue affects only legacy Apex actions that reference Apex classes installed from managed packages.

Legacy Apex actions were formerly known as Apex plug-ins. When you define an Apex class that implements the `Process.Plugin` interface in your org, it's available in Flow Builder as a legacy Apex action.



**Note:** For new Apex integrations, we recommend using the `InvocableMethod` annotation instead of the `Process.Plugin` interface. This update doesn't affect invocable Apex methods.

With this update enabled:

- Flows fail when they execute public legacy Apex actions.
- Public legacy Apex actions aren't available in Flow Builder.
- Global legacy Apex actions with public `describe` or `invoke` methods are unavailable to flows in a different namespace.

Without this update, you can add public legacy Apex actions to flows even though they're not supported. Also, global legacy Apex actions with public `describe` or `invoke` methods are available to flows in a different namespace.

**When:** This update is enforced in the Spring '21 release. To get the major release upgrade date for your instance, go to [Trust Status](#), search for your instance, and click the maintenance tab.

**How:** We recommend that you test this update in a sandbox or developer org before activating the update in production. If you must work in your production org, do so during off-peak hours. Test all paths that contain legacy Apex action elements and make sure your flows work correctly. If a legacy Apex action is important for a business process but isn't supported with this update, contact the package developer. The developer can consider making a legacy Apex action global, or rebuilding the functionality in a new Apex class.

To apply this update, from Setup, in the Quick Find box, enter *Release Updates*, and select **Release Updates**. For Make Flows Respect Access Modifiers for Legacy Apex Actions, follow the testing and activation steps.

SEE ALSO:

[Release Updates](#)

[Lightning Flow Release Updates: Process Builder, Invocable Actions, Flow Merge Fields, and Apex Actions](#)

[Summer '20 Release Notes: Make Flows Respect Access Modifiers for Legacy Apex Actions \(Update, Postponed\)](#)

## Disable Rules for Enforcing Explicit Access to Apex Classes (Update, Postponed)

The Disable Rules for Enforcing Explicit Access to Apex Classes update, released in Summer '20, was scheduled for auto-activation (enforcement) in Spring '21, but has been postponed to Summer '21. This release update replaces the Require User Access to Apex Classes Invoked by Flow update. The Disable Rules for Enforcing Explicit Access to Apex Classes update returns orgs to their original state – where users only need access to the flow to be able to run a flow that includes Apex actions.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

**When:** This update is enforced in the Summer '21 release. To get the major release upgrade date for your instance, go to [Trust Status](#), search for your instance, and click the maintenance tab.

**Who:** This new update is available only for orgs that have the Require User Access to Apex Classes Invoked by Flow update enabled. If you don't see the Disable Rules for Enforcing Explicit Access to Apex Classes update, you have nothing to do to comply.

**How:** To apply this update, from Setup, in the Quick Find box, enter *Release Updates*, and select **Release Updates**. For Disable Rules for Enforcing Explicit Access to Apex Classes, click **Activate**. Because we're removing a requirement, enabling this update won't affect any of your existing customizations. We recommend that admins review permissions, to ensure that users who require access to Apex classes for other reasons still have access to them.

SEE ALSO:

[Release Updates](#)

[Lightning Flow Release Updates: Process Builder, Invocable Actions, Flow Merge Fields, and Apex Actions](#)

[Summer '20 Release Notes: Disable Rules for Enforcing Explicit Access to Apex Classes \(Update, Postponed\)](#)

## Check for Null Record Variables or Null Values of Lookup Relationship Fields in Process and Flow Formulas (Update, Postponed)

This update, released in Spring '19, was scheduled for auto-activation (enforcement) in Spring '20, but has been postponed to Spring '21. **Note:** This update has already been enabled in Salesforce orgs that received Summer '20 prior to July 10, 2020. If this is the case for your org, you may disable the update if you wish until Spring '21. This update enables process and flow formulas to return null values when the calculations involve a null record variable or null lookup relationship field.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Why:** In processes and flows, a formula can reference a record's field via a record variable or lookup relationship field. At run-time, when the record variable or lookup relationship field is null, the formula sometimes returns null. Otherwise, it returns an unhandled exception. With this update, the formula always returns a null value when the record variable or lookup relationship field is null. This update doesn't affect merge fields.

For example, when you update an account, a process starts and checks the criteria before it performs actions. The criteria includes a formula that references the parent account's name via the account's Parent Account field. The Parent Account field is a lookup relationship field: `[Account].Parent.Name`.

If the value of the lookup relationship field is null, the formula returns null. Without this update, the formula sometimes returns an unhandled exception instead of null.

**When:** This update is enforced in the Spring '21 release. To get the major release upgrade date for your instance, go to [Trust Status](#), search for your instance, and click the maintenance tab..

**How:** To test this critical update, we recommend working in a sandbox. Test all process and flow formulas that reference lookup relationship fields or record variable fields. Processes have formulas in criteria and in actions. Flows have formulas in resources and in validation of input components. To apply this update, from Setup, in the Quick Find box, enter *Release Updates*, and select **Release Updates**. For Check for Null Record Variables or Null Values of Lookup Relationship Fields in Process and Flow Formulas, follow the testing and activation steps.

#### SEE ALSO:

[Release Updates](#)

[Lightning Flow Release Updates: Process Builder, Invocable Actions, Flow Merge Fields, and Apex Actions](#)

[Summer '20 Release Notes: Return Null Values in Process and Flow Formulas \(Update, Postponed\)](#)

[Lightning Flow Run-Time Improvements in API Version 50.0](#)

## Lightning Flow Run-Time Improvements in API Version 50.0

These updates affect only flows and processes that are configured to run on API version 50.0 or later. Versioned updates let you test and adopt run-time behavior changes for individual flows and processes at your convenience. To change the run-time API version of a flow, open it in Flow Builder and edit the flow version properties. To change the run-time API version of a process, open it in Process Builder and click **Edit Properties**.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the mobile app in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

### Enforce each flow screen's Next or Finish control navigation setting

When **Next or Finish** is deselected in a flow screen's control navigation settings, the screen no longer displays the Next navigation option to users. For flows that run in API versions earlier than 50.0, the **Next or Finish** setting isn't always enforced. Specifically, screens always display the Next option when an element is in the flow after the screen.

### Let merge fields support null record variables

Merge fields that reference record variables no longer cause errors when the record variables are null at run time. For flows that run in API versions earlier than 50.0, a merge field such as `{ !Account . Name }` causes an error when the account record variable is null at run time.

### Evaluate the ISBLANK function correctly for empty strings

In flow and process formulas, the ISBLANK function returns true for empty string or null values. In flows and processes that run in API versions earlier than 50.0, the ISBLANK function returns true only when the value is null.

### Enforce the running user's data access when a flow uses a merge field

This versioned update enables the Enforce Data Access in Flow Merge Fields release update for flows that run in API version 50.0. After the release update's auto-activation, the update will be enforced for all flows regardless of their run-time API version. For more information, see [Enforce Data Access in Flow Formulas \(Update, Postponed\)](#) on page 366.

### Treat invalid references to global variables as errors instead of string values

At run time, an invalid reference to a global variable now results in an error. In flows that run in API versions earlier than 50.0, invalid references to global variables are treated as string values. For example, suppose that a flow screen contains a Display Text component

with this typo: `Hello {!$User.FirstName}!` If the flow runs in API version 50.0 or later, an error occurs when the Screen element is executed. If the flow runs in an API version earlier than 50.0, your users see “Hello {!\$User.FirstName}!” on the screen.

**SEE ALSO:**

[Adopt Run-Time Behavior Changes for Individual Flows and Processes at Your Convenience](#)

## Lightning App Builder: Dynamic Forms Is Generally Available, Dynamic Actions Enhancements, and Record Page Performance Analysis

Break up your record details and create more dynamic Lightning pages with Dynamic Forms, now generally available. Discover more ways to add the flexibility and control of dynamic actions to your record pages. Get an analysis of a Lightning record page’s runtime performance while you’re designing it with Performance Analysis in App Builder.

**IN THIS SECTION:**

### [Break Up Your Record Details with Dynamic Forms \(Generally Available\)](#)

Dynamic Forms is the next step in the evolution of Lightning record pages. It adds the ability to configure record detail fields and sections inside the Lightning App Builder. This feature, which is now generally available and enabled for everyone, includes some changes since the beta release.

### [Unleash New Flexibility with Dynamic Actions on Desktop \(GA and Beta\) and Mobile \(Beta\)](#)

There are now more ways to add the flexibility and control of dynamic actions to your record pages. Dynamic actions for custom objects are GA for desktop and Beta for mobile. Dynamic actions for supported standard objects (Account, Case, Contact, Lead, and Opportunity) are Beta for desktop. Assign actions in the Lightning App Builder instead of the page layout, and apply filters to control when and where actions appear for users.

### [Analyze Your Lightning Page Performance](#)

Discover ways to make your record page perform better based on analysis right inside the Lightning App Builder. Performance Analysis in App Builder evaluates the fields, instances of the Related Lists component, and metadata of a record page. With the click of a button, get best practices and suggestions for improving page performance and the end-user experience.

### [Lightning App Builder Header and Toolbar Changes](#)

We updated the Lightning App Builder header and toolbar and moved some items around.

### [Get Record Types When You Package Lightning Pages](#)

When you add a Lightning page to a package, any record type related to that page is now included automatically.

### [App Performance \(Beta\) in Lightning App Settings Has Been Retired](#)

The App Performance (Beta) tool, a pared down version of the Optimizer report just for Lightning record pages, has been retired. Previously, it was available from the App Settings menu when editing a Lightning App.

### [Lightning App Builder Accessibility Enhancements](#)

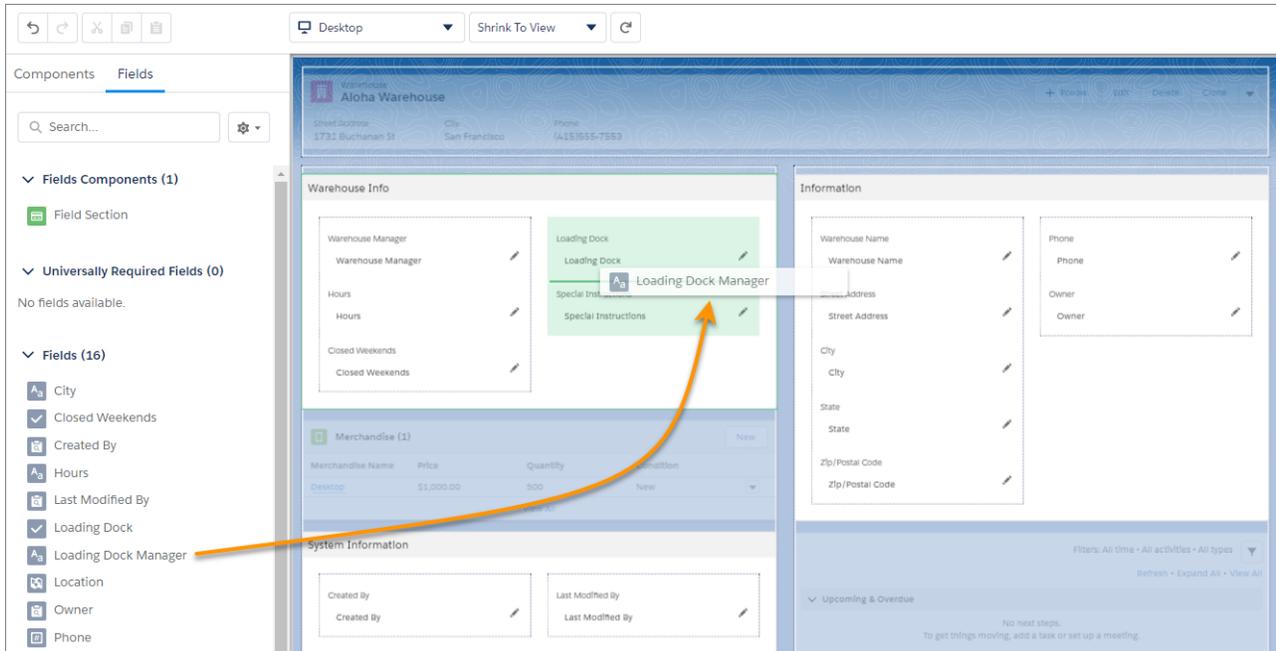
Navigate and interact more easily with items on the Lightning App Builder canvas with these accessibility improvements.

## Break Up Your Record Details with Dynamic Forms (Generally Available)

Dynamic Forms is the next step in the evolution of Lightning record pages. It adds the ability to configure record detail fields and sections inside the Lightning App Builder. This feature, which is now generally available and enabled for everyone, includes some changes since the beta release.

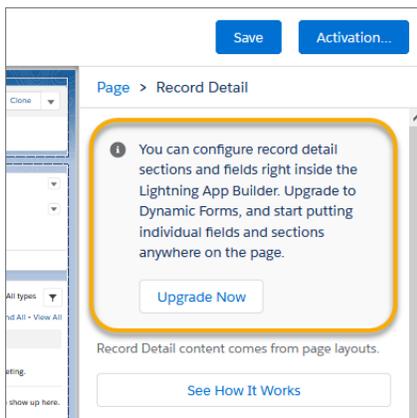
**Where:** This change applies to Lightning Experience in Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Why:** The more fields on your page layout, the more that the Record Detail component becomes a monolithic block of fields that you can't customize. With Dynamic Forms, you can migrate the fields and sections from your page layout as individual components into the Lightning App Builder. Then, you can configure them just like the rest of the components on the page, and give users only the fields and sections that they need.



**How:** Dynamic Forms is now enabled for everyone! As a result, you see new features available in the Lightning App Builder. A new Fields tab in the component palette contains Field and Field Section components, which are the building blocks for Dynamic Forms. And as you configure fields and sections, you get help from in-app tips, created just for Dynamic Forms-driven pages.

How do you get started? Open an existing record page in the Lightning App Builder, then click **Upgrade Now** from the Record Detail properties pane to launch the Dynamic Forms migration wizard. With only a few clicks, the wizard adds fields and field sections to the page for you.



Migration isn't the only path, however. You can also build your pages from scratch. Create a fresh Lightning record page, then drag fields and sections anywhere you want onto the page.

 **Note:** Dynamic Forms is supported on record pages for custom objects only.

#### Changes Since Beta:

- Dynamic Forms is now on for everyone in supported editions. The ability to turn it on and off for your org from the Record Page Settings node in Setup is removed.
- Universally required fields moved to their own section of the palette and have distinctive icons.
- Packaging is now supported for pages that contain Dynamic Forms components (Field, Field Section).
- Enhanced support for Dynamic Forms during edit, create, and clone.
- Several limitations and known issues are resolved.

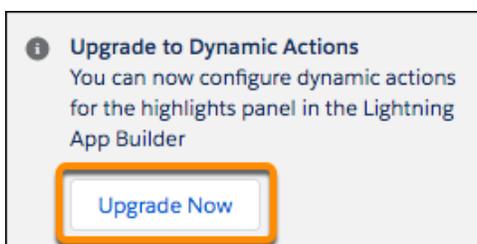
## Unleash New Flexibility with Dynamic Actions on Desktop (GA and Beta) and Mobile (Beta)

There are now more ways to add the flexibility and control of dynamic actions to your record pages. Dynamic actions for custom objects are GA for desktop and Beta for mobile. Dynamic actions for supported standard objects (Account, Case, Contact, Lead, and Opportunity) are Beta for desktop. Assign actions in the Lightning App Builder instead of the page layout, and apply filters to control when and where actions appear for users.

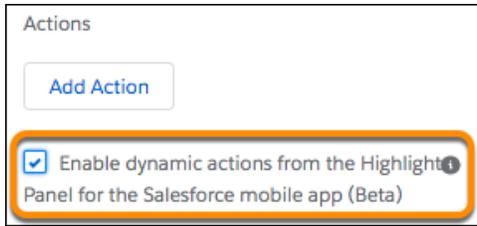
**Where:** This change applies to Lightning Experience desktop and the Salesforce mobile app in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

 **Note:** As beta features, Dynamic Actions for selected standard objects on desktop and Dynamic Actions for custom objects in the Salesforce Mobile App are previews and aren't part of the "Services" under your master subscription agreement with Salesforce. Use either of these features at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of either of these features within any particular time frame or at all, and we can discontinue either feature at any time. These features are for evaluation purposes only, not for production use. These features are offered as is and aren't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with them. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for Dynamic Actions in the [Dynamic Forms & Actions group in the Trailblazer Community](#).

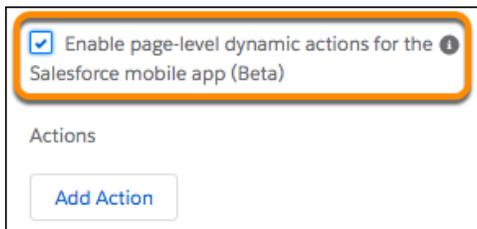
**How:** To enable dynamic actions for a custom object on desktop, add or select the Highlights Panel component on a custom object's record page. In the Highlights Panel properties pane, click **Upgrade Now** and step through the migration assistant to migrate actions or start with new ones.



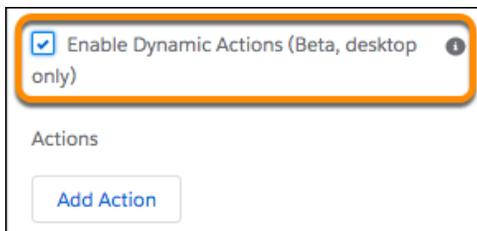
To assign the same actions for the custom object on mobile as on desktop, in the properties pane select **Enable dynamic actions from the Highlights Panel for the Salesforce mobile app (Beta)**.



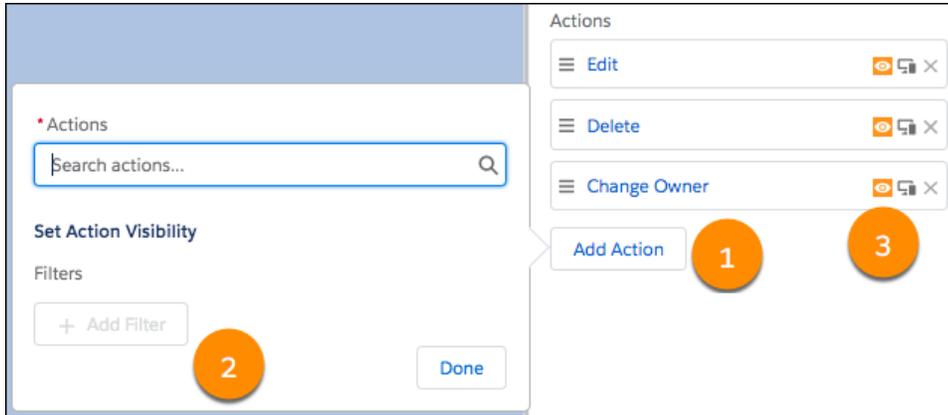
If you want to use a different set of dynamic actions on mobile, or if you have a mobile-only Lightning page, you can enable dynamic actions for mobile via the Page properties on the record page. Create or open a record page for a custom object in the Lightning App Builder. In the Page properties pane, select **Enable page-level dynamic actions for the Salesforce mobile app (Beta)**.



To enable dynamic actions for a supported standard object (Account, Case, Contact, Lead, or Opportunity) on desktop, add or select the Highlights Panel component on the object's record page. In the Highlights Panel properties pane, select **Enable Dynamic Actions (Beta, desktop only)**.



To add an action in any of the dynamic action scenarios, click **Add Action** (1) in the properties pane. In the Actions modal, choose an action and click **Add Filter** (2) to assign visibility rules based on record field, device type, and other filters. An eye icon (3) next to an action's name indicates that visibility rules are applied. If you migrated actions from a page layout, you can modify them in the Actions modal.

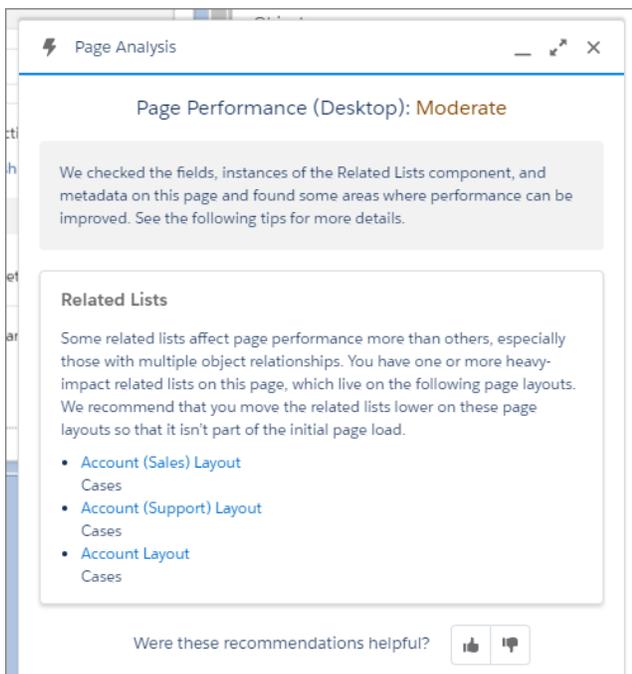


## Analyze Your Lightning Page Performance

Discover ways to make your record page perform better based on analysis right inside the Lightning App Builder. Performance Analysis in App Builder evaluates the fields, instances of the Related Lists component, and metadata of a record page. With the click of a button, get best practices and suggestions for improving page performance and the end-user experience.

**Where:** This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** To view the assessment of your page's performance, click **Analyze** from the Lightning App Builder toolbar.



Performance Analysis in App Builder is available for desktop record pages only.

We want to know what you think of the recommendations. Run an analysis, and let us know using the feedback feature included in the footer of the prompt.

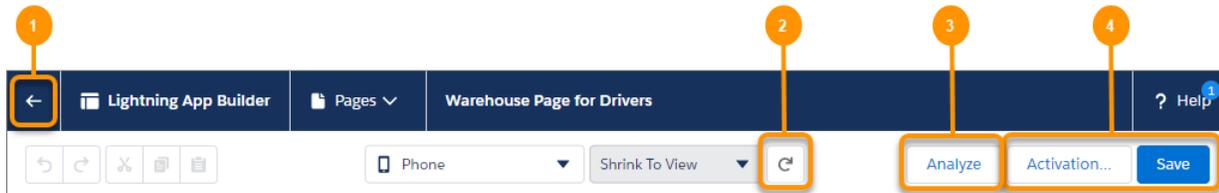
## Lightning App Builder Header and Toolbar Changes

We updated the Lightning App Builder header and toolbar and moved some items around.

**Where:** This change applies to Salesforce Classic and Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** In the header, we moved the Back button to the far left (1).

In the toolbar, the Refresh button is now a simple arrow icon (2). Also, we added an Analyze button to record pages for the new Performance Analysis in App Builder (3). Lastly, we switched the places and colors of the Save and Activation buttons (4). The Save button is now the rightmost button and is blue, and the Activation button is now white.



SEE ALSO:

[Analyze Your Lightning Page Performance](#)

## Get Record Types When You Package Lightning Pages

When you add a Lightning page to a package, any record type related to that page is now included automatically.

**Where:** This change applies to Salesforce Classic and Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

## App Performance (Beta) in Lightning App Settings Has Been Retired

The App Performance (Beta) tool, a pared down version of the Optimizer report just for Lightning record pages, has been retired. Previously, it was available from the App Settings menu when editing a Lightning App.

**Where:** This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Why:** The Lightning page performance assessments from the retired tool were enhanced and distilled into a new feature, Performance Analysis in App Builder.

SEE ALSO:

[Analyze Your Lightning Page Performance](#)

## Lightning App Builder Accessibility Enhancements

Navigate and interact more easily with items on the Lightning App Builder canvas with these accessibility improvements.

**Where:** This change applies to Salesforce Classic and Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** Tabbing between regions or components no longer moves focus to invisible items.

When a region or component is selected, the icons for inserting a component (  ) and the action icons (  ) are now available as Tab key targets within the selected item.

On record pages that use Dynamic Forms, the text inside Field Section components is now available as a Tab key target. You can select **Add Field(s) Here** with the Tab key, press **Enter**, and then add fields.

And when you use the keyboard or mouse to select **Get more on the AppExchange** in the component palette as a focus target, it now changes color for increased visibility.

## Einstein Builders: Deliver Personalized Recommendations (Beta), and Show Confidence Range and Top Predictors on Records for Numeric Predictions

Einstein Recommendation Builder delivers personalized, AI-driven recommendations of anything to anyone. Einstein Prediction Builder supports record-level insights for numeric predictions.

### IN THIS SECTION:

#### [Recommend Anything to Anyone with Einstein Recommendation Builder \(Beta\)](#)

Deliver AI-driven, personalized recommendations to customers by matching records from one Salesforce object to another. For example, recommend the best products for an account. Tell Einstein which Salesforce objects to learn from, customize your settings, and put your Einstein recommendation to work in a Next Best Action strategy.

#### [Show Top Predictors and Confidence Range on Records for Numeric Predictions](#)

The same Einstein Predictions component that shows top predictors on records for yes/no predictions is now available for numeric predictions. Einstein also shows you the confidence range of the prediction score. Find out which predictors influence individual scores the most.

### SEE ALSO:

[Salesforce Einstein: Build Bots Faster with Templates, Make Opportunity Scoring More Relevant with Filters, and Search Personalization Is Generally Available](#)

## Recommend Anything to Anyone with Einstein Recommendation Builder (Beta)

Deliver AI-driven, personalized recommendations to customers by matching records from one Salesforce object to another. For example, recommend the best products for an account. Tell Einstein which Salesforce objects to learn from, customize your settings, and put your Einstein recommendation to work in a Next Best Action strategy.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, and Unlimited editions.

**Who:** This feature is available to admins with the Service Cloud Einstein, Lightning Platform Plus, and Lightning Field Service Plus licenses.

**How:** From Setup, search for and select Einstein Recommendation Builder. Click **New Recommendation**.

Einstein recommendations are based on three interrelated Salesforce objects:

- The **Recommended Items** object (1) contains the records that you want to recommend. For example, you can recommend financial products, which are stored on your Product object.
- The **Recipient** object (2) contains the records that receive the recommendation. For example, maybe you're recommending financial products to small businesses, which are stored on your Account object.
- The **Interactions** object (3) is where Einstein can find stored interactions between the Recommended Items and Recipient objects. When an account purchases a product, that interaction could be stored on the Order History object.

Recommendation Builder supports all custom objects and most standard objects.

Einstein Recommendation Builder

What do you want to recommend?  
 \* Recommended Items Object **1**  
 Product

Who (or what) receives the recommendation?  
 \* Recipient Object **2**  
 Account

Which object stores interactions between Product and Account?  
 \* Interactions Object **3**  
 Order History

**Einstein is here to help**

**To build an Einstein recommendation, you specify**

- What you want to recommend. This is your **Recommended Items** object. For example, the Products object includes swimming pool pumps.
- Who (or what) receives the recommendations. This is your **Recipient** object. For example, the Accounts object includes a swimming pool supply store.
- Which object stores interactions between the recommended items and the recipient. This is your **Interactions** Object. For example, the Orders object stores a pool supply store's purchase of 800 pumps last month.

On the Summary page, you can dive into each object to create segments, exclude fields, and specify which records are examples of positive and negative interactions.

Einstein Recommendation Builder | Properties | Financial Products Recommendation | Back | Help

Settings | Scorecard | Draft-Saved 13 minutes ago | Clone | Build

**Overview**

**Summary**

**Recommended Items**

Segment  
Fields

**Recipient**

Segment  
Fields

**Interactions**

Example Records  
Relationship Fields

**You're off to a great start!**

Now you can fine-tune or modify your recommendation settings. For example, you can focus your recommendation on a segment of your dataset, or exclude certain fields. To help Einstein build smarter recommendations over time, you can specify which records to use as examples. Build your recommendation when you're satisfied with your settings.

| Recommended Items                                | Recipient  | Interactions   |
|--|--|--|
| <b>Segment 1</b><br>No segment (Use all records) | <b>Segment 2</b><br>No segment (Use all records) | <b>Example Records 3</b><br>All records are examples of positive interactions  |
| <b>Fields 1</b><br>12 of 12 included             | <b>Fields 2</b><br>18 of 18 included             | <b>Relationship Fields 1</b><br>Recommended Items Relationship Field Product: [ProductId]<br>Recipient Relationship Field Account: [AccountId] |

After your recommendation is built, review its scorecard to see how well it performs.

When you're happy with your results, deploy your Einstein recommendation to a Next Best Action strategy! Use Strategy Builder to seamlessly combine business policies with Einstein recommendations. For example, add rules to determine when certain recommendations are shown, or to filter out specific Einstein recommendations.

SEE ALSO:

[Salesforce Einstein: Build Bots Faster with Templates, Make Opportunity Scoring More Relevant with Filters, and Search Personalization Is Generally Available](#)

## Show Top Predictors and Confidence Range on Records for Numeric Predictions

The same Einstein Predictions component that shows top predictors on records for yes/no predictions is now available for numeric predictions. Einstein also shows you the confidence range of the prediction score. Find out which predictors influence individual scores the most.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions.

**Who:** This feature is available to admins with the Einstein Analytics Plus, Einstein Predictions, or Platform Plus license.

**How:** When you build your numeric prediction, on the page where you name the custom field that stores your prediction results, set Show Top Predictors on Records to **On**.

### Choose how you want prediction results to display

If you turn on Show Top Predictors on Records, be sure to also add the Einstein Predictions component to your record page layouts. Predictors, which represent fields, display in this component regardless of field-level security. If you have fields you don't want users to see, go back one step and exclude those fields from your prediction.

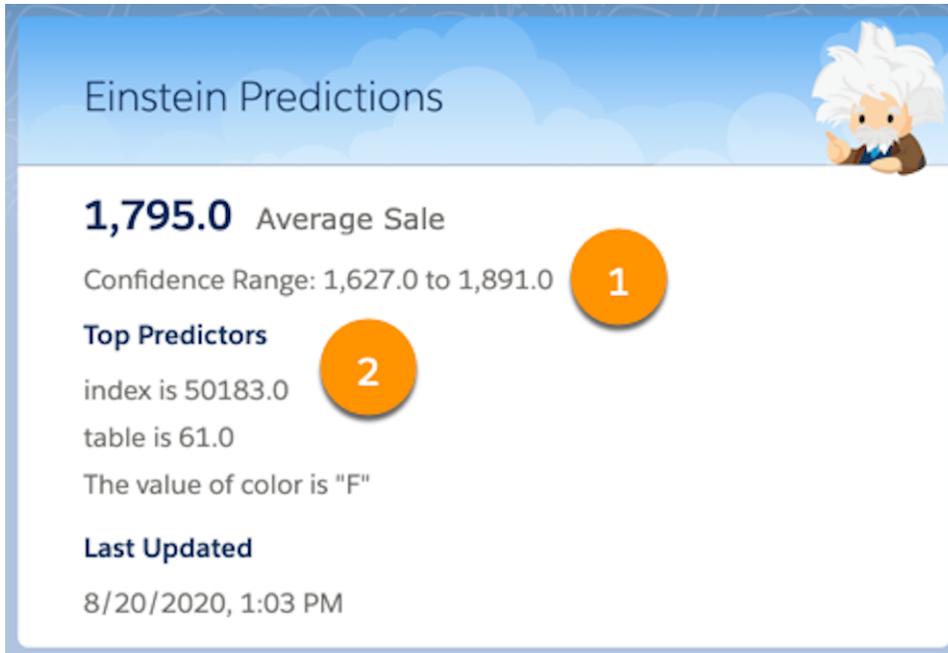
\* Show Top Predictors on Records ?

Turn on or off... ▼

On

Off

Add the Einstein Predictions component to all the record page layouts where you want to show top predictors. Configure the component for the prediction that you want. When you view a record that has a prediction score, you can see the Einstein Predictions component on the record page with the top predictors that influence the score. The confidence range (1) indicates how low and how high the actual score could be. The top predictors (2) show which field values influence the score the most.



 **Note:** The Einstein Predictions component is available only with the [paid version](#) of Einstein Prediction Builder.

SEE ALSO:

[Salesforce Einstein: Build Bots Faster with Templates, Make Opportunity Scoring More Relevant with Filters, and Search Personalization Is Generally Available](#)

## Globalization: Translation Import and Export Improvements, New Locale Formats, and a New Platform Language

If a translation import has errors, the email you receive provides more detail and includes the error log as an attachment. Data translation import and export limits are increased, and you can export data translation files for specific languages. Enable new and improved formats for international dates and times via an update. Plus, we added Khmer as a platform-only language.

IN THIS SECTION:

[Understand Translation Import Errors with Improved Email Notifications](#)

If you get errors when importing translation files, you can now understand and resolve them more quickly. The error notification email you receive provides more information and the error log as an attachment.

[Enable ICU Locale Formats \(Previously Released Update\)](#)

To help you do business wherever you are, we're adopting the International Components for Unicode (ICU) formats for dates and times. ICU sets the international standard for these formats for all locales. The new formats provide a consistent experience across the Salesforce platform and improve integration with ICU-compliant applications across the globe. The ICU formats replace Oracle's Java 8 Development Kit (JDK8) formats. This update was first made available in Winter '20.

[Connect with Customers Who Speak and Read Khmer](#)

Khmer is now available as a platform-only language. Plus, the date formats changed for the Khmer (Cambodia) locale.

[Import and Export Larger Data Translation Files](#)

Translate larger amounts of the data stored in the B2B Commerce Product and Product Category objects' fields with increased import and export limits. When exporting data translation files, you can filter by language to reduce the file size. And the email notifying you that your data translation export is complete contains more information and a link to your exported file.

[Submit Only One Translation Import or Export Request at a Time](#)

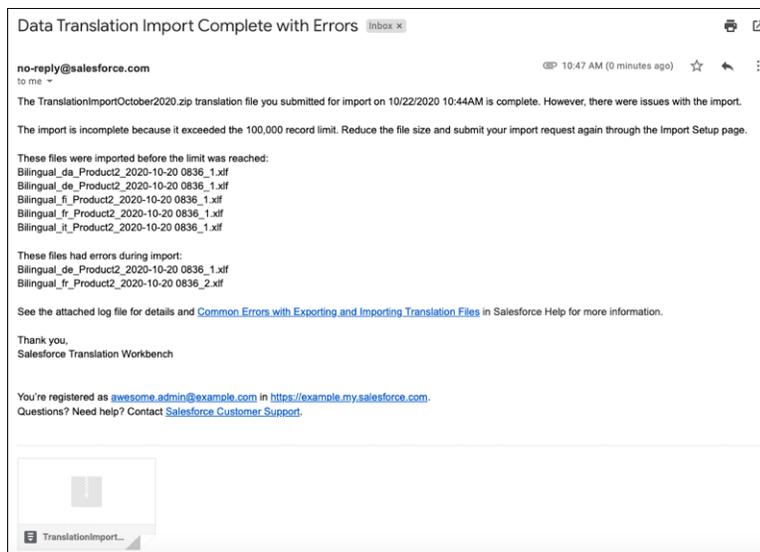
To prevent performance degradation, each user can only have one translation import request running at a time. And each user can only have one metadata and one data translation export request running simultaneously.

## Understand Translation Import Errors with Improved Email Notifications

If you get errors when importing translation files, you can now understand and resolve them more quickly. The error notification email you receive provides more information and the error log as an attachment.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, Unlimited, and Developer editions. Data Translation applies to B2B Commerce in Lightning Experience.

**Why:** If the imported .zip file exceeds translation import limits, the email lists the files that were imported before the limit was reached. If records within the imported translation files weren't processed, the email lists those files and a link to Salesforce Help. Plus, the error log is attached to the email for easy access.



SEE ALSO:

[Salesforce Help: Manage Your Translations \(can be outdated or unavailable during release preview\)](#)

## Enable ICU Locale Formats (Previously Released Update)

To help you do business wherever you are, we're adopting the International Components for Unicode (ICU) formats for dates and times. ICU sets the international standard for these formats for all locales. The new formats provide a consistent experience across the Salesforce platform and improve integration with ICU-compliant applications across the globe. The ICU formats replace Oracle's Java 8 Development Kit (JDK8) formats. This update was first made available in Winter '20.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in all editions, except Database.com.

**When:** Salesforce enforces this update in Spring '22. Salesforce orgs created in Winter '20 or later have ICU locale formats enabled by default. To get the major release upgrade date for your instance, go to [Trust Status](#), search for your instance, and click the maintenance tab.

**How:** Before enabling this update in production, check with your package providers to make sure that all your installed packages are compatible with the ICU formats. Then evaluate the new locales' impact to your Salesforce org. Use this SOQL query to find the locales in use in your org and a user count for each locale.

```
SELECT toLabel(LocaleSidKey) LocaleName, LocaleSidKey, Count(id) UserCount FROM User where
  IsActive=true GROUP BY LocaleSidKey
```

See the documentation for recommended areas of testing and details on the changes for each locale.

To enable this update, from Setup, in the Quick Find box, enter *Release Updates*, then select **Release Updates**. For Enable ICU Locale Formats, follow the testing and activation steps.

The English (Canada) locale (en\_CA) requires separate activation. In the Quick Find box, enter *User Interface*, then select **User Interface**. Select **Enable ICU formats for en\_CA locale** and click **Save**.

 **Note:** Applying this update displays the new locale formats in the UI. The ICU formats are available in API version 45.0 and later.

SEE ALSO:

[Salesforce Help: Go Global with New International Locale Formats \(can be outdated or unavailable during release preview\)](#)

[Winter '20 Release Note: Enable ICU Locale Formats \(Release Update\)](#)

[Release Updates](#)

## Connect with Customers Who Speak and Read Khmer

Khmer is now available as a platform-only language. Plus, the date formats changed for the Khmer (Cambodia) locale.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in all editions.

**Why:** These date formats for the Khmer (Cambodia) locale are updated.

 **Note:** We recommend viewing this information in the Release Notes portal (<https://releasenotes.docs.salesforce.com/>). Not all characters appear correctly in PDFs.

| FORMAT TYPE       | KHMER (CAMBODIA) WINTER '21 FORMAT | KHMER (CAMBODIA) SUMMER '20 FORMAT |
|-------------------|------------------------------------|------------------------------------|
| Date Time: Medium | 28 2008, 4:30:05 PM                | 28 Jan 2008, 4:30:05 PM            |
| Date: Medium      | 28 2008                            | 28 Jan 2008                        |
| Date: Long        | 28 2008                            | 28 January 2008                    |

SEE ALSO:

[Salesforce Help: Supported Languages \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Salesforce Supported Locales and ICU Formats \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Salesforce Supported Locales and JDK Formats \(can be outdated or unavailable during release preview\)](#)

## Import and Export Larger Data Translation Files

Translate larger amounts of the data stored in the B2B Commerce Product and Product Category objects' fields with increased import and export limits. When exporting data translation files, you can filter by language to reduce the file size. And the email notifying you that your data translation export is complete contains more information and a link to your exported file.

**Where:** This change applies to B2B Commerce in Lightning Experience in Enterprise, Performance, Unlimited, and Developer editions.

**Why:** To allow for the larger data sets required with data translation, we increased the limits on importing and exporting data translation files.

- Each data translation export request is limited to 1 GB of data and 100,000 records. If your requested export exceeds either of those limits, only a partial file is exported.
- When exporting data translation files, individual uncompressed files are limited to 25 MB per file. If the data per object and language combination exceeds that limit, each file name is date stamped and incremented. For example, `Bilingual_de_Product2_2020-10-20_0836_1.xlf` and `Bilingual_de_Product2_2020-10-20_0836_2.xlf`.
- When importing data translation files, individual uncompressed files are limited to 50 MB each.
- When zipping data translation files for import, each .zip file can contain up to 100,000 translation records within up to 2 GB of uncompressed files. After the contents are compressed, each .zip file is limited to 1 GB. Create multiple .zip files as needed.

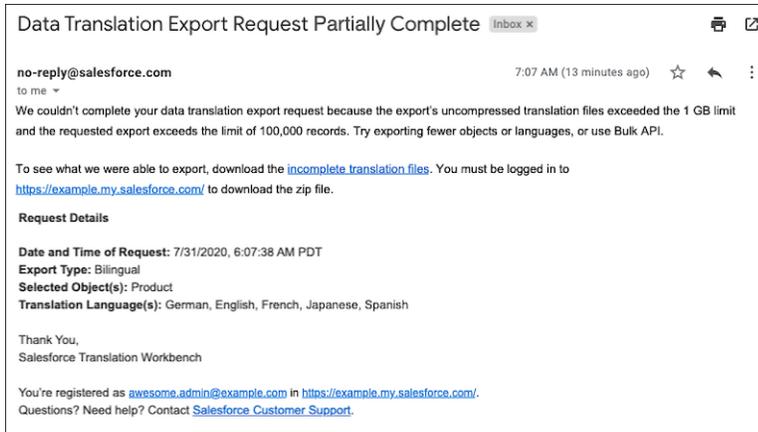
To help reduce the size of your zipped translation file exports, you can now select which languages to include in exported data translation files.

The screenshot shows the 'Language Workbench Export' interface. At the top, it says 'Create files that contain your org's translatable metadata or data. You can send these files to your translators for bulk translation activities, then use Import to update your translations.' Below this, there are several sections:

- Translation Type:** Radio buttons for 'Metadata' and 'Data' (selected).
- Objects:** Two columns: 'Available Objects' (empty) and 'Selected Objects' (containing 'Product'). Between them are 'Add' and 'Remove' buttons.
- Export Type:** Radio buttons for 'Source', 'Outdated and untranslated' (selected, marked with a red circle '1'), and 'Bilingual'.
- Languages:** A section highlighted with a red box and marked with a red circle '2'. It contains two columns: 'Available Languages' (German, Italian, Japanese, Korean, Russian) and 'Selected Languages' (English, French, Spanish). Between them are 'Add' and 'Remove' buttons.
- Format:** Radio buttons for 'STF' and 'XLIFF' (selected). Below this is a note: 'Salesforce translation files are exported with UTF-8 encoding to support extended and double-byte characters.' and an 'Export' button.

When you select the Bilingual or Outdated and untranslated export type (1) for a data translation export, the language filter (2) appears.

When your export is complete, you receive an email with the export details, including the date and time of the request. That email contains a link to the exported files. If your request exceeds the export limits, the translation import notification email includes the exceeded limit and a link to the partial file.



SEE ALSO:

[Salesforce Help: Manage Your Translations \(can be outdated or unavailable during release preview\)](#)

## Submit Only One Translation Import or Export Request at a Time

To prevent performance degradation, each user can only have one translation import request running at a time. And each user can only have one metadata and one data translation export request running simultaneously.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, Unlimited, and Developer editions. Data Translation applies to B2B Commerce.

**Why:** When you submit a translation file for import, you must wait for that import process to finish. If you submit another translation import request while your first request is still running, you receive an email instructing you to resubmit your request.

With translation export requests, each user can run one process per translation type simultaneously. For example, when you request a metadata translation export, you must wait for that process to finish. If you submit another metadata translation export request before that, you see an error message on the Export Setup screen.

As before, you receive an email when each of your requested translation import and export processes is complete.

SEE ALSO:

[Salesforce Help: Translation Workbench \(can be outdated or unavailable during release preview\)](#)

## Profiles and Permissions: More Granular Control for Security and a New License Option

Improve your Salesforce org security with new options to restrict permission cloning and to limit the profiles that users can see. Subscribed to a Salesforce managed package? See which customer permissions in the package require a Salesforce license to access them.

IN THIS SECTION:

[Improve Org Security with the Profile Filter Option](#)

Keep your Salesforce org as secure as possible. Limit users from viewing any profile names other than their own.

### [Check Out the View All Profiles Permission](#)

Use the View All Profiles permission when you enable the Profile Filtering option in User Management Settings. Enable View All Profiles only for the users who require the ability to view all profiles in your Salesforce org.

### [Restrict Permissions Cloning in Profiles](#)

Use the Restricted Profile Cloning option to ensure that only permissions accessible to your org are enabled when you clone profiles. If you don't enable this setting, all permissions currently enabled in the source profile are also enabled for the cloned profile, even if your org can't currently access them.

### [Use Permission Set Groups in Professional Edition](#)

If you use Professional Edition, you can now create up to 10 permission set groups in your Salesforce org. The ability to use permission set groups also means that Professional Edition Salesforce orgs can adopt packages that use permission set groups. The limit for installed managed permission sets from AppExchange packages is 1,000. It's the same for all editions that allow permission set groups. Previously, permission set groups weren't available in Professional Edition.

### [Understand the Custom Permissions License Required Option](#)

If you use Salesforce managed packages, you can check if custom permissions require Salesforce licenses.

## Improve Org Security with the Profile Filter Option

Keep your Salesforce org as secure as possible. Limit users from viewing any profile names other than their own.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, Developer editions, and Database.com editions.

**Why:** If profile filtering is disabled, users can see all profile names in your org, regardless of which permissions they have. If you enable profile filtering, you can restrict who sees profile information to the users who require the access for their job roles. To allow selected users to view all org profiles, you can enable the View All Profiles permission for them.

 **Important:** Profile names are also exposed when users with permissions to perform the following tasks take these actions:

- Create a tab or record type with a wizard step that includes the assignment of tabs and record types to profiles.
- Configure a login flow where viewing profile lists is required to make flow associations.
- Set up delegated admins where looking up profiles is needed to identify assignable profiles.
- Administer an org as a delegated external user admin.
- Administer an org as a delegated admin to view and assign profiles of the delegated group.

**How:** From Setup, in the Quick Find box, enter *user*, then select **User Management Settings**. Enable **Profile Filtering**.

## Check Out the View All Profiles Permission

Use the View All Profiles permission when you enable the Profile Filtering option in User Management Settings. Enable View All Profiles only for the users who require the ability to view all profiles in your Salesforce org.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, Unlimited, Developer editions, and Database.com editions.

**How:** When creating a profile or permission set, select **View All Profiles**.

## Restrict Permissions Cloning in Profiles

Use the Restricted Profile Cloning option to ensure that only permissions accessible to your org are enabled when you clone profiles. If you don't enable this setting, all permissions currently enabled in the source profile are also enabled for the cloned profile, even if your org can't currently access them.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, Unlimited, Developer editions, and Database.com editions.

**Why:** Let's say that you previously enabled Quotes in your org, so the Standard User profile has access to the feature. If you disable Quotes, then object permissions related to the feature, such as Quotes, Products, and Price Books, are no longer accessible from the Standard User profile. If you clone the Standard User profile and enable Quotes again, both the Standard User profile and the cloned profile have the relevant object permissions enabled.

You might intend to enable Quotes for both the Standard User profile and the cloned profile. But cloned profiles typically have different purposes than the profiles they are cloned from. To ensure that only the intended profiles receive permissions for specific functionality, enable **Restricted Profile Cloning**.

**How:** From Setup, in the Quick Find box, enter **User**, then select **User Management Settings**. Select **Restricted Profile Cloning**.

## Use Permission Set Groups in Professional Edition

If you use Professional Edition, you can now create up to 10 permission set groups in your Salesforce org. The ability to use permission set groups also means that Professional Edition Salesforce orgs can adopt packages that use permission set groups. The limit for installed managed permission sets from AppExchange packages is 1,000, it's the same for all editions that allow permission set groups. Previously, permission set groups weren't available in Professional Edition.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Professional Edition.

## Understand the Custom Permissions License Required Option

If you use Salesforce managed packages, you can check if custom permissions require Salesforce licenses.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** When viewing a custom permission, check if the **License Required** option is selected. When this option is selected, you must acquire the appropriate Salesforce license before accessing the permission.

