



Salesforce Spring '17 Release Notes

Salesforce, Spring '17

Blaze a trail to your customers



Note: These features aren't generally available unless or until Salesforce announces their 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.

 @salesforcedocs
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SALESFORCE SPRING '17 RELEASE NOTES

Spring '17 brings lots of your most-requested Lightning Experience usability enhancements to make your users even happier. We've built artificial intelligence right into the platform with Salesforce Einstein—try it out in the Sales cloud! Service Console, Knowledge, and reports and dashboards benefit from a bolt or two of Lightning. Community workspaces make your community management tasks even easier, and you can fine-tune your customizations and roll out new apps faster than ever. And we've got lots of new Trailhead content to help you and your users get the most of your Salesforce experience.

IN THIS SECTION:

[How to Use These 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.

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

Some features in Spring '17 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](#)

Supported browsers for Salesforce vary depending on whether you use Salesforce Classic or Lightning Experience.

[Salesforce Overall: Favorites, Console Apps, and More Actions](#)

Spring '17 gives you more reasons to love Lightning Experience. Customize your navigation experience with favorites, see multiple records on one screen with console apps, and access more global actions from anywhere in Lightning Experience.

[Lightning Experience: A Modern and Intelligent User Experience](#)

Lightning Experience is a completely reimagined interface. Even better, it's built on our UI platform, so the experience can grow and evolve with your needs. Check out the new features and considerations in this release.

[Salesforce Einstein: The World's Smartest CRM with Artificial Intelligence \(AI\) for Everyone](#)

Salesforce Einstein is AI built into the Salesforce platform. It delivers advanced AI capabilities to sales, service, and marketing—and enables anyone to use clicks or code to build AI-powered apps that get smarter with every interaction. Now, everyone in every role and industry can use AI to be their best.

[Sales: Artificial Intelligence, Expanded Sales Path, and Smarter Email](#)

Deliver high-impact Lightning Experience features that keep sales teams laser-focused on the leads and deals most likely to generate sales. Help reps develop strong customer relationships and integrate their email and calendars with Microsoft—and now with Gmail. For added productivity, your reps can prioritize calls and easily manage records using Kanban in even more ways.

[Data.com: Continual, Customizable Record Updates Using Data Integration](#)

Data Integration updates your data when you add or change a record. Updates are controlled by data integration rules, which replace Clean rules with improved customization, including customized field mapping. Like Data.com Clean, Data Integration updates your records from external data. However, while Data.com Clean makes updates when you run Clean jobs or update records manually, Data Integration makes updates when you add or update a record. Data Integration also works with the Data.com data service and with third-party data services contained in a data package. With a Data.com Clean license, you can also use data integration rules with Data.com Clean updates and Clean jobs.

[Service: Lightning Hits the Console and Knowledge; Field Service Comes to iOS](#)

Zap! Lightning Experience has hit the Service Console. Enjoy its streamlined UI and the ease of customizing it with the drag-and-drop Lightning App Builder. Knowledge also gets a Lightning charge, with a unified Knowledge tab and standard record types replacing custom articles types. Field service comes to your technicians with an iOS app. And Open CTI comes to Lightning Console Apps, while Desktop CTI takes its final bow.

[Analytics: Lightning Enhancements, One-Stop Data Manager, Personal Wave Home, New Charts, and More](#)

Drive decisions with insights from reports and dashboards and Wave Analytics. Lightning Experience reports and dashboards offer report subscriptions, dashboard sharing and following, and chart enhancements. Wave gets personal with one-stop shopping in Data Manager, the new personalized Wave home page, custom app navigation, new chart types, and much more.

[Communities: Community Workspaces, Criteria-Based Audiences, Mobile Actions, and More](#)

The cool breeze of Spring '17 blows in some significant changes for Communities—from refreshed tools to fresh components. Community Workspaces centralizes access to *all* the tools you use to build, moderate, and manage your community, and Community Builder gives you more room to work. With criteria-based audiences, you can assign location and record type criteria to page variations to hit your target audience. And mobile actions make it easy to create, edit, and update Salesforce records directly from your mobile device.

[Chatter: Company Highlights Feed, Create Custom Feeds, Customize Groups](#)

We redesigned the Chatter home page in Lightning Experience to give you more of what you want—customization. We introduced the Company Highlights feed, the ability to create your own feeds with streams, a list of your recently updated groups, and a way to share posts. You can also create custom groups for any use case and filter questions in group feeds in communities and Lightning Experience.

[Files: Folders in Libraries \(Beta\), Attach Salesforce Files to Records, and Rename Files from the Related List](#)

We enhanced the files experience to get you more functionality with less friction. Freshen up your libraries by organizing your library files into folders (beta). Use Apex to customize file downloads for security and tracking. Work faster and better in Lightning Experience by attaching and renaming files right from the Files related list.

[Mobile: Do More on the Go](#)

Salesforce mobile apps help your users stay productive throughout their busy days, no matter where they are. Salesforce1 offers improvements to tasks, enhanced charts, approvals, and many other sales features, so sales professionals can take care of even more business from their phones. Salesforce Authenticator gets a design update that makes it easier to read notifications at a glance. And introducing the new Field Service Lightning iOS mobile app, an all-in-one tool that puts everything your field service technicians need at their fingertips.

[Financial Services Cloud: Client and Household Relationship Mapping, Alerts, Client Service Enhancements](#)

Advisors can now create, maintain, and visualize clients and households through new relationship groups. Get new client service enhancements, including alerts on a client's profile page and financial accounts to help advisors keep up with changes to client's financial accounts.

[Health Cloud: Wave for Health Cloud: Risk Stratification, Lead-to-Patient Conversion, and More](#)

Optimize care coordination and proactively manage patients who are at risk with Wave dashboards. And we've made it super easy to take Salesforce leads and convert them into Health Cloud patient records. To top if off, we've added to the Health Cloud data model, and improved the performance of the Health Cloud console.

[Customization: More Control Over Record Page Assignments and Flow Screens, Connect to External Services](#)

Now clicks take you further than ever. They get you more granular control over how you assign Lightning record pages to your users. They give you control over your flow screens – including a way to make them look like Lightning Experience. And although a little bit of code is involved, clicks make it easy to connect your org to external services.

[Security and Identity: Easier Health Check, Chatter Encryption, OAuth for Connected Apps](#)

Security Health Check offers custom baselines to streamline the job of setting up security for your users and customers. You can encrypt Chatter posts and attachments, and protect Internet of Things devices with OAuth 2.0.

Deployment: Deployment Permission Dependency Now Selected Automatically

The “Modify All Data” permission is now selected automatically when the “Deploy Change Sets” permission is selected.

Development: Create Your Own Salesforce App

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

Marketing: Tools to Engage Your Customers Like Never Before

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, and plan and optimize unique customer journeys based on your business objectives. Deliver personalized content across every channel and device at precisely the right time, and measure the impact of each interaction on your business so you can optimize your approach in real time and deliver better results.

Critical Updates: LockerService Changes, CSRF Protection for Visualforce Pages, and Masking Decoupled from Shield Platform Encryption

This release includes two new critical updates. One changes how Visualforce pages implement CSRF protection for GET requests. The other decouples the “View Encrypted Data” permission from Shield Platform Encryption. In addition, the LockerService, approvals, and flow critical updates from Summer ‘16 have been postponed.

Other Salesforce Products

How to Use These 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.

- 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, not known issues, which you can access from 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 materials for the previous release.

Some of our documentation has preview versions available several weeks before the release. To access the preview versions 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 Salesforce Lightning Experience and everything it offers. But we also understand that lots of organizations will continue to use Salesforce Classic—either exclusively for a few releases or in tandem with Lightning Experience as it evolves.

[You Asked for It!](#)

We delivered the features you asked for on IdeaExchange.

[Other Resources](#)

In addition to these release notes, we provide other resources to get you up to speed quickly.

Release Notes 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, Mobile, and Salesforce Classic.

Edition

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

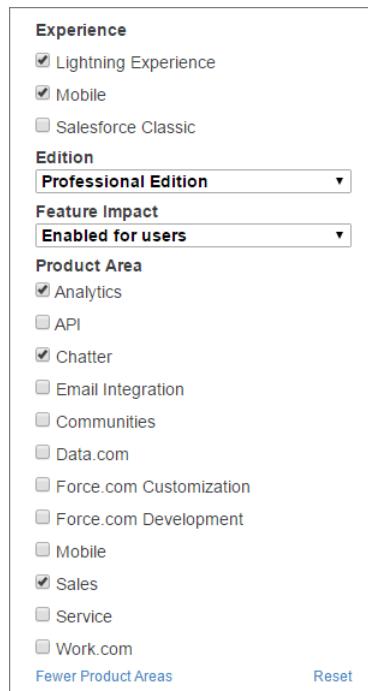
Feature Impact

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 enabled for your users automatically.

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 of the screen.



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 Salesforce Lightning Experience and everything it offers. But we also understand that lots of organizations will continue to use Salesforce Classic—either exclusively for a few releases 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've added experience information to these release notes at the highest level where that information applies: for entire clouds or for individual features within clouds. Let's look at three examples.

- Communities and *all* its features are currently available in Salesforce Classic *only*, so we tell you that in the Communities "Editions" table. It says "Available in: Salesforce Classic."
- Case Feed, a Service Cloud feature, is available in *both desktop experiences*, so its description says "This change applies to both Lightning Experience and Salesforce Classic."
- Opportunity Workspace, a new Sales Cloud feature, is available in Lightning Experience *only*, so its description says "This change applies to Lightning Experience only."

If a key feature is also available in Salesforce1, our mobile app, we mention that in the feature description. But you can also check the Mobile section for a complete list of what's new in Salesforce1.

You Asked for It!

We delivered the features you asked for on IdeaExchange.

IdeaExchange	Idea delivered
Salesforce Overall	
Searching for Contacts by Account Name	Search for Contacts Using the Account Name
Ability for Lightning to Support Lookup Filters	Provide More Relevant Results with Dependent Lookup Filters
Lightning Experience	
Allow customization of the Global Actions Menu in Lightning	Take More Actions from the Global Actions Menu
Sales	
Lightning Experience - Include Orders & Order Products	Orders: Agreements for Delivering Products and Services in Lightning Experience
Enable Duplicate Management for Person Accounts	Manage Duplicate Person Accounts
Dynamic Record Merging	Detect and Merge Duplicate Companies and Contacts in Lightning Experience
Customize Columns on Step One of Merge Accounts	Detect and Merge Duplicate Companies and Contacts in Lightning Experience
Customize Merge Contacts Columns in Step One	Detect and Merge Duplicate Companies and Contacts in Lightning Experience

IdeaExchange	Idea delivered
Account Merge to Maintain Parent and Child Hierarchy	Detect and Merge Duplicate Companies and Contacts in Lightning Experience
Merge Contacts Across Accounts	Detect and Merge Duplicate Companies and Contacts in Lightning Experience
Redirect to Final Merged Account After Merge Accounts Wizard	Detect and Merge Duplicate Companies and Contacts in Lightning Experience
Account Merge for Accounts with Data in Multiple Record Types	Detect and Merge Duplicate Companies and Contacts in Lightning Experience
Merge My Accounts and Merge My Contacts Page Layout Options	Detect and Merge Duplicate Companies and Contacts in Lightning Experience
We Want to See More Than 50 Lists for Merging Accounts and Contacts	Detect and Merge Duplicate Companies and Contacts in Lightning Experience
Data.com	
Data.com Clean - Ability to Update Non-USD Revenue Account Field	Update Annual Revenue in Records That Use Non-USD Currency
Service	
Omni-channel routing for Live Agent	Omni-Channel Routing for Chats is Generally Available
Ability to Search on Archived Articles	Search Archived Articles
Knowledge Articles - Ability to change Article Types	Knowledge Record Types: Record Types Take the Main Stage
Knowledge - Customize article formatting at Article Type level	Knowledge Record Types: Record Types Take the Main Stage
Search or Filter Articles by Author	Knowledge Search: Pre-filtering and Other Enhancements, Accessible from Anywhere
Article Management Views	Streamline Your Screen with a Unified Knowledge Home Page and List Views
Rating Knowledge Articles	Thumbs Up to Knowledge Article Ratings
Display total search count in Knowledge Base search	1, 2, 3... See How Many Results Are Found for a Search
Allow attaching multiple files to a Knowledgebase article	Add Files to Knowledge Articles in a Snap
Mobile	
Searching for Contacts by Account Name	Search for Contacts Using the Account Name in Salesforce1

Idea Exchange	Idea delivered
Ability for Lightning to Support Lookup Filters	Provide More Relevant Results with Dependent Lookup Filters
Make Campaigns and Campaign Members a High Priority for Adding to Lightning	Manage Campaign Members Statuses in Salesforce1 (<i>partially delivered</i>)
Allow the User to Create Orders and Order Products in Salesforce1	Do More with Orders in Salesforce1
Enable Duplicate Management for Person Accounts	Manage Duplicate Person Accounts in Salesforce1
Customization	
Items To Approve on Lightning Experience Homepage	Review Pending Approval Requests from Lightning Experience
Screen Layout in Visual Workflow / Flow Should Not Suck	Run Flows with a Lightning Skin (Generally Available)
Development	
Allow Callouts from Chained Queueable Apex Jobs	Make Web Service Callouts from Chained Queueable Jobs

Other Resources

In addition to these release notes, we provide other resources to get you up to speed quickly.

- [Release Readiness & Feature Adoption community](#). Join a community of Salesforce experts.
- [Release Readiness & Feature Focus Event Calendar](#). Register for expert hours and other events.

Release Notes Changes

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

January 4, 2017

[Subscribe to Reports in Lightning Experience](#)

Noted that report subscriptions in Lightning Experience are available within seven days of the Spring '17 release.

[Understand the Differences Between Salesforce Classic and Lightning Experience Console Apps](#)

Clarified that person accounts are not supported in Lightning console apps.

[Considerations for Lightning Knowledge](#)

Moved Lightning Knowledge limitations to a new section.

[You Asked for It!](#)

Added Ideas that we delivered.

[Work Seamlessly Across All Your Salesforce Orgs—Cross-Org Connector with Write Support](#)

Added that lookup search is available for external lookup relationship fields whose parent external objects are associated with the cross-org adapter for Salesforce Connect.

Supported Browsers

Added that Salesforce Wave Analytics is supported on Microsoft Edge.

Get Timely Alerts About Financial Accounts

Clarified that alerts can help advisors keep up with information about their client financial accounts.

Create Cases from Financial Accounts

Clarified that creating a case from a financial account can help advisors see cases from the financial account page or the client's profile page.

Server-Side Access Checks for Events

It's easier to find access check failures for events with additional server-side access checks.

New Apex Classes

Added entries for the new VisualEditor namespace and its classes.

SOAP API: Changed Calls

Added that the `merge()` call now supports account hierarchies, "reports to" relationships, portal users, and person accounts.

Data.com: Continual, Customizable Record Updates Using Data Integration

Clarified the explanation of Data Integration and data integration rules. Expanded the explanation of new update features.

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.

- Feedback forms:** As you're working with our documentation—whether it's in the Salesforce Help, release notes, or developer guides at Salesforce Developers—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](#).

How and When Do Features Become Available?

Some features in Spring '17 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

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
Supported Browsers for Lightning Experience	<input checked="" type="checkbox"/>			
Supported Browsers for Salesforce Classic	<input checked="" type="checkbox"/>			

Salesforce Overall

Spring '17 gives you more reasons to love Lightning Experience. Customize your navigation experience with favorites, see multiple records on one screen with console apps, and access more global actions from anywhere in Lightning Experience.

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
Feel Confident About Your Lightning Experience Readiness		<input checked="" type="checkbox"/>		
Create Shortcuts to Your Top Salesforce Pages with Favorites	<input checked="" type="checkbox"/>			
Console Apps: Now in Lightning Experience			<input checked="" type="checkbox"/>	
Enhance Your Lightning Apps with the Utility Bar			<input checked="" type="checkbox"/>	
Take More Actions from the Global Actions Menu	<input checked="" type="checkbox"/>			
Sell Directly to Customers with Person Accounts in Professional Edition				<input checked="" type="checkbox"/>
Rich-Text Editors Disabled When LockerService Critical Update Is Active			<input checked="" type="checkbox"/>	
Search				
Pick an Object and Search It from Anywhere	<input checked="" type="checkbox"/>			
Provide More Relevant Results with Dependent Lookup Filters	<input checked="" type="checkbox"/>			
Search for Contacts Using the Account Name	<input checked="" type="checkbox"/>			
Knowledge: Enhanced Article Search		<input checked="" type="checkbox"/>		
Get Search Results for More Objects	<input checked="" type="checkbox"/>			

Lightning Experience

Lightning Experience is a completely reimagined interface. Even better, it's built on our UI platform, so the experience can grow and evolve with your needs. Check out the new features and considerations in this release.

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
Lightning Experience Features in This Release				

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
General Enhancements			<input checked="" type="checkbox"/>	
Search			<input checked="" type="checkbox"/>	
Salesforce Einstein			<input checked="" type="checkbox"/>	
Core Sales			<input checked="" type="checkbox"/>	
Sales Productivity			<input checked="" type="checkbox"/>	
Google Integration (Beta)			<input checked="" type="checkbox"/>	
Microsoft® Integration			<input checked="" type="checkbox"/>	
Data.com			<input checked="" type="checkbox"/>	
Service			<input checked="" type="checkbox"/>	
Reports and Dashboards			<input checked="" type="checkbox"/>	
Chatter			<input checked="" type="checkbox"/>	
Files			<input checked="" type="checkbox"/>	
Lightning App Builder			<input checked="" type="checkbox"/>	
Salesforce Connect			<input checked="" type="checkbox"/>	
External Services (Beta)		<input checked="" type="checkbox"/>		
Approvals			<input checked="" type="checkbox"/>	
Visual Workflow			<input checked="" type="checkbox"/>	
Process Builder			<input checked="" type="checkbox"/>	
Setup			<input checked="" type="checkbox"/>	
Security and Identity			<input checked="" type="checkbox"/>	
Development			<input checked="" type="checkbox"/>	
What's Different or Not Available in Spring '17 Lightning Experience Features			<input checked="" type="checkbox"/>	

Sales

Deliver high-impact Lightning Experience features that keep sales teams laser-focused on the leads and deals most likely to generate sales. Help reps develop strong customer relationships and integrate their email and calendars with Microsoft—and now with Gmail. For added productivity, your reps can prioritize calls and easily manage records using Kanban in even more ways.

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
Lightning Experience Resources			<input checked="" type="checkbox"/>	
Core Sales Features				
Accounts				
Visualize Account Relationships by Using Account Hierarchy in Lightning Experience	<input checked="" type="checkbox"/>			
Get More Out of Person Accounts			<input checked="" type="checkbox"/>	
Contacts				
Continue to Be Impressed with Contacts to Multiple Accounts			<input checked="" type="checkbox"/>	
Stay-in-Touch Requests Retires in Summer '17	<input checked="" type="checkbox"/>			
Leads				
Manage Leads Faster in Lightning Experience	<input checked="" type="checkbox"/>			
Let Marketing and Sales Ops Users View Converted Leads			<input checked="" type="checkbox"/>	
Web-to-Lead				
Campaigns				
View Campaign Hierarchy Results in Lightning Experience			<input checked="" type="checkbox"/>	
Manage Campaign Member Statuses in Lightning Experience			<input checked="" type="checkbox"/>	
Manage Campaign Members Faster with Mass Actions in Lightning Experience	<input checked="" type="checkbox"/>			
Collaborative Forecasts				
Opportunities				
Orders				
Quotes				
Get More from Quotes	<input checked="" type="checkbox"/>			
Take Quote PDFs to the Next Level in Lightning Experience	<input checked="" type="checkbox"/>			
Path				

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
Path for Quotes and Custom Objects	<input checked="" type="checkbox"/>			
Path Pays Attention to Fields Required by the Page Layout	<input checked="" type="checkbox"/>			
Duplicate Management				
Detect and Merge Duplicate Companies and Contacts in Lightning Experience			<input checked="" type="checkbox"/>	
Manage Duplicate Person Accounts			<input checked="" type="checkbox"/>	
Productivity Features				
Sales Console				
Lightning Voice				
Use Voicemail for Missed Calls	<input checked="" type="checkbox"/>			
See Call Quality at a Glance	<input checked="" type="checkbox"/>			
Organize Your Calls with a Call List (Beta)	<input checked="" type="checkbox"/>			
Log Calls in the Activity Composer Automatically	<input checked="" type="checkbox"/>			
Create Reports for Lightning Voice			<input checked="" type="checkbox"/>	
Email				
Send Email Action: Tailor Email to Match Your Business Processes		<input checked="" type="checkbox"/>		
Send Email Using Org-Wide Email Addresses		<input checked="" type="checkbox"/>		
Choose Among Multiple Email Addresses in the From Field		<input checked="" type="checkbox"/>		
Create More Record Associations with the Related To Lookup Field	<input checked="" type="checkbox"/>			
Save Time with Context-Sensitive Email Templates	<input checked="" type="checkbox"/>			
Context-Sensitive Merge Fields Keep Your Choices Simple	<input checked="" type="checkbox"/>			
Consistent Email Footers for Emails Sent Through Gmail or Office 365	<input checked="" type="checkbox"/>			
Email Files as Attachments or Links: You Decide		<input checked="" type="checkbox"/>		
Tasks				

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
Create Follow-Up Tasks	<input checked="" type="checkbox"/>			
Use Recurring Tasks (Again and Again) in Lightning Experience			<input checked="" type="checkbox"/>	
Save Time by Using Save and New in Tasks		<input checked="" type="checkbox"/>		
Search for Tasks and Events	<input checked="" type="checkbox"/>			
Recurring Tasks Start and End Field Labels Have Changed	<input checked="" type="checkbox"/>			
List Views				
Save Time by Editing Inline in List Views (Generally Available)	<input checked="" type="checkbox"/>			
List Views in Lightning Experience Default to the Last One Viewed	<input checked="" type="checkbox"/>			
Kanban				
See the Kanban View Everywhere	<input checked="" type="checkbox"/>			
Make Your Own Kanban View	<input checked="" type="checkbox"/>			
View Records by Record Type in the Kanban View	<input checked="" type="checkbox"/>			
Sales Cloud Einstein				
Automatically Add Emails and Events to Salesforce with Automated Activity Capture for Einstein			<input checked="" type="checkbox"/>	
Prioritize Your Leads with Predictive Lead Scoring and Lead Insights			<input checked="" type="checkbox"/>	
See Intelligent Predictions and Timely Reminders About Deals with Opportunity Insights			<input checked="" type="checkbox"/>	
Get Smarter About Managing Relationships with Account Insights			<input checked="" type="checkbox"/>	
Inbox				
Automatically Add Emails and Events to Salesforce with Automated Activity Capture for Inbox			<input checked="" type="checkbox"/>	
Boost Email Productivity with the Inbox Clients			<input checked="" type="checkbox"/>	

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
Google Integration				
Lightning for Gmail (Beta)				
Get More Done Directly from Lightning for Gmail		<input checked="" type="checkbox"/>		
Einstein Brings Insights to Lightning for Gmail		<input checked="" type="checkbox"/>		
Rev Up Productivity with Enhanced Email	<input checked="" type="checkbox"/>			
Put Your Own Spin on Lightning for Gmail		<input checked="" type="checkbox"/>		
Lightning Sync for Google				
Get Sales Reps' Contacts into Gmail™			<input checked="" type="checkbox"/>	
See Who's Attending Meetings Booked from Google Calendar™ Directly from Salesforce	<input checked="" type="checkbox"/>			
Microsoft® Integration				
Lightning for Outlook				
Get More Done Directly from Lightning for Outlook	<input checked="" type="checkbox"/>			
Einstein Brings Insights to Lightning for Outlook	<input checked="" type="checkbox"/>			
Tailor Content in Email Application Panes			<input checked="" type="checkbox"/>	
Even More				
Welcome Service Cloud and Force.com Customers			<input checked="" type="checkbox"/>	
Lightning Sync for Microsoft® Exchange®				
See Who's Attending Meetings Booked from Microsoft Exchange® Calendars Directly from Salesforce	<input checked="" type="checkbox"/>			
Skype for Salesforce (Beta)				
Salesforce for Outlook				
Critical Upgrade Required	<input checked="" type="checkbox"/>			
Support Ending for Several Microsoft® Applications			<input checked="" type="checkbox"/>	
Other Changes in the Sales Cloud				
Data Assessment Date Stamp Changed	<input checked="" type="checkbox"/>			

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
Global Actions Added for Contracts and Orders		<input checked="" type="checkbox"/>		
Recently Scheduled Meetings Visible from Lightning Experience Home Without Browser Refresh	<input checked="" type="checkbox"/>			
Calendar Navigation Buttons Moved in Lightning Experience	<input checked="" type="checkbox"/>			
Cloud Scheduler is Being Retired			<input checked="" type="checkbox"/>	
Rich-Text Editor for Notes Is Now Using Quill	<input checked="" type="checkbox"/>			
Business Processes Use Name Field to Evaluate Person Accounts	<input checked="" type="checkbox"/>			
Easier to Use Merge Fields When Emailing Person Accounts in Lightning Experience	<input checked="" type="checkbox"/>			
Person Account Quick View Always Shows Account Info in Lightning Experience	<input checked="" type="checkbox"/>			
Account Autofill Now Called Automated Account Fields	<input checked="" type="checkbox"/>			
Sales Console Permissions Are Easier to Assign in Salesforce Classic		<input checked="" type="checkbox"/>		
Lead Assignment Rules Visible in Lightning Experience			<input checked="" type="checkbox"/>	

Data.com

Data Integration updates your data when you add or change a record. Updates are controlled by data integration rules, which replace Clean rules with improved customization, including customized field mapping. Like Data.com Clean, Data Integration updates your records from external data. However, while Data.com Clean makes updates when you run Clean jobs or update records manually, Data Integration makes updates when you add or update a record. Data Integration also works with the Data.com data service and with third-party data services contained in a data package. With a Data.com Clean license, you can also use data integration rules with Data.com Clean updates and Clean jobs.

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
Data Integration Rules Replace Clean Rules		<input checked="" type="checkbox"/>		
Try Data Integration in Your Org			<input checked="" type="checkbox"/>	
Update Annual Revenue in Records That Use Non-USD Currency		<input checked="" type="checkbox"/>		
Update Addresses in Records That Use State and Country Picklists		<input checked="" type="checkbox"/>		
Keep Your Data Current with Data Refresh		<input checked="" type="checkbox"/>		
Customize Field Mapping for Data Integration Rules		<input checked="" type="checkbox"/>		

Service

Zap! Lightning Experience has hit the Service Console. Enjoy its streamlined UI and the ease of customizing it with the drag-and-drop Lightning App Builder. Knowledge also gets a Lightning charge, with a unified Knowledge tab and standard record types replacing custom articles types. Field service comes to your technicians with an iOS app. And Open CTI comes to Lightning Console Apps, while Desktop CTI takes its final bow.

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
Service Console				
Meet the New Lightning Service Console			<input checked="" type="checkbox"/>	
Lightning Service Setup—Your Life Just Got a Whole Lot Easier! (Beta)			<input checked="" type="checkbox"/>	
Knowledge				
Considerations for Lightning Knowledge			<input checked="" type="checkbox"/>	
Dip into Salesforce Classic for Lightning Knowledge Setup			<input checked="" type="checkbox"/>	
Simplified Access and Permissions with Lightning Knowledge			<input checked="" type="checkbox"/>	
Knowledge Search: Pre-filtering and Other Enhancements, Accessible from Anywhere				
Get More Context with Snippets in Article Top Results	<input checked="" type="checkbox"/>			
Search Archived Articles	<input checked="" type="checkbox"/>			

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
1, 2, 3... See How Many Results Are Found for a Search	<input checked="" type="checkbox"/>			
Streamline Your Screen with a Unified Knowledge Home Page and List Views			<input checked="" type="checkbox"/>	
Knowledge Record Types: Record Types Take the Main Stage				
Customize Page Layouts for Different Types of Articles			<input checked="" type="checkbox"/>	
Standard Record Home: Get More from Your Articles with Five New Components				
Thumbs Up to Knowledge Article Ratings			<input checked="" type="checkbox"/>	
Add Files to Knowledge Articles in a Snap			<input checked="" type="checkbox"/>	
View Previous Knowledge Article Versions and Changes			<input checked="" type="checkbox"/>	
View the Data Categories Assigned to a Knowledge Article	<input checked="" type="checkbox"/>			
Add Data Categories to a Knowledge Article			<input checked="" type="checkbox"/>	
Search, Attach, and Follow Articles, with the Knowledge Sidebar for the Lightning Service Console			<input checked="" type="checkbox"/>	
Field Service				
The Field Service Lightning iOS Mobile App (Generally Available) (not immediately available)			<input checked="" type="checkbox"/>	
Track Your Parts and Van Stock			<input checked="" type="checkbox"/>	
Field Service Locations			<input checked="" type="checkbox"/>	
Create Field Service Report Templates			<input checked="" type="checkbox"/>	
Service Appointment Status			<input checked="" type="checkbox"/>	
Turn Off GPS Tracking at the User Profile Level			<input checked="" type="checkbox"/>	
Work Order Line Items Take Priority			<input checked="" type="checkbox"/>	
Optimize Scheduling with Field Service Lightning Managed Packages (not immediately available)			<input checked="" type="checkbox"/>	
CTI				

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
Use Open CTI in Lightning Console Apps			<input checked="" type="checkbox"/>	
New Behavior for the Open CTI onNavigationChange Method			<input checked="" type="checkbox"/>	
Say Your Final Farewell to Desktop CTI	<input checked="" type="checkbox"/>			
Lightning Case Management				
Compact Case Feed Gets a Makeover for Lightning Experience	<input checked="" type="checkbox"/>			
Case Assignment Checkbox Visible in Lightning Experience			<input checked="" type="checkbox"/>	
Social Customer Service				
Social Customer Service API Support			<input checked="" type="checkbox"/>	
Social Post Detail Page Just Got a Little More Detailed			<input checked="" type="checkbox"/>	
Social Post Tab in Lightning			<input checked="" type="checkbox"/>	
Get More Accomplished Without Leaving the Case Feed			<input checked="" type="checkbox"/>	
Professional Edition Supported in Social Customer Service			<input checked="" type="checkbox"/>	
Omni-Channel				
Omni-Channel Supervisor Is Generally Available				
Assign Overflow Work to a User or Queue				
Omni-Channel Org Limits Raised				
Ping! New Sounds for Request and Disconnect Notifications				
Live Agent				
Omni-Channel Routing for Chats is Generally Available				
Page Layouts for Active, Waiting, and Ended Chat Transcripts				
Customize Your Default Sidebar Lookup Component				

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
Customers Can Save Transcripts on iOS				
Use Clickable Links in Your Chats				
Ping! New Sounds for Request and Disconnect Notifications				
Snap-ins for Web				
Snap-ins Chat Graduates from Beta to Generally Available			<input checked="" type="checkbox"/>	
Customize the Snap-ins Pre-Chat Form to Provide a Seamless Experience for Your Customers			<input checked="" type="checkbox"/>	
Customize Your Snap-ins Chat Widget to Reflect Your Company's Brand			<input checked="" type="checkbox"/>	
Snap-ins for Mobile Apps				
Other Changes				
Web-to-Case: Thwart Spammers with reCAPTCHA			<input checked="" type="checkbox"/>	
Automatically Assign Cases to Queues When Customers Submit Cases via Email-to-Case			<input checked="" type="checkbox"/>	
Call Center App Gets a New Name	<input checked="" type="checkbox"/>			
Chatter Answers Retires in Winter '18	<input checked="" type="checkbox"/>			
Lightning for Outlook and Lightning for Gmail (Beta) Welcome Service Cloud Customers			<input checked="" type="checkbox"/>	

Analytics

Drive decisions with insights from reports and dashboards and Wave Analytics. Lightning Experience reports and dashboards offer report subscriptions, dashboard sharing and following, and chart enhancements. Wave gets personal with one-stop shopping in Data Manager, the new personalized Wave home page, custom app navigation, new chart types, and much more.

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
Reports and Dashboards				

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
Subscribe to Reports in Lightning Experience (not immediately available)	<input checked="" type="checkbox"/>			
Filter Reports via URL Parameters in Lightning Experience	<input checked="" type="checkbox"/>			
View Dashboards as Other People in Lightning Experience	<input checked="" type="checkbox"/>			
Share Dashboard Charts by Posting Them to Chatter in Lightning Experience			<input checked="" type="checkbox"/>	
Expand Dashboard Components to Get the Big Picture in Lightning Experience	<input checked="" type="checkbox"/>			
Follow Dashboards in Lightning Experience			<input checked="" type="checkbox"/>	
Move Dashboards Between Folders in the Lightning Experience Dashboard Builder	<input checked="" type="checkbox"/>			
Add Funnel and Scatter Charts to Lightning Experience Dashboards	<input checked="" type="checkbox"/>			
External Object Reports Have Fewer Limitations	<input checked="" type="checkbox"/>			
Other Enhancements to Reports and Dashboards in Lightning Experience	<input checked="" type="checkbox"/>			
Wave Analytics				
Wave: Bring Your Data into Wave				
Monitor, Replicate, and Prepare in the Data Manager		<input checked="" type="checkbox"/>		
Prepare Datasets with Recipes (Generally Available)		<input checked="" type="checkbox"/>		
Get Better Results with Null Measure Handling			<input checked="" type="checkbox"/>	
Extended Metadata Files on Dataset Edit Page Now Use XMD 2.0			<input checked="" type="checkbox"/>	
Wave: Extend Wave Everywhere				
Customize Your Personal Analytics Home Page	<input checked="" type="checkbox"/>			

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
Create Interactive Wave Apps for Your Customers	<input checked="" type="checkbox"/>			
Elevate Productivity During Presentations with Annotations and Notifications	<input checked="" type="checkbox"/>			
Seamlessly Integrate Wave into Salesforce with Wave Tabs	<input checked="" type="checkbox"/>			
Embed Wave in Any Web Page or Web-Based App		<input checked="" type="checkbox"/>		
Wave: Explore and Visualize				
Enhanced Compare Table Navigation	<input checked="" type="checkbox"/>			
Improved Pivot and Values Tables	<input checked="" type="checkbox"/>			
Explore New Filters and Functions	<input checked="" type="checkbox"/>			
Broaden Your Visualization Horizons with New Wave Charts	<input checked="" type="checkbox"/>			
Enhanced Wave Charts	<input checked="" type="checkbox"/>			
Wave: Design and Build				
Build Dashboards Faster with Widget Cloning and Step Replacement	<input checked="" type="checkbox"/>			
Automate Cross-Dataset Filtering with Connected Data Sources	<input checked="" type="checkbox"/>			
Customize the Display Values for List and Toggle Widgets	<input checked="" type="checkbox"/>			
Take Action on Multiple Table Records with a Single Click		<input checked="" type="checkbox"/>		
Summarize Data Across Dimensions with Pivot Tables	<input checked="" type="checkbox"/>			
Save and Package Images with Wave Apps	<input checked="" type="checkbox"/>			
Get Accurate Calculations with the New Null Measure Handling			<input checked="" type="checkbox"/>	
Query Datasets and Salesforce Objects with New Step Types	<input checked="" type="checkbox"/>			
Experience More Intuitive Controls for the Date Widget	<input checked="" type="checkbox"/>			
Identify Steps with Descriptive Labels	<input checked="" type="checkbox"/>			

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
Take Advantage of Other Enhancements to Wave Dashboard Designer	<input checked="" type="checkbox"/>			
Wave: Trend Data				
Configure Snapshot Schedule for Trending Reports	<input checked="" type="checkbox"/>			
Set Org-Wide Limits on Dataset Size for Trending Reports	<input checked="" type="checkbox"/>			
Group Columns with Boolean Values in Trending Dashboards	<input checked="" type="checkbox"/>			
Wave: Accelerate with Prebuilt Wave Apps				
Wave for Sales and Service Easier Than Ever to Create	<input checked="" type="checkbox"/>			
Wave: Go Places with Wave Mobile				
Experience the Latest Wave for iOS	<input checked="" type="checkbox"/>			
Get the Latest for Wave Analytics for Android	<input checked="" type="checkbox"/>			
Wave: Develop on the Platform				
Take Advantage of the Latest SAQL Functionality		<input checked="" type="checkbox"/>		
Review Updates to the REST API for Wave		<input checked="" type="checkbox"/>		
Migrate or Deploy Your Customizations with Packageable User XMD		<input checked="" type="checkbox"/>		
Package and Distribute Apps with Wave Templates (Beta)		<input checked="" type="checkbox"/>		

Communities

The cool breeze of Spring '17 blows in some significant changes for Communities—from refreshed tools to fresh components. Community Workspaces centralizes access to *all* the tools you use to build, moderate, and manage your community, and Community Builder gives you more room to work. With criteria-based audiences, you can assign location and record type criteria to page variations to hit your target audience. And mobile actions make it easy to create, edit, and update Salesforce records directly from your mobile device.