## Salesforce Connect: Restricted Access, HIPAA Compliance, and ID Mapping Limits

We're restricting edit access to certain sensitive fields on external data sources and named credentials. Salesforce Connect is now Health Insurance Portability and Accountability Act (HIPAA) compliant, ensuring that all personally identifiable healthcare information is protected by fraud and theft. We're also enforcing a process that deletes all external object record IDs that haven't been viewed within 365 days to keep ID mappings up to date.

Available in: **Developer** Edition

Available for an extra cost in: **Enterprise, Performance,** and **Unlimited** Editions

## IN THIS SECTION:

[Restricted Access to Authentication in Named Credentials and External Data Source](#)

When the URL endpoint of a named credential or an external data source that uses per user authentication is edited, users are now required to re-authenticate against the endpoint.

[Salesforce Connect is HIPAA Compliant](#)

Salesforce Connect is now covered under the Health Insurance Portability and Accountability Act (HIPAA). HIPAA ensures that all personally-identifiable information maintained by healthcare industries is protected from fraud and theft.

[External Object ID Mappings Subject to Expiration](#)

We enabled a process to delete all IDs not viewed after 365 days, except where the ID mapping has customer data attached to it. To view records in Lightning Experience, Salesforce Connect maps the external ID of each record to a Salesforce ID. Your org can map up to 100,000 new external object record IDs an hour. This is an existing limit that's available in the Limits API.

## Restricted Access to Authentication in Named Credentials and External Data Source

When the URL endpoint of a named credential or an external data source that uses per user authentication is edited, users are now required to re-authenticate against the endpoint.

**Where:** This change applies to Lightning Experience in Enterprise, Unlimited, Developer, and Performance editions.

**How:** Grant access to users through permission sets and profiles in Setup. Doing so lets users set up and manage their own authentication settings for accessing the external system.

## SEE ALSO:

[Salesforce Object Reference Guide:External Data Source \(can be outdated or unavailable during release preview\)](#)

[Salesforce Object Reference Guide:Named Credential \(can be outdated or unavailable during release preview\)](#)

## Salesforce Connect is HIPAA Compliant

Salesforce Connect is now covered under the Health Insurance Portability and Accountability Act (HIPAA). HIPAA ensures that all personally-identifiable information maintained by healthcare industries is protected from fraud and theft.

**Where:** This change applies to Lightning Experience in Enterprise, Unlimited, Developer, and Performance editions.

## SEE ALSO:

[Salesforce Help:Salesforce Connect](#)

## External Object ID Mappings Subject to Expiration

We enabled a process to delete all IDs not viewed after 365 days, except where the ID mapping has customer data attached to it. To view records in Lightning Experience, Salesforce Connect maps the external ID of each record to a Salesforce ID. Your org can map up to 100,000 new external object record IDs an hour. This is an existing limit that's available in the Limits API.

**Where:** This change applies to Lightning Experience in Developer, Enterprise, Performance, and Unlimited Editions.

## SEE ALSO:

[Salesforce Help:General Limits for Salesforce Connect–OData 2.0 and 4.0 Adapters \(can be outdated or unavailable during release preview\)](#)

# Einstein Next Best Action: HIPAA Compliance, Event-Driven Recommendations Based on Call State Changes, and AI-Driven Recommendations Generated by Einstein Recommendation Builder

Store and process protected health information. Create recommendations based on call record field values. Use the new Einstein Load element to deliver personalized recommendations.

## EDITIONS

Available in: **Essentials, Professional, Enterprise, Performance, Unlimited, and Developer** Editions

### IN THIS SECTION:

#### [Store and Encrypt Healthcare Data with HIPAA-Compliant Einstein Next Best Action](#)

As of Winter '21, Next Best Action is certified as in compliance with the Health Insurance Portability and Accountability Act (HIPAA). This certification means that Next Best Action now meets the strict HIPAA standards for storing and processing customers' protected health information (PHI). HIPAA compliance positions Next Best Action to provide future capabilities in the highly regulated healthcare and life sciences sector.

#### [Create Event-Driven Recommendations Using Voice Call Records](#)

Empower your service agents with contextual, event-driven recommendations based on information in Voice Call records and call transcripts. Build solutions using events for call state changes such as start call, mute, and hold. Use APIs in the Service Cloud Voice Toolkit to push context-sensitive recommendations based on field values in the call record and keywords in the call transcript.

#### [Add AI-Driven Recommendations to Your Strategies Using Einstein Recommendation Builder \(Beta\)](#)

There's a new load element in town and it's about to make your strategies even smarter! Use the new Einstein Load element to add AI-driven recommendations, generated by Einstein Recommendation Builder, to your Next Best Action strategies. Einstein learns from past data and user responses to help deliver personalized recommendations to your users.

## Store and Encrypt Healthcare Data with HIPAA-Compliant Einstein Next Best Action

As of Winter '21, Next Best Action is certified as in compliance with the Health Insurance Portability and Accountability Act (HIPAA). This certification means that Next Best Action now meets the strict HIPAA standards for storing and processing customers' protected health information (PHI). HIPAA compliance positions Next Best Action to provide future capabilities in the highly regulated healthcare and life sciences sector.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

### SEE ALSO:

[Encrypt the Next Best Action Recommendation Description Field](#)

[Trailhead: Shield Platform Encryption](#)

## Create Event-Driven Recommendations Using Voice Call Records

Empower your service agents with contextual, event-driven recommendations based on information in Voice Call records and call transcripts. Build solutions using events for call state changes such as start call, mute, and hold. Use APIs in the Service Cloud Voice Toolkit to push context-sensitive recommendations based on field values in the call record and keywords in the call transcript.

**Where:** This change applies to Lightning Experience in the Enterprise, Performance, and Unlimited editions. Service Cloud Voice is available for an additional cost as an add-on license.

SEE ALSO:

[Recommend the Next Best Action for Agents with the Service Cloud Voice Toolkit API \(Generally Available\)](#)

## Add AI-Driven Recommendations to Your Strategies Using Einstein Recommendation Builder (Beta)

There's a new lead element in town and it's about to make your strategies even smarter! Use the new Einstein Lead element to add AI-driven recommendations, generated by Einstein Recommendation Builder, to your Next Best Action strategies. Einstein learns from past data and user responses to help deliver personalized recommendations to your users.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, and Unlimited editions.

**Who:** This feature is available to admins with the Service Cloud Einstein, Lightning Platform Plus, and Lightning Field Service Plus licenses.

SEE ALSO:

[Recommend Anything to Anyone with Einstein Recommendation Builder \(Beta\)](#)

## External Services: Check External Services Version and Recreate Legacy Registrations to Get Ready for Retirement of Legacy External Services in Summer '21

Check your External Services version for Legacy External Services, and recreate legacy registrations to current External Services registrations. Legacy External Services is scheduled for retirement in Summer '21.

IN THIS SECTION:

[Manage and Recreate Legacy External Services Registrations](#)

Now it's easy to identify Legacy External Services registrations and then recreate them to the current External Services version. Significant improvements over Legacy External Services include simplified upgrading of legacy registrations, cloning existing registrations, and better error messaging and error recovery.

[Legacy External Services Version Is Being Retired](#)

Legacy External Services and support for legacy registrations is scheduled for retirement in Summer '21. As part of the effort to move to a single version support model, other changes include eliminating the ability to edit legacy registrations and introducing a simple workflow to recreate registrations from legacy to the current version. Retiring legacy registrations ensures that all registrations can benefit from current and future product enhancements and features.

## Manage and Recreate Legacy External Services Registrations

Now it's easy to identify Legacy External Services registrations and then recreate them to the current External Services version. Significant improvements over Legacy External Services include simplified upgrading of legacy registrations, cloning existing registrations, and better error messaging and error recovery.

**Note:** Legacy registrations were either registered in the OpenAPI format or in the Interagent hyper-schema format. You can recreate OpenAPI 2.0 legacy registrations as current External Services. For Interagent hyper-schema registrations, you must convert them to OpenAPI format first and then add them as a new service.

**Where:** This change applies to Lightning Experience in Enterprise, Performance, Unlimited, and Developer Editions.

**How:** To find your registered services, go to Setup, in the Quick Find Box, enter External Services, and then select External Services. To identify external service registrations using Legacy External Services, see checkmarks in Legacy column (1). Choose an action for your external service registration from the actions column (2). An example of a registered service recreated using **Save As** with the provided prefix of **CopyOf** in front of the name (3). Remember to change the name to something more descriptive of the service.

| External Serv... ↑  | Description           | Schema URL                   | Credentials  | Configuration | Legacy | Actions |
|---------------------|-----------------------|------------------------------|--------------|---------------|--------|---------|
| BookService         |                       | /bookservice/schema          | Test_Service | Complete      |        | ▼       |
| BookServiceLegacy   | Book Service Legacy   |                              | Test_Service | Complete      | ✓      | ▼       |
| BookServiceTest     |                       | /bookservice/schema          | Test_Service | Complete      |        | ▼       |
| CopyOfCreditService |                       | /creditservice/credit/schema | Test_Service | Complete      |        | ▼       |
| CreditService       |                       | /creditservice/credit/schema | Test_Service | Complete      |        | ▼       |
| CreditServiceLegacy | Credit Service Legacy |                              | Test_Service | Complete      | ✓      | ▼       |

**Note:** Actions available for legacy registrations are **Save As**, **Delete**, and **View Actions**. The **Save As** action only supports OpenAPI 2.0 compliant legacy registrations. Use **Save As** to recreate a legacy registration to the current version.

See the documentation on how to recreate legacy registrations to the current External Services version:

## Legacy External Services Version Is Being Retired

Legacy External Services and support for legacy registrations is scheduled for retirement in Summer '21. As part of the effort to move to a single version support model, other changes include eliminating the ability to edit legacy registrations and introducing a simple workflow to recreate registrations from legacy to the current version. Retiring legacy registrations ensures that all registrations can benefit from current and future product enhancements and features.

**Where:** This change applies to orgs with the Legacy External Services version in Lightning Experience, Enterprise, Performance, Unlimited, and Developer Editions. In Spring '21, Salesforce will no longer support legacy external services registrations.

**How:** Starting in Winter '21, no new Legacy External Service registrations are allowed, and you can't edit Legacy External registrations in OpenAPI format.

For OpenAPI 2.0 legacy registrations: Recreate legacy registrations to the current External Services version with the **Save As** action from the External Services main page.

For Interagent hyper-schema format legacy registrations: As soon as it's practical for your organization, Salesforce recommends that you convert Interagent hyper-schema legacy registrations to OpenAPI format and add them as a new external service.

Review our documentation and follow the instructions for identifying and recreating Legacy External Services registrations.

SEE ALSO:

[External Services Versions: Legacy and Current](#)

[Edit, Delete, Save As, and View an External Service](#)

## Sharing: Metadata API Deployment Improvements and Secure Guest User Sharing Settings

You can now deploy organization-wide defaults and criteria-based or guest user sharing rule changes through the Metadata API at the same time. To safeguard your Salesforce org's data, we enabled the Secure guest user record access setting in all orgs with communities or sites. This setting can't be disabled.

IN THIS SECTION:

[Deploy Organization-Wide Defaults and Criteria-Based Sharing Rules Together](#)

You can now simultaneously update the `sharingModel` field for an object and create new criteria-based or guest user sharing rules via the Metadata API. Previously, you deployed these changes in separate packages. You still deploy owner-based sharing rules separately from organization-wide default changes.

[Secure Guest Users' Org-Wide Defaults and Sharing Model Can't Be Disabled](#)

The Secure guest user record access setting was enabled in all Salesforce orgs with communities or sites in Summer '20, but could still be disabled during that release. In Winter '21, this setting is enabled in all orgs and can no longer be disabled. The Secure guest user record access setting enforces private org-wide defaults for guest users and restricts the sharing mechanisms that you can use to grant record access to guest users.

### Deploy Organization-Wide Defaults and Criteria-Based Sharing Rules Together

You can now simultaneously update the `sharingModel` field for an object and create new criteria-based or guest user sharing rules via the Metadata API. Previously, you deployed these changes in separate packages. You still deploy owner-based sharing rules separately from organization-wide default changes.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

[Metadata API Developer Guide: SharingRules](#)

[Metadata API Developer Guide: Deploying and Retrieving Metadata](#)

### Secure Guest Users' Org-Wide Defaults and Sharing Model Can't Be Disabled

The Secure guest user record access setting was enabled in all Salesforce orgs with communities or sites in Summer '20, but could still be disabled during that release. In Winter '21, this setting is enabled in all orgs and can no longer be disabled. The Secure guest user record access setting enforces private org-wide defaults for guest users and restricts the sharing mechanisms that you can use to grant record access to guest users.

**Where:** This change applies to orgs with active communities and sites in Essentials, Enterprise, Performance, Unlimited, and Developer editions.

**When:** The timelines for the rollout and enforcement of this setting are published in [Guest User Security Policies and Timelines](#).

SEE ALSO:

[Salesforce Help: Secure Your Community or Portal \(can be outdated or unavailable during release preview\)](#)

[Summer '20 Release Note: Secure Guest Users' Org-Wide Defaults and Sharing Model \(Previously Released Security Alert, Enforced\)](#)

[Guest User: Guest User Security Policies Enforced](#)

## Fields: HTML in Labels Rendered as Plain Text and Management for Deleted Fields Available in Lightning Experience

HTML tags in custom field labels are rendered as plain text, and you can now manage deleted fields in Lightning Experience.

IN THIS SECTION:

[Disable Rendering of HTML in Custom Field Labels \(Update\)](#)

To better protect your Salesforce org, this update removes legacy behavior that allows HTML formatting in custom field labels. When enabled, HTML tags in custom field labels are rendered as plain text.

[Manage Deleted Fields in Lightning Experience](#)

You can now manage deleted fields in Lightning Experience. In previous releases, you could only manage a deleted field and its data by switching to Salesforce Classic.

### Disable Rendering of HTML in Custom Field Labels (Update)

To better protect your Salesforce org, this update removes legacy behavior that allows HTML formatting in custom field labels. When enabled, HTML tags in custom field labels are rendered as plain text.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, and Unlimited editions.

**When:** Salesforce enforces this update in Spring '21.

**Who:** This update doesn't apply to all orgs. It's only visible in the release update list for customers that have HTML formatting in custom field labels and haven't been included in a previous auto-enablement.

**How:** For orgs that are affected by this update, we recommend that you enable this update in a sandbox before enabling it in your production org. Test that your custom field labels render correctly, and update any labels that rely on HTML formatting. After you rename a custom field, additional items sometimes require manual updates. Here's what you need to do to see if manual updates are required:

- Review list view names. List view names continue to display the original object name until you change them manually.
- Check standard report names and descriptions for the objects you renamed.
- Update the titles and descriptions of email templates that contain the original field name.
- Change items you customized with the new object or field name. For example, check custom fields that contain the original field name.

### Manage Deleted Fields in Lightning Experience

You can now manage deleted fields in Lightning Experience. In previous releases, you could only manage a deleted field and its data by switching to Salesforce Classic.

**Where:** This change applies to Lightning Experience in Professional, Enterprise, Performance, and Unlimited editions.

**How:** Deleted custom fields initially are soft deleted and their data is stored until they're permanently deleted, or after 15 days elapse.

Click **Delete** on a field name, then click **Deleted Fields** at the top of the Custom Fields & Relationships page to see a list of soft deleted fields. You can then choose to undelete or permanently delete the fields. If you choose to delete a field permanently, you are prompted to confirm.

**Fields & Relationships** Quick Find New **Deleted Fields** Field Dependencies Set History Tracking

7 Items, Sorted by Field Label

| FIELD LABEL      | FIELD NAME       | DATA TYPE          | CONTROLLING FIELD | INDEXED |
|------------------|------------------|--------------------|-------------------|---------|
| Created By       | CreatedById      | Lookup(User)       |                   |         |
| Drink Order Name | Name             | Text(80)           |                   | ✓       |
| Flavor List      | Flavor_List__c   | Picklist           |                   |         |
| Last Modified By | LastModifiedById | Lookup(User)       |                   |         |
| Owner            | OwnerId          | Lookup(User,Group) |                   | ✓       |
| Price            | Price__c         | Currency(10, 2)    |                   |         |
| Size             | Size__c          | Picklist           |                   |         |

Context menu for 'Size': Edit, **Delete**, Replace

**Drink Order Deleted Fields** Help for this Page

Salesforce starts to hard delete these fields after 15 days. The hard-delete process permanently removes all metadata and system data for the field. Erase skips the 15-day grace period, and immediately sets the field to ready for the hard-delete process. Undelete (if available) restores the field.

| Deleted Custom Fields & Relationships |             |             |           |         |                   |                                |
|---------------------------------------|-------------|-------------|-----------|---------|-------------------|--------------------------------|
| Action                                | Field Label | API Name    | Data Type | Indexed | Controlling Field | Modified By                    |
| <b>Erase   Undelete</b>               | Size        | Size_del__c | Picklist  |         |                   | Admin User, 8/10/2020, 4:19 PM |

## Custom Metadata Types: Support for Geolocation Entities and Metadata Relationship Field Type User Interface Display

You can now create entity particle relationships for geolocation field types. Also, the dropdown menu for the metadata relationship field type shows which entities are supported.

## IN THIS SECTION:

[Custom Metadata Types Support Geolocation Field Types Relationships](#)

Support for entity particle relationships was introduced in Summer '20, with the exception of geolocation field types. With Winter '21, you can now create geolocation field type relationships.

[View Supported Relationship Entities When Creating Custom Metadata Types](#)

When you create a metadata type, the metadata relationship field type menu now shows you which entities are supported. In previous releases, entities for relationships were only shown if they had a Salesforce Classic, Custom Fields setup page. This restriction was removed.

## Custom Metadata Types Support Geolocation Field Types Relationships

Support for entity particle relationships was introduced in Summer '20, with the exception of geolocation field types. With Winter '21, you can now create geolocation field type relationships.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** The following example shows how to create a custom metadata relationship for a geolocation field type.

1. Create a custom object with a geolocation field.
2. Create a custom metadata type with the custom fields: entity definition, field definition, and entity particle.
3. Create a record for the custom metadata type.
  - a. For the entity definition, select the custom object.
  - b. For the field definition, select the custom object geolocation field.
  - c. For the entity particle definition, select the geolocation field latitude or longitude.

The screenshot displays the 'Custom Metadata Types' setup page for 'GeolocationCMT'. The 'Information' section includes the following fields:

- Label:** Office Latitude
- GeolocationCMT Name:** Office\_Latitude
- EntityDef:** GeolocationObject
- FieldDef:** Main Office
- ParticleDef:** A dropdown menu is open, showing a list of supported entities. The selected item is 'Main Office (Latitude)', and 'Main Office (Longitude)' is also visible and highlighted with an orange border.

Buttons for 'Save', 'Save & New', and 'Cancel' are visible at the top of the form. A 'Protected Component' checkbox is also present.

SEE ALSO:

[Custom Metadata Relationships](#)

[Salesforce Summer '20 Release Notes](#)

## View Supported Relationship Entities When Creating Custom Metadata Types

When you create a metadata type, the metadata relationship field type menu now shows you which entities are supported. In previous releases, entities for relationships were only shown if they had a Salesforce Classic, Custom Fields setup page. This restriction was removed.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** The following rules apply to the metadata relationship field type for both the user interface and Metadata API.

The entity:

- Must be publicly exposed
- Can be queried using the API
- Supports Apex triggers
- Is customizable
- Supports layouts

- Is not part of a union, such as a task, activity, event, holiday
- Is not a setup entity, such as a permission set or a user

SEE ALSO:

[Custom Metadata Relationships](#)

## General Setup: Utility Bar Alignment Customization, Dynamic Submit for Approval Action, and Record Type UI Changes

Customize where your org's utility bar appears on the screen. Display the Submit for Approval action only when a record is eligible for approval. Clearer description text and an updated profile column label for Step 1 of the New Record Type creation process.

IN THIS SECTION:

[Choose Your Utility Bar Alignment](#)

Customize where your Salesforce org's utility bar appears on the screen. You can choose to align the utility bar to the bottom right or the bottom left of the screen. The default alignment matches the directionality of the user's language.

[Choose When to Show the Submit for Approval Action \(Generally Available and Beta\)](#)

Ever wanted to display the Submit for Approval action only when a record is eligible for approval? That day has come! With dynamic actions, now you can set conditions for when each action is visible, including the Submit for Approval action.

[Changes to Record Type Creation UI in Setup](#)

To clarify what users can and can't do when they have access to a record type, we updated the description text and one of the profile column labels for Step 1 of the New Record Type creation process.

[Require Permission to View Record Names in Lookup Fields \(Previously Released Update\)](#)

To better protect your Salesforce org's data, we restricted who can view record names in lookup fields. Users must have Read access to these records or the View All Lookup Record Names permission to view this data. This update also applies to system fields, such as Created By and Last Modified By. This update was first made available in Spring '20.

[Disable Standard Object Edits on Standard Profile \(Update\)](#)

Salesforce reserves standard object permissions in standard profiles, so modifications are not allowed. This update enforces a validation to block modifications to standard profile object permissions to ensure org integrity.

### Choose Your Utility Bar Alignment

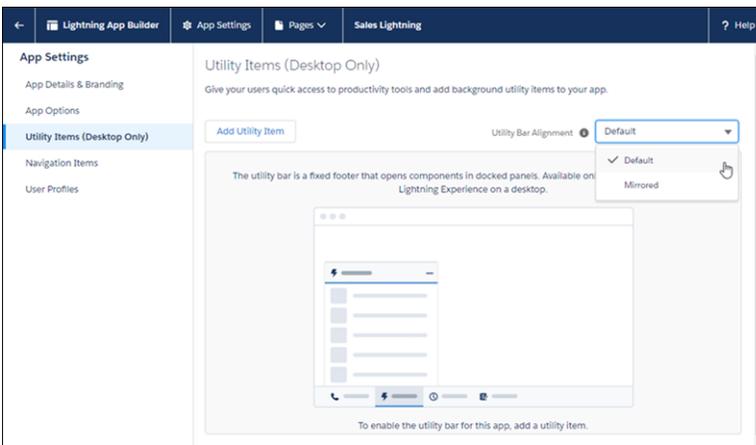
Customize where your Salesforce org's utility bar appears on the screen. You can choose to align the utility bar to the bottom right or the bottom left of the screen. The default alignment matches the directionality of the user's language.

**Where:** This change applies to Lightning Experience in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Who:** Admins with the View Setup and Configuration and Customize Application can modify the utility bar alignment.

**How:** To change the utility bar alignment:

1. From Setup, in the Quick Find box, enter *App*, and then select **App Manager**.
2. Click **Edit** in the dropdown menu next to the app you want to change the alignment for.
3. In **App Settings**, select **Utility Items (Desktop Only)**.
4. In **Utility Bar Alignment**, select the alignment you want.



**Note:** The default alignment matches the user's language setting alignment. For example, English is read left to right. If you select **Default** and a user's language is set to English, the utility bar appears at the bottom of the left side of the screen. If you select **Mirrored**, the utility bar appears at the bottom of the right side of the screen.

SEE ALSO:

[Salesforce Help Add a Utility Bar to Lightning Apps \(can be outdated or unavailable during release preview\)](#)

## Choose When to Show the Submit for Approval Action (Generally Available and Beta)

Ever wanted to display the Submit for Approval action only when a record is eligible for approval? That day has come! With dynamic actions, now you can set conditions for when each action is visible, including the Submit for Approval action.

**Where:** This change applies to Lightning Experience and the Salesforce mobile app in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions. Record-level dynamic actions for custom objects are generally available in Lightning Experience and available as a beta feature in the Salesforce mobile app. Record-level dynamic actions for supported standard objects (Account, Case, Contact, Lead, and Opportunity) are available as a beta feature in Lightning Experience. Page-level dynamic actions for custom objects are available as a beta feature in the Salesforce mobile app.

**Note:** As beta features, Dynamic Actions for selected standard objects on desktop and Dynamic Actions for custom objects in the Salesforce Mobile App are previews and aren't part of the "Services" under your master subscription agreement with Salesforce. Use either of these features at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of either of these features within any particular time frame or at all, and we can discontinue either feature at any time. These features are for evaluation purposes only, not for production use. These features are offered as is and aren't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with them. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for Dynamic Actions in the [Dynamic Forms & Actions group in the Trailblazer Community](#)

SEE ALSO:

[Unleash New Flexibility with Dynamic Actions on Desktop \(GA and Beta\) and Mobile \(Beta\)](#)

## Changes to Record Type Creation UI in Setup

To clarify what users can and can't do when they have access to a record type, we updated the description text and one of the profile column labels for Step 1 of the New Record Type creation process.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Professional, Enterprise, Performance, Unlimited, and Developer editions.

**Why:** The Enable for Profile column header is now Make Available, and the description more clearly outlines what users with access to this record type can do.

**Record Type** Required Information

Existing Record Type: --Master--

Record Type Label: [Text Field]

Record Type Name: [Text Field]

Description: [Text Field]

Active:

Select Make Available to give users assigned to this profile the ability to create and clone records of this record type, or assign this record type to existing records. To make the new record type the default for a profile, select Make Default. Users assigned to this record type can still view and edit records associated with record types not available for their profiles.

| Profile Name              | Record Types Currently Available | Make Available           | Make Default             |
|---------------------------|----------------------------------|--------------------------|--------------------------|
| Contract Manager          | Internal User (Default)          | <input type="checkbox"/> | <input type="checkbox"/> |
| Cross Org Data Proxy User | Internal User (Default)          | <input type="checkbox"/> | <input type="checkbox"/> |
| Custom: Marketing Profile | Internal User (Default)          | <input type="checkbox"/> | <input type="checkbox"/> |

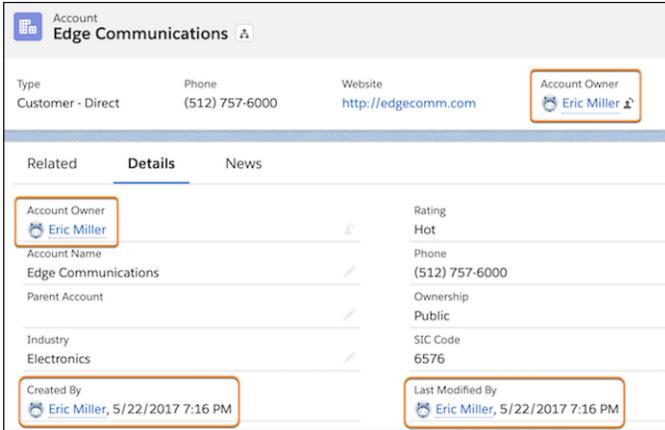
## Require Permission to View Record Names in Lookup Fields (Previously Released Update)

To better protect your Salesforce org's data, we restricted who can view record names in lookup fields. Users must have Read access to these records or the View All Lookup Record Names permission to view this data. This update also applies to system fields, such as Created By and Last Modified By. This update was first made available in Spring '20.

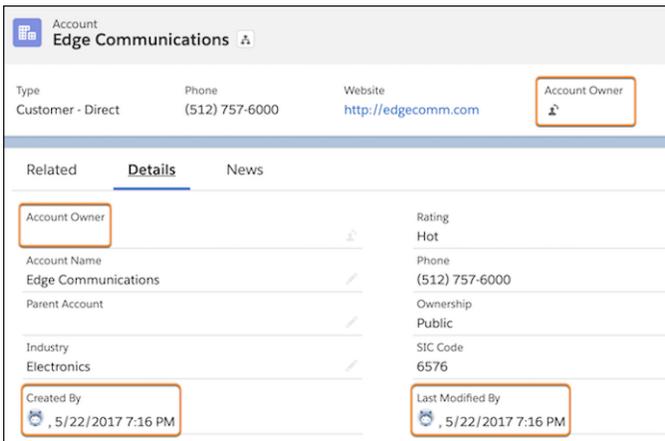
**Where:** This change applies to Lightning Experience and Salesforce Classic in all editions.

**When:** Salesforce enforces this update in Spring '21. To get the major release upgrade date for your instance, go to [Trust Status](#), search for your instance, and click the maintenance tab.

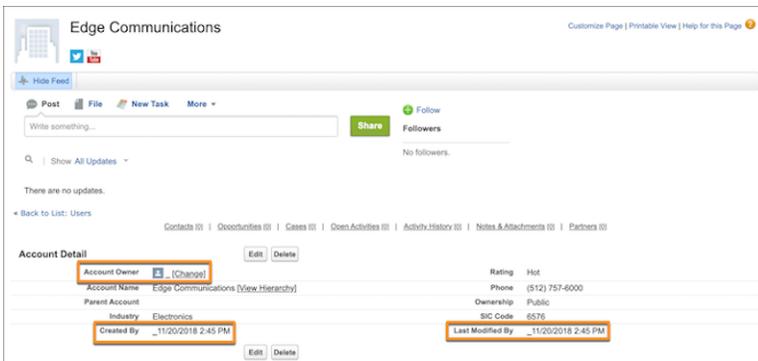
**Why:** Admins have more control over what users see in records. Currently, users can view record names in lookup fields without Read access to those records.



After this update is enforced, in Lightning Experience, users who don't have Read access or the View All Lookup Record Names permission see the lookup field labels, but not the data in the fields.



In Salesforce Classic, users who don't have Read access or the View All Lookup Record Names permission see an underscore in system user lookup fields. They also see the record ID in custom user lookup and non-user lookup fields.



**How:** Admins can enable the View All Lookup Record Name permission in custom profiles or permission sets. Only enable this permission for users who must see record names in all lookup and system fields, regardless of sharing settings. This permission only applies to lookup record names in list views and record detail pages.

We recommend that you test this update in a sandbox or Developer Edition org before enabling it in your production org.

To apply this update, from Setup, in the Quick Find box, enter *Release Updates*, then select **Release Updates**. For Require Permission to View Record Names in Lookup Fields, follow the testing and activation steps.

SEE ALSO:

[Summer '20 Release Note: Require Permission to View Record Names in Lookup Fields \(Update, Postponed\) Release Updates](#)

## Disable Standard Object Edits on Standard Profile (Update)

Salesforce reserves standard object permissions in standard profiles, so modifications are not allowed. This update enforces a validation to block modifications to standard profile object permissions to ensure org integrity.

**Where:** This change applies to Lightning Experience and Salesforce Classic in all editions for impacted orgs.

**When:** Salesforce enforces this update in Summer '21. To get the major release upgrade date for your instance, go to [Trust Status](#), search for your instance, and click the maintenance tab.

**Why:** Prior to this update, validation blocked modifications to standard object permissions on standard profiles in the UI but not the Metadata API. This update enforces validation for both the UI and Metadata API. This update enhances the Profile Metadata API to detect and prevent specific edits on standard profiles.

**How:** If your org is impacted by this change, you can view this update in Release Updates. From Setup, in the Quick Find box, enter *Release Updates*, and then select **Release Updates**. We recommend that you test this update in a sandbox or Developer Edition org before enabling it in your production org.

SEE ALSO:

[Release Updates](#)

## Security, Privacy, and Identity: Security Center and Mobile Device Tracking Generally Available, Required My Domain, and More Real-Time Monitoring Events and Field Encryption

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Maintain security, privacy, and governance policies for multiple orgs with Security Center, now generally available. View and manage mobile device access to your org with Mobile Device Tracking, generally available. New Salesforce orgs get a My Domain by default and existing orgs must define one. Keep a closer eye on your org with three new Real-Time Monitoring Events. Encrypt fields associated with health intake documents, and encrypt some Financial Services Cloud documents.

## IN THIS SECTION:

[Authentication and Identity: Multi-Factor Authentication Assistant, Mobile Device Tracking, and SAML Updates](#)

Changes in Salesforce Identity start with a Multi-Factor Authentication Assistant that helps you safeguard your Salesforce data. We also retired two-factor authentication terminology and moved to the industry standard term of multi-factor authentication. You can enhance your Salesforce org's security with Mobile Device Tracking. Web applications can now enable Cross-Origin Resource Sharing (CORS) to access resources from certain Salesforce OAuth endpoints. Secure outbound SAML messages when Salesforce is the identity provider.

[Domains: Required My Domain, and Shorter URLs](#)

New Salesforce orgs get a My Domain by default and existing orgs must define one by Winter '22. For customers with a My Domain, we're removing instance names from My Domain URLs through a release update.

[Salesforce Shield: More Real-Time Monitoring Events, Legacy Transaction Security End of Life, and More Field Encryption](#)

Real-Time Event Monitoring helps you identify and respond to anomalous API usage, monitor bulk API queries, and audit when users download data in Einstein Analytics. The Event Monitoring Analytics App helps you analyze exceptions without manually uploading datasets, and legacy Transaction Security framework is disabled. Shield Platform Encryption continues to offer another layer of security for more personally identifiable data. Encrypt Health Cloud data and fields on the Identity object.

[Other Security Changes: Changes to Security Release Notes, Security Center General Availability, a Connectivity Change, and New Crypto Class Support](#)

Identity for Customers and Partners and Data Protection and Privacy topics moved to a new home in the release notes: Customer 360 Truth. Monitor multiple orgs with Security Center (generally available). Review and update your TLS ciphers, and take advantage of more Crypto class values.

## Authentication and Identity: Multi-Factor Authentication Assistant, Mobile Device Tracking, and SAML Updates

Changes in Salesforce Identity start with a Multi-Factor Authentication Assistant that helps you safeguard your Salesforce data. We also retired two-factor authentication terminology and moved to the industry standard term of multi-factor authentication. You can enhance your Salesforce org's security with Mobile Device Tracking. Web applications can now enable Cross-Origin Resource Sharing (CORS) to access resources from certain Salesforce OAuth endpoints. Secure outbound SAML messages when Salesforce is the identity provider.

## IN THIS SECTION:

[Implement MFA with the Multi-Factor Authentication Assistant](#)

Multi-factor authentication (MFA) is one of the simplest, most effective ways to prevent unauthorized account access and safeguard your Salesforce data against security threats. We strongly recommend turning on MFA for all user interface logins. For help with planning and completing an MFA project, check out the new Multi-Factor Authentication Assistant.

[We Upgraded to Using Multi-Factor Authentication Terminology](#)

For all Salesforce products, we retired two-factor authentication terminology and moved to the industry standard term of multi-factor authentication. This update is a terminology change only—all functionality remains the same.

[View and Revoke Devices with Mobile Device Tracking](#)

For greater control over the security of your data, you can track and monitor which mobile devices are accessing your Salesforce org with Mobile Device Tracking. Using Apex or APIs, you can view information about a user's mobile device, set a device identifier like a serial number, and block access from a device. You can also build processes and policies to define how devices access your org. For example, require an approval request from the device before authorizing a login. In addition, create custom reports to see Device Management statistics, such as which devices are approved or revoked.

### [Perform Cross-Origin Requests to OAuth Endpoints](#)

Web applications use Cross-Origin Resource Sharing (CORS) to request resources from origins other than their own. For example, a web application can use CORS to request information about a user from your My Domain or community. In addition to public and allowed web applications, Salesforce now supports CORS for certain OAuth endpoints when requested from a My Domain or community.

### [Secure SAML Messages When Salesforce Is the Identity Provider](#)

When your Salesforce org acts as a SAML 2.0 identity provider, you can secure its messages to the service provider with either SHA1 or SHA256. These signing algorithms secure SAML messages by transforming them with hash functions. As the identity provider, Salesforce applies the selected algorithm to its SAML requests and responses. The selected signing algorithm is applied to single sign-on (SSO) and single logout (SLO) messages from your org to the service provider.

### [Update Identity Provider SAML Requests to Use Lowercase Sandbox Names](#)

Sandbox names must be lowercase in recipient URLs within inbound SAML requests. If you set up your identity provider to send case-sensitive hostnames to Salesforce, update it to use lowercase sandbox names in SAML requests.

### [OAuth 2.0 User-Agent Flow Supports `mobileauth.salesforce.com` Redirect URL for Refresh Tokens](#)

The OAuth 2.0 user-agent flow supports refresh tokens when the `scope=refresh_token` is included in the request and the redirect URL is `https://mobileauth.salesforce.com/oauth/done`.

## Implement MFA with the Multi-Factor Authentication Assistant

Multi-factor authentication (MFA) is one of the simplest, most effective ways to prevent unauthorized account access and safeguard your Salesforce data against security threats. We strongly recommend turning on MFA for all user interface logins. For help with planning and completing an MFA project, check out the new Multi-Factor Authentication Assistant.

**Where:** This change applies to Lightning Experience in Essentials, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

[Drive Your Multi-Factor Authentication Implementation from One Place](#)

## We Upgraded to Using Multi-Factor Authentication Terminology

For all Salesforce products, we retired two-factor authentication terminology and moved to the industry standard term of multi-factor authentication. This update is a terminology change only—all functionality remains the same.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Essentials, Group, Professional, Enterprise, Performance, Unlimited, Developer, and Contact Manager editions.

SEE ALSO:

[Renamed Two-Factor Authentication User Permissions and Labels in Setup](#)

## View and Revoke Devices with Mobile Device Tracking

For greater control over the security of your data, you can track and monitor which mobile devices are accessing your Salesforce org with Mobile Device Tracking. Using Apex or APIs, you can view information about a user's mobile device, set a device identifier like a serial number, and block access from a device. You can also build processes and policies to define how devices access your org. For example, require an approval request from the device before authorizing a login. In addition, create custom reports to see Device Management statistics, such as which devices are approved or revoked.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in Professional, Enterprise, Performance, Unlimited, and Developer editions. Device Management was beta as of Spring '19. Mobile Device Tracking is generally available in Winter '21 and has significant differences from Device Management (beta). Mobile Device Tracking can be used with devices attempting to log in to your org using a mobile Salesforce app. Mobile Device Tracking doesn't work with logins through browsers.

**Who:** To view devices that access Salesforce, you must have the View Devices permission. To revoke device access, you must have the Manage Devices permission.

**How:** To enable Mobile Device Tracking for your org, contact Salesforce Customer Support.

SEE ALSO:

[Salesforce Help: Mobile Device Tracking \(can be outdated or unavailable during release preview\)](#)

## Perform Cross-Origin Requests to OAuth Endpoints

Web applications use Cross-Origin Resource Sharing (CORS) to request resources from origins other than their own. For example, a web application can use CORS to request information about a user from your My Domain or community. In addition to public and allowlisted web applications, Salesforce now supports CORS for certain OAuth endpoints when requested from a My Domain or community.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Developer, Enterprise, Performance, and Unlimited editions.

**How:** CORS is automatically enabled for these endpoints:

- `/.well-known/openid-configuration`
- `/.well-known/auth-configuration`
- `/services/oauth2/id/keys`

In addition, you can enable CORS for the `/services/oauth2/userinfo` endpoint by adding the origin URL of the web application serving the code to the CORS allowlist.

To enable CORS for these supported OAuth endpoints, select the Enable CORS for OAuth endpoints parameter from the CORS page. Salesforce only supports CORS for these OAuth endpoints when the web application posts its request to a My Domain or community URL.

- `/services/oauth2/token`
- `/services/oauth2/revoke`
- `/services/oauth2/introspect`

**SETUP**  
**CORS**

## Cross-Origin Resource Sharing (CORS) Policy Settings

Web browsers can request resources from these OAuth endpoints with a valid OAuth token:

- /services/oauth2/token
- /services/oauth2/revoke
- /services/oauth2/introspect

Save Cancel

Enable CORS for OAuth endpoints

Save Cancel

 **Warning:** Some OAuth authorization flows contain a consumer secret. We strongly recommend that you protect the consumer secret from being exposed to end users.

SEE ALSO:

[Salesforce Help: Enable CORS for OAuth Endpoints \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: OAuth Endpoints \(can be outdated or unavailable during release preview\)](#)

## Secure SAML Messages When Salesforce Is the Identity Provider

When your Salesforce org acts as a SAML 2.0 identity provider, you can secure its messages to the service provider with either SHA1 or SHA256. These signing algorithms secure SAML messages by transforming them with hash functions. As the identity provider, Salesforce applies the selected algorithm to its SAML requests and responses. The selected signing algorithm is applied to single sign-on (SSO) and single logout (SLO) messages from your org to the service provider.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Group, Professional, Enterprise, Essentials, Performance, Unlimited, and Developer editions.

**How:** When you configure a connected app for your service provider, select the signing algorithm to apply to SAML requests and responses initiated by your org.

The screenshot displays the 'Web App Settings' configuration page. Key fields include:
 

- Start URL: www.mydomain.mycompany.com
- Enable SAML:
- Entity ID: https://curious-wolf-gpywrf-dev-ed.my.salesforce.com
- ACS URL: https://curious-wolf-gpywrf-dev-ed.my.salesforce.com?so=00D4P00
- Enable Single Logout:
- Single Logout URL: www.mydomain.mycompany.com/logout
- Single Logout Binding:  HTTP Redirect,  HTTP POST
- Subject Type: Username
- Name ID Format: urn:oasis:names:tc:SAML:1.1:nameid-format:unspecified
- Issuer: https://runnergirl-dev-ed.my.stmfa.stm.salesforce.com
- IdP Certificate: Default IdP Certificate
- Verify Request Signatures:
- Encrypt SAML Response:
- Signing Algorithm for SAML Response: SHA256 (selected)

## SEE ALSO:

[Salesforce Help: Integrate Service Providers as Connected Apps with SAML 2.0](#) (can be outdated or unavailable during release preview)  
[Metadata API Developer Guide: ConnectedApp](#) (can be outdated or unavailable during release preview)

## Update Identity Provider SAML Requests to Use Lowercase Sandbox Names

Sandbox names must be lowercase in recipient URLs within inbound SAML requests. If you set up your identity provider to send case-sensitive hostnames to Salesforce, update it to use lowercase sandbox names in SAML requests.

**Where:** This change applies to Lightning Experience and Salesforce Classic in all editions.

**When:** This change affects sandboxes created or refreshed in Spring '20 or later.

**How:** To see the case of your sandbox name in your SAML configuration, from Setup, in the Quick Find box, enter *Single Sign-On Settings*, and then select **Single Sign-On Settings**. The Login URL field in the Endpoints section contains your Salesforce org's hostname.

## SEE ALSO:

[Salesforce Help: Configure SAML Settings for Single Sign-On](#) (can be outdated or unavailable during release preview)

## OAuth 2.0 User-Agent Flow Supports mobileauth.salesforce.com Redirect URL for Refresh Tokens

The OAuth 2.0 user-agent flow supports refresh tokens when the `scope=refresh_token` is included in the request and the redirect URL is `https://mobileauth.salesforce.com/oauth/done`.

**Where:** This change applies to Lightning Experience and Salesforce Classic in all editions.

## SEE ALSO:

[Salesforce Help: OAuth 2.0 User-Agent Flow for Desktop or Mobile App Integration](#) (can be outdated or unavailable during release preview)

## Domains: Required My Domain, and Shorter URLs

New Salesforce orgs get a My Domain by default and existing orgs must define one by Winter '22. For customers with a My Domain, we're removing instance names from My Domain URLs through a release update.

### IN THIS SECTION:

#### [Deploy a My Domain \(Update\)](#)

To use the latest features and comply with browser requirements, all Salesforce orgs must have a My Domain. Deploy one, or we assign one for you based on your company name. Because your My Domain affects all application URLs, we recommend that you test and deploy a My Domain before this update is enforced in Winter '22.

#### [Define a My Domain When Creating a New Salesforce Org](#)

All production Salesforce orgs created in Winter '21 or later get a My Domain by default. With My Domain, you get a subdomain within the salesforce.com domain. For example, `https://examplecompany.my.salesforce.com`. A My Domain is required to comply with browser requirements and use the latest Salesforce features.

#### [Stabilize URLs for Visualforce, Experience Builder, Site.com Studio, and Content Files \(Previously Released Update\)](#)

We're removing the instance names from Visualforce, Experience Builder, Site.com Studio, and content file URLs. An instance name identifies where your Salesforce org is hosted. Removing the instance name makes domains shorter and easier for users to remember. This update applies to orgs that have a deployed My Domain. After this update is activated, a URL that includes the instance name, such as a bookmark, automatically redirects to the new hostname. This update was first made available in Spring '18.

#### [Setting That Allows Non-Secure HTTP Connections for Sites Was Removed](#)

As part of updates related to Google Chrome's SameSite cookie changes, HTTPS connections are required to access Salesforce. The Require Secure HTTPS Connections release update was enforced in production orgs on May 1, 2020. In Winter '21, we removed the Sites setting, Require Non-Secure Connections (HTTP), because HTTP connections are no longer permitted for authenticated requests.

## Deploy a My Domain (Update)

To use the latest features and comply with browser requirements, all Salesforce orgs must have a My Domain. Deploy one, or we assign one for you based on your company name. Because your My Domain affects all application URLs, we recommend that you test and deploy a My Domain before this update is enforced in Winter '22.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**When:** Salesforce enforces this update in Winter '22. To get the major release upgrade date for your instance, go to [Trust Status](#), search for your instance, and click the maintenance tab.

**Who:** This update applies to orgs without a deployed My Domain at the start of Winter '21.

**Why:** Deploying a My Domain brands your login URL with your chosen My Domain name. It also removes the instance name from your login URL, preventing user login disruption if your org moves to another Salesforce instance. You must have a My Domain to set a custom login policy that determines how users are authenticated. A My Domain is also required to set up single sign-on (SSO) with external vendors and to use newer services like Customer 360. Some Lightning container components and web security protections require a My Domain as well.

**How:** We recommend that you deploy a My Domain in a sandbox and test connectivity across your org before deploying in production.

To complete this update, from Setup, in the Quick Find box, enter *Release Updates*, and then select **Release Updates**. For Deploy a My Domain, follow the testing and activation steps. See My Domain in Salesforce Help for details on how to set up, test, and deploy a My Domain.

If you don't deploy a My Domain before the enforcement date, Salesforce sets one for you based on your org's company name. If you prefer to use a different name, you can change your My Domain after we set it.

SEE ALSO:

[Salesforce Help: My Domain \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: My Domain URL Formats \(can be outdated or unavailable during release preview\)](#)

[Release Updates](#)

## Define a My Domain When Creating a New Salesforce Org

All production Salesforce orgs created in Winter '21 or later get a My Domain by default. With My Domain, you get a subdomain within the salesforce.com domain. For example, `https://examplecompany.my.salesforce.com`. A My Domain is required to comply with browser requirements and use the latest Salesforce features.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Group, Essentials, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**How:** Specify your new org's My Domain name during sign-up using the My Domain field. If the requested My Domain name isn't unique, the sign-up process adds characters at the end of the name. For example, if you request "example" as your My Domain name and it's in use, the sign-up process can adjust it to "example1" or "example-1a".

If you don't choose a My Domain during sign-up, Salesforce assigns one for you based on your company name. If you don't like the one we set, you can change it.

If you maintain a sign-up form for Salesforce orgs, we recommend that you add the My Domain name field.

To change your My Domain name, in Setup, in the Quick Find box, enter *My Domain*, and then select **My Domain**. Under My Domain Settings, select **Edit**, and then enter a new My Domain name in the Rename your My Domain field. Select **Check for availability**, and if the domain is available, click **Save** to submit your new My Domain for provisioning. After provisioning is complete, deploy your new domain for your changes to take effect.

SEE ALSO:

[Salesforce Help: My Domain \(can be outdated or unavailable during release preview\)](#)

## Stabilize URLs for Visualforce, Experience Builder, Site.com Studio, and Content Files (Previously Released Update)

We're removing the instance names from Visualforce, Experience Builder, Site.com Studio, and content file URLs. An instance name identifies where your Salesforce org is hosted. Removing the instance name makes domains shorter and easier for users to remember. This update applies to orgs that have a deployed My Domain. After this update is activated, a URL that includes the instance name, such as a bookmark, automatically redirects to the new hostname. This update was first made available in Spring '18.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Contact Manager, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

**When:** This update is enabled automatically in sandbox orgs when they are created or refreshed. Salesforce enforces this update in all orgs in Summer '21. To get the major release upgrade date for your instance, go to [Trust Status](#), search for your instance, and click the maintenance tab.

**Why:** When we remove the instance name from your URLs, your hostnames change. For example:

- **MyDomainName--PackageName.visualforce.com** replaces **MyDomainName--PackageName.InstanceName.visual.force.com**

- **MyDomainName**--c.documentforce.com replaces **MyDomainName**--c.**InstanceName**.content.force.com
- **MyDomainName**.builder.salesforce-communities.com replaces **MyDomainName**--sitestudio.**InstanceName**.force.com

All \*.content.force.com URLs are replaced with \*.documentforce.com.

**How:** We recommend that you test this update in a sandbox. Ensure that the new URLs work with firewalls and proxy servers in the network path between your users and Salesforce. Firewalls and proxy servers that filter by hostname must also trust the following:

- \*.visualforce.com
- \*.documentforce.com
- \*.salesforce-communities.com

If your users access Salesforce using the Apple® Safari® browser version 13.1 or later, Visualforce pages can fail to display when this update is enabled. We recommend instructing your users to use a different supported browser.

To enable this update, from Setup, in the Quick Find Box, enter *Release Updates*, and then select **Release Updates**. For Stabilize URLs for Visualforce, Experience Builder, Site.com Studio, and Content Files, follow the testing and activation steps.

 **Note:** This update can log out users who are accessing Visualforce, Experience Builder, Site.com Studio, and content file URLs. To minimize disruption, consider applying this update during off-peak hours.

SEE ALSO:

[Spring '18 Release Notes: Remove Instance Names from URLs for Visualforce, Experience Builder, Site.com Studio, and Content Files \(Critical Update\)](#)

[Salesforce Help: Supported Browsers \(can be outdated or unavailable during release preview\)](#)

[Release Updates](#)

## Setting That Allows Non-Secure HTTP Connections for Sites Was Removed

As part of updates related to Google Chrome's SameSite cookie changes, HTTPS connections are required to access Salesforce. The Require Secure HTTPS Connections release update was enforced in production orgs on May 1, 2020. In Winter '21, we removed the Sites setting, Require Non-Secure Connections (HTTP), because HTTP connections are no longer permitted for authenticated requests.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in all editions.

SEE ALSO:

[Summer '20 Release Notes: Require Secure HTTPS Connections \(Update, Enforced\)](#)

## Salesforce Shield: More Real-Time Monitoring Events, Legacy Transaction Security End of Life, and More Field Encryption

Real-Time Event Monitoring helps you identify and respond to anomalous API usage, monitor bulk API queries, and audit when users download data in Einstein Analytics. The Event Monitoring Analytics App helps you analyze exceptions without manually uploading datasets, and legacy Transaction Security framework is disabled. Shield Platform Encryption continues to offer another layer of security for more personally identifiable data. Encrypt Health Cloud data and fields on the Identity object.

## IN THIS SECTION:

[Shield Platform Encryption: Encrypt Data Associated with Documents and Deprecated Release Update](#)

Shield Platform Encryption continues to give you more ways to protect personally identifiable information. You can now encrypt fields associated with health intake documents. You can also encrypt the documents you use to identify clients in Financial Services Cloud. And the release update removing the Manage Encryption Keys permission from the System Administrator profile is deprecated.

[Event Monitoring: Transaction Security Retirement, New Events](#)

The Legacy Transaction Security framework was retired. Real-Time Event Monitoring now includes two new events to help you keep an even closer eye on what's going on in your Salesforce org. Use the new API Anomaly Event to track anomalies in how users make API calls on your org's data. Implement transaction security policies with BulkApiResultEvent to query large amounts of data to access later.

## Shield Platform Encryption: Encrypt Data Associated with Documents and Deprecated Release Update

Shield Platform Encryption continues to give you more ways to protect personally identifiable information. You can now encrypt fields associated with health intake documents. You can also encrypt the documents you use to identify clients in Financial Services Cloud. And the release update removing the Manage Encryption Keys permission from the System Administrator profile is deprecated.

## IN THIS SECTION:

[Encrypt Data Associated with Health Intake Documents](#)

When you upload documents that are part of the home health care intake process, you can now encrypt personally identifiable information related to those documents. You can encrypt the Mapped Fields and Extracted Values fields on the OCR Document Scan Result object.

[Encrypt Identity Document Fields](#)

You can now encrypt fields on the documents you use to identify Financial Services Cloud clients. When you encrypt the Issue Date, Expiration Date, and Document Number fields, you add another layer of protection to the data your clients entrust to your care.

[Manage Encryption Keys Permission Removal from System Administrator Profile Release Update Deprecated \(Previously Released Update\)](#)

The Manage Encryption Keys Permission Removed from System Administrator Profile release update is deprecated and no longer available in Setup. Your existing permission settings do not change. However, as a best practice, customers who enabled Shield Platform Encryption before the Spring '16 release should assign the Manage Encryption Keys permission to individuals, and not rely on the System Administrator profile.

## Encrypt Data Associated with Health Intake Documents

When you upload documents that are part of the home health care intake process, you can now encrypt personally identifiable information related to those documents. You can encrypt the Mapped Fields and Extracted Values fields on the OCR Document Scan Result object.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

**Who:** Salesforce admins with the Health Cloud Platform permission set license can apply Shield Platform Encryption to Health Cloud fields.

**How:** On the Encryption Policy page in Setup, click **Encrypt Fields**. Then click **Edit** and select a field. You can apply either the probabilistic or deterministic encryption scheme to most fields.

SEE ALSO:

[Protect Your Health Data with Salesforce Shield](#)

## Encrypt Identity Document Fields

You can now encrypt fields on the documents you use to identify Financial Services Cloud clients. When you encrypt the Issue Date, Expiration Date, and Document Number fields, you add another layer of protection to the data your clients entrust to your care.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

**Who:** This change applies to editions that have both Financial Services Cloud and Shield Platform Encryption enabled.

**How:** On the Encryption Policy page in Setup, click **Encrypt Fields**. Then click **Edit** and select a field. You can apply the deterministic encryption scheme to the Document Number field.

## Manage Encryption Keys Permission Removal from System Administrator Profile Release Update Deprecated (Previously Released Update)

The Manage Encryption Keys Permission Removed from System Administrator Profile release update is deprecated and no longer available in Setup. Your existing permission settings do not change. However, as a best practice, customers who enabled Shield Platform Encryption before the Spring '16 release should assign the Manage Encryption Keys permission to individuals, and not rely on the System Administrator profile.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

## Event Monitoring: Transaction Security Retirement, New Events

The Legacy Transaction Security framework was retired. Real-Time Event Monitoring now includes two new events to help you keep an even closer eye on what's going on in your Salesforce org. Use the new API Anomaly Event to track anomalies in how users make API calls on your org's data. Implement transaction security policies with BulkApiResultEvent to query large amounts of data to access later.

IN THIS SECTION:

[Legacy Transaction Security: End of Life](#)

With the enhanced transaction security policy framework, you can create transaction security policies that execute actions on any standard or custom object. Now that the new framework is generally available, all policies written with the legacy framework are disabled. Make sure to migrate your legacy transaction security policies to the new framework. This update was first made available in Winter '20.

[Prevent Data Loss with BulkApiResult Event](#)

Preventing data leakage is a key capability of Event Monitoring. Malicious users can perform bulk operations on Salesforce entities to export sensitive org data, so we created a new real-time event that can help you monitor Bulk API activity. Use the new BulkApiResultEvent streaming object and BulkApiResultEventStore storage object to monitor when Bulk API results are downloaded via a REST endpoint or the Bulk API Job page in Setup. BulkApiResultEventStore supports Transaction Security.

[Detect Anomalies in API Queries with New ApiAnomalyEvent](#)

Track security threats to your Salesforce org with a brand new Real-Time Event Monitoring event. With ApiAnomalyEvent, you can track anomalies in how users make API calls to your org's data. The associated storage object ApiAnomalyEventStore supports transaction security policies.

### [Analyze Unexpected Exceptions in the Event Monitoring Analytics App](#)

The Event Monitoring Analytics App just got more user-friendly with the addition of an EventLogFile event type. With the Apex UnexpectedException Event Dataset, you can analyze exceptions in the Analytics app without uploading the dataset manually or via the External Data API.

### [View Einstein Analytics Data Downloads in Your Event Log Files](#)

Enhance tracking and security of downloaded data from Einstein Analytics with the new Wave Download Event. Download logs are now exposed in Event Monitoring to enable reporting on asset type, ID, dataset ID, Salesforce user type, download format, and number of rows downloaded.

## Legacy Transaction Security: End of Life

With the enhanced transaction security policy framework, you can create transaction security policies that execute actions on any standard or custom object. Now that the new framework is generally available, all policies written with the legacy framework are disabled. Make sure to migrate your legacy transaction security policies to the new framework. This update was first made available in Winter '20.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Professional, Unlimited, and Developer editions where Event Monitoring is enabled.

**Who:** Event Monitoring is available to customers who purchased Salesforce Shield or Event Monitoring add-on subscriptions.

**How:** To determine if your security policies are using the legacy framework, check their associated Apex classes. Legacy policies implement the TxnSecurity.PolicyCondition interface. Although a legacy policy can't run in the new framework, it's still visible, so you can examine its logic to reproduce it in the new policy. If you like using a point-and-click tool, Condition Builder provides most of the functionality to create a policy in the new framework. To migrate a legacy policy, create one in the new enhanced framework that mimics the old behavior. If you prefer to code or require more functionality than Condition Builder provides, implement the Apex class with the new TxnSecurity.EventCondition interface.

We welcome feedback about the migration and any issues that you encounter so that we can improve the transition for all Event Monitoring customers. You can provide feedback and suggestions for this feature in the [Salesforce Official: Shield group in the Trailblazer Community](#).

SEE ALSO:

[Knowledge Article: Legacy Transaction Security Retirement](#)

[Salesforce Help: Migrate Legacy Policies to the Enhanced Transaction Security Framework](#)

[Salesforce Release Updates](#)

## Prevent Data Loss with BulkApiResult Event

Preventing data leakage is a key capability of Event Monitoring. Malicious users can perform bulk operations on Salesforce entities to export sensitive org data, so we created a new real-time event that can help you monitor Bulk API activity. Use the new BulkApiResultEvent streaming object and BulkApiResultEventStore storage object to monitor when Bulk API results are downloaded via a REST endpoint or the Bulk API Job page in Setup. BulkApiResultEventStore supports Transaction Security.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Professional, Unlimited, and Developer editions where Event Monitoring is enabled.

**Who:** Event Monitoring is available to customers who purchased Salesforce Shield or Event Monitoring add-on subscriptions.

SEE ALSO:

[Salesforce Help: BulkApiResultEventStore Policies \(can be outdated or unavailable during release preview\)](#)

## Detect Anomalies in API Queries with New ApiAnomalyEvent

Track security threats to your Salesforce org with a brand new Real-Time Event Monitoring event. With ApiAnomalyEvent, you can track anomalies in how users make API calls to your org's data. The associated storage object ApiAnomalyEventStore supports transaction security policies.

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SEE ALSO:

[Salesforce Help:ApiAnomalyEventStore Policies \(can be outdated or unavailable during release preview\)](#)

## Analyze Unexpected Exceptions in the Event Monitoring Analytics App

The Event Monitoring Analytics App just got more user-friendly with the addition of an EventLogFile event type. With the Apex UnexpectedException Event Dataset, you can analyze exceptions in the Analytics app without uploading the dataset manually or via the External Data API.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Professional, Unlimited, and Developer editions where Event Monitoring is enabled.

**Who:** Event Monitoring is available to customers who purchased Salesforce Shield or Event Monitoring add-on subscriptions.

**How:** Upgrade your Event Monitoring Analytics App to take advantage of this new dataset.

SEE ALSO:

[Salesforce Object Reference Guide:Apex Unexpected Exception Event Type](#)

## View Einstein Analytics Data Downloads in Your Event Log Files

Enhance tracking and security of downloaded data from Einstein Analytics with the new Wave Download Event. Download logs are now exposed in Event Monitoring to enable reporting on asset type, ID, dataset ID, Salesforce user type, download format, and number of rows downloaded.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Professional, Unlimited, and Developer editions where Event Monitoring is enabled.

**Who:** Event Monitoring is available to customers who purchased Salesforce Shield or Event Monitoring add-on subscriptions.

**How:** If you're an Event Monitoring customer, you automatically get the WAVE\_DOWNLOAD\_EVENT fields in event log data when your users work in Analytics. You can use the data to create datasets and dashboards.

SEE ALSO:

[Salesforce Object Reference Guide: Wave Download Event Type \(can be outdated or unavailable during release preview\)](#)

## Other Security Changes: Changes to Security Release Notes, Security Center General Availability, a Connectivity Change, and New Crypto Class Support

Identity for Customers and Partners and Data Protection and Privacy topics moved to a new home in the release notes: Customer 360 Truth. Monitor multiple orgs with Security Center (generally available). Review and update your TLS ciphers, and take advantage of more Crypto class values.

### IN THIS SECTION:

#### [Changes to the Security, Privacy, and Identity Release Notes Section](#)

Identity for Customers and Partners and Data Protection and Privacy release notes moved to a new home in the release notes—Customer 360 Truth. They join other Customer 360 release notes to give you the information you need to successfully manage your customer data, identity, and privacy.

#### [Streamline Security Policy Monitoring with Security Center \(Generally Available\)](#)

No matter how many Salesforce orgs you're responsible for, Security Center lets you maintain security, privacy, and governance policies for all of them. This feature, now generally available, includes some changes since the last release. Formerly named Security Command Center, this release adds metrics for frozen users, connected apps, and 12 new permission metrics. The app also has an improved dashboard design to help you skip the scrolling and quickly dig into your data.

#### [Review and Update Your TLS 1.2 Ciphers](#)

We updated the Salesforce Services supported TLS 1.2 cipher suites. We removed support for two TLS 1.2 cipher suites for HTTPS callouts from the Sales, Service, and Communities Clouds. If you use the TLS\_ECDHE\_RSA\_WITH\_AES\_256\_CBC\_SHA or TLS\_ECDHE\_RSA\_WITH\_AES\_128\_CBC\_SHA cipher suite, update your server to use one of the supported suites.

#### [Apex Crypto Class Supports ECDSA](#)

Apex Crypto class updates help you reduce your security footprint and take advantage of more signature options. We offer support for ECDSA-SHA256, ECDSA-SHA384, and ECDSA-SHA512 values in the algorithmName parameter in Crypto.sign, Crypto.signWithCertificate, Crypto.signXML(), and Crypto.verify() (methods) in the System.Crypto class.

## Changes to the Security, Privacy, and Identity Release Notes Section

Identity for Customers and Partners and Data Protection and Privacy release notes moved to a new home in the release notes—Customer 360 Truth. They join other Customer 360 release notes to give you the information you need to successfully manage your customer data, identity, and privacy.

### SEE ALSO:

[Customer 360 Truth: A Secure, Single Source of Truth for All of Your Customer Data](#)

## Streamline Security Policy Monitoring with Security Center (Generally Available)

No matter how many Salesforce orgs you're responsible for, Security Center lets you maintain security, privacy, and governance policies for all of them. This feature, now generally available, includes some changes since the last release. Formerly named Security Command Center, this release adds metrics for frozen users, connected apps, and 12 new permission metrics. The app also has an improved dashboard design to help you skip the scrolling and quickly dig into your data.

**Where:** This feature is available in Lightning Experience in Enterprise, Unlimited, and Developer editions.

**Who:** Security Center is available as an add-on subscription. To view the dashboard and metric pages, assign the View Security Center Pages permission. To manage connected tenants, assign the Manage Security Center permission.

**Why:** With the Security Center, you can limit risks and shorten security review processes. Use the app to gain clear insights into how you're meeting your security goals so that you can respond proactively to suspicious conditions. And during periods of growth or change, Security Center can help you monitor changes that touch sensitive customer data.

**How:** Contact Salesforce to enable Security Center. Salesforce works with you to add the app to a tenant of your choice. After it's enabled, log in to that tenant, and select **Security Center** from the App Launcher.

The new compact dashboard design gives you an easy-to-read overview of your metrics. See aggregate values for each metric, how much each value has changed since the last update, and when that update happened. Click a category to see weekly data for each metric in that category.

| Summary   |                 |                              |                     |
|---|-----------------|------------------------------|---------------------|
| View summary metrics for all connected tenants. To see details for a metric category, click the card title. |                 |                              |                     |
| <b>Authentication by Type</b>   |                 | <b>Configuration Metrics</b> |                     |
| Metric  | Value           | Change                       | Last Updated        |
| SSO   | 62 Logins       | 0                            | 8/11/2020, 05:00 PM |
| MFA & SSO   | 0 Logins        | 0                            | 8/11/2020, 05:00 PM |
| MFA, Username, & Password   | 0 Logins        | 0                            | 8/11/2020, 05:00 PM |
| Metric  | Value           | Change                       | Last Updated        |
| Managed Packages  | 7 Packages      | 0                            | 8/13/2020, 01:14 AM |
| Unmanaged Packages  | 12 Packages     | 0                            | 8/13/2020, 01:14 AM |
| Connected Apps  | 6 Connected ... | +3                           | 8/13/2020, 01:14 AM |
| <b>Permissions</b>  |                 | <b>User Metrics</b>          |                     |
| Metric  | Value           | Change                       | Last Updated        |
| View All Data   | 22 Users        | -1                           | 8/13/2020, 01:14 AM |
| Modify All Data   | 18 Users        | -1                           | 8/13/2020, 01:14 AM |
| Manage Users  | 13 Users        | -1                           | 8/13/2020, 01:14 AM |
| Metric  | Value           | Change                       | Last Updated        |
| Never Logged In   | 39 Users        | -1                           | 8/13/2020, 01:14 AM |
| Inactive (90 Days)  | 7 Users         | -1                           | 8/13/2020, 01:14 AM |
| No MFA  | 41 Users        | -1                           | 8/13/2020, 01:14 AM |

Need even more detail? Click a card to open a detail page and choose how you want to see details. See day-over-day changes, or all data broken down by tenant. The lower half of the screen lists details that give you critical context for settings, actions, and events of interest. And because Security Center stores details for 6 months, you can monitor changes to user behavior over time during periods of change.

**Modify All Data Permission**  
Monitor Modify All Data permission assignments, such as when it was assigned and by whom. [Tell Me More](#)

Changes | All Data

Count

15  
12  
9  
6  
3  
0

13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29

Last 30 Days

Changes by Date May 12, 2020

< Back to Dashboard

- Authentication
  - MFA & SSO
  - SSO
  - MFA, Username, & Password
  - Username & Password
  - MFA & Passwordless
  - Passwordless
- Configuration
  - Managed Packages
  - Unmanaged Packages
- Permissions
  - View All Data
  - Modify All Data
- User
  - No MFA
  - Inactive (90 Days)
  - Never Logged In

**Modify All Data Permission**  
Monitor Modify All Data permission assignments, such as when it was assigned and by whom. [Tell Me More](#)

Changes | All Data

User Count

0 0.5 1 1.5 2 2.5 3 3.5 4 4.5 5

|                                   |   |
|-----------------------------------|---|
| dev_demo_master1_226_bitz_nak4_b  | 1 |
| dev_demo_tenant1a_226_bitz_nak4_b | 1 |
| dev_demo_tenant1b_226_bitz_nak4_b | 2 |
| dev_demo_tenant1c_226_bitz_nak4_b | 1 |
| dev_demo_tenant1d_226_bitz_nak4_b | 1 |
| dev_demo_tenant1e_226_bitz_nak4_b | 3 |

Totals by Date Apr 25, 2020

| Tenant            | Tenant Id       | User             | User Email        | Context              | User License | Action Time  |
|-------------------|-----------------|------------------|-------------------|----------------------|--------------|--------------|
| dev_demo_tenan... | 000RM000000F... | dev_demo_tena... | albragimchayev... | perm set MAD         | Standard     | Apr 25, 2020 |
| dev_demo_tenan... | 000RM000000F... | dev_demo_tena... | albragimchayev... | System Administr...  | Standard     | Apr 25, 2020 |
| dev_demo_tenan... | 000RM000000F... | dev_demo_tena... | albragimchayev... | modify all data p... | Standard     | Apr 25, 2020 |
| dev_demo_mast...  | 000RM000000F... | dev_demo_mast... | albragimchayev... | perm set MAD         | Standard     | Apr 25, 2020 |
| dev_demo_mast...  | 000RM000000F... | dev_demo_mast... | albragimchayev... | System Administr...  | Standard     | Apr 25, 2020 |
| dev_demo_mast...  | 000RM000000F... | dev_demo_mast... | albragimchayev... | perm set MAD         | Standard     | Apr 25, 2020 |
| dev_demo_tenan... | 000RM000000F... | dev_demo_tena... | albragimchayev... | System Administr...  | Standard     | Apr 22, 2020 |
| dev_demo_mast...  | 000RM000000F... | dev_demo_mast... | albragimchayev... | System Administr...  | Standard     | Apr 22, 2020 |

SEE ALSO:

[Salesforce Help: Take Charge of Your Security Goals with Security Center \(can be outdated or unavailable during release preview\)](#)

## Review and Update Your TLS 1.2 Ciphers

We updated the Salesforce Services supported TLS 1.2 cipher suites. We removed support for two TLS 1.2 cipher suites for HTTPS callouts from the Sales, Service, and Communities Clouds. If you use the TLS\_ECDHE\_RSA\_WITH\_AES\_256\_CBC\_SHA or TLS\_ECDHE\_RSA\_WITH\_AES\_128\_CBC\_SHA cipher suite, update your server to use one of the supported suites.

**Where:** This change applies to Lightning Experience and Salesforce Classic in all editions.

SEE ALSO:

[Knowledge Article: Salesforce Services and Marketing Cloud supported TLS 1.2 Cipher Suites](#)

## Apex Crypto Class Supports ECDSA

Apex Crypto class updates help you reduce your security footprint and take advantage of more signature options. We offer support for ECDSA-SHA256, ECDSA-SHA384, and ECDSA-SHA512 values in the algorithmName parameter in Crypto.sign, Crypto.signWithCertificate, Crypto.signXML(), and Crypto.verify() (methods) in the System.Crypto class.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

**How:** For information about generating and using key material, see the [Crypto Class](#) entry in the Apex Developer Guide.

# Customer 360 Truth: A Secure, Single Source of Truth for All of Your Customer Data

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Learn what's new with Customer 360 Data Manager. Give your users more identity verification options and a more personalized email change experience. And use one app to create multiple org monitoring policies.

IN THIS SECTION:

[Customer 360 Data Manager: Connect Data Sources to Create a Single View of Your Customer](#)

Connect all of your customer data across your business—including multiple Salesforce orgs, Commerce Cloud B2C instances, and even data sources outside Salesforce. Create global profiles, map objects and fields across data sources using the Cloud Information Model, and use Lightning web components to create integrated experiences.

[Identity for Customers & Partners: Identity Verification by SMS, Email Address Change Verification \(Update\), and Customizable Email Templates](#)

Let your users verify their identity for multi-factor authentication by text message. When a community member changes their email address, they must verify the change through emails that are sent to the new and old addresses. And you can customize the email notifications that you send them.

[Privacy & Data Compliance: Privacy Center and Consent Event Stream](#)

Use the Salesforce Privacy Center to satisfy customer requests and data privacy laws, like the General Data Protection Regulation (GDPR), with two customizable features. Effortlessly monitor changes to consent and contact information on all core objects with Consent Event Stream.

## Customer 360 Data Manager: Connect Data Sources to Create a Single View of Your Customer

Connect all of your customer data across your business—including multiple Salesforce orgs, Commerce Cloud B2C instances, and even data sources outside Salesforce. Create global profiles, map objects and fields across data sources using the Cloud Information Model, and use Lightning web components to create integrated experiences.

Check out the latest features and updates from Customer 360 Data Manager: [Customer 360 Data Manager Release Notes](#).

### SEE ALSO:

[Salesforce Help: Customer 360 Data Manager Basics](#)

[Trailhead: Get Started with Customer 360 Data Manager](#)

## Identity for Customers & Partners: Identity Verification by SMS, Email Address Change Verification (Update), and Customizable Email Templates

Let your users verify their identity for multi-factor authentication by text message. When a community member changes their email address, they must verify the change through emails that are sent to the new and old addresses. And you can customize the email notifications that you send them.

### IN THIS SECTION:

[Let Your Community Users, Customers, and Partners Verify Their Identities with SMS](#)

Rolling out multi-factor authentication to your users can be a complex process. Make it a snap with multi-factor authentication by SMS. Logging in securely is as easy as getting a text message.

[Require Verification When Community Users, Partners, and Customers Change Their Email Address \(Update\)](#)

This security update requires external users to confirm their community email address changes.

[Put Your Own Spin on Your Community's Email Address Change Verification Emails](#)

When a Lightning community member changes their email address, they're sent two security emails—one to their old email address and one to their new one. Customize the emails that they receive by using the New and Old Email Address Change Verification templates.

## Let Your Community Users, Customers, and Partners Verify Their Identities with SMS

Rolling out multi-factor authentication to your users can be a complex process. Make it a snap with multi-factor authentication by SMS. Logging in securely is as easy as getting a text message.

**Where:** This change applies to Lightning communities accessed through Lightning Experience and Salesforce Classic in Essentials, Enterprise, Performance, Unlimited, and Developer editions.

**How:** Contact Salesforce Customer Support to enable SMS multi-factor authentication. Then, enable Let external users verify their identity by text (SMS) on profiles and permission sets. If this setting is enabled and a user must complete a multi-factor authentication challenge, but they don't have any enrolled verifiers, they are asked to verify their mobile phone number.

 **Note:** SMS is not as secure as other multi-factor authentication methods. Use discretion when enabling this permission.

## Require Verification When Community Users, Partners, and Customers Change Their Email Address (Update)

This security update requires external users to confirm their community email address changes.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the mobile app in all editions.

**When:** Salesforce enforces this update in Spring '21. To get the major release upgrade date for your instance, go to [Trust Status](#), search for your instance, and click the maintenance tab.

**Who:** This release update is for all Salesforce Lightning communities.

**Why:** This update automatically enables the Require email confirmations for email address changes setting in all orgs. Customers can opt out by disabling this setting.

**How:** When a user changes an email address, an email is sent to the new address for confirmation. After the user clicks the confirmation link in the message, the address change takes effect.

SEE ALSO:

[Release Updates](#)

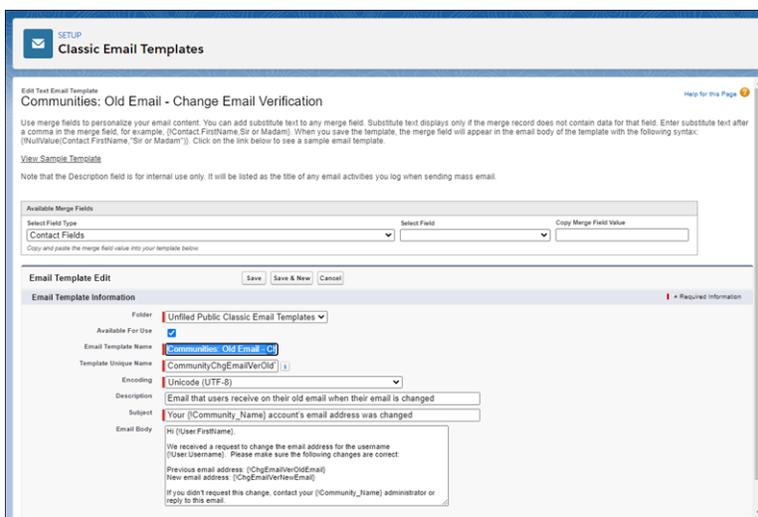
## Put Your Own Spin on Your Community's Email Address Change Verification Emails

When a Lightning community member changes their email address, they're sent two security emails—one to their old email address and one to their new one. Customize the emails that they receive by using the New and Old Email Address Change Verification templates.

**Where:** This change applies Lightning communities accessed through Lightning Experience and Salesforce Classic in Essentials, Enterprise, Performance, Unlimited, and Developer editions.

**How:** To customize the emails that users receive when they change their email address, use the new templates in your community workspace. From Setup, in the Quick Find box, enter *Classic Email Templates*, and then select **Classic Email Templates**. Select either the Communities: New Email - Change Email Verification or the Communities: Old Email - Change Email Verification template.

 **Example:**



The screenshot shows the 'Classic Email Templates' setup page in Salesforce. The page title is 'Classic Email Templates' and the sub-header is 'Communities: Old Email - Change Email Verification'. Below the header, there is a section for 'Available Merge Fields' with a table for selecting fields. The 'Email Template Edit' section is visible, showing the following details:

- Folder:** Unified Public Classic Email Templates
- Available For Use:**
- Email Template Name:** Communities: Old Email - Ch
- Template Unique Name:** CommunityChgEmailVerOld
- Encoding:** Unicode (UTF-8)
- Description:** Email that users receive on their old email when their email is changed
- Subject:** Your ([Community\_Name]) account's email address was changed
- Email Body:**

```
Hi {User.FirstName},

We received a request to change the email address for the username
{User.Username}. Please make sure the following changes are correct:

Previous email address: {ChgEmailVerOldEmail}
New email address: {ChgEmailVerNewEmail}

If you didn't request this change, contact your {Community_Name} administrator or
reply to this email.
```

SEE ALSO:

[Salesforce Help: Email Address Change Template \(can be outdated or unavailable during release preview\)](#)

## Privacy & Data Compliance: Privacy Center and Consent Event Stream

Use the Salesforce Privacy Center to satisfy customer requests and data privacy laws, like the General Data Protection Regulation (GDPR), with two customizable features. Effortlessly monitor changes to consent and contact information on all core objects with Consent Event Stream.

IN THIS SECTION:

### [Securely Manage Customer Data with Salesforce Privacy Center](#)

Use one app to easily create policies that manage how your Salesforce org retains, deletes, anonymizes, and transfers customer data. Salesforce Privacy Center helps you satisfy customer requests and data privacy laws, like the General Data Protection Regulation (GDPR), with two customizable features.

### [Monitor Changes to Consent with Consent Event Stream](#)

Receive notifications about changes to consent or contact information on all core objects in a single stream. Events captured in the Consent Event Stream are visible for 24 hours.

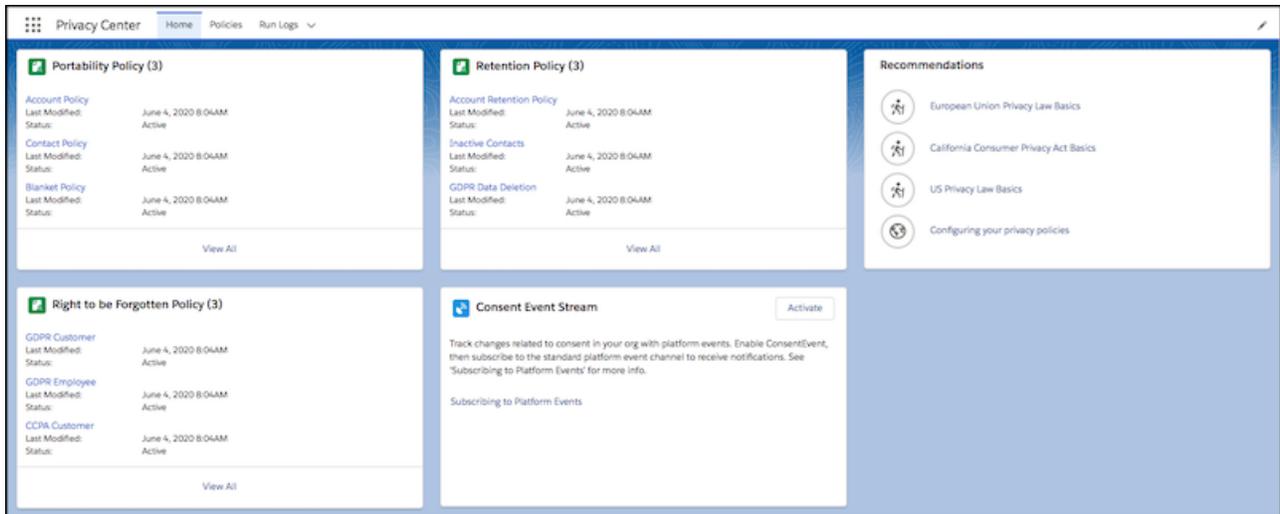
## Securely Manage Customer Data with Salesforce Privacy Center

Use one app to easily create policies that manage how your Salesforce org retains, deletes, anonymizes, and transfers customer data. Salesforce Privacy Center helps you satisfy customer requests and data privacy laws, like the General Data Protection Regulation (GDPR), with two customizable features.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

**Why:** Manage how long your customers' personally identifiable information (PII) is kept in your org with Data Retention policies. To meet customer data rights, make policies with the Data Subject Rights feature that automate how data is made anonymous or deleted from your org. You can also create policies that compile and securely transfer all PII data from your org to your customer.

**How:** Privacy Center is a managed package that you install in a production org.



SEE ALSO:

[Salesforce Help: Privacy Center: Satisfy Customer Requests and Data Privacy Laws \(can be outdated or unavailable during release preview\)](#)

## Monitor Changes to Consent with Consent Event Stream

Receive notifications about changes to consent or contact information on all core objects in a single stream. Events captured in the Consent Event Stream are visible for 24 hours.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

**Who:** To use this feature, you need the ReadAllData or PrivacyDataAccess permission.

**How:** Enable the Consent Event Stream feature for your org, then subscribe to the Consent Event channel to receive notifications about changes to objects. From Setup, in the Quick Find Box, enter *Data Privacy Platform*, and then select **Consent Event Stream**. Check the box next to Use the Consent Event Stream. The Consent Event Stream sends notifications to the channel /event/ConsentEvent.

SEE ALSO:

[Developer Guide: Subscribing to Platform Events \(can be outdated or unavailable during release preview\)](#)

[Developer Guide: Change Event Object Support \(can be outdated or unavailable during release preview\)](#)

## Deployment: New Change Set Components

Send customizations from one org to another by adding these components to change sets.

IN THIS SECTION:

[New Change Set Components](#)

The components available for change sets vary by edition. These components are now available for change sets.

## New Change Set Components

The components available for change sets vary by edition. These components are now available for change sets.

### Allow URL for Redirects

Represents a trusted URL outside of the Salesforce domain to which links can redirect users without showing a “leaving Salesforce” warning message.

### Channel Menu Deployment

Represents the deployment of a channel menu (such as phone or web chat) to a Salesforce Community or Site.

### Custom Index

Represents a custom index used to improve the performance of SOQL queries.

## Development: Create Your Own Salesforce App

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Whether you're using Lightning components, Visualforce, Apex, or our APIs with your favorite programming language, these enhancements help you develop amazing applications, integrations, and packages for resale to other organizations.

### IN THIS SECTION:

[Lightning Components: Custom Buttons for the lightning-input-rich-text Base Component, Second-Generation Packages Support Lightning Message Channels](#)

Add custom buttons to the input rich-text base component (beta). Second-generation packages now support Lightning message channels.

[Einstein Vision and Language: Image Recognition and Natural Language Processing](#)

Not a data scientist or machine-learning expert but still want to integrate AI into your apps? Use the Einstein Vision and Language APIs to easily AI-enable your apps with image recognition and natural language processing. Using the Einstein Vision APIs, you can leverage pre-trained classifiers or train custom classifiers to solve a vast array of image recognition use cases. With the Einstein Language APIs, you can harness the power of natural language processing to analyze text and infer the sentiment or intent behind the text. Make your apps smarter and look like a genius at the same time.

[Visualforce: Lightning Message Channels in Second-Generation Packages and Shortened URLs](#)

You can now include message channels in second-generation packages. The release update that removes instance names from some URLs is activated in Summer '21.

[Apex](#)

Avoid null pointer exceptions by using the safe navigation operator (`? .`). Make partial or full updates to a resource in an HTTP web service by specifying the PATCH method in the `HttpRequest` class. Create, configure, and send custom notifications directly from Apex code using the `Messaging.CustomNotification` class. Detect Apex runtime context using `RequestId` and `Quiddity` values. Improve Apex testing with the new `SObject` error methods. The `Database.deleteImmediate()` method now supports batch deletes of up to 50,000 big object records at once. The `@namespaceAccessible` annotation provides enhanced support for accessing Apex in second-generation packages.

[API](#)

In API version 50.0, use the new `/composite/graph` resource.

[Packaging: Package Ancestry Visualizations, Unwanted Package Versions Are Deletable, Push Upgrades Are Generally Available](#)

Use Salesforce CLI to visualize your package ancestry tree. Delete unwanted and unreleased unlocked or second-generation managed package versions. Specify a user to receive email notifications for package errors. Push upgrades are generally available for unlocked and second-generation managed packages.

### [Scratch Orgs: Org Shape and New Features](#)

A scratch org is a dedicated and configurable Salesforce environment that you can quickly spin up for many different purposes. It can be your own personal development environment, or you can create a headless scratch org for automated tests. You can create scratch orgs if you turned on Dev Hub in your production org or a Developer Edition org, or have a Dev Hub trial org. We continually add support for new features.

### [Platform Development Tools](#)

Build applications collaboratively and deliver continuously with Salesforce Developer Experience (DX), the open and integrated experience that makes development on the Customer 360 Platform easy. The Salesforce DX toolset includes Salesforce Extensions for Visual Studio Code and Salesforce CLI. Pick the tool that works best for your team and meets your business needs. We release new versions of both tools weekly.

### [Lightning Design System: Styling Hooks and Other Component Blueprint Enhancements](#)

The Salesforce Lightning Design System (SLDS) includes the resources to create user interfaces consistent with the Salesforce Lightning principles, design language, and best practices. In this release, we implemented styling hooks so you can customize component styles for your branding.

### [AppExchange Partners: Listing Activity Summary by Region in Marketplace Analytics and Simulation Mode in AppExchange App Analytics](#)

See which locations drive activity using Marketplace Analytics Activity Summary by Region. Test your custom integrations with App Analytics simulation mode.

### [Change Data Capture: Event Enrichment \(Beta\) and More Object Support](#)

Enrich your event messages with fields and receive change notifications for more objects.

### [Platform Events: Subscription Management and Usage Monitoring](#)

Manage your Apex trigger subscriptions from the user interface, monitor usage metrics, and track the status of event publishing (beta).

### [New and Changed Items for Developers](#)

Here is where you can find new and changed objects, calls, classes, components, commands, and more that help you customize Salesforce features.

## Lightning Components: Custom Buttons for the `lightning-input-rich-text` Base Component, Second-Generation Packages Support Lightning Message Channels

Add custom buttons to the input rich-text base component (beta). Second-generation packages now support Lightning message channels.



**Note:** Looking for [new and changed Lightning web components](#), [Aura components](#), and [Aura component interfaces](#)? We consolidated the lists of new and changed items at the end of the Development section.

### IN THIS SECTION:

#### [Add Custom Buttons to the `lightning-input-rich-text` Base Component \(Beta\)](#)

You can add buttons to perform actions that you define, such as inserting an email template, applying formats, or adding a link to your FAQ. You can even open a popup from a custom button. Define a custom button using two new components together, nested in the `lightning-input-rich-text` component.

### [Second-Generation Packages Support Lightning Message Channels](#)

Lightning components use message channels to communicate via the Lightning Message Service. You can now include message channels in second-generation packages.

### [Scan a Barcode in a Lightning Web Component \(Beta\)](#)

Use the BarcodeScanner API to add barcode scanning to your Lightning web components. Scan UPC, QR, and other standard barcode types from Lightning components running on a mobile device. Look up product details, record inventory scans, save contact details from a conference badge—your code, your way!

### [Increased Timeout for Client-Side Caching](#)

When a component is generated on the server from metadata, the page loads from a client-side cache of the indexed database. The client-side cache timeout has increased from 15 minutes to 8 hours, with a refresh interval of 15 minutes. This increased timeout can result in faster page loads for users who bootstrap the application frequently or click links from outside the application to open a new browser window or tab to Lightning Experience.

### [Aura Components in the `ui` Namespace Are Being Deprecated](#)

Support for the deprecated components ends on May 1, 2021.

### [DOM API Changes May Require UI Test Updates](#)

The content and structure of HTML, CSS, and the DOM can change at any time and can't be considered a stable API. Automated UI tests that use tools like Selenium WebDriver to reach into component internals require your ongoing maintenance. We're here to help you adapt your automated UI tests for this release.

### [Develop Flow Screen Components That Work for Multiple Objects \(Generally Available\)](#)

Now you can create reusable flow screen components that use the generic `sObject` and `sObject []` data types. Build one component that works for multiple objects, rather than one for each individual object. For example, you can build a data table component that works with any collection of records, from accounts and contacts to custom objects.

### [Release Updates: Enforcement for Profile-Based Access for @AuraEnabled Apex Classes, and More](#)

We're enforcing the two release updates for Apex classes containing `@AuraEnabled` methods. There's also a new Enable Secure Static Resources for Lightning Components release update.

SEE ALSO:

[Lightning Web Components Developer Guide](#)

[Lightning Aura Components Developer Guide](#)

## Add Custom Buttons to the `lightning-input-rich-text` Base Component (Beta)

You can add buttons to perform actions that you define, such as inserting an email template, applying formats, or adding a link to your FAQ. You can even open a popup from a custom button. Define a custom button using two new components together, nested in the `lightning-input-rich-text` component.

-  **Note:** As a beta feature, Custom Buttons for `lightning-input-rich-text` is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for Custom Buttons for `lightning-input-rich-text` in the [Lightning Components Development group](#) in the Trailblazer Community.

**Where:** This change applies to Lightning Experience, Lightning communities, and the Salesforce app.

**How:** In your `lightning-input-rich-text` component, place a `lightning-rich-text-toolbar-button-group` component in a slot named `toolbar` to contain your custom buttons. Place a `lightning-rich-text-toolbar-button` component for each custom button inside the `lightning-rich-text-toolbar-button-group` component.

In the `lightning-rich-text-toolbar-button` component, display a utility icon on the button using the `icon-name` attribute, and specify `onclick` for your button's action.

`lightning-rich-text-toolbar-button` provides the methods `showPopup()` and `closePopup()`, which you can use in your button handler to open and close a popup. Provide the content of the popup by nesting components inside `lightning-rich-text-toolbar-button`.

This example adds a custom button to apply the `code-block` style. The `lightning-input-rich-text` component doesn't include `code-block` by default. The `formats` attribute must specify all the formats to allow in the rich text editor, including `code-block`.

```
<template>
  <lightning-input-rich-text formats="font, bold, italic, underline, strike,
    list, indent, align, link, image, clean, code, code-block, color, background, header">

    <lightning-rich-text-toolbar-button-group slot="toolbar" aria-label="First group">

      <lightning-rich-text-toolbar-button
        icon-name="utility:insert_tag_field"
        icon-alternative-text="Code Block"
        onclick={handleCodeBlockButtonClick}>
      </lightning-rich-text-toolbar-button>
    </lightning-rich-text-toolbar-button-group>
  </lightning-input-rich-text>
</template>
```

The button handler gets the format that's currently applied, and then sets or unsets the `code-block` format using the `setFormat()` method.

```
import { LightningElement } from 'lwc';

export default class CustomButtonDemo extends LightningElement {
  handleCodeBlockButtonClick() {
    const inputRichText = this.template.querySelector('lightning-input-rich-text');
    let format = inputRichText.getFormat();

    // Set or unset code-block format based on format on current selection
    if (format['code-block']) {
      inputRichText.setFormat({ 'code-block': false });
    } else {
      inputRichText.setFormat({ 'code-block': true });
    }
  }
}
```

SEE ALSO:

[Component Reference: lightning-input-rich-text](#) (can be outdated or unavailable during release preview)

## Second-Generation Packages Support Lightning Message Channels

Lightning components use message channels to communicate via the Lightning Message Service. You can now include message channels in second-generation packages.

SEE ALSO:

[Lightning Web Components Developer Guide: Communicating Across the DOM with Lightning Message Service](#)

## Scan a Barcode in a Lightning Web Component (Beta)

Use the BarcodeScanner API to add barcode scanning to your Lightning web components. Scan UPC, QR, and other standard barcode types from Lightning components running on a mobile device. Look up product details, record inventory scans, save contact details from a conference badge—your code, your way!

**Where:** This feature is available in Lightning web components when they're running in the Salesforce mobile app or Mobile Publisher.

**Why:** Improvements to the BarcodeScanner API in this release include the following.

- Added `resumeCapture()` to allow continuous scanning of multiple barcodes.
- Increased control over the scanning user experience.
- Improved error handling and error responses.

**How:** Using BarcodeScanner in your Lightning web component is straightforward.

1. Import BarcodeScanner into your component definition.
2. Test to make sure BarcodeScanner is available before you call scanning lifecycle functions.
3. Use the scanning lifecycle functions to start and stop scanning.

For complete details, see *Scan Barcodes on a Mobile Device* in the [Lightning Web Components Developer Guide](#).

## Increased Timeout for Client-Side Caching

When a component is generated on the server from metadata, the page loads from a client-side cache of the indexed database. The client-side cache timeout has increased from 15 minutes to 8 hours, with a refresh interval of 15 minutes. This increased timeout can result in faster page loads for users who bootstrap the application frequently or click links from outside the application to open a new browser window or tab to Lightning Experience.

## Aura Components in the `ui` Namespace Are Being Deprecated

Support for the deprecated components ends on May 1, 2021.

**Where:** This change applies to orgs with Lightning components in Lightning Experience, Salesforce Classic, and all versions of the Salesforce mobile app.

**When:** Support for deprecated Aura components in the `ui` namespace ends on May 1, 2021. You can continue to use these components beyond May 1, 2021, but we are not accepting support cases for them after that date.

**Why:** Retiring our legacy components enables us to focus on components that match the latest web standards in performance, accessibility, user experience, and internationalization.

**How:** Replace the deprecated components with their counterparts in the `lightning` namespace. These components are faster, more efficient, and they implement Lightning Design System styling out-of-the-box.

 **Note:** Components in the `lightning` namespace are available in two versions—as Aura components and Lightning web components. We recommend using Lightning web components whenever possible. Lightning web components are custom HTML elements built using HTML and modern JavaScript. Lightning web components and Aura components can coexist and interoperate on a page. To admins and end users, they both appear as Lightning components. See the [Lightning Web Components Developer Guide](#) for more information.

The deprecated Aura components and their recommended alternatives are listed as follows.

**ui:actionMenuItem**

Use `lightning:menuItem` with `lightning:buttonMenu` instead.

**ui:button**

Use `lightning:button`, `lightning:buttonIcon`, or `lightning:buttonIconStateful`. For button groups, use `lightning:buttonGroup`.

**ui:checkboxMenuItem**

Use `lightning:menuItem` with `lightning:buttonMenu` instead.

**ui:inputCheckbox**

Use `lightning:input` with `checkbox`, `toggle`, or `checkbox-button` type instead. For checkbox groups, use `lightning:checkboxGroup`.

**ui:inputCurrency**

Use `lightning:input` with `number` type and `currency` formatter instead.

**ui:inputDate**

Use `lightning:input` with `date` type instead.

**ui:inputDateTime**

Use `lightning:input` with `datetime` type instead.

**ui:inputDefaultError**

Use `lightning:input` with built-in field validation instead.

**ui:inputEmail**

Use `lightning:input` with `email` type instead.

**ui:inputNumber**

Use `lightning:input` with `number` type instead.

**ui:inputPhone**

Use `lightning:input` with `phone` type instead.