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
It's Time to Update Your Pre-Winter '16 Template			<input checked="" type="checkbox"/>	
Prepare Your Communities for TLS 1.0 Disablement			<input checked="" type="checkbox"/>	
LockerService				
LockerService for Communities Critical Update Replaced			<input checked="" type="checkbox"/>	
Improve the Security of Your Page <Head> Markup			<input checked="" type="checkbox"/>	
Usability and Design Improvements				
Community Workspaces: The New Center of Your Communities Universe			<input checked="" type="checkbox"/>	
Community Builder Gets More Elbow Room			<input checked="" type="checkbox"/>	
See What Goes Where with Better Visual Feedback While Building			<input checked="" type="checkbox"/>	
Gain Control of Each Page Layout with Theme Layout Types			<input checked="" type="checkbox"/>	
Find and Create Asset Files from Community Builder			<input checked="" type="checkbox"/>	
Control Capitalization of Titles in Your Community			<input checked="" type="checkbox"/>	
Focus Your Community with Audience Targeting			<input checked="" type="checkbox"/>	
Lightning Bolt			<input checked="" type="checkbox"/>	
Community Templates				
Do More with Mobile in Template-Driven Communities		<input checked="" type="checkbox"/>		
Send Direct Messages in Communities (available within 24 hours after the release)			<input checked="" type="checkbox"/>	
Add a Collaboration Feed to Your Articles		<input checked="" type="checkbox"/>		
Leave No Question Unanswered		<input checked="" type="checkbox"/>		

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
See More Relevant Suggested Search Results	<input checked="" type="checkbox"/>			
Create Report and Dashboard List Views and Detail Pages	<input checked="" type="checkbox"/>			
Create New Records from Lookups	<input checked="" type="checkbox"/>			
Tasks Now Available in Communities	<input checked="" type="checkbox"/>			
See How Often a Topic Is Followed and Used	<input checked="" type="checkbox"/>			
Simplified Guest User Access for Object Data in Communities	<input checked="" type="checkbox"/>			
Bookmarks Feed Comes To Community Builder		<input checked="" type="checkbox"/>		
Customize Community Navigation with Nested Menu Items		<input checked="" type="checkbox"/>		
Harness the Power of Visualforce in Template-Based Communities			<input checked="" type="checkbox"/>	
Modify the Kanban View	<input checked="" type="checkbox"/>			
Custom Lightning Components				
Write Once, Reuse Everywhere: Support for force:hasRecordId		<input checked="" type="checkbox"/>		
Access Lightning Apps in Public Communities		<input checked="" type="checkbox"/>		
Customize with Global Lightning Components and Events		<input checked="" type="checkbox"/>		
Chatter and Files in Community Templates				
Sort by the Most Popular Posts in Your Community	<input checked="" type="checkbox"/>			
Filter Questions in Your Community in More Ways	<input checked="" type="checkbox"/>			
Share Posts in Your Community	<input checked="" type="checkbox"/>			
Use Keyboard Keys to Post to Your Community	<input checked="" type="checkbox"/>			
Feeds Look and Feel Gets Refreshed in Your Community	<input checked="" type="checkbox"/>			

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
Manage Members with Greater Ease	<input checked="" type="checkbox"/>			
User Profile Header Is More Streamlined	<input checked="" type="checkbox"/>			
User Info on Hover Comes to Communities	<input checked="" type="checkbox"/>			
Place Users' Reputation Levels Where You Want Them		<input checked="" type="checkbox"/>		
Customizable Groups Now Generally Available	<input checked="" type="checkbox"/>			
Organize Your Groups List View Using Tiles	<input checked="" type="checkbox"/>			
Search, Reports, and Analytics				
Get More Granular Information with Improved Search Reporting	<input checked="" type="checkbox"/>			
Dive Deeper into Self-Service Communities Using Google Analytics			<input checked="" type="checkbox"/>	
Create a Custom Report Type to See Click-Through Rates for Related Questions	<input checked="" type="checkbox"/>			
Moderation				
Get a Head Start with Preconfigured Moderation Rules			<input checked="" type="checkbox"/>	
Protect Your Community and Improve Productivity with Spam IQ (Pilot)			<input checked="" type="checkbox"/>	
Other Changes in Communities				
Create List Views in Communities			<input checked="" type="checkbox"/>	
Edit Records Inline in Communities	<input checked="" type="checkbox"/>			
Refine Reputation to Reflect Meaningful Activity			<input checked="" type="checkbox"/>	
Article URLs Now Include the Record ID		<input checked="" type="checkbox"/>		
Customer Community Plus License			<input checked="" type="checkbox"/>	
Create More Communities in Your Salesforce Org			<input checked="" type="checkbox"/>	
Perform Mass Inline Edits in a Community	<input checked="" type="checkbox"/>			

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
Stamp Your Users with a Specialty			<input checked="" type="checkbox"/>	
Communities Supports All Platform Languages			<input checked="" type="checkbox"/>	
Back Button Support Now Available in Tabs in Template-Driven Communities		<input checked="" type="checkbox"/>		
Communities Documentation	<input checked="" type="checkbox"/>			

Chatter

We redesigned the Chatter home page in Lightning Experience to give you more of what you want—customization. We introduced the Company Highlights feed, the ability to create your own feeds with streams, a list of your recently updated groups, and a way to share posts. You can also create custom groups for any use case and filter questions in group feeds in communities and Lightning Experience.

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
Feeds				
Lightning Chatter Home Page Gets a Makeover	<input checked="" type="checkbox"/>			
Create Custom Feeds with Chatter Streams	<input checked="" type="checkbox"/>			
All Company Feed Renamed to Company Highlights	<input checked="" type="checkbox"/>			
Shield Platform Encryption Comes To Chatter (Pilot)			<input checked="" type="checkbox"/>	
Share Posts in Lightning Experience	<input checked="" type="checkbox"/>			
Live Comments Are Better Than Ever	<input checked="" type="checkbox"/>			
Use Keyboard Keystrokes to Post	<input checked="" type="checkbox"/>			
Feeds Look and Feel Gets Refreshed	<input checked="" type="checkbox"/>			
Groups				
Customizable Chatter Groups Now Generally Available		<input checked="" type="checkbox"/>		
Filter Questions in Groups in More Ways	<input checked="" type="checkbox"/>			

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
Organize Your Groups List View Using Tiles	<input checked="" type="checkbox"/>			
Invite External Users to Chatter Groups in Lightning Experience	<input checked="" type="checkbox"/>			

Files

We enhanced the files experience to get you more functionality with less friction. Freshen up your libraries by organizing your library files into folders (beta). Use Apex to customize file downloads for security and tracking. Work faster and better in Lightning Experience by attaching and renaming files right from the Files related list.

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
Organize Library Files in Folders (Beta)			<input checked="" type="checkbox"/>	
Add Salesforce Files to a Record from the Related List in Lightning Experience	<input checked="" type="checkbox"/>			
Rename Files in Lightning Experience	<input checked="" type="checkbox"/>			
Convert a Link to an External File into a Files Connect File Reference	<input checked="" type="checkbox"/>			
Salesforce Files Sync Now Supports macOS Sierra	<input checked="" type="checkbox"/>			
Decide When to Send Files as Links		<input checked="" type="checkbox"/>		

Mobile

Salesforce mobile apps help your users stay productive throughout their busy days, no matter where they are. Salesforce1 offers improvements to tasks, enhanced charts, approvals, and many other sales features, so sales professionals can take care of even more business from their phones. Salesforce Authenticator gets a design update that makes it easier to read notifications at a glance. And introducing the new Field Service Lightning iOS mobile app, an all-in-one tool that puts everything your field service technicians need at their fingertips.

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
Salesforce1				
Everything That's New in Salesforce1 This Release				

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
Reminder that Salesforce1 Requires iOS 10 in Spring '17	<input checked="" type="checkbox"/>			
Go Straight to Person Accounts from Contact List Views in Salesforce1	<input checked="" type="checkbox"/>			
See Lead Scores in Salesforce1			<input checked="" type="checkbox"/>	
Do More with Orders in Salesforce1	<input checked="" type="checkbox"/>			
Get Better Access to Quotes in Salesforce1	<input checked="" type="checkbox"/>			
Create Follow-Up Tasks in Salesforce1	<input checked="" type="checkbox"/>			
Use Recurring Tasks in Salesforce1			<input checked="" type="checkbox"/>	
Enhanced Charts Replace Legacy Charts in Salesforce1 (Phased Retirement)	<input checked="" type="checkbox"/>			
See up to 200 Groupings on Enhanced Charts in Salesforce1	<input checked="" type="checkbox"/>			
View Bar + Line Combination Charts in Salesforce1	<input checked="" type="checkbox"/>			
View Posts in Salesforce1 That Were Shared in Lightning Experience	<input checked="" type="checkbox"/>			
Make Calls or Send Email from Profiles in Salesforce1	<input checked="" type="checkbox"/>			
Unified Create and Edit Experience in Salesforce1 for Online and Offline Sessions	<input checked="" type="checkbox"/>			
Salesforce Authenticator				
Salesforce Authenticator Sports a New Design	<input checked="" type="checkbox"/>			
Salesforce Authenticator Notifications for iOS 10 Easier to Read	<input checked="" type="checkbox"/>			
Field Service Lightning iOS (not immediately available)			<input checked="" type="checkbox"/>	
Salesforce Classic Mobile		<input checked="" type="checkbox"/>		

Financial Services Cloud

Advisors can now create, maintain, and visualize clients and households through new relationship groups. Get new client service enhancements, including alerts on a client's profile page and financial accounts to help advisors keep up with changes to client's financial accounts.

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
Add Businesses to Households				
Create Relationship Groups with New Wizard				
Add an Individual Client to Multiple Households				
Visualize Financial Relationships				
Get Timely Alerts About Financial Accounts				
Create Cases from Financial Accounts				
Sync Accounts and Contacts				
Changed Financial Services Cloud Object				
Changed Financial Services Cloud Metadata				

Health Cloud

Optimize care coordination and proactively manage patients who are at risk with Wave dashboards. And we've made it super easy to take Salesforce leads and convert them into Health Cloud patient records. To top it off, we've added to the Health Cloud data model, and improved the performance of the Health Cloud console.

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
Manage Patient Risk with Wave for Health Cloud: Risk Stratification				<input checked="" type="checkbox"/>
Seamlessly Convert Leads into Patients				
Faster Load Times for the Patient Timeline				<input checked="" type="checkbox"/>
Health Cloud Has New Custom Objects		<input checked="" type="checkbox"/>		
Health Cloud Metadata: New and Changed Types		<input checked="" type="checkbox"/>		
Console Performance Improvements	<input checked="" type="checkbox"/>			
Create Precise Patient Lists with Advanced Patient Segmentation	<input checked="" type="checkbox"/>			

Customization

Now clicks take you further than ever. They get you more granular control over how you assign Lightning record pages to your users. They give you control over your flow screens – including a way to make them look like Lightning Experience. And although a little bit of code is involved, clicks make it easy to connect your org to external services.

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
Lightning App Builder				
Assign Record Pages by App, Record Type, and Profile		<input checked="" type="checkbox"/>		
Customize Person Account Pages		<input checked="" type="checkbox"/>		
Customize Your Lightning Pages Even More with New Templates		<input checked="" type="checkbox"/>		
Clone Salesforce Default Lightning Pages		<input checked="" type="checkbox"/>		
Lightning App Builder New Page Wizard Is Restructured		<input checked="" type="checkbox"/>		
Customize the Highlights Panel with More Action Buttons		<input checked="" type="checkbox"/>		
Add the Related Record Component to Your Lightning Pages		<input checked="" type="checkbox"/>		
Add the Related List Component to Your Lightning Pages		<input checked="" type="checkbox"/>		
Customize How Related Lists Display on Lightning Pages		<input checked="" type="checkbox"/>		
Power Up Your Lightning Pages with the Flow Component (Beta)		<input checked="" type="checkbox"/>		
Display Pending Approval Requests on Home Pages		<input checked="" type="checkbox"/>		
Add Skype to Lightning Record Pages (Beta)			<input checked="" type="checkbox"/>	
Rich Text Component Disabled When LockerService Critical Update Is Active			<input checked="" type="checkbox"/>	
External Services (Beta)				
External Services Wizard Walks You Through Setup (Beta)		<input checked="" type="checkbox"/>		
Easily Add a Schema to External Services (Beta)		<input checked="" type="checkbox"/>		

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
Perform Repeatable Actions with Flows and External Services (Beta)		<input checked="" type="checkbox"/>		
Salesforce Connect				
Work Seamlessly Across All Your Salesforce Orgs—Cross-Org Connector with Write Support			<input checked="" type="checkbox"/>	
Ask and You Shall Receive ... More External Objects		<input checked="" type="checkbox"/>		
Access External Objects from the Salesforce Console in Salesforce Classic		<input checked="" type="checkbox"/>		
Improved External Lookup Relationship Fields—How Important Is a Name?	<input checked="" type="checkbox"/>			
Create Quick Actions for External Objects		<input checked="" type="checkbox"/>		
Improved Reports for External Objects	<input checked="" type="checkbox"/>			
Approvals				
Review Pending Approval Requests from Lightning Experience		<input checked="" type="checkbox"/>		
Don't Worry About That Submit Button Anymore!			<input checked="" type="checkbox"/>	
Select Next Approver from Lightning Experience and Salesforce1	<input checked="" type="checkbox"/>			
"Make Sure Records that Are Submitted Behind the Scenes Are Routed to the Right Approval Process" Critical Update Postponed			<input checked="" type="checkbox"/>	
Visual Workflow				
Run Flows with a Lightning Skin (Generally Available)			<input checked="" type="checkbox"/>	
Embed Your Flows in Lightning Pages (Beta)		<input checked="" type="checkbox"/>		
Now You See Me, Now You Don't: Dynamically Update Flow Screen Fields (Pilot)			<input checked="" type="checkbox"/>	
Customize the Look and Feel of Flow Interviews with the REST API (Pilot)			<input checked="" type="checkbox"/>	

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
More Context for Flow Errors		<input checked="" type="checkbox"/>		
Enforce Field-Level Security for All Flow Operations		<input checked="" type="checkbox"/>		
"Trust Percent Values in Flow sObject Variables Again" Critical Update Activates in Spring '17			<input checked="" type="checkbox"/>	
Access Encrypted Data in Your Flows (Pilot)				<input checked="" type="checkbox"/>
Display Flow Screens in Two Columns (Generally Available)			<input checked="" type="checkbox"/>	
Process Builder				
Process Builder Has Updated Icons		<input checked="" type="checkbox"/>		
Access Encrypted Data in Process Builder (Pilot)				<input checked="" type="checkbox"/>
Picklist Administration				
Global Picklist Fields Now Have Their Own Record Type		<input checked="" type="checkbox"/>		
Add Global Picklist Fields to All Record Types		<input checked="" type="checkbox"/>		
Value Labels Are No Longer Tied to API Names		<input checked="" type="checkbox"/>		
Access Picklists with the Tooling API		<input checked="" type="checkbox"/>		
AppExchange				
Get More Information with Streamlined AppExchange Listings		<input checked="" type="checkbox"/>		
Review AppExchange Offerings in Salesforce		<input checked="" type="checkbox"/>		
General Setup				
See Your Lightning Record Page Assignments at a Glance		<input checked="" type="checkbox"/>		
Lightning for Outlook and Lightning for Gmail (Beta) Welcome Force.com Users			<input checked="" type="checkbox"/>	
Standard Permission Sets Make Your Life Easier		<input checked="" type="checkbox"/>		

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
Get More Control Over Customizing Actions for Contracts and Orders		<input checked="" type="checkbox"/>		
Eliminating JavaScript from Functions Increases Security		<input checked="" type="checkbox"/>		

Security and Identity

Security Health Check offers custom baselines to streamline the job of setting up security for your users and customers. You can encrypt Chatter posts and attachments, and protect Internet of Things devices with OAuth 2.0.

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
Authentication and Identity				
Manage the Once Unmanageable OAuth Connected Apps		<input checked="" type="checkbox"/>		
Identity Verification Required for Two-Factor Authentication and Email Address Changes	<input checked="" type="checkbox"/>			
Admins Logging In as Users Are Subject to Two-Factor Authentication Requirements		<input checked="" type="checkbox"/>		
Lightning Login Enhancements Available with Salesforce Authenticator Version 2.7.0	<input checked="" type="checkbox"/>			
Client Secret Can Be Optional in OAuth Web Server Authentication Flow (not immediately available)		<input checked="" type="checkbox"/>		
Introducing Identity for the Internet of Things				
OAuth 2.0 Asset Token Flow for Securing Connected Devices (Generally Available)		<input checked="" type="checkbox"/>		
OAuth 2.0 Authentication Flow for Applications on Limited Input Devices (not immediately available)		<input checked="" type="checkbox"/>		
Customize Your Custom Authentication Provider		<input checked="" type="checkbox"/>		
Health Check				

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
Import a Custom Security Baseline into Health Check		<input checked="" type="checkbox"/>		
New Permission Required for Viewing and Managing Health Check		<input checked="" type="checkbox"/>		
Salesforce Shield				
Platform Encryption: Encrypt Formula Fields and Chatter Posts				
Encryption Checks Go Faster				
Retrieve Encrypted Data with Custom Formula Fields (Beta)				
Encrypt Your Data in Chatter (Pilot)				
Turn Off Masking for Encrypted Data				
Encrypt Search Index Files With a Dedicated Tenant Secret Type				
Search Index Encryption for Government Cloud				
Embed Encryption in Analytics Cloud (Beta)				
Access Encrypted Data with Flows and Process Builder (Pilot)				
Event Monitoring: Track Lightning Experience Adoption and Your Admins' Activity				
Track User Actions in Lightning Experience with Event Log Files		<input checked="" type="checkbox"/>		
See the Actions of Salesforce Administrators Who Logged In as Another User		<input checked="" type="checkbox"/>		
Other Changes				
Browser Security Features Are Enabled on All Accounts				
Protect Against Cross-Site Scripting and Malicious Files				

Deployment

The “Modify All Data” permission is now selected automatically when the “Deploy Change Sets” permission is selected.

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
"Modify All Data" Permission Is Automatically Selected When "Deploy Change Sets" Is Selected		<input checked="" type="checkbox"/>		

Development

Whether you're using Lightning components, Visualforce, Apex, or our APIs with your favorite programming language, these enhancements to Force.com 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
Lightning Components				
Host Single-Page Apps Developed with Third-Party Frameworks Using lightning:container (Developer Preview)		<input checked="" type="checkbox"/>		
Server-Side Access Checks for Events		<input checked="" type="checkbox"/>		
New Lightning LockerService Informational Setup Page		<input checked="" type="checkbox"/>		
Banner Reminds You About LockerService		<input checked="" type="checkbox"/>		
LockerService Has Stricter Content Security Policy			<input checked="" type="checkbox"/>	
Create CSP Trusted Sites to Access Third-Party APIs			<input checked="" type="checkbox"/>	
Use Unbound Expressions for One-Way Data Binding Between Components		<input checked="" type="checkbox"/>		
Customize the Look and Feel of Lightning Apps by Overriding Tokens (Developer Preview)		<input checked="" type="checkbox"/>		
Share Lightning Apps with Non-Authenticated Users		<input checked="" type="checkbox"/>		
Find Component Markup Errors Faster with Improved Error Messages	<input checked="" type="checkbox"/>			
Create Lightning Components for Quick Actions in the Developer Console		<input checked="" type="checkbox"/>		

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
Lightning Data Service (Developer Preview)		<input checked="" type="checkbox"/>		
Simplified Event Handling Across Base Lightning Components				
Handling the onactive Event		<input checked="" type="checkbox"/>		
New and Changed Lightning Components		<input checked="" type="checkbox"/>		
Changed Lightning Events		<input checked="" type="checkbox"/>		
New JavaScript API Methods		<input checked="" type="checkbox"/>		
Visualforce				
Use the Lightning Design System in Visualforce Pages			<input checked="" type="checkbox"/>	
Reference Lightning Design System Assets with the \$Asset Global Variable			<input checked="" type="checkbox"/>	
Add More Security to Your Visualforce Pages		<input checked="" type="checkbox"/>		
Allow CSRF Protection on GET Requests to Visualforce Pages (Critical Update)			<input checked="" type="checkbox"/>	
Apex Code				
Apex Stub API Is Now Generally Available		<input checked="" type="checkbox"/>		
Monitor the Status of Apex Batch Jobs		<input checked="" type="checkbox"/>		
Only One Test Setup Method per Class is Allowed		<input checked="" type="checkbox"/>		
Goodbye to instanceof Keyword Bugs		<input checked="" type="checkbox"/>		
Make Web Service Callouts from Chained Queueable Jobs		<input checked="" type="checkbox"/>		
Maps of Populated SObject Fields Return Correct Values		<input checked="" type="checkbox"/>		
Apex Has New Transaction Security Policy Testing Requirements		<input checked="" type="checkbox"/>		
Apex: New and Changed Classes and Interfaces				
New Apex Classes		<input checked="" type="checkbox"/>		
Changed Apex Interface		<input checked="" type="checkbox"/>		

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
ConnectApi (Chatter in Apex)				
New and Changed Chatter in Apex Classes		<input checked="" type="checkbox"/>		
New and Changed Chatter in Apex Input Classes		<input checked="" type="checkbox"/>		
New and Changed Chatter in Apex Output Classes		<input checked="" type="checkbox"/>		
New and Changed Chatter in Apex Enums		<input checked="" type="checkbox"/>		
API				
New and Changed Objects				
New Objects		<input checked="" type="checkbox"/>		
Changed Objects		<input checked="" type="checkbox"/>		
SOSL				
Changed Resource: FIND {SearchQuery}		<input checked="" type="checkbox"/>		
Highlight Matching Terms in Search Results by Using the WITH HIGHLIGHT Clause		<input checked="" type="checkbox"/>		
REST API				
Make Several Requests at Once with the Composite Resource (Generally Available)		<input checked="" type="checkbox"/>		
New Resources: Flows and Flow Interviews (Pilot)				<input checked="" type="checkbox"/>
Changed Resource: Search for a String		<input checked="" type="checkbox"/>		
Removed Resource: FlexiPage				
SOAP API				
New, Changed, and Deprecated Calls		<input checked="" type="checkbox"/>		
Chatter REST API				
New and Changed Chatter REST API Resources		<input checked="" type="checkbox"/>		
New and Changed Chatter REST API Request Bodies		<input checked="" type="checkbox"/>		
New and Changed Chatter REST API Response Bodies		<input checked="" type="checkbox"/>		
Reports and Dashboards REST API				

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
New Resource and Parameters: Report Types, lightningSubscribe		<input checked="" type="checkbox"/>		
New Methods		<input checked="" type="checkbox"/>		
Changed Resources: Dashboard DescribedashboardMetadata and Dashboard Results		<input checked="" type="checkbox"/>		
Lightning API—Developer Preview (available within 24 hours after the release)		<input checked="" type="checkbox"/>		
Bulk API				
Bulk API Now Supports More Complex Queries		<input checked="" type="checkbox"/>		
Introducing Bulk API 2.0 (Pilot)				<input checked="" type="checkbox"/>
Messaging				
Deliver Customizable Events with Platform Events (Beta)				<input checked="" type="checkbox"/>
Easily Subscribe to Streaming API in Java with EMP Connector		<input checked="" type="checkbox"/>		
Tooling API				
Tooling API New and Changed Objects		<input checked="" type="checkbox"/>		
Metadata API		<input checked="" type="checkbox"/>		
Data Services				
Required Fields for Custom BigObjects (Pilot)				<input checked="" type="checkbox"/>
Define Composite Primary Keys for Custom BigObjects (Pilot)				<input checked="" type="checkbox"/>
BigObjects Offers Enhanced Query Capabilities (Pilot)				<input checked="" type="checkbox"/>
Enhancements to Async SOQL (Pilot)				<input checked="" type="checkbox"/>
Open CTI API		<input checked="" type="checkbox"/>		
Build AI-Powered Apps Fast (Pilot)		<input checked="" type="checkbox"/>		
Other API Changes				
Change to Data.com Terminology		<input checked="" type="checkbox"/>		
Custom Metadata Types				

Feature	Enabled for users	Enabled for administrators/developers	Requires administrator setup	Contact Salesforce to enable
Metadata Relationships Now Support Field Definition Relationships		<input checked="" type="checkbox"/>		
Long Text Areas in Custom Metadata Types (Pilot)				<input checked="" type="checkbox"/>
queryMore() Supported in Custom Metadata Types		<input checked="" type="checkbox"/>		
Developer Console				
Create Exception Classes in the Developer Console		<input checked="" type="checkbox"/>		
See More Code Coverage Results in the Developer Console		<input checked="" type="checkbox"/>		
Debugging				
Debug Your Managed Packages in Subscriber Orgs		<input checked="" type="checkbox"/>		
Set Discrete Trace Flag Durations		<input checked="" type="checkbox"/>		
ISVforce				
Manage Packages Using Lightning Experience		<input checked="" type="checkbox"/>		
Package Push Upgrades Deactivate New or Modified Remote Sites by Default		<input checked="" type="checkbox"/>		
ISVforce: Updating Lightning and Salesforce Classic App Packages				
Abort a Package Push Request Using an API		<input checked="" type="checkbox"/>		
Debug Apex Code in Subscriber Orgs		<input checked="" type="checkbox"/>		
Control LMO Users' Access to Your Code in Subscriber Orgs with a New Permission		<input checked="" type="checkbox"/>		

Supported Browsers

Supported browsers for Salesforce vary depending on whether you use Salesforce Classic or Lightning Experience.

IN THIS SECTION:

[Supported Browsers for Lightning Experience](#)

Lightning Experience is supported with Apple® Safari® version 9.x and 10.x on Mac OS X, and Microsoft® Edge for Windows® 10. The most recent stable versions of Mozilla® Firefox® and Google Chrome™ are also supported. Microsoft® Internet Explorer® version 11 is retiring beginning in Summer '16. If you're using Microsoft® Internet Explorer® versions 9–10, you're redirected to Salesforce Classic. There are some limitations.

[Supported Browsers for Salesforce Classic](#)

Salesforce Classic is supported with Microsoft® Internet Explorer® version 8, 9, 10, and 11, Apple® Safari® version 8.x, 9.x, and 10.x on Mac OS X, and Microsoft® Edge for Windows® 10. The most recent stable versions of Mozilla® Firefox® and Google Chrome™ are also supported. There are some limitations.

Supported Browsers for Lightning Experience

Lightning Experience is supported with Apple® Safari® version 9.x and 10.x on Mac OS X, and Microsoft® Edge for Windows® 10. The most recent stable versions of Mozilla® Firefox® and Google Chrome™ are also supported. Microsoft® Internet Explorer® version 11 is retiring beginning in Summer '16. If you're using Microsoft® Internet Explorer® versions 9–10, you're redirected to Salesforce Classic. There are some limitations.

 **Note:** You can't access Lightning Experience in a mobile browser. Instead, we recommend using the Salesforce1 app when you're working on a mobile device. For a list of supported mobile browsers on Salesforce1, see [Requirements for the Salesforce1 Mobile App](#).

EDITIONS

Lightning Experience available in: **Group, Professional, Enterprise, Performance, Unlimited, and Developer** Editions

Microsoft Edge

Salesforce supports Microsoft Edge on Windows 10 for Lightning Experience. Note these restrictions.

- The HTML solution editor in Microsoft Edge isn't supported in Salesforce Knowledge.
- Microsoft Edge isn't supported for the Developer Console.
- Microsoft Edge isn't supported for Salesforce CRM Call Center built with CTI Toolkit version 4.0 or higher.

Microsoft Internet Explorer version 11

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

- Users of existing orgs can continue to use IE11 to access Lightning Experience until December 16, 2017.
- Users of new orgs created after Summer '16 can't use IE11 to access Lightning Experience. Instead, IE11 users are automatically redirected to Salesforce Classic.

For more details about this change, see [Retirement of Support for Accessing Lightning Experience and Salesforce1 Using Internet Explorer 11](#).

If you use Internet Explorer, we recommend using the latest version that Salesforce supports. Apply all Microsoft software updates. Note these restrictions.

- The full Salesforce site is supported in Internet Explorer 11 on Windows 8 and 8.1 for touch-enabled laptops with standard keyboard and mouse inputs only. There is no support for mobile devices or tablets where touch is the primary means of interaction. Use the Salesforce1 mobile browser app instead.
- The HTML solution editor in Internet Explorer 11 is not supported in Salesforce Knowledge.
- The Compatibility View feature in Internet Explorer isn't supported.
- Changing the compatibility parsing mode of the browser, for example, by using the `x-ua-compatibility` header, isn't supported.

- Internet Explorer 11 isn't supported for the Developer Console.
- Internet Explorer 11 isn't supported for Salesforce CRM Call Center built with CTI Toolkit version 4.0 or higher.
- Internet Explorer 11 isn't supported for Lightning Console Apps.
- Drag and drop of files into feed comments isn't supported in Internet Explorer.

For configuration recommendations, see [Internet Explorer Settings](#).

Mozilla® Firefox®, most recent stable version

Salesforce makes every effort to test and support the most recent version of Firefox. For configuration recommendations, see [Firefox](#).

Google Chrome™, most recent stable version

Chrome applies updates automatically. Salesforce makes every effort to test and support the most recent version. There are no configuration recommendations for Chrome.



Note: The latest stable version of Google Chromium™ is supported.

Apple® Safari® version 9.x, and 10.x on Mac OS X

There are no configuration recommendations for Safari.

Safari isn't supported for:

- Salesforce CRM Call Center built with CTI Toolkit versions earlier than 4.0
- Salesforce Wave Analytics

Wave Analytics Supported Browsers

Browser support is available for Microsoft Edge, Microsoft Internet Explorer version 11, and the most recent stable versions of Mozilla Firefox and Google Chrome.

Recommendations and Requirements for All Browsers

- For all browsers, enable JavaScript, cookies, and TLS 1.2. If TLS 1.2 isn't available, enable TLS 1.1. Browsers that don't support TLS 1.1 or TLS 1.2 won't be able to access Salesforce after we deactivate TLS 1.0. Deactivation has already occurred in sandbox orgs and concludes with production orgs on March 4, 2017.
- The minimum screen resolution required to support all Salesforce features is 1024 x 768. Lower screen resolutions don't always properly display Salesforce features such as Report Builder and Page Layout Editor.
- For Mac OS users on Apple Safari or Google Chrome, make sure that the system setting `Show scroll bars` is set to **Always**.
- Some third-party Web browser plug-ins and extensions can interfere with the functionality of Chatter. If you experience malfunctions or inconsistent behavior with Chatter, disable the Web browser's plug-ins and extensions and try again.

Supported Browsers for Salesforce Classic

Salesforce Classic is supported with Microsoft® Internet Explorer® version 8, 9, 10, and 11, Apple® Safari® version 8.x, 9.x, and 10.x on Mac OS X, and Microsoft® Edge for Windows® 10. The most recent stable versions of Mozilla® Firefox® and Google Chrome™ are also supported. There are some limitations.

Editions

Salesforce Classic available in: **All** Editions



Note: Using Salesforce Classic in a mobile browser isn't supported. Instead, we recommend using the Salesforce1 app when you're working on a mobile device. To see the mobile browsers that are supported for Salesforce1, check out [Requirements for the Salesforce1 Mobile App](#).

Microsoft Edge

Salesforce supports Microsoft Edge on Windows 10 for Salesforce Classic. Note these restrictions.

- The HTML solution editor in Microsoft Edge isn't supported in Salesforce Knowledge.
- Microsoft Edge isn't supported for the Developer Console.
- Microsoft Edge isn't supported for Salesforce CRM Call Center built with CTI Toolkit version 4.0 or higher.

Microsoft Internet Explorer versions 8, 9, 10, and 11

If you use Internet Explorer, we recommend using the latest version that Salesforce supports. Apply all Microsoft software updates. Note these restrictions.

- Internet Explorer 8 has limited support. Salesforce supports Internet Explorer 8 on Windows 7 only, with TLS 1.1 and/or TLS 1.2 enabled.
- The full Salesforce site is supported in Internet Explorer 9, 10, and 11 on Windows 8 and 8.1 for touch-enabled laptops with standard keyboard and mouse inputs only. There is no support for mobile devices or tablets where touch is the primary means of interaction. Use the Salesforce1 mobile browser app instead.
- The HTML solution editor in Internet Explorer 11 is not supported in Salesforce Knowledge.
- Both Compatibility Mode and the Compatibility View in Internet Explorer aren't supported.
- The Metro version of Internet Explorer 10 isn't supported.
- Internet Explorer 11 isn't supported for the Developer Console.
- Internet Explorer 11 isn't supported for Salesforce CRM Call Center built with CTI Toolkit version 4.0 or higher.
- Community Templates for Self-Service supports Internet Explorer 9 and above for desktop users and Internet Explorer 11 and above for mobile users.
- Internet Explorer 9 isn't supported for Salesforce Wave Analytics.
- Internet Explorer 9 and 10 aren't supported for the Lightning App Builder.
- Internet Explorer 9 users don't have browser-based spell check.
- Drag and drop of files into feed comments isn't supported in Internet Explorer.