**ui:inputRadio**

Use `lightning:input` with `radio` type instead. For radio groups, use `lightning:radioGroup`.

**ui:inputRichText**

Use `lightning:inputRichText` instead.

**ui:inputSecret**

Use `lightning:input` with `password` type instead.

**ui:inputSelect**

Use `lightning:select` or `lightning:combobox` instead.

**ui:inputSelectOption**

Use `lightning:select` or `lightning:combobox` instead.

**ui:inputText**

Use `lightning:input` with `text` type instead.

**ui:inputTextArea**

Use `lightning:textarea` instead.

**ui:inputURL**

Use `lightning:input` with `url` type instead.

**ui:menu**

Use `lightning:buttonMenu` instead.

**ui:menuItem**

Use `lightning:menuItem` with `lightning:buttonMenu` instead.

**ui:menuItemSeparator**

Use `lightning:menuDivider` with `lightning:buttonMenu` instead.

**ui:menuList**

Use `lightning:buttonMenu` instead.

**ui:menuTrigger**

Use `lightning:buttonMenu` instead.

**ui:menuTriggerLink**

Use `lightning:buttonMenu` instead.

**ui:message**

Use `lightning:notificationsLibrary` instead.

**ui:outputCheckbox**

Use `lightning:input` with `checkbox` type and set `readonly` to `true`.

**ui:outputCurrency**

Use `lightning:formattedNumber` with `style` set to `currency`.

**ui:outputDate**

Use `lightning:formattedDateTime` instead.

**ui:outputDateTime**

Use `lightning:formattedDateTime` or `lightning:formattedTime` instead.

**ui:outputEmail**

Use `lightning:formattedEmail` instead.

**ui:outputNumber**

Use `lightning:formattedNumber` instead.

**ui:outputPhone**

Use `lightning:formattedPhone` instead.

**ui:outputRichText**

Use `lightning:formattedRichText` instead.

**ui:outputText**

Use `lightning:formattedText` instead.

**ui:outputTextArea**

Use `lightning:formattedText` instead.

**ui:outputURL**

Use `lightning:formattedUrl` instead.

**ui:radioMenuItem**

Use `lightning:menuItem` with `lightning:buttonMenu` instead.

**ui:spinner**

Use `lightning:spinner` instead.

## DOM API Changes May Require UI Test Updates

The content and structure of HTML, CSS, and the DOM can change at any time and can't be considered a stable API. Automated UI tests that use tools like Selenium WebDriver to reach into component internals require your ongoing maintenance. We're here to help you adapt your automated UI tests for this release.

**Where:** This change applies to Lightning Experience and Salesforce Classic in all editions.

**Why:** We're calling out the fragility of these tests due to changes, in particular as Lightning Experience continues to evolve with modern web standards. We understand the value that you gain from automated UI testing and the maintenance burden these changes put on you. Salesforce has never guaranteed backward-compatible HTML, CSS, or DOM.

**How:** If your UI tests from the previous release have issues, see the [Test Automation Trailblazers](#) community group.

SEE ALSO:

[Salesforce Developers Blog: Test Automation](#)

## Develop Flow Screen Components That Work for Multiple Objects (Generally Available)

Now you can create reusable flow screen components that use the generic `sObject` and `sObject []` data types. Build one component that works for multiple objects, rather than one for each individual object. For example, you can build a data table component that works with any collection of records, from accounts and contacts to custom objects.

**Where:** This change applies to Lightning web components in Lightning Experience.

SEE ALSO:

[Create Flow Screen Components That Work for Multiple Objects \(Generally Available\)](#)

## Release Updates: Enforcement for Profile-Based Access for @AuraEnabled Apex Classes, and More

We're enforcing the two release updates for Apex classes containing `@AuraEnabled` methods. There's also a new Enable Secure Static Resources for Lightning Components release update.

IN THIS SECTION:

[Restrict Access to @AuraEnabled Apex Methods for Guest and Portal Users Based on User Profile \(Update, Enforced\)](#)

This update gives you more control over which guest, portal, or community users can access Apex classes containing `@AuraEnabled` methods. Add guest user profile access to any `@AuraEnabled` Apex class used by a community or portal. When this update is activated, a guest, portal, or community user can access an `@AuraEnabled` Apex method only when the user's profile allows access to the Apex class. This update is enforced in Winter '21.

[Restrict Access to @AuraEnabled Apex Methods for Authenticated Users Based on User Profile \(Update, Enforced\)](#)

This update gives you more control over which authenticated users can access Apex classes containing `@AuraEnabled` methods. When this update is enforced, an authenticated user can access an `@AuraEnabled` Apex method only when the user's profile allows access to the Apex class. This update is enforced in Winter '21.

#### [Enable Secure Static Resources for Lightning Components \(Update\)](#)

To improve security, this update serves all static resources from the visualforce domain instead of the lightning domain. This change prevents a script included in a static resource from accessing the document in the lightning domain due to the same-origin security policy.

#### [Enable Dependency Access Checks In Lightning Components \(Update, Postponed\)](#)

This update is postponed to Spring '21. It was scheduled for auto-activation (enforcement) in Summer '20. This update enforces the permission required to access component dependencies. A Salesforce-provided Lightning component can require an org or user permission to access the component. A dependency is any resource used within a top-level component. For example, a component can use or extend another component in its markup or implement an interface. This update has no effect and is unrelated to the access checks for Aura's `access` attribute on the `<aura:component>` tag.

#### [Use with sharing for @AuraEnabled Apex Controllers with Implicit Sharing \(Update, Postponed\)](#)

This update is postponed to Spring '21. It was scheduled for auto-activation (enforcement) in Spring '20. This update changes the behavior of `@AuraEnabled` Apex controllers that don't specify `with sharing` or `without sharing` to default to `with sharing`. This update applies only to orgs created after Spring '18 or orgs that activated the retired `Use without sharing` for `@AuraEnabled` Apex Controllers with Implicit Sharing update that had the opposite effect and set the default to `without sharing`. Orgs created before Spring '18 already default to `with sharing`. Those orgs don't see the update unless they enabled the now retired `without sharing` update.

#### [Disable Access to Non-global Apex Controller Methods in Managed Packages \(Update, Postponed\)](#)

This update is postponed to Summer '21. It was scheduled for auto-activation (enforcement) in Winter '20. This update corrects access controls on Apex controller methods in managed packages. When this update is enabled, only methods marked with the `global` access modifier are accessible by Aura components from outside the package namespace. These access controls prevent you from using unsupported API methods that the package author didn't intend for global access.

#### [Enforce Access Modifiers on Apex Properties in Lightning Component Markup \(Update, Postponed\)](#)

This update is postponed to Summer '21. It was scheduled for auto-activation (enforcement) in Summer '20. This update makes Lightning components consistent with the use of Apex properties in other contexts. For example, a markup expression can no longer access an Apex property with a private Apex getter.

#### [Prevent Creation of Function Expressions in Dynamically Created Aura Components \(Update, Postponed\)](#)

This update is postponed to Spring '21. It was scheduled for auto-activation (enforcement) in Winter '21. To improve security and stability, this update prevents attribute values passed to `$.createComponent()` or `$.createComponents()` from being interpreted as Aura function expressions.

## Restrict Access to `@AuraEnabled` Apex Methods for Guest and Portal Users Based on User Profile (Update, Enforced)

This update gives you more control over which guest, portal, or community users can access Apex classes containing `@AuraEnabled` methods. Add guest user profile access to any `@AuraEnabled` Apex class used by a community or portal. When this update is activated, a guest, portal, or community user can access an `@AuraEnabled` Apex method only when the user's profile allows access to the Apex class. This update is enforced in Winter '21.

**Where:** This change applies to Aura components, Lightning web components, and flows in Lightning communities, portals, and Salesforce Sites.

**When:** This update was created in Winter '20 and is enforced when a sandbox or production org is upgraded to Winter '21. Enforcement starts for some sandboxes on August 9, 2020. To get the major release upgrade date for your instance, go to [Trust Status](#), search for your instance, and click the maintenance tab.

**Why:** When this update is activated, a guest, portal, or community user can access an `@AuraEnabled` Apex method only when the user's profile or a permission set allows access to the Apex class. This update enforces user profile and permission set restrictions for Apex classes used by Aura and Lightning web components.

 **Note:** To enable access to a `public` Apex controller that's part of a managed package, a subscriber org must use a permission set. You can't enable access to a `public` Apex controller from a managed package using a user profile.

**How:** To test this update, we recommend working in a sandbox. After August 12, 2020, you can continue to activate or deactivate the update from Release Updates in Setup until the update is automatically enforced when your org is upgraded to Winter '21.

1. From Setup, enter *Release Updates* in the Quick Find box.
2. Select **Release Updates**.
3. Find Restrict Access to `@AuraEnabled` Apex Methods for Guest and Portal Users Based on User Profile, and click **View Details** or click **Get Started**.
4. Test that custom Aura components, Lightning web components, and flows that you developed are working correctly for guest, portal, and community users.

 **Note:** The Guest User Access Report available in [this managed package](#) can help you to identify guest user access to Apex classes.

#### SEE ALSO:

[Restrict Access to @AuraEnabled Apex Methods for Authenticated Users Based on User Profile \(Update, Enforced\)](#)

[Apex Developer Guide: Class Security](#)

[Salesforce Help: Configure the Guest User Profile](#)

[Release Updates](#)

## Restrict Access to `@AuraEnabled` Apex Methods for Authenticated Users Based on User Profile (Update, Enforced)

This update gives you more control over which authenticated users can access Apex classes containing `@AuraEnabled` methods. When this update is enforced, an authenticated user can access an `@AuraEnabled` Apex method only when the user's profile allows access to the Apex class. This update is enforced in Winter '21.

**Where:** This change applies to Aura and Lightning web components in Lightning Experience, Salesforce Classic, Lightning communities, and all versions of the Salesforce app.

**When:** This update was created in Winter '20 and is enforced when a sandbox or production org is upgraded to Winter '21. Enforcement starts for some sandboxes on August 9, 2020. To get the major release upgrade date for your instance, go to [Trust Status](#), search for your instance, and click the maintenance tab.

**Why:** This update enforces user profile and permission set restrictions for Apex classes used by Aura and Lightning web components.

 **Note:** To enable access to a `public` Apex controller that's part of a managed package, a subscriber org must use a permission set. You can't enable access to a `public` Apex controller from a managed package using a user profile.

**How:** To test this update, we recommend working in a sandbox. After August 12, 2020, you can continue to activate or deactivate the update from Release Updates in Setup until the update is automatically enforced when your org is upgraded to Winter '21.

1. From Setup, enter *Release Updates* in the Quick Find box.
2. Select **Release Updates**.
3. Find Restrict Access to `@AuraEnabled` Apex Methods for Authenticated Users Based on User Profile, and click **View Details** or click **Get Started**.
4. Test that custom Aura or Lightning web components that you developed are working correctly for authenticated users.

 **Note:** The AuraEnabled Scanner open-source tool lists all the Apex classes in your org that contain one or more @AuraEnabled methods. The tool also identifies classes with no access granted to a profile or permission set. For more information, see this [GitHub repo](#).

## SEE ALSO:

[Restrict Access to @AuraEnabled Apex Methods for Guest and Portal Users Based on User Profile \(Update, Enforced\)](#)  
[Apex Developer Guide: Class Security](#)  
[Disable Access to Non-global Apex Controller Methods in Managed Packages \(Update, Postponed\)](#)  
[Release Updates](#)

## Enable Secure Static Resources for Lightning Components (Update)

To improve security, this update serves all static resources from the visualforce domain instead of the lightning domain. This change prevents a script included in a static resource from accessing the document in the lightning domain due to the same-origin security policy.

**Where:** This change applies to Aura and Lightning web components in Lightning Experience, Salesforce Classic, Lightning communities, and all versions of the Salesforce app.

**When:** This update is enforced when a sandbox or production org is upgraded to Spring '21. Enforcement starts for some sandboxes on November 29, 2020. To get the major release upgrade date for your instance, go to [Trust Status](#), search for your instance, and click the maintenance tab.

**How:** To test this update, we recommend working in a sandbox. After November 29, 2020, you can continue to activate or deactivate the update from Release Updates in Setup until the update is automatically enforced when your org is upgraded to Spring '21.

To enable this update, from Setup, in the Quick Find box, enter *Release Updates*, then select **Release Updates**. For Enable Secure Static Resources for Lightning Components, follow the testing and activation steps.

## SEE ALSO:

[Lightning Components Developer Guide: \\$Resource](#)  
[Lightning Web Components Developer Guide: Access Static Resources](#)  
[Release Updates](#)

## Enable Dependency Access Checks In Lightning Components (Update, Postponed)

This update is postponed to Spring '21. It was scheduled for auto-activation (enforcement) in Summer '20. This update enforces the permission required to access component dependencies. A Salesforce-provided Lightning component can require an org or user permission to access the component. A dependency is any resource used within a top-level component. For example, a component can use or extend another component in its markup or implement an interface. This update has no effect and is unrelated to the access checks for Aura's `access` attribute on the `<aura:component>` tag.

**Where:** This change applies to Aura components and Lightning web components in Lightning Experience, Salesforce Classic, Lightning communities, and all versions of the Salesforce app.

**When:** This update is enforced when a sandbox or production org is upgraded to Spring '21. Enforcement starts for some sandboxes on November 29, 2020. To get the major release upgrade date for your instance, go to [Trust Status](#), search for your instance, and click the maintenance tab.

**Why:** When the update is activated, you see an access error if you don't have the permission required for a component dependency. When the update isn't activated, if a custom component references a Salesforce-provided component that requires a permission, the

permission check isn't enforced for component dependencies. Only a limited number of Salesforce-provided components require a permission.

If you don't see any impact, you are either not using a Salesforce-provided component that requires a permission, or you have the required permission. If you see any impact, contact Salesforce to request the permission for the Salesforce-provided component.

**How:** To test this update, we recommend working in a sandbox. After November 29, 2020, you can continue to activate or deactivate the update from Release Updates in Setup until the update is automatically enforced when your org is upgraded to Spring '21.

1. From Setup, enter *Release Updates* in the Quick Find box.
2. Select **Release Updates**.
3. Find Enable Dependency Access Checks in Lightning Components, and click **View Details** or **Get Started**.
4. Test that your custom Lightning components are working correctly.
5. If you installed any packages that contain a Lightning component, the easiest way to test this change is to upgrade a package to the same version. Upgrading to the same version sounds counter-intuitive, but the upgrade process reports any access issues and is easier than discovering the issues at runtime. If you encounter an error when you upgrade to the same version, look for a later version of the package. It's possible that the package developer released a later version that resolves any issues.

SEE ALSO:

[Lightning Aura Components Developer Guide: Controlling Access Release Updates](#)

## Use **with sharing** for `@AuraEnabled` Apex Controllers with Implicit Sharing (Update, Postponed)

This update is postponed to Spring '21. It was scheduled for auto-activation (enforcement) in Spring '20. This update changes the behavior of `@AuraEnabled` Apex controllers that don't specify `with sharing` or `without sharing` to default to `with sharing`. This update applies only to orgs created after Spring '18 or orgs that activated the retired Use `without sharing` for `@AuraEnabled` Apex Controllers with Implicit Sharing update that had the opposite effect and set the default to `without sharing`. Orgs created before Spring '18 already default to `with sharing`. Those orgs don't see the update unless they enabled the now retired `without sharing` update.

**Where:** This change applies to Aura and Lightning web components in Lightning Experience, Salesforce Classic, Lightning communities, and all versions of the Salesforce app.

**When:** This update is enforced when a sandbox or production org is upgraded to Spring '21. Enforcement starts for some sandboxes on November 29, 2020. To get the major release upgrade date for your instance, go to [Trust Status](#), search for your instance, and click the maintenance tab.

**Why:** An `@AuraEnabled` Apex class that doesn't explicitly set `with sharing` or `without sharing` uses a default or implicit value of `with sharing`. The purpose of the retired Use `without sharing` for `@AuraEnabled` Apex Controllers with Implicit Sharing update was to make Apex controllers for Aura components default to `without sharing`. This behavior made Apex controllers consistent in Aura components and Visualforce pages.

After further consideration, we decided to ensure that Lightning components are secure by default. So we created this new update that defaults to `with sharing` for `@AuraEnabled` Apex classes used by Aura components or Lightning web components.

Apex classes generally run in system mode. Consequently, the current user's credentials aren't used to execute Apex logic, and the user's permissions and field-level security aren't automatically applied.

You can choose whether an Apex class enforces sharing rules by using the `with sharing` or `without sharing` keywords. Enforcing sharing rules by using the `with sharing` keyword doesn't enforce the user's permissions and field-level security. You must manually enforce CRUD permissions and field-level security separately in your Apex classes.

**How:** The best way to prepare for this update is to ensure that all your `@AuraEnabled` Apex code explicitly controls sharing behavior using the `with sharing` or `without sharing` keywords. If all your `@AuraEnabled` code explicitly sets sharing behavior, this update has no effect.

To test this update, we recommend working in a sandbox. After November 29, 2020, you can continue to activate or deactivate the update from Release Updates in Setup until the update is automatically enforced when your org is upgraded to Spring '21.

1. From Setup, enter *Release Updates* in the Quick Find box.
2. Select **Release Updates**.
3. Find Use `with sharing` for `@AuraEnabled` Apex Controllers with Implicit Sharing, and click **View Details** or **Get Started**.
4. Test the behavior of components that use Apex classes that don't include the `with sharing` or `without sharing` keywords.

SEE ALSO:

[Apex Developer Guide: Enforcing Sharing Rules](#)

[Winter '20 Release Notes: Use without sharing for @AuraEnabled Apex Controllers with Implicit Sharing \(Critical Update, Retired\) Release Updates](#)

## Disable Access to Non-`global` Apex Controller Methods in Managed Packages (Update, Postponed)

This update is postponed to Summer '21. It was scheduled for auto-activation (enforcement) in Winter '20. This update corrects access controls on Apex controller methods in managed packages. When this update is enabled, only methods marked with the `global` access modifier are accessible by Aura components from outside the package namespace. These access controls prevent you from using unsupported API methods that the package author didn't intend for global access.

**Where:** This change applies to orgs with Aura components in Lightning Experience, Salesforce Classic, and all versions of the Salesforce app.

**When:** This update was created in Summer '17 and is enforced when a sandbox or production org is upgraded to Summer '21. Enforcement starts for some sandboxes on April 4, 2021. To get the major release upgrade date for your instance, go to [Trust Status](#), search for your instance, and click the maintenance tab.

**Why:** When added to a managed package, only Apex controller methods marked `global` are accessible by Aura components outside of that managed package's namespace. Methods marked `public` in their Apex definitions are accessible only to Aura components included in the package's namespace. When this update is enabled, these rules are enforced.

Prior to this update, Aura components outside of the package namespace could access non-`global` methods (Apex controller methods not marked with the `global` access modifier).

When this update is enabled, if your code incorrectly depends on non-`global` Apex methods in a managed package, server actions that call those methods fail. Update your code to use only the supported API methods provided by the package as `global` methods.

 **Note:** An Aura component outside the package can access a public Apex method installed from a non-namespaced unlocked package. The Aura component can be installed from another package or created in the org. For accessing Apex methods, a non-namespaced unlocked package is treated the same as an unmanaged package.

**How:** To test this update, we recommend working in a sandbox. After April 4, 2021, you can continue to activate or deactivate the update from Release Updates in Setup until the update is automatically enforced when your org is upgraded to Summer '21.

1. From Setup, enter *Release Updates* in the Quick Find box.
2. Select **Release Updates**.
3. Find Disable Access to Non-`global` Controller Methods in Managed Packages, and click **View Details** or **Get Started**.

4. Test that your custom Aura components are working correctly.

## SEE ALSO:

[Restrict Access to @AuraEnabled Apex Methods for Authenticated Users Based on User Profile \(Update, Enforced\) Release Updates](#)

## Enforce Access Modifiers on Apex Properties in Lightning Component Markup (Update, Postponed)

This update is postponed to Summer '21. It was scheduled for auto-activation (enforcement) in Summer '20. This update makes Lightning components consistent with the use of Apex properties in other contexts. For example, a markup expression can no longer access an Apex property with a private Apex getter.

**Where:** This change applies to Aura and Lightning web components in Lightning Experience, Salesforce Classic, Lightning communities, and all versions of the Salesforce app.

**When:** This update is enforced when a sandbox or production org is upgraded to Summer '21. Enforcement starts for some sandboxes on April 4, 2021. To get the major release upgrade date for your instance, go to [Trust Status](#), search for your instance, and click the maintenance tab.

**Why:** Let's look at an example for an Apex class with a private getter for a `counter` class property.

```
public class EnforcePrivateGetter {
    @AuraEnabled

    public Integer counter { private get; set; }

    @AuraEnabled
    public static EnforcePrivateGetter GetRepro2()
    {
        EnforcePrivateGetter result = new EnforcePrivateGetter();
        result.counter = 2;
        return result;
    }
}
```

With the update enabled, this Aura component can't access the `private` getter with the `{!v.apexObject.counter}` expression. The same restriction applies for a Lightning web component.

```
<aura:component controller="EnforcePrivateGetter" access="global">
    <aura:handler name="init" value="{!this}" action="{!c.doInit}"/>

    <aura:attribute type="EnforcePrivateGetter" name="apexObject" />

    counter = {!v.apexObject.counter} <br></br>
</aura:component>
```

Here's the JavaScript controller.

```
{
    doInit : function(cmp, ev) {
        var action = cmp.get("c.GetRepro2");

        action.setCallback(this, function(response) {
            var state = response.getState();
            if (state === "SUCCESS") {
```

```

        cmp.set('v.apexObject', response.getReturnValue());
    }
    else if (state === "ERROR") {
        console.log('Error : ' + JSON.stringify(errors));
    }
    });
    $A.enqueueAction(action);
}
})

```

With the update enabled, the fix is to remove the `private` access modifier on the getter and change the class variable definition to:

```
public Integer counter { get; set; }
```

To make an Apex property readable outside the Apex class, the property can't have a `private` or `protected` access modifier.

**How:** To test this update, we recommend working in a sandbox. After April 4, you can continue to activate or deactivate the update from Release Updates in Setup until the update is automatically enforced when your org is upgraded to Summer '21.

1. From Setup, enter *Release Updates* in the Quick Find box.
2. Select **Release Updates**.
3. Find "Enforce Access Modifiers on Apex Properties in Lightning Component Markup" and click **View Details** or click **Get Started**.
4. Test the behavior of components that use Apex classes with `private` or `protected` access modifiers on getters.

SEE ALSO:

[Release Updates](#)

## Prevent Creation of Function Expressions in Dynamically Created Aura Components (Update, Postponed)

This update is postponed to Spring '21. It was scheduled for auto-activation (enforcement) in Winter '21. To improve security and stability, this update prevents attribute values passed to `$A.createComponent()` or `$A.createComponents()` from being interpreted as Aura function expressions.

**Where:** This change applies to orgs with Lightning components in Lightning Experience, Salesforce Classic, and all versions of the Salesforce app.

**When:** This update was created in Summer '19 and is enforced when a sandbox or production org is upgraded to Spring '21. Enforcement starts for some sandboxes on November 29, 2020. To get the major release upgrade date for your instance, go to [Trust Status](#), search for your instance, and click the maintenance tab.

**Why:** When the update is activated, using the key-value pair `{"exprType": "FUNCTION"}` in an object passed as an attribute value to `$A.createComponent()` or `$A.createComponents()` throws an error instead of triggering unpredictable behavior.

# Einstein Vision and Language: Image Recognition and Natural Language Processing

Not a data scientist or machine-learning expert but still want to integrate AI into your apps? Use the Einstein Vision and Language APIs to easily AI-enable your apps with image recognition and natural language processing. Using the Einstein Vision APIs, you can leverage pre-trained classifiers or train custom classifiers to solve a vast array of image recognition use cases. With the Einstein Language APIs, you can harness the power of natural language processing to analyze text and infer the sentiment or intent behind the text. Make your apps smarter and look like a genius at the same time.

## IN THIS SECTION:

[Einstein Language: Build Einstein Intent Models in More Languages](#)

Einstein Intent now supports these languages: Brazilian Portuguese (beta), Dutch (beta), and Russian (beta).

## Einstein Language: Build Einstein Intent Models in More Languages

Einstein Intent now supports these languages: Brazilian Portuguese (beta), Dutch (beta), and Russian (beta).

## IN THIS SECTION:

[Einstein Intent Supports More Languages \(Beta\)](#)

Einstein Intent datasets and models now support more languages: Brazilian Portuguese (beta), Dutch (beta), and Russian (beta).

When you create an intent dataset, you specify the language. When you train that dataset, the model inherits the language of the dataset.

## SEE ALSO:

[Einstein Platform Services Developer Guide: Introduction to Salesforce Einstein Language](#)

[Salesforce Einstein: Build Bots Faster with Templates, Make Opportunity Scoring More Relevant with Filters, and Search Personalization Is Generally Available](#)

## Einstein Intent Supports More Languages (Beta)

Einstein Intent datasets and models now support more languages: Brazilian Portuguese (beta), Dutch (beta), and Russian (beta). When you create an intent dataset, you specify the language. When you train that dataset, the model inherits the language of the dataset.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in Group, Professional, Enterprise, Performance, Unlimited, Developer, and Contact Manager editions.

As a beta feature, Brazilian Portuguese, Dutch, and Russian language support is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature.

**How:** When you create the dataset, you specify the language in the `language` parameter. When you train the dataset to create a model, you pass in the `algorithm` parameter with a value of `multilingual-intent` or `multilingual-intent-ood` (to create a model that handles out-of-domain predictions). These calls take the `language` parameter.

- Create a dataset asynchronously—POST `/v2/language/datasets/upload`

- Create a dataset synchronously—POST `/v2/language/datasets/upload/sync`

These calls take the `algorithm` parameter.

- Train a dataset—POST `/v2/language/train`
- Retrain a dataset—POST `/v2/language/retrain`

#### SEE ALSO:

[Einstein Platform Services Developer Guide: Supported Languages](#)

[Einstein Platform Services Developer Guide: Create a Dataset From a File Asynchronously](#)

[Einstein Platform Services Developer Guide: Create a Dataset Synchronously](#)

[Einstein Platform Services Developer Guide: Train a Dataset](#)

[Einstein Platform Services Developer Guide: Retrain a Dataset](#)

## Visualforce: Lightning Message Channels in Second-Generation Packages and Shortened URLs

You can now include message channels in second-generation packages. The release update that removes instance names from some URLs is activated in Summer '21.

#### IN THIS SECTION:

[Second-Generation Packages Support Lightning Message Channels](#)

Visualforce pages use message channels to communicate via the Lightning Message Service. You can now include message channels in second-generation packages.

[Shorten Your Visualforce URLs](#)

We're removing the instance names from Visualforce and other URLs through a release update. The Stabilize URLs for Visualforce, Experience Builder, Site.com Studio, and Content Files update is enforced in Summer '21.

[Prevent Consecutive API Navigation Calls in Visualforce Pages \(Previously Released Update\)](#)

In Visualforce pages, API navigation calls can be fired consecutively, which can lead to unwanted behavior. This release update prevents this API navigation call pattern, firing only the first navigation call.

[New Attribute on `<apex:inputField>` Overrides Entity Edit Permissions](#)

The new `ignoreEditPermissionForRendering` attribute on `<apex:inputField>` allows you to override entity edit permissions for users, even when the underlying permission on the object doesn't allow edits.

#### SEE ALSO:

[Visualforce Developer Guide](#)

## Second-Generation Packages Support Lightning Message Channels

Visualforce pages use message channels to communicate via the Lightning Message Service. You can now include message channels in second-generation packages.

#### SEE ALSO:

[Visualforce Developer Guide: Communicating Across the DOM with Lightning Message Service](#)

## Shorten Your Visualforce URLs

We're removing the instance names from Visualforce and other URLs through a release update. The Stabilize URLs for Visualforce, Experience Builder, Site.com Studio, and Content Files update is enforced in Summer '21.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Contact Manager, Group, Professional, Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

[Stabilize URLs for Visualforce, Experience Builder, Site.com Studio, and Content Files \(Previously Released Update\)](#)

## Prevent Consecutive API Navigation Calls in Visualforce Pages (Previously Released Update)

In Visualforce pages, API navigation calls can be fired consecutively, which can lead to unwanted behavior. This release update prevents this API navigation call pattern, firing only the first navigation call.

**Where:** This change applies to Lightning Experience in all editions.

**When:** Salesforce enforces this update in Spring '21. To get the major release upgrade date for your instance, go to [Trust Status](#), search for your instance, and click the maintenance tab.

**Why:** Firing consecutive API navigation calls in a Visualforce page can lead to unwanted behavior due to competing API calls. To prevent any issues, with this release update, only the first API navigation call is accepted. This release update ensures predictable and stable behavior in your org.

**How:** Any Visualforce pages that use this API navigation pattern are impacted. Review all affected Visualforce pages. Salesforce will provide a replacement pattern in the future. Alternatively, edit your pages to use Lightning components instead.

SEE ALSO:

[Release Updates](#)

## New Attribute on `<apex:inputField>` Overrides Entity Edit Permissions

The new `ignoreEditPermissionForRendering` attribute on `<apex:inputField>` allows you to override entity edit permissions for users, even when the underlying permission on the object doesn't allow edits.

SEE ALSO:

[Override Entity Permissions When Using `<apex:inputField>`](#)

## Apex

Avoid null pointer exceptions by using the safe navigation operator (`? .`). Make partial or full updates to a resource in an HTTP web service by specifying the PATCH method in the `HttpRequest` class. Create, configure, and send custom notifications directly from Apex code using the `Messaging.CustomNotification` class. Detect Apex runtime context using `RequestId` and `Quiddity` values. Improve Apex testing with the new `SObject` error methods. The `Database.deleteImmediate()` method now supports batch deletes of up to 50,000 big object records at once. The `@namespaceAccessible` annotation provides enhanced support for accessing Apex in second-generation packages.

For more information on these enhancements, refer to the [Apex Developer Guide](#).

## IN THIS SECTION:

[Use the Safe Navigation Operator to Avoid Null Pointer Exceptions](#)

Use the safe navigation operator (`? .`) to replace explicit, sequential checks for null references. This new operator short-circuits expressions that attempt to operate on a null value and returns null instead of throwing a `NullPointerException`.

[Update Resources with the PATCH HTTP Method in Apex Callouts](#)

To make partial or full updates to a resource in an HTTP web service, specify the PATCH method in the `HttpRequest` class. Previously, only the PUT method was supported for full updates.

[Send Custom Notifications from Apex](#)

Use the `Messaging.CustomNotification` class to create, configure, and send custom notifications directly from Apex code, such as a trigger.

[Detect Apex Runtime Context with RequestId and Quiddity](#)

You can now detect Apex context at runtime and correlate multiple logs triggered by the request, using Request ID and Quiddity values. Use the methods in the `System.Request` class to obtain the Request ID and Quiddity of the current Salesforce request.

[Improve Apex Testing with New SObject Error Methods](#)

Track errors with the new `SObject.hasErrors()` and `SObject.getErrors()` methods without performing a DML operation to check the result for errors. Dynamically add errors to specific fields with new `SObject.addError()` overload methods. Use the `hasErrors()` method to know if an `SObject` instance contains errors. Use the `getErrors()` method to retrieve the list of errors for a specific `SObject` instance.

[Delete up to 50,000 Big Object Records in a Batch](#)

The `Database.deleteImmediate()` method now supports batch deletes of up to 50,000 big object records at once. This new limit matches the total number of records you can retrieve with a SOQL query.

[Enhanced Support for @namespaceAccessible Annotation](#)

The `@namespaceAccessible` annotation provides enhanced support for accessing interfaces, properties, and abstract classes in second-generation packages.

## SEE ALSO:

[Apex: New and Changed Items](#)

## Use the Safe Navigation Operator to Avoid Null Pointer Exceptions

Use the safe navigation operator (`? .`) to replace explicit, sequential checks for null references. This new operator short-circuits expressions that attempt to operate on a null value and returns null instead of throwing a `NullPointerException`.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

**How:** If the left-hand-side of the chain expression evaluates to null, the right-hand-side is not evaluated. Use the safe navigation operator (`? .`) in method, variable, and property chaining. The part of the expression that is not evaluated can include variable references, method references, or array expressions.



**Note:** All Apex types are implicitly nullable and can hold a null value returned from the operator.



**Example:**

- This example first evaluates `a`, and returns null if `a` is null. Otherwise, the return value is `a.b`.

```
a?.b // Evaluates to: a == null? Null : a.b
```

- This example returns null if `a[x]` evaluates to null. If `a[x]` does not evaluate to null and `aMethod()` returns null, then this expression throws a null pointer exception.

```
a[x]?.aMethod().aField // Evaluates to null if a[x] == null
```

- This example returns null if `a[x].aMethod()` evaluates to null.

```
a[x].aMethod()?.aField
```

- This example indicates that the type of the expression is the same, whether the safe navigation operator is used in the expression or not.

```
Integer x = anObject?.anIntegerField; // The expression is of type Integer because
the field is of type Integer
```

- This example shows a single statement replacing a block of code that checks for nulls.

```
// Previous code checking for nulls
String profileUrl = null;
if (user.getProfileUrl() != null) {
    profileUrl = user.getProfileUrl().toExternalForm();
}
```

```
// New code using the safe navigation operator
String profileUrl = user.getProfileUrl()?.toExternalForm();
```

- This example shows a single-row SOQL query using the safe navigation operator.

```
// Previous code checking for nulls
results = [SELECT Name FROM Account WHERE Id = :accId];
if (results.size() == 0) { // Account was deleted
    return null;
}
return results[0].Name;
```

```
// New code using the safe navigation operator
return [SELECT Name FROM Account WHERE Id = :accId]?.Name;
```

SEE ALSO:

[Apex Developer Guide: Safe Navigation Operator \(can be outdated or unavailable during release preview\)](#)

## Update Resources with the PATCH HTTP Method in Apex Callouts

To make partial or full updates to a resource in an HTTP web service, specify the PATCH method in the `HttpRequest` class. Previously, only the PUT method was supported for full updates.

**Where:** This change applies to Enterprise, Performance, Unlimited, and Developer editions.

SEE ALSO:

[Apex Developer Guide: HTTP Classes \(can be outdated or unavailable during release preview\)](#)

[IETF RFC 5789: PATCH Method for HTTP](#)

## Send Custom Notifications from Apex

Use the `Messaging.CustomNotification` class to create, configure, and send custom notifications directly from Apex code, such as a trigger.

**Where:** This change applies to Enterprise, Performance, Unlimited, and Developer editions.

**Why:** Rather than make API callouts from Apex, use `CustomNotification` to send notifications. It requires fewer lines of code, and avoids API callout and authentication complexity. It's also more efficient, which is especially helpful when you're sending notifications from triggers, or sending many notifications.

**How:** Using the `Messaging.CustomNotification` class to create and send custom notifications from Apex is easy. Create a new instance of `CustomNotification`, configure a few notification details, and call the `send()` method.

SEE ALSO:

[Salesforce Help: Send Custom Notifications](#)

[Apex Developer Guide: CustomNotification Class \(can be outdated or unavailable during release preview\)](#)

## Detect Apex Runtime Context with RequestId and Quiddity

You can now detect Apex context at runtime and correlate multiple logs triggered by the request, using Request ID and Quiddity values. Use the methods in the `System.Request` class to obtain the Request ID and Quiddity of the current Salesforce request.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

**How:** First, use the `Request.getCurrent()` method to retrieve the Request object that contains the current Request ID and Quiddity. To retrieve the Request ID from the Request object, use the `Request.getRequestId()` method. To retrieve Quiddity and its short-code, use the `Request.getQuiddity()` and `System.getQuiddityShortCode()` methods.

The Request ID and Quiddity values can be used to effectively correlate logs:

- The Request ID is universally unique and is captured in the debug logs triggered by the request.
- The Request ID and Quiddity values are the same as in the event log files of the Apex Execution event type used in Event Monitoring.



**Example:** This example shows how to retrieve and use Request ID and Quiddity.

```
//Get info about the current request
Request reqInfo = Request.getCurrent();

//Universally unique identifier for this request
//Same as requestId in splunk or REQUEST_ID in event monitoring
String currentRequestId = reqInfo.getRequestId();

//enum representing how Apex is running. e.g. BULK_API vs LIGHTNING
//Use this with a switch statement,
//instead of checking System.isFuture() || System.isQueueable() || ...
Quiddity currentType = reqInfo.getQuiddity();
```

## Improve Apex Testing with New SObject Error Methods

Track errors with the new `SObject.hasErrors()` and `SObject.getErrors()` methods without performing a DML operation to check the result for errors. Dynamically add errors to specific fields with new `SObject.addError()` overload methods. Use the `hasErrors()` method to know if an SObject instance contains errors. Use the `getErrors()` method to retrieve the list of errors for a specific SObject instance.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

**How:** If the `SObject.addError()` method has been called on an SObject instance, the `SObject.hasErrors()` method returns `true`. The `SObject.getErrors()` method returns a list of `Database.Error` objects that contain the errors encountered.

This example code shows usage of the new SObject error methods.

```
//Baseline code sample for using addError, getErrors, together
Account a = new Account();
String msg = 'New error method in SObject';
//The new overload that accepts the field dynamically at runtime
a.addError('Name', msg);
List<Database.Error> errors = a.getErrors();
System.assertEquals(1, errors.size());
Database.Error error = errors.get(0);
System.assertEquals(msg, error.getMessage());
System.assertEquals(StatusCode.FIELD_CUSTOM_VALIDATION_EXCEPTION, error.getStatusCode());

String[] fields = error.getFields();
System.assertNotEquals(null, fields);
System.assertEquals(1, fields.size());
```

## Delete up to 50,000 Big Object Records in a Batch

The `Database.deleteImmediate()` method now supports batch deletes of up to 50,000 big object records at once. This new limit matches the total number of records you can retrieve with a SOQL query.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

## Enhanced Support for @namespaceAccessible Annotation

The `@namespaceAccessible` annotation provides enhanced support for accessing interfaces, properties, and abstract classes in second-generation packages.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

**How:** The `@namespaceAccessible` annotation improvements include:

- The `@namespaceAccessible` annotation now supports interfaces, properties, and abstract classes.
- A public or protected variable or method with the `@namespaceAccessible` annotation must be in a class that is declared as public and annotated with `@namespaceAccessible`.
- A public or protected inner class with `@namespaceAccessible` annotation must be enclosed in an outer class that is declared as public and annotated with `@namespaceAccessible`.

The enhancements on the `@namespaceAccessible` annotation are supported in API version 50.0 and later.

SEE ALSO:

[Apex Developer Guide: NamespaceAccessible Annotation \(can be outdated or unavailable during release preview\)](#)

## API

In API version 50.0, use the new `/composite/graph` resource.

IN THIS SECTION:

[Make More Powerful Composite Requests](#)

A new REST resource for Composite requests is now generally available.

### Make More Powerful Composite Requests

A new REST resource for Composite requests is now generally available.

**Where:** This launch applies to Professional (with API access enabled), Enterprise, Performance, Unlimited, and Developer editions.

**Why:** Using the power of collation, the Composite Graph resource is optimized for processing CRUD operations on sObjects. It expands the power of standard Composite requests by allowing you to assemble a more complicated and complete series of related objects and records. For example, composite graphs ensure that the steps in a given set of operations are either all completed or all terminated. It's no longer necessary to check for a mix of successful and unsuccessful results. The Composite Graph resource payload increases the subrequest limit to 500 per payload, up from 25 per Standard Composite payload. A single API call can now do much more.

**How:** Use the new `/composite/graph` resource.

### Packaging: Package Ancestry Visualizations, Unwanted Package Versions Are Deletable, Push Upgrades Are Generally Available

Use Salesforce CLI to visualize your package ancestry tree. Delete unwanted and unreleased unlocked or second-generation managed package versions. Specify a user to receive email notifications for package errors. Push upgrades are generally available for unlocked and second-generation managed packages.

IN THIS SECTION:

[Visualize Package Ancestry Tree Using Salesforce CLI](#)

Package ancestry supports the flexibility of branch versioning so that you can abandon a package version you no longer want to build on. Use the `displayancestry` CLI command to create visualizations of your package or package version's ancestry tree. You can view the visualization in Salesforce CLI or use the `dotcode` parameter to generate output that can be used in graph visualization software.

[Schedule and Push Upgrades to Unlocked and Second-Generation Managed Packages \(Generally Available\)](#)

The PackagePushRequest SOAP API object is extended to enable push upgrades to unlocked and second-generation managed packages. You can choose which Salesforce orgs receive a package upgrade, what version the package is upgraded to, and when you want the upgrade to occur. Query the PackagePushJob and PackagePushError SOAP API objects to track the status of each job, see which upgrades succeeded, and review any error messages.

### Delete Unwanted Packages and Package Versions

Use `force:package:version:delete` and `force:package:delete` Salesforce CLI commands to delete unreleased packages you no longer need. Deleted package or package versions can't be recovered, or specified as a dependency, and any new installations of the package will fail. Released versions of second-generation managed packages can't be deleted.

### Get Package Error Notifications

Designate an active Dev Hub org user to receive email notifications for Apex gacks, and install, upgrade, or uninstall failures associated with your packages. Use the `errornotificationusername` parameter when creating or updating a package in Salesforce CLI.

### Code Coverage Enforcement for Unlocked Packages

Meeting code coverage requirements helps validate that the Apex code in your unlocked packages has adequate test coverage. Starting in Winter '21, a minimum 75% code coverage is required for package version promotion. Package versions created in Winter '21 and later that don't meet this code coverage can be installed only in scratch orgs and sandboxes.

### Specify Unpackaged Metadata for Package Version Creation Tests (Pilot)

If there are scenarios where you require metadata that shouldn't be part of your package, but is necessary for Apex test runs during package version creation, you can specify the path containing unpackaged metadata in the `sfdx-project.json` file. Unpackaged metadata isn't included in the package and isn't installed in subscriber orgs.

### Ensure That Multi-Factor Authentication Is Configured for License Management Orgs

We're heightening our security measures by requiring multi-factor authentication (MFA) on all subscriber org logins initiated from the Subscriber Support Console. We recommend enabling MFA on your License Management Org (LMO), even if you don't log into subscriber orgs using the console.

### Branch Packaging Orgs Are No Longer Available

We're discontinuing the pilot for branch packaging orgs, and starting in Spring '21, branch orgs can no longer be created. Use scratch orgs in place of branch packaging orgs.

## Visualize Package Ancestry Tree Using Salesforce CLI

Package ancestry supports the flexibility of branch versioning so that you can abandon a package version you no longer want to build on. Use the `displayancestry` CLI command to create visualizations of your package or package version's ancestry tree. You can view the visualization in Salesforce CLI or use the `dotcode` parameter to generate output that can be used in graph visualization software.

**Where:** This change applies to second-generation managed packages.

**When:** Users need the System Administrator profile or the Create and Update Second-Generation Packages permission.

**How:** Use `sfdx force:package:version:displayancestry` to quickly visualize your package ancestry and understand the possible package upgrade paths.

```
$ sfdx force:package:version:displayancestry --package 0H0xx0000004V00CAU
├── 0.1.0.1
│   ├── 0.2.0.1
│   │   ├── 0.2.0.2
│   │   ├── 0.3.0.1
│   │   ├── 0.3.0.2
│   │   └── 0.3.0.3
│   └── 0.4.0.1
└── 1.0.0.1
    ├── 1.1.0.1
    └── 1.0.0.2
```

```
$ sfdx force:package:version:displayancestry --package 04txx0000004k94AAA
0.2.0.2 -> 0.1.0.1 (root)
├── 0.2.0.2
│   ├── 0.3.0.1
│   ├── 0.3.0.2
│   ├── 0.3.0.3
│   └── 0.4.0.1
└── 1.0.0.1
    ├── 1.1.0.1
    └── 1.0.0.2
```

To generate dotcode output, specify `sfdx force:package:version:displayancestry --dotcode`.

## Schedule and Push Upgrades to Unlocked and Second-Generation Managed Packages (Generally Available)

The PackagePushRequest SOAP API object is extended to enable push upgrades to unlocked and second-generation managed packages. You can choose which Salesforce orgs receive a package upgrade, what version the package is upgraded to, and when you want the upgrade to occur. Query the PackagePushJob and PackagePushError SOAP API objects to track the status of each job, see which upgrades succeeded, and review any error messages.

**Where:** This change applies to installed versions of unlocked and second-generation managed packages.

**Who:** Users need the System Administrator profile or the Create and Update Second-Generation Packages permission.

**Why:** Owners of unlocked and second-generation managed packages can now push package upgrades without burdening subscribers with upgrading. This functionality is crucial if you must push a change for a hot bug fix.

SEE ALSO:

[Salesforce DX Developer Guide: Push a Package Upgrade](#)

[SOAP API Developer Guide: PackagePushRequest](#)

[SOAP API Developer Guide: PackagePushJob](#)

## Delete Unwanted Packages and Package Versions

Use `force:package:version:delete` and `force:package:delete` Salesforce CLI commands to delete unreleased packages you no longer need. Deleted package or package versions can't be recovered, or specified as a dependency, and any new installations of the package will fail. Released versions of second-generation managed packages can't be deleted.

**Where:** This change applies to second-generation managed packages and unlocked packages.

**Who:** Users need the Create and Update Second-Generation Packages permission and Delete Second-Generation Packages permission.

## Get Package Error Notifications

Designate an active Dev Hub org user to receive email notifications for Apex gacks, and install, upgrade, or uninstall failures associated with your packages. Use the `errornotificationusername` parameter when creating or updating a package in Salesforce CLI.

**Where:** This change applies to second-generation managed packages and unlocked packages created using Salesforce CLI or Tooling API.

**Who:** Users need the System Administrator profile or the Create and Update Second-Generation Packages permission.

**How:** In Salesforce CLI run `sfdx force:package:create --errornotificationusername` or `sfdx force:package:update --errornotificationusername`. In Tooling API, use the `PackageErrorUsername` field on the `Package2` object.

## Code Coverage Enforcement for Unlocked Packages

Meeting code coverage requirements helps validate that the Apex code in your unlocked packages has adequate test coverage. Starting in Winter '21, a minimum 75% code coverage is required for package version promotion. Package versions created in Winter '21 and later that don't meet this code coverage can be installed only in scratch orgs and sandboxes.

**Where:** This change applies to unlocked package versions created using Salesforce CLI or Tooling API.

**How:** You can use the `codecoverage` CLI parameter on the `force:package:version:create` or the `CalculateCodeCoverage` field in the `Package2VersionCreateRequest` object when you create a package version.

Unlocked package versions that were promoted to the released state before Winter '21 aren't subject to code coverage requirements.

SEE ALSO:

[Salesforce DX Developer Guide: Code Coverage for Unlocked Packages](#)

## Specify Unpackaged Metadata for Package Version Creation Tests (Pilot)

If there are scenarios where you require metadata that shouldn't be part of your package, but is necessary for Apex test runs during package version creation, you can specify the path containing unpackaged metadata in the `sfdx-project.json` file. Unpackaged metadata isn't included in the package and isn't installed in subscriber orgs.

**Where:** This change applies to second-generation managed packages and unlocked packages created using Salesforce CLI.

We provide unpackaged metadata path to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. Unpackaged metadata path isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. We can't guarantee general availability within any particular time frame or at all. Make your purchase decisions only on the basis of generally available products and features. You can provide feedback and suggestions for unpackaged metadata path in the [Managed Packages](#) group in the Partner Community

**Who:** Users need the System Administrator profile or the Create and Update Second-Generation Packages permission.

**How:** To join the pilot, log a case at <https://partners.salesforce.com/partnersupport>.

After the pilot is enabled in your org, specify the path to the unpackaged metadata in your `sfdx-project.json` file.

In this example, metadata in the `my-unpackaged-directory` is available for test runs during the package version creation of the `TV_unl` package.

```
"packageDirectories": [  
  {  
    "path": "force-app",
```

```

    "package": "TV_un1",
    "versionName": "ver 0.1",
    "versionNumber": "'0.1.0.NEXT",
    "default": true,
    "unpackagedMetadata": {
      "path": "my-unpackaged-directory"
    }
  },
  {
    "path": "my-unpackaged-directory",
    "default": false
  }
]

```

## Ensure That Multi-Factor Authentication Is Configured for License Management Orgs

We're heightening our security measures by requiring multi-factor authentication (MFA) on all subscriber org logins initiated from the Subscriber Support Console. We recommend enabling MFA on your License Management Org (LMO), even if you don't log into subscriber orgs using the console.

**When:** Starting in Spring '21, multi-factor authentication is required to log into subscriber orgs from the Subscriber Support Console.

**How:** To set up multi-factor authentication for your LMO, see [Set Multi-Factor Authentication Login Requirements](#).

## Branch Packaging Orgs Are No Longer Available

We're discontinuing the pilot for branch packaging orgs, and starting in Spring '21, branch orgs can no longer be created. Use scratch orgs in place of branch packaging orgs.

**Where:** This change applies to branch packaging orgs used in the development of first-generation managed packages.

**When:** This change takes effect in Spring '21.

**How:** For more information on creating and using scratch orgs, see [Scratch Orgs](#).

## Scratch Orgs: Org Shape and New Features

A scratch org is a dedicated and configurable Salesforce environment that you can quickly spin up for many different purposes. It can be your own personal development environment, or you can create a headless scratch org for automated tests. You can create scratch orgs if you turned on Dev Hub in your production org or a Developer Edition org, or have a Dev Hub trial org. We continually add support for new features.

For more information, see [Scratch Orgs](#) in the [Salesforce DX Developer Guide](#).

### IN THIS SECTION:

#### [Create Scratch Orgs More Easily Using an Org's Shape \(Beta\)](#)

Features, settings, limits, and licenses determine what we refer to as an org's shape. We know it's not easy to build a scratch org definition that mirrors the features and settings in your production org. With Org Shape for Scratch Orgs, you can leave building the scratch org definition to us. After you capture the org's shape, you can spin up scratch orgs based on it with minor assembly required.

#### [Create Scratch Orgs with More Features](#)

We're providing more configurable features for scratch orgs.

## Create Scratch Orgs More Easily Using an Org's Shape (Beta)

Features, settings, limits, and licenses determine what we refer to as an org's shape. We know it's not easy to build a scratch org definition that mirrors the features and settings in your production org. With Org Shape for Scratch Orgs, you can leave building the scratch org definition to us. After you capture the org's shape, you can spin up scratch orgs based on it with minor assembly required.

 **Note:** As a beta feature, Org Shape for Scratch Orgs is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions in the [Org Shape for Scratch Orgs](#) Trailblazer group.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in Developer, Enterprise, Group, and Professional editions.

**How:** Enable Org Shape for Scratch Orgs in the org whose shape you want to capture (source org).

1. As an admin, log in to the source org.
2. From Setup, enter *Org Shape* in the Quick Find box, then select **Org Shape**.
3. Click **Enable Org Shape for Scratch Orgs (Beta)**.
4. If your source org is different from your Dev Hub org, enter the Dev Hub org ID to the list of allowed Dev Hub orgs.
5. Create a scratch org definition file that contains the 15-character source org ID, the only required option.

```
{
  "orgName": "Salesforce",
  "sourceOrg": "00DB1230400Ifx5"
}
```

6. Create a scratch org.

SEE ALSO:

[Salesforce DX Developer Guide: Create a Scratch Org Based on an Org Shape \(Beta\)](#)

[Salesforce CLI Reference Guide: org Commands](#)

## Create Scratch Orgs with More Features

We're providing more configurable features for scratch orgs.

**Where:** This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce app in Developer, Enterprise, Group, and Professional editions.

**How:** Add the features to your scratch org definition file.

- `FieldServiceDispatcherUser:<value>`
- `FieldServiceMobileUser:<value>`
- `FieldServiceSchedulingUser:<value>`

## Changed Scratch Org Features

FieldService requires a quantity between 1–25.

```
FieldService:<value>
```

## Deprecated Scratch Org Features

This scratch org feature was deprecated in Winter '21. If your scratch org definition file specifies this feature, delete it from the file. You'll receive a warning in Winter '21; the feature will be deprecated in Spring '21.

ContactsToMultipleAccounts (Remove the feature, then add the enableRelateContactsToMultipleAccounts setting to your scratch org definition file.)

```
"accountSettings": {  
    "enableRelateContactToMultipleAccounts": true  
},
```

SEE ALSO:

[Salesforce DX Developer Guide: Scratch Org Features](#)

## Platform Development Tools

Build applications collaboratively and deliver continuously with Salesforce Developer Experience (DX), the open and integrated experience that makes development on the Customer 360 Platform easy. The Salesforce DX toolset includes Salesforce Extensions for Visual Studio Code and Salesforce CLI. Pick the tool that works best for your team and meets your business needs. We release new versions of both tools weekly.

### Salesforce Extensions for Visual Studio Code

This extension pack includes tools for developing on the Customer 360 Platform in the lightweight, extensible VS Code editor. Read the weekly release notes to learn about [recent updates](#).

### Salesforce CLI

Use Salesforce CLI to create environments for development and testing, synchronize source code, run tests, and control your application lifecycle. Read the weekly release notes to learn about [recent updates of the core salesforcedx plug-in](#).

SEE ALSO:

[Salesforce Extensions for Visual Studio Code](#)

[Salesforce CLI Command Reference](#)

## Lightning Design System: Styling Hooks and Other Component Blueprint Enhancements

The Salesforce Lightning Design System (SLDS) includes the resources to create user interfaces consistent with the Salesforce Lightning principles, design language, and best practices. In this release, we implemented styling hooks so you can customize component styles for your branding.

We frequently update component blueprints and fix bugs. For the latest changes, see [What's New in the Lightning Design System documentation](#). That page lists the changes by the date we completed the change. Those changes are rolled up into the next major Salesforce release. Here are some highlights for Winter '21.

## IN THIS SECTION:

[Customize Components with Lightning Design System Styling Hooks \(Beta\)](#)

Lightning Design System Styling Hooks provide you with a set of CSS custom properties so you can customize a component's look and feel. In Winter '21, a limited set of CSS custom properties is available for component-level customizations.

[BEM Notation with Double Dashes Is Being Deprecated](#)

The BEM notation with double dashes (--) in Lightning Design System will be deprecated in the next release (Spring '21) and replaced by the single underscore notation (\_).

[Lightning Design System Component Blueprint Updates](#)

Get more out of SLDS component blueprints and utilities with these enhancements and bug fixes.

## Customize Components with Lightning Design System Styling Hooks (Beta)

Lightning Design System Styling Hooks provide you with a set of CSS custom properties so you can customize a component's look and feel. In Winter '21, a limited set of CSS custom properties is available for component-level customizations.

 **Note:** As a beta feature, Lightning Design System Styling Hooks is a preview. It isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee the general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as-is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for Lightning Design System Styling Hooks in the [IdeaExchange group](#) in the Trailblazer Community.

**Why:** Styling hooks make it easy to customize component styling and express your brand, especially when working with [web components and shadow DOM](#). For a list of component blueprints that support styling hooks, see the [Lightning Design System website](#).

**How:** Styling hooks are placeholders in the Lightning Design System stylesheet, for example, `var(--sds-c-badge--color-background, #e6bea)`, which enable you to use the corresponding `--sds-c-badge-color-background` CSS custom property with your own styling.

A CSS custom property corresponds to a Lightning Design System component blueprint and its design variations. Let's take a look at a Lightning web component that implements the button blueprint with the brand variation, which turns the background color a standard Salesforce blue.

```
<template>
  <button class="slds-button slds-button_brand">Submit</button>
</template>
```

To apply a different background color to the brand variation, specify the corresponding CSS custom property. In this case, declare your style via the `--sds-c-button-brand-color-background` custom property. To target all elements in a component with your custom styles, use the `:host` selector.

 **Note:** Alternatively, you can scope your customizations using other selectors, such as an element or custom class. For more information, see the [Lightning Design System website](#).

```
:host {
  --sds-c-button-brand-color-background: orange;
  --sds-c-button-brand-color-border: orange;
  /* Other CSS custom properties here */
}
```

This CSS declaration turns your button elements with the `slds-button_brand` class orange.

If you are overriding the styles by targeting an SLDS class name in your template, replace them with CSS custom properties instead. For example, replace the following style override with `--sds-c-button-brand-color-background`.

```
/* Replace this CSS rule with
   the --sds-c-button-brand-* custom properties
   as shown in the previous example */

.slds-button_brand {
  background-color: orange;
}
```

Let's take a look at base components next. Base components implement Lightning Design System blueprints and design variations. Previously, you couldn't customize the style on a base component easily. To customize the style on a base component, such as `lightning-button`, specify the corresponding CSS custom property.

```
<template>
  <lightning-button variant="brand"
                    label="Submit"
                    onclick={handleClick}>
  </lightning-button>
</template>
```

```
:host {
  --sds-c-button-brand-color-background: orange;
  --sds-c-button-brand-color-border: orange;
}
```



**Tip:** You can look at how we implement Lightning Design System in many of the base components in the [Base Components Recipes GitHub repository](#). For interactive examples of the base components, see the [Component Reference](#).

#### SEE ALSO:

[Lightning Web Components Developer Guide: Style Components Using Lightning Design System Styling Hooks \(Beta\)](#)

## BEM Notation with Double Dashes Is Being Deprecated

The BEM notation with double dashes (`--`) in Lightning Design System will be deprecated in the next release (Spring '21) and replaced by the single underscore notation (`_`).

**Why:** Double dashes are not supported in XML files that include comments. This notation change was first announced in SLDS Release 2.3.1 on May 25, 2017.

**How:** In Spring '21, all BEM notation with double dashes will no longer be available in SLDS resources. For your SLDS styles to continue working, replace `--` with `_` in your CSS. For example, replace `slds-button--brand` with `slds-button_brand`.

## Lightning Design System Component Blueprint Updates

Get more out of SLDS component blueprints and utilities with these enhancements and bug fixes.

**When:** We improve SLDS frequently. For the latest changes, see [What's New in the Lightning Design System documentation](#). That page lists the changes by the date we completed the change. Those changes are rolled up into the next major Salesforce release. The following changes are in Winter '21.

**How:** Lightning Design System Styling Hooks (beta) provide CSS custom properties that are available for the following component blueprints.

- Accordion
- Alert
- Avatar
- Badges
- Breadcrumbs
- Buttons
- Icons
- Modals
- Pills
- Scoped Tabs
- Tabs
- Toast
- Tooltips

Improve your UI with these recent updates to SLDS component blueprints.

### Accordion

Updated heading elements from `h3 class="site-text-heading_medium slds-m-top_none"` to `h2 class="site-text-heading_large"`.

### Badge

Fixed inconsistent heights between variants when a border isn't present.

### Combobox

Moved out the assistive text for the listbox of pills from the individual pills to remove repetition for users with screenreaders.

### Datetime Picker

`.slds-form_compound` is now deprecated and has been replaced by `.slds-form-element_compound`, which is used on the `.slds-form-element` parent.

### Form Element

The compound form now wraps when the width of its parent container is smaller than the combined width of the form elements. This prevents input values from becoming unreadable in compound form elements when the container width is reduced.

### Global Navigation

Adjusted the color of unsaved tab indicator asterisk to comply with accessibility color contrast rules.

### List Builder

Moved out the assistive text for the listbox of pills from the individual pills to remove repetition for users with screenreaders.

### Lookup

Moved out the assistive text for the listbox of pills from the individual pills to remove repetition for users with screenreaders.

### Path

The `.slds-path__scroller` class no longer uses `role="application"`.

### Pill

Moved out the assistive text for the listbox of pills from the individual pills to remove repetition for users with screenreaders.

Addressed layout inconsistencies for touch styles.

Clarified documentation around linked pill usage.

Added an example for Listbox of Pills in Group.

**Progress Indicator**

Addressed issue where button icons in progress items were misaligned for mobile/touch.

**Progress Ring**

Added sizing instructions to ensure a correct ratio.

**Radio Button Group**

Added `aria-describedby="error_01"` to the inputs to improve accessibility in the error state.

**Tooltip**

Updated blueprint examples from anchor links to more semantically correct buttons.

**Tree**

Added `aria-disabled` to `treeitem` elements that are disabled and updated text color to represent disabled state.

Deprecated the usage of `.slds-is-disabled` in favor of `.slds-is-hidden` to hide the chevron icon. To represent a disabled state, use `aria-disabled` instead.

## AppExchange Partners: Listing Activity Summary by Region in Marketplace Analytics and Simulation Mode in AppExchange App Analytics

See which locations drive activity using Marketplace Analytics Activity Summary by Region. Test your custom integrations with App Analytics simulation mode.

**IN THIS SECTION:**

[See Which Locations Drive Listing Activity with AppExchange Marketplace Analytics Activity Summary by Region](#)

Use Marketplace Analytics Summary by Region to see how internal and external traffic sources contribute to activity on your AppExchange listing. View your listing's install, lead event, visit, tile hover, and tile view activity by country or by US state or territory.

[Test Your Custom Integrations Using AppExchange App Analytics Simulation Mode](#)

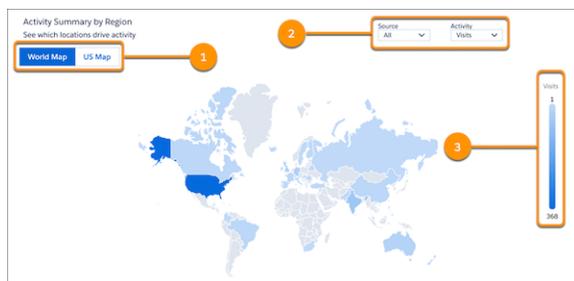
To test your custom integrations in a nonproduction environment, enable AppExchange App Analytics simulation mode and receive sample data.

## See Which Locations Drive Listing Activity with AppExchange Marketplace Analytics Activity Summary by Region

Use Marketplace Analytics Summary by Region to see how internal and external traffic sources contribute to activity on your AppExchange listing. View your listing's install, lead event, visit, tile hover, and tile view activity by country or by US state or territory.

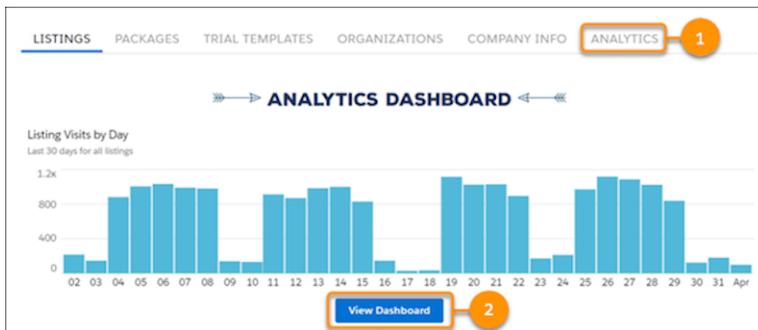
**Who:** To use Marketplace Analytics, you need the Manage Listings permission in the Salesforce Partner Community.

**Why:** To increase visits, installs, and purchases, apply your company's development and marketing resources more effectively.



View data by country on the World Map or by US state or territory on the US Map (1). To change traffic sources or activities, adjust the local filters (2). The gradient shows the range of values for the activity you select (3).

**How:** In the Salesforce Partner Community, open the Publishing Console, and click Analytics (1) or View Dashboard (2).



SEE ALSO:

[Metadata API Settings](#)

[AppExchange App Analytics](#)

## Test Your Custom Integrations Using AppExchange App Analytics Simulation Mode

To test your custom integrations in a nonproduction environment, enable AppExchange App Analytics simulation mode and receive sample data.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Developer Edition.

**How:** To enable AppExchange App Analytics simulation mode, add the Metadata API AppAnalyticsSettings `enableSimulationMode` org preference to your code.

## Change Data Capture: Event Enrichment (Beta) and More Object Support

Enrich your event messages with fields and receive change notifications for more objects.

IN THIS SECTION:

[Enrich Change Event Messages with Extra Fields \(Beta\)](#)

Select fields to always include in change events, even when unchanged, to aid in processing or replicating data. You can select any field whose type is supported, including external ID fields. For example, use enrichment when your app needs an external ID field for matching records in an external system. Enrichment is supported in CometD-based subscribers.

[Receive Change Event Notifications for More Objects](#)

With Change Data Capture, you can now receive notifications of record changes for mortgage lending objects (part of Financial Services Cloud), and warranty term and asset warranty objects (part of Field Service).

## Enrich Change Event Messages with Extra Fields (Beta)

Select fields to always include in change events, even when unchanged, to aid in processing or replicating data. You can select any field whose type is supported, including external ID fields. For example, use enrichment when your app needs an external ID field for matching records in an external system. Enrichment is supported in CometD-based subscribers.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

 **Note:** As a beta feature, Change Data Capture Enrichment is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for Change Data Capture Enrichment in the [Trailblazer Community](#). For information on enabling this feature in your org, contact Salesforce.

**How:** You define enrichment fields on a channel and a member of that channel. The channel can be either a custom channel or the ChangeEvents channel. Enriched change events are delivered only on the channel that is configured for enrichment. To add enrichment fields to a channel member and channel, use the PlatformEventChannelMember object in Tooling API or Metadata API.

This example uses Tooling API to enrich the AccountChangeEvent member on the SalesEvents\_\_chn custom channel. The change event is enriched with two fields: a custom field (External\_Account\_ID\_\_c) and a standard field (Industry). The associated POST request URI is: /services/data/v50.0/tooling/objects/PlatformEventChannelMember

### Request Body:

```
{
  "FullName": "SalesEvents_AccountChangeEvent",
  "Metadata": {
    "enrichedFields": [
      {
        "name": "External_Account_ID__c"
      },
      {
        "name": "Industry"
      }
    ]
  },
  "eventChannel": "SalesEvents__chn",
  "selectedEntity": "AccountChangeEvent"
}
```

### SEE ALSO:

[Change Data Capture Developer Guide: Enrich Change Events With Extra Fields When Subscribed with CometD \(Beta\)](#)

## Receive Change Event Notifications for More Objects

With Change Data Capture, you can now receive notifications of record changes for mortgage lending objects (part of Financial Services Cloud), and warranty term and asset warranty objects (part of Field Service).

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions. Some objects require specific feature settings and permissions to be enabled.

**How:** Change Data Capture is available for all custom objects defined in your Salesforce org and a subset of standard objects. Select the objects that you want to get notifications for on the Change Data Capture page in Setup or create a custom channel.

SEE ALSO:

[Change Data Capture Developer Guide: Change Event Object Support](#)

## Platform Events: Subscription Management and Usage Monitoring

Manage your Apex trigger subscriptions from the user interface, monitor usage metrics, and track the status of event publishing (beta).

IN THIS SECTION:

[Manage Your Platform Event Trigger Subscriptions from the User Interface](#)

You can now suspend and resume Apex trigger subscriptions to a custom platform event through the user interface. Resume a suspended a subscription where it left off, from the earliest available event message, without losing any events published during the suspension.

[Monitor Event Publishing and Delivery Usage](#)

To get usage data for event publishing and CometD-client delivery, query the PlatformEventUsageMetric object. Usage data is available for the last 24 hours, ending at the last hour, and for historical daily usage for the last 45 days. PlatformEventUsageMetric contains separate usage metrics for high-volume platform events and change data capture events.

[Make Apex Callouts After Publishing Platform Event Messages](#)

You can now make Apex callouts after publishing event messages for events configured with the Publish Immediately behavior. Previously, after publishing such events, you couldn't make callouts from any Apex code. Events published immediately have a new limit, which is separate from the Apex DML statement limit.

[Get the Status of High-Volume Platform Event Publish Operations \(Beta\)](#)

High-volume platform events are published asynchronously. With publish status events, you can track the status of publishing operations, and take the necessary actions. Enable status events on the high-volume platform event you are interested in tracking. Then subscribe to the PublishStatusEvent standard platform event.

## Manage Your Platform Event Trigger Subscriptions from the User Interface

You can now suspend and resume Apex trigger subscriptions to a custom platform event through the user interface. Resume a suspended a subscription where it left off, from the earliest available event message, without losing any events published during the suspension.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

**Why:** To modify a trigger's processing logic, suspend a trigger subscription. Resume the subscription where it left off. To bypass event messages that are causing errors or are no longer needed, resume the subscription from the tip, starting from new event messages. Previously, you could only deactivate a trigger to suspend the subscription. And when reactivated, the subscription resumed from the tip, missing any unprocessed event messages.

**How:** To access the platform event detail page, in Setup, enter *Platform Events* in the Quick Find box, click **Platform Events**, and then click the platform event. To manage a trigger subscription, click **Manage** next to the Apex trigger listed under Subscriptions in the platform event detail page.

| Action                 | Subscriber                        | Last Processed Id | Last Published Id | State   |
|------------------------|-----------------------------------|-------------------|-------------------|---------|
| <a href="#">Manage</a> | <a href="#">OrderEventTrigger</a> | 405512            | Not Available     | Running |

On the subscription detail page, you can manage the subscription.

### OrderEventTrigger Details Help for this Page

Suspend or resume this platform event subscription.

[« Back to Platform Event](#)

|                   |                |
|-------------------|----------------|
| Topic             | Order_Event__e |
| Last Processed Id | 405512         |
| Last Published Id | Not Available  |
| Type              | ApexTrigger    |
| State             | Running        |

[Suspend](#) [Refresh](#)

After you suspend a subscription, you can resume it.

### OrderEventTrigger Details Help for this Page

Suspend or resume this platform event subscription.

[« Back to Platform Event](#)

|                   |                    |
|-------------------|--------------------|
| Topic             | Order_Event__e     |
| Last Processed Id | 405512             |
| Last Published Id | Not Available      |
| Type              | ApexTrigger        |
| State             | Suspended          |
| Notes             | Suspended by admin |

[Resume](#) [Resume from Tip](#) [Refresh](#)

 **Note:** Subscription management isn't available for flows and processes, but they're still listed in the Subscriptions related list.

## Monitor Event Publishing and Delivery Usage

To get usage data for event publishing and CometD-client delivery, query the PlatformEventUsageMetric object. Usage data is available for the last 24 hours, ending at the last hour, and for historical daily usage for the last 45 days. PlatformEventUsageMetric contains separate usage metrics for high-volume platform events and change data capture events.

**Where:** This change applies to Enterprise, Performance, Unlimited, and Developer editions.

**Why:** Use PlatformEventUsageMetric to get visibility into your event usage and usage trends. The usage data gives you an idea of how close you are to your allocations and when you need more allocations. The usage metrics stored in PlatformEventUsageMetric are separate from the REST API limits values. Use the REST API limits to track your monthly delivery and publishing usage against your allocations. The monthly CometD-client delivery usage that the limits API returns is common for platform events and change data capture events. PlatformEventUsageMetric breaks down usage of platform events and change data capture events so you can track their usage separately.

**How:** Dates are stored in Coordinated Universal Time (UTC), so convert your local time to UTC for the query. This query selects usage metrics for the last 24 hours, ending at the last hour. For example, based on the current date and time of August 4, 2020 11:23 in UTC,

the last hour is 11:00. The query returns the usage for the number of platform events delivered to CometD clients for August 3, 2020 at 11:00 to August 4, 2020 at 11:00.

```
SELECT Name, StartDate, EndDate, Value FROM PlatformEventUsageMetric
WHERE Name='PLATFORM_EVENTS_DELIVERED'
AND StartDate=2020-08-03T11:00:00.000Z AND EndDate=2020-08-04T11:00:00.000Z
```

The query returns this result for the last 24-hour usage.

| Name                      | StartDate                    | EndDate                      | Value |
|---------------------------|------------------------------|------------------------------|-------|
| PLATFORM_EVENTS_DELIVERED | 2020-08-03T11:00:00.000+0000 | 2020-08-04T11:00:00.000+0000 | 575   |

 **Note:** We recommend that you wait 1 day after the Winter '21 release to start querying usage data. This feature is available with the Winter '21 release. However, usage data for the first 24 hours after the release is incomplete due to insufficient data stored to cover the last 24-hour period initially. Also, the daily historical usage data is likely to cover a partial day.

SEE ALSO:

[Platform Events Developer Guide: Monitor Platform Event Publishing and Delivery Usage](#)

## Make Apex Callouts After Publishing Platform Event Messages

You can now make Apex callouts after publishing event messages for events configured with the Publish Immediately behavior. Previously, after publishing such events, you couldn't make callouts from any Apex code. Events published immediately have a new limit, which is separate from the Apex DML statement limit.

**Where:** This change applies to Enterprise, Performance, Unlimited, and Developer editions.

**Why:** Events configured with the Publish Immediately behavior are published when the call executes and they don't depend on the successful completion of the transaction. These events are used for tracking and logging purposes. With this change, they aren't considered part of the transaction's DML operations, and therefore no longer prevent Apex callouts from being performed after publishing. They count against a new, separate publishing limit of 150 `EventBus.publish()` calls. This change doesn't apply to events configured with the Publish After Commit behavior, whose publishing is considered part of the transaction's DML operations. The publishing of these events still counts against the Apex DML statement limit. And you can still make Apex callouts after publishing.

To track the limit usage of `EventBus.publish()` calls for immediate publishing, use the `Limits.getPublishImmediateDML()` and `Limits.getLimitPublishImmediateDML()` Apex methods.

 **Note:** This feature doesn't change the way you make Apex callouts from Apex triggers, which require the `@future(callout=true)` annotation.

SEE ALSO:

[Platform Events Developer Guide: Platform Event Fields](#)

[Apex Developer Guide: Execution Governors and Limits](#)

[Apex Developer Guide: Invoking Callouts Using Apex](#)

## Get the Status of High-Volume Platform Event Publish Operations (Beta)

High-volume platform events are published asynchronously. With publish status events, you can track the status of publishing operations, and take the necessary actions. Enable status events on the high-volume platform event you are interested in tracking. Then subscribe to the PublishStatusEvent standard platform event.

 **Note:** As a beta feature, Publish Status Events is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for Publish Status Events in the [Trailblazer Community](#). For information on enabling this feature in your org, contact Salesforce.

**Where:** This change applies to Lightning Experience and Salesforce Classic in Enterprise, Performance, Unlimited, and Developer editions.

**Why:** You can get a confirmation of the enqueued publish operation without this feature, but you don't know whether the operation eventually succeeds. A status of success in the immediately returned SaveResult means that the publish operation is queued in Salesforce. The operation is carried out later when system resources are available. Some failures are returned in the SaveResult, such as validation or limit errors, but not the asynchronous errors. In rare cases, enqueued publish operations can fail due to a system error. The benefit of status events is that you can find out about the eventual status of enqueued publish operations and perform appropriate actions.

**How:** To enable receiving publish status events for your high-volume platform event, in Setup, click **Track publish status** on the event's definition page. Or in Metadata API, set the `enablePublishStatusTracking` field on CustomObject to `true`.

Event publish results are batched in a PublishStatusEvent and grouped by the status and topic, which is the event API name. A PublishStatusEvent doesn't necessarily correspond to one publish request. It contains the results of one or more requests that are for the same platform event and have the same publish status. Each PublishStatusEvent includes an array of PublishStatusDetail child objects containing information about each event publish operation.

This example shows the payload for a failed publish status and contains information for two events. The `EventUuid` field is a universally unique identifier (UUID) that identifies the event message and correlates the publish result of each event with the original publish call.

```
{
  "schema": "tklL37cct1eXnqi_yPIS7w",
  "payload": {
    "Status": "FAILURE",
    "AdditionalInfo": null,
    "CreatedById": "005xx000001X83aAAC",
    "CreateDate": "2020-08-06T20:20:23.573Z",
    "PublishStatusDetails": [
      {
        "Replay": null,
        "EventUuid": "e981b488-81f3-4fcc-bd6f-f7033c9d7ac3",
        "FailureReason":
          "The platform event message could not be published. Try again later.",
        "StatusCode": "PLATFORM_EVENT_PUBLISH_FAILED"
      },
      {
        "Replay": null,
        "EventUuid": "ed5773c8-6848-4eee-99cf-2d3703cc0da3",
        "FailureReason":
          "The platform event message could not be published. Try again later.",
        "StatusCode": "PLATFORM_EVENT_PUBLISH_FAILED"
      }
    ]
  }
}
```

```
    ],
    "Topic": "Order_Event__e"
  }
}
```

Use the `EventUuid` field value to match the status to the event published. If you published the event in Apex, you can obtain the UUID by calling `EventBus.getOperationId(saveResult)`. If you published the event using Salesforce APIs, the `SaveResult` returned contains the UUID in the `Error message` field. This example contains the save result of an event inserted using a REST API POST request.

```
{
  "id" : "e01xx0000000001AAA",
  "success" : true,
  "errors" : [ {
    "statusCode" : "OPERATION_ENQUEUED",
    "message" : "e981b488-81f3-4fcc-bd6f-f7033c9d7ac3",
    "fields" : [ ]
  } ]
}
```

SEE ALSO:

[Platform Events Developer Guide: Get the Status of High-Volume Platform Event Publish Operations \(Beta\)](#)

## New and Changed Items for Developers

Here is where you can find new and changed objects, calls, classes, components, commands, and more that help you customize Salesforce features.

IN THIS SECTION:

[Lightning Components: New and Changed Items](#)

Build UI easily with these new and changed resources.

[Apex: New and Changed Items](#)

These classes, enums, and interfaces are new or have changes.

[ConnectApi \(Connect in Apex\): New and Changed Classes and Enums](#)

Create custom experiences in Salesforce using Connect in Apex. Copy products from a cart to a wishlist and work with current carts. Get externally managed accounts. Send survey invitations by email.

[API: New and Changed Items](#)

Access more data objects and metadata types in API version 50.0.

## Lightning Components: New and Changed Items

Build UI easily with these new and changed resources.

IN THIS SECTION:

[New and Changed Lightning Web Components](#)

Build UI easily with these new and changed components.

### [New and Changed Modules for Lightning Web Components](#)

Modules enable you to do more with Lightning web components.

### [New and Changed Aura Components](#)

Build UI easily with these new and changed components.

## New and Changed Lightning Web Components

Build UI easily with these new and changed components.

### New Components

The following components are new and require API version 50.0 and later.

#### **lightning-rich-text-toolbar-button (Beta)**

Adds a custom button to the toolbar of the `lightning-input-rich-text` component. This component must be nested within `lightning-rich-text-toolbar-button-group`. For more information, see [Add Custom Buttons to the lightning-input-rich-text Base Component \(Beta\)](#) on page 421.

#### **lightning-rich-text-toolbar-button-group (Beta)**

A container for custom buttons in the toolbar of the `lightning-input-rich-text` component. For more information, see [Add Custom Buttons to the lightning-input-rich-text Base Component \(Beta\)](#) on page 421.

### Changed Lightning Web Components

The following components have changed.

#### **lightning-click-to-dial**

The following method is new.

- `click()` —Dials the phone number by passing the parameters and record Id to the phone system if they are provided. Only an enabled phone number can be clicked.

#### **lightning-combobox**

The following property is new for the `options` attribute.

- `description`—Defines descriptive text for a list item. The descriptive text displays below the label of the list item. When adding descriptions, specify a description for each item in a list. If some items are missing descriptions, the text of the items can be misaligned.

Here's an example using the `description` property in a component's JavaScript:

```
options = [
  {value: 'new', label: 'New', description: 'A new item'},
  {value: 'in-progress', label: 'In Progress', description: 'Currently working
on this item'},
  {value: 'finished', label: 'Finished', description: 'Done working on this
item'}
];
```

#### **lightning-datatable**

Columns with the `text` data type now don't display any content if you pass in an object value.

#### **lightning-input**

The input type `email` has changed.

- UTF-8 encoding is supported for entering an international email address.

**lightning-input-address**

The following attributes are new.

- `address-lookup-placeholder`—The placeholder for the address lookup field, which is visible only when you use `show-address-lookup`.
- `street-placeholder`—The placeholder for the street field.
- `city-placeholder`—The placeholder for the city field.
- `province-placeholder`—The placeholder for the province field.
- `country-placeholder`—The placeholder for the country field.
- `postal-code-placeholder`—The placeholder for the postal code field.

**lightning-input-field**

The following field types have changed.

- The picklist field type displays in a disabled and read-only state if you don't provide a controlling field.
- The email field type supports UTF-8 encoding for entering an international email address.
- The name field type supports the `suffix` field. For more information on enabling this field in your org, see [User Fields](#) in Salesforce Help.

**lightning-input-rich-text**

You can add custom buttons to the toolbar using the components `lightning-rich-text-toolbar-button-group` and `lightning-rich-text-toolbar-button`. For more information, see [Add Custom Buttons to the lightning-input-rich-text Base Component \(Beta\)](#) on page 421.

The `setRangeText ()` method (beta) is new.

-  **Note:** As a beta feature, `setRangeText ()` is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for `setRangeText ()` in the [Lightning Components Development group](#) in the Trailblazer Community.
- `setRangeText ()` —Inserts text in a specified range of index values, replacing content or inserting new content. This method follows the API of the [HTMLInputElement.setRangeText \(\) method](#), and enables you to insert formatted text when you use it with the `setFormat ()` method.

The `setFormat ()` method has changed. You can programmatically set these additional formats: `bold`, `italic`, `underline`, `strike`, `code`, `code-block`, `link`, `color`, `background`, and `header`. Previously, only `align`, `font`, and `size` were supported.

Apply formats to selected text by calling the method with key-value pairs as parameters. For example:

```
setFormat({bold: true, italic: true, link: "google.com", color: "green", header: 2})
```

**lightning-pill-container**

When a pill contains an `href` value, the optional icon or avatar is no longer nested within the hyperlink tag. Clicking the icon or avatar doesn't navigate to the hyperlink. This behavior is consistent with a `lightning:pill` component that's rendered without `lightning:pillContainer`.

The `bare` variant no longer renders pills in an unordered list element. However, the `standard` and `bare` variants are visually the same. The `bare` variant provides a focusable remove button on each pill. Tab to focus on the pill, and tab again to focus on the remove button.

### lightning-textarea

The `setRangeText ()` method (beta) is new.

-  **Note:** As a beta feature, `setRangeText ()` is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for `setRangeText ()` in the [Lightning Components Development group](#) in the Trailblazer Community.
- `setRangeText ()` —Inserts text in a specified range of index values, replacing content or inserting new content. This method follows the API of the [HTMLInputElement.setRangeText \(\) method](#).

SEE ALSO:

[Component Reference](#)

## New and Changed Modules for Lightning Web Components

Modules enable you to do more with Lightning web components.

### Changed Modules

The following modules have a new wire adapter or JavaScript function.

#### lightning/uiObjectInfoApi

The `getObjectInfos` wire adapter is new. Use `getObjectInfos` to get metadata for multiple objects. The response includes metadata describing fields, child relationships, record type, and theme for each object.

```
import { LightningElement, wire } from 'lwc';
import { getObjectInfos } from 'lightning/uiObjectInfoApi';
import ACCOUNT_OBJECT from '@salesforce/schema/Account';
import OPPORTUNITY_OBJECT from '@salesforce/schema/Opportunity';

export default class GetObjectInfosExample extends LightningElement {
  @wire(getObjectInfos, { objectApiNames: [ ACCOUNT_OBJECT, OPPORTUNITY_OBJECT ] })
  propertyOrFunction;
}
```

#### lightning/uiRecordApi

The `getRecordNotifyChange ()` function is new. Call `getRecordNotifyChange ()` to refresh the Lightning Data Service cache after you update a record outside of its mechanisms, such as via imperative Apex, Visualforce, or when you call User Interface API via a third-party framework. Lightning Data Service fetches record updates for the record IDs you specify and refreshes your Lightning Data Service cache, providing your wires with the latest record data.

```
import { LightningElement, wire } from 'lwc';
import { getRecord, getRecordNotifyChange } from 'lightning/uiRecordApi';
import apexUpdateRecord from '@salesforce/apex/Controller.apexUpdateRecord';
```

```

export default class NotifyRecordChangeExample extends LightningElement {
  @api recordId;

  // Wire a record.
  @wire(getRecord, { recordId: '$recordId', fields: ... })
  record;

  async handler() {
    // Update the record via Apex.
    await apexUpdateRecord(this.recordId);
    // Notify LDS that you've changed the record outside its mechanisms.
    getRecordNotifyChange([{recordId: this.recordId}]);
  }
}

```

## New and Changed Aura Components

Build UI easily with these new and changed components.

### Changed Aura Components

The following components have changed.

#### **lightning:clickToDial**

The following method is new.

- `click()`—Dials the phone number by passing the parameters and record Id to the phone system if they are provided. Only an enabled phone number can be clicked.

#### **lightning:combobox**

The following property is new for the `options` attribute.

- `description`—Defines descriptive text for a list item. The descriptive text displays below the label of the list item. When adding descriptions, specify a description for each item in a list. If some items are missing descriptions, the text of the items can be misaligned.

Here's an example using the `description` property in a component's JavaScript:

```

options = [
  {value: 'new', label: 'New', description: 'A new item'},
  {value: 'in-progress', label: 'In Progress', description: 'Currently working
on this item'},
  {value: 'finished', label: 'Finished', description: 'Done working on this
item'}
];

```

#### **lightning:datatable**

Columns with the `text` data type now don't display any content if you pass in an object value.

#### **lightning:input**

The input type `email` has changed.

- UTF-8 encoding is supported for entering an international email address.

#### **lightning:inputAddress**

The following attributes are new.

- `addressLookupPlaceholder`—The placeholder for the address lookup field, which is visible only when you use `showAddressLookup`.
- `streetPlaceholder`—The placeholder for the street field.
- `cityPlaceholder`—The placeholder for the city field.
- `provincePlaceholder`—The placeholder for the province field.
- `countryPlaceholder`—The placeholder for the country field.
- `postalCodePlaceholder`—The placeholder for the postal code field.

### **lightning:inputField**

The following field types have changed.

- The picklist field type displays in a disabled and read-only state if you don't provide a controlling field.
- The email field type supports UTF-8 encoding for entering an international email address.
- The name field type supports the `suffix` field. For more information on enabling this field in your org, see [User Fields](#) in Salesforce Help.

### **lightning:inputRichText**

The `setRangeText()` method (beta) is new.

-  **Note:** As a beta feature, `setRangeText()` is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for `setRangeText()` in the [Lightning Components Development group](#) in the Trailblazer Community.
- `setRangeText()` —Inserts text in a specified range of index values, replacing content or inserting new content. This method follows the API of the [HTMLInputElement.setRangeText\(\) method](#), and enables you to insert formatted text when you use it with the `setFormat()` method.

The `setFormat()` method has changed. You can programmatically set these additional formats: `bold`, `italic`, `underline`, `strike`, `code`, `code-block`, `link`, `color`, `background`, and `header`. Previously, only `align`, `font`, and `size` were supported.

Apply formats to selected text by calling the method with key-value pairs as parameters. For example:

```
setFormat({bold: true, italic: true, link: "google.com", color: "green", header: 2})
```

### **lightning:pillContainer**

When a pill contains an `href` value, the optional icon or avatar is no longer nested within the hyperlink tag. Clicking the icon or avatar doesn't navigate to the hyperlink. This behavior is consistent with a `lightning:pill` component that's rendered without `lightning:pillContainer`.

The `bare` variant no longer renders pills in an unordered list element. However, the `standard` and `bare` variants are visually the same. The `bare` variant provides a focusable remove button on each pill. Tab to focus on the pill, and tab again to focus on the remove button.

### **lightning:textarea**

The `setRangeText()` method (beta) is new.

-  **Note:** As a beta feature, `setRangeText()` is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of

generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for `setRangeText()` in the [Lightning Components Development group](#) in the Trailblazer Community.

- `setRangeText()` —Inserts text in a specified range of index values, replacing content or inserting new content. This method follows the API of the [HTMLInputElement.setRangeText\(\)](#) method.

SEE ALSO:

[Component Reference](#)

## Apex: New and Changed Items

These classes, enums, and interfaces are new or have changes.

For more information, refer to the [Apex Developer Guide](#).

IN THIS SECTION:

[Cache Namespace](#)

The `Cache` namespace has these new or changed classes, methods, interfaces, enums, or exceptions.

[LxScheduler Namespace](#)

The new `LxScheduler` namespace has these classes and methods, and an interface.

[System Namespace](#)

The `System` namespace has these new or changed classes, methods, interfaces, enums, or exceptions.

SEE ALSO:

[Apex: New Features](#)

## Cache Namespace

The `Cache` namespace has these new or changed classes, methods, interfaces, enums, or exceptions.

### New or Changed Methods in Existing Classes

#### Get the average item size among all the keys retrieved from the cache

Use the new `getAvgGetSize()` method in the `Cache.Org`, `Cache.Partition`, and the `Cache.Session` classes.

#### Get the maximum item size among all the keys retrieved from the cache

Use the new `getMaxGetSize()` method in the `Cache.Org`, `Cache.Partition`, and the `Cache.Session` classes.

#### DEPRECATED: Methods `getAvgValueSize()` and `getMaxValueSize()` in `Cache.Org`, `Cache.Partition`, and `Cache.Session`

The `getAvgValueSize()` and the `getMaxValueSize()` methods in the `Cache.Org`, `Cache.Partition`, and the `Cache.Session` classes are not supported in version 50.0 and later.

## LxScheduler Namespace

The new `LxScheduler` namespace has these classes and methods, and an interface.

### New Classes

#### Get a list of parameters that are passed to the `LxScheduler.ServiceResourceScheduleHandler` interface

Use these methods in the new `LxScheduler.ServiceAppointmentRequestInfo` class. Use the `getPrimaryResourceId` method to get the ID of the primary service resource. Use the `getServiceResources` method to get a list of service resources for the time slots that are already booked. Use the `getWorkTypeId` method to get the ID of the appointment's work type.

#### Get information about a service resource

Use these methods in the new `LxScheduler.ServiceResourceInfo` class. Use the `getResourceType` method to get the type of the service resource, such as Technician or Asset. Use the `getServiceResourceId` method to get the ID of the service resource. Use the `getTerritoryIds` method to get a list of requested service territories for the service resource. Use the `getUserName` method to get the username of the service resource.

#### Pass results from your custom Apex class to the `LxScheduler.ServiceResourceScheduleHandler` interface methods

Use the `LxScheduler.ServiceResourceSchedule` class.

#### Pass the list of unavailable time slots for requested service resources to the `LxScheduler.ServiceResourceSchedule` class

Use the `LxScheduler.UnavailableTimeslot` class.

### New Interface

#### Allow an implementing class to check service resources' external calendar events and return the time slots where service resources are booked

Use the new `LxScheduler.ServiceResourceScheduleHandler` interface.

## System Namespace

The `System` namespace has these new or changed classes, methods, interfaces, enums, or exceptions.

### New Classes

#### Detect current Apex context at runtime with Request ID and Quiddity

Use these new methods in the `System.Request` class. Use the `getCurrent()` method to retrieve the Request object that contains the unique identifier for the current Salesforce request and the Quiddity value. Use the `getRequestId()` method to get the current request ID. Use the `getQuiddity()` method to get the Quiddity value.

### New or Changed Methods in Existing Classes

#### Check limit usage of platform event immediate publishes

Use the new `getPublishImmediateDML` method to get the number of `EventBus.publish` calls that have been made for platform events configured to publish immediately. And use the new `getLimitPublishImmediateDML` method to get the maximum limit of `EventBus.publish` calls.

#### Dynamically add errors to an SObject field

Use the `addError()` overload methods in the `System.SObject` class:

- `addError(String fieldName, String message[, Boolean doNotEscape])`

- `addError(Schema.SObjectField field, String message[, Boolean doNotEscape])`

#### Know if an SObject instance contains errors

Use the `hasErrors()` method in the `System.SObject` class.

#### Get the error details for an SObject instance

Use the `getErrors()` method in the `System.SObject` class.

#### Get metadata description for a specified list of SObject types

Use the `describeSObjects()` overload method in the `System.Schema` class. The default `describe` option for this method is `SObjectDescribeOptions.DEFERRED`, which indicates lazy-load child relationships.

#### Get the short code for the Quiddity value of the current Salesforce request

Use the `getQuiddityShortCode()` method in the `System.System` class.

## New Enums

#### Use Elliptical Curve Digital Signature Algorithms (ECDSA) with Crypto methods

Use the new ECDSA-SHA256, ECDSA-SHA384, and ECDSA-SHA512 values in the `algorithmName` parameter in `Crypto.sign`, `Crypto.signWithCertificate`, `Crypto.signXML()`, and `Crypto.verify()` (methods) in the `System.Crypto` class.

#### Specify a quiddity value used by the methods in the System.Request class

Use the new `System.Quiddity` enum.

## ConnectApi (Connect in Apex): New and Changed Classes and Enums

Create custom experiences in Salesforce using Connect in Apex. Copy products from a cart to a wishlist and work with current carts. Get externally managed accounts. Send survey invitations by email.

Many Connect REST API resource actions are exposed as static methods on Apex classes in the `ConnectApi` namespace. These methods use other `ConnectApi` classes to input and return information. We refer to the `ConnectApi` namespace as *Connect in Apex*.

### IN THIS SECTION:

#### [New and Changed Connect in Apex Classes](#)

These classes are new or have changes.

#### [New and Changed Connect in Apex Input Classes](#)

These input classes are new or have changes.

#### [New and Changed Connect in Apex Output Classes](#)

These output classes are new or have changes.

#### [New and Changed Connect in Apex Enums](#)

These enums are new or have changes.

### SEE ALSO:

[Connect REST API](#)

[Apex Developer Guide: ConnectApi Namespace](#)

[Connect REST API Developer Guide](#)

## New and Changed Connect in Apex Classes

These classes are new or have changes.

### B2B Commerce on Lightning

These new and changed methods are in the `ConnectApi.CommerceCart` class.

#### Copy the products from a cart to a wishlist

- `copyCartToWishlist(webstoreId, effectiveAccountId, activeCartOrId, cartToWishlistInput)`

#### Set the visibility for cart messages

- `setCartMessagesVisibility(webstoreId, activeCartOrId, effectiveAccountId, messageVisibility)`

#### All methods with the `activeCartOrId` parameter now support the `current` value

The `current` value indicates a cart with a status that isn't `Closed` or `PendingDelete`.

- `addItemToCart(webstoreId, effectiveAccountId, activeCartOrId, cartItems)`
- `addItemToCart(webstoreId, effectiveAccountId, activeCartOrId, cartItemInput)`
- `copyCartToWishlist(webstoreId, effectiveAccountId, activeCartOrId, cartToWishlistInput)`
- `deleteCart(webstoreId, effectiveAccountId, activeCartOrId)`
- `deleteCartItem(webstoreId, effectiveAccountId, activeCartOrId, cartItemId)`
- `getCartItems(webstoreId, effectiveAccountId, activeCartOrId)`
- `getCartItems(webstoreId, effectiveAccountId, activeCartOrId, pageParam)`
- `getCartItems(webstoreId, effectiveAccountId, activeCartOrId, pageParam, sortParam)`
- `getCartItems(webstoreId, effectiveAccountId, activeCartOrId, pageParam, pageSize)`
- `getCartItems(webstoreId, effectiveAccountId, activeCartOrId, pageParam, pageSize, sortParam)`
- `getCartItems(webstoreId, effectiveAccountId, activeCartOrId, productFields, pageParam, pageSize, sortParam)`
- `getCartSummary(webstoreId, effectiveAccountId, activeCartOrId)`
- `getOrCreateActiveCartSummary(webstoreId, effectiveAccountId, activeCartOrId)`
- `setCartMessagesVisibility(webstoreId, activeCartOrId, effectiveAccountId, messageVisibility)`
- `updateCartItem(webstoreId, effectiveAccountId, activeCartOrId, cartItemId, cartItem)`

These new methods are in the `ConnectApi.CommerceWishlist` class.