For configuration recommendations, see [Internet Explorer Settings](#).



Note: Salesforce Classic support for Microsoft® Internet Explorer® versions 7 and 8 is discontinued as of Summer '15.

Mozilla Firefox, most recent stable version

Salesforce makes every effort to test and support the most recent version of Firefox.

- Mozilla Firefox is supported for desktop users only for Community Templates for Self-Service.

For configuration recommendations, see [Firefox](#).

Google Chrome, most recent stable version

Chrome applies updates automatically. Salesforce makes every effort to test and support the most recent version. There are no configuration recommendations for Chrome.

Chrome isn't supported for:

- The Console tab (The Salesforce console is supported.)

Apple Safari versions 8.x and 9.x on Mac OS X

There are no configuration recommendations for Safari. Apple Safari on iOS isn't supported for the full Salesforce site.

Safari isn't supported for:

- The Salesforce console
- Salesforce CRM Call Center built with CTI Toolkit versions below 4.0

- Salesforce Wave Analytics

Wave Analytics Supported Browsers

Browser support is available for Microsoft Edge, Microsoft Internet Explorer versions 10 and 11 and the most recent stable versions of Mozilla Firefox and Google Chrome.

Recommendations and Requirements for All Browsers

- For all browsers, enable JavaScript, cookies, and TLS 1.2. If TLS 1.2 isn't available, enable TLS 1.1. Browsers that don't support TLS 1.1 or TLS 1.2 won't be able to access Salesforce after we deactivate TLS 1.0. Deactivation has already occurred in sandbox orgs and concludes with production orgs on March 4, 2017.
- The minimum screen resolution required to support all Salesforce features is 1024 x 768. Lower screen resolutions don't always properly display Salesforce features such as Report Builder and Page Layout Editor.
- For Mac OS users on Apple Safari or Chrome, make sure the system setting `show scroll bars` is set to **Always**.
- Some third-party Web browser plug-ins and extensions can interfere with the functionality of Chatter. If you experience malfunctions or inconsistent behavior with Chatter, disable the Web browser's plug-ins and extensions and try again.

Some features in Salesforce—and some desktop clients, toolkits, and adapters—have their own browser requirements. For example:

- Internet Explorer is the only supported browser for:
 - Standard mail merge
 - Installing Salesforce Classic Mobile on a Windows Mobile device
 - Connect Offline
- For the best experience with the enhanced page layout editor, use Firefox.
- For the best experience on machines with 8 GB of RAM in the Salesforce console, use Chrome.
- Browser requirements also apply for uploading multiple files on Chatter.

Salesforce Overall: Favorites, Console Apps, and More Actions

Spring '17 gives you more reasons to love Lightning Experience. Customize your navigation experience with favorites, see multiple records on one screen with console apps, and access more global actions from anywhere in Lightning Experience.

IN THIS SECTION:

[Feel Confident About Your Lightning Experience Readiness](#)

Just as we're always adding new features to Lightning Experience, we're adding to the list of customizations that you can evaluate using the Lightning Experience Readiness Check. And if you're still feeling skittish about acting on our recommendations, sign up for a free consultation with a Lightning Experience expert to get more advice. This change applies to both Lightning Experience and Salesforce Classic.

[Create Shortcuts to Your Top Salesforce Pages with Favorites](#)

If you're familiar with customizing tab sets in Salesforce Classic, you'll appreciate the way you can personalize your Lightning Experience navigation with favorites. This feature is new in Lightning Experience.

Console Apps: Now in Lightning Experience

Are you ready to celebrate? Because we are. Console apps are now available in Lightning Experience. Create console apps for your users to let them view multiple records on one screen and easily access utilities and the critical record details they need—all in Lightning Experience. Lightning console apps are available only to Sales Cloud and Service Cloud users. To prevent unexpected issues, don't give other users access to Lightning console apps. Previously, the console was only available in Salesforce Classic.

Enhance Your Lightning Apps with the Utility Bar

The utility bar gives your users quick access to common productivity tools, like Notes and Recent Items. It appears as a fixed footer that users can access to open utilities in docked panels. Under the covers, utilities harness the power of Lightning components. You can add a utility bar to any Lightning app, including standard and console apps. Previously, you could only add or customize a utility bar using the API. This feature is new in Lightning Experience.

Take More Actions from the Global Actions Menu

Create records, log calls, take notes, and launch canvas, Visualforce, and Lightning component actions from anywhere in Lightning Experience. The Global Actions menu (+) now displays nearly all global actions from the Salesforce1 and Lightning Experience Actions section of the global publisher layout. This change applies to Lightning Experience only.

Sell Directly to Customers with Person Accounts in Professional Edition

Dear Professional Edition users, please meet our good friend Person Accounts. Maybe you've heard of each other. Well, now you can start working together to let sales reps store information about individuals they sell to. This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

Rich-Text Editors Disabled When LockerService Critical Update Is Active

In Lightning Experience, Salesforce1, and template-based Communities, you can't use rich-text editors or edit fields with rich text when the LockerService critical update is active in sandboxes and Developer Edition orgs. Rich-text editors and fields in production orgs continue to function normally even when LockerService is activated. Also, LockerService has no effect in Salesforce Classic or Lightning Out, which includes usage of Lightning components in Visualforce.

Search: Smart Tools Take You to the Right Results

Our increasingly flexible search capabilities get you where you need to go in Salesforce, fast. Already know which object you're looking for? Zoom in on it first thing, before entering your search terms. Contacts are easier to find when you know which account they're connected to. If it's Knowledge articles you seek, we've got more filtering options and article snippets in Top Results. Admin-defined dependent lookup filters in Lightning Experience help streamline workflows. And, as you've come to expect in each release, more objects are searchable.

Feel Confident About Your Lightning Experience Readiness

Just as we're always adding new features to Lightning Experience, we're adding to the list of customizations that you can evaluate using the Lightning Experience Readiness Check. And if you're still feeling skittish about acting on our recommendations, sign up for a free consultation with a Lightning Experience expert to get more advice. This change applies to both Lightning Experience and Salesforce Classic.

Have you checked your Salesforce implementation lately to see whether you're ready for Lightning Experience? Even if you've checked your readiness in the past, check it again to see what's new.

As in the past, kick off the readiness check from Salesforce Setup. Click **Lightning Experience > Evaluate**.

Editions

Available in: **Professional, Enterprise, Performance, Unlimited, and Developer** Editions

The screenshot shows the 'Lightning Experience Migration Assistant' page. On the left, there's a sidebar with various tabs like 'Salesforce1 Quick Start' and 'Administer'. Under 'Administer', the 'Lightning Experience' tab is highlighted with a red box and the number '1'. In the main content area, there's a large screenshot of the Lightning Experience interface showing a dashboard with a line graph and some cards. Below this, a text box says: 'Ready to help your users sell faster, smarter, and the way they want? The Lightning Experience Migration Assistant is here to help. Check out these resources and follow the recommended steps for a successful rollout. And get ready to begin your journey with a whole new Salesforce.' At the bottom, there's a section titled 'Evaluate if Lightning Experience Is Right for Your Org' with a 'Check Your Lightning Experience Readiness' paragraph and a red box around the 'Evaluate' button labeled '2'.

Next, you get an email with a personalized readiness report, which includes recommendations on how to migrate your Salesforce implementation to Lightning Experience. Your email also includes an invitation to sign up for a free webinar with a Lightning Experience consultant, who helps you act on our recommendations.

To see what we've started evaluating since your last check, take a look at "See If You're Ready for Lightning Experience with the Readiness Check" in the Salesforce Help.

And stay tuned to learn about more features and customizations the check starts evaluating in the coming months.

SEE ALSO:

[Salesforce Help: See If You're Ready for Lightning Experience with the Readiness Check](#) (can be outdated or unavailable during release preview)

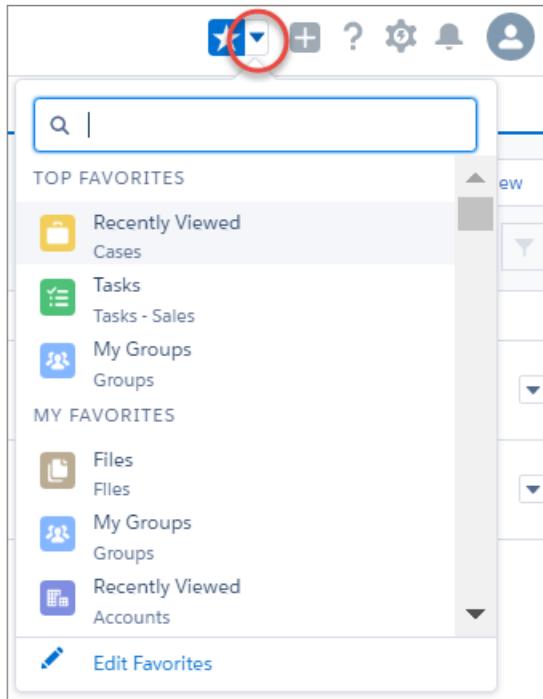
Create Shortcuts to Your Top Salesforce Pages with Favorites

If you're familiar with customizing tab sets in Salesforce Classic, you'll appreciate the way you can personalize your Lightning Experience navigation with favorites. This feature is new in Lightning Experience.

Favorites let you quickly access important records, lists, groups, dashboards, and other frequently used pages in Salesforce. They're similar to bookmarks in a web browser but better because your favorites are available no matter which device or browser you use to log into Lightning Experience.

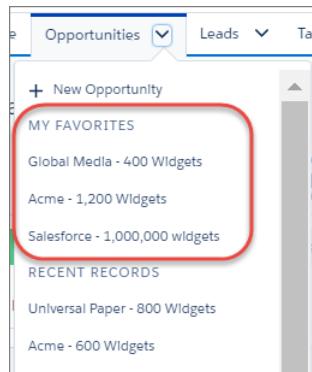
Click the star () to add the current page—for example, all open leads—to your favorites. A highlighted star means you're on a favorite page. To remove a favorite, click the highlighted star.

Your saved favorites are just a click away in your favorites list, where you can find and manage all your favorites.



Each favorite shows the name, record type, and the app name (when the favorite isn't in your current app). When you open a favorite that's in a different app, you switch to that app.

The navigation bar also provides quick access to frequently used favorites in your current app for certain items, like Opportunities.



Tip: You'll see your top favorites in the navigation bar and in your favorites list after you start using favorites.

Keep these considerations in mind when working with favorites.

- You can have up to 200 favorites, which support the following types of content.
 - Record home for standard and custom objects (including Visualforce overrides of these record views)
 - Lists
 - Dashboards
 - Reports
 - Chatter groups



Note: You can't favorite list views on the Reports, Dashboards, Files, Tasks, and Notes tabs. You also can't favorite Visualforce overrides of list views and individual Chatter posts.

- Console apps and setup pages don't support favorites, but you can still access your favorites from these areas.
- Only individual users can manage favorites. They can't be shared or edited by Salesforce admins.

Console Apps: Now in Lightning Experience

Are you ready to celebrate? Because we are. Console apps are now available in Lightning Experience. Create console apps for your users to let them view multiple records on one screen and easily access utilities and the critical record details they need—all in Lightning Experience. Lightning console apps are available only to Sales Cloud and Service Cloud users. To prevent unexpected issues, don't give other users access to Lightning console apps. Previously, the console was only available in Salesforce Classic.

IN THIS SECTION:

[Introducing Lightning Console Apps](#)

You and your console users will love the console in Lightning Experience. Thanks to the Lightning platform, creating and customizing a console app is easier and more powerful. This feature is new in Lightning Experience.

[Customize Your Console App Record Pages with Lightning App Builder](#)

To go with your snazzy new Lightning console apps, we've created new Lightning components and a new Lightning page template. Now your console users can be as efficient and productive as they were in Salesforce Classic. Want to know the most awesome part? You can do all this customization with clicks, not code! This feature is new in Lightning Experience.

[Get Your Tab History in Lightning Console Apps](#)

We know that your users have a lot to keep track of. We also know that users love the History component used in Salesforce Classic consoles. So we're happy to bring you the History utility in Lightning console apps. Console users can see their recently visited workspace tabs and subtabs from the console utility bar. This feature is new in Lightning Experience.

[Understand the Differences Between Salesforce Classic and Lightning Experience Console Apps](#)

Although Lightning console apps include many of the features that make Lightning apps great for you and your users, they also lack some of the features of Salesforce Classic console apps.

[View and Manage Your Console Apps in New Ways](#)

Your org can now have two types of console apps—console apps created in Salesforce Classic and console apps created in Lightning Experience. We want to remind you where to access and manage these different console apps, because it's different for each type. This change applies to both Lightning Experience and Salesforce Classic.

Introducing Lightning Console Apps

You and your console users will love the console in Lightning Experience. Thanks to the Lightning platform, creating and customizing a console app is easier and more powerful. This feature is new in Lightning Experience.

Use console apps to give your users a productivity boost, allowing them to edit and reference multiple records at once. When a user chooses a record from a related list, it opens as a tab in the console. When a user opens a related record, it opens as a subtab. Console apps remember tabs, so that when a user navigates away from the page, they don't lose any time when they come back.

Editions

Available in Lightning Experience

Available in: **Professional, Enterprise, Performance, Unlimited, and Developer**

Editions with Sales Cloud and Service Cloud

Console apps in Lightning Experience have much of the same console functionality that you're used to with Salesforce Classic, such as the three-column layout and pinned tabs, but updated with the styling of Lightning Experience. You can also customize Lightning console apps with Lightning pages and components, thanks to the flexibility of the Lightning platform.

For Sales and Service, we're providing out-of-the-box console apps. These apps are located in the App Launcher under Sales Console and Service Console. You can also create your own console apps in Lightning Experience.

To create a console app or customize one of ours, from Setup enter **App** in the **Quick Find** box and select **App Manager**. From the App Manager, you can edit the Salesforce-provided console apps or create your own with the New Lightning App wizard.

Creating a Lightning console app is similar to creating any Lightning app. In the wizard, you can customize an application's color and branding, add components to its utility bar, choose which items to appear, and decide which users have access. Once you've saved a console app, you can't edit it to use standard navigation.



Note: Lightning console apps don't yet have full parity with Salesforce Classic console apps. For example, some features in Salesforce Classic console apps, such as keyboard shortcuts and macros, aren't available in Lightning console apps.

You can't migrate Salesforce Classic console apps to Lightning Experience.

SEE ALSO:

[Standard Service Console App](#)

[Standard Sales Console App](#)

[Understand the Differences Between Salesforce Classic and Lightning Experience Console Apps](#)

Customize Your Console App Record Pages with Lightning App Builder

To go with your snazzy new Lightning console apps, we've created new Lightning components and a new Lightning page template. Now your console users can be as efficient and productive as they were in Salesforce Classic. Want to know the most awesome part? You can do all this customization with clicks, not code! This feature is new in Lightning Experience.

Giving your console users the record details they need most is easy. Use the Lightning App Builder to drag and drop Lightning components onto record pages, and set component properties to display the details you want.

Head over to the Lightning App Builder to check out the components.



Tip: Drop these components onto a record page that uses the new Three Columns template. This template provides the same page layout that your Salesforce Classic console users are familiar with.

Related List

This component displays a single related list for a record, including lists from a parent record.

The screenshot shows a component titled "Activity History (1)". It displays a single call record with the following details:
Call
Name: Alicia G
Assigned... Alicia G
Last Mod... 11/28/2016 9:50 AM

A "View All" link is located at the bottom right of the component.

The screenshot shows a component titled "Cases for Parent Contact (2)". It displays two case records with the following details:
00001004
Subject: Sample Case: Received ship...
Priority: Medium
Date/Ti... 11/16/2016 12:59 PM

00001000
Subject: Sample Case: Our Widgets h...
Priority: High
Date/Ti... 10/26/2016 11:45 AM

A "View All" link is located at the bottom right of the component.

Related Record

This component displays details for related records, including parent records.

Contact Details		Parent Case	
Name	Jon Amos	Case Number	00001001
Title	Sales Manager	Status	New
Email	info@salesforce.com	Subject	Sample Case 2: The widgets we received are the wrong size.
		Description	
		Case Owner	Admin User
		Priority	Medium

SEE ALSO:

- [Add the Related List Component to Your Lightning Pages](#)
- [Add the Related Record Component to Your Lightning Pages](#)
- [Customize Your Lightning Pages Even More with New Templates](#)

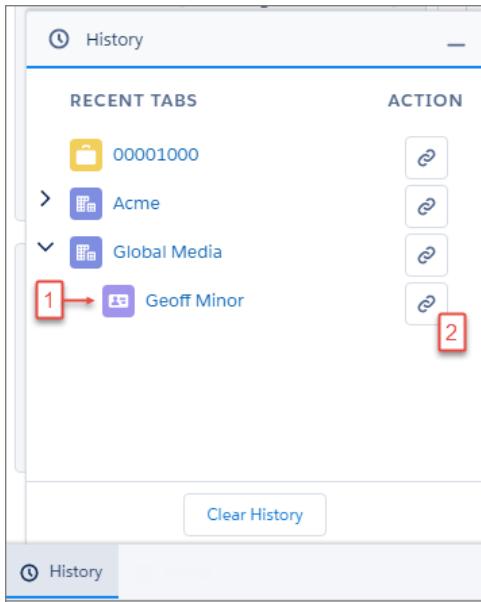
Get Your Tab History in Lightning Console Apps

We know that your users have a lot to keep track of. We also know that users love the History component used in Salesforce Classic consoles. So we're happy to bring you the History utility in Lightning console apps. Console users can see their recently visited workspace tabs and subtabs from the console utility bar. This feature is new in Lightning Experience.



Tip: The new, out-of-the-box Service Console and Sales Console apps include the History utility.

When you create or edit a Lightning console app, you can add the History utility to the utility bar. After your app is saved, console users can see their history for subtabs in context of the workspace tabs they've visited (1) and copy links in one click (2). If a tab name is updated, like when a user updates a contact's name, the history list is updated, too.



 **Note:** You can use the History utility only in Lightning console apps, not in Lightning apps with standard navigation. You can't change the History properties, such as the label and icon.

Keep these things in mind when working with the utility.

- The list can display up to 10 primary tabs at a time, with 10 subtabs under each primary tab.
- Workspace tabs are listed in the order last visited, with the most recent at the top. Subtabs are listed under their workspace tabs in the order first opened.
- If you copy a subtab link, the record opens as a workspace tab.
- If you copy a link and want to share it with other users, make sure that they are logged in to Salesforce before opening the link. Otherwise, the link directs them to the home page instead of the specific record.

SEE ALSO:

[Enhance Your Lightning Apps with the Utility Bar](#)

Understand the Differences Between Salesforce Classic and Lightning Experience Console Apps

Although Lightning console apps include many of the features that make Lightning apps great for you and your users, they also lack some of the features of Salesforce Classic console apps.

You can't migrate Salesforce Classic console apps to Lightning Experience. Many features in Salesforce Classic console apps aren't available in Lightning console apps, including but not limited to:

- Keyboard shortcuts
- Multi-monitor
- Pinned lists
- Macros
- Live Agent
- Javascript APIs, such as the Integration Toolkit

Visualforce

Visualforce is available in Lightning console apps as beta, which means it's a high-quality feature with known limitations. Lightning console apps support Lightning pages using the Visualforce Lightning component, as well as Visualforce mass actions. Visualforce overrides in pages displayed in Lightning console apps are not supported, and Visualforce components in utility bar items are not supported.

Person Accounts

Person accounts aren't supported in Lightning console apps.

- When navigating to a person account from a contact field (such as the Name field on an activity), the person account record can open as both an account and a contact. If this happens, simply close the contact tab.
- Person accounts don't have the same three-column layout as business accounts. Use the Lightning App Builder to create the desired layout, and then assign it to appropriate console app and the person account record type.

Forecasting

The forecasting object isn't supported in Lightning console apps.

Salesforce Knowledge

Some Knowledge sidebar actions don't work in Lightning console apps, including attaching PDF files, adding article contents to case emails, and adding article community URLs. You also can't perform authoring actions in the sidebar. The Knowledge footer is not supported in Lightning Experience.

SEE ALSO:

[Assign Record Pages by App, Record Type, and Profile](#)

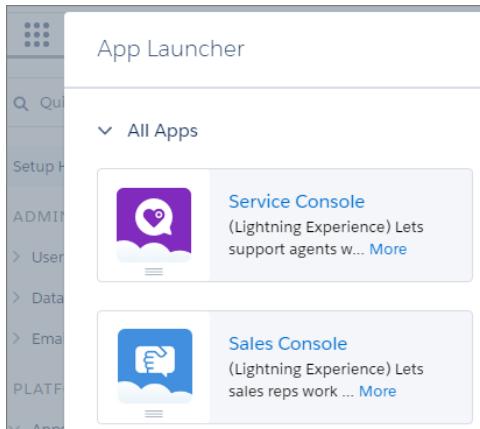
View and Manage Your Console Apps in New Ways

Your org can now have two types of console apps—console apps created in Salesforce Classic and console apps created in Lightning Experience. We want to remind you where to access and manage these different console apps, because it's different for each type. This change applies to both Lightning Experience and Salesforce Classic.

In short: All console apps appear in the Lightning Experience App Launcher, but only Salesforce Classic console apps appear in the Salesforce Classic app menu. To manage a console app, use Setup in the user-interface the app was created in. Keep reading for more details.

Lightning Experience

- To access console apps, use the Lightning Experience App Launcher.



- To manage Lightning console apps, use the App Manager page in Lightning Experience Setup.

The screenshot shows the 'Lightning Experience App Manager' page. It lists 12 items, sorted by App Type and Filtered by TabSet Type. The columns include APP NAME, DEVELOPER NAME, DESCRIPTION, LAST MOD..., APP TYPE, and VISIBLE IN LIG... (with checkboxes). A red box highlights the 'Edit' and 'Delete' buttons for the first item in the list.

APP NAME	DEVELOPER NAME	DESCRIPTION	LAST MOD...	APP TYPE	VISIBLE IN LIG...
1 Test App	Test_App_Console	Test app - still work in progress	11/28/2016 ...	Lightning	<input checked="" type="checkbox"/>
2 Sales Console	LightningSalesConsole	(Lightning Experience) Lets sales reps work with mul...	11/2/2016 1...	Lightning	<input checked="" type="checkbox"/>
3 Service Console	LightningService	(Lightning Experience) Lets support agents work wit...	11/28/2016 ...	Lightning	<input checked="" type="checkbox"/>
4 Sales	LightningSales	Manage your sales process with accounts, leads, op...	10/26/2016 ...	Lightning	<input checked="" type="checkbox"/>
5 Salesforce Chatter	Chatter	The Salesforce Chatter social network, including pro...	10/26/2016 ...	Classic	<input checked="" type="checkbox"/>

Salesforce Classic

- To access Salesforce Classic console apps, use the app menu in Salesforce Classic or the App Launcher in Lightning Experience. When you launch the app from the App Launcher, your console app is opened in a new tab.

The screenshot shows the 'Salesforce Chatter' app menu. It includes tabs for Service, Marketing, Sample Console (which is highlighted with a red box), and Sales.

- To remove a Salesforce Classic console app from the Lightning Experience App Launcher, hide the app on the App Menu page in Salesforce Classic Setup. You can also remove access to the console for individual users.

The screenshot shows the 'Reorder App Menu Items' page. It displays the 'Sample Console' app with its description '(Salesforce Classic) Lets agents work with multiple records on one screen'. A red box highlights the 'Hide In App Launcher' button, which has a cursor icon over it.

- To manage console apps, go to the Apps page in Salesforce Classic Setup.

The screenshot shows the 'Apps' page in Salesforce Classic Setup. It includes a description of what an app is and how to customize it. Below is a table listing apps with columns for Action, App Label, Console, Custom, and Description. The 'Sample Console' app is listed with its 'Console' checkbox checked and its description '(Salesforce Classic) Lets agents work with multiple records on one screen'. A red box highlights the 'Edit' button for the Sample Console app.

Action	App Label	Console	Custom	Description
Edit	Sample Console	<input checked="" type="checkbox"/>	<input type="checkbox"/>	(Salesforce Classic) Lets agents work with multiple records on one screen
Edit	Service	<input type="checkbox"/>	<input type="checkbox"/>	Manage customer service with accounts, contacts, cases, and more

Enhance Your Lightning Apps with the Utility Bar

The utility bar gives your users quick access to common productivity tools, like Notes and Recent Items. It appears as a fixed footer that users can access to open utilities in docked panels. Under the covers, utilities harness the power of Lightning components. You can add a utility bar to any Lightning app, including standard and console apps. Previously, you could only add or customize a utility bar using the API. This feature is new in Lightning Experience.

Does the utility bar sound familiar? That's because it combines the best features from home page components in Salesforce Classic and the footer in Salesforce Classic console apps.

You select which Lightning components you want to add to a utility bar and specify their properties. You can specify how big the utility panel is and what label and icon you want to display in the utility bar. To add a utility bar to your Lightning app, edit the app from the App Manager page in Setup.

Tip: If you're setting up a Lightning console app, add the History utility to show users their recently visited primary tabs and subtabs. The History utility works in Lightning console apps only.

Here's a utility bar configured with Recent Items and Notes.

Utility Bar

Give your users quick access to common productivity tools.

Utility Bar Items [Add](#)

Recent Items	PROPERTIES	Recent Items	↑	↓	Remove
--------------	------------	--------------	-------------------	-------------------	------------------------

Utility Item Properties

*Label: Recent Items

To use an icon other than the default, enter the name of a [Lightning Design System utility icon](#). For example, custom_apps.

Icon: bookmark

Panel Width: 340

Panel Height: 480

Load in background when app opens

Component Properties

[Done](#)

Here's what the utility bar looks like in your app.

The screenshot shows a Salesforce Lightning Console interface. At the top, there's a utility bar with icons for Test App, Cases, Acme, Case Number 00001000, Case Number 00001001, and More. Below the utility bar is a section titled "CASES All Open Cases". It displays a table with 6 items, sorted by Case Number and filtered by Closed, last updated a few seconds ago. The columns include Case Number, Contact Name, Subject, Status, Priority, Date/Time Op..., and Case Owner. The data is as follows:

	CASE NUMBER	CONTACT NAME	SUBJECT	STATUS	PRIORITY	DATE/TIME OP...	CASE OWNER ...
1	00001000	Jon Amos	Sample Case: ...	Escalated	High	10/26/2016 1...	AGoolsby
2	00001001	Edward Stamos	Sample Case 2...	New	High	10/26/2016 1...	AGoolsby
3	00001002	Edward Stamos	Sample Case 3...	On Hold	Low	10/26/2016 1...	AGoolsby
4	00001004	Jon Amos	Sample Case: ...	New	Medium	11/16/2016 1...	AGoolsby
5	00001005	Jon Amos	Sample Case: ...	New	Medium	11/16/2016 1...	AGoolsby
6	00001006		Broken Router	New	Medium	11/22/2016 1...	AGoolsby

At the bottom of the screen, there are two buttons: "Recent Items" and "Notes".

We recommend adding no more than 10 utilities to a utility bar. And keep the labels for your utilities short and sweet so that your users can quickly find what they need.

Note: The utility bar doesn't support Visualforce pages or components.

SEE ALSO:

[Introducing Lightning Console Apps](#)

[Get Your Tab History in Lightning Console Apps](#)

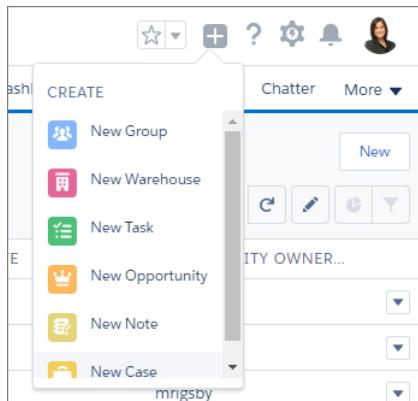
Take More Actions from the Global Actions Menu

Create records, log calls, take notes, and launch canvas, Visualforce, and Lightning component actions from anywhere in Lightning Experience. The Global Actions menu (+) now displays nearly all global actions from the Salesforce1 and Lightning Experience Actions section of the global publisher layout. This change applies to Lightning Experience only.

EDITIONS

Quick actions available in:
Group, Professional, Enterprise, Performance, Unlimited, Contact Manager, and Developer Editions

Custom canvas actions available in: **Professional** (with Force.com Canvas enabled), **Enterprise, Performance, Unlimited, and Developer** Editions



You might have noticed that we said “nearly all.” The Global Actions menu doesn’t support the standard Chatter actions Post, File, Poll, Link, Question, and Thanks.

Sell Directly to Customers with Person Accounts in Professional Edition

Dear Professional Edition users, please meet our good friend Person Accounts. Maybe you’ve heard of each other. Well, now you can start working together to let sales reps store information about individuals they sell to. This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

By default, Salesforce accounts are business accounts, which store information about companies. But if you sell directly to consumers, you need your accounts to store information about individual people—details like first and last names. That’s what person accounts do.

Person accounts must be enabled by Salesforce. After they’re enabled, they can’t be disabled.

Editions

Available in **Professional, Enterprise, Performance, Unlimited, and Developer** Editions

SEE ALSO:

[Get More Out of Person Accounts](#)

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

Rich-Text Editors Disabled When LockerService Critical Update Is Active

In Lightning Experience, Salesforce1, and template-based Communities, you can’t use rich-text editors or edit fields with rich text when the LockerService critical update is active in sandboxes and Developer Edition orgs. Rich-text editors and fields in production orgs continue to function normally even when LockerService is activated. Also, LockerService has no effect in Salesforce Classic or Lightning Out, which includes usage of Lightning components in Visualforce.

This change enables your Salesforce admin to test LockerService and Content Security Policy updates in its entirety before they are automatically enabled in Summer ‘17. Rest assured that the limitation is only temporary for Spring ‘17. We’re removing this limitation before LockerService is activated for all orgs in Summer ‘17.

To deactivate the critical update, from Setup, click **Critical Updates**, and click **Deactivate** on the critical update labeled “Enable Lightning LockerService Security”.

The following features are impacted for sandboxes and Developer Edition orgs when the LockerService critical update is active.

- Note:** When using rich-text editors in impacted features, a message informs you of this change: “Rich-text editing is disabled because the LockerService critical update is activated. Your Salesforce admin can deactivate the LockerService critical update in Setup.”

Chatter feed

The publisher is disabled in Lightning Experience. You can switch to Salesforce Classic to write a post in the Chatter publisher.

Chatter Questions

The publisher is disabled in Lightning Experience and Salesforce1. You can switch to Salesforce Classic to post a question.

Community Builder

The Rich Content Editor is disabled in Community Builder. In the community, any component that contains a rich-text editor, such as the Feed component, is disabled.

Email Composer

The HTML Body field in the email composer is disabled in Lightning Experience. You can switch to Salesforce Classic to send rich-text email from a record.

Groups

The Information field is read-only in Lightning Experience and Salesforce1. You can switch to Salesforce Classic to edit this field on a group.

Knowledge

The rich-text editor fields in Lightning Knowledge are read-only. You can switch to Salesforce Classic to write a Knowledge article.

Lightning App Builder

The Rich Text component is read-only. The rich text editor in the component properties pane doesn't render.

Rich text area fields

Custom fields with the rich text area data type are read-only in Lightning Experience and Salesforce1. You can switch to Salesforce Classic to edit these fields.

Sales Path

When creating or editing a path, the Guidance for Success field is disabled. However, guidance added before the LockerService is activated still appears in the opportunity and lead workspaces when your sales reps are updating the stages.

Lightning components

`ui:inputRichText` and `forceChatter:feed` components are disabled in Lightning Experience, Salesforce1, and standalone apps.



Note: Notes is now compliant with LockerService. You can continue to use Notes when the LockerService critical update is active. It's the same look and feel as before, but the toolbar appears slightly different because it now uses the Lightning Design System icons.

SEE ALSO:

[Known Issue: Rich-Text Editors are disabled when LockerService is enabled for sandbox and DE orgs](#)

[LockerService Has Stricter Content Security Policy](#)

[Rich Text Component Disabled When LockerService Critical Update Is Active](#)

Search: Smart Tools Take You to the Right Results

Our increasingly flexible search capabilities get you where you need to go in Salesforce, fast. Already know which object you're looking for? Zoom in on it first thing, before entering your search terms. Contacts are easier to find when you know which account they're connected to. If it's Knowledge articles you seek, we've got more filtering options and article snippets in Top Results. Admin-defined dependent lookup filters in Lightning Experience help streamline workflows. And, as you've come to expect in each release, more objects are searchable.

Editions

Available in: **All** Editions
except Database.com

IN THIS SECTION:

[Pick an Object and Search It from Anywhere](#)

We've added another shortcut option to the instant results dropdown. When you know which object you want to search, start typing the name of the object in the search box. You have the option to limit your search to that object. This change applies to Lightning Experience only.

[Provide More Relevant Results with Dependent Lookup Filters](#)

Make it easier for users to find the record they want by displaying fewer yet more targeted results with dependent filters. Dependent lookup filters are admin-defined filters for lookups that reference fields on the current record. For example, an admin adds a filter so that the case **Contact** field only shows contacts from the **Account Name** field selection on the same record. This change applies to Lightning Experience and all versions of the Salesforce1 mobile app.

[Search for Contacts Using the Account Name](#)

Find the right person, right away. Simply enter a contact and account name when you search. This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

[Knowledge: Enhanced Article Search](#)

We've given Knowledge search some love, and we think you'll love how easy it is to find the articles you need. See that search box at the top of every page? It's your new Knowledge search portal, upgraded with advanced article search options that filter out results you don't need. Also, article snippets appear on the Top Results page, so users can see at a glance which results are most relevant. These changes apply to Lightning Experience only.

[Get Search Results for More Objects](#)

Events (Calendar), Quotes, and Tasks are now searchable. This change applies to Lightning Experience and all versions of the Salesforce1 mobile app.

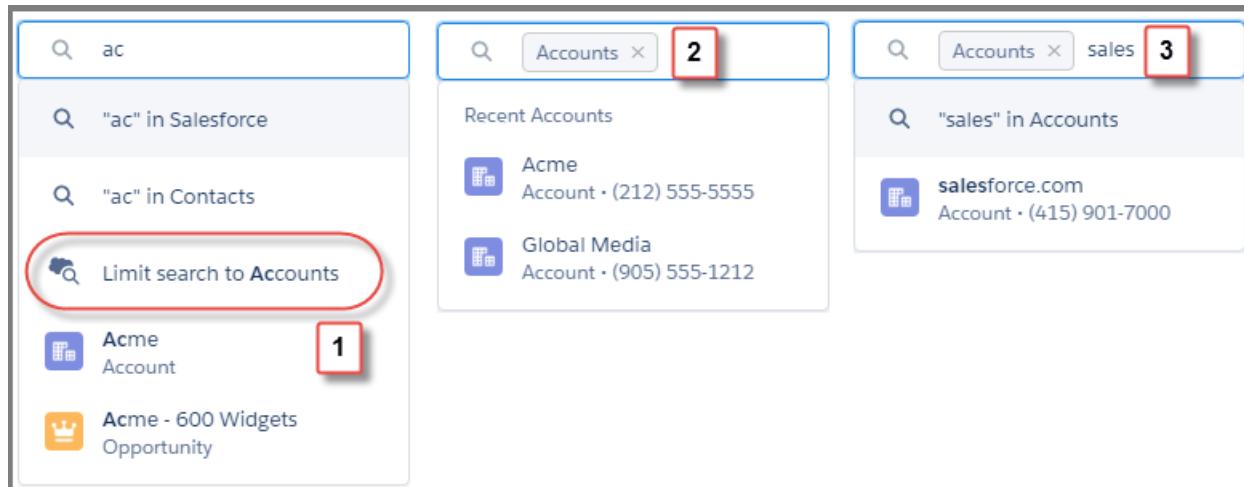
Pick an Object and Search It from Anywhere

We've added another shortcut option to the instant results dropdown. When you know which object you want to search, start typing the name of the object in the search box. You have the option to limit your search to that object. This change applies to Lightning Experience only.