#### Update the name of a wishlist

- `updateWishlist(webstoreId, wishlistId, wishlistUpdateInput)`
- `updateWishlist(webstoreId, effectiveAccountId, wishlistId, wishlistUpdateInput)`

### CMS Managed Content

These new methods are in the `ConnectApi.ManagedContent` class.

**Get all managed content versions for a channel with absolute URLs**

- `getAllContent(channelId, pageParam, pageSize, language, managedContentType, includeMetadata, startDate, endDate, showAbsoluteUrl)`

**Get all managed content versions for a community with absolute URLs**

- `getAllManagedContent(communityId, pageParam, pageSize, language, managedContentType, showAbsoluteUrl)`

**Get managed content versions for a channel with absolute URLs using a list of managed content IDs**

- `getContentByIds(channelId, managedContentIds, pageParam, pageSize, language, managedContentType, includeMetadata, startDate, endDate, showAbsoluteUrl)`

**Get managed content versions for a community with absolute URLs using a list of managed content IDs**

- `getManagedContentByIds(communityId, managedContentIds, pageParam, pageSize, language, managedContentType, showAbsoluteUrl)`

**Get managed content versions with absolute URLs using a list of content topic names**

- `getManagedContentByTopics(communityId, topics, pageParam, pageSize, language, managedContentType, showAbsoluteUrl)`

**Get managed content versions with absolute URLs using a list of managed content IDs and content topic names**

- `getManagedContentByTopicsAndIds(communityId, managedContentIds, topics, pageParam, pageSize, language, managedContentType, showAbsoluteUrl)`

**Commerce Payments**

These new methods are in the `ConnectApi.Payments` class.

**Refund a payment**

`refund(ReferencedRefundInput, paymentId)`

**Capture a payment**

`capture(AuthCaptureInput, authorizationId)`

**External Managed Account**

This new method is in the `ConnectApi.ExternalManagedAccount` class.

**Get externally managed accounts available to the context user across all communities**

- `getCommunitiesExternalManagedAccounts(communityId)`

**Salesforce Surveys**

This new method is in the `ConnectApi.Surveys` class.

**Send survey invitations by email**

- `sendSurveyInvitationEmail(surveyID, SurveyEmailInput)`

**New and Changed Connect in Apex Input Classes**

These input classes are new or have changes.

## B2B Commerce on Lightning

### **ConnectApi.CartMessagesVisibilityInput**

This new input class has this property.

- `visibility`—Specifies whether to set cart messages as visible (`true`) or not (`false`).

### **ConnectApi.CartToWishlistInput**

This new input class has this property.

- `wishlistId`—ID of the wishlist to copy cart products to.

### **ConnectApi.WishlistUpdateInput**

This new input class has this property.

- `name`—Wishlist name to update.

## Commerce Payments

### **ConnectApi.AuditParamsRequest**

This new abstract input class is a super class of `ConnectApi.BaseRequest` and has these properties.

- `email`—Email of the client that initiated the request.
- `ipAddress`—Client IP address that made the request.
- `macAddress`—Client Mac address that made the request.
- `phone`—Phone number of the client that initiated the request.

### **ConnectApi.CaptureRequest**

This new input class is a subclass of `ConnectApi.BaseRequest` and has these properties.

- `accountId`—ID of the account that must be linked to the capture request.
- `amount`—Amount that must be captured from the previous authorization.
- `clientContext`—Provides context for payment APIs. Used for a payment caller to reestablish context.
- `comments`—Comments for payment capture.
- `effectiveDate`—The date that the payment becomes effective.
- `paymentGroup`—Payment group details associated with the payment request.

### **ConnectApi.BaseRequest**

This new input class is a subclass of `ConnectApi.AuditParamsRequest` and a super class of `ConnectApi.CaptureRequest` and `ConnectApi.RefundRequest`. It has these properties.

- `additionalData`—Additional information about the gateway call. Will vary based on the type of payment gateway.
- `idempotencyKey`—Idempotency key used for the payment request. Can be provided in the payload or the header, but not in both places at once.

### **ConnectApi.PaymentGroupRequest**

This new input class has these properties.

- `createPaymentGroup`—Flag to indicate if payment group needs to be created.
- `currencyIsoCode`—Three-letter ISO 4217 currency code associated with the payment group record.
- `id`—If ID has a value, the payment capture is using an active `PaymentGroup`. If ID is `null` and other properties have values, the payment capture will create a payment group. If a payment group ID exists, `currencyIsoCode` and `sourceObjectId` properties must be `null`, and `createPaymentGroup` can be absent or `false`.
- `sourceObjectId`—Order object ID for linking an order to a payment group. Provide an existing `OrderId`.

**ConnectApi.ReferencedRefundRequest**

This new input class is a subclass of `ConnectApi.RefundRequest` and has these properties.

- `accountId`—ID of the account which must be linked to the referenced refund request.
- `amount`—Amount that must be refunded.
- `clientContext`—Provides context for payment APIs. Used for a payment caller to reestablish context.
- `comments`—Comments for the refund.
- `effectiveDate`—Date that the refund becomes effective.
- `paymentGroup`—Payment group details associated with the refund request.

**ConnectApi.RefundRequest**

This new abstract input class is a subclass of `ConnectApi.BaseRequest` and a super class of `ConnectApi.ReferencedRefundRequest`. It doesn't have any additional properties.

## Salesforce Order Management

**ConnectApi.OrderSummaryInputRepresentation**

This input class has these new properties.

- `name`—OrderNumber to assign to the OrderSummary.
- `status`—Status to assign to the OrderSummary.

## Salesforce Surveys

**ConnectApi.AssociateRecordsWithRecipientInput**

This new input class has these properties.

- `associateRecordIds`—ID of the associated records.
- `recipientId`—Participant ID with whose invitation the record should be associated.

**ConnectApi.RecipientEngagementContextInput**

This new input class has these properties.

- `recipientEngagementContext`—Map of additional parameters that are associated with the generated invitation for the recipient.
- `recipientId`—ID of the recipient.

**ConnectApi.SurveyInvitationEmailInput**

This new input class has these properties.

- `allowGuestUserResponse`—Allows participants who don't have a Salesforce account to respond.
- `allowParticipantsAccessTheirResponse`—Allows participants to view their responses after they submit the survey.
- `associateRecordsWithRecipients`—Maps each recipient with another record that must be associated with the recipient's survey invitation.
- `body`—Content of the email. Specify the email body in case you don't specify an email template.
- `collectAnonymousResponse`—Allows participants to respond anonymously.
- `communityId`—ID of the community that's used to open the survey for users outside your org.
- `emailTemplateId`—ID of the email template that's used to send the survey invitation.
- `fromEmailAddress`—Email ID of the user or the org-wide email address associated with the user's profile.

- `invitationExpirationDate`—Date on which the survey invitation expires.
- `invitationOwner`—ID of the owner of the survey invitation records.
- `isPersonalInvitation`—Creates a unique invitation for each participant. When a participant responds using a personal invitation, the response record is associated with the participant's Salesforce record.
- `recipientEngagementContexts`—Maps each recipient with the context based on which the survey invitation is emailed.
- `recipients`—List of up to 300 IDs of leads, contacts, or users to whom the survey invitation is emailed.
- `shareInvitationsWith`—ID of the user with whom the survey invitation records must be shared. The invitation records are shared with Read access.
- `subject`—Subject of the email. Specify the subject in case you don't specify an email template.
- `surveyQuestionIds`—ID of the question that's embedded in the email.

## New and Changed Connect in Apex Output Classes

These output classes are new or have changes.

### B2B Commerce with Lightning

#### **ConnectApi.CartItem**

This output class has these new properties.

- `totalAdjustmentAmount`—Total adjustment amount for the item.
- `unitAdjustedPrice`—Unit price, including adjustments, for the item.
- `unitAdjustmentAmount`—Adjustments made to the unit price for the item.

#### **ConnectApi.CartMessagesSummary**

This output class has this new property.

- `totalLineItemsWithErrors`—In `ConnectApi.CartItemResult`, either `null` if the cart item has no errors or `1` if the cart item has errors. In `ConnectApi.CartSummary`, the total number of product line items that contain errors.

#### **ConnectApi.CartMessagesVisibilityResult**

This new output class has this property.

- `visibility`—Specifies whether cart messages are set to visible (`true`) or not (`false`).

#### **ConnectApi.CartSummary**

This output class has these new and changed properties.

- `purchaseOrderNumber`—Purchase order for the cart.
- `status`—This property now supports the `pendingDelete` value.

#### **ConnectApi.CartToWishlistResult**

This new output class has these properties.

- `productsAddedCount`—Number of products copied from the cart to the wishlist.
- `wishlistId`—ID of the wishlist that cart products were copied to.

### CMS Managed Content

#### **ConnectApi.ManagedContentChannel**

This output class has these new and changed properties.

- `channelType`—This property now supports the `PublicUnauthenticated` value.
- `domainId`—ID of the domain assigned to the channel.
- `domainName`—Name of the domain assigned to the channel.
- `isDomainLocked`—Specifies whether the domain is locked and can't be changed (`true`) or not (`false`).

#### **ConnectApi.ManagedContentVersion**

This output class has this new property.

- `unauthenticatedUrl`—Unauthenticated delivery URL.

## Commerce Payments

#### **ConnectApi.AbstractGatewayCommonResponse**

This new abstract output class is a super class of `ConnectApi.AbstractGatewayResponse` and has these properties.

- `gatewayAvsCode`—Used to verify the address mapped to a payment method when the payments platform requests tokenization from the payment gateway.
- `gatewayDate`—The date that the notification occurred. Some gateways don't send this value.
- `gatewayMessage`—Error messages that the gateway returned for the notification request. Maximum length of 255 characters.
- `gatewayResultCode`—Gateway-specific result code. You can map the result code to a Salesforce-specific result code. Maximum length of 64 characters.
- `gatewayResultCodeDescription`—A description of the gateway-specific result code that a payment gateway returned. Maximum length of 1,000 characters.
- `salesforceResultCode`—The Salesforce result code for the gateway result code.

#### **ConnectApi.AbstractGatewayResponse**

This new abstract output class is a subclass of `ConnectApi.AbstractGatewayCommonResponse` and a super class of `ConnectApi.CaptureGatewayResponse` and `ConnectApi.RefundGatewayResponse`. It has these properties.

- `gatewayReferenceDetails`—Provides information about the gateway communication.
- `gatewayReferenceNumber`—Unique transaction ID created by the payment gateway.

#### **ConnectApi.CaptureGatewayResponse**

This new output class is a subclass of `ConnectApi.AbstractGatewayResponse` and has no additional properties.

#### **ConnectApi.CaptureResponse**

This new output class has these properties.

- `error`—Error response representation for an authorization capture.
- `gatewayResponse`—Gateway log response containing details about gateway logs created during the process of the capture request.
- `payment`—Payment response object for the capture request. Contains the information related to a payment object created during request processing.
- `paymentGatewayLogs`—Gateway log collection for an authorization capture.
- `paymentGroup`—Payment group associated with the capture request.

#### **ConnectApi.GatewayLogResponse**

This new output class has these properties.

- `createdDate`—Date indicating when the gateway log was created.
- `gatewayResultCode`—The gateway sends result codes to show the status of a transaction as it is passed to the financial institution and then returned to the client.

- `id`—ID of the gateway log record.
- `interactionStatus`—Gateway interaction status. Current supported values are SUCCESS, FAILED, or TIMEOUT.

**ConnectApi.PaymentGroupResponse**

This new output class has these properties.

- `currencyIsoCode`—Three-letter ISO 4217 currency code associated with the payment group record.
- `id`—ID of the payment group record.
- `sourceObjectId`—Source object ID of the payment group record. Supports only OrderId.

**ConnectApi.PaymentResponse**

This new output class has these properties.

- `accountId`—ID of the account related the payment record.
- `amount`—Total amount of the payment transaction performed in the payment request.
- `currencyIsoCode`—Three-letter ISO 4217 currency code associated with the payment output.
- `effectiveDate`—Date that the payment becomes effective.
- `id`—ID of the payment record.
- `paymentNumber`—Number of the payment record created as a result of the request processing.
- `requestDate`—Date when the payment transaction occurred.
- `status`—Status of the new payment entity record.

**ConnectApi.ReferencedRefundResponse**

This new output class has these properties.

- `error`—Error response representation for the refund.
- `gatewayResponse`—Gateway response received for the processed refund request.
- `paymentGatewayLogs`—Gateway log collection representation for the refund.
- `paymentGroup`—Payment group associated with the refund.
- `refund`—Refund response representation.

**ConnectApi.RefundGatewayResponse**

This new output class is a subclass of `ConnectApi.AbstractGatewayResponse` and has no additional properties.

**ConnectApi.RefundResponse**

This new output class has these properties.

- `accountId`—ID of the account related to the refund record.
- `amount`—Total amount of the refund transaction performed in the payment request.
- `currencyIsoCode`— Three-letter ISO 4217 currency code associated with the payment group record.
- `effectiveDate`—Date that the refund becomes effective.
- `id`—ID of the refund record.
- `refundNumber`—Number of the refund record that was created as a result of the request processing.
- `requestDate`—Date when the refund occurred.
- `status`— Indicates the results of processing the refund transaction in the gateway.

**Managed Topics****ConnectApi.TopicImages**

This output class has these changed properties.

- `coverImageUrl`—Featured and navigational topic images uploaded in version 50.0 are stored as asset files. Images uploaded in version 49.0 and earlier are stored as documents. This storage change results in a URL change.
- `featuredImageUrl`—Featured and navigational topic images uploaded in version 50.0 are stored as asset files. Images uploaded in version 49.0 and earlier are stored as documents. This storage change results in a URL change.

## Personalization

### **ConnectApi.FormulaScope**

This new output class has these properties.

- `contextValues`—Map of context values for the scope.
- `fields`—List of fields of the scope.
- `formula`—Formula of the scope.

### **ConnectApi.Target**

This output class has these new and changed properties.

- `formulaScope`—Formula scope of the target.
- `scope`—This property isn't returned in version 50.0 and later. Instead, `formulaScope` returns this information.

## Salesforce Surveys

### **ConnectApi.SurveyInvitationEmailOutput**

This new output class has these properties.

- `errorCode`—Error code for the failed call.
- `errorMessage`—Details explaining why the call failed.
- `status`—Status of the call. Possible values are: Queued, Failed.

## New and Changed Connect in Apex Enums

These enums are new or have changes.

For information about these enums, see [ConnectApi Enums](#) in the *Apex Developer Guide*.

### **ConnectApi.CartStatus**

This enum has this new value.

- `PendingDelete`—Cart is pending delete, for example, a user deleted the cart but the job hasn't completed yet.

### **ConnectApi.ManagedContentChannelType**

This enum has this new value.

- `PublicUnauthenticated`

### **ConnectApi.SurveyEmailStatus**

This new enum has these values.

- `Failed`
- `Queued`

## API: New and Changed Items

Access more data objects and metadata types in API version 50.0.

## IN THIS SECTION:

### [New and Changed Objects](#)

Access more data through these new and changed standard objects.

### [New and Changed Standard Platform Events](#)

Receive real-time notifications from Salesforce by subscribing to the channels of these new and changed standard platform events.

### [REST API](#)

REST API includes changed resources.

### [SOAP API](#)

SOAP API includes changed headers and changes to some data types.

### [Connect REST API](#)

Integrate mobile apps, intranet sites, and third-party web applications with Salesforce using Connect REST API. Copy products from a cart to a wishlist and work with current carts. Get externally managed accounts. Get the body of a quick text. Send survey invitations by email.

### [Einstein Analytics REST API](#)

Create, update, and retrieve auto-install requests for embedded apps using the Einstein Analytics REST API. Query replicated datasets by category and create new Salesforce datasets. Get detailed node data for individual dataflow jobs.

### [User Interface API](#)

Work with related lists, use lightweight resources to get default values to create and clone records, and enjoy using more objects with User Interface API.

### [Bulk API 2.0](#)

These calls are changed in API version 50.0.

### [Tooling API New and Changed Objects](#)

Tooling API includes new and changed objects.

### [Metadata API](#)

Metadata API includes new and changed types and fields.

### [Lightning Console JavaScript API](#)

The Lightning Console JavaScript API includes new and updated methods that let you customize a Lightning console app and utility bar programmatically.

## New and Changed Objects

Access more data through these new and changed standard objects.

### Salesforce Overall

#### **REMOVED: The `DeleteEvent` object was removed**

We removed the `DeleteEvent` object from the Search API and it is no longer supported with SOSL. This object was used to search the Recycle Bin in Lightning Experience. For more information, see [Search Capability Removed from the Recycle Bin](#) on page 78.

#### **Add a custom theme color to in-app guidance**

Use the `themeColor` and `themeSaturation` fields of the `PromptVersion` object.

#### **Get info on associated objects**

Use the `associateEntityType` and `associateParentEntity` properties.

## Einstein Analytics

### View Einstein Analytics Data Downloads in Your Event Log Files

Use the new `WAVE_DOWNLOAD_EVENT` type fields on the `EventLogFile` object.

### DEPRECATED: Field was deprecated in the Wave Performance Event Type object.

The `QUERY_ID` field is deprecated from the Wave Performance Event Type object in API version 50.0.

## Commerce

### Identify, troubleshoot, and resolve order processing failures

Use the new `ProcessException` object.

### Trigger actions when `ProcessException` objects are created

Use the new `ProcessExceptionEvent` object.

### Get info on rules for sharing a `ProcessException` object with users other than the owner

Use the new `ProcessExceptionSharingRule` object.

### Get info on the list of access levels to a `ProcessException` record

Use the new `ProcessExceptionShare` object.

## Communities

### Store navigational and featured topic images as asset files

Use the new `LargeLogoAssetId` and `MediumLogoAssetId` values of the `AssetCategory` field of the `CustomBrandAsset` object.

### Include navigation menu tile item images, the background color of the login button, and the image URL that appears as the background on the community's login page in your branding

Use the `LogoAssetId`, `LoginPrimaryColor`, and `LoginBackgroundImageUrl` values of the `AssetCategory` field of the `CustomBrandAsset` object.

These values were previously incorrectly documented or missing from documentation.

### Get the discount or surcharge and the count per quantity unit

Use the new `UnitAdjustedPrice` and the `UnitAdjustmentAmount` fields on the `CartItem` object.

### Get variation-related information about a product

Use the new `ProductClass` and `Type` fields on the `Product2` object.

### Get the total error count on cart line items

Use the new `TotalLineItemsWithErrors` field on the `WebCart` object.

### Set time to live values for your B2B checkout

Use the new `CheckoutTimeToLive` and `CheckoutValidAfterDate` fields on the `WebStore` object.

### REMOVED: We removed the `search()` attribute from the `Wishlist` object

Searches in B2B stores no longer return results from lists.

## Customization

### Understand the Custom Permissions License Required Option

If you use Salesforce managed packages, the `IsLicensed` field on the `CustomPermission` object indicates if the custom permission requires Salesforce licenses.

**Get More Information About Tabs**

On the `TabDefinition` object, use the `IsAvailableInDesktop` and `IsAvailableInMobile` fields to determine what form factor your tab is available in. The `MobileUrl` field contains the URL that can be used to launch this tab in the Salesforce mobile app. Introduced in API version 45.0, these three fields have been added to the *SOAP API Developer Guide*.

**Query Credentials with JSON Web Tokens**

Use the following fields on the `NamedCredential` object. Introduced in API version 46.0, these six fields have been added to the *SOAP API Developer Guide*.

- `AuthTokenEndpointUrl`
- `JwtAudience`
- `JwtFormulaSubject`
- `JwtIssuer`
- `JwtTextSubject`
- `JwtValidityPeriodSeconds`

**Manage the languages available for translation**

Use the new `Translation` object to query and update the languages available for translation.

**Development****BEHAVIOR CHANGE: The `DownloadSize` field type on the `AppAnalyticsQueryRequest` object changed from `int` to `long`**

The range of possible values for `DownloadSize` exceeds the maximum supported by `int`. Update your AppExchange App Analytics custom integrations that use `DownloadSize` to allow for values of type `long`.

**Monitor Platform Event Publishing and Delivery Usage**

Query the new `PlatformEventUsageMetric` object to get platform event and change data capture event usage data. Usage data is available for the last 24 hours and daily values.

**See a list of fields included in your AppExchange App Analytics results file**

Use the new `HeaderFields` field on the `AppAnalyticsQueryRequest` object.

**Capture the shape (features, settings, limits, and licenses) of an org. Then use it to create scratch orgs that look like it.**

Use the `ShapeRepresentation` object. You can only have one record in Active status in an org.

**Specify an org whose shape (features, settings, limits, and licenses) you want to use to create scratch orgs.**

Use the new `SourceOrg` field on the `ScratchOrgInfo` object. The source org must be a production org.

**Lightning Scheduler****Associate a custom Apex class with a scheduling policy to check external calendars for service resource availability**

Use the new `ExtCalEventHandlerId` field on the `AppointmentSchedulingPolicy` object.

**Define appointment time slots that are longer than an hour**

Use the new values in the `AppointmentStartTimeInterval` field on the `AppointmentSchedulingPolicy` object.

**Sales****In the opportunities list view and Kanban view, show the amounts and close dates that have recently changed**

On the `Opportunity` object, use the new `LastAmountChangedHistoryId` and `LastCloseDateChangedHistoryId` fields.

On the `OpportunityHistory` object, use the new `PrevAmount` and `PrevCloseDate` fields.

**Let users track more information on opportunity product records via a lookup relationship to any standard or custom object**

On the OpportunityLineItem object, use the new `LastReferencedDate` and `LastViewedDate` fields.

**Learn about opportunity scoring model factors that are based on multiple fields**

On the SalesAIScoreModelFactor object, use the new `SecondarySourceFieldValue` and `SecondarySourceFieldValueText` fields.

**Track more information about email templates**

On the EmailTemplate object, use the new `HasSalesforceFiles` and `IsBuilderContent` fields.

**See when a task was marked Closed.**

Use the `CompletedDateTime` field on the `Task` object. Introduced in API version 49.0, this field has been added to the *Object Reference for Salesforce and Lightning Platform*.

**Know more about when a List Email is scheduled.**

Use the `ScheduledDate` field on the `ListEmail` object. This field can now be created and updated.

**Learn which sales cadences are paused**

Use the new `Paused` picklist values on the `State` fields on the `ActionCadenceStepTracker` and the `ActionCadenceTracker` objects. Also use new `WasEverPaused` field on the `ActionCadenceStepTracker` object.

**See which user completed a sales cadence, even if the sales cadence has been assigned to multiple users**

Use the new `CompletedById` field on the `ActionCadenceStepTracker` object.

**See which sales cadence step trackers are being updated by Salesforce, so you can filter them out from your lists**

Use the new `Processing` picklist value on the `State` field on the `ActionCadenceTracker` object. For example, if you change the ownership of many action cadence trackers at once, it takes Salesforce a few moments to make the updates.

**Easily find the active sales cadence step trackers**

Use the new `IsTrackerActive` field on the `ActionCadenceTracker` object. `IsTrackerActive` is `true` if the sales cadence step tracker has the state `Running`, `Paused`, `Processing`, or `Initializing`.

**Learn even more about the emails sent by your sales cadence steps, so you can better plan your high velocity sales strategy**

Use the following fields on the `ActionCadenceStep` object:

- `AllEmailsHardBouncedCount`
- `UniqueEmailsOpenedCount`
- `UniqueEmailsRepliedCount`
- `UniqueEmailsLinkClickedCount`
- `AllEmailsLinkClickedCount`
- `AllEmailsRepliedCount`
- `AllEmailsSoftBouncedCount`
- `AllEmailsOutOfOfficeCount`

**Create and edit Email Content records.**

Use the new `EmailContent` object available for Pardot orgs.

**Identify the EmailContentID for List Emails.**

Use the `EmailContentID` field on the `ListEmail` object. This field is only available for Pardot orgs.

## Salesforce Surveys

**Create template surveys**

Use the new `IsTemplate` field on the `SurveyVersion` object.

**Associate Public Sector Cloud records with survey invitations and responses**

Use the new `IndividualApplication` picklist value on the `SubjectEntityType` field in the `SurveySubject` object.

**Security and Identity****Store the ID of changed email address verification email templates**

On the `Network` object, use the `ChgEmailVerNewEmailTemplateId` and `ChgEmailVerOldEmailTemplateId` fields.

**Track changes on the UserDevice object to keep your org secure**

Use the new `UserDeviceHistory` object to track changes on the `UserDevice` object.

**Store device identification information to manage your users' access**

On the `UserDevice` object, use the `UserProvidedDeviceIdentifier` field to store an identifier for the user's device, like the International Mobile Equipment Identity (IMEI) number or the device serial number.

**Record new approval statuses for a user's mobile device**

On the `UserDevice` and `UserDeviceApplication` objects, use the new `Approved` and `Pending Approval` values on the `Status` field.

**REMOVED: Values were removed from the UserDevice and UserDeviceHistory objects**

The `Active` and `New` values are no longer available on the `Status` field.

**You're no longer required to specify how and when consent is captured for multiple objects**

Use the new `NotNullable` value on the `ConsentCapturedSource` and `ConsentCapturedDateTime` fields on the `AuthorizationFormConsent` and `CommSubscriptionConsent` objects. You can also use the new `NotNullable` value on the `CaptureDate`, `CaptureContactPointType`, and `CaptureSource` fields on the `ContactPointConsent`, `ContactPointTypeConsent`, and `PartyConsent` objects.

**You're no longer required to specify the type of tool used to capture consent for an object**

Use the new `NotNullable` value on the `ConsentCapturedSourceType` field on the `AuthorizationFormConsent` object.

**Track policies that anonymize or transfer personal data from your org at your customer's request**

Use the new `DsarPolicy` object, which supports Data Subject Access Request policies created in the Privacy Center managed package.

**Get a log of customer requests to anonymize or transfer their personal data**

Use the new `DsarPolicyLog` object, which supports Data Subject Access Request (DSAR) policies created in the Privacy Center managed package.

**Service****Determine the capacity model that was used to check agent capacity for a routed work item**

Use the new `CapacityModel` field on the existing `AgentWork` object.

**Determine whether a work item owner change triggered the direct assignment of the work item to the agent**

Use the `IsOwnerChangeInitiated` field on the existing `AgentWork` and `PendingServiceRouting` objects.

**Determine whether a work item should stay with the preferred user even when the user is not available**

Use the new `IsPreferredUserRequired` field on the existing `AgentWork` and `PendingServiceRouting` objects.

**Determine whether a work item status change triggered the direct assignment of the work item to the agent**

Use the `IsStatusChangeInitiated` field on the existing `AgentWork` and `PendingServiceRouting` objects.

**Filter Knowledge history fields by data type**

On the `KnowledgeArticleVersionHistory` object, use the new `DataType` field to filter and sort fields in an article's history.

For example, when you change the ownership of an article, two records are generated. One displays the user label (text) change, such as from “Standard User” to “Admin User.” The other record displays the EntityID for the changed fields. You can use `DataType` to display, for example, just text records.

Enter or modify a SOQL query below:

```
SELECT NewValue,OldValue,DataType,FieldName,EventType,CreateDate FROM KnowledgeArticleVersionHistory
WHERE FieldName = 'Owner' AND DataType = 'Text'
```

Query

**Query Results**

Returned records 1 - 3 of 3 total records in 0.347 seconds:

| NewValue        | OldValue   | DataType | FieldName | EventType    | CreateDate               |
|-----------------|------------|----------|-----------|--------------|--------------------------|
| 1 Standard User | Admin User | Text     | Owner     | fieldChanged | 2020-07-10T00:30:04.000Z |
| 2 Admin User    | Queue      | Text     | Owner     | fieldChanged | 2020-07-12T02:24:45.000Z |
| 3 Queue         | Admin User | Text     | Owner     | fieldChanged | 2020-07-12T02:26:04.000Z |

### Record the local time zone on workers' time sheets

Use the new `LocationTimeZone` field on the existing `TimeSheetEntry` object.

### Add a short title to describe expenses

Use the new `Title` field on the existing `Expense` object.

### Include expenses in expense reports

Use the new `ExpenseReportEntry` object to include an expense in an expense report.

### Summarize expenses in expense reports

Use the new `ExpenseReport` object to show a total expense amount.

### Track how users accept Einstein Case Classification recommendations

On the existing `AllSightFeedback` object, the meaning of the `AllSightFeedbackType` field's values have changed.

- **Explicit**—Previously indicated that Einstein's recommendations were saved on a record. Now it means that the user applied and saved the recommendations from the component where they appeared, such as the Einstein Field Recommendations Lightning component.
- **Implicit**—Previously not in use. Now it means that Einstein's recommendations were followed, but the user made the updates from an external component such as the case details tab.

### Manage multiple maintenance schedules for assets

Use the `MaintenanceWorkRule` object to define multiple maintenance schedules running at different frequencies for an asset. The `MaintenanceWorkRuleID` field on the `WorkOrder` and `WorkOrderLineItem` objects then identifies the maintenance rule that generated the work item.

### Record product and asset warranties

Use the `WarrantyTerm` object to define the labor, parts, and expenses, along with any exchange options, provided to rectify issues with products. Use the `ProductWarrantyTerm` object to assign warranty terms to a product or product family and create standard warranties. Use the `AssetWarrantyTerm` object to add details of additional or extended warranties along with exclusions and void terms for products installed or sold. Use the `AssetWarrantyID` field on the `WorkOrder` and `WorkOrderLineItem` objects to identify asset warranty terms associated with a work item.

### Add a comment feed to a Voice Call

Use the new `VoiceCallFeed` object.

### BEHAVIOUR CHANGE: Property changes to Voice Call Recording

The `VoiceCallID` field is now a required field on the `VoiceCallRecording` object. The `nullable` property of this field is removed.

### REMOVED: Associated objects for sharing for Voice Call Recording are removed

The `VoiceCallRecordingOwnerSharingRule` and `VoiceCallRecordingShare` associated objects of the `VoiceCallRecording` object are removed. The parent object `VoiceCall` now controls the sharing of this object. That means, if the user has access to the parent record, the user can access the `VoiceCallRecording` record.

## New and Changed Standard Platform Events

Receive real-time notifications from Salesforce by subscribing to the channels of these new and changed standard platform events.

### Salesforce Overall

#### Be notified when a service appointment is created, updated, or deleted in Lightning Scheduler

Subscribe to the new `AppointmentSchedulingEvent` to receive notifications related to new, modified, or deleted service appointments in Lightning Scheduler. This event is part of Lightning Scheduler.

### Service

#### Understand Einstein Case Classification auto-update failures

Use the new `Error Code` field on the existing `AllUpdateRecordEvent` event to troubleshoot Einstein Case Classification auto-update failures. The values are:

- `none`—No error occurred.
- `entity_locked`—The case is locked for editing by an approval process.
- `no_access`—The selected Einstein user or automatic process user doesn't have permission to update the case.
- `validation_rule`—The update violates a case validation rule.
- `other`—A different error occurred.

### Security and Identity: Real-Time Event Monitoring

#### Write transaction security policies that track anomalies in how users make API calls

Use the new `ApiAnomalyEventStore` object in a security policy and `ApiAnomalyEvent` for real-time notifications.

#### Write transaction security policies that track when a user downloads the results of a Bulk API request

Use the new `BulkApiResponseEventStore` object in a security policy and `BulkApiResponseEvent` for real-time notifications.

#### Write ReportEvent policies with a condition that checks for grouped column headers

Use the new `ReportEvent` and `ReportEventStream` field `GroupedColumnHeaders` to filter the grouped column headers of a report.

#### Write ReportEvent policies with a condition that checks for displayed field entities

Use the new `ReportEvent` and `ReportEventStream` field `DisplayedFieldEntities` to filter the displayed fields on a report.

### REST API

REST API includes changed resources.

#### Enjoy better error messages and error handling when using SObject Collections in the Composite family of resources

When the information for one object in an SObject Collections job contains errors (like misspelled field names), the `/composite/objects` resource's error message now identifies the object. And, if `allOrNone` is `false`, the API continues to process the remaining parse-able parts of the job. (If `allOrNone` is `true`, the API rolls back the entire operation.)

### SOAP API

SOAP API includes changed headers and changes to some data types.

### Change To Data Types In WSDL

Some data types have changed from `int` to `long`.

**Where:** This change applies to the Developer Edition, Enterprise Edition, Performance Edition, Professional Edition with API access enabled, and Unlimited Edition.

**Why:** To accommodate numbers that are too large to store in the int data type, some items now use the long type. This affects both the Enterprise and Partner WSDLs.

## New, Changed, and Deprecated Calls

### Changed Headers

This header has changed in API version 50.0.

#### **OwnerChangeOptions**

Three new enum fields to **OwnerChangeOption** have been added:

- Use **TransferArticleOwnedPublishedVersion** to change the published version of the article owner's current draft to a new owner, in addition to the current draft.
- Use **TransferArticleOwnedArchivedVersions** to change archived versions of the article owner's current draft to a new owner, in addition to the current draft.
- Use **TransferArticleAllVersions** to change all published and archived versions, owned by anyone, of the current draft to a new owner, in addition to the current draft.

In each case, the change of ownership applies to the language of the current draft.

SEE ALSO:

[SOAP API Developer's Guide: OwnerChangeOptions \(can be outdated or unavailable during release preview\)](#)

## Connect REST API

Integrate mobile apps, intranet sites, and third-party web applications with Salesforce using Connect REST API. Copy products from a cart to a wishlist and work with current carts. Get externally managed accounts. Get the body of a quick text. Send survey invitations by email.

IN THIS SECTION:

[New and Changed Connect REST API Resources](#)

These resources are new or have changes.

[New and Changed Connect REST API Request Bodies](#)

These request bodies are new or have changes.

[New and Changed Connect REST API Response Bodies](#)

These response bodies are new or have changes.

SEE ALSO:

[ConnectApi \(Connect in Apex\): New and Changed Classes and Enums](#)

[Connect REST API Developer Guide](#)

[Apex Developer Guide: ConnectApi Namespace](#)

## New and Changed Connect REST API Resources

These resources are new or have changes.

### B2B Commerce on Lightning

#### Copy the products from a cart to a wishlist

Make a POST request to the new

`/commerce/webstores/webstoreId/carts/cartStateOrId/actions/add-cart-to-wishlist` resource with the new Cart to Wishlist Input request body.

#### Set the visibility of cart messages

Make a POST request to the new

`/commerce/webstores/webstoreId/carts/cartStateOrId/messages/actions/set-visibility` resource with the new Cart Messages Visibility Input request body.

#### Cart resources that include cart IDs and active carts now support current carts

Cart resources with the `cartStateOrId` query parameter now support the `current` value, which indicates a cart with a status that isn't closed or pending deletion.

- `/commerce/webstores/webstoreId/carts/cartStateOrId`
- `/commerce/webstores/webstoreId/carts/cartStateOrId/actions/add-cart-to-wishlist`
- `/commerce/webstores/webstoreId/carts/cartStateOrId/cart-items`
- `/commerce/webstores/webstoreId/carts/cartStateOrId/cart-items/batch`
- `/commerce/webstores/webstoreId/carts/cartStateOrId/cart-items/cartItemId`
- `/commerce/webstores/webstoreId/carts/cartStateOrId/messages/actions/set-visibility`

#### Update the name of a wishlist

Make a PATCH request to the new `/commerce/webstores/webstoreId/wishlists/wishlistId` resource with the Wishlist Input request body.

### CMS Managed Content

#### Get published managed content versions for a community with absolute URLs

Make a GET request to the `/connect/communities/communityId/managed-content/delivery` resource with the new `showAbsoluteUrl` request parameter set to `true`.

#### Get published managed content versions for a channel with absolute URLs

Make a GET request to the `/connect/cms/delivery/channels/channelId/contents/query` resource with the new `showAbsoluteUrl` request parameter set to `true`.

### Communities

#### Get externally managed accounts available to the context user across all communities

Make a GET request to the new `/connect/communities/communityId/external-managed-accounts` resource.

### Files

#### Retiring support for Adobe Flash renditions

The `/connect/files/fileId/rendition` resource no longer creates or returns Adobe Flash renditions. Use the `/connect/files/fileId/previews/previewFormat` resource to get an SVG rendition.

## Notifications

### Get a notification with the full body and title displayed

Make a GET request to the `/connect/notifications/notificationId` resource with the new `trimMessages` parameter set to `false`.

### Get notifications with the full body and title displayed

Make a GET request to the `/connect/notifications` resource with the new `trimMessages` parameter set to `false`.

## Private Connect

### Get scoped inbound network topologies for a connection type

Make a GET request to the `/network-connection/inbound/connection-types/connectionType/topologies` resource with the new `scope` parameter set to `Region`.

### Get scoped outbound network topologies for a connection type

Make a GET request to the `/network-connection/outbound/connection-types/connectionType/topologies` resource with the new `scope` parameter set to `Region`.

## Quick Text

### Get the body of a quick text

Make a GET request to the new `/connect/quicktextbody` resource.

## Salesforce Surveys

### Send survey invitations by email

Make a POST request to the new `/connect/surveys/surveyId/send-invitation-emails` resource with the new Survey Email Input request body.

## New and Changed Connect REST API Request Bodies

These request bodies are new or have changes.

## B2B Commerce on Lightning

### Cart Messages Visibility Input

This new request body has this property.

- `visibility`—Specifies whether to set cart messages as visible (`true`) or not (`false`).

### Cart to Wishlist Input

This new request body has this property.

- `wishlistId`—ID of the wishlist to copy cart products to.

### Distinct Value Refinement Input

This request body has this new property.

- `attributeType`—Search attribute type. Values are:
  - `Custom`
  - `Standard`

**Wishlist Update Input**

This new request body has this property.

- `name`—Wishlist name to update.

## Salesforce Order Management

**Order Summary Input**

This request body has these new properties.

- `name`—OrderNumber to assign to the OrderSummary.
- `status`—Status to assign to the OrderSummary.

## Salesforce Surveys

**Survey Email Input**

This new request body has these properties.

- `allowGuestUserResponse`—Allows participants who don't have a Salesforce account to respond.
- `allowParticipantsAccessTheirResponse`—Allows participants to view their responses after they submit the survey.
- `associateRecordsWithRecipients`—Maps each recipient with another record that must be associated with the recipient's survey invitation.
- `body`—Content of the email. Specify the email body in case you don't specify an email template.
- `collectAnonymousResponse`—Allows participants to respond anonymously.
- `communityId`—ID of the community that's used to open the survey for users outside your org.
- `emailTemplateId`—ID of the email template that's used to send the survey invitation.
- `fromEmailAddress`—Email ID of the user or the org-wide email address associated with the user's profile.
- `invitationExpirationDate`—Date on which the survey invitation expires.
- `invitationOwner`—ID of the owner of the survey invitation records.
- `isPersonalInvitation`—Creates an unique invitation for each participant. When a participant responds using a personal invitation, the response record is associated with the participant's Salesforce record.
- `recipientEngagementContexts`—Maps each recipient with the context based on which the survey invitation is emailed.
- `recipients`—List of up to 300 IDs of leads, contacts, or users to whom the survey invitation is emailed.
- `shareInvitationsWith`—ID of the user with whom the survey invitation records must be shared. The invitation records are shared with Read access.
- `subject`—Subject of the email. Specify the subject in case you don't specify an email template.
- `surveyQuestionIds`—ID of the question that's embedded in the email.

**Survey Recipient Survey Subjects Input**

This new request body has these properties.

- `associateRecordIds`—ID of the associated records.
- `recipientId`—Participant ID with whose invitation the record should be associated.

**Survey Recipient Engagement Context Input**

This new request body has these properties.

- `recipientEngagementContext`—Map of additional parameters that are associated with the generated invitation for the recipient.
- `recipientId`—ID of the recipient.

## New and Changed Connect REST API Response Bodies

These response bodies are new or have changes.

### B2B Commerce on Lightning

#### Cart Item

This response body has these new properties.

- `totalAdjustmentAmount`—Total adjustment amount for the item.
- `unitAdjustedPrice`—Unit price, including adjustments, for the item.
- `unitAdjustmentAmount`—Adjustments made to the unit price for the item.

#### Cart Messages Summary

This response body has this new property.

- `totalLineItemsWithErrors`—In the Cart Item Result, either `null` if the cart item has no errors or `1` if the cart item has errors. In the Cart Summary, the total number of product line items that contain errors.

#### Cart Messages Visibility Result

This new response body has this property.

- `visibility`—Specifies whether cart messages are set to visible (`true`) or not (`false`).

#### Cart Summary

This response body has these new and changed properties.

- `purchaseOrderNumber`—Purchase order for the cart.
- `status`—This property now supports the `pendingDelete` value.

#### Cart to Wishlist Result

This new response body has these properties.

- `productsAddedCount`—Number of products copied from the cart to the wishlist.
- `wishlistId`—ID of the wishlist that cart products were copied to.

### CMS Managed Content

#### Managed Content Channel

This response body has these new and changed properties.

- `channelType`—This property now supports the `PublicUnauthenticated` value.
- `domainId`—ID of the domain assigned to the channel.
- `domainName`—Name of the domain assigned to the channel.
- `isDomainLocked`—Specifies whether the domain is locked and can't be changed (`true`) or not (`false`).

#### Managed Content Version

This response body has this new property.

- `unauthenticatedUrl`—Unauthenticated delivery URL.

## Managed Topics

### Topic Images

This response body has these changed properties.

- `coverImageUrl`—Featured and navigational topic images uploaded in version 50.0 are stored as asset files. Images uploaded in version 49.0 and earlier are stored as documents. This storage change results in a URL change.
- `featuredImageUrl`—Featured and navigational topic images uploaded in version 50.0 are stored as asset files. Images uploaded in version 49.0 and earlier are stored as documents. This storage change results in a URL change.

## Notifications

### Notification

This response body has this new property.

- `targetPageRef`—Page reference for notification target.

## Personalization

### Formula Scope

This new response body has these properties.

- `contextValues`—Map of context values for the scope.
- `fields`—List of fields of the scope.
- `formula`—Formula of the scope.

### Target

This response body has these new and changed properties.

- `formulaScope`—Formula scope of the target.
- `scope`—This property isn't returned in version 50.0 and later. Instead, `formulaScope` returns this information.

## Quick Text

### Quick Text Preview Body

This new response body has these properties.

- `contextType`—Context of the quick text. Value is `Preview`.
- `parts`—Parts of the quick text body.

### Quick Text Preview Body Part

This new response body has these properties.

- `type`—Type of the quick text body part. Values are:
- `value`—Value of the quick text body part.

### Quick Text Runtime Body

This new response body has these properties.

- `contextType`—Context of the quick text. Value is `Runtime`.
- `quickTextBody`—Body of the quick text.

## Salesforce Surveys

**Survey Email**

This new response body has these properties.

- `errorCode`—Error code for the failed call.
- `errorMessage`—Details explaining why the call failed.
- `status`—Status of the call. Possible values are: Queued, Failed.

**Einstein Analytics REST API**

Create, update, and retrieve auto-install requests for embedded apps using the Einstein Analytics REST API. Query replicated datasets by category and create new Salesforce datasets. Get detailed node data for individual dataflow jobs.

## IN THIS SECTION:

[New and Changed Einstein Analytics REST API Resources](#)

These resources are new or have changes.

[New and Changed Einstein Analytics REST API Request Bodies](#)

These request bodies are new or have changes.

[New and Changed Einstein Analytics REST API Response Bodies](#)

These response bodies are new or have changes.

**New and Changed Einstein Analytics REST API Resources**

These resources are new or have changes.

**Get auto-install requests**

Make a GET request to the new `/wave/auto-install-requests` resource. Multiple request parameters can be used to filter the results.

**Delete all auto-install requests for a folder or template**

Make a DELETE request to the new `/wave/auto-install-requests` resource with the `folderId` or `templateApiName` request parameters.

**Create an auto-install request**

Make a POST request to the new `/wave/auto-install-requests` resource with the `AutoInstallInput` request body.

**Get an auto-install request**

Make a GET request to the new `/wave/auto-install-requests/autoInstallRequestId` resource.

**Delete an auto-install request**

Make a DELETE request to the new `/wave/auto-install-requests/autoInstallRequestId` resource.

**Update an auto-install request**

Make a PATCH request to the new `/wave/auto-install-requests/autoInstallRequestId` resource with the `AutoInstallInput` request body.

**Get the nodes of a dataflow job**

Make a GET request to the new `/wave/dataflowjobs/dataflowjobid/nodes` resource.

**Get a node of a dataflow job**

Make a GET request to the new `/wave/dataflowjobs/dataflowjobid/nodes/nodeId` resource.

**Create a Salesforce dataset**

Make a POST request to the `/wave/datasets` resource.

**Get a Salesforce dataset by dataset type**

Make a GET request to the `/wave/datasets` resource with the new `datasetTypes` request parameter.

**Get a connected dataset by category**

Make a GET request to the `/wave/replicatedDatasets` resource with the new `category` request parameter.

**New and Changed Einstein Analytics REST API Request Bodies**

These request bodies are new or have changes.

**Auto Install App Configuration Input (AutoInstallAppConfigurationInputRepresentation)**

The new request body has these properties.

- `autoShareWithLicensedUsers` - Indicates whether the Einstein Analytics application is automatically shared with users that are assigned the `AnalyticsViewOnlyEmbeddedApp` permission set (`true`) or not (`false`).
- `autoShareWithOriginator` - Indicates whether the Einstein Analytics application is automatically shared with the user that initiated the auto-install request (`true`) or not (`false`).
- `deleteAppOnConstructionFailure` - Indicates whether the Einstein Analytics application is deleted when a failure occurs on the `WaveAppCreate` request (`true`) or not (`false`).
- `failOnDuplicateName` - Indicates whether the Einstein Analytics application creation fails when another asset exists with the same developer name (`true`) or not (`false`).
- `values` - A map of application template variable values used to create or update the Einstein Analytics application.

**Auto Install Configuration Input (AutoInstallConfigurationInputRepresentation)**

The new request body has these properties.

- `appConfiguration` - The configuration used to create or update the Einstein Analytics application.
- `parentRequestIds` - A collection of parent auto-install request IDs that this request depends on.

**Auto Install Request Insert Input (AutoInstallRequestInsertInputRepresentation)**

The new request body has these properties.

- `configuration` - The auto-install request configuration.
- `folderId` - The Einstein Analytics application folder ID.
- `requestName` - The name of the auto-install request.
- `requestType` - The auto-install request type. Valid values are: `OrgCompatibilityCheck`, `StartDataflow`, `WaveAppCreate`, `WaveAppDelete`, `WaveAppUpdate`, and `WaveEnable`.
- `templateApiName` - The Einstein Analytics template API name or ID.

**Auto Install Request Update Input (AutoInstallRequestUpdateInputRepresentation)**

The new request body has this property.

- `requestLog` - The request log of the auto-install request. Use this attribute to comment on why an auto-install request is canceled.

**Base Auto Install Request Input (BaseAutoInstallRequestInputRepresentation)**

The new request body has this property.