For example, suppose you're on a contact's page and want to search for an account. Start typing "accounts" in the search box, then choose the option to limit your search to Accounts (1). The Accounts object appears in the search box (2), and the instant results dropdown updates to show only Account records. Enter your search term (3).

EDITIONS

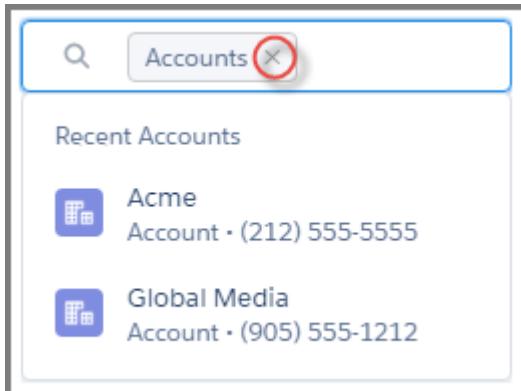
Available in: **All Editions**
except Database.com



If you don't see what you're looking for in the dropdown, press Enter to go to the object's search results page.

You can do this from anywhere in the app. Think of all the saved clicks!

Subsequent searches are limited to the selected object until you navigate away from the search results page or remove the object by clicking the **X**.



This feature works only for your most frequently used objects, objects in the navigation bar, and Chatter. You can search one object at a time.

 **Note:** To search calendar items, enter "events."

SEE ALSO:

[Instant Results in Lightning Experience](#)

Provide More Relevant Results with Dependent Lookup Filters

Make it easier for users to find the record they want by displaying fewer yet more targeted results with dependent filters. Dependent lookup filters are admin-defined filters for lookups that reference fields on the current record. For example, an admin adds a filter so that the case **Contact** field only shows contacts from the **Account Name** field selection on the same record. This change applies to Lightning Experience and all versions of the Salesforce1 mobile app.

Because users only see related records, associating records is quicker and less error-prone. However, more filters aren't always better. To avoid over-constraining results, consider making the filters more generic or optional, or continue using related lookup filters, which are already available.

Use same process as in Salesforce Classic to add or edit filters. To get there:

1. From Setup, enter **Object Manager** in the Quick Find box, then select **Object Manager**.
2. Select an object from the **Label** column.
3. From the **Fields & Relationships** section, select a lookup field from the **Field Label** column.
4. Above **Field Information**, click **Edit**.
5. From the **Lookup Filter** section, use the **Show Filter Settings** drop-down to edit or add filters.

EDITIONS

Available in: **All Editions**
except Database.com

Dependent or related lookup filters you've defined appear in Lightning Experience and all versions of the Salesforce1 mobile app.

SEE ALSO:

- [Dependent Lookups](#)
- [Define Lookup Filters](#)
- [Find Object Management Settings in Lightning Experience](#)

Search for Contacts Using the Account Name

Find the right person, right away. Simply enter a contact and account name when you search. This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

 **Note:** This feature is not immediately available. The feature becomes available on a rolling basis throughout the release.

It's easier than ever to find a contact. Enter a first or last name, or both, plus the account name. Contacts that match the search terms and relate to the specified account are returned.

Search Term	Returned Contact	Related Account
<i>Mia Acme</i>	Mia Adams	Acme Industries
<i>Mike Smith ABC</i>	Mike Smith	ABC Company

This feature searches across both direct and indirect account relationships for a contact.

Knowledge: Enhanced Article Search

We've given Knowledge search some love, and we think you'll love how easy it is to find the articles you need. See that search box at the top of every page? It's your new Knowledge search portal, upgraded with advanced article search options that filter out results you don't need. Also, article snippets appear on the Top Results page, so users can see at a glance which results are most relevant. These changes apply to Lightning Experience only.

SEE ALSO:

- [Knowledge Search: Pre-filtering and Other Enhancements, Accessible from Anywhere](#)
- [Get More Context with Snippets in Article Top Results](#)

EDITIONS

Available in: **All Editions**
except Database.com

Get Search Results for More Objects

Events (Calendar), Quotes, and Tasks are now searchable. This change applies to Lightning Experience and all versions of the Salesforce1 mobile app.

Calendar appears as Events in the search results list and in instant results.

EDITIONS

Available in: **All Editions**
except Database.com

SEE ALSO:

- [Searchable Fields by Object in Lightning Experience](#)

Lightning Experience: A Modern and Intelligent User Experience

Lightning Experience is a completely reimagined interface. Even better, it's built on our UI platform, so the experience can grow and evolve with your needs. Check out the new features and considerations in this release.

IN THIS SECTION:

[Lightning Experience Features in This Release](#)

Here's the list of the powerful features and enhancements that make Lightning Experience the go-to interface for selling smarter and faster. Use this list to quickly access the details about each feature. Some Lightning Experience features, including enhancements to accounts and Chatter, are available within 24 hours after the Spring '17 release. Otherwise, there's no wait.

[What's Different or Not Available in Spring '17 Lightning Experience Features](#)

For new Lightning Experience features and enhancements, review these topics to see if any functionality that's critical to your business is limited or unavailable in this release. While reviewing this list, remember that your users can always access features not yet supported in the new interface by temporarily switching to Salesforce Classic.

EDITIONS

Available in: **Group, Professional, Enterprise, Performance, Unlimited, and Developer** Editions

Lightning Experience Features in This Release

Here's the list of the powerful features and enhancements that make Lightning Experience the go-to interface for selling smarter and faster. Use this list to quickly access the details about each feature. Some Lightning Experience features, including enhancements to accounts and Chatter, are available within 24 hours after the Spring '17 release. Otherwise, there's no wait.

IN THIS SECTION:

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[Visual Workflow](#)

[Process Builder](#)
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General Enhancements

Feel Confident About Your Lightning Experience Readiness

Just as we're always adding new features to Lightning Experience, we're adding to the list of customizations that you can evaluate using the Lightning Experience Readiness Check. And if you're still feeling skittish about acting on our recommendations, sign up for a free consultation with a Lightning Experience expert to get more advice.

Create Shortcuts to Your Top Salesforce Pages with Favorites

If you're familiar with customizing tab sets in Salesforce Classic, you'll appreciate the way you can personalize your Lightning Experience navigation with favorites.

Console Apps: Now in Lightning Experience

Are you ready to celebrate? Because we are. Console apps are now available in Lightning Experience. Create console apps for your users to let them view multiple records on one screen and easily access utilities and the critical record details they need—all in Lightning Experience. Lightning console apps are available only to Sales Cloud and Service Cloud users. To prevent unexpected issues, don't give other users access to Lightning console apps.

Enhance Your Lightning Apps with the Utility Bar

The utility bar gives your users quick access to common productivity tools, like Notes and Recent Items. It appears as a fixed footer that users can access to open utilities in docked panels. Under the covers, utilities harness the power of Lightning components. You can add a utility bar to any Lightning app, including standard and console apps. Previously, you could only add or customize a utility bar using the API.

Take More Actions from the Global Actions Menu

Create records, log calls, take notes, and launch canvas, Visualforce, and Lightning component actions from anywhere in Lightning Experience. The Global Actions menu (+) now displays nearly all global actions from the Salesforce1 and Lightning Experience Actions section of the global publisher layout.

Sell Directly to Customers with Person Accounts in Professional Edition

Dear Professional Edition users, please meet our good friend Person Accounts. Maybe you've heard of each other. Well, now you can start working together to let sales reps store information about individuals they sell to.

Get More Information with Streamlined AppExchange Listings

We simplified AppExchange listings so that you can view key product details with fewer clicks. On listings that include a package, you see more about what the package contains, such as the number of components that can be used in Lightning App Builder.

Review AppExchange Offerings in Salesforce

You can now share feedback on apps, Lightning components, and consulting services from the integrated AppExchange experience. Previously, if you wanted to write or interact with reviews, we directed you to the AppExchange website.

Search

Pick an Object and Search It from Anywhere

We've added another shortcut option to the instant results dropdown. When you know which object you want to search, start typing the name of the object in the search box. You have the option to limit your search to that object.

Provide More Relevant Results with Dependent Lookup Filters

Make it easier for users to find the record they want by displaying fewer yet more targeted results with dependent filters. Dependent lookup filters are admin-defined filters for lookups that reference fields on the current record. For example, an admin adds a filter so that the case **Contact** field only shows contacts from the **Account Name** field selection on the same record.

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Get Search Results for More Objects

Events (Calendar), Quotes, and Tasks are now searchable.

Salesforce Einstein

Sales Cloud Einstein: A Smarter Sales Process at Every Step Powered by Artificial Intelligence (AI)

AI for sales is here. With Sales Cloud Einstein, your team's sales productivity is supercharged with key predictions, intelligent recommendations, and timely automation.

Core Sales

Get More Out of Person Accounts

Person accounts is now available in Professional Edition. Plus, the person account Lightning Page is now customizable. We've added fuller support with Contacts to Multiple Accounts, the option to prevent sales teams from creating duplicate person account records, and more.

Visualize Account Relationships by Using Account Hierarchy in Lightning Experience

Account hierarchy gives your sales team a bird's-eye view of the relationships between parent and subsidiary accounts. This feature is now available to Lightning Experience users with a bonus: You can customize hierarchy columns to show the information that's most useful to your sales teams.

Continue to Be Impressed with Contacts to Multiple Accounts

We know that your reps love being able to relate a single contact to more than one account. We love it too, and have made it better still. We're rolling out fuller person account support, custom actions, process builder and workflow support, and more.

Manage Leads Faster in Lightning Experience

Apply assignment rules when marketing creates leads, mass-update lead statuses, and map custom lead fields to contacts, accounts, and opportunities for lead conversion.

Let Marketing and Sales Ops Users View Converted Leads

Assign the new "View and Edit Converted Leads" permission to let marketing and sales operations users view converted leads. Users can also edit converted leads.

View Campaign Hierarchy Results in Lightning Experience

Quickly see how your campaigns are organized, and view the individual and aggregated campaign results for every campaign in your hierarchy.

Manage Campaign Member Statuses in Lightning Experience

Let your marketing users set up and manage the member status values for each campaign when you add the Campaign Member Statuses related list to Campaign page layouts.

Manage Campaign Members Faster with Mass Actions in Lightning Experience

The Campaign Member related list now lets marketing reps add members to campaigns, mass-update members, remove, and clone members with just a few clicks.

Collaborative Forecasts: Sales Projections in Lightning Experience

Show your reps how sales numbers measure up in a period while taking advantage of everything Lightning Experience has to offer. Help teams project sales revenue and quantities from the opportunity pipeline, including opportunity splits and custom opportunity currency fields, without switching to Salesforce Classic.

Opportunities: Opportunity Products in Lightning Experience

Sales reps can save time by adding up to 50 products to opportunities in one go, and editing up to 200 simultaneously.

Orders: Agreements for Delivering Products and Services in Lightning Experience

Give your teams more bells and whistles with the ability to track requests for products and services in Lightning Experience.

Global Actions Added for Contracts and Orders

Global actions are available for the Contract and Order objects, so you have more control over customizing actions for these objects.

Get More from Quotes

Show your teams' quotes side by side for easy comparison and access. Let reps search for the quotes they want to review and delete unneeded quote PDFs. Help teams track quote-related sales activity and the stages that their quotes are in. And let reps add multiple products to quotes at the same time.

Take Quote PDFs to the Next Level in Lightning Experience

Make it easy for your teams to email customers the latest quotes without switching to Salesforce Classic. And let your teams attach multiple quotes and other documents so that customers can compare them side by side.

Sales Path: Feature Renamed and Expanded

Same great feature now with a new name—Path—to reflect its expanded availability.

Easier to Use Contact Merge Fields When Emailing Person Accounts

When reps use merge fields in an email to a person account, all person account merge fields now show up in the merge field search results. Previously, only account merge fields appeared in the search results, but now contact merge fields are returned, too.

Account Autofill Now Called Automated Account Fields

Automated Account Fields is the new name for the account feature that displays US-based companies in the Account Name field as sales reps enter information. Reps can select a suggested company from the list, making it easier to create business accounts.

Detect and Merge Duplicate Companies and Contacts in Lightning Experience

Help your sales teams maintain great relationships with customers, and keep your accounts and contacts clutter free. By displaying duplicate records, you can stop a sales rep from spoiling a customer relationship—and wreaking havoc on your data. If you've already given your reps permission to merge records in Salesforce Classic, now they can also merge records in Lightning Experience. A consistent interface across accounts, contacts, and leads simplifies duplicate management for everyone.

Manage Duplicate Person Accounts

Do you struggle to manage person accounts because your sales team unknowingly creates duplicates? Help is here. New matching rules and duplicate rules for person accounts extend duplicate management functionality already available for leads, contacts, and business accounts.

Sales Productivity

Inbox: Productivity Tools That Connect Email and Calendar to Salesforce

Let your sales team integrate their email and calendar with Salesforce using features that automatically log emails and events and increase productivity on every email.

Sales Console: Multiple Records on One Screen in Lightning Experience

Your sales reps just got a whole lot better at their jobs. Thanks to the new Lightning Sales Console app, your team has all the tools at their fingertips to prospect leads, close deals, and manage relationships.

Lightning Voice: Voicemail and Call Quality

We've added a few key features to Voice, including personal voicemail and the ability to see call quality with ease.

List Views in Lightning Experience Default to the Last One Viewed

No longer do you see that pesky Recently Viewed list every time you navigate to a list view in Lightning Experience. Instead, the list view you worked with last on that page is the one you see when you return to the page.

Save Time by Editing Inline in List Views (Generally Available)

Your reps can breeze through record updates in Lightning Experience with Lightning Edit in list views. Reps can modify a record without opening it, right from the list view. And in lookup fields, they can search for and create records on the fly.

Save Time with Context-Sensitive Email Templates

When selecting an email template, only templates that apply to the first email recipient or the item in the Related To field are displayed.

Kanban: Expanded Availability and More Settings

Effectively monitor work using the Kanban-style visual layout in more places.

Consistent Email Footers for Emails Sent Through Gmail or Office 365

Email sent via Gmail or Office 365 can contain an organization-wide footer. You can choose whether to include this footer.

Send Email Action: Tailor Email to Match Your Business Processes

We've replaced the Email Composer with the Send Email action. You can customize Send Email actions to work the way your business works, by adding and removing fields or specifying predefined values. Add the Send Email action to any activity-enabled object.

Send Email from Anywhere

Add the Send Email action to any activity-enabled object, including custom objects, and you can send email from anywhere in Lightning Experience.

Send Error-Free Emails by Predefining Fields

Predefine fields to customize the Send Email quick action for your business processes and reduce entry errors.

Send Email Using Org-Wide Email Addresses

You can select org-wide addresses in the From dropdown, except for Salesforce Inbox users.

Choose Among Multiple Email Addresses in the From Field

When you use the Send Email action and Salesforce Inbox, you can select from which connected account to send the email. Select the best email address to match your business processes. For example, an HR rep could choose "recruit@company.com" to respond to a job request.

Create More Record Associations with the Related To Lookup Field

Choose what the email is related to, such as a campaign, and also choose who the email recipient is, such as a person on a campaign. The content of the Related To field affects available merge fields and templates and also associates the email activity with the record. As a result of the association, you can see the campaign email when you're looking at the person's record.

Save Time with Context-Sensitive Email Templates

When selecting an email template, only templates that apply to the first email recipient or the item in the Related To field are displayed.

Context-Sensitive Merge Fields Keep Your Choices Simple

Merge fields are typically used when creating a template. When choosing a merge field, the list of possible merge fields displays the appropriate fields for the first email recipient or the item in the Related To field. If a Person Account is in the Related To field, the list now displays all the Person Account merge fields.

Consistent Email Footers for Emails Sent Through Gmail or Office 365

Email sent via Gmail or Office 365 can contain an organization-wide footer. You can choose whether to include this footer.

Email Files as Attachments or Links: You Decide

Control email size by setting size limits on attachments or allowing only links to files. New settings let you choose the most efficient methods to improve deliverability.

Create Follow-Up Tasks

Create a follow-up task, and remember what's next on your to-do list. The new follow-up task uses the original tasks' information from the Subject, Assigned To, Name, and Related To fields. The due date is blank, but defaults to today when you click in the field.

Use Recurring Tasks (Again and Again) in Lightning Experience

Sales professionals rely on recurring tasks to schedule their predictable activities, like creating the next day's prospect list or updating the weekly sales meeting agenda. Tasks can repeat daily, weekly, monthly, or yearly, and start on any day you choose. Set when the task ends, or calculate the latest date automatically. Now your Lightning Experience users can create and track recurring tasks without switching to Salesforce Classic.

Save Time by Using Save and New in Tasks

Why make creating a task a task? The Save and New feature creates a new task based on the old task. The new task has the same entries in the Subject, Name, Assigned To, and Related To fields.

Search for Tasks and Events

Tasks and events now appear in global search results.

Google Integration (Beta)

Lightning for Gmail (Beta)

Get More Done Directly from Lightning for Gmail

Give your sales teams access to Salesforce content right where they work. That way, they can efficiently manage their sales pipeline and drive more deals to close without switching between Salesforce and Gmail.

Einstein Brings Insights to Lightning for Gmail

Give your sales teams decision-driving data in Lightning for Gmail with Einstein. If you've set up with Einstein, your sales reps can use account and opportunity insights to prioritize their work while they tackle their emails.

Rev Up Productivity with Enhanced Email

Want to help your sales reps stay on top of their emails as well as their important deals? Turn on Enhanced Email with Lightning for Gmail for your reps, so they can relate emails to relevant Salesforce records quickly and easily.

Put Your Own Spin on Lightning for Gmail

Do your sales teams want to zero in on records other than accounts, contacts, opportunities, leads, or cases? Are they eager to work with functionality that your company customized? Make Lightning for Gmail more relevant for sales reps by selecting the kinds of Salesforce records reps see and work with when they're in Gmail.

Lightning Sync for Google (Beta)

Get Sales Reps' Contacts into Gmail™

Help your sales reps get up-to-date contact information for their prospects. Set up reps to sync Salesforce contacts to Google Contacts using Lightning Sync. That way, reps can work in Gmail™ to build relationships with prospects, and not lose time maintaining records in both systems.

See Who's Attending Meetings Booked from Google Calendar™ Directly from Salesforce

If your company uses Lightning Sync with Google Calendar™, your sales team can see which prospects, customers, and colleagues are attending their meetings directly from Salesforce.

Microsoft® Integration

Lightning for Outlook

Get More Done Directly from Lightning for Outlook

Your sales teams can drill down for more details on a Salesforce record right from Lightning for Outlook. In addition to a record's detail page, reps get to see its Chatter feed, activity timeline, and related lists. But, we didn't stop there. Lightning for Outlook now supports inline editing, so reps can modify records without having to switch between Salesforce and Outlook.

Einstein Brings Insights to Lightning for Outlook

Give your sales teams decision-driving data in Lightning for Outlook with Einstein. If you've set up with Einstein, your sales reps can use account and opportunity insights to prioritize their work while they tackle their emails.

Tailor Content in Email Application Panes Even More

If your sales reps love working with customized functionality in Lightning for Outlook, we've got great news for you. Developers can now design custom Lightning components that leverage email content, or an event's description, start date, end date, participants, and location.

Lightning Sync for Microsoft Exchange

See Who's Attending Meetings Booked from Microsoft Exchange® Calendars Directly from Salesforce

If your company uses Lightning Sync with Microsoft Exchange, your sales team can see which prospects, customers, and coworkers are attending their meetings directly from Salesforce.

Salesforce for Outlook

Critical Upgrade Required on page 141

To avoid service disruption, all Salesforce for Outlook users must be working on version 3.0.0 or later by March 2017. Make sure that your sales teams upgrade as soon as possible to work through any installation issues before March.

Support Ending for Several Microsoft® Applications

To offer your sales reps compatibility with the latest Microsoft applications, Salesforce for Outlook is ending support for retired Microsoft applications, like Internet Explorer® 9, Internet Explorer® 10, Outlook 2007, and Exchange 2007. Move your reps off these applications soon to avoid issues.

Data.com

Data Integration Rules Replace Clean Rules

Data integration rules replace Data.com Clean rules with better control over how your data is updated. Rules are available for Data.com data and data in external data packages. Although data integration rules are designed for all external data services, they also work with Data.com Clean updates and Clean jobs.

Customize Field Mapping for Data Integration Rules

Customized field mapping lets you control how data integration rules match external data with your records and how rules update your records. Field mapping relates fields in the service to fields in your records. Each data integration rule has a match mapping and an update mapping. The match mapping controls how the service finds one of your records to update. The update mapping controls which of your fields the service updates. The Field Mapping detail page shows both mappings.

Service

Meet the New Lightning Service Console

The Service Console is now in Lightning Experience. You and your service agents can take advantage of all the awesomeness that Lightning Experience has to offer. Service agents will love the updated user interface and easy-to-use Lightning components, and you'll love the ability to customize the console in just a few clicks. Yes, just a few clicks! To get you up and running in the console quickly, we're giving you an out-of-the-box app called Service Console that you can customize to your heart's content.

Use Open CTI in Lightning Console Apps

Last release we gave you Open CTI for Lightning Experience. This release we have even better news. You can now use Open CTI for Lightning Experience in Lightning console apps, including the Service Console.

New Behavior for the Open CTI onNavigationChange Method

The listener invoked by the `onNavigationChange` method now behaves differently depending on which type of app you're in—standard or console.

Call Center App Gets a New Name

To better align with the future direction of the Service Cloud, we've renamed the Call Center app to Service. You can access this app in Salesforce Classic using the app menu and in Lightning Experience using the App Launcher.

Knowledge: Say Hello to Lightning Knowledge

Knowledge has taken the leap to Lightning Experience, giving you a high-powered yet streamlined way to manage your knowledge base. With Lightning Knowledge, you get the benefits of standard objects that work just like other objects in Salesforce. Lightning Knowledge is best for orgs new to Knowledge or for existing orgs that can easily consolidate to one article type, have few data categories, and use single-language mode. This change applies to Lightning Experience only.

Reports and Dashboards

Subscribe to Reports in Lightning Experience

You know that report you check when you arrive in the office every Monday morning? Why not have it emailed to you every Monday at 8:00 AM instead? Subscribe to up to five reports and receive refreshed report results by email on a schedule you set: daily, weekly, or monthly. Report subscriptions in Lightning Experience are available within seven days of the Spring '17 release.

Filter Reports via URL Parameters in Lightning Experience

No need to futz with filters! Pass URL parameters to set filter values in Lightning Experience reports. When linking to reports or when bookmarking a report, add filter value parameters to the URL to customize how the report filters when opened. For example, bookmark your opportunities report and add a filter value parameter to specify whether you see *New Business* or *Existing Business*.

View Dashboards as Other People in Lightning Experience

Say that your sales people can only view their own opportunities, but you'd like to review all opportunities closed in the last quarter. Create a dashboard and let people view the dashboard as you (or anyone else who can see all opportunities). When your sales people open the dashboard, they see info about all opportunities instead of only their opportunities. Their data access in Salesforce remains unchanged. They can only see more data in your dashboard.

Share Dashboard Charts by Posting Them to Chatter in Lightning Experience

Start the conversation by sharing images of dashboard charts on Chatter.

Expand Dashboard Components to Get the Big Picture in Lightning Experience

Open a dashboard component in a window so you can see all the details.

Follow Dashboards in Lightning Experience

Instead of regularly opening a dashboard to take note of changes, follow a dashboard to get updates in your Chatter feed. After you enable feed tracking on dashboards, your users can follow dashboards by opening one up and clicking **Follow**.

Move Dashboards Between Folders in the Lightning Experience Dashboard Builder

If your org is using Enhanced Analytics Folder Sharing for Reports and Dashboards, folders govern who has access to the reports and dashboards saved inside. (If your org was created after the Summer '13 Salesforce release, you already have Enhanced Analytics Folder Sharing.) To move a dashboard from one folder to another, open the Properties menu in the Lightning Experience Dashboard Builder.

Add Funnel and Scatter Charts to Lightning Experience Dashboards

We've made funnel and scatter charts available in the dashboard component editor. Add a funnel chart to show relative measured amounts by stage. For example, funnel charts are ideal for showing how opportunities move through stages. Add a scatter chart to display one or two groupings of report data plus summaries. Scatter charts are useful for identifying trends across large datasets.

External Object Reports Have Fewer Limitations

We removed some previous limitations, hopefully before you even encountered them. The improvements affect reports that include external object relationships or use the cross-org adapter for Salesforce Connect.

Other Enhancements to Reports and Dashboards in Lightning Experience

In addition to this release's major features, we've made some small-but-notable improvements to Reports and Dashboards.

Chatter

Filter Questions in Groups in More Ways

You have more ways to look at questions in your communities and Lightning Experience group feeds. You can already sort questions, now you can filter them, too.

Lightning Chatter Home Page Gets a Makeover

A lot is happening in the left column of the Lightning Chatter Home page. The All Company feed is now called Company Highlights and serves up a dynamic list of the most popular posts from your entire company (Top Posts). Under Company Highlights, we introduce a new feature called Streams. Create up to five custom feeds that each combines posts from up to 25 of your most useful sources. Under your list of Streams, you now have quick access to five of your most recently updated groups.

Create Custom Feeds with Chatter Streams

Now you can put together the information that's most useful to you in your own custom feeds with Chatter streams. Create up to five Chatter streams that combine posts from different feeds and different feed types. Combine feeds from people, groups, and records, like your accounts, opportunities, and cases.

All Company Feed Renamed to Company Highlights

Your All Company feed is now named Company Highlights. The Company Highlights feed incorporates Einstein artificial intelligence (AI) to bring you a ranked view of what's trending in your org (Top Posts). Now you can easily catch up on the hottest news from across your company.

Shield Platform Encryption Comes To Chatter (Pilot)

We're running a public pilot for Shield Platform Encryption for Chatter. Encryption for Chatter enables you to encrypt sensitive data when it's stored, and not just when it's transmitted over a network. Encryption for Chatter isn't ready for production, but you can safely try it out in your org sandbox.

Share Posts in Lightning Experience

When someone posts something you'd like more people to see, you can share it with your followers. If you like, you can add your own introductory remarks before you post.

Live Comments Are Better Than Ever

We enhanced live comments for better usability. For example, an animation now shows you when people are commenting. Right by that animation is a list of up to three people who are actively typing comments.

Use Keyboard Keystrokes to Post

Power users can use the keyboard to complete posts and comments. On Windows, enter content and press Ctrl+Enter. On macOS, press either Control+Enter or Command+Enter.

Feeds Look and Feel Gets Refreshed

We're continuing the work of conforming all our platforms to the same usability standards. In this release, we changed the likes bar. Now it shows you a count and lists the names of up to three people who liked the post.

Files

Organize Library Files in Folders (Beta)

You asked for folders, and we delivered. In Lightning Experience, you can create, rename, and delete folders to organize the files in your libraries.

Add Salesforce Files to a Record from the Related List in Lightning Experience

Increase productivity by attaching Salesforce Files to a record, right from the files card. No Chatter? No problem! You can attach Files Connect files and library files too.

Rename Files in Lightning Experience

Do you have file namer's remorse? Now you can easily rename a file in Lightning Experience.

Convert a Link to an External File into a Files Connect File Reference

Post the hyperlink of an external Files Connect Google Drive file in Chatter, and it automatically becomes a Files Connect file reference. The icon and the file title appear under the body of your post.

Lightning App Builder

Assign Record Pages by App, Record Type, and Profile

Now you can customize your users' experience even more granularly by creating custom record pages and assigning them by app, record type, and user profile. Give your sales managers a different view of opportunities than your sales reps. Configure nonprofit account pages differently than standard business account pages.

Add the Related Record Component to Your Lightning Pages

Give your users the record details they need most. Use the Related Record component to customize your Lightning pages and display the details of a related record, including the parent record, on any record page.

Add the Related List Component to Your Lightning Pages

We want you to get exactly what you want on your Lightning pages. Instead of displaying all the related lists for a record, you now get to pick exactly which list you want with the new Related List component.

Customize How Related Lists Display on Lightning Pages

Use a new attribute on the Related Lists component to choose whether to display related list items in a list or as tiles on your custom Lightning Pages. If you put the Related Lists component in a narrow region on the page, the list items display only as tiles.

Customize Your Lightning Pages Even More with New Templates

You now have more templates to choose from, increasing your page design options. We've added three app page templates and five record page templates. The app page templates adjust dynamically between Lightning Experience and Salesforce1.

Clone Salesforce Default Lightning Pages

You can now create a Lightning Page in two different ways. Use a template to create an empty page that you can fill with the components you want. Or you can clone the system default page to create a page prepopulated with standard components. This feature is available for Home, Record, and Email Application pages.

Customize Person Account Pages

In Summer '16, we gave person accounts its own page in the Lightning App Builder, but you couldn't edit it. Now you can! So go ahead and customize those person account pages.

Customize Your Console App Record Pages with Lightning App Builder

To go with your snazzy new Lightning console apps, we've created new Lightning components and a new Lightning page template. Now your console users can be as efficient and productive as they were in Salesforce Classic. Want to know the most awesome part? You can do all this customization with clicks, not code!

Rich Text Component Disabled When LockerService Critical Update Is Active

In sandboxes and Developer Edition orgs, if you have the LockerService critical update active, the Rich Text component becomes read-only in the Lightning App Builder.

Power Up Your Lightning Pages with the Flow Component (Beta)

Welcome a new component to the Lightning App Builder. Use the Flow component to embed active flows in your Lightning Page.

Display Pending Approval Requests on Home Pages

Use the new Items to Approve component to display approval requests that your users haven't responded to yet. This component is supported only on Home pages.

Customize the Highlights Panel with More Action Buttons

Make your record highlights more useful by including up to 10 action buttons on the highlights panel. Previously, the limit was three. We updated the label to reflect this change, and renamed the option for displaying the highlights panel in a compact view.

Add Skype to Lightning Record Pages (Beta)

A new Skype for Business component is available for the Lightning App Builder. Add it to your record pages to get Skype controls that let you see who's online, initiate audio and video calls, and chat. To add this component, Skype for Salesforce (Beta) must be set up for your org. To use the component, the record page must include at least one email field.

Salesforce Connect

Work Seamlessly Across All Your Salesforce Orgs—Cross-Org Connector with Write Support

Writable external objects are available with the cross-org adapter for Salesforce Connect. Now your users and developers can create, update, and delete records that are stored in connected Salesforce orgs.

Ask and You Shall Receive ... More External Objects

We increased the maximum number of external objects per org from 100 to 200 so that you can access even more external data.

Create Quick Actions for External Objects

Quick actions are now available for external objects in Lightning Experience. Previously, external objects supported quick actions only in Salesforce Classic.

Improved Reports for External Objects

We removed some previous limitations, hopefully before you even encountered them. The improvements affect reports that include external object relationships or use the cross-org adapter for Salesforce Connect.

External Services (Beta)

External Services: Connect to Salesforce Using a Wizard, Schema, and Flow (Beta)

Use External Services to connect your Salesforce org to a service of your choice. Invoke methods based on the external source via a flow. Import data from the service into Salesforce. You can do all this with the help of an easy-to-use wizard. This feature is new in Lightning Experience.

Approvals

Review Pending Approval Requests from Lightning Experience

Gone are the days when approvers had to dig through notifications or try to remember with which record an approval request was associated. With the new Items to Approve component in the Lightning App Builder and the Approval Requests navigation bar item, approvers using Lightning Experience can review their pending approval requests in one place.

Don't Worry About That Submit Button Anymore!

Raise your hand if you've ever activated an approval process and forgotten to add the Submit for Approval button to the object's page layout. Happens to everyone. So we decided to remove that step and automatically add the button to all the associated page layouts when you activate an approval process.

Select Next Approver from Lightning Experience and Salesforce1

If you have approval processes that require a user to select the next approver, they're now supported in Lightning Experience and Salesforce1. Previously, only Salesforce Classic let users select the next approver manually.

Business Processes Use Name Field to Evaluate Person Accounts

Triggers, validation rules, flows, approvals, workflow, and Process Builder evaluate person accounts more effectively.

"Make Sure Records that Are Submitted Behind the Scenes Are Routed to the Right Approval Process" Critical Update Postponed

This critical update, released in Summer '16, was scheduled for auto-activation in Winter '17, but has been postponed to Spring '18.

Visual Workflow

Run Flows with a Lightning Skin (Generally Available)

Have you ever wanted your flows to look better? So have we. When you enable this feature, all your URL-based flows render using the Lightning runtime instead of the Classic runtime.

Embed Your Flows in Lightning Pages (Beta)

We're rolling out a Flow component for the Lightning App Builder. You can now add flows to any Lightning Page—App pages, Record pages, and Home pages alike.

Now You See Me, Now You Don't: Dynamically Update Flow Screen Fields (Pilot)

The fewer times your users have to click **Next**, the better. If you agree, keep reading! Use field rules to control when to show or hide particular screen fields. Turn your flows into guided UIs that respond to users' inputs and selections. Save your users time by showing only what they need when they need it.

Business Processes Use Name Field to Evaluate Person Accounts

Triggers, validation rules, flows, approvals, workflow, and Process Builder evaluate person accounts more effectively.

Access Encrypted Data in Your Flows (Pilot)

Flows support encrypted fields, except when filtering or sorting records.

Display Flow Screens in Two Columns (Generally Available)

When you build flows that collect lots of information, their screens can render as a never-ending skinny column of fields. Break up the layout of those screens by rendering specific flows in two columns.

Process Builder

Business Processes Use Name Field to Evaluate Person Accounts

Triggers, validation rules, flows, approvals, workflow, and Process Builder evaluate person accounts more effectively.

Process Builder Has Updated Icons

The next time you open Process Builder, check out our new icons. We swapped out the old ones for Salesforce Lightning Design System icons, so now we match the rest of Lightning Experience.

Access Encrypted Data in Process Builder (Pilot)

Process Builder now supports encrypted fields, except in filters, like in the Update Records action.

Setup

See Your Lightning Record Page Assignments at a Glance

We gave the Lightning Record Pages related list in the Object Manager a makeover. Now you can easily see whether your custom Lightning record pages are assigned as org or app defaults or assigned to apps, record types, and profiles. We added a View Page Assignments button to the related list to get more details about which custom Lightning pages are assigned to specific apps, record types, and profiles.

Security and Identity

Authentication and Identity: Enhanced Verification Requirements, More OAuth Options, Connected Apps Enhancements

We've added the ability to manage security policies for all the OAuth connected apps that users in your org are running. We've introduced additional verification requirements for users and admins, and new OAuth flows that provide identity for connected devices in the Internet of Things. Also, for those implementing their own authentication provider, we've extended the plug-in to support customized error handling and refresh tokens.

Health Check: Import Custom Baselines and Assign New Permissions

We've introduced new permissions for Health Check, as well as the ability to import custom baselines into the tool.

Development

Use the Lightning Design System in Visualforce Pages

Use the `<apex:slds>` element to incorporate the Lightning Design System in your Visualforce pages and align them with the styling of Lightning Experience. This component is a streamlined alternative to uploading the Lightning Design System as a static resource and using it in your Visualforce pages.

Create Exception Classes in the Developer Console

You can now create Apex classes that extend `System.Exception` in the Developer Console. Previously, creating classes whose names contained `Exception` resulted in an error.

See More Code Coverage Results in the Developer Console

You can now view all your code coverage results in the Developer Console, even when you have more than 2,000 Apex classes and triggers. Previously, the Developer Console displayed only up to 2,000 rows of code coverage results.

Lightning API—Developer Preview

Use Lightning API to create native mobile apps and custom web apps with your own branding and look and feel. A single REST request returns enough metadata, layout information, and data to display, edit, or create a record! Lightning API supports most objects that are available in Lightning Experience.

Custom Metadata Types: Relationship Field Enhancements, Long Text Areas

Build better apps than ever before with custom metadata types which let you base your apps on types of metadata rather than just data. Do even more with the features you've been waiting for, including metadata relationships to field definitions and long text areas in custom metadata types.

Manage Packages Using Lightning Experience

You can now create and manage packages using Lightning Experience, just like you always could in Salesforce Classic.

Debug Apex Code in Subscriber Orgs

Each License Management Org can use one free ISV Customer Debugger session at a time. The ISV Customer Debugger is part of the Apex Debugger, which is part of the Force.com IDE plug-in for Eclipse and is normally a paid feature. The Apex Debugger can be used only in sandbox orgs, so you can initiate debugging sessions only from a customer's sandbox.

Control LMO Users' Access to Your Code in Subscriber Orgs with a New Permission

Previously, you could control License Management Org (LMO) users' access to obfuscated code in subscriber orgs with the "Author Apex" permission. The "View and Debug Managed Apex" permission now controls this access. Users with the "Author Apex" permission can no longer view obfuscated code in subscriber orgs.

What's Different or Not Available in Spring '17 Lightning Experience Features

For new Lightning Experience features and enhancements, review these topics to see if any functionality that's critical to your business is limited or unavailable in this release. While reviewing this list, remember that your users can always access features not yet supported in the new interface by temporarily switching to Salesforce Classic.

 **Note:** To see the full list of feature gaps and limitations in Lightning Experience for the previous release, check out "What are the Gaps Between Lightning Experience and Salesforce Classic" in the Salesforce Help. We'll update the full list of feature gaps and limitations in the Salesforce Help soon!

IN THIS SECTION:

- [Data Access and Views: Lightning Experience Considerations](#)
- [Search: Lightning Experience Considerations](#)
- [Sales Features: Lightning Experience Considerations](#)
- [Productivity Features: Lightning Experience Considerations](#)
- [Customer Service Features: Lightning Experience Considerations](#)
- [Reports and Dashboards: Lightning Experience Considerations](#)
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- [Data Import and Management: Lightning Experience Considerations](#)
- [Point-and-Click Customization: Lightning Experience Considerations](#)

Editions

Available in: **Group, Professional, Enterprise, Performance, Unlimited, and Developer** Editions

Data Access and Views: Lightning Experience Considerations

Learn about the issues to expect when using List Views in Lightning Experience.

No Support for Inline Editing of Dependent Picklists

You can inline edit list views that contain dependent picklist fields. However, you can't edit the dependent picklist field, only the other fields in the list view.

Kanban View

- Records in a state or status that is inactive aren't included in the Kanban view.
- Summaries can only be created for currency fields.
- Records are only displayed if the field selected for **Group By** is included on the page layout.
- If a record has a null value for the **Group By** field, it won't appear in the Kanban view.

- Subtabs are created for record types if the **Group By** field is included on the record type's page layout, and the record type has records associated with it.
- Opportunities can't be grouped by the `Forecast Category` field.
- Contracts can't be grouped by the `Owner Expiration Notice` field.

Search: Lightning Experience Considerations

Learn about the issues to expect when searching in Lightning Experience.

Searchable Objects

These objects aren't searchable in Lightning Experience: Attachment, Coaching, Community, Contract Line Item, D&B Company, Document, Discussion, Entitlement, Goal, Idea, Live Chat Transcript, Macro, Metric, Order, Performance Cycle, Question, Quick Text, Resource Absence, Reward Fund, Reward Fund Type, Salesforce CRM Content, Self-Service User, Service Contract, Service Resource Skill, Service Territory Member, Skill, Solution, Topic, User, and Work Order Line Item.

Sales Features: Lightning Experience Considerations

Learn about the issues that your Sales team can encounter in Lightning Experience.

Collaborative Forecasts

- Collaborative Forecasts isn't accessible from Setup. Switch to Salesforce Classic to set up and configure Collaborative Forecasts.
- On the forecasts page:
 - Viewing product family forecasts isn't available.
 - Viewing quota attainment information isn't available.
 - You can drill down and up within the forecast hierarchy, but "Jump to" isn't available.
 - Opportunity split details don't appear in the opportunities summary.
 - The processing indicator isn't available.
 - You can't adjust the column width.

Contracts

The Draft and Activated status picklist values are required. To show users different labels for these picklist values, use Translation Workbench. You can also add other status picklist values.

Orders

- The Order History and Order Product History related lists aren't available.
- You can't add or edit multiple line items in the Order Products related list at the same time.
- You can't create reduction orders or select products to reduce.
- When you clone an order with products, the products aren't cloned. Clone the order, and then add products as needed to the new order.
- Status picklist values aren't filtered based on an order's status, so all status values appear in the picklist.
- The Draft and Activated status picklist values are required. To show users different labels for these picklist values, use Translation Workbench. You can also add other status picklist values.

Productivity Features: Lightning Experience Considerations

Learn about the issues to expect when using Salesforce productivity tools in Lightning Experience. Some Salesforce features aren't available in the new user interface. And some features don't have full parity with what's available in Salesforce Classic.

Users can't create recurring tasks with the "every weekday" interval in LEX. We don't recommend editing tasks with this interval in LEX because the edit page doesn't show the current recurrence details. To create or edit tasks that repeat every weekday, users should switch to SF Classic.

Tasks that Repeat Every Weekday

Users can't create recurring tasks with the "every weekday" frequency in Lightning Experience. We don't recommend editing tasks with this interval in Lightning Experience because the edit page doesn't show the current recurrence details.

To create or edit tasks that repeat every weekday, switch to Salesforce Classic.

Microsoft and Google Integration

Lightning Sync

You can't see event attendees that sync from your Microsoft or Google Calendar in Lightning Experience.

Customer Service Features: Lightning Experience Considerations

Learn about the issues to expect if your org uses customer service tools. In general, Service Cloud data and features aren't supported in this release of Lightning Experience. Salesforce Console for Service, Knowledge, and cases are supported but don't have full parity with what's available in Salesforce Classic.

Salesforce Console for Service



Note: Lightning console apps don't yet have full parity with Salesforce Classic console apps. For example, some features in Salesforce Classic console apps, such as keyboard shortcuts and macros, aren't available in Lightning console apps.

You can't migrate Salesforce Classic console apps to Lightning Experience.

Lightning Knowledge

Lightning Knowledge doesn't yet have full parity with Classic Knowledge. The following limitations apply to Lightning Knowledge:

Important considerations before enabling Lightning Knowledge

- After you enable Lightning Knowledge, you can't disable it. We recommend testing Lightning Knowledge in your Sandbox org first.
- You can have only one article type when enabling Lightning Knowledge. Currently, there are no migration tools to assist in merging your article types. To enable Lightning Knowledge, migrate your articles to one article type and disable or delete your other article types.
- Lightning Knowledge currently doesn't support multiple language mode or translation.
- We recommend using Lightning Knowledge only if you have fewer than 300 data categories. If you have more than 300 data categories, you may experience slower performance.
- For articles with more than 30 versions, the versions above 30 will show in Salesforce Classic, but not in Lightning Experience.
- Setup for Lightning Knowledge remains in Salesforce Classic. After Lightning Knowledge is enabled, a new setup node Knowledge Object Setup appears to manage Knowledge record types, fields, page layouts, and validation rules.

General usage limitations for Lightning Knowledge

- You currently can't import or export with record types.
- You can't currently assign articles or delete archived articles in Lightning Knowledge.
- You can't use article actions with public groups when Lightning Knowledge is enabled. This is replaced by new user profile permissions.

- You currently can't remove a published article while editing it. Instead, the article remains published while you edit the new version as a draft.
- You can't use mass actions (such as mass archiving and mass publishing) with Lightning Knowledge.
- For list views, you must specify one language and one publishing status on all Knowledge list views, otherwise you won't see any records in your list view. We don't support multiple-selection on PublishStatus or Language, or the "IN" and "OR" operators in list view filters.
- Data categories can't be shown in Knowledge list views.
- The customized record home flexipage isn't supported with Lightning Knowledge.
- We don't support external data sources in Knowledge search in Lightning Knowledge.
- You can't see vote information in the new ratings component unless there's an online version for the article. This affects article drafts and archived articles, because all online versions are removed when an article is archived.
- Most Knowledge actions aren't available in the Lightning Process Builder.

Console limitations for Lightning Knowledge

- The Knowledge footer is not in the Lightning Service Console.
- The following actions aren't available in the Knowledge Sidebar for the Lightning Service Console: attach as a PDF, attach as a PDF to case email, insert article contents to case email, insert Article Community URL, and insert article URL to case publishers. Standard article actions including editing, publishing, and archiving, are also not available.

Limitations in Salesforce Classic after enabling Lightning Knowledge

- Multiple Languages mode can't be enabled after Lightning Knowledge is enabled.
- Page Layouts selections for Actions and Related lists don't reflect in Salesforce Classic.
- Page Layouts don't display in 2 columns in Salesforce Classic.
- Some actions, such as Change Record Type, aren't available in Salesforce Classic.
- Knowledge list views aren't available in Salesforce Classic.
- You can't perform a search by Knowledge record type in Salesforce Classic.
- You can't perform a search by archived articles in Salesforce Classic, except in Article Management.
- Files in Lightning Experience don't display in Salesforce Classic, and files in Salesforce Classic don't display in Lightning Experience.

Limitations for using Lightning Knowledge with other Salesforce products

- File attachments in your Classic Knowledge implementation don't transfer to Lightning Knowledge. After migrating your articles to Lightning Knowledge, add the Files related list to your page layout and use the Files related list on each article to migrate your files.
- You can't detach or remove a file from the Files component after it has been associated with an Article. When the file is shared with a record via the record feed, the workaround is to delete the feed post. Read [Delete Files and Links from Feeds](#) to learn more about removing files.
- Currently, the only way to remove an attached file from an article is to delete the file from File home.
- Reporting with record types is not currently supported in Lightning Knowledge.
- All rich text editors are currently disabled when LockerService is enabled. If you're using Lightning Knowledge in Sandbox or a Developer Edition org, we recommend turning off LockerService in Lightning Experience. If you're using Lightning Knowledge in your production org, we recommend that you don't enable LockerService in Lightning Experience.
- The rich text editor is limited for Lightning Knowledge. The following rich text editor features aren't currently supported in Lightning Knowledge: smart links, tables, show source, anchors, videos, and fonts are limited.
- Lightning Knowledge isn't currently supported with Communities.
- Lightning Knowledge isn't currently supported with Salesforce1.

Reports and Dashboards: Lightning Experience Considerations

Learn about the issues to expect when using reports and dashboards in Lightning Experience.

Subscribe to Reports

In Lightning Experience, users can subscribe to reports, but can't set notification conditions and can only receive report results via email.

Follow Dashboards

In Lightning Experience, users can't follow dashboard components. Users only see dashboard feed activity (like posts) in their Lightning Experience feed.

To follow dashboard components, users must unfollow the dashboard in Lightning Experience, switch to Salesforce Classic, and then follow the dashboard in Salesforce Classic.

Chatter and Communities: Lightning Experience Considerations

Learn about the issues to expect when your users collaborate in Lightning Experience using Chatter or Salesforce Communities. Some collaboration features aren't supported. And some features don't have full parity with what's available in Salesforce Classic.

Following

The count of things a user is following in Salesforce Classic includes both users and records. In Lightning Experience, this count only includes users.

Sharing Posts

Users can share posts with followers, but they can't share posts with groups.

Filter and Sort Feeds

Users can filter group feeds in any way except by Fewer Updates.

Data Import and Management: Lightning Experience Considerations

Differences in the User Interface for Viewing Duplicates and Merging

In Lightning Experience, duplicate alerts are displayed on the record home page for an account, contact, or lead. In Salesforce Classic, duplicate alerts are displayed on a record home page, on an object home page, or in a related list, depending on the object.

Contacts Associated with Portal Users

When you use Lightning Experience to merge contacts associated with portal users, the portal user status isn't shown during merging. The merged record retains the portal user status of the master record. When you use Salesforce Classic to merge contacts associated with portal users, the portal user status is shown during merging. You choose the portal status you want to retain in the merged record.

No Support for Person Accounts

Lightning Experience doesn't support merging of person accounts.

No Support for Relationship Groups

Lightning Experience doesn't support merging of accounts associated with relationship groups.

Point-and-Click Customization: Lightning Experience Considerations

Many of your point-and-click customizations work seamlessly in Lightning Experience. But some customizations don't apply or aren't supported in the new interface.

Rich-Text Editors Disabled When LockerService Critical Update Is Active

In Lightning Experience, Salesforce1, and template-based Communities, you can't use rich-text editors or edit fields with rich text when the LockerService critical update is active in sandboxes and Developer Edition orgs.

Salesforce Einstein: The World's Smartest CRM with Artificial Intelligence (AI) for Everyone

Salesforce Einstein is AI built into the Salesforce platform. It delivers advanced AI capabilities to sales, service, and marketing—and enables anyone to use clicks or code to build AI-powered apps that get smarter with every interaction. Now, everyone in every role and industry can use AI to be their best.

Here's the list of Einstein features that help make Salesforce the world's smartest CRM.

[Sales Cloud Einstein: A Smarter Sales Process at Every Step Powered by Artificial Intelligence \(AI\)](#)

AI for sales is here. With Sales Cloud Einstein, your team's sales productivity is supercharged with key predictions, intelligent recommendations, and timely automation.

[Build AI-Powered Apps Fast \(Pilot\)](#)

With the Predictive Vision Service, developers can harness the power of image recognition to build AI-powered apps. Without a data science degree! You can train deep-learning models to recognize and classify images at scale with the Predictive Vision Service REST API. Leverage pre-trained classifiers, or train your own custom classifiers to solve a vast array of specialized image-recognition use cases. Developers can bring the power of image recognition to CRM and third-party applications so that end users across sales, service, and marketing can discover new insights about their customers and predict outcomes that lead to smarter decisions.

[Trailhead: Get Smart with Salesforce Einstein](#)

Get started learning about AI and how it can transform your CRM with smart predictions, intelligent recommendations, and timely automation.

Sales: Artificial Intelligence, Expanded Sales Path, and Smarter Email

Deliver high-impact Lightning Experience features that keep sales teams laser-focused on the leads and deals most likely to generate sales. Help reps develop strong customer relationships and integrate their email and calendars with Microsoft—and now with Gmail. For added productivity, your reps can prioritize calls and easily manage records using Kanban in even more ways.

IN THIS SECTION:

[Lightning Experience Resources: Readiness Check and Feature Optimization](#)

If you're teetering on the fence about whether to migrate from Salesforce Classic, we're here to give you a gentle push with helpful resources. We make it easier for you to get your sales teams working with our latest and greatest features in Lightning Experience.

[Core Sales Features: Sales Guidance, Orders, and Other Features](#)

Guide your sales reps in Lightning Experience as they work through contracts, quotes, and other processes developed from custom objects. Get your reps to manage orders, see converted leads, and read news on their contacts.

[Productivity Features: Voicemail Support, Mass Actions, and Other Efficiencies](#)

In Lightning Experience, get your sales reps to work multiple records on one screen, compose email with grace, and edit records in-line. Also, organize records using Kanban in new ways.

[Sales Cloud Einstein: A Smarter Sales Process at Every Step Powered by Artificial Intelligence \(AI\)](#)

AI for sales is here. With Sales Cloud Einstein, your team's sales productivity is supercharged with key predictions, intelligent recommendations, and timely automation. This feature is new in Lightning Experience.

[Inbox: Productivity Tools That Connect Email and Calendar to Salesforce](#)

Let your sales team integrate their email and calendar with Salesforce using features that automatically log emails and events and increase productivity on every email. This feature is new in both Lightning Experience and Salesforce Classic.

[Google Integration: More Access to Salesforce Directly from Gmail™ and Google Calendar™ \(Beta\)](#)

Do your sales reps live in Google applications like Gmail and Google Calendar, but want to get sales data from emails, contacts, and events into Salesforce easily? Want no more: We're introducing Lightning for Gmail (Beta), which lets reps view relevant Salesforce records from their Gmail inboxes and relate emails to Salesforce records. Lightning Sync for Google (Beta) also adds functionality. Now reps can sync contacts from Gmail to Salesforce, and meeting attendee details automatically sync from Google Calendar to Salesforce.

[Microsoft® Integration: More Custom Components and Saved Skype Chats](#)

Help your reps maximize their Salesforce productivity directly from their Microsoft email and calendars. Let your reps initiate audio and video calls, see who's online, and start chats—all with Skype for Salesforce.

[Other Changes in the Sales Cloud](#)

Learn about other changes we've made to improve usability.

Lightning Experience Resources: Readiness Check and Feature Optimization

If you're teetering on the fence about whether to migrate from Salesforce Classic, we're here to give you a gentle push with helpful resources. We make it easier for you to get your sales teams working with our latest and greatest features in Lightning Experience.

To help you deliver those great features, we give you resources so that you don't go at it alone.

Feel Confident About Your Lightning Experience Readiness

Just as we're always adding new features to Lightning Experience, we're adding to the list of customizations that you can evaluate using the Lightning Experience Readiness Check. And if you're still feeling skittish about acting on our recommendations, sign up for a free consultation with a Lightning Experience expert to get more advice.

To learn more, see [Feel Confident About Your Lightning Experience Readiness](#) in the release notes.

Optimize Sales Features for Lightning Experience

Get your sales teams to improve selling relationships and close more deals. The trail [Optimize Sales Features for Lightning Experience](#) includes these modules to help you set up key features for the best selling experience.

 Lightning Experience for Sales <small>Drive adoption of sales features through customizations that work best for your company.</small> <small>Intermediate Admin</small>	 Sales Path & Workspaces <small>Guide your reps through opportunity stages with helpful assistance and an optimized page layout.</small> <small>Intermediate Admin</small>	 Sales Productivity <small>Boost rep productivity with an activity timeline and integrated email.</small> <small>Intermediate Admin</small>
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 <p>Products, Quotes, & Contracts</p> <p>Configure price books, templates, and contracts to help your sales reps sell products.</p> <p>Intermediate Admin</p>	 <p>Sales Reports for Lightning Experience</p> <p>Set up reports and dashboards for your sales managers, reps, and execs.</p> <p>Intermediate Admin</p>
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Core Sales Features: Sales Guidance, Orders, and Other Features

Guide your sales reps in Lightning Experience as they work through contracts, quotes, and other processes developed from custom objects. Get your reps to manage orders, see converted leads, and read news on their contacts.

IN THIS SECTION:

[Accounts: Account Hierarchy in Lightning Experience and Expanded Person Account Support](#)

Account hierarchy has come to Lightning Experience. And person accounts are more useful than ever.

[Contacts: More Improvements to Contacts to Multiple Accounts and No More Stay-in-Touch Requests](#)

We've made big improvements to Contacts to Multiple Accounts. And we're still retiring Stay-in-Touch requests.

[Leads: Lightning Experience Improvements and Access to Converted Leads](#)

Manage leads faster, map custom fields for lead conversion, and give marketing and sales ops users the flexibility to see their converted leads.

[Web-to-Lead: reCAPTCHA Web Form Validation](#)

Frustrate spammers and improve the quality of your sales teams' leads with the reCAPTCHA widget. The reCAPTCHA widget requires interested customers to select a checkbox before they can submit an inquiry about your product. Enabling spam filtering lets sales reps focus on actual prospects, and not on spam leads.

[Campaigns: Hierarchies, Member Statuses, and Mass Actions in Lightning Experience](#)

Understand campaign hierarchy results, manage member statuses, and mass-update campaign members in Lightning Experience.

[Collaborative Forecasts: Sales Projections in Lightning Experience](#)

Show your reps how sales numbers measure up in a period while taking advantage of everything Lightning Experience has to offer. Help teams project sales revenue and quantities from the opportunity pipeline, including opportunity splits and custom opportunity currency fields, without switching to Salesforce Classic. This feature is new in Lightning Experience.

[Opportunities: Opportunity Products in Lightning Experience](#)

Sales reps can save time by adding up to 50 products to opportunities in one go, and editing up to 200 simultaneously.

[Orders: Agreements for Delivering Products and Services in Lightning Experience](#)

Give your teams more bells and whistles with the ability to track requests for products and services in Lightning Experience. This feature is new in Lightning Experience.

[Quotes: Enhancements to Pricing of Products and Services](#)

Experience improved quote management with the new Quotes tab, searchable quotes, enhanced PDF and email features, and new views.

[Sales Path: Feature Renamed and Expanded](#)

Same great feature now with a new name—Path—to reflect its expanded availability. This change applies to Lightning Experience and to opportunities in all versions of the Salesforce1 mobile app.

Duplicate Management: Accounts, Contacts, and Person Accounts

Here's more aspirin for your duplicate management headaches. You can now detect and merge duplicate accounts and contacts in Lightning Experience. Use new rules to detect and prevent duplicates of person account records.

Accounts: Account Hierarchy in Lightning Experience and Expanded Person Account Support

Account hierarchy has come to Lightning Experience. And person accounts are more useful than ever.

IN THIS SECTION:

[Visualize Account Relationships by Using Account Hierarchy in Lightning Experience](#)

Account hierarchy gives your sales team a bird's-eye view of the relationships between parent and subsidiary accounts. This feature is now available to Lightning Experience users with a bonus: You can customize hierarchy columns to show the information that's most useful to your sales teams. This change applies to Lightning Experience only.

[Get More Out of Person Accounts](#)

Person accounts is now available in Professional Edition. Plus, the person account Lightning Page is now customizable. We've added fuller support with Contacts to Multiple Accounts, the option to prevent sales teams from creating duplicate person account records, and more.

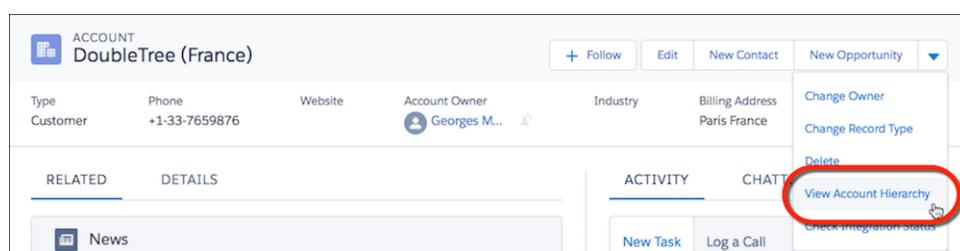
Visualize Account Relationships by Using Account Hierarchy in Lightning Experience

Account hierarchy gives your sales team a bird's-eye view of the relationships between parent and subsidiary accounts. This feature is now available to Lightning Experience users with a bonus: You can customize hierarchy columns to show the information that's most useful to your sales teams. This change applies to Lightning Experience only.

On account record pages, the Actions dropdown menu includes the View Account Hierarchy action unless you customized the Salesforce1 and Lightning Experience Actions section of the account page layout before Spring '17. In that case, add the action to your account page layout.

Editions

Available in: **Group, Professional, Enterprise, Performance, Unlimited, and Developer** Editions



Your users can expand or collapse parts of a hierarchy as they navigate it. They can view up to 2,000 accounts from each point where they enter a hierarchy.

ACCOUNT > DOUBLETREE (FRANCE)			
Account Hierarchy			
ACCOUNT NAME	ANNUAL REVENUE	BIRTHDATE	FIRST NAME
✓ Hilton Inc	\$125,876,987		
> Canopy	\$1,456,543		
> Conrad	\$4,765,789		
> Curio	\$4,766,123		
✓ DoubleTree	\$5,672,341		
> DoubleTree (Canada)	\$987,654		
> CURRENT DoubleTree (France)	\$109,876		
> DoubleTree (Germany)	\$564,123		
> DoubleTree (Italy)	\$1,765,432		

By default, account hierarchies display the same columns as the Recently Viewed Accounts standard list view. But if the hierarchy columns don't show the information that your sales reps need, you can customize them independently of the list view. In Setup, in the Quick Find box, enter *Object Manager* and then click **Object Manager**. In Account, click **Hierarchy Columns**, and then edit the columns.

All Setup	Total Workflow Rules	0	500	0%				
Q object manager	Approval Processes	0	500	0%				
✓ Objects and Fields	Active Lookup Filters	0	5	0%				
Object Manager	Active Validation Rules	0	20	0%				
	VLOOKUP Functions	0	10	0%				
	Sharing Rules (Both Owner- and Criteria-based)	0	300	0%				
	Sharing Rules (Criteria-based Only)	0	50	0%				
Hierarchy Columns (1)								
<table border="1"> <thead> <tr> <th>HIERARCHY VIEW NAME</th> <th>COLUMNS DISPLAYED</th> </tr> </thead> <tbody> <tr> <td>Account Hierarchy View</td> <td>Account Name, Account Owner Alias, Account Record Type, Annual Revenue, Assistant, Asst. Phone, Billing City, Billing Country</td> </tr> </tbody> </table>					HIERARCHY VIEW NAME	COLUMNS DISPLAYED	Account Hierarchy View	Account Name, Account Owner Alias, Account Record Type, Annual Revenue, Assistant, Asst. Phone, Billing City, Billing Country
HIERARCHY VIEW NAME	COLUMNS DISPLAYED							
Account Hierarchy View	Account Name, Account Owner Alias, Account Record Type, Annual Revenue, Assistant, Asst. Phone, Billing City, Billing Country							
<div style="text-align: right;"> Edit Delete </div>								

Under Columns Displayed, add or remove fields.

Choose Columns to Display

Available Fields	Columns Displayed
Account Owner Alias	Account Name
Account Record Type	Annual Revenue
Account Source	Birthdate
ActiveLiveAgentUser	First Name
Assistant	Mailing City
Asst. Phone	Mailing Street

Columns Displayed

Available Fields

Cancel **Save**

SEE ALSO:

[Actions in Lightning Experience](#)

Get More Out of Person Accounts

Person accounts is now available in Professional Edition. Plus, the person account Lightning Page is now customizable. We've added fuller support with Contacts to Multiple Accounts, the option to prevent sales teams from creating duplicate person account records, and more.

SEE ALSO:

[Sell Directly to Customers with Person Accounts in Professional Edition](#)[Customize Person Account Pages](#)[Continue to Be Impressed with Contacts to Multiple Accounts](#)[Manage Duplicate Person Accounts](#)[Go Straight to Person Accounts from Contact List Views in Salesforce1](#)[Business Processes Use Name Field to Evaluate Person Accounts](#)[Easier to Use Merge Fields When Emailing Person Accounts in Lightning Experience](#)[Person Account Quick View Always Shows Account Info in Lightning Experience](#)

EDITIONS

Available in: **Professional, Enterprise, Performance, Unlimited, and Developer** Editions

Contacts: More Improvements to Contacts to Multiple Accounts and No More Stay-in-Touch Requests

We've made big improvements to Contacts to Multiple Accounts. And we're still retiring Stay-in-Touch requests.

IN THIS SECTION:

[Continue to Be Impressed with Contacts to Multiple Accounts](#)

We know that your reps love being able to relate a single contact to more than one account. We love it too, and have made it better still. We're rolling out fuller person account support, custom actions, process builder and workflow support, and more. These changes apply to Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

[Stay-in-Touch Requests Retires in Summer '17](#)

In case you haven't heard, Stay-in-Touch Requests is scheduled for retirement in Summer '17. This change applies to Salesforce Classic only.

Continue to Be Impressed with Contacts to Multiple Accounts

We know that your reps love being able to relate a single contact to more than one account. We love it too, and have made it better still. We're rolling out fuller person account support, custom actions, process builder and workflow support, and more. These changes apply to Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

EDITIONS

Available in: **Contact Manager, Group, Professional, Enterprise, Unlimited, and Developer** Editions

Person Accounts

Last release we let sales reps create indirect relationships between persons accounts and business accounts. Now, reps can create indirect relationships between person accounts and contacts.

From Setup in Salesforce Classic, add the Related Contacts related list to the person account page layouts that your reps use.

Custom Actions, Buttons, and Links

Define custom actions, buttons, and links on the Account Contact Relationship object. For example, add a custom action to the Related Accounts related list that lets users create a case that applies to the account-contact relationship.

Be aware of the limitations regarding custom actions and buttons.

- Custom actions must be specific to the Account Contact Relationship object. Global actions aren't supported.
- You can create actions that update records or invoke Lightning components or Visualforce pages. However, you can't create actions that create records.
- You can't create actions that send emails or log calls because the Account Contact Relationship object can't have activities associated to it.
- You can't override the default actions on the Account Contact Relationship object.
- Only custom actions that are created on the Contact object can use the Account Contact Relationship object as a target object.
- Chatter standard actions aren't available because the Account Contact Relationship object doesn't include a Chatter feed.
- The Account Contact Relationship object supports custom buttons, but a custom button on a list view can't have a Visualforce page as the content source.

Business Processes

You can use workflow and Process Builder with the Account Contact Relationship object to create automated business processes. For example, create a workflow rule that sends an email to an account owner when someone changes the direct account-contact relationship for an account.

SEE ALSO:

[Salesforce Help Set Up Contacts to Multiple Accounts](#) (can be outdated or unavailable during release preview)

Stay-in-Touch Requests Retires in Summer '17

In case you haven't heard, Stay-in-Touch Requests is scheduled for retirement in Summer '17. This change applies to Salesforce Classic only.

Be sure to stay in touch with its retirement plans by checking out [frequently asked questions](#).

EDITIONS

Available in all editions

Leads: Lightning Experience Improvements and Access to Converted Leads

Manage leads faster, map custom fields for lead conversion, and give marketing and sales ops users the flexibility to see their converted leads.

EDITIONS

Available in: **Group, Professional, Enterprise, Performance, Unlimited, and Developer** Editions

IN THIS SECTION:

[Manage Leads Faster in Lightning Experience](#)

Apply assignment rules when marketing creates leads, mass-update lead statuses, and map custom lead fields to contacts, accounts, and opportunities for lead conversion. This feature is new in Lightning Experience.

[Let Marketing and Sales Ops Users View Converted Leads](#)

Assign the new "View and Edit Converted Leads" permission to let marketing and sales operations users view converted leads. Users can also edit converted leads. This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

Manage Leads Faster in Lightning Experience

Apply assignment rules when marketing creates leads, mass-update lead statuses, and map custom lead fields to contacts, accounts, and opportunities for lead conversion. This feature is new in Lightning Experience.

Lead Assignment Rules

When adding leads, marketing and sales users can now have them automatically assigned using lead assignment rules by selecting **Assign using active assignment rules** in Lightning Experience.

Lead Mass Updates

Sales reps can now update the status of multiple leads by selecting records in leads list views and clicking **Change Status**.

Custom Field Mapping for Lead Conversion

In Lightning Experience Setup, you map custom lead fields to custom fields on accounts, contacts, and opportunities to populate these fields automatically when sales reps convert leads.

To map custom lead fields, from Setup, enter **Object Manager** and then click **Object Manager**. Click **Lead** and then click **Map Lead Fields**.



Note: The new Lightning Experience Lead Custom Field Mapping page also appears in Setup for orgs using Salesforce Classic, unless they are still using the original version of Lead Convert.

Let Marketing and Sales Ops Users View Converted Leads

Assign the new "View and Edit Converted Leads" permission to let marketing and sales operations users view converted leads. Users can also edit converted leads. This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

Previously, users with both the "Set Audit Fields upon Record Creation" and "Update Records with Inactive Owners" permission were able to view and update converted leads. Those permissions no longer grants access to converted leads. To let marketing and sales operations users access converted leads, assign them the "View and Edit Converted Leads" permission instead.

In Lightning Experience and Salesforce Classic, users with the permission can see converted leads in list views, related lists, and search. In Salesforce1, those users can only see converted leads in the Recent Leads list.

You can't unconvert leads.

Web-to-Lead: reCAPTCHA Web Form Validation

Frustrate spammers and improve the quality of your sales teams' leads with the reCAPTCHA widget. The reCAPTCHA widget requires interested customers to select a checkbox before they can submit an inquiry about your product. Enabling spam filtering lets sales reps focus on actual prospects, and not on spam leads.

Thanks for contacting our company. Please provide your contact info and your inquiry, and a sales representative will contact you.

Contact Name

Email

Phone

Product Widgets

Inquiry
I want to buy 500 widgets. Can you deliver by next week?

I'm not a robot

reCAPTCHA
Privacy - Terms

Submit Query

Editions

Available in: Salesforce Classic and Lightning Experience

Available in: **Professional, Enterprise, Performance, Unlimited, and Developer** Editions

SEE ALSO:

[External Link: Google reCAPTCHA](#)

[Salesforce Help: Generate Leads from Your Website for Your Sales Teams](#) (can be outdated or unavailable during release preview)

Campaigns: Hierarchies, Member Statuses, and Mass Actions in Lightning Experience

Understand campaign hierarchy results, manage member statuses, and mass-update campaign members in Lightning Experience.

Editions

Available in: **Professional, Enterprise, Performance, Unlimited, and Developer** Editions

IN THIS SECTION:

[View Campaign Hierarchy Results in Lightning Experience](#)

Quickly see how your campaigns are organized, and view the individual and aggregated campaign results for every campaign in your hierarchy. This change applies to Lightning Experience only.

[Manage Campaign Member Statuses in Lightning Experience](#)

Let your marketing users set up and manage the member status values for each campaign when you add the Campaign Member Statuses related list to Campaign page layouts. This change applies to Lightning Experience and all versions of the Salesforce1 mobile app.