- `requestStatus` - The current status of the auto-install request. Valid values are: `AppInProgress`, `Cancelled`, `Enqueued`, `Failed`, `InProgress`, `New`, and `Success`.

**Component Widget Parameters Input (ComponentWidgetParametersInputRepresentation)**

The request body has this new property.

- `pageName` - The default page of the component.

**Data Connector Input (DataConnectorInputRepresentation)**

The request body has this new property.

- `targetConnector` - The target connector associated with the current source connector.

**Dataset Input (DatasetInputRepresentation)**

The request body has these new properties.

- `datasetType` - The type of the dataset. Valid values are: `Default`, `Live`, and `Trended`.
- `liveConnection` - The connection details for a live dataset.

**Inherit Widget Parameters Input (InheritWidgetParametersInputRepresentation)**

The new request body has this property.

- `step` - The step name for the widget.

**Lens Step Input (LensStepInputRepresentation)**

The new request body has this property.

- `source` - The lens asset source for the step.

**Live Connection Input (LiveConnectionInputRepresentation)**

The new request body has these properties.

- `connectionName` - The developer name of the connection.
- `sourceObjectName` - The source object name for the connection.

**Table Widget Parameters Input (TableWidgetParametersInputRepresentation)**

The request body has these new properties.

- `collapsible` - Indicates whether the table is collapsible (`true`) or not (`false`).
- `numberOfFrozenColumns` - The number of frozen columns for the table.

**New and Changed Einstein Analytics REST API Response Bodies**

These response bodies are new or have changes.

**Auto Install App Configuration (AutoInstallAppConfigurationRepresentation)**

The new response body has these properties.

- `autoShareWithLicensedUsers` - Indicates whether the Einstein Analytics application is automatically shared with users that are assigned the `AnalyticsViewOnlyEmbeddedApp` permission set (`true`) or not (`false`).
- `autoShareWithOriginator` - Indicates whether the Einstein Analytics application is automatically shared with the user that initiated the auto-install request (`true`) or not (`false`).
- `deleteAppOnConstructionFailure` - Indicates whether the Einstein Analytics application is deleted when a failure occurs on the `WaveAppCreate` request (`true`) or not (`false`).
- `failOnDuplicateName` - Indicates whether the Einstein Analytics application creation fails when another asset exists with the same developer name (`true`) or not (`false`).
- `values` - A map of application template variable values used to create or update the Einstein Analytics application.

**Auto Install Configuration (AutoInstallConfigurationRepresentation)**

The new response body has these properties.

- `appConfiguration` - The configuration used to create or update the Einstein Analytics application.
- `parentRequestIds` - A collection of parent auto-install request IDs that this request depends on.

**Auto Install Request Collection Representation (AutoInstallRequestCollectionRepresentation)**

The new response body has this property.

- `requests` - The list of auto-install requests.

**Auto Install Request Representation (AutoInstallRequestRepresentation)**

The new response body has these properties.

- `appFromRequest` - The Einstein Analytics application associated with this auto-install request.
- `configuration` - The configuration attributes for this auto-install request.
- `createdBy` - The user who created this auto-install request.
- `createdDate` - The date/time this auto-install request was created.
- `failedReason` - The reason this auto-install request failed, if applicable. Valid values are: `AppConstructionFailure`, `AppCreateFailure`, `AppUpdateFailure`, `CancelFailed`, `DeleteFailed`, `DependencyCancelled`, `DependencyFailure`, `FailedOther`, `FailedToEnqueue`, `OrganizationIncompatible`, `RequestCancelled`, `RetriesExhausted`, and `WaveDisabled`.
- `folderId` - The 18 character ID of the Einstein Analytics application for this auto-install request.
- `folderLabel` - The folder label of the Einstein Analytics application for this auto-install request.
- `id` - The 18 character ID of this auto-install request.
- `lastModifiedBy` - The user who last modified this auto-install request.
- `lastModifiedDate` - The date/time this auto-install request was last modified.
- `parentRequests` - A collection of auto-install requests that this request depends on.
- `requestLog` - The request log for this auto-install request.
- `requestName` - The name of this auto-install request.
- `requestStatus` - The current status of this auto-install request. Valid values are: `AppInProgress`, `Cancelled`, `Enqueued`, `Failed`, `InProgress`, `New`, and `Success`.
- `requestTemplate` - The Einstein Analytics template used to create or update the Einstein Analytics application.
- `requestType` - The auto-install request type. Valid values are: `OrgCompatibilityCheck`, `StartDataflow`, `WaveAppCreate`, `WaveAppDelete`, `WaveAppUpdate`, and `WaveEnable`.
- `templateApiName` - The Einstein Analytics template API name or ID.
- `templateVersion` - The Einstein Analytics template version.
- `url` - The URL for the auto-install request.

**Component Widget Parameters (ComponentWidgetParametersRepresentation)**

The response body has this new property.

- `pageName` - The default page of the component.

**Data Connector (DataConnectorRepresentation)**

The response body has this new property.

- `targetConnector` - The target connector associated with the current source connector.

**Dataflow (DataflowRepresentation)**

The response body has this new property.

- `definition` - The representation of the dataflow nodes.

**Dataflow Job (DataflowJobRepresentation)**

The response body has these new properties.

- `nodesUrl` - The URL of dataflow job nodes.
- `syncDataflows` - The dataflows to sync when this dataflow job is triggered.

**Dataflow Job Node Collection Representation (DataflowJobNodeCollectionRepresentation)**

The new response body has these properties.

- `nodes` - The collection of dataflow job nodes.
- `url` - The URL for the collection of dataflow job nodes.

**Dataflow Job Node Representation (DataflowJobNodeRepresentation)**

The new response body has these properties.

- `duration` - The runtime in seconds for the dataflow job node.
- `errorLogUrl` - The URL for the error log blob.
- `inputRows` - The count of input rows for the dataflow job node.
- `message` - The informational or error message of the dataflow job node.
- `nodeType` - The node type of the dataflow job node. Valid values are: `Append`, `Augment`, `BinDigest`, `ComputeExpression`, `ComputeRelative`, `CsvDigest`, `Dataset`, `DeleteRows`, `Delta`, `Digest`, `Dim2Mea`, `Export`, `Filter`, `Flatten`, `IndexDim`, `Internal`, `Prediction`, `Register`, `SfdcFetch`, `SliceDataset`, `SubjectDigest`, and `Update`.
- `outputRows` - The count of output rows for the dataflow job node.
- `startDate` - The start date of the dataflow job node.
- `status` - The run-time status of the dataflow job node. Valid values are: `Aborted`, `Error`, `Pending`, `Running`, `Success`, and `Warning`.

**Dataset (DatasetRepresentation)**

The response body has this new property.

- `liveConnection` - The live connection details for the dataset.

**Inherit Widget Parameters (InheritWidgetParametersRepresentation)**

The new response body has this property.

- `step` - The step name for the widget.

**Lens Step (LensStepRepresentation)**

The new response body has this property.

- `source` - The asset source for the step.

**Live Connection (LiveConnectionRepresentation)**

The new response body has these properties.

- `connectionLabel` - The label of the connection.
- `connectionName` - The developer name of the connection.

- `sourceObjectName` - The source object name for the connection.

#### Node Row Count (`NodeRowCountRepresentation`)

The new response body has these properties.

- `failedCount` - The number of failed rows for the node.
- `processedCount` - The number of processed rows for the node.

#### Object Coverage (`ObjectCoverageRepresentation`)

The response body has this new property.

- `unsupportedRecords` - The specific records that are unsupported for sharing inheritance.

#### Output Source (`OutputSourceRepresentation`)

The new response body has these properties.

- `inputRows` - The number of input rows for the sync out operation.
- `isSyncOut` - Indicates whether this object represents a sync out connection (`true`) or a recipe connection (`false`).
- `nextScheduledDate` - The next scheduled run time for the output source.
- `outputRows` - The number of output rows for the sync out operation.

#### Recipe (`RecipeRepresentation`)

The response body has these new properties.

- `sourceRecipe` - The recipe from which the current recipe was upconverted to or reverted from.
- `validationDetails` - The validation details for a Data Prep recipe.

#### Recipe Validation Detail (`RecipeValidationDetailRepresentation`)

The new response body has these properties

- `message` - The validation message for the recipe.
- `nodeName` - The node name referenced in the validation detail.
- `nodeType` - The node type referenced in the validation detail.
- `severity` - The severity of the validation failure. Valid values are: `Error`, `Fatal`, and `Warning`.
- `validationAction` - The action to fix the node.
- `validationCode` - The validation code.

#### Replicated Dataset (`ReplicatedDatasetRepresentation`)

The response body has this new property.

- `outputSource` - The output source, either a recipe or a connection, configured for this connected object.

#### Table Widget Parameters (`TableWidgetParametersRepresentation`)

The response body has these new properties.

- `collapsible` - Indicates whether the table is collapsible (`true`) or not (`false`).
- `numberOfFrozenColumns` - The number of frozen columns for the table.

#### Unsupported Record Collection (`UnsupportedRecordCollectionRepresentation`)

The new response body has these properties.

- `count` - The count of objects not covered by sharing inheritance. This value doesn't always match the length of the values array.

- `values` - The collection of objects not covered by sharing inheritance. This collection can be shorter than the count due to limiting for the API.

### Unsupported Record (`UnsupportedRecordRepresentation`)

The new response body has this property.

- `id` - The record ID.

### XMD Dimension (`XmdDimensionRepresentation`)

The response body has this new property.

- `defaultAction` - The default action for the dimension.

## User Interface API

Work with related lists, use lightweight resources to get default values to create and clone records, and enjoy using more objects with User Interface API.

### Use lightweight resources to get default values to create and clone records

To develop a UI that lets a user create or clone a record, first make a request to get default values. These new lightweight resources don't return layout information and you must specify the fields you want returned.

```
/ui-api/record-defaults/template/clone/{recordId}
/ui-api/record-defaults/template/create/{objectApiName}
```

The new resources are lightweight versions of these existing resources, which get record data for every field and return layout and object information.

```
/ui-api/record-defaults/clone/{recordId}
/ui-api/record-defaults/create/{objectApiName}
```

### Retrieve the actions on a batch of related lists

To retrieve the actions on a batch of related lists for a record, use this new resource.

```
/ui-api/actions/record/{recordId}/related-list/batch/{relatedListIds}
```

The `relatedListIds` is optional. If you don't specify it, the response includes the actions for every related list on the specified record.

Previously, to get the actions on a batch of related lists, you used this resource.

```
/ui-api/actions/record/{recordId}/related-list/{relatedListIds}
```

As of API version 50.0, this resource doesn't support a list of `relatedListIds`, it supports only a single `relatedListId`.

### Retrieve the related lists for a parent object

To get the related lists for a parent object, use this new resource.

```
/ui-api/related-list-info/{parentObjectApiName}
```

### Retrieve record data for a related list

To get record data for a related list or batch of related lists, use these new resources.

```
/ui-api/related-list-records/{parentRecordId}/{relatedListId}
/ui-api/related-list-records/batch/{parentRecordId}/{relatedListIds}
```

**Retrieve or update related list metadata**

To get or update a related list's metadata, use this new resource.

```
/ui-api/related-list-info/{parentObjectApiName}/{relatedListId}
```

To get related list metadata for a batch of related lists, use this new resource.

```
/ui-api/related-list-info/batch/{parentObjectApiName}/{relatedListIds}
```

**Retrieve the record count for a related list**

To get the record count for a related list or batch of related lists, use these new resources.

```
/ui-api/related-list-count/{parentRecordId}/{relatedListId}
/ui-api/related-list-count/batch/{parentRecordId}/{relatedListIds}
```

**Supported Objects**

Most User Interface API resources support these objects. List views resources, most recently used (MRU) list views resources, and related list resources support a smaller set of objects, which are listed in the following sections.

- ActionPlan
- AiVisitRecommendation
- AiVisitRecommendRequest
- AssessmentIndValue
- AssetWarranty
- DeliveryTask
- Examination
- ExpenseReport
- ExpenseReportEntry
- IndividualApplication
- LoanApplicant
- LoanApplicantAddress
- LoanApplicantDeclaration
- LoanApplicantEmployment
- LoanApplicantIncome
- LoanApplicationAsset
- LoanApplicationFinancial
- LoanApplicationLiability
- LoanApplicationProperty
- LoanApplicationTitleHolder
- LoyaltyBenefit
- LoyaltyBenefitType
- LoyaltyLedger
- LoyaltyTierBenefit
- MessagingChannel
- MessagingEndUser
- MessagingSession

- MsgChannellanguageKeyword
- OperatingHoursHoliday
- OpportunityParticipant
- OtherComponentTask
- PersonExamination
- PgmRebateTypBnftMapping
- PreliminaryApplicationRef
- ProductAttribute
- ProductAttributeSet
- ProductAttributeSetItem
- ProductAttributeSetProduct
- ProductServiceCampaign
- ProductTransfer
- ProductWarrantyTerm
- ProgramRebateType
- ProgramRebateTypeBenefit
- ProgramRebateTypeFilter
- ProgramRebateTypePayout
- ProgramRebateTypPayoutSrc
- RebateMemberProductAggregate
- RebatePayment
- RebatePayoutAdjustment
- RebateProgram
- RebateProgramMember
- RebateProgramMemberPayout
- RebateProgramPayoutPeriod
- ReceivedDocument
- RegulatoryAuthority
- RegulatoryAuthorizationType
- RegulatoryCodeAssessmentInd
- RegulatoryCodeViolation
- ResidentialLoanApplication
- SetupAssistantStep
- ShiftPattern
- SignatureTask
- SignatureTaskLineItem
- TrainingCourseParticipant
- TransactionJournal
- TrnCourse
- ViolationEnforcementAction

- ViolationType
- WarrantyTerm
- WaveAutoInstallRequest
- WebStoreCatalog

**Supported Objects for List Views Resources**

- AiVisitRecommendation
- AiVisitRecommendRequest
- AssetWarranty
- DeliveryTask
- Examination
- ExpenseReport
- ExpenseReportEntry
- IndividualApplication
- LoyaltyBenefit
- LoyaltyBenefitType
- LoyaltyLedger
- LoyaltyTierBenefit
- MessagingChannel
- MessagingSession
- OperatingHoursHoliday
- OpportunityParticipant
- PersonExamination
- PgmRebateTypBnftMapping
- PreliminaryApplicationRef
- ProductServiceCampaign
- ProductTransfer
- ProductWarrantyTerm
- ProgramRebateType
- ProgramRebateTypeFilter
- ProgramRebateTypeBenefit
- ProgramRebateTypePayout
- ProgramRebateTypPayoutSrc
- RebateMemberProductAggregate
- RebatePayment
- RebatePayoutAdjustment
- RebateProgram
- RebateProgramMember
- RebateProgramMemberPayout
- RebateProgramPayoutPeriod
- RegulatoryAuthority

- RegulatoryAuthorizationType
- RegulatoryCodeAssessmentInd
- RegulatoryCodeViolation
- ShiftPattern
- SignatureTask
- SignatureTaskLineItem
- TrainingCourseParticipant
- TransactionJournal
- TrnCourse
- ViolationEnforcementAction
- ViolationType
- WarrantyTerm

**Supported Objects for MRU List Views Resources**

- AiVisitRecommendation
- AiVisitRecommendRequest
- AssetWarranty
- DeliveryTask
- Examination
- ExpenseReport
- ExpenseReportEntry
- IndividualApplication
- LoyaltyBenefit
- LoyaltyBenefitType
- LoyaltyLedger
- LoyaltyTierBenefit
- MessagingChannel
- MessagingSession
- OperatingHoursHoliday
- OpportunityParticipant
- PersonExamination
- PgmRebateTypBnftMapping
- PreliminaryApplicationRef
- ProductServiceCampaign
- ProductTransfer
- ProductWarrantyTerm
- ProgramRebateType
- ProgramRebateTypeBenefit
- ProgramRebateTypeFilter
- ProgramRebateTypePayout
- ProgramRebateTypPayoutSrc

- RebateMemberProductAggregate
- RebatePayment
- RebatePayoutAdjustment
- RebateProgram
- RebateProgramMember
- RebateProgramMemberPayout
- RebateProgramPayoutPeriod
- RegulatoryAuthority
- RegulatoryAuthorizationType
- RegulatoryCodeAssessmentInd
- RegulatoryCodeViolation
- ShiftPattern
- SignatureTask
- SignatureTaskLineItem
- TrainingCourseParticipant
- TransactionJournal
- TrnCourse
- ViolationEnforcementAction
- ViolationType
- WarrantyTerm

**Supported Objects for Related List Resources**

- ActionPlanTemplateItem
- ActionPlanTemplateItemValue
- ActionPlanTemplateVersion
- AssessmentTask
- Asset
- AuthorizedInsuranceLine
- Claim
- ClaimCase
- ClaimItem
- ClaimParticipant
- ContactEncounterParticipant
- Contract
- ContractContactRole
- ContractLineItem
- CoverageType
- DistributorAuthorization
- Entitlement
- EntityMilestone
- Expense

- HealthcareProvider
- Individual
- InsuranceClaimAsset
- InsurancePolicyAsset
- InsurancePolicyCoverage
- InsurancePolicyParticipant
- JobProfile
- LoanApplicant
- LoanApplicantDeclaration
- LoanApplicantEmployment
- LoanApplicantIncome
- LoanApplicationAsset
- LoanApplicationFinancial
- LoanApplicationTitleHolder
- Location
- LoyaltyBenefit
- LoyaltyProgramMember
- LoyaltyProgramPartner
- LoyaltyTier
- LoyaltyTierGroup
- MaintenanceAsset
- MaintenancePlan
- MessagingSession
- ProducerPolicyAssignment
- ProductCoverage
- ProductTransfer
- ProductWarrantyTerm
- ProgramRebateType
- ProgramRebateTypeBenefit
- ProgramRebateTypeFilter
- ProgramRebateTypePayout
- Quote
- QuoteDocument
- QuoteLineItem
- RebateMemberProductAggregate
- RebatePayoutAdjustment
- RebateProgramMember
- RebateProgramMemberPayout
- RebateProgramPayoutPeriod
- RecordsetFilterCriteria

- ResourceAbsence
- ResourcePreference
- RetailVisitKpi
- ReturnOrder
- ReturnOrderLineItem
- SalesAgreementProduct
- SalesAgreementProductSchedule
- ServiceAppointment
- ServiceContract
- ServiceCrewMember
- ServiceResource
- ServiceResourceSkill
- SkillRequirement
- SurveyResponse
- Tenant
- TimeSheet
- UsageEntitlement
- UsageEntitlementPeriod
- User
- Visitor
- WorkOrder
- WorkOrderLineItem
- WorkPlanSelectionRule
- WorkPlanTemplate
- WorkStep
- WorkStepTemplate

## Bulk API 2.0

These calls are changed in API version 50.0.

### Use Hard Delete Operations in Bulk API 2.0 To Permanently Delete Items

Bulk API 2.0 ingest jobs now support the `hardDelete` operation.

### Specify a Default Namespace When Creating A Job

Bulk API 2.0 now supports the `Sforce-Call-Options` header to specify a default namespace when creating a job.

### Get Data From Big Objects

Bulk API 2.0 query jobs now support Salesforce big objects.

## Tooling API New and Changed Objects

Tooling API includes new and changed objects.

## Development

### Manage enriched fields for Change Data Capture

Use the new `EnrichedField` object to query, retrieve, or delete enriched fields. Add an enriched field as part of `PlatformEventChannelMember`.

### Specify an org whose shape (features, settings, limits, and licenses) you want to use to create scratch orgs for metadata validation during creation of a second-generation managed package or unlocked package

Use the new `SourceOrg` field on the `Package2VersionCreateRequest` object. The source org must be a production org.

### Set a user to receive email notifications about errors regarding your unlocked and second-generation managed packages

Use the new `PackageErrorUsername` field on the `Package2` object.

### Determine whether a SourceMember object represents a new entity or a change to an existing entity

Use the new `IsNewMember` field on the `SourceMember` object.

## Metadata API

Metadata API includes new and changed types and fields.

## Salesforce Overall

### Display related list hover links at the top of record detail pages and custom object detail pages in Setup

Use the `enableRelatedListHovers` field on the `UserInterfaceSettings` metadata type.

### Add a custom theme color to in-app guidance

Use the `themeColor` and `themeSaturation` fields on the `Prompt` metadata type.

## Lightning Scheduler

### Associate a custom Apex class with a scheduling policy to check external calendars for service resource availability

Use the new `extCalEventHandler` field on the `AppointmentSchedulingPolicy` metadata type.

### Define appointment time slots that are longer than an hour

Use the new values in the `appointmentStartTimeInterval` field on the `AppointmentSchedulingPolicy` metadata type.

## Sales

### Manage deal change highlights settings for the opportunity Amount and Close Date fields

Use the `oppAmountDealMotionEnabled` and `oppCloseDateDealMotionEnabled` fields on the `OpportunitySettings` metadata type.

### Enable the Inbox mobile app to use Microsoft Intune for device and application management

Use the new `enableInboxMobileIntune` field on the `EmailIntegrationSettings` metadata type.

### Learn whether the event changes you make in Salesforce are synced with Outlook and Gmail.

Use the new `orgIsSyncingEventsOutbound` field on the `EmailIntegrationSettings` metadata type.

## Analytics

### Enable Secure Image Sharing and Downloading

Use the new `enableSecureImageSharing` field on the `AnalyticsSettings` metadata type.

### Enable the Watchlist Feature for Analytics Assets

Use the new `enableOrgHasWatchlistEnabled` field on the `AnalyticsSettings` metadata type.

**Enable the Lightning Experience Report Feature to Automatically Add Custom Report Type Fields When Reports Are Created**

Use the new `enableReportCrtAutoAddPref` field on the `AnalyticsSettings` metadata type.

**Enable Priority-Based Dataflow Request Scheduling**

Use the new `enableRequestPrioritySchdl` field on the `AnalyticsSettings` metadata type.

**Enable Custom Fiscal Year to Import Custom Fiscal Year Definitions from Salesforce to Analytics.**

Use the new `enableWaveCustomFiscal` field on the `AnalyticsSettings` metadata type.

**Enable Multi-Value Dimension Indexing**

Use the new `enableWaveIndexMVDim` field on the `AnalyticsSettings` metadata type.

**Specify the Maximum Number of Hours an Analytics App can be InProgress**

Use the new `maxHoursAppInProgress` field on the `AnalyticsSettings` metadata type.

**Specify Whether the Year End in Analytics is the Fiscal Year End or the Calendar Year End**

Use the new `setWaveIsYearEndFiscalYear` field on the `AnalyticsSettings` metadata type.

**REMOVED: These fields are removed from the AnalyticsSettings metadata type in APU version 50.0**

- `analyticsCalendarApp`
- `canEnableLiveMetrics`
- `enableDataBlending`
- `inheritSharingForNonOpptyObjects`
- `inheritSharingForOpptyObject`

**Communities****Migrate new navigational and featured topic images**

Use the `ContentAsset` and `ManagedTopics` metadata types. For managed topic images that were uploaded in API version 49.0 and earlier, use the `Document` and `ManagedTopics` metadata types.

**Chatter****Turn off notifications from Chatter Questions**

Use the new `noQnOwnNotifyOnCaseCmt`, `noQnOwnNotifyOnRep`, `noQnSubNotifyOnBestR`, and `noQnSubNotifyOnRep` fields on the `ChatterEmailsMDSettings` metadata type.

**Customization****REMOVED: The enableSecureGuestAccess field on the SharingSettings type is removed**

The `enableSecureGuestAccess` field is removed in API version 50.0.

**REMOVED: The enableDynamicForms field on the RecordPageSettings type is removed**

The `enableDynamicForms` field is removed in API version 50.0.

**Connect to Isotope as an external data sources**

Use the new `ContentHubIsotope` value on the `type` field of the `ExternalDataSource` metadata type.

**Understand the Custom Permissions License Required Option**

If you use Salesforce managed packages, the `isLicensed` field, which is read-only, on the `CustomPermission` object indicates if the custom permission requires Salesforce licenses.

**Ensure that only permissions accessible to your org are enabled when cloning profiles**

Use the new `restrictedProfileCloning` field in the `UserManagementSettings` metadata type. If `false`, all permissions currently enabled in the source profile are also enabled for the cloned profile, even if your org can't access them.

## Security and Identity

### Secure SAML requests and responses when Salesforce is the identity provider

Use the new `samlSigningAlgoType` field on the `ConnectedApp` metadata type.

### REMOVED: The `requireInsecurePortalAccess` field on the `CustomSites` metadata type is removed

The `requireInsecurePortalAccess` field is removed in API version 50.0.

### Enable Cross-Origin Resource Sharing (CORS) for certain OAuth endpoints

Use the new `enableOAuthCorsPolicy` field on the `SessionSettings` metadata subtype of the `SecuritySettings` metadata type.

### View and modify PEM-enabled user authentication certificates

Use the new `UserAuthCertificate` metadata type.

## Development

### Enable simulation mode to test custom integrations from nonproduction environments with AppExchange App Analytics

Use the new `enableSimulationMode` field on the new `AppAnalyticsSettings` metadata type.

### Prevent consecutive API navigation calls in Visualforce

Use the new `enableNoBackgroundNavigations` field on the `LightningExperienceSettings` metadata type.

### Enable secure static resources for Lightning components

Use the new `enableAuraSecStaticResCRUCPreF` field on the `LightningExperienceSettings` metadata type. This field is related to the Enable Secure Static Resources for Lightning Components release update.

## Customer 360 Audiences

### Modify or manage Customer 360 Audiences data stream, lake and model objects with the Customer 360 Audiences Metadata API.

Review the new `DataSource`, `DataStreamDefinition`, and `MktDataTranObject` metadata types to see the modification possibilities.

## Lightning Console JavaScript API

The Lightning Console JavaScript API includes new and updated methods that let you customize a Lightning console app and utility bar programmatically.

**Where:** These changes apply to Lightning Experience only.

### Term

Description

## Quip: Template Management, New User Engagement Template Metrics, Salesforce Data in the Relationship Map Live App, Filtered List Views, and More

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Mark your embedded Quip documents as templates. Increase template adoption with the Template Library in Quip. Get granular user engagement metrics to see how users are employing Quip templates. Add inline live Salesforce data mentions to a Quip document or spreadsheet. Create hybrid Salesforce and Quip relationship maps.

## IN THIS SECTION:

[Discover Quip for Customer 360 Features with the Quip Setup Starter Managed Package](#)

To get a taste of the most-used Quip for Customer 360 features, install the Quip Setup Starter managed package. Quip Setup Starter saves you time creating templates, setting up Quip Lightning components, configuring automation, and more. You can install the managed package in your sandbox to test it out without impacting your org, or install it directly in your production Salesforce org.

[Manage Your Quip Templates in Quip and Salesforce \(Template Library\)](#)

To differentiate Quip documents that your team uses as templates, mark your documents as templates. See what documents are embedded in Salesforce based on the object, convert your embedded documents to templates, and access them from the Template Library in Quip.

[Use Metrics to Report on User Engagement with Embedded Quip Templates](#)

See which users are interacting with Quip documents and who needs coaching. Use reports and dashboards to understand trends in user engagement on documents and templates. Metrics are available for documents and templates associated with Salesforce records.

[Add In-Line Salesforce Record Fields to a Quip Document \(Data Mentions\)](#)

Add live Salesforce data to your Quip documents, spreadsheets, and Account Plans without getting in the way of your formatting. With in-line data mentions, data reads like normal text but stays up to date and syncs with Salesforce. You can even edit the record fields from the data mentions, making it easier to keep your Salesforce work in Quip.

[Create a Relationship Map in Quip with Live Salesforce Data](#)

Build relationship maps in your Account Plans with imported Salesforce record data. To add data to your maps that exists outside of Salesforce, create custom Quip cards.

[Use Salesforce Record Permissions to Determine Access to Linked Quip Documents](#)

Synced Sharing provides a set of options for governing access to Quip documents associated with Salesforce records. With the new Salesforce Record Access option, users with access to a Salesforce record have the same access to its linked Quip documents. You can set your linked Quip document access at the org level without compromising security.

[Manage Live Salesforce Data in Quip](#)

Keep your Salesforce data in Quip secure and dynamic with Mirrored Salesforce Permissions and disable live reports functionality. After you turn on Mirrored Salesforce Permissions, users in Quip can access only the same Salesforce data in Quip as in Salesforce.

[Test the Health of Your Quip Connection to Salesforce](#)

Use the Quip Health Check to run a series of automated tests on your Quip site and Salesforce org connection. When the Quip Health Check identifies problems, it provides on-the-spot results and solutions to get your connection up and running. You can run a Health Check for a Quip site's connection to Salesforce or for an individual user's Quip and Salesforce connection.

[Customize Your Salesforce List Views with Filters in Quip](#)

Curate your Salesforce List live apps in Quip to show only the records that you care about. With customizable filters in Quip, users with edit access to the document can filter list views and related lists based on the fields that they specify. Related lists are easier to manage and users can filter out old or irrelevant records over time.

[Simplify Your Quip for Customer 360 Setup, Enablement Process, and Other Enhancements](#)

We enhanced the Quip for Customer 360 experiences in Quip and Salesforce.

[Build Custom Automations with New Quip APIs](#)

Use Quip API endpoints to automate your business processes and get your team in sync.

## Discover Quip for Customer 360 Features with the Quip Setup Starter Managed Package

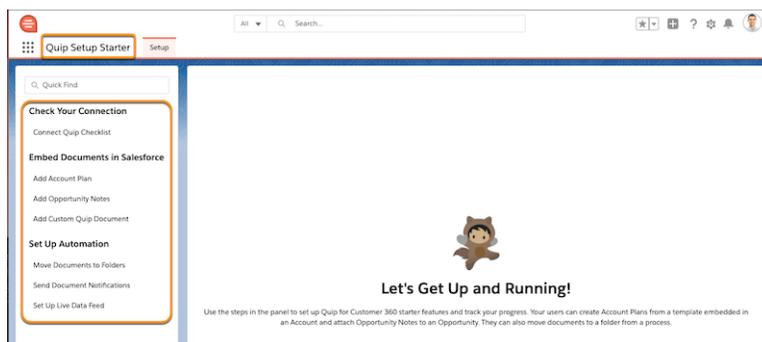
To get a taste of the most-used Quip for Customer 360 features, install the Quip Setup Starter managed package. Quip Setup Starter saves you time creating templates, setting up Quip Lightning components, configuring automation, and more. You can install the managed package in your sandbox to test it out without impacting your org, or install it directly in your production Salesforce org.

**Where:** This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

**Who:** Available in Salesforce orgs with a Quip for Customer 360 plan or free Quip trial.

**Why:** See what's possible with Quip for Customer 360 with a Salesforce managed package. Use the pre-configured settings, or configure your own to meet your business needs. Create Account Plan and Opportunity Notes templates, embed them in Salesforce records, and set up automation to determine when a document is created from a template, all from the managed package. The Quip Setup Starter also checks your Quip and Salesforce connection to make sure that everything is ready to go. When you're done, you can keep the Quip Setup Starter configurations or safely delete them to create your own from scratch.

**How:**



Download the Quip Setup Starter managed package in a sandbox or production org, and follow the guided steps.

SEE ALSO:

[Install the Quip Setup Starter Managed Package](#)

[Quip Setup Starter Features](#)

[Quip Setup Starter Overview Video](#)

## Manage Your Quip Templates in Quip and Salesforce (Template Library)

To differentiate Quip documents that your team uses as templates, mark your documents as templates. See what documents are embedded in Salesforce based on the object, convert your embedded documents to templates, and access them from the Template Library in Quip.

**Where:** This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

**When:** Use the Template Manager and template validation by the Sandbox Preview. Mark documents as templates and access private galleries by October 2020.

**Who:** Available in Salesforce orgs with a Quip for Customer 360 plan or free Quip trial.

**Why:** Increase template user adoption in Quip. Make it easier to differentiate between your Quip documents and templates by marking them as templates. Easily manage your Quip templates with private galleries.

**How:** Get started with Quip templates with the following features.

- Mark Document as Template

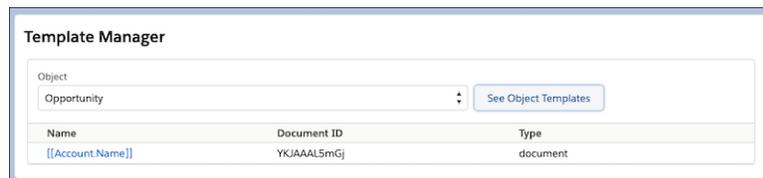
To easily find and use Quip documents used as templates, mark them as templates from Quip. You can also keep templates more secure from accidental edits and indicate that the template is ready to use with template locking. To make edits to it later, unlock it. After you mark a document as a template, share it with others, or keep it in your Created by Me private gallery. Users and admins can mark documents as templates. After you mark a document as a template, you can't reset it.

- Manage Quip Templates with the Template Library

Make it easy for you and your users to find and create templates in Quip. Let your end users choose where they work and create documents from templates in Quip. With the Quip Template Library, users can create and share templates in private galleries, like the Created by Me and Shared with Me galleries, or get started with sample templates.

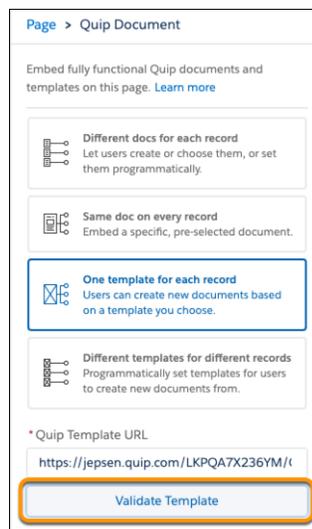
- Surface Embedded Documents from the Template Manager

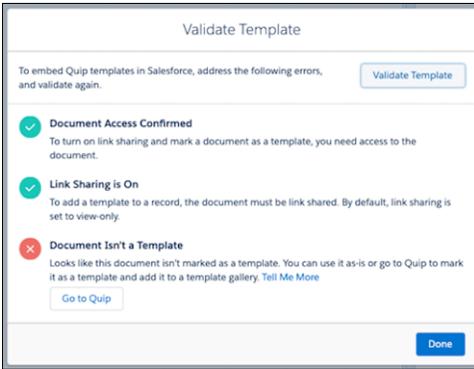
To see which Quip documents are embedded in Salesforce records via the Quip Document component, go to the Template Manager in the Quip Setup page. In Salesforce, go to Setup, and enter *Quip* in the Quick Find box. Find the Template Manager and select an object to see its embedded documents. From there, you can open a preview of the document in Quip and mark it as a template. You can mark as templates only the documents that you have full access to in Quip.



- Validate Quip Templates from the Quip Document Component

To make sure that documents added to Quip Document component in the Lightning App Builder are templates, link shared, and that you have access to them, click **Validate Template**. Template validation saves you time troubleshooting possible errors and helps to convert your new Quip documents to templates.



**SEE ALSO:**

[Quip Support: Getting Started with Templates](#)

[Salesforce Help: Manage Quip Templates in Salesforce](#) (can be outdated or unavailable during release preview)

[Salesforce Help: Add the Quip Document Component to a Lightning Page](#) (can be outdated or unavailable during release preview)

## Use Metrics to Report on User Engagement with Embedded Quip Templates

See which users are interacting with Quip documents and who needs coaching. Use reports and dashboards to understand trends in user engagement on documents and templates. Metrics are available for documents and templates associated with Salesforce records.

**Where:** This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

**Who:** Available in Salesforce orgs with a Quip for Customer 360 plan or free Quip trial.

**Why:** Add new Quip user engagement metrics to your Lightning dashboards. Use data to determine which business processes are working and which can be revisited. With Quip for Customer 360 engagement metrics, you can measure your template adoption and adjust your template strategy to meet your users' needs.

**How:** In Setup, in the Quick Find box, enter *Quip*. Under Gather Data on Quip for Customer 360 Usage, click **Turn on Quip Metrics**. Create Lightning reports and graphs using Quip engagement metrics, and them to your dashboards. It takes 48 hours for metrics data to refresh. To report on Quip engagement, turn on metrics at least 2 days before.

**SEE ALSO:**

[Salesforce Help: Report on Quip Engagement](#) (can be outdated or unavailable during release preview)

[Salesforce Help: Quip Engagement Metrics](#) (can be outdated or unavailable during release preview)

[Salesforce Help: Report on Quip Template Usage](#) (can be outdated or unavailable during release preview)

[Salesforce Help: Report on Quip Template User Engagement](#) (can be outdated or unavailable during release preview)

## Add In-Line Salesforce Record Fields to a Quip Document (Data Mentions)

Add live Salesforce data to your Quip documents, spreadsheets, and Account Plans without getting in the way of your formatting. With in-line data mentions, data reads like normal text but stays up to date and syncs with Salesforce. You can even edit the record fields from the data mentions, making it easier to keep your Salesforce work in Quip.

**Where:** This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

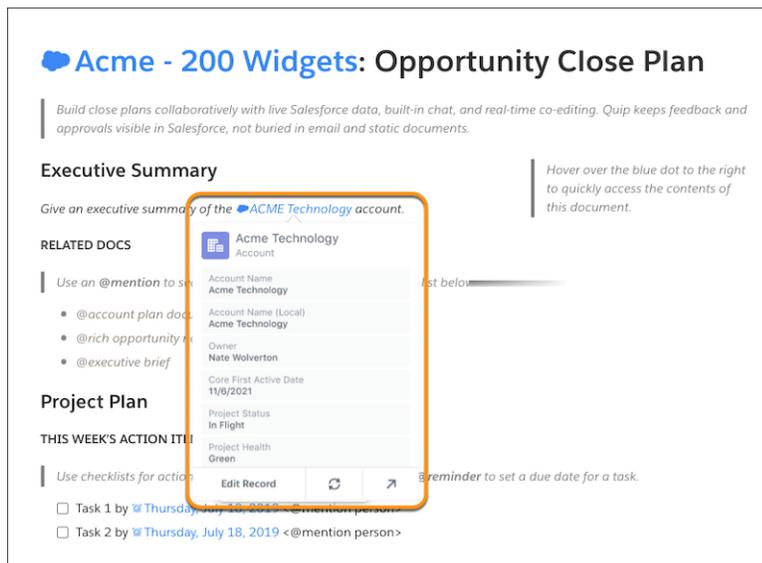
**When:** Add live Salesforce record fields to Quip documents by October 31 2020. Not available by the Salesforce Sandbox Preview.

**Who:** Available in Salesforce orgs with a Quip for Customer 360 plan or free Quip trial.

**Why:** Keep your Account Plans up to date and account-specific. Your sales reps are always equipped with the latest information and can choose to work from Quip or Salesforce. Use live Salesforce data mentions to create a hybrid Quip and Salesforce experience. Create a custom spreadsheet in Quip that pulls data from multiple sources and includes live Salesforce data mentions at the field level. Collaboration with other teams, even teams that don't use Salesforce, is a breeze and all of your data is in one place.

**How:** To set up live Salesforce data mentions, Quip creates and assigns the Allow Salesforce Collaboration Object Access C2C permission set by default.

In a Quip document or spreadsheet, users can mention a Salesforce record, and then can select one of its fields. Users can see and add only the fields they have access to in Salesforce. Users who can view a Quip document can see live Salesforce mentions added to it. Only users with edit access to the fields can sync edits to Salesforce.



## Create a Relationship Map in Quip with Live Salesforce Data

Build relationship maps in your Account Plans with imported Salesforce record data. To add data to your maps that exists outside of Salesforce, create custom Quip cards.

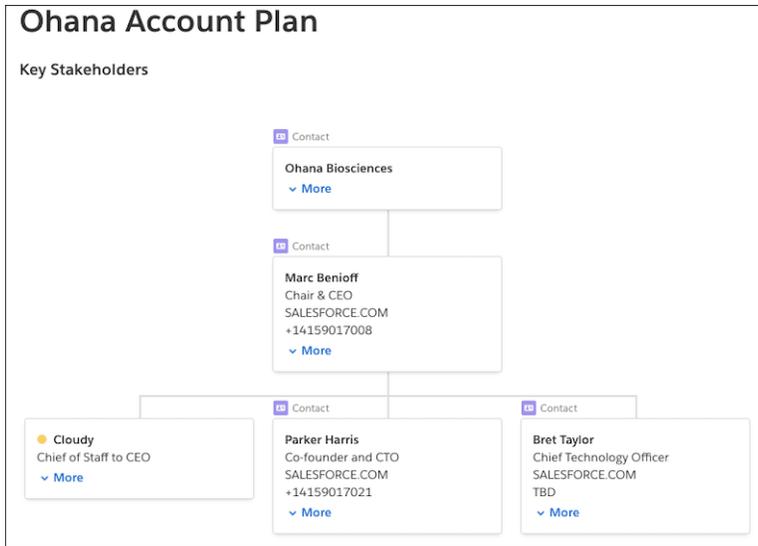
**Where:** This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

**When:** Add Salesforce data to your relationship maps by October 2020. Not available by the Salesforce Sandbox Preview.

**Who:** Available in Salesforce orgs with a Quip for Customer 360 plan or free Quip trial.

**Why:** Help your sales reps keep on top of their account planning with customizable Salesforce relationship maps. Create cards from Salesforce Contact records to visualize your key stakeholders, and sync edits in Quip back to Salesforce. Add custom Quip cards to your Salesforce maps to organize data that doesn't exist in Salesforce or that doesn't belong there. Your map's Salesforce data stays up to date so that your team is always in sync without hindering collaboration.

**How:** In a Quip document, enter `@Relationship Map`. To add Salesforce data to your custom Quip map, go to the Map Builder, and click **Import from Salesforce**. Select the records you want to import, and click **Import**.



## Use Salesforce Record Permissions to Determine Access to Linked Quip Documents

Synced Sharing provides a set of options for governing access to Quip documents associated with Salesforce records. With the new Salesforce Record Access option, users with access to a Salesforce record have the same access to its linked Quip documents. You can set your linked Quip document access at the org level without compromising security.

**Where:** This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

**Who:** Available in Salesforce orgs with a Quip for Customer 360 plan or free Quip trial.

**Why:** Use the Synced Sharing Salesforce Record Access option to align your linked Quip document access with Salesforce record permissions. You save time setting up document access at the org level while ensuring that your org's data and information stay secure.

Edit Salesforce Organization Access Level

No Access  
Users who can view a record can't view Quip documents linked to it.

View Access  
Users who can view a record can view Quip documents linked to it.

Comment Access  
Users who can view a record can view and comment on Quip documents linked to it.

Edit Access  
Users who can view a record can view, comment on, and edit Quip documents linked to it.

Full Access  
Users who can view a record can view, comment on, edit, and share Quip documents linked to it.

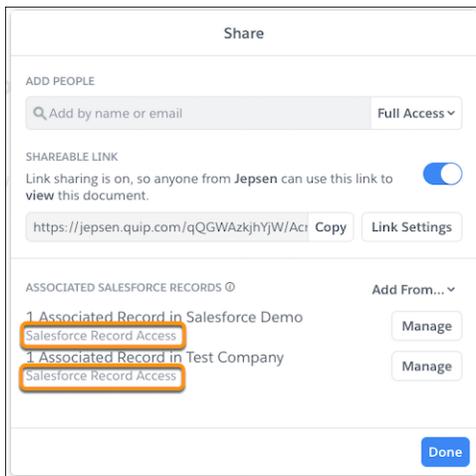
Salesforce Record Access  
Users who have access to a Salesforce record have the same level of access to Quip documents linked to it. To grant additional access to users, share in Quip.

Cancel Save

To further manage document access, you can now restrict Synced Sharing document membership. Users added to a document through Synced Sharing don't become permanent document members. When their Synced Sharing access level changes, so does their document access. If a user loses access to a record, they also lose access to its linked Quip documents.



Users can now see when Synced Sharing is enabled. To let users know when their documents are shared with record members, users are notified when they try to link a private document to a Salesforce record. They can also see the level of access that record members have to their linked document from the Share button.



#### SEE ALSO:

[Salesforce Help: Synced Sharing \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Considerations for Synced Sharing \(can be outdated or unavailable during release preview\)](#)

[Salesforce Help: Limit Synced Sharing Document Access \(can be outdated or unavailable during release preview\)](#)

## Manage Live Salesforce Data in Quip

Keep your Salesforce data in Quip secure and dynamic with Mirrored Salesforce Permissions and disable live reports functionality. After you turn on Mirrored Salesforce Permissions, users in Quip can access only the same Salesforce data in Quip as in Salesforce.

**Where:** This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

**Who:** Available in Salesforce orgs with a Quip for Customer 360 plan or free Quip trial.

**Why:** Simplify Salesforce access questions in Quip with Mirrored Salesforce Permissions. Keep sensitive Salesforce data secure in Quip without getting in the way of collaboration. Users can see only the data in Quip that they can access in Salesforce, making it easier for users to share and collaborate without privacy concerns.

**How:** From the Quip Admin Console, turn on Mirrored Salesforce Permissions.

SEE ALSO:

[Mirrored Salesforce Permissions \(Beta\)](#)

[Enable Mirrored Salesforce Permissions \(Beta\)](#)

[Enable Live Salesforce Reports in Quip \(Beta\)](#)

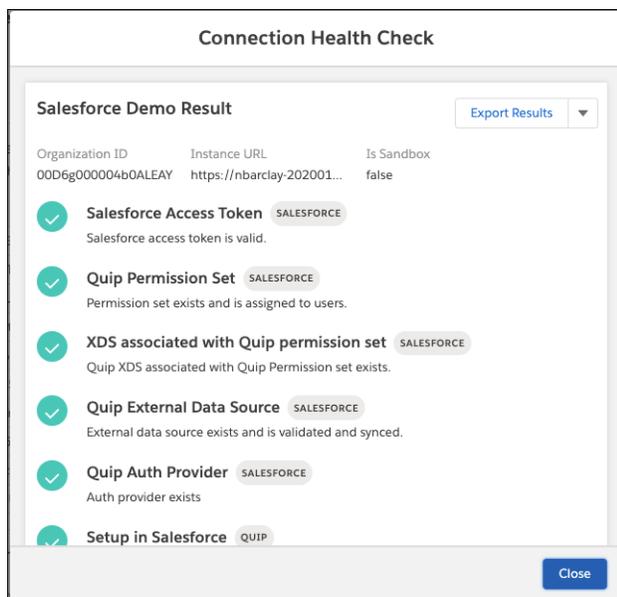
## Test the Health of Your Quip Connection to Salesforce

Use the Quip Health Check to run a series of automated tests on your Quip site and Salesforce org connection. When the Quip Health Check identifies problems, it provides on-the-spot results and solutions to get your connection up and running. You can run a Health Check for a Quip site's connection to Salesforce or for an individual user's Quip and Salesforce connection.

**Where:** This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

**Who:** Available in Salesforce orgs with a Quip for Customer 360 plan or free Quip trial.

**How:** From the Quip Admin Console, go to Settings, and select **Salesforce**. Under Connected Salesforce Orgs, click **Test Connection Health**.



## Customize Your Salesforce List Views with Filters in Quip

Curate your Salesforce List live apps in Quip to show only the records that you care about. With customizable filters in Quip, users with edit access to the document can filter list views and related lists based on the fields that they specify. Related lists are easier to manage and users can filter out old or irrelevant records over time.

**Where:** This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

**When:** Add filters to the Salesforce List live app in Quip by late October 2020. Not available by the Salesforce Sandbox Preview.

**Who:** Available in Salesforce orgs with a Quip for Customer 360 plan or free Quip trial.

## Simplify Your Quip for Customer 360 Setup, Enablement Process, and Other Enhancements

We enhanced the Quip for Customer 360 experiences in Quip and Salesforce.