[Manage Campaign Members Faster with Mass Actions in Lightning Experience](#)

The Campaign Member related list now lets marketing reps add members to campaigns, mass-update members, remove, and clone members with just a few clicks. This change applies to Lightning Experience only.

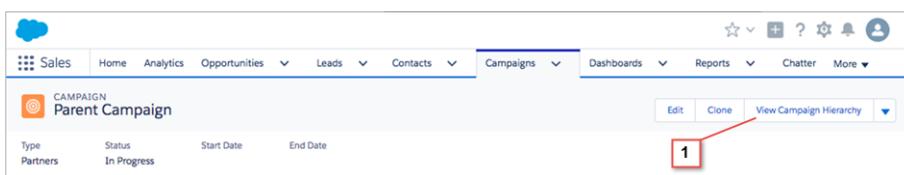
View Campaign Hierarchy Results in Lightning Experience

Quickly see how your campaigns are organized, and view the individual and aggregated campaign results for every campaign in your hierarchy. This change applies to Lightning Experience only.

Your marketing department can create a campaign hierarchy to group individual campaigns into specific marketing programs or initiatives. For example, let's say you have a marketing program aimed at developers that contains an email campaign, a series of seminars, and a set of web ads. Your hierarchy might look like this.

- Developer Campaigns
 - Email Campaign
 - Seminar Series
 - Coding for Scale
 - Coding for Speed
 - Web Advertisements

In Lightning Experience, seeing how campaigns are organized is easy. From any campaign, click **View Campaign Hierarchy** (1).



The Campaign Hierarchy preview shows the parent-child relationships within your marketing program (2), along with key information about each campaign (3).

Campaign Name	Type	Status	Active	Start Date	End Date
CURRENT Parent Campaign	Partners	In Progress	<input checked="" type="checkbox"/>		
Child Campaign 1	Seminar / Conference	Published	<input checked="" type="checkbox"/>		
Grandchild Campaign	Seminar / Conference	In Progress	<input checked="" type="checkbox"/>	10/18/2016	11/18/2016
Great Grandchild Campaign 1	Seminar / Conference	In Progress	<input checked="" type="checkbox"/>		
Great Grandchild Campaign 2	Seminar / Conference	In Progress	<input checked="" type="checkbox"/>	10/31/2016	
Child Campaign 2	Advertisement	In Progress	<input checked="" type="checkbox"/>		
Child Campaign 3	Email	In Progress	<input checked="" type="checkbox"/>	10/31/2016	

Admins choose which fields to show in the preview using the Object Manager in Setup. For more information, see [Find Object Management Settings](#).

On campaign detail pages, marketing reps also see the Campaign Hierarchy related list. Here they can see the results of child campaigns (4), including responses, leads, and the value of opportunities. Clicking **View All** (5) displays the results for the current campaign and its children, along with the fields added to the Campaign Hierarchy related list layout in Setup (6).

The top screenshot shows the 'Campaign Hierarchy' section for a 'Webinar: Database Solutions' campaign. It displays three levels of hierarchy with counts for responses, leads, and opportunities. A red box labeled '4' highlights the 'RESPONSES IN HIERARCHY' column. A red box labeled '5' highlights the 'View All' link at the bottom right.

CAMPAIGN NAME	RESPONSES IN HIERARCHY	LEADS IN HIERARCHY	VALUE OPPORTUNITIES IN HIERARCHY
Webinar Form Sign-up	4	4	\$140,000
Webinar Email Invite	2	4	\$75,000
Webinar Landing Page	6	4	\$70,000

The bottom screenshot shows the 'Campaign Member Statuses' related list for the same campaign. A red box labeled '6' highlights the 'CAMPAIN NAME' header. A red box labeled '7' highlights the 'RESPONSES IN HIERARCHY' column in the table below.

CAMPAIGN NAME	RESPONSES IN HIERARCHY	LEADS IN HIERARCHY	VALUE OPPORTUNITIES IN HIERARCHY	OPPORTUNITIES IN HIERARCHY	VALUE WON OPPORTUNITIES IN HIERARCHY	WON OPPORTUNITIES IN HIERARCHY
Webinar: Database Solutions	12	12	\$285,000	3	\$140,000	1
Webinar Email Invite	2	4	\$75,000	1	\$0	0
Webinar Form Sign-up	4	4	\$140,000	1	\$140,000	1
Webinar Landing Page	6	4	\$70,000	1	\$0	0

Manage Campaign Member Statuses in Lightning Experience

Let your marketing users set up and manage the member status values for each campaign when you add the Campaign Member Statuses related list to Campaign page layouts. This change applies to Lightning Experience and all versions of the Salesforce1 mobile app.

The Campaign Member Statuses related list (1) in Lightning Experience lets marketing users create customized member status values for different types of campaigns. If they want to use different values for a webinar campaign and an email campaign, they can add the appropriate values to each campaign. They can also choose a default member status (2) for each campaign and decide which statuses indicate a response (3) by the campaign member.

The screenshot shows the 'Campaign Members' section for a 'Child Campaign 1'. It includes a donut chart indicating 10 members. A red box labeled '1' highlights the 'Campaign Member Statuses' related list. A red box labeled '2' highlights the 'IS DEFAULT' checkbox for the 'Attended' status. A red box labeled '3' highlights the 'RESPONDED' checkbox for the 'Attended' status.

MEMBER STATUS	IS DEFAULT	RESPONDED	LAST MODIFIED DATE
Attended	<input type="checkbox"/>	<input checked="" type="checkbox"/>	11/1/2016 2:31 PM
Responded	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	11/1/2016 2:31 PM
Sent	<input type="checkbox"/>	<input type="checkbox"/>	11/1/2016 2:31 PM

Add the Campaign Member Statuses related list to Campaign page layouts using the Object Manager in Setup.

In Salesforce Classic, marketing users continue to manage campaign member statuses by clicking **Advanced Set Up** on campaign detail pages.

Manage Campaign Members Faster with Mass Actions in Lightning Experience

The Campaign Member related list now lets marketing reps add members to campaigns, mass-update members, remove, and clone members with just a few clicks. This change applies to Lightning Experience only.

On Campaign detail pages, the Campaign Members related list contains new actions for adding existing leads or contacts to a campaign.

By clicking **Add Leads** or **Add Contacts** (1), reps can select multiple records from any lead or contact list view to add to the campaign.

The actions for updating and importing members with the Data Import Wizard are now in the Actions dropdown menu (2).

When a rep clicks **View All** (3) on the related list, the user can select multiple campaign members to update or remove from the campaign (4).

To clone a campaign member, reps click the campaign member name in the list and then click **Clone**.

Collaborative Forecasts: Sales Projections in Lightning Experience

Show your reps how sales numbers measure up in a period while taking advantage of everything Lightning Experience has to offer. Help teams project sales revenue and quantities from the opportunity pipeline, including opportunity splits and custom opportunity currency fields, without switching to Salesforce Classic. This feature is new in Lightning Experience.

EDITIONS

Available in: **Professional** (no custom field forecasts), **Enterprise**, **Performance**, **Unlimited**, and **Developer** Editions

Opportunity Splits available in: **Performance** and **Developer** Editions and in **Enterprise** and **Unlimited** Editions with the Sales Cloud

The screenshot shows the Salesforce interface with the 'Forecasts' tab selected. At the top, there's a summary for 'Nate Silver' with a photo (5) and a dropdown menu (3). Below that is a table for 'CLOSED ONLY' and 'COMMIT FORECAST' (1) showing revenue and quota information for three months. To the right is a dropdown menu (4) for forecast settings like range, display options, and forecast type. Below the forecasts is a table of opportunities (2) with columns for name, account name, amount, quantity, close date, stage, and probability.

NAME	ACCOUNT NAME	AMOUNT	QUANTITY	CLOSE DATE	STAGE	PROBABILITY (%)
Permadyne - Add-On ...	Permadyne GmbH, LTD	\$187,000.00	19.00	10/24/2016	Closed Won	100%
UlyssesNet - Add-On ...	UlyssesNet	\$115,700.00	0.00	11/08/2016	Needs Analysis	35%
Haven Enterprises - S...	Haven Enterprises	\$115,000.00	14.00	10/08/2016	Negotiation	90%
Permadyne - Add-On ...	Permadyne GmbH, LTD	\$114,200.00	0.00	11/29/2016	Needs Analysis	35%

- Reps see a summary of sales forecasts (1) and related opportunities (2) by clicking the Forecasts tab (3).
- Take advantage of the forecasts page's faster performance.
- Reps select forecast type, currency, period range, and quota display options from one dropdown list (4).
- Show a rep's user profile photo next to the rep's name (5).

From Setup, use App Manager to add a Forecasts tab for your users, and you're ready to go!

SEE ALSO:

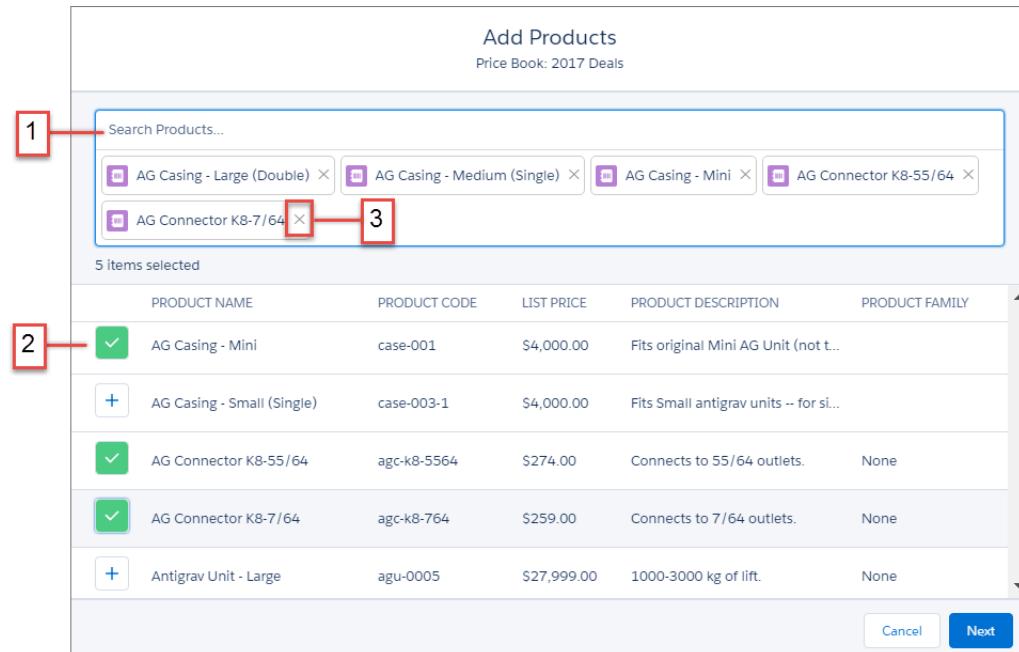
[Sales Features: Lightning Experience Considerations](#)

Opportunities: Opportunity Products in Lightning Experience

Sales reps can save time by adding up to 50 products to opportunities in one go, and editing up to 200 simultaneously.

EDITIONS

Available in Lightning Experience in: **Group, Professional, Enterprise, Performance, Unlimited, and Developer** Editions



Sales reps can perform multiple product searches (1) without losing their previous selections. Sales reps can select multiple products (2) to add to the opportunity, and remove selected products (3). If reps forget to select a product, they can return to add more products without losing changes they've made to line item details.

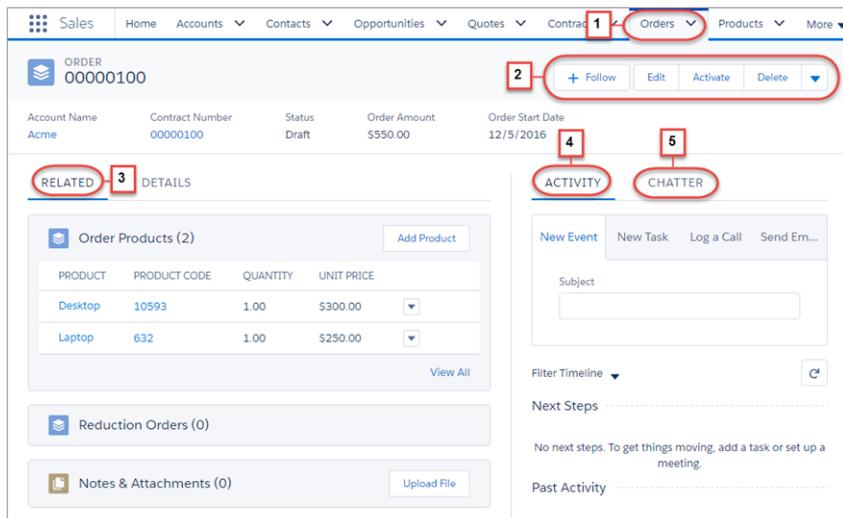
Orders: Agreements for Delivering Products and Services in Lightning Experience

Give your teams more bells and whistles with the ability to track requests for products and services in Lightning Experience. This feature is new in Lightning Experience.

EDITIONS

Orders are available in:
Professional, Enterprise, Performance, Unlimited, and Developer Editions

Reduction orders are available in: **Enterprise, Performance, Unlimited, and Developer** Editions



- Click the Orders tab to see orders list views (1).
- Manage an order (2).
- Work with order products, reduction orders, notes, attachments, and more (3).
- Manage email, events, logged calls, and tasks in the activity timeline (4). Unique to Lightning Experience.
- Use Chatter with Orders and Order Products to collaborate during the order management process. Share information, updates, and documents, and monitor status and key field changes on order records (5). To monitor order and order product fields via Chatter, enable feed tracking for the fields that you want to track.
- Get the big picture with Kanban. Unique to Lightning Experience.

SEE ALSO:

[Sales Features: Lightning Experience Considerations](#)

[Do More with Orders in Salesforce1](#)

[Idea Exchange: Lightning Experience - Include Orders & Order Products](#)

Quotes: Enhancements to Pricing of Products and Services

Experience improved quote management with the new Quotes tab, searchable quotes, enhanced PDF and email features, and new views.

IN THIS SECTION:

[Get More from Quotes](#)

Show your teams' quotes side by side for easy comparison and access. Let reps search for the quotes they want to review and delete unneeded quote PDFs. Help teams track quote-related sales activity and the stages that their quotes are in. And let reps add multiple products to quotes at the same time. Feature availability differs between Lightning Experience and Salesforce Classic.

EDITIONS

Available in: **Performance** and **Developer** Editions

In Sales Cloud, also available in: **Professional**, **Enterprise**, and **Unlimited** Editions

Take Quote PDFs to the Next Level in Lightning Experience

Make it easy for your teams to email customers the latest quotes without switching to Salesforce Classic. And let your teams attach multiple quotes and other documents so that customers can compare them side by side. These changes apply to Lightning Experience only.

SEE ALSO:

[Get Better Access to Quotes in Salesforce1](#)

Get More from Quotes

Show your teams' quotes side by side for easy comparison and access. Let reps search for the quotes they want to review and delete unneeded quote PDFs. Help teams track quote-related sales activity and the stages that their quotes are in. And let reps add multiple products to quotes at the same time. Feature availability differs between Lightning Experience and Salesforce Classic.

The screenshot shows the 'All Quotes' view in the Quotes tab of the navigation bar. A red box labeled '1' highlights the 'Quotes' tab. To the right, a 'DISPLAY AS' dropdown menu is open, with 'Kanban' selected and highlighted by a red box labeled '2'. The main area displays quotes in a Kanban board format across four columns: Draft (1), Needs Review (0), In Review (2), and Approved (2). Each card contains details like product name, quantity, and sync status.

- See all your quotes listed together (1).
- Get the big picture with Kanban (2). Unique to Lightning Experience.

The screenshot shows the detail view for a quote titled 'Laptops'. A red box labeled '5' highlights the 'Create PDF' button in the top right. Below the quote summary, a red box labeled '6' highlights the 'ACTIVITY' tab, which is currently selected. Another red box labeled '7' highlights the 'CHATTER' tab. A red box labeled '8' highlights the 'RELATED' tab. The quote details include sections for 'Quote Line Items (2)' (highlighted by a red box labeled '3') and 'Quote PDFs (1)' (highlighted by a red box labeled '4').

- View and manage quote line items (3) and quote PDFs (4).
- Create quote PDFs, email quotes, and manage quote syncing (5).

- Manage email, events, logged calls, and tasks in the activity timeline (6). Unique to Lightning Experience.
- Use Chatter to collaborate during the quote management process. Share information, updates, and documents, and monitor status and key field changes on quote records (7). To monitor quote and quote product fields via Chatter, enable feed tracking for the fields that you want to track.
- Add Path (setup required) to track quotes throughout your sales process (8). Unique to Lightning Experience.

SEE ALSO:

[Take Quote PDFs to the Next Level in Lightning Experience](#)

[Path for Quotes and Custom Objects](#)

Take Quote PDFs to the Next Level in Lightning Experience

Make it easy for your teams to email customers the latest quotes without switching to Salesforce Classic. And let your teams attach multiple quotes and other documents so that customers can compare them side by side. These changes apply to Lightning Experience only.

SEE ALSO:

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

[Get More from Quotes](#)

Sales Path: Feature Renamed and Expanded

Same great feature now with a new name—Path—to reflect its expanded availability. This change applies to Lightning Experience and to opportunities in all versions of the Salesforce1 mobile app.

To enable Path, or set up a new path, from Setup, enter *Path Settings* in the Quick Find box.

IN THIS SECTION:

[Path for Quotes and Custom Objects](#)

Help your users move faster through your business process by adding Path to your quotes and custom objects. This change applies to Lightning Experience only.

[Path Pays Attention to Fields Required by the Page Layout](#)

Users are now prompted to enter data into fields required by the page layout when updating records in a path. Previously, users could move a record to the next step without completing fields required by the page layout. This change applies to Lightning Experience and to opportunities in all versions of the Salesforce1 mobile app.

EDITIONS

Available in Lightning Experience in: **Group, Professional, Enterprise, Performance, Unlimited, and Developer Editions**

Path for Quotes and Custom Objects

Help your users move faster through your business process by adding Path to your quotes and custom objects. This change applies to Lightning Experience only.

Visually display the steps in a process, highlight key fields, and provide guidance such as handy links, policy information, and tips to users at each step.

When setting up a path, choose which of the object's picklists steps in the path are based on. For example, if you're creating a path for a custom object called Build Out with picklist fields Percent Complete and Build Stage, choose which field to base your path on. After activating the path, add it to page layout.

Path Pays Attention to Fields Required by the Page Layout

Users are now prompted to enter data into fields required by the page layout when updating records in a path. Previously, users could move a record to the next step without completing fields required by the page layout. This change applies to Lightning Experience and to opportunities in all versions of the Salesforce1 mobile app.

Duplicate Management: Accounts, Contacts, and Person Accounts

Here's more aspirin for your duplicate management headaches. You can now detect and merge duplicate accounts and contacts in Lightning Experience. Use new rules to detect and prevent duplicates of person account records.

IN THIS SECTION:

[Detect and Merge Duplicate Companies and Contacts in Lightning Experience](#)

Help your sales teams maintain great relationships with customers, and keep your accounts and contacts clutter free. By displaying duplicate records, you can stop a sales rep from spoiling a customer relationship—and wreaking havoc on your data. If you've already given your reps permission to merge records in Salesforce Classic, now they can also merge records in Lightning Experience. A consistent interface across accounts, contacts, and leads simplifies duplicate management for everyone. This feature is new in Lightning Experience only.

[Manage Duplicate Person Accounts](#)

Do you struggle to manage person accounts because your sales team unknowingly creates duplicates? Help is here. New matching rules and duplicate rules for person accounts extend duplicate management functionality already available for leads, contacts, and business accounts. This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

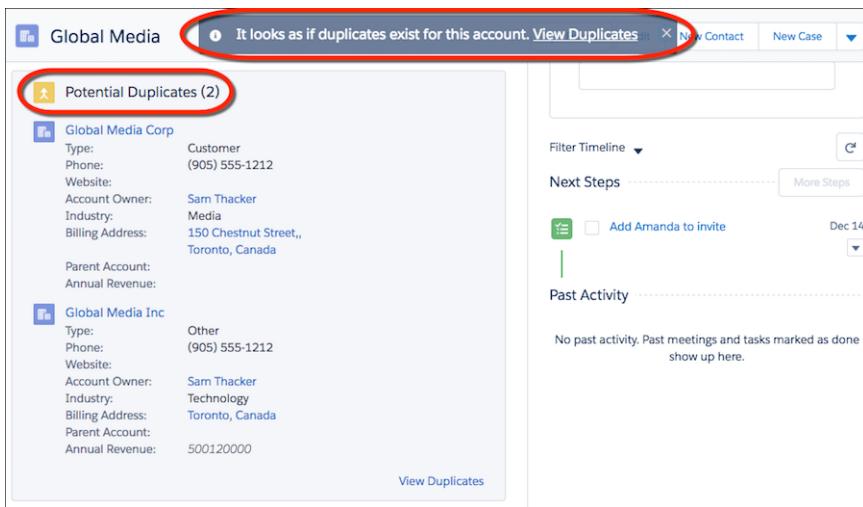
EDITIONS

Available in: **Professional, Enterprise, Performance, Unlimited, and Developer** Editions

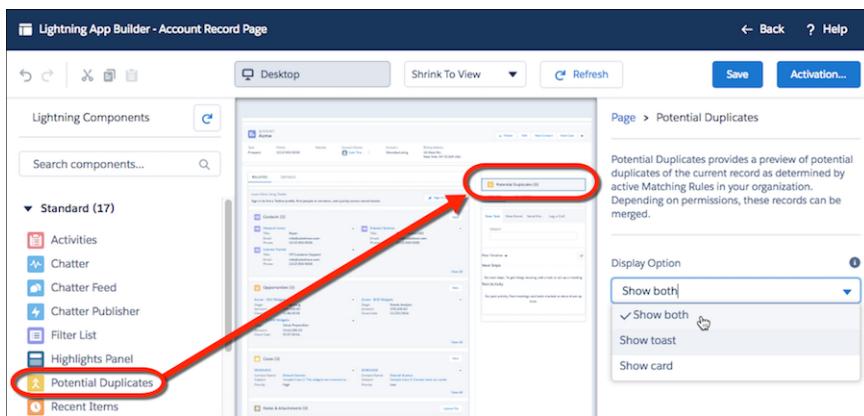
Detect and Merge Duplicate Companies and Contacts in Lightning Experience

Help your sales teams maintain great relationships with customers, and keep your accounts and contacts clutter free. By displaying duplicate records, you can stop a sales rep from spoiling a customer relationship—and wreaking havoc on your data. If you've already given your reps permission to merge records in Salesforce Classic, now they can also merge records in Lightning Experience. A consistent interface across accounts, contacts, and leads simplifies duplicate management for everyone. This feature is new in Lightning Experience only.

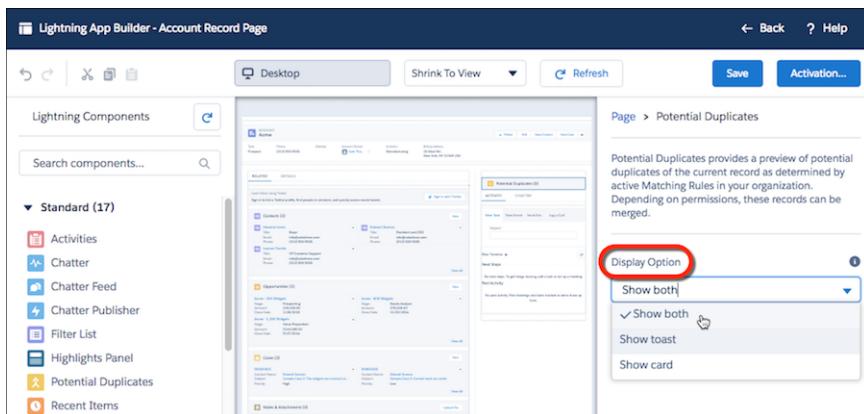
When you enable duplicate and matching rules for accounts and contacts, a record can display a potential duplicates card, a temporary toast message, or both. You add the duplicates card and toast message to record home pages.



1. In Setup, in the Quick Find box, enter *App Builder* and then click **Lightning App Builder**.
2. On the Accounts or Contacts page, add the Potential Duplicates component.



3. Choose a display option for the duplicate alert.



Sometimes the list of duplicates by itself is all the information a sales rep needs. But a rep who has permission to merge duplicates can choose up to three records to merge.

Potential Duplicate Accounts

Choose Accounts to Compare

Choose up to 3 accounts. To merge them, on the next page, choose the fields you want to keep.

ACCOUNT NAME	TYPE	INDUSTRY	EMPLOYEES	PHONE	ACCOUNT OWNER ALIAS
<input checked="" type="checkbox"/> Global Media	Prospect	Media	14,668	(905) 555-1212	sthacker
<input checked="" type="checkbox"/> Global Media Corp.	Customer	Media	14,668	(905) 555-1212	sthacker
<input type="checkbox"/> Global Media Inc.	Other	Technology	14,668	(905) 555-1212	sthacker
<input type="checkbox"/> Global Media Corporation	Customer	Technology	14,764	(905) 555-1212	sthacker

Next

Before merging, the rep can choose the correct value for each field.

Potential Duplicate Accounts

Compare Accounts

When you merge, the master record is updated with the values you choose, and relationships to other items are shifted to the master record.

Global Media Select All	Global Media Corp. Select All	Global Media Inc. Select All	
MASTER RECORD <small>i</small>	<input checked="" type="radio"/> Use as master	<input type="radio"/> Use as master	
PHONE	<input type="radio"/> (905) 555-1212	<input checked="" type="radio"/> 905552121	
ACCOUNT NAME	<input type="radio"/> Global Media	<input type="radio"/> Global Media Corp.	<input checked="" type="radio"/> Global Media Inc.

Back Next

IN THIS SECTION:[Considerations for Detecting and Merging Duplicate Companies and Contacts in Lightning Experience](#)

When you merge duplicate account or contact records, keep these primary considerations in mind.

SEE ALSO:[*Idea Exchange: Dynamic Record Merging*](#)[*Idea Exchange: Customize Columns on Step One of Merge Accounts*](#)[*Idea Exchange: Customize Merge Contacts Columns in Step One*](#)[*Idea Exchange: Account Merge to Maintain Parent and Child Hierarchy*](#)[*Idea Exchange: Merge Contacts Across Accounts*](#)[*Idea Exchange: Redirect to Final Merged Account After Merge Accounts Wizard*](#)[*Idea Exchange: Account Merge for Accounts with Data in Multiple Record Types*](#)[*Idea Exchange: Merge My Accounts and Merge My Contacts Page Layout Options*](#)[*Idea Exchange: We Want to See More Than 50 Lists for Merging Accounts and Contacts*](#)

Considerations for Detecting and Merging Duplicate Companies and Contacts in Lightning Experience

When you merge duplicate account or contact records, keep these primary considerations in mind.

Account Hierarchy

In Lightning Experience, you can choose the parent account to retain. In Salesforce Classic, the merged account retains the account hierarchy from the master record.

No Support for Merging Person Accounts in Lightning Experience

Lightning Experience doesn't support merging of person accounts.

Primary Account

In Lightning Experience, you can merge contacts that have different primary accounts unless the contact is associated with a portal user. In Salesforce Classic, you can merge only contacts that have the same primary account. The primary account is the account listed in the `Account Name` field on the contact record.

Redundant Relationships

If you try to merge contacts that are indirectly related to the same account, Salesforce displays a message suggesting that you remove the redundant relationship. On contact records, indirect relationships are managed from the Related Accounts related list.

Portal Users

When you use Lightning Experience to merge contacts associated with portal users, the portal user status isn't shown during merging. The merged record retains the portal user status of the master record. When you use Salesforce Classic to merge contacts associated with portal users, the portal user status is shown during merging. You choose the portal status you want to retain in the merged record. In both Lightning Experience and Salesforce Classic, the master contact must be associated with a portal user. The merged contact retains the portal user status of the master contact. If a non-master contact is associated with a portal user, that user is deactivated.

Related Items, Chatter Feeds, and Attachments

When duplicate records are related to items such as campaigns or activities, Salesforce relates the items to the merged record, with some exceptions. Chatter feeds are retained from the master record only. Attachments in Chatter feeds are retained in Salesforce.

but aren't associated with the merged record. To associate the dropped files with the merged record, find them in Files home (in Lightning Experience) or the Files tab (in Salesforce Classic). Then add them to the Files related list on the merged record.

SEE ALSO:

- [Salesforce Help: Guidelines and Considerations for Merging Duplicate Accounts](#) (can be outdated or unavailable during release preview)
- [Salesforce Help: Considerations for Merging Duplicate Contacts](#) (can be outdated or unavailable during release preview)
- [Data Import and Management: Lightning Experience Considerations](#)

Manage Duplicate Person Accounts

Do you struggle to manage person accounts because your sales team unknowingly creates duplicates? Help is here. New matching rules and duplicate rules for person accounts extend duplicate management functionality already available for leads, contacts, and business accounts. This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

To use the new rules, enable person accounts, and then activate the rules in Setup in Lightning Experience or Salesforce Classic.

Rule Name	Description	Object	Matching Rule	Active	Last Modified By	Last Modified Date
Standard Account Duplicate Rule	Duplicate rule for account records.	Account	Standard Account Matching Rule	✓	shtacker	12/9/2016
Standard Contact Duplicate Rule	Duplicate rule for contact records.	Contact	Standard Contact Matching Rule	✓	shtacker	12/9/2016
Standard Lead Duplicate Rule	Duplicate rule for lead records.	Lead	Standard Lead Matching Rule	✓	shtacker	12/9/2016
Standard Person Account Duplicate Rule	Duplicate rule for person account records.	Person Account	Standard Person Account Matching Rule	✓	shtacker	12/13/2016

SEE ALSO:

- [Idea Exchange: Enable Duplicate Management for Person Accounts](#)

Productivity Features: Voicemail Support, Mass Actions, and Other Efficiencies

In Lightning Experience, get your sales reps to work multiple records on one screen, compose email with grace, and edit records in-line. Also, organize records using Kanban in new ways.

IN THIS SECTION:

[Sales Console: Multiple Records on One Screen in Lightning Experience](#)

Your sales reps just got a whole lot better at their jobs. Thanks to the new Lightning Sales Console app, your team has all the tools at their fingertips to prospect leads, close deals, and manage relationships. This feature is new in Lightning Experience.

[Lightning Voice: Voicemail and Call Quality](#)

We've added a few key features to Voice, including personal voicemail and the ability to see call quality with ease. These changes apply to Lightning Experience only.

Email: New Send Email Action and Other Features to Increase Productivity

We've replaced the Email Composer with the customizable Send Email action to make it easy for users to follow your business processes. Send email more efficiently using org-wide email addresses. Control how your email attachments are sent and stored. These changes apply to Lightning Experience only.

Tasks: Follow-Up and Recurring Tasks

Stay on task with tasks. With just two clicks, create a follow-up task. Setting up recurring tasks—daily, weekly, monthly, and yearly—is just as easy, so there's no reason to forget that weekly status report for your boss. And when a co-worker clicks **Save and New** when creating a task, the next task already has some of the same information. That's a great way to save time, so that you can spend more time on your tasks.

List Views: Inline Editing and Last-Viewed List View

Reps can get more done with fewer clicks when working from list views. Edit record values in a list view with impunity now that inline edit is generally available. And when you visit an object home page, the last list view you worked with is now the one that displays.

Kanban: Expanded Availability and More Settings

Effectively monitor work using the Kanban-style visual layout in more places.

Sales Console: Multiple Records on One Screen in Lightning Experience

Your sales reps just got a whole lot better at their jobs. Thanks to the new Lightning Sales Console app, your team has all the tools at their fingertips to prospect leads, close deals, and manage relationships. This feature is new in Lightning Experience.



Note: Lightning console apps don't yet have full parity with Salesforce Classic console apps.

For example, some features in Salesforce Classic console apps, such as keyboard shortcuts and macros, aren't available in Lightning console apps.

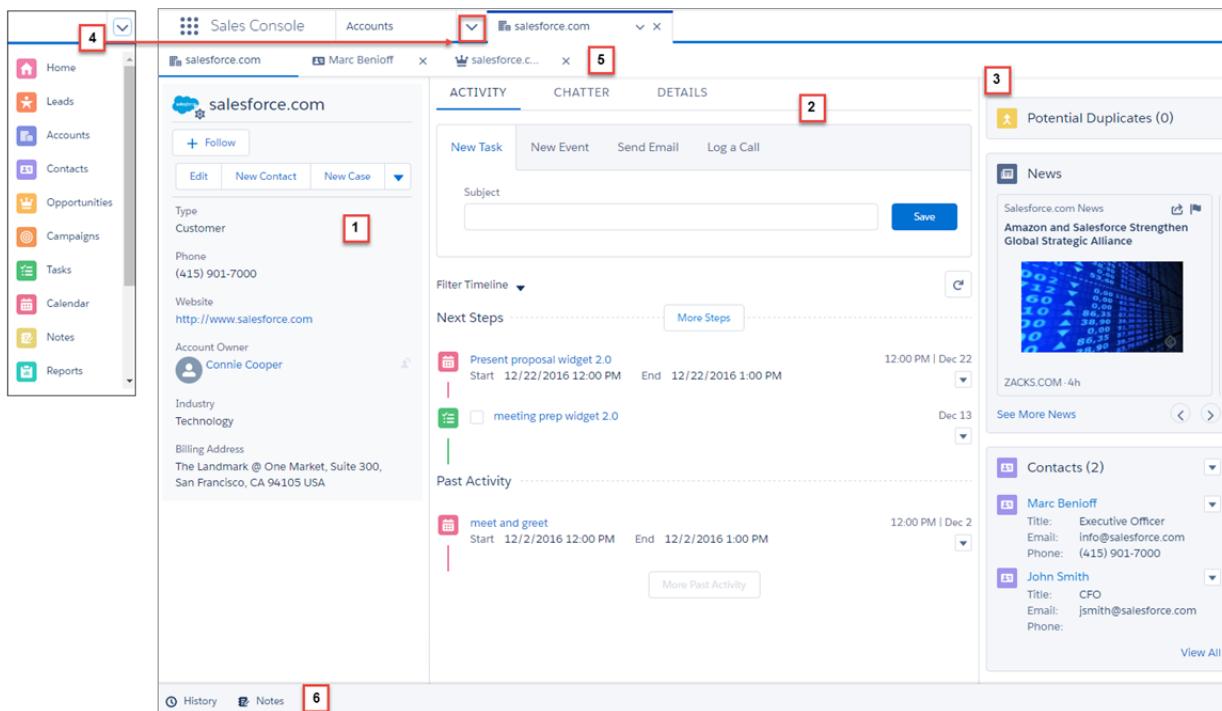
You can't migrate Salesforce Classic console apps to Lightning Experience.

We've provided a standard console app called Sales Console. It comes equipped to get everyone—from inside sales reps to relationship managers—ready for the console life. Here's what you get in the standard Sales Console app.

Editions

Available in Lightning Experience

Available in: **Professional, Enterprise, Performance, Unlimited, and Developer** Editions with Sales Cloud



- A navigation-friendly three-column layout for the objects you rely on most—accounts, contacts, leads, and opportunities. The layout includes the record's key details in the highlights panel (1), the familiar workspace (2), and useful related lists (3).
- Other go-to objects and features—including campaigns, tasks, reports, and more—are easily accessible (4).
- Intuitive tab and subtab navigation (5).
- A preconfigured utility bar with History (6). If Notes is enabled, it appears in the utility bar, too.

But don't forget to customize your Sales Console app. From Setup, use the App Manager to:

- Add your own branding.
- Add other items your teams need to access in the console.
- Configure the utility bar so reps can easily access productivity tools like Voice.
- Modify the default user profile assignments to make sure the right people have access to Sales Console. Sales Console is automatically assigned all standard and custom user profiles.



Note: Lightning console apps are available only to Sales Cloud and Service Cloud users. To prevent unexpected issues, don't give other users access to Lightning console apps.

Finally, use the Lightning App Builder to customize specific page layouts. For example, if you use Pardot, you'll need to add the Engagement History component to the appropriate page layouts.

SEE ALSO:

- [Get Your Tab History in Lightning Console Apps](#)
- [Customize Your Console App Record Pages with Lightning App Builder](#)
- [Enhance Your Lightning Apps with the Utility Bar](#)
- [View and Manage Your Console Apps in New Ways](#)
- [Understand the Differences Between Salesforce Classic and Lightning Experience Console Apps](#)

Lightning Voice: Voicemail and Call Quality

We've added a few key features to Voice, including personal voicemail and the ability to see call quality with ease. These changes apply to Lightning Experience only.



Note: For now, we support outgoing calls to the U.S. and Canada only.

IN THIS SECTION:

[Use Voicemail for Missed Calls](#)

No need to fret over missed calls! Lightning Voice now supports personal voicemail. Sales reps can see the calls they've missed and play voicemail messages directly in Salesforce. This change applies to Lightning Experience only.

[See Call Quality at a Glance](#)

Can you hear me now? Your reps now see the real-time status of the network bandwidth quality for calls placed with Lightning Voice. This change applies to Lightning Experience only.

[Organize Your Calls with a Call List \(Beta\)](#)

If your sales reps place a lot of calls each day, it can be tough for them to keep track of the calls they need to make. Your reps can now keep a running list of the calls they need to make in a single, convenient place. This change applies to Lightning Experience only.

[Log Calls in the Activity Composer Automatically](#)

Logging calls is even easier now that your sales reps can log calls automatically. Simply select Auto-log to add the call details to the activity timeline without manual input. This change applies to Lightning Experience only.

[Create Reports for Lightning Voice](#)

See information about Voice usage in reports, such as call duration, frequency, and popular call recipients. Use the Report Builder to create useful reports about Lightning Voice. To see voice reports, create a custom report type with the primary object set to VoiceCalls. This change applies to Lightning Experience only.

Use Voicemail for Missed Calls

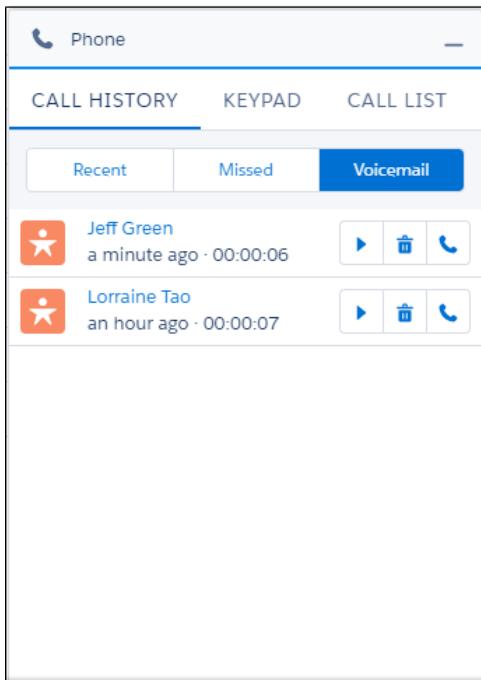
No need to fret over missed calls! Lightning Voice now supports personal voicemail. Sales reps can see the calls they've missed and play voicemail messages directly in Salesforce. This change applies to Lightning Experience only.

Sales reps can now store up to 20 voicemail messages in Salesforce. Reps are notified about voicemail messages in the notifications window, and they can play messages in the call panel.

EDITIONS

Voice is available for an additional cost in

Professional, Enterprise, Performance, and Unlimited Editions

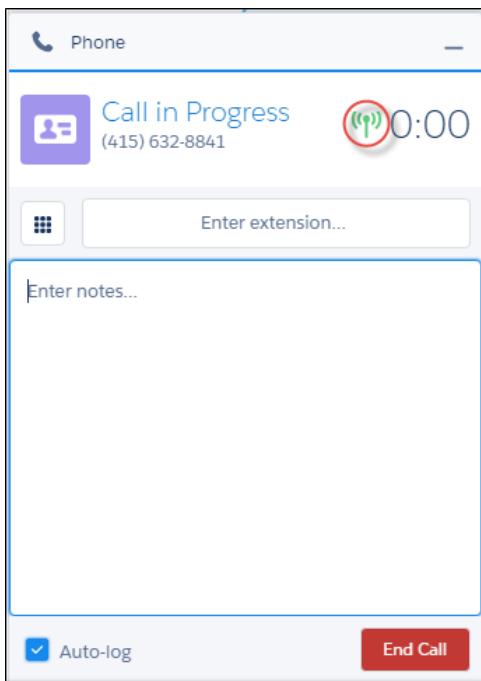


Voicemail messages are limited to two minutes. The messages are saved as files in Salesforce, and they count toward your files storage quota.

Enable voicemail from the Voice Settings page in Setup.

See Call Quality at a Glance

Can you hear me now? Your reps now see the real-time status of the network bandwidth quality for calls placed with Lightning Voice. This change applies to Lightning Experience only.



Organize Your Calls with a Call List (Beta)

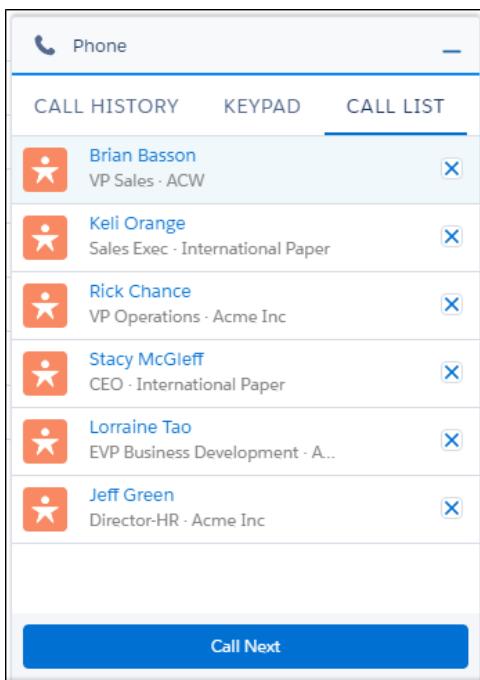
If your sales reps place a lot of calls each day, it can be tough for them to keep track of the calls they need to make. Your reps can now keep a running list of the calls they need to make in a single, convenient place. This change applies to Lightning Experience only.

 **Note:** This release contains a beta version of the call list, which means it's a high-quality feature with known limitations. The call list 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 this feature in the [IdeaExchange](#).

To create a call list, select leads from the lead page, and click **Create Call List**.

LEADS All Leads ▾							
	NAME	TITLE	PHONE	COMPANY	EMAIL	LEAD STATUS	OWN
1	<input checked="" type="checkbox"/> Kel Orange	Sales Exec	(314) 123-4667	International P...	keliorange@int...	Open	AUser
2	<input checked="" type="checkbox"/> Jeff Green	Director-HR	(415) 632-8841	Acme Inc	jeff.green@ac...	Open	AUser
3	<input type="checkbox"/> Brian Basson	VP Sales	(415) 536-7990	AWC	brian@awc.com	Open	AUser
4	<input checked="" type="checkbox"/> Lorraine Tao	EVP Business D...	(510) 333-4444	AWC		Open	AUser
5	<input checked="" type="checkbox"/> Rick Chance	VP Operations	(415) 555-6677	Acme Inc		Open	AUser

The prioritized list of leads appears in the call panel.



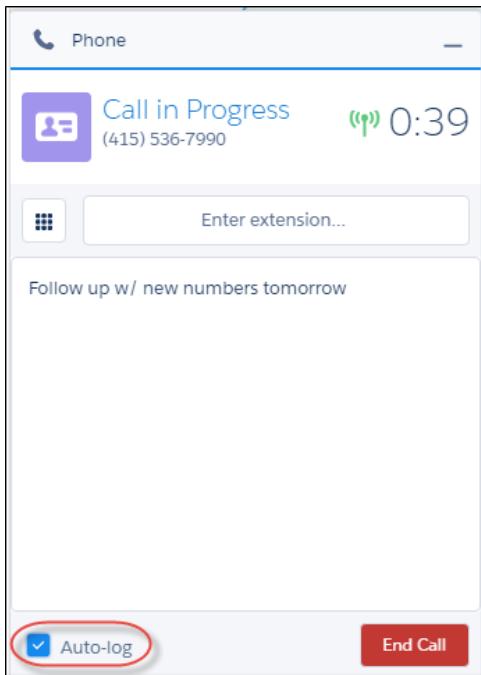
Click **Call Next** to dial the number at the top of the list and automatically open the related lead record.

The call list is currently limited to leads, and only one call list is available at a time. When reps create a new call list, it replaces the information in the previous call list.

Enable call lists from the Voice Settings page in Setup.

Log Calls in the Activity Composer Automatically

Logging calls is even easier now that your sales reps can log calls automatically. Simply select Auto-log to add the call details to the activity timeline without manual input. This change applies to Lightning Experience only.



Create Reports for Lightning Voice

See information about Voice usage in reports, such as call duration, frequency, and popular call recipients. Use the Report Builder to create useful reports about Lightning Voice. To see voice reports, create a custom report type with the primary object set to VoiceCalls. This change applies to Lightning Experience only.

SEE ALSO:

[Create a Custom Report Type](#)

Email: New Send Email Action and Other Features to Increase Productivity

We've replaced the Email Composer with the customizable Send Email action to make it easy for users to follow your business processes. Send email more efficiently using org-wide email addresses. Control how your email attachments are sent and stored. These changes apply to Lightning Experience only.

IN THIS SECTION:

[Send Email Action: Tailor Email to Match Your Business Processes](#)

We've replaced the Email Composer with the Send Email action. You can customize Send Email actions to work the way your business works, by adding and removing fields or specifying predefined values. Add the Send Email action to any activity-enabled object. This change applies to Lightning Experience only.

[Send Email Using Org-Wide Email Addresses](#)

You can select org-wide addresses in the From dropdown, except for Salesforce Inbox users. This change applies to Lightning Experience only.

Editions

Available in: **Group, Professional, Enterprise, Performance, Unlimited, and Developer** Editions

[Choose Among Multiple Email Addresses in the From Field](#)

When you use the Send Email action and Salesforce Inbox, you can select from which connected account to send the email. Select the best email address to match your business processes. For example, an HR rep could choose "recruit@company.com" to respond to a job request. This change applies to Lightning Experience only.

[Create More Record Associations with the Related To Lookup Field](#)

Choose what the email is related to, such as a campaign, and also choose who the email recipient is, such as a person on a campaign. The content of the Related To field affects available merge fields and templates and also associates the email activity with the record. As a result of the association, you can see the campaign email when you're looking at the person's record. This change applies to Lightning Experience only.

[Save Time with Context-Sensitive Email Templates](#)

When selecting an email template, only templates that apply to the first email recipient or the item in the Related To field are displayed. This change applies to Lightning Experience only.

[Context-Sensitive Merge Fields Keep Your Choices Simple](#)

Merge fields are typically used when creating a template. When choosing a merge field, the list of possible merge fields displays the appropriate fields for the first email recipient or the item in the Related To field. If a Person Account is in the Related To field, the list now displays all the Person Account merge fields. This change applies to Lightning Experience only.

[Consistent Email Footers for Emails Sent Through Gmail or Office 365](#)

Email sent via Gmail or Office 365 can contain an organization-wide footer. You can choose whether to include this footer. This change applies to Lightning Experience only.

[Email Files as Attachments or Links: You Decide](#)

Control email size by setting size limits on attachments or allowing only links to files. New settings let you choose the most efficient methods to improve deliverability. This change applies to both Lightning Experience and Salesforce Classic.

Send Email Action: Tailor Email to Match Your Business Processes

We've replaced the Email Composer with the Send Email action. You can customize Send Email actions to work the way your business works, by adding and removing fields or specifying predefined values. Add the Send Email action to any activity-enabled object. This change applies to Lightning Experience only.

We've automatically replaced the previous email composer (the Send an Email standard button) with the new Send Email action wherever possible. In most orgs, this replacement happens automatically. However, if you've already modified the Global Layout or the Campaign Layout, the Send Email action can't be replaced automatically. If you have modified these layouts, and use Reply & Forward functionality, add the Send Email action directly to the Salesforce1 and Lightning Experience Actions section of the global publisher layout and the Campaign Layout.



Note: You can't add custom fields or rename existing fields.

If the email started from inline mode, the Send Email action can't be popped out into the docked composer. However, if the email was launched from the Global Actions menu, it uses the docked composer.



Example: To customize the Send Email action for an Applicant custom object used by recruiters, remove the To, Cc, and Bcc fields. Instead, automatically specify the email recipient.

Because an object can have multiple Send Email actions, you can set up two Send Email actions for your recruiters: a Send Email action called Recruit and another called Welcome. The Welcome Send Email action includes fields for information on joining your company. Your company's recruiters can send emails more efficiently, with on-target content.

IN THIS SECTION:

[Send Email Action Considerations](#)

Before implementing the Send Email action, review these limitations.

[Send Email from Anywhere](#)

Add the Send Email action to any activity-enabled object, including custom objects, and you can send email from anywhere in Lightning Experience. This change applies to Lightning Experience only.

[Send Error-Free Emails by Predefining Fields](#)

Predefine fields to customize the Send Email quick action for your business processes and reduce entry errors. This change applies to Lightning Experience only.

SEE ALSO:

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

Send Email Action Considerations

Before implementing the Send Email action, review these limitations.

- HTML Body content is required. If the HTML Body field is not in the Send Email Action layout, it must be predefined.
- You can't use the Global Send Email action on the Case object, which uses the case-specific Send Email action instead.
- The To, Cc, and Bcc fields accept only email addresses.
- You can't predefine the From, Contact, Lead, or User ID fields. Sent emails are not associated with the records in these fields.
- Predefined values for Bcc field are ignored if Compliance Bcc is enabled, and appended to the Auto Bcc address if Auto Bcc is enabled
- Related To can be predefined only for an entity-specific quick action, not a global quick action.
- The Send Email action is not available in Communities.

Send Email from Anywhere

Add the Send Email action to any activity-enabled object, including custom objects, and you can send email from anywhere in Lightning Experience. This change applies to Lightning Experience only.

When you add the action to the Global layout, it appears in the Global Actions menu for all objects that inherit from the Global layout.

Either the Global or the object-specific Send Email action can be added directly to the actions section on the layout of any activity-enabled object.

Emails sent from the Send Email action use the character encoding specified in the user settings.

SEE ALSO:

[Create Global Quick Actions](#)

Send Error-Free Emails by Predefining Fields

Predefine fields to customize the Send Email quick action for your business processes and reduce entry errors. This change applies to Lightning Experience only.

For example, when responding to a customer email, you can standardize the subject line to say "Thanks for your inquiry".

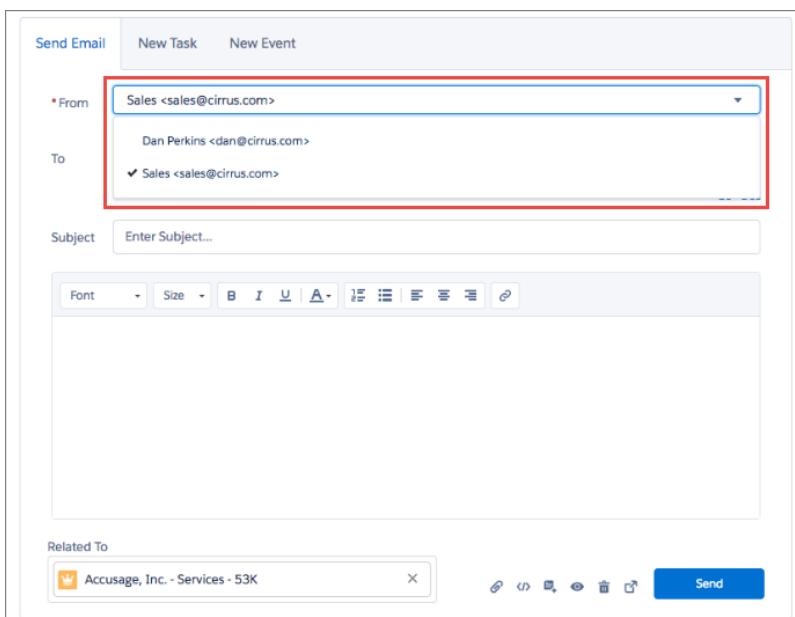
Send Email Using Org-Wide Email Addresses

You can select org-wide addresses in the From dropdown, except for Salesforce Inbox users. This change applies to Lightning Experience only.

Some companies use an org-wide email address, such as sales@company.com, for their outgoing emails. You can set up as many email addresses as you need. For example, you might also want to use recruit@company.com for your HR department and service@company.com for your service department.

Choose Among Multiple Email Addresses in the From Field

When you use the Send Email action and Salesforce Inbox, you can select from which connected account to send the email. Select the best email address to match your business processes. For example, an HR rep could choose "recruit@company.com" to respond to a job request. This change applies to Lightning Experience only.



Example: Dan can choose to send the email as if it were coming from him or as if it were coming from the sales department.

Create More Record Associations with the Related To Lookup Field

Choose what the email is related to, such as a campaign, and also choose who the email recipient is, such as a person on a campaign. The content of the Related To field affects available merge fields and templates and also associates the email activity with the record. As a result of the association, you can see the campaign email when you're looking at the person's record. This change applies to Lightning Experience only.

Email activity is automatically associated with the Contacts, Leads, or Users you specify in the recipient list. Therefore, you can't select those objects in the Related To field. You also can't select any object that is not activity-enabled.

Save Time with Context-Sensitive Email Templates

When selecting an email template, only templates that apply to the first email recipient or the item in the Related To field are displayed. This change applies to Lightning Experience only.

Beneath the heading, the list of email templates shows you which items the list is filtering on.

Select Template

Choose a Template for: **Anaco Limited** **Barry Brown**

My Templates ▾

NAME	DESCRIPTION	CREATED BY	CREATED DATE	ACTION
contact template	some description updated! again!	Dan Perkins	2016-11-08	Del
Person Account only		Dan Perkins	2016-11-03	Del
account template only		Dan Perkins	2016-11-03	Del
Person Account Template	Person Account	Dan Perkins	2016-11-01	Del
Account Template with merge field		Dan Perkins	2016-10-24	Del

Cancel

You can create and use email templates on all activity-enabled objects, such as Quotes, Orders, and Contracts, including custom objects. Email templates for person accounts and company accounts appear together as account-specific templates.

Example: A software sales rep working on an opportunity gets an email from the customer asking about the new version of software. The rep can choose either a software upgrade email template or a generic contact email template for the reply.

Context-Sensitive Merge Fields Keep Your Choices Simple

Merge fields are typically used when creating a template. When choosing a merge field, the list of possible merge fields displays the appropriate fields for the first email recipient or the item in the Related To field. If a Person Account is in the Related To field, the list now displays all the Person Account merge fields. This change applies to Lightning Experience only.

Select Merge Field

Showing fields to use with: **Andy Peterson** **Andy Peterson**

address

- Contact : Other Address
- Organization : Address
- Person Account : Account Address
- Person Account : Billing Address
- Person Account : Mailing Address
- Person Account : Open Address in Google Maps
- Person Account : Other Address
- Person Account : Shipping Address
- User : Address

Cancel Insert

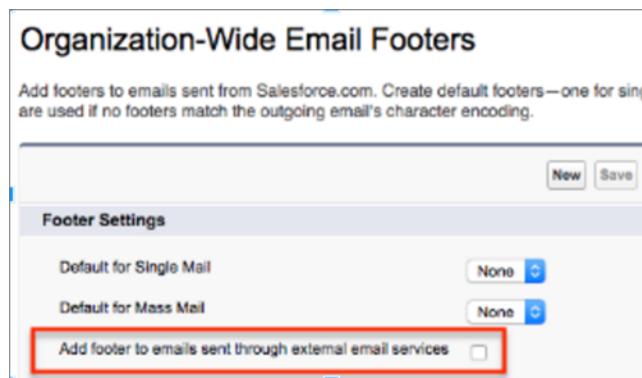
This example shows an email template with a Person Account as the primary recipient and as the Related To. The address merge fields include the addresses for the contact, organization, personal account, and user.

Consistent Email Footers for Emails Sent Through Gmail or Office 365

Email sent via Gmail or Office 365 can contain an organization-wide footer. You can choose whether to include this footer. This change applies to Lightning Experience only.

While footers can also be configured in Gmail or Office 365, it can be easier to use the organization-wide footer in all emails sent from Salesforce. For example, if changing the email footer settings at your company requires a lengthy approval process, use the Salesforce footer instead.

In Salesforce, change the setting Add footer to emails sent through external email services.



Email Files as Attachments or Links: You Decide

Control email size by setting size limits on attachments or allowing only links to files. New settings let you choose the most efficient methods to improve deliverability. This change applies to both Lightning Experience and Salesforce Classic.

In Salesforce Classic, anyone who sends email can deny access to the emailed files at any time, even after delivery.

SEE ALSO:

[Decide When to Send Files as Links](#)

Tasks: Follow-Up and Recurring Tasks

Stay on task with tasks. With just two clicks, create a follow-up task. Setting up recurring tasks—daily, weekly, monthly, and yearly—is just as easy, so there's no reason to forget that weekly status report for your boss. And when a co-worker clicks **Save and New** when creating a task, the next task already has some of the same information. That's a great way to save time, so that you can spend more time on your tasks.

Editions

Available in: **Group, Professional, Enterprise, Performance, Unlimited, and Developer** Editions

IN THIS SECTION:

[Create Follow-Up Tasks](#)

Create a follow-up task, and remember what's next on your to-do list. The new follow-up task uses the original tasks' information from the Subject, Assigned to, Name, and Related To fields. The due date is blank, but defaults to today when you click in the field. This feature is new in Lightning Experience.

[Use Recurring Tasks \(Again and Again\) in Lightning Experience](#)

Sales professionals rely on recurring tasks to schedule their predictable activities, like creating the next day's prospect list or updating the weekly sales meeting agenda. Tasks can repeat daily, weekly, monthly, or yearly, and start on any day you choose. Set when the task ends, or calculate the latest date automatically. Now your Lightning Experience users can create and track recurring tasks without switching to Salesforce Classic. This feature is new in Lightning Experience.

[Save Time by Using Save and New in Tasks](#)

Why make creating a task a task? The Save and New feature creates a new task based on the old task. The new task has the same entries in the Subject, Name, Assigned To, and Related To fields. This change applies to Lightning Experience only.

[Search for Tasks and Events](#)

Tasks and events now appear in global search results. This change applies to Lightning Experience and all versions of the Salesforce mobile app.

[Recurring Tasks Start and End Field Labels Have Changed](#)

We've changed some field labels on recurring tasks, so they're consistent with events and easier to tell from standalone tasks. Previously, recurring task labels were "Start Date" and "End Date." Now, they are "Recurrence Start" and "Recurrence End." The API names for these labels (`RecurrenceStartDateOnly` and `RecurrenceEndDateOnly`) remain the same. This change applies to both Lightning Experience and Salesforce Classic.

Create Follow-Up Tasks

Create a follow-up task, and remember what's next on your to-do list. The new follow-up task uses the original tasks' information from the Subject, Assigned to, Name, and Related To fields. The due date is blank, but defaults to today when you click in the field. This feature is new in Lightning Experience.

The **Create Follow-Up Task** action is automatically included in the set of predefined Salesforce1 and Lightning Experience actions on Task page layouts. If you've overridden the Salesforce1 and Lightning Experience Actions section on any of your org's Task page layouts, manually add the **Create Follow-Up Task** action from the Salesforce1 & Lightning Actions palette.

SEE ALSO:

[Create Follow-Up Tasks in Salesforce1](#)

Use Recurring Tasks (Again and Again) in Lightning Experience

Sales professionals rely on recurring tasks to schedule their predictable activities, like creating the next day's prospect list or updating the weekly sales meeting agenda. Tasks can repeat daily, weekly, monthly, or yearly, and start on any day you choose. Set when the task ends, or calculate the latest date automatically. Now your Lightning Experience users can create and track recurring tasks without switching to Salesforce Classic. This feature is new in Lightning Experience.

Generally, recurring tasks work the same in Lightning Experience as they do in Salesforce Classic. However, the option to repeat a task every weekday isn't available in Lightning Experience. Instead, switch to Salesforce Classic to create or edit a series with this interval.

In Lightning Experience, users create recurring tasks via the **New Task** button on tasks lists. Creating recurring tasks using a **New Task** quick action isn't supported.

Each task that's created as part of a recurring series appears in the user's task list. To view, edit, or delete the entire series, select any one of the recurring tasks then select **View Series** from the action menu. When viewing the series, users can update details for all tasks in the series or delete the entire series.

Set Up Recurring Tasks for Lightning Experience

Confirm these settings in Setup.

- Add the `Create Recurring Series of Tasks` field to the Task Detail section of your org's Task page layouts.
- If the Salesforce1 and Lightning Experience Actions section on a Task page layout has been overridden, make sure that the **Delete Series** and **View Series** actions from the Salesforce1 & Lightning Actions palette are included in the section. Add these actions if they're not already there.

SEE ALSO:

[Use Recurring Tasks in Salesforce1](#)

Save Time by Using Save and New in Tasks

Why make creating a task a task? The Save and New feature creates a new task based on the old task. The new task has the same entries in the Subject, Name, Assigned To, and Related To fields. This change applies to Lightning Experience only.

The Save and New action replaces the standard Lightning Experience Save and New, which can no longer be accessed.

Search for Tasks and Events

Tasks and events now appear in global search results. This change applies to Lightning Experience and all versions of the Salesforce1 mobile app.

Recurring Tasks Start and End Field Labels Have Changed

We've changed some field labels on recurring tasks, so they're consistent with events and easier to tell from standalone tasks. Previously, recurring task labels were "Start Date" and "End Date." Now, they are "Recurrence Start" and "Recurrence End." The API names for these labels (`RecurrenceStartDateOnly` and `RecurrenceEndDateOnly`) remain the same. This change applies to both Lightning Experience and Salesforce Classic.

List Views: Inline Editing and Last-Viewed List View

Reps can get more done with fewer clicks when working from list views. Edit record values in a list view with impunity now that inline edit is generally available. And when you visit an object home page, the last list view you worked with is now the one that displays.

IN THIS SECTION:

[Save Time by Editing Inline in List Views \(Generally Available\)](#)

Your reps can breeze through record updates in Lightning Experience with Lightning Edit in list views. Reps can modify a record without opening it, right from the list view. And in lookup fields, they can search for and create records on the fly. This change applies to Lightning Experience only.

[List Views in Lightning Experience Default to the Last One Viewed](#)

No longer do you see that pesky Recently Viewed list every time you navigate to a list view in Lightning Experience. Instead, the list view you worked with last on that page is the one you see when you return to the page.

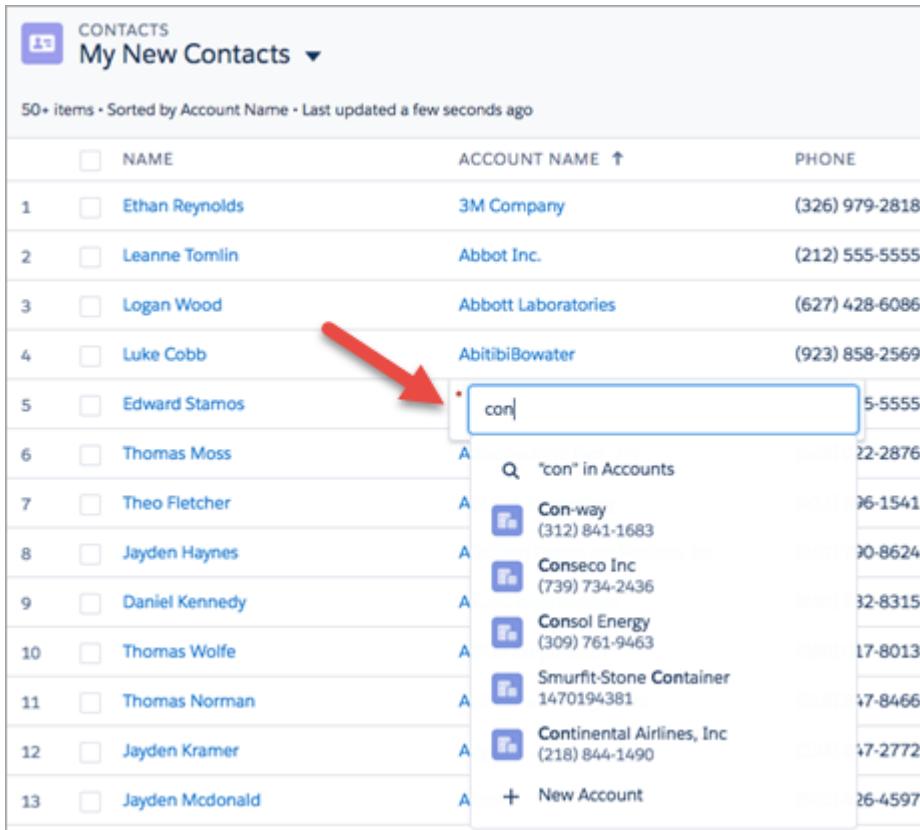
Editions

Available in: **Contact Manager, Personal, Group, Professional, Enterprise, Performance, Unlimited, and Developer** Editions

Save Time by Editing Inline in List Views (Generally Available)

Your reps can breeze through record updates in Lightning Experience with Lightning Edit in list views. Reps can modify a record without opening it, right from the list view. And in lookup fields, they can search for and create records on the fly. This change applies to Lightning Experience only.

For example, when updating a contact's account in a list view, the rep can start typing the account name and get a preview of the results. Or, the rep can choose to create an account from within the list view.



The screenshot shows a list view of contacts titled "My New Contacts". A red arrow points to the fifth row, where the account name "Edward Stamos" is being edited. A dropdown menu is open, showing suggestions for "con": "con" in Accounts, Con-way, Conseco Inc, Consol Energy, Smurfit-Stone Container, Continental Airlines, Inc, and a "+ New Account" option. The list view includes columns for Name, Account Name, and Phone.

	NAME	ACCOUNT NAME	PHONE
1	Ethan Reynolds	3M Company	(326) 979-2818
2	Leanne Tomlin	Abbot Inc.	(212) 555-5555
3	Logan Wood	Abbott Laboratories	(627) 428-6086
4	Luke Cobb	AbitibiBowater	(923) 858-2569
5	Edward Stamos	con	5-5555
6	Thomas Moss	A	22-2876
7	Theo Fletcher	A	96-1541
8	Jayden Haynes	A	90-8624
9	Daniel Kennedy	A	32-8315
10	Thomas Wolfe	A	17-8013
11	Thomas Norman	A	17-8466
12	Jayden Kramer	A	17-2772
13	Jayden McDonald	A	26-4597

Reps can edit only one field at a time, but they can save changes to fields on multiple records at once. Editing inline is different from doing a "mass action." Both are done from list views, and both are efficient. But with inline editing, you're saving a change to fields on one or more records. A mass action is selecting records and then clicking a button to do something with those records—for example, add them to a campaign.

Most standard and custom fields are editable inline. For fields that aren't editable, the lock (🔒) appears in the cell.

No special permissions are required for inline editing. But as always, reps can edit only the records that they have access to.

SEE ALSO:

[Lightning Experience Features in This Release](#)

List Views in Lightning Experience Default to the Last One Viewed

No longer do you see that pesky Recently Viewed list every time you navigate to a list view in Lightning Experience. Instead, the list view you worked with last on that page is the one you see when you return to the page.

Kanban: Expanded Availability and More Settings

Effectively monitor work using the Kanban-style visual layout in more places.

EDITIONS

IN THIS SECTION:

[See the Kanban View Everywhere](#)

Display records visually by switching to the Kanban view on (almost) any list view. Simply select

Kanban from the  menu.

[Make Your Own Kanban View](#)

Are your sales reps tired of organizing their leads by status? Want to organize them by industry instead? We get it! Now reps can configure any Kanban view on the fly, selecting the fields on which to create columns and summaries.

[View Records by Record Type in the Kanban View](#)

No more filtering by record types just to load up the Kanban view. Easily switch between record types using subtabs.

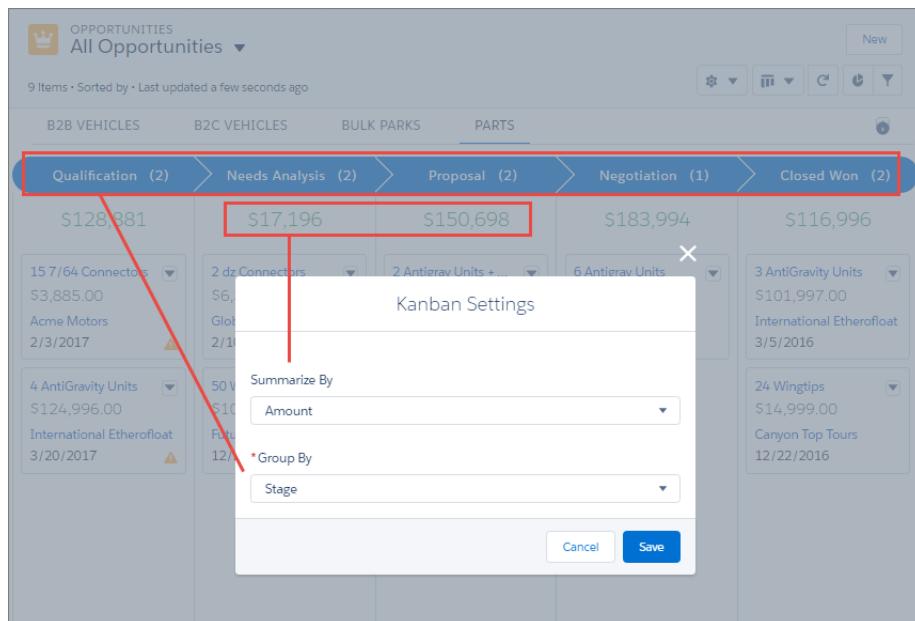
See the Kanban View Everywhere

Display records visually by switching to the Kanban view on (almost) any list view. Simply select **Kanban** from the  menu.