**Where:** This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

**When:** Get enhanced Quip for Customer 360 features by late September 2020. Not available by the Salesforce Sandbox Preview.

**Who:** Available in Salesforce orgs with a Quip for Customer 360 plan or free Quip trial.

**Why:** Enhancements to Quip for Customer 360 features include the following.

- Use Salesforce single sign-on (SSO) to automatically connect Salesforce to Quip.
  - When setting up the Quip and Salesforce connection, users that use the same SSO for Quip and Salesforce don't have to log in to Salesforce again from Quip.
  - Salesforce live apps and integrations automatically connect to the SSO org.
- Create a custom URL field for your Quip templates from the Quip Document component.
  - To save clicks and time, create a custom field to store your embedded Quip documents from the Lightning App Builder.
- Let users mark a Salesforce org as preferred for Salesforce data in Quip.
  - Users with multiple connected orgs can choose a preferred org.
  - Live apps, live mentions, log activity, and reports pull data from the preferred Salesforce org unless manually changed.
  - Users can mark only orgs on the Salesforce allowlist in Quip as preferred.
- Log activity for all custom and standard Salesforce objects from a Quip document.
- Add calls, tasks, and events to supported activity types in Quip.

## Build Custom Automations with New Quip APIs

Use Quip API endpoints to automate your business processes and get your team in sync.

**Where:** This change applies to Lightning Experience in Professional, Performance, Unlimited, and Developer editions.

**When:** Use new Quip Automation API endpoints by October 2020. Not available by the Salesforce Sandbox Preview.

**Who:** Available in Salesforce orgs with a Quip for Customer 360 plan or free Quip trial.

**Why:** New Quip API endpoints include the following.

- Export to PDF Automation API
  - To mark an approval cycle as complete or take a record-keeping snapshot, export a Quip document to a PDF.
  - Generate a PDF from a Quip document, and attach it to a Salesforce record.
  - Generate a PDF from a Quip document, and attach it to a designated Quip document.
- Live App Export Automation API
  - To analyze your live app data, help with Salesforce org migrations, or reinitialize live apps somewhere else, use the Export Live App API.
  - To meet your specific business needs, customize live apps.
  - Export a Salesforce live app to an HTML tag that can be turned back to a live app.
- Locked Sections Automation API

- To maintain the integrity of your Quip templates and standardize best practices, lock template sections.
- Lock and unlock document sections.

## Pardot: Email in Lightning, Einstein Enhancements, and More Customizations

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Create, send, and manage your email templates and email content in the new Lightning Content Builder. Connect to Salesforce CMS to host and reuse images for email marketing, and get rollup metrics on the email records you use most. You can also resync prospects faster after import errors are resolved and customize your Einstein Attribution success milestone.

### IN THIS SECTION:

#### [Marketing Email in Lightning: Email Redesigned](#)

Pardot marketers now have a more streamlined and user-friendly end to end email experience that uses the power of the Lightning Platform. Marketing email in Lightning includes a new email builder, preview and test capabilities, and send experience. Marketers can build email content, optionally from templates, and add images, HTML, plain text, and HML merge fields to customize their emails. They can save email content, and send and resend it from the email content record to different segments. They can then view reports on individual email sends, multiple email sends from the same email, and email templates.

#### [Analytics and Reporting: Enhanced Experience](#)

Find updates throughout Pardot's analytics offerings, including tuning options for Einstein Attribution, clearer B2B Marketing Analytics dashboards, and a beta feature that helps you sync custom fields. We also improved email reporting and made it easier for you to recalculate your own send email statistics.

#### [Marketing Assets and Domains](#)

New features put more power in the user's hands, including more secure domains, and other enhancements.

#### [Add to Prospect Lists from Contact Related List on Accounts](#)

In Summer '20 we added support for marketers to add to Pardot Lists and Engagement Studio Lists from certain records and list view pages. We expanded this support, allowing marketers to add to lists from the contact related list on account records. Add to Pardot lists from records and lists views without leaving Salesforce.

#### [Sync Prospects with Resolved Errors More Easily](#)

A new option on the Prospect Sync Errors page lets admins trigger prospects with resolved errors to sync with Salesforce. Fix existing errors, then return to the Prospect Sync Errors page in Pardot, select your prospects, and click the button to trigger a sync. Previously, prospects with resolved errors were manually synced or reimported into Pardot.

#### [Get Cleaner Data in Standard Campaign Influence Reports](#)

The Campaigns with Influenced Opportunities (Customizable Campaign Influence) standard report now filters to show only primary campaign members. We fixed an issue where all campaign member records appeared in the Contact column, which caused duplicates.

#### [The ObjectChangeLog is Being Retired](#)

The ObjectChangeLog is scheduled for retirement with the Winter '21 release for Salesforce orgs with Marketing Data Sharing enabled. If you use Marketing Data Sharing, and have custom logic built around the ObjectChangeLog to prevent certain records from syncing with Pardot, use Marketing Data Sharing rules instead.

#### [Pardot API: New and Changed Items](#)

Use the Pardot API more effectively with these new features and changes.

#### [Pardot API Version 5 \(Beta\)](#)

Now you can try out a new, standardized version of the Pardot API. Version 5 of the Pardot API offers new endpoints so you can import your own external landing page templates and files into Pardot.

## Marketing Email in Lightning: Email Redesigned

Pardot marketers now have a more streamlined and user-friendly end to end email experience that uses the power of the Lightning Platform. Marketing email in Lightning includes a new email builder, preview and test capabilities, and send experience. Marketers can build email content, optionally from templates, and add images, HTML, plain text, and HML merge fields to customize their emails. They can save email content, and send and resend it from the email content record to different segments. They can then view reports on individual email sends, multiple email sends from the same email, and email templates.

### IN THIS SECTION:

#### [Compose Emails with the New Lightning Content Builder](#)

Seamlessly build and edit emails in Lightning Experience with the new Lightning Content Builder or start from a template. Preview your email content, and access details from the Email Content record. Create email content, and access the builder from the new Email Content entity available for Pardot users from the App Launcher.

#### [Source Images from Salesforce CMS for Lightning Content Builder](#)

Give users the power to quickly select images for email marketing content and templates from Salesforce CMS. No need to bother with separate file hosting or copy-and-paste errors when you turn on CMS for Lightning Content Builder. After you enable and configure the connection, users can access repositories at the click of a button.

#### [Review Aggregate Email Metrics in Lightning Experience](#)

As part of Marketing Email in Lightning, rollup metrics now appear on email content and email template records. Marketers get an aggregate view of how certain content and templates perform based on statistics from everywhere they're used. Individual list email send and campaign-level email marketing reports are still available, too.

#### [Preview and Test an Email in Lightning Experience](#)

Users can preview and test emails from the email content record. Before sending an email to a large recipient list, do a trial run by sending it to a test list or individual email addresses. Preview and troubleshoot possible personalization issues by previewing as specific recipients.

#### [Define the Send Experience for Email in Lightning](#)

After building email content, marketers define who to send the email to before sending it as a list email. Select a campaign, recipient and suppression lists, sender options like send from name and email, and completion actions. The send experience gives marketers full control over who receives the email, when it's sent, and how replies are handled.

## Compose Emails with the New Lightning Content Builder

Seamlessly build and edit emails in Lightning Experience with the new Lightning Content Builder or start from a template. Preview your email content, and access details from the Email Content record. Create email content, and access the builder from the new Email Content entity available for Pardot users from the App Launcher.

**Where:** This change applies to all Pardot editions in Lightning Experience with Salesforce Professional, Enterprise, Unlimited, and Performance Editions. It is not available in Pardot Classic or the standalone Pardot app.

**Who:** Pardot marketers with the Access Lightning Content Builder and Manage Email Content user permissions can access the builder.

**How:** The new Email Content entity is available for Pardot users from the App Launcher. To design emails with the builder, marketers create an email content record from the Email Content tab. Creating an email from a template, populates the email Subject and HTML Body fields from the template.

Click Edit in Builder from the record to open the lightning content builder.

Add standard components, design each component, add images from CMS, style the email, and add merge fields.

SEE ALSO:

[Interactively Create Engaging Email Templates](#)

[Salesforce Help: Create Emails in Lightning Experience \(can be outdated or unavailable during release preview\)](#)

## Source Images from Salesforce CMS for Lightning Content Builder

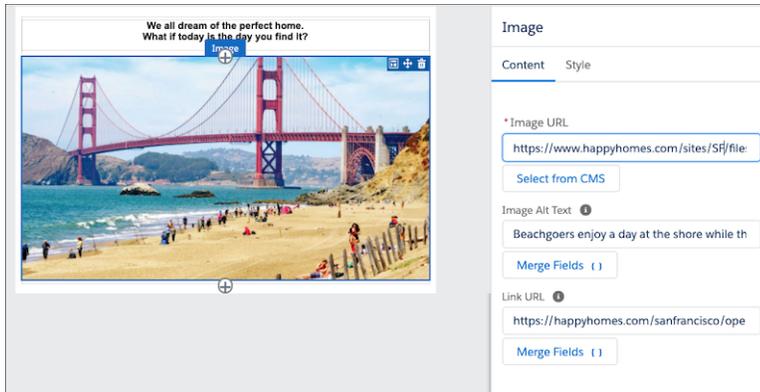
Give users the power to quickly select images for email marketing content and templates from Salesforce CMS. No need to bother with separate file hosting or copy-and-paste errors when you turn on CMS for Lightning Content Builder. After you enable and configure the connection, users can access repositories at the click of a button.

**Where:** This change applies to Lightning Experience in Professional, Performance, and Unlimited editions with Pardot Advanced or Premium edition.

**How:** To use the Lightning Content Builder, you must have a verified Salesforce-Pardot Connector and be using Connected Campaigns and Handlebars Merge Language. After these requirements are met, you can configure the CMS connection and permissions in Salesforce Setup. Add a domain, create or select a workspace and channel in CMS, and then designate a channel to use with the Lightning Content Builder.

 **Note:** Users of Professional Edition can now create a custom domain for use with Salesforce CMS and Lightning Content Builder. During setup, you can select only the Salesforce CMS Content Delivery Network (CDN) option. Creating custom domains for other uses and methods remains limited to Enterprise and Unlimited editions.

In the Lightning Content Builder, drag an image block onto the canvas, and click **Select from CMS**. Select an image, or click **Add Content** to insert an image. If the connected channel is used in more than one CMS workspace, click the workspace title to select another one and access different images. CMS images are available in image and HTML components, the rich-text editor, and the background.



SEE ALSO:

[Salesforce Help: Manage Your Domains \(can be outdated or unavailable during release preview\)](#)

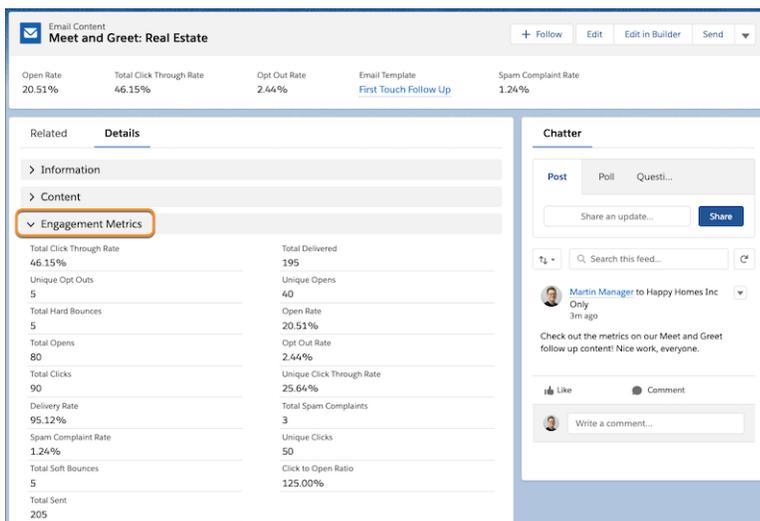
[Serve CMS Content with a Content Delivery Network \(CDN\)](#)

## Review Aggregate Email Metrics in Lightning Experience

As part of Marketing Email in Lightning, rollup metrics now appear on email content and email template records. Marketers get an aggregate view of how certain content and templates perform based on statistics from everywhere they're used. Individual list email send and campaign-level email marketing reports are still available, too.

**Where:** This change applies to Lightning Experience in Professional, Performance, and Unlimited editions with Pardot Advanced or Premium edition.

**How:** No setup is necessary. The Engagement Metrics related list is included on email content and email template standard page layouts.



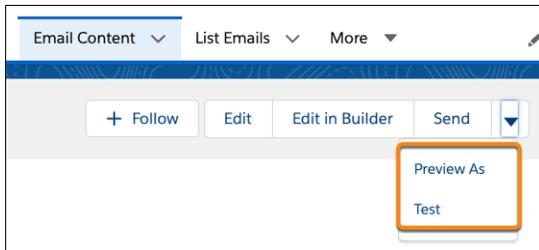
## Preview and Test an Email in Lightning Experience

Users can preview and test emails from the email content record. Before sending an email to a large recipient list, do a trial run by sending it to a test list or individual email addresses. Preview and troubleshoot possible personalization issues by previewing as specific recipients.

**Where:** This change applies to all Pardot editions in Lightning Experience with Salesforce Professional, Enterprise, Unlimited, and Performance Editions. It is not available in Pardot Classic or the standalone Pardot app.

**Who:** Pardot users with the Access Lightning Content Builder and Manage Email Content user permissions can preview and test email content.

**How:** From an email content record, marketers select to preview as a prospect or send a test email to a list or selected individuals.



SEE ALSO:

[Salesforce Help: Preview and Test Send Emails in Lightning \(can be outdated or unavailable during release preview\)](#)

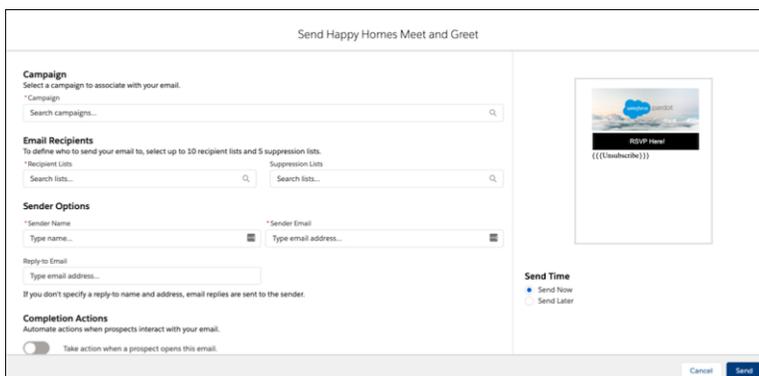
## Define the Send Experience for Email in Lightning

After building email content, marketers define who to send the email to before sending it as a list email. Select a campaign, recipient and suppression lists, sender options like send from name and email, and completion actions. The send experience gives marketers full control over who receives the email, when it's sent, and how replies are handled.

**Where:** This change applies to all Pardot editions in Lightning Experience with Salesforce Professional, Enterprise, Unlimited, and Performance Editions. It is not available in Pardot Classic or the standalone Pardot app.

**Who:** Users must have Email Send to List, View Lists, View Campaigns Permissions in Pardot to send a builder email.

**How:** Send and resend emails from the email content record. Emails are sent as list emails, and related email sends can be viewed from the Related tab of the record. Select send options, define completion actions, and schedule the email to send later in the modal.



SEE ALSO:

[Salesforce Help: Send Emails in Lightning Experience \(can be outdated or unavailable during release preview\)](#)

## Analytics and Reporting: Enhanced Experience

Find updates throughout Pardot's analytics offerings, including tuning options for Einstein Attribution, clearer B2B Marketing Analytics dashboards, and a beta feature that helps you sync custom fields. We also improved email reporting and made it easier for you to recalculate your own send email statistics.

### IN THIS SECTION:

#### [Choose a Success Milestone for Pardot Einstein Attribution](#)

Tune your Einstein Attribution model to more accurately reflect your business processes by choosing an opportunity lifecycle stage as the success milestone. The default setting tracks a conversion, or success, when an opportunity is created. But if that isn't ideal for your business, now you can change it. You can select this success milestone during initial setup or retrain the model based on the new criteria.

#### [Understand Your Customer with New Campaign Insights](#)

Einstein Campaign Insights now provides trend information about your prospect's company size. These insights describe the people who interact with your campaigns and assets to help you find engagement patterns and target the right people. With this new information, you can create an even better audience for your campaigns.

#### [Get Clearer B2BMA Dashboard Metrics](#)

Based on your feedback, we updated many of the labels on widgets throughout B2B Marketing Analytics to be clearer. For example, when a metric or filter originates from Salesforce or Pardot, or is a total or unique value, it is clearly noted (1). To find out more about a widget or value, a user can click a dashboard's Help button (2) to review the dashboard reference documentation.

#### [Get Prospect Custom Field Data Faster \(Beta\)](#)

This solution improves performance of your Pardot prospect custom fields across your analytics apps. Pardot Object Sync works by copying your custom prospect data into a new dataset. It improves performance in the Analytics platform because the prospect data can be updated separately from other large datasets.

#### [View More Accurate Email Open and Click Rates in Pardot](#)

We added filtering on email open and link click activity to exclude interactions from suspected security scanners. Email marketers and marketing managers will now see more accurate prospect scores, journeys, and completion actions that don't include scanner activity.

#### [Recalculate List Email Statistics with Confidence](#)

Keep things running smoothly the next time you merge prospects or notice a discrepancy in your email statistics. The statistics recalculation job now runs asynchronously to improve loading times. The user who starts the job is notified via email when the job is complete.

## Choose a Success Milestone for Pardot Einstein Attribution

Tune your Einstein Attribution model to more accurately reflect your business processes by choosing an opportunity lifecycle stage as the success milestone. The default setting tracks a conversion, or success, when an opportunity is created. But if that isn't ideal for your business, now you can change it. You can select this success milestone during initial setup or retrain the model based on the new criteria.

**Where:** This change applies to Pardot Advanced and Pardot Premium editions with Salesforce Enterprise, Performance, and Unlimited editions.

**How:** In Salesforce Setup, find Einstein Attribution, and select which stage to use as your success milestone. If you are changing an attribution model, allow up to 24 hours for the model to reset and show new results.

### SEE ALSO:

[Salesforce Help: How Einstein Attribution Works \(can be outdated or unavailable during release preview\)](#)

## Understand Your Customer with New Campaign Insights

Einstein Campaign Insights now provides trend information about your prospect's company size. These insights describe the people who interact with your campaigns and assets to help you find engagement patterns and target the right people. With this new information, you can create an even better audience for your campaigns.

**Where:** This change applies to Lightning Experience for Pardot Advanced edition with Salesforce Enterprise, Performance, and Unlimited editions.

**How:** Rationale messages using this new data appear when your Campaign Insights model identifies a trend.

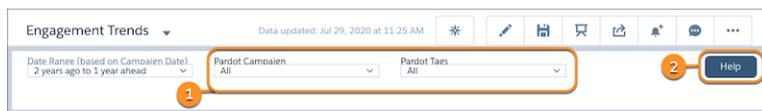
SEE ALSO:

[Salesforce Help: How Einstein Campaign Insights Works \(can be outdated or unavailable during release preview\)](#)

## Get Clearer B2BMA Dashboard Metrics

Based on your feedback, we updated many of the labels on widgets throughout B2B Marketing Analytics to be clearer. For example, when a metric or filter originates from Salesforce or Pardot, or is a total or unique value, it is clearly noted (1). To find out more about a widget or value, a user can click a dashboard's Help button (2) to review the dashboard reference documentation.

**Where:** This change applies to Lightning Experience and Salesforce Classic and is included in Pardot Plus and Advanced. It's also available in Pardot Pro and Ultimate editions with the B2B Marketing Analytics add-on.



SEE ALSO:

[Salesforce Help: B2B Marketing Analytics Dashboards \(can be outdated or unavailable during release preview\)](#)

## Get Prospect Custom Field Data Faster (Beta)

This solution improves performance of your Pardot prospect custom fields across your analytics apps. Pardot Object Sync works by copying your custom prospect data into a new dataset. It improves performance in the Analytics platform because the prospect data can be updated separately from other large datasets.

**Where:** The setting applies to B2B Marketing Analytics and B2B Marketing Analytics Plus in Lightning Experience and Salesforce Classic.

- B2B Marketing Analytics Plus is available in Salesforce Enterprise, Unlimited, and Developer editions with Pardot Premium or the B2B Marketing Analytics Plus add-on.
- B2B Marketing Analytics is available in Pardot Plus and Advanced, and in Pardot Pro and Ultimate editions with the B2B Marketing Analytics add-on.



**Note:** As a beta feature, Pardot Object Sync is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for [Pardot Object Sync in the IdeaExchange](#).

**Why:** Large orgs have experienced longer app loading times due to the way Salesforce and Pardot share custom field data. Because this setting duplicates data, we recommend it only for large orgs with tens of millions of data rows and fewer than 500 custom fields.

**How:** Enable the Pardot Object Sync in Salesforce Setup, and run the first sync. In Analytics Studio, open the Data Manager to verify that the sync is complete and that data appears as expected. To receive the updates, users must reconfigure any apps that use the prospect custom fields.

SEE ALSO:

[Salesforce Help: Considerations for Pardot Object Sync \(Beta\) \(can be outdated or unavailable during release preview\)](#)

## View More Accurate Email Open and Click Rates in Pardot

We added filtering on email open and link click activity to exclude interactions from suspected security scanners. Email marketers and marketing managers will now see more accurate prospect scores, journeys, and completion actions that don't include scanner activity.

**Where:** This change applies to all Pardot editions.

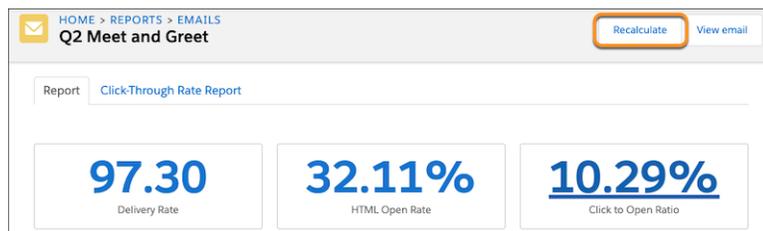
**How:** Activity suspected to come from scanners will be filtered out automatically. You don't need to enable this feature or maintain a list of IP addresses.

## Recalculate List Email Statistics with Confidence

Keep things running smoothly the next time you merge prospects or notice a discrepancy in your email statistics. The statistics recalculation job now runs asynchronously to improve loading times. The user who starts the job is notified via email when the job is complete.

**Where:** This change applies to all Pardot editions.

**How:** Open a sent email's report, and then click **Recalculate**. After the job starts, a banner tells you the process is running. After statistics are recalculated, the user who requested the recalculation receives a completion notification.



## Marketing Assets and Domains

New features put more power in the user's hands, including more secure domains, and other enhancements.

IN THIS SECTION:

[Use WordPress Block Editor Seamlessly with the Pardot Plugin](#)

The Pardot WordPress Plugin is now compatible with the WordPress Block Editor. Apply Pardot assets like forms and dynamic content blocks to WordPress pages using WordPress features.

### [Authenticate your WordPress Plugin with Salesforce SSO](#)

We updated the authentication method available in the Pardot WordPress plugin. Authenticate with Salesforce SSO instead of Pardot Authentication for a more consistent experience between Pardot and Salesforce. The existing Pardot Authentication will be removed in February 2021.

### [Automatically Secure New Pardot Tracker Domains](#)

A new option in your Pardot account settings lets Admins automatically enable SSL certificates for new tracker domains. SSL certificates make it possible for validated tracker domains to load securely over HTTPS. Previously, Pardot admins manually enabled SSL certificates for all tracker domains.

### [Customize More Pardot Assets with Any Tracker Domain](#)

Now you can use any of your tracker domains to customize the links for Pardot form handlers, dynamic content, social posts, and multivariate landing page tests. Previously, these asset links defaulted to the primary tracker domain. Emails without templates are now the only Pardot assets that don't include this functionality.

## Use WordPress Block Editor Seamlessly with the Pardot Plugin

The Pardot WordPress Plugin is now compatible with the WordPress Block Editor. Apply Pardot assets like forms and dynamic content blocks to WordPress pages using WordPress features.

**Where:** This change applies to all Pardot editions.

## Authenticate your WordPress Plugin with Salesforce SSO

We updated the authentication method available in the Pardot WordPress plugin. Authenticate with Salesforce SSO instead of Pardot Authentication for a more consistent experience between Pardot and Salesforce. The existing Pardot Authentication will be removed in February 2021.

**Where:** This change applies to all Pardot editions.

## Automatically Secure New Pardot Tracker Domains

A new option in your Pardot account settings lets Admins automatically enable SSL certificates for new tracker domains. SSL certificates make it possible for validated tracker domains to load securely over HTTPS. Previously, Pardot admins manually enabled SSL certificates for all tracker domains.

**Where:** This change applies to all Pardot editions.

**How:** In your Pardot account settings, check the option to create SLL certificates for newly validated tracker domains.

- |  |
|--|
| <input checked="" type="checkbox"/> Create SSL certificate for newly validated tracker domains |
| <input type="checkbox"/> Force HTTPS: Redirect HTTP requests for Pardot-hosted assets to HTTPS |
| <input type="checkbox"/> Auto-fill Prospect Location Data from IP Address                      |

SEE ALSO:

[Salesforce Help: Automatically Enable SSL for New Tracker Domains \(can be outdated or unavailable during release preview\)](#)

## Customize More Pardot Assets with Any Tracker Domain

Now you can use any of your tracker domains to customize the links for Pardot form handlers, dynamic content, social posts, and multivariate landing page tests. Previously, these asset links defaulted to the primary tracker domain. Emails without templates are now the only Pardot assets that don't include this functionality.

**Where:** This change applies to all Pardot editions.

**When:** This feature is available to all Pardot customers as of July 2020.

**How:** Open a Pardot asset for editing, click the tracker domain dropdown, and select a domain to use.



SEE ALSO:

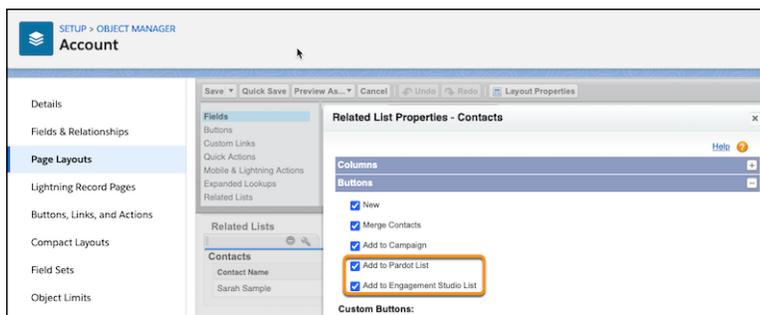
[Salesforce Help: Customize Asset Links with Tracker Domains \(can be outdated or unavailable during release preview\)](#)

## Add to Prospect Lists from Contact Related List on Accounts

In Summer '20 we added support for marketers to add to Pardot Lists and Engagement Studio Lists from certain records and list view pages. We expanded this support, allowing marketers to add to lists from the contact related list on account records. Add to Pardot lists from records and lists views without leaving Salesforce.

**Where:** This change applies to all Pardot editions with Salesforce Professional, Enterprise, and Unlimited editions.

**How:** Add the Add to Pardot list and Add to Engagement Studio list options to the contact related list on the account page layout.

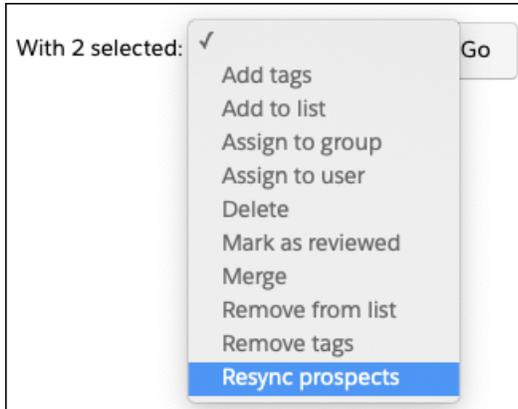


## Sync Prospects with Resolved Errors More Easily

A new option on the Prospect Sync Errors page lets admins trigger prospects with resolved errors to sync with Salesforce. Fix existing errors, then return to the Prospect Sync Errors page in Pardot, select your prospects, and click the button to trigger a sync. Previously, prospects with resolved errors were manually synced or reimported into Pardot.

**Where:** This change applies to all Pardot Editions.

**How:** After you fix sync errors, return to the sync errors page in Pardot. Select the prospects with resolved errors, then click the dropdown menu to resync them.



SEE ALSO:

[Salesforce Help: Clear Prospect Sync Errors \(can be outdated or unavailable during release preview\)](#)

## Get Cleaner Data in Standard Campaign Influence Reports

The Campaigns with Influenced Opportunities (Customizable Campaign Influence) standard report now filters to show only primary campaign members. We fixed an issue where all campaign member records appeared in the Contact column, which caused duplicates.

**Where:** This change applies in Lightning Experience, Classic, and the Salesforce mobile app in Professional, Enterprise, Performance, Unlimited, and Developer editions.

## The ObjectChangeLog is Being Retired

The ObjectChangeLog is scheduled for retirement with the Winter '21 release for Salesforce orgs with Marketing Data Sharing enabled. If you use Marketing Data Sharing, and have custom logic built around the ObjectChangeLog to prevent certain records from syncing with Pardot, use Marketing Data Sharing rules instead.

**Where:** This change applies to the Pardot Lightning App with Pardot Premium edition or Advanced edition purchased or upgraded after February 12, 2019.

**Why:** Marketing Data Sharing rules allow for the same customizations that previously could be built around the ObjectChangeLog. Eliminating the ObjectChangeLog reduces the demand placed on your Salesforce org for syncing records with Pardot.

SEE ALSO:

[Salesforce Help: Configure Marketing Data Sharing Rules \(can be outdated or unavailable during release preview\)](#)

## Pardot API: New and Changed Items

Use the Pardot API more effectively with these new features and changes.

### Export API

Prospect object: Added support for exporting custom field data on prospect records.

Visitor activity object: Added procedure to retrieve only new and changed activity records.

SEE ALSO:

[Developer Docs: Pardot API Documentation](#)

## Pardot API Version 5 (Beta)

Now you can try out a new, standardized version of the Pardot API. Version 5 of the Pardot API offers new endpoints so you can import your own external landing page templates and files into Pardot.

**Where:** This change applies to all Pardot editions.

 **Note:** As a beta feature, v5 of the Pardot API is a preview and isn't part of the "Services" under your master subscription agreement with Salesforce. Use this feature at your sole discretion, and make your purchase decisions only on the basis of generally available products and features. Salesforce doesn't guarantee general availability of this feature within any particular time frame or at all, and we can discontinue it at any time. This feature is for evaluation purposes only, not for production use. It's offered as is and isn't supported, and Salesforce has no liability for any harm or damage arising out of or in connection with it. All restrictions, Salesforce reservation of rights, obligations concerning the Services, and terms for related Non-Salesforce Applications and Content apply equally to your use of this feature. You can provide feedback and suggestions for v5 of the Pardot API in this [Google Form](#).

**How:** Enable access to the Pardot API v5 endpoints from your Pardot account settings.

SEE ALSO:

[Developer Docs: Pardot API Documentation](#)

## Marketing: Transactional Sending and Behavioral Triggers in Journey Builder, Ecommerce Optimizer App in Datorama, Einstein in Interaction Studio

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Marketing Cloud is the premier platform for delighting customers with 1:1 customer journeys. It enables you to build a single view of your customer, leveraging data from any source. Plan and optimize unique customer journeys based on your business objectives. Deliver personalized content across every channel and device at precisely the right time. Measure the impact of each interaction on your business so that you can optimize your approach in real time and deliver better results.

Learn about our latest features and enhancements in [Marketing Cloud Release Notes](#).

- [July 2020 Release](#)
- [March 2020 Release](#)
- [January 2020 Release](#)
- [October 2019 Release](#)
- [August 2019 Release](#)
- [June 2019 Release](#)
- [April 2019 Release](#)

- [January 2019 Release](#)

## SEE ALSO:

[Marketing Cloud Overview](#)

[Marketing Cloud: Earlier Release Notes](#)

[Salesforce Marketing Cloud Facebook Page](#)

## Release Updates and Security Alerts: Generally Available with Improvements

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View important updates and alerts in a single location in the generally available Release Updates. We added some enhancements to ensure that your Salesforce org stays up to date on all changes that affect its performance, security, and users.

## IN THIS SECTION:

[View Org Changes in One Location with Release Updates \(Generally Available\)](#)

In case you missed it in the last release, Release Updates offers a more detailed view of information previously found in Critical Updates and Security Alerts. Find all of your updates and alerts in an improved format. No more clicking through several locations to review important update information for your Salesforce org.

[Find Security Alerts in the Same Location as Release Updates](#)

When you look for security alerts that affect your Salesforce org, find them in the Release Updates node. Previously, security alerts resided in a separate location.

[Release Updates](#)

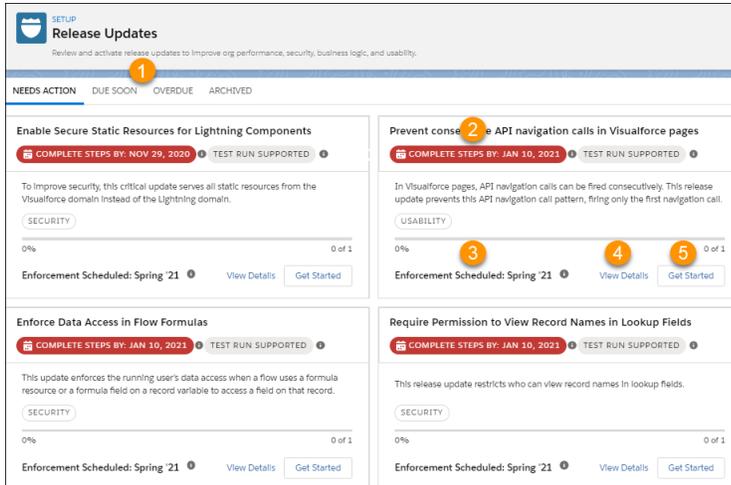
Salesforce periodically releases updates that improve the performance, logic, security, and usability of Salesforce, but which can affect your existing customizations. Find these important updates in the Release Updates node in Setup.

### View Org Changes in One Location with Release Updates (Generally Available)

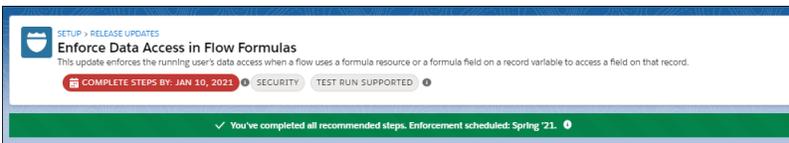
In case you missed it in the last release, Release Updates offers a more detailed view of information previously found in Critical Updates and Security Alerts. Find all of your updates and alerts in an improved format. No more clicking through several locations to review important update information for your Salesforce org.

**Where:** This change applies to Lightning Experience and Salesforce Classic in all editions, except Database.com.

**How:** From Setup, in the Quick Find box, enter *Release Updates*.



1. Use tabs to view release updates for a specific category. **Archived** replaces the **Steps Completed** tab previously available in beta. When you view updates in **Due Soon**, **Overdue**, or **Archived**, a banner appears at the top indicating the status of the update. For example, a completed update in **Archived** displays the text “You’ve completed all recommended steps.” It also includes enforcement information.



 **Note:** In beta, the text “Due Soon” appeared at the top of the detail page for updates with upcoming enforcement dates. This text has been removed.

2. Check the Complete Steps By date. Salesforce recommends completing your testing by this date because testing is not always supported beyond it.
3. To check the release in which Salesforce enforces the update, use the Enforcement Scheduled or Enforced In information. In the beta release, we indicated the enforcement information with “Automatically enforced in.” To find out where to get the major release upgrade date for your instance, hover over the tooltip.

 **Note:** Some release updates contain specific dates. In these cases, use the date information in the update as guidance for when to expect enforcement.

4. Get quick information about an update without leaving the home page by clicking **View Details**.
5. Start or stop a test run, complete update steps, and view step update history by clicking **Get Started**.

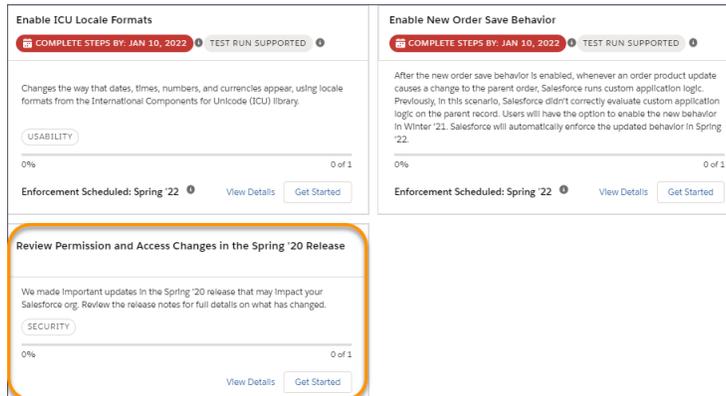
If extra steps have been added to an update since its original release, look for a horn icon, which indicates that the update has new steps to complete.

## Find Security Alerts in the Same Location as Release Updates

When you look for security alerts that affect your Salesforce org, find them in the Release Updates node. Previously, security alerts resided in a separate location.

**Where:** This change applies to Lightning Experience and Salesforce Classic in all editions, except Database.com.

**How:** From **Setup**, in the Quick Find box, enter *Release Updates*. In the Release Updates page, you can find security alert cards. Security alerts functionality remains the same.



## Release Updates

Salesforce periodically releases updates that improve the performance, logic, security, and usability of Salesforce, but which can affect your existing customizations. Find these important updates in the Release Updates node in Setup.

The Release Updates page provides a list of updates that affect your org. Each update includes step-by-step actions for you to take. To ensure a smooth transition, many release updates have test runs available. Use the test run option to enable and disable an update as often as needed before the "Complete Steps By" date so that you can evaluate its impact on your org.

## Enforced Updates

**These updates were announced in a previous release and are now enforced.**

### Restrict Access to @AuraEnabled Apex Methods for Guest and Portal Users Based on User Profile (Update, Enforced)

This update gives you more control over which guest, portal, or community users can access Apex classes containing @AuraEnabled methods. Add guest user profile access to any @AuraEnabled Apex class used by a community or portal. When this update is activated, a guest, portal, or community user can access an @AuraEnabled Apex method only when the user's profile allows access to the Apex class. This update is enforced in Winter '21.

### Restrict Access to @AuraEnabled Apex Methods for Authenticated Users Based on User Profile (Update, Enforced)

This update gives you more control over which authenticated users can access Apex classes containing @AuraEnabled methods. When this update is enforced, an authenticated user can access an @AuraEnabled Apex method only when the user's profile allows access to the Apex class. This update is enforced in Winter '21.

### Legacy Transaction Security: End of Life

With the enhanced transaction security policy framework, you can create transaction security policies that execute actions on any standard or custom object. Now that the new framework is generally available, all policies written with the legacy framework are disabled. Make sure to migrate your legacy transaction security policies to the new framework. This update was first made available in Winter '20.

## Previously Released Updates

**These updates were announced in a previous release and are still available.**

**Enable ICU Locale Formats (Previously Released Update)**

To help you do business wherever you are, we're adopting the International Components for Unicode (ICU) formats for dates and times. ICU sets the international standard for these formats for all locales. The new formats provide a consistent experience across the Salesforce platform and improve integration with ICU-compliant applications across the globe. The ICU formats replace Oracle's Java 8 Development Kit (JDK8) formats. This update was first made available in Winter '20.

**Stabilize URLs for Visualforce, Experience Builder, Site.com Studio, and Content Files (Previously Released Update)**

We're removing the instance names from Visualforce, Experience Builder, Site.com Studio, and content file URLs. An instance name identifies where your Salesforce org is hosted. Removing the instance name makes domains shorter and easier for users to remember. This update applies to orgs that have a deployed My Domain. After this update is activated, a URL that includes the instance name, such as a bookmark, automatically redirects to the new hostname. This update was first made available in Spring '18.

**Require Permission to View Record Names in Lookup Fields (Previously Released Update)**

To better protect your Salesforce org's data, we restricted who can view record names in lookup fields. Users must have Read access to these records or the View All Lookup Record Names permission to view this data. This update also applies to system fields, such as Created By and Last Modified By. This update was first made available in Spring '20.

**Prevent Consecutive API Navigation Calls in Visualforce Pages (Previously Released Update)**

In Visualforce pages, API navigation calls can be fired consecutively, which can lead to unwanted behavior. This release update prevents this API navigation call pattern, firing only the first navigation call.

**Keep Working with Tab-Focused Dialogs (Previously Released Update)**

In Lightning console apps, dialogs no longer stop you from interacting with the rest of the UI. This release update limits the focus of dialogs triggered by a workspace tab or subtab to only the tab that triggered it. This release update was first made available in Winter '20.

## Newly Announced Updates

**These release updates are newly announced in Winter '21.**

**Disable Standard Object Edits on Standard Profile (Update)**

Salesforce reserves standard object permissions in standard profiles, so modifications are not allowed. This update enforces a validation to block modifications to standard profile object permissions to ensure org integrity.

**Require Verification When Community Users, Partners, and Customers Change Their Email Address (Update)**

This security update requires external users to confirm their community email address changes.

**Deploy a My Domain (Update)**

To use the latest features and comply with browser requirements, all Salesforce orgs must have a My Domain. Deploy one, or we assign one for you based on your company name. Because your My Domain affects all application URLs, we recommend that you test and deploy a My Domain before this update is enforced in Winter '22.

**Review the Org-Level Email Tracking Setting for Salesforce Inbox (Update)**

This update corrects an inconsistency when Salesforce Inbox email tracking is disabled, but tracking features are still available to users and tracking information is still collected.

**Enable Secure Static Resources for Lightning Components (Update)**

To improve security, this update serves all static resources from the visualforce domain instead of the lightning domain. This change prevents a script included in a static resource from accessing the document in the lightning domain due to the same-origin security policy.

**Require User Permission for the Send Custom Notification Action (Update)**

This update gives you more control over which of your users can trigger the Send Custom Notification action. When this update is activated, a user must have the Send Custom Notifications user permission to trigger the Send Custom Notification action in flows

that run in user context, REST API calls, or Apex callouts. Use the Send Custom Notifications user permission to improve the security of your Salesforce org and limit custom notifications to desired users and use cases.

#### **Disable Rendering of HTML in Custom Field Labels (Update)**

To better protect your Salesforce org, this update removes legacy behavior that allows HTML formatting in custom field labels. When enabled, HTML tags in custom field labels are rendered as plain text.

#### **Make Paused Flow Interviews Resume in the Same Context with the Same User Access (Update) on page 364**

With this update enabled, paused autolaunched flows always resume in the same context and with the same user access they had before they were paused.

## Postponed Updates

**These updates are postponed.**

#### **Enable Dependency Access Checks In Lightning Components (Update, Postponed)**

This update is postponed to Spring '21. It was scheduled for auto-activation (enforcement) in Summer '20. This update enforces the permission required to access component dependencies. A Salesforce-provided Lightning component can require an org or user permission to access the component. A dependency is any resource used within a top-level component. For example, a component can use or extend another component in its markup or implement an interface. This update has no effect and is unrelated to the access checks for Aura's `access` attribute on the `<aura:component>` tag.

#### **Use with sharing for @AuraEnabled Apex Controllers with Implicit Sharing (Update, Postponed)**

This update is postponed to Spring '21. It was scheduled for auto-activation (enforcement) in Spring '20. This update changes the behavior of `@AuraEnabled` Apex controllers that don't specify `with sharing` or `without sharing` to default to `with sharing`.

#### **Disable Access to Non-global Apex Controller Methods in Managed Packages (Update, Postponed)**

This update is postponed to Summer '21. It was scheduled for auto-activation (enforcement) in Winter '20. This update corrects access controls on Apex controller methods in managed packages. When this update is enabled, only methods marked with the `global` access modifier are accessible by Aura components from outside the package namespace. These access controls prevent you from using unsupported API methods that the package author didn't intend for global access.

#### **Enforce Access Modifiers on Apex Properties in Lightning Component Markup (Update, Postponed)**

This update is postponed to Summer '21. It was scheduled for auto-activation (enforcement) in Summer '20. This update makes Lightning components consistent with the use of Apex properties in other contexts. For example, a markup expression can no longer access an Apex property with a private Apex getter.

#### **Prevent Creation of Function Expressions in Dynamically Created Aura Components (Update, Postponed)**

This update is postponed to Spring '21. It was scheduled for auto-activation (enforcement) in Winter '21. To improve security and stability, this update prevents attribute values passed to `$.createComponent()` or `$.createComponents()` from being interpreted as Aura function expressions.

#### **Evaluate Criteria Based on Original Record Values in Process Builder (Update, Postponed)**

This update, released in Summer '19, was scheduled for auto-activation (enforcement) in Summer '20 and then postponed to Winter '21, but has been postponed again to Winter '22. This release update ensures that a process with multiple criteria and a record update evaluates the *original* value of the field that began the process with a value of null.

#### **Enable Partial Save for Invocable Actions (Update, Postponed)**

This update, released in Winter '20, was scheduled for auto-activation (enforcement) in Summer '20 and then postponed to Winter '21, but has been postponed again to Spring '21. This release update improves the behaviors and effects of failed invocable actions. It only affects external REST API calls to invocable actions done in bulk. With this update, when invoking a set of actions in a single request, a single failed invocable action no longer causes the entire transaction to fail. Without this update, if a single invocable action fails, other invocable actions within the transaction are rolled back and the entire transaction fails.

**Enforce Data Access in Flow Formulas (Update, Postponed)**

This update, released in Spring '20, was scheduled for auto-activation (enforcement) in Summer '20, but has been postponed to Spring '21. This update enforces the running user's data access when Flow Builder uses a merge field to access a field on a related record.

**Make Flows Respect Access Modifiers for Legacy Apex Actions (Update, Postponed)**

This update, released in Spring '20, was scheduled for auto-activation (enforcement) in Summer '20, but has been postponed to Spring '21. With this release update enabled, developers can trust that their legacy Apex actions are properly protected and available only to other components in their managed packages. This update makes a flow fail if it contains a public legacy Apex action.

**Disable Rules for Enforcing Explicit Access to Apex Classes (Update, Postponed)**

The Disable Rules for Enforcing Explicit Access to Apex Classes update, released in Summer '20, was scheduled for auto-activation (enforcement) in Spring '21, but has been postponed to Summer '21. This release update replaces the Require User Access to Apex Classes Invoked by Flow update. The Disable Rules for Enforcing Explicit Access to Apex Classes update returns orgs to their original state – where users only need access to the flow to be able to run a flow that includes Apex actions.

**Check for Null Record Variables or Null Values of Lookup Relationship Fields in Process and Flow Formulas (Update, Postponed) on page 368**

This update, released in Spring '19, was scheduled for auto-activation (enforcement) in Spring '20, but has been postponed to Spring '21. **Note:** This update has already been enabled in Salesforce orgs that received Summer '20 prior to July 10, 2020. If this is the case for your org, you may disable the update if you wish until Spring '21. This update enables process and flow formulas to return null values when the calculations involve a null record variable or null lookup relationship field.

## Other Salesforce Products and Services

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### Heroku

Heroku is a cloud-based application platform for building and deploying web apps.

For information on new features, go to the [Heroku Changelog](#).

### Success Cloud

The certified experts, consultants, and innovative tools of Salesforce Success Cloud are here to help with professional services, prescriptive advice, and expertise at every stage of your journey.