The Kanban view isn't available on a few objects, such as knowledge and tasks.

Make Your Own Kanban View

Are your sales reps tired of organizing their leads by status? Want to organize them by industry instead? We get it! Now reps can configure any Kanban view on the fly, selecting the fields on which to create columns and summaries.



On the Kanban view, click **List View Controls**, then select **Kanban Settings**. Select a numerical field to summarize, or select **None** to remove the summary from the Kanban view. Select a picklist to group by to determine how your records are organized into columns.

Available in Lightning Experience in: **Group, Professional, Enterprise, Performance, Unlimited, and Developer** Editions

View Records by Record Type in the Kanban View

No more filtering by record types just to load up the Kanban view. Easily switch between record types using subtabs.

Sales Cloud Einstein: A Smarter Sales Process at Every Step Powered by Artificial Intelligence (AI)

AI for sales is here. With Sales Cloud Einstein, your team's sales productivity is supercharged with key predictions, intelligent recommendations, and timely automation. This feature is new in Lightning Experience.

Note: Some services and subscriptions include this feature for an extra cost. For pricing details, contact your Salesforce account executive.

EDITIONS

Available for an extra cost in: **Enterprise** and **Unlimited** Editions

Sales Cloud Einstein is your own data science department that learns from your team's sales activities and CRM data. Einstein helps your team identify the best leads, convert opportunities more efficiently, and retain customers with ease.

Sales Cloud Einstein includes a host of key AI-powered features that let your team increase productivity at every step of the sales process.

Note: Insights display in English only.

Feature	What It Does	Where It Appears	How It Helps
Automated Activity Capture	Adds your team's emails and events to related records.	Account, Contact, Lead, Opportunity, and Person Account records	Track sales-related activity on records and generate insights.
Lead Insights	Scores leads from 1–100 based on how likely they are to convert.	Lead records List views	Prioritize leads and determine where to focus efforts.
Opportunity Insights	Provides predictions, smart follow-ups, and key moments related to your opportunities.	Home page Opportunity records Opportunity list views	Use relevant updates to win more deals.

Feature	What It Does	Where It Appears	How It Helps
		Lightning for Outlook Lightning for Gmail	
Account Insights	Highlights key business developments about accounts.	Home page Account records Lightning for Outlook Lightning for Gmail	Stay informed about developments that affect customers.

IN THIS SECTION:

[Automatically Add Emails and Events to Salesforce with Automated Activity Capture for Einstein](#)

Say goodbye to logging. Say hello to smarter selling. With Automated Activity Capture, Einstein users can connect their email and calendar to Salesforce. Then, their emails and events are automatically added to related Salesforce records and used by Einstein to generate insights. This feature is new in Lightning Experience.

[Prioritize Your Leads with Predictive Lead Scoring and Lead Insights](#)

Use artificial intelligence to score your leads by how well they fit your company's successful conversion patterns. Let your sales team prioritize leads by lead score. See which fields influence each lead score most. This feature is new in both Lightning Experience and Salesforce Classic.

[See Intelligent Predictions and Timely Reminders About Deals with Opportunity Insights](#)

Let artificial intelligence help your sales reps win more deals. With Opportunity Insights, Einstein users get predictions about which deals are likely to be won, reminders to follow up, and notifications when key moments in a deal take place. This feature is new in Lightning Experience.

[Get Smarter About Managing Relationships with Account Insights](#)

Let artificial intelligence help your sales team maintain their relationships with customers. With Account Insights, your team stays informed about key business developments that affect their customers. This feature is new in Lightning Experience.

[Set Up Sales Cloud Einstein](#)

To set up Sales Cloud Einstein, use the in-app Einstein Setup Assistant as a guide. You select who can use Einstein, enable Einstein features, and configure pages and list views so sales reps can see insights.

SEE ALSO:

[Salesforce Einstein](#)[Salesforce Help: Sales Cloud Einstein \(can be outdated or unavailable during release preview\)](#)[Lightning Experience: A Modern and Intelligent User Experience](#)**Automatically Add Emails and Events to Salesforce with Automated Activity Capture for Einstein**

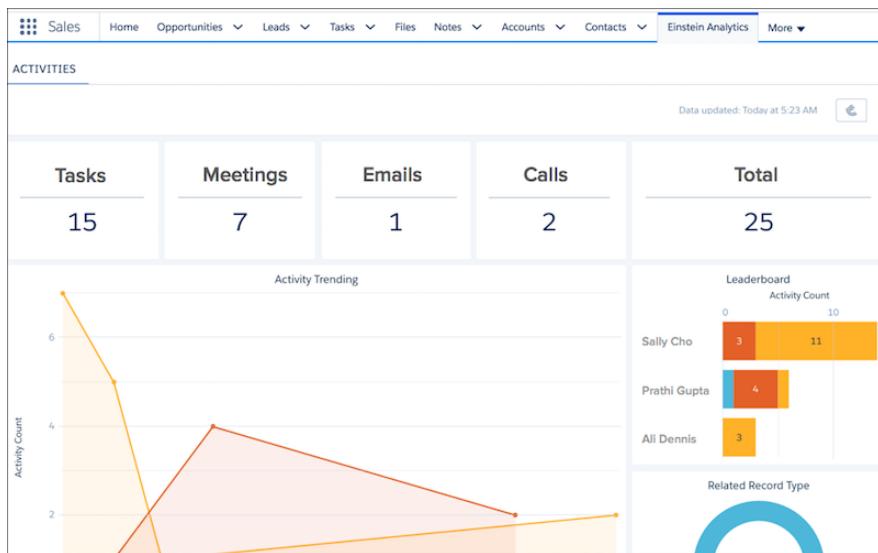
Say goodbye to logging. Say hello to smarter selling. With Automated Activity Capture, Einstein users can connect their email and calendar to Salesforce. Then, their emails and events are automatically added to related Salesforce records and used by Einstein to generate insights. This feature is new in Lightning Experience.

After you set up Einstein, Salesforce asks Einstein users to connect their Google™ or Microsoft® Office 365® account to Salesforce. Then, on accounts, contacts, leads, opportunities, and person accounts, they see their related emails and events. They also see related emails and events from others on their team.

The screenshot illustrates the integration of Einstein Activity Capture. On the left, the Salesforce Calendar shows a meeting scheduled for Friday, December 2nd, 12pm-1pm. On the right, the Einstein Activity Capture interface shows a 'Next Steps' section with a meeting titled 'Lunch meeting and proposal' and a 'Past Activity' section showing two email threads from Sally Cho.

To ensure privacy, each user can control which emails and events are added to Salesforce and who sees them. From personal settings, users enter **Settings** in the Quick Find box, then click **Settings** under Automated Activity Capture.

To easily track sales activities, we've included activity reports that provide a summary of key activities, including those added with Automated Activity Capture. Each org gets five Wave app permission set licenses. If you assign the permission set license to a user, they can access the activity reports from the Einstein Analytics tab.



Automated Activity Capture is also available as part of Inbox. For more information, see [Inbox: Productivity Tools That Connect Email and Calendar to Salesforce](#).

Prioritize Your Leads with Predictive Lead Scoring and Lead Insights

Use artificial intelligence to score your leads by how well they fit your company's successful conversion patterns. Let your sales team prioritize leads by lead score. See which fields influence each lead score most. This feature is new in both Lightning Experience and Salesforce Classic.

Einstein Lead Insights uses a combination of data science and machine learning to discover the patterns of lead conversion in your business, and predict which leads to prioritize. By using machine learning, Lead Insights provides a simpler, faster, and more accurate solution than traditional rules-based lead-scoring approaches.

The lead score appears in the Einstein component on lead detail pages. The component also shows sales reps which lead fields have the greatest positive (1) or negative (2) influence on its score. Fields that aren't listed in the Einstein component still influence the score, but less than the fields listed.

When you or your users add the Score field to list views, hovering over a score (1) displays the insights (2) behind the score. When sales reps focus on leads with higher scores, they're likely to convert more of them to opportunities.

Lead Insights periodically reanalyzes your historical leads and updates the scores for your current leads accordingly.

Lead Insights includes a dashboard with reports that show key lead score metrics for your org.

- Average Lead Score by Lead Source
- Conversion Rate by Lead Score
- Lead Score Distribution: Converted and Lost Opportunities

In Salesforce Classic, the Score field is available in lead list views and page layouts. To set up Lead Insights in Salesforce Classic, enter *Lead Insights* in the **Quick Find** box and then select **Lead Insights**.

SEE ALSO:

[Set Up Sales Cloud Einstein](#)

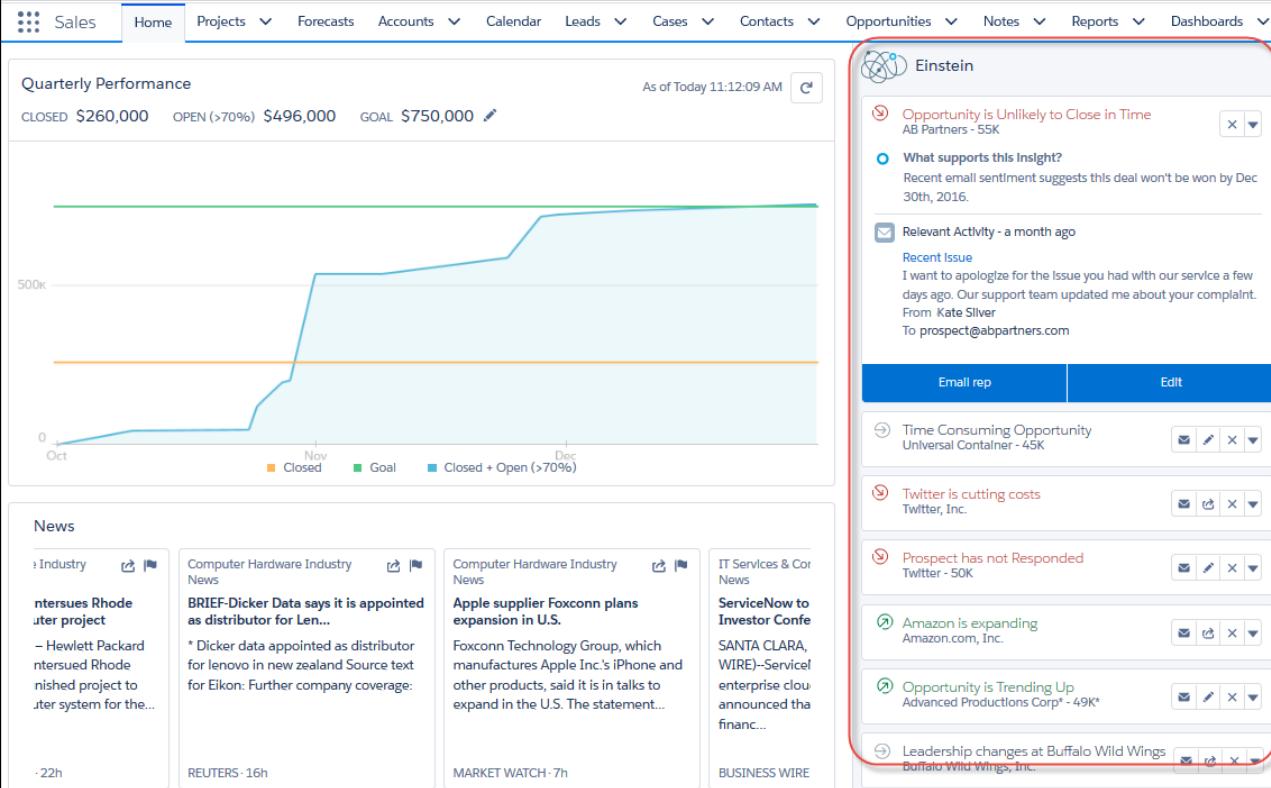
[Salesforce Einstein](#)

[Leads](#)

See Intelligent Predictions and Timely Reminders About Deals with Opportunity Insights

Let artificial intelligence help your sales reps win more deals. With Opportunity Insights, Einstein users get predictions about which deals are likely to be won, reminders to follow up, and notifications when key moments in a deal take place. This feature is new in Lightning Experience.

 **Note:** For now, account- and opportunity-related insights are available in English only.



The screenshot shows the Salesforce Home page. At the top, there's a navigation bar with links like Sales, Home, Projects, Forecasts, Accounts, Calendar, Leads, Cases, Contacts, Opportunities, Notes, Reports, and Dashboards. Below the navigation is a section titled "Quarterly Performance" showing statistics: CLOSED \$260,000, OPEN (>70%) \$496,000, and GOAL \$750,000. It also shows a chart from "As of Today 11:12:09 AM" comparing "Closed" (orange), "Goal" (green), and "Closed + Open (>70%)" (blue). The chart shows a significant jump in activity in November and December. Below this is a "News" section with four cards: "Industry" news about Dicker Data, "Computer Hardware Industry News" about Foxconn, "IT Services & Co News" about ServiceNow, and "Market Watch" news from BUSINESS WIRE. To the right, a sidebar titled "Einstein" lists several opportunity insights: "Opportunity is Unlikely to Close in Time" (AB Partners - 55K), "What supports this Insight?" (Recent email sentiment suggests this deal won't be won by Dec 30th, 2016), "Relevant Activity - a month ago" (Recent Issue from Kate Silver), "Time Consuming Opportunity" (Universal Container - 45K), "Twitter is cutting costs" (Twitter, Inc.), "Prospect has not Responded" (Twitter - 50K), "Amazon is expanding" (Amazon.com, Inc.), "Opportunity is Trending Up" (Advanced Products Corp - 49K*), and "Leadership changes at Buffalo Wild Wings" (Buffalo Wild Wings, Inc.).

Opportunity Insights offers notifications about different opportunities precisely when they're needed on the Home page, opportunity records, and in list views. Sales reps can see all the insights related to their deals on the Home page. The Home page also features relevant actions related to different opportunities, such as the ability to edit an opportunity's close date or email a contact who hasn't responded to a request.

 **Note:** To see the email action on insights, you must create an email global quick action. For more information, see [Send Email from Anywhere](#).

On an opportunity record, reps can see all insights related to an opportunity.

The screenshot shows the Opportunity record for 'AB Partners - 55K'. At the top, there are standard buttons: Follow, Edit, Delete, Clone, and a dropdown menu. Below the header, the opportunity details are listed: Account Name (AB Partners, Inc.), Close Date (12/30/2016), Amount (\$9,000.00), and Opportunity Owner (Cindy Ce...). A progress bar indicates the deal is at the 'Negotiation/Review' stage, which is currently 'Closed'. A button to 'Mark Stage as Complete' is also present. Below the header, there are tabs for ACTIVITY, CHATTER, and DETAILS. The ACTIVITY tab is selected, showing options to 'Log a Call', 'New Task', and 'New Event'. It also includes fields for 'Subject' (Call) and 'Comments'. A 'Filter Timeline' dropdown and a 'Next Steps' section with a 'More Steps' button are visible. On the right side, the Einstein Insights panel is displayed, enclosed in a red box. It contains three sections: 1) 'Opportunity is Unlikely to Close in Time' (radio button icon), with a note that recent email sentiment suggests the deal won't be won by Dec 30th, 2016. 2) 'Relevant Activity - a month ago' (envelope icon), with a note from Kate Silver about a recent issue. 3) 'News' (newspaper icon), with links to 'Banks Industry News' and 'PrivateBancorp postpones shareholder vote on takeover by CIBC'. The date 'Oct 25' is also visible near the bottom left of the main opportunity area.

You can also customize list views to show insights.

Opportunity Insights is available with Lightning for Outlook and Lightning for Gmail.

Each insight offers details about why it's shown, tying it to relevant metrics.

The screenshot shows the Opportunity Insights panel with two examples of insights:

- Competitor was mentioned** (radio button icon):
 - What supports this insight?** Jim Spencer mentioned Acme.
- Relevant Activity - 2 hours ago** (envelope icon):
 - Product evaluation**: We are evaluating a few other vendors, such as Acme. Let me know when you're available to hop on a call.
 - From Jim Spencer
 - To Kate Silver

Three different types of insights are available.

- Deal Predictions—See predictions based on recent activity and existing opportunity data, such as whether a deal is more or less likely to close, or if a deal seems unlikely to close in time.
- Follow-Up Reminders—Get reminders to follow up when a contact hasn't responded in a while, or if there hasn't been any communication related to an important opportunity for a significant period of time.

- Key Moments—Get notified when key moments related to a deal take place, such as when a contact mentions a competitor or is leaving their company.

Insights are visible to Einstein users with the proper record and activity access, which might include:

- Opportunity owners
- Opportunity team members
- Direct managers of opportunity owners and team members

Additionally, all Einstein users that have permission to view an opportunity can see the related insights on the record's detail page.

 **Tip:** Many opportunity-related insights are derived from your reps' activities, such as emails and events. If an insight comes from a private email, the insight is public, but the email content is not displayed. The activity owner determines the privacy settings. So to get the most out of Opportunity Insights, encourage your reps to set their **Sharing Setting for All Emails and Events** option to Everyone.

SEE ALSO:

[Set Up Sales Cloud Einstein](#)

[Salesforce Einstein](#)

[Opportunities](#)

[Lightning for Outlook](#)

[Lightning for Gmail](#)

Get Smarter About Managing Relationships with Account Insights

Let artificial intelligence help your sales team maintain their relationships with customers. With Account Insights, your team stays informed about key business developments that affect their customers. This feature is new in Lightning Experience.

 **Note:** For now, account- and opportunity-related insights are available in English only.

Knowing what's impacting their customers' companies gives your sales team an edge when deciding whether customers are open to sales. Is the company expanding? Changing executive leadership? Acquiring competitors? Account Insights provides news articles from reputable sources that give your team the complete picture.

Insights appear in the Einstein component on account records and the Home page.

The screenshot displays the Einstein interface within the Salesforce platform. At the top, there's a header with the Einstein logo and the word "Einstein". Below the header, the main content area shows insights for the account "Amazon.com, Inc.".

Account Insights:

- M&A activity detected
- What supports this insight? Here is 1 article about Amazon.com, Inc. that mentions mergers and acquisitions.
- You Can Now Earn Bonus JetBlue Points For Amazon Purchases (from boardingarea.com - 5 hours ago)
- Amazon is expanding
- M&A activity detected

News Feed:

- Amazon.com News: Hewlett Packard Enterprise Goes After Amazon Public Cloud In ... (from FORBES - 5h)
- TheStreet (@TheStreet): If shares of Amazon find a bottom and begin to work higher, the other "FANG" stocks could do the same.... <https://t.co/bvggOfwN39> (from TWITTER - 2h)
- Amazon.com News: Amazon Uses Trucks to Drive Faster (from WALL STREET JOURNAL - 22h)

Next Steps:

- review proposals (Name: Marc Zuckerberg, Due Date: Dec 13)
- Sales call (Start: 12/29/2016 12:00 PM, End: 12/29/2016 1:00 PM, Due Date: Dec 29)

Past Activity:

No past activity. Past meetings and tasks marked as done show up here.

On account records, the account's key fields (including `Account Name` and `Website`) determine which insights are returned. Each record shows up to three insights, and each insight shows up to three of the most relevant articles. All Einstein users with access to the record can see the insights.

On the Home page, Einstein users see insights based on the accounts they own and the accounts of which they're an account team member. A user's manager also has access to these insights. Each insight shows up to three of the most relevant articles. Users can email insights to others or share them with users and groups through Chatter.

Account Insights is available with Lightning for Outlook and Lightning for Gmail.

SEE ALSO:

[Set Up Sales Cloud Einstein](#)

[Salesforce Einstein](#)

[Accounts](#)

[Lightning for Outlook](#)

[Lightning for Gmail](#)

Set Up Sales Cloud Einstein

To set up Sales Cloud Einstein, use the in-app Einstein Setup Assistant as a guide. You select who can use Einstein, enable Einstein features, and configure pages and list views so sales reps can see insights.

Note:

- When you purchase Sales Cloud Einstein, Salesforce installs two packages in your org, SalesforeIQ Cloud and Sales Insights. Each package adds an associated integration user

USER PERMISSIONS

To set up Sales Cloud Einstein:

- "Customize Application" and "Modify All Data"

and profile. Salesforce uses these entities to provide insights to your org. If you update these entities, it might affect your org's ability to get insights.

1. From Setup, enter *Setup Assistant* in the Quick Find box, then select **Setup Assistant** under Sales Cloud Einstein.
2. Select who can use Einstein.
 - a. Create a permission set.
 - b. From the License drop-down list, select **Sales Cloud Einstein**.

- c. Click **Save**.
- d. Click **App Permissions**.
- e. Enable app permissions for Einstein features.

- f. Assign the permission set to users.
3. From the Einstein Setup Assistant, enable Einstein features.
If you enabled Automated Activity Capture, Salesforce asks Einstein users to connect their Google™ or Microsoft® Office 365® account to Salesforce. It takes up to 24 hours for their emails and events to be initially added to Salesforce.
4. Using the Lightning App Builder, add the Einstein component to the Home page and to Lightning pages for accounts, leads, and opportunities.
Einstein users see insights on the Einstein component. It takes up to 24 hours for insights to be available.

5. After insights are available, add the `Score` field to any public lead list views. Salesforce automatically adds it to your default list view.

 **Tip:**

- To get the most out of Opportunity Insights, tell sales reps to set the **Sharing Setting for All Emails and Events** to **Everyone**.
- To get the most out of Lead Insights, tell sales reps to add the `Score` field to their list views.

SEE ALSO:

[Salesforce Einstein](#)

Inbox: Productivity Tools That Connect Email and Calendar to Salesforce

Let your sales team integrate their email and calendar with Salesforce using features that automatically log emails and events and increase productivity on every email. This feature is new in both Lightning Experience and Salesforce Classic.



Note: Some services and subscriptions include this feature for an extra cost. For pricing details, contact your Salesforce account executive.

Editions

Available for an extra cost in: **Professional**, **Enterprise**, and **Unlimited** Editions

IN THIS SECTION:

[Automatically Add Emails and Events to Salesforce with Automated Activity Capture for Inbox](#)

Say goodbye to logging. Say hello to smarter selling. With Automated Activity Capture, Inbox users can connect their email and calendar to Salesforce. Then, their emails and events are automatically added to related Salesforce records. This feature is new in Lightning Experience.

[Boost Email Productivity with the Inbox Clients](#)

Help your sales reps sell smarter without leaving their inbox. With the Inbox clients, on every email, they can see relevant Salesforce data, schedule meetings more quickly, and receive intelligent reminders to follow up. This feature is new in both Lightning Experience and Salesforce Classic.

[Set Up Inbox](#)

To install Inbox, use the in-app Inbox Setup Assistant as a guide. You install the Inbox Control Panel, select who can use Inbox, and enable Automated Activity Capture.

[Install the Inbox Clients](#)

After you set up Inbox, Inbox users can install the Inbox clients.

SEE ALSO:

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

[Lightning Experience: A Modern and Intelligent User Experience](#)

Automatically Add Emails and Events to Salesforce with Automated Activity Capture for Inbox

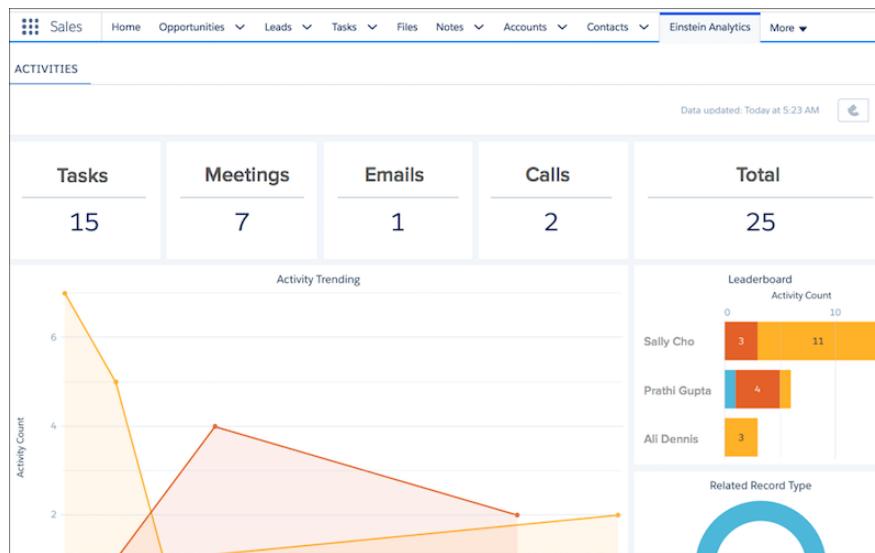
Say goodbye to logging. Say hello to smarter selling. With Automated Activity Capture, Inbox users can connect their email and calendar to Salesforce. Then, their emails and events are automatically added to related Salesforce records. This feature is new in Lightning Experience.

After you set up Inbox, Salesforce asks Inbox users to connect their Google™ or Microsoft® Office 365® account to Salesforce. Then, on accounts, contacts, leads, opportunities, and person accounts, they see their related emails and events. They also see related emails and events from others on their team.

The screenshot shows the Salesforce inbox interface. On the left, there's a calendar view for December 2016. A red arrow points from a specific event in the calendar to a detailed view of the event in the center. The center panel shows a contact profile for "Sarah Loehr" with tabs for "Next Steps" and "Past Activity". Under "Next Steps", there's a card for a "Lunch meeting and proposal" scheduled for Dec 2 at 12:00 PM. Under "Past Activity", there are two email threads from "Sally Cho". One is a reply to a proposal with the subject "Re: Proposal details" and another is a follow-up email with the subject "Proposal details". Red arrows point from the event in the calendar to the event card in the center, and from the email body back to the event card.

To ensure privacy, each user can control which emails and events are added to Salesforce and who sees them. From personal settings, users enter **Settings** in the Quick Find box, then click **Settings** under Automated Activity Capture.

To easily track sales activities, we've included activity reports that provide a summary of key activities, including those added with Automated Activity Capture. Each org gets five Wave app permission set licenses. If you assign the permission set license to a user, they can access the activity reports from the Einstein Analytics tab.



Automated Activity Capture is also available as part of Sales Cloud Einstein. For more information, see [Sales Cloud Einstein: A Smarter Sales Process at Every Step Powered by Artificial Intelligence \(AI\)](#).

SEE ALSO:

[Set Up Inbox](#)

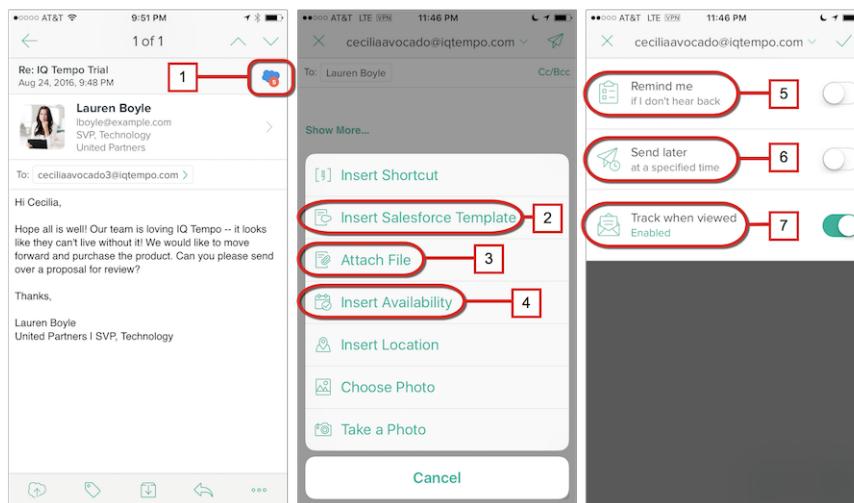
Boost Email Productivity with the Inbox Clients

Help your sales reps sell smarter without leaving their inbox. With the Inbox clients, on every email, they can see relevant Salesforce data, schedule meetings more quickly, and receive intelligent reminders to follow up. This feature is new in both Lightning Experience and Salesforce Classic.

After you set up Inbox, Inbox users can install any or all Inbox clients. During installation, users connect their email and calendar to Salesforce.

With the Inbox clients, users can:

- Surface, create, and manage relevant Salesforce leads, contacts, opportunities, and tasks on every email (1)
- Use templates (2) and quick attachments (3) to efficiently reply to prospects
- Schedule meetings faster by adding availability (4) to emails and letting customers book the best time with one click
- Get follow-up reminders(5)
- Use Send Later (6) to schedule exactly when customers receive a message
- Get notified when someone opens a message (7)
- Manually log emails in Salesforce (if Automated Activity Capture isn't enabled for the org)
- Control who can see emails that have been added to Salesforce by Automated Activity Capture



To support common Google™ and Microsoft® email platforms for desktop and mobile devices, we offer several Inbox clients.

Inbox Client	Supported Email Accounts
Gmail™ Extension for Chrome™	Gmail
Add-in for Outlook® (Works with Outlook web apps and Outlook 2013 and later)	Microsoft Office 365 Microsoft Exchange 2013 and later
Standalone Mobile Email App for iOS™ Devices	Gmail Microsoft Office 365® Microsoft Exchange 2010 and later

Inbox Client	Supported Email Accounts
Standalone Mobile Email App for Android™ Devices	Gmail Microsoft Office 365 Microsoft Exchange 2010 and later

SEE ALSO:

[Set Up Inbox](#)

Set Up Inbox

To install Inbox, use the in-app Inbox Setup Assistant as a guide. You install the Inbox Control Panel, select who can use Inbox, and enable Automated Activity Capture.

1. From Setup, enter *Setup Assistant* in the Quick Find box, then select **Setup Assistant** under Inbox.
2. Install the [Inbox Control Panel from the AppExchange](#). During installation, make sure to select **Install for All Users**.
3. Select who can use Inbox.
 - a. Create a permission set.
 - b. From the License drop-down list, select **Inbox**.

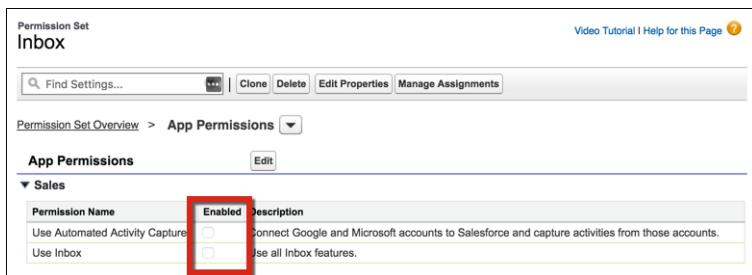
USER PERMISSIONS

To set up Inbox:

- “Customize Application” and “Modify All Data”

The screenshot shows the 'Permission Set Create' interface. At the top, there are 'Save' and 'Cancel' buttons. Below that is a section titled 'Enter permission set information' with fields for 'Label' (set to 'Inbox') and 'API Name' (set to 'Inbox'). There is also a 'Description' field which is empty. Below this is a section titled 'Select the type of users who will use this permission set'. It contains a note about who will use the permission set and three options: '-Choose --None--', 'Choose a specific user license if you want users with only one license type to use this permission set.', and 'Choose a specific permission set license if you want this permission set license auto-assigned with the permission set.' A note at the bottom says 'Not suitable for permission sets assigned to groups or roles.' Below this is a 'License' dropdown menu. The 'Inbox' option is selected and highlighted with a red box. At the bottom of the form are 'Save' and 'Cancel' buttons.

- c. Click **Save**.
- d. Click **App Permissions**.
- e. Enable app permissions for Inbox features.



- f. Assign the permission set to sales reps.
4. From the Inbox Setup Assistant, enable Automated Activity Capture. Salesforce asks Inbox users to connect their Google™ or Microsoft® Office 365® account to Salesforce. It takes up to 24 hours for their emails and events to be initially added to Salesforce.
5. Tell Inbox sales reps to install the Inbox clients.

SEE ALSO:

[Inbox: Productivity Tools That Connect Email and Calendar to Salesforce](#)

Install the Inbox Clients

After you set up Inbox, Inbox users can install the Inbox clients.

1. Download and install the Inbox client for your platform.
 - iOS™ app
 - Android™ app
 - Chrome™ extension
 - Add-in for Outlook®
2. When prompted during installation, log in to Salesforce.

Google Integration: More Access to Salesforce Directly from Gmail™ and Google Calendar™ (Beta)

Do your sales reps live in Google applications like Gmail and Google Calendar, but want to get sales data from emails, contacts, and events into Salesforce easily? Want no more: We're introducing Lightning for Gmail (Beta), which lets reps view relevant Salesforce records from their Gmail inboxes and relate emails to Salesforce records. Lightning Sync for Google (Beta) also adds functionality. Now reps can sync contacts from Gmail to Salesforce, and meeting attendee details automatically sync from Google Calendar to Salesforce.

IN THIS SECTION:

[Lightning for Gmail: Salesforce and Gmail™ Integration to Manage Deals Better \(Beta\)](#)

If your company uses Gmail™, Lightning for Gmail is just the solution for you. Our latest email integration feature lets sales reps work with Salesforce records directly from Gmail. This feature is available to be managed from both Lightning Experience and Salesforce Classic.

[Lightning Sync for Google \(Beta\): More Sync Functionality and More Google Event Details in Salesforce](#)

Now you can get your sales reps' contacts into Gmail™ easily. In addition, reps can see their Google Calendar™ meeting attendees directly from Salesforce. This change applies to both Lightning Experience and Salesforce Classic.

Lightning for Gmail: Salesforce and Gmail™ Integration to Manage Deals Better (Beta)

If your company uses Gmail™, Lightning for Gmail is just the solution for you. Our latest email integration feature lets sales reps work with Salesforce records directly from Gmail. This feature is available to be managed from both Lightning Experience and Salesforce Classic.

 **Note:** This release contains a beta version of Lightning for Gmail, which means it's a high-quality feature with known limitations. Lightning for Gmail 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 this feature in the [IdeaExchange](#).

After you enable it, your Gmail users can download the beta version of Lightning for Gmail from the Chrome web store. Within Gmail, reps can log in to Lightning for Gmail with their Salesforce credentials. They can search, view, and edit relevant Salesforce records right next to their emails—without ever leaving Gmail!

In this release, we provide support to customers with Sales Cloud, Service Cloud, or Force.com licenses.

IN THIS SECTION:

[Get More Done Directly from Lightning for Gmail](#)

Give your sales teams access to Salesforce content right where they work. That way, they can efficiently manage their sales pipeline and drive more deals to close without switching between Salesforce and Gmail.

[Einstein Brings Insights to Lightning for Gmail](#)

Give your sales teams decision-driving data in Lightning for Gmail with Einstein. If you've set up with Einstein, your sales reps can use account and opportunity insights to prioritize their work while they tackle their emails.

[Rev Up Productivity with Enhanced Email](#)

Want to help your sales reps stay on top of their emails as well as their important deals? Turn on Enhanced Email with Lightning for Gmail for your reps, so they can relate emails to relevant Salesforce records quickly and easily.

[Put Your Own Spin on Lightning for Gmail](#)

Do your sales teams want to zero in on records other than accounts, contacts, opportunities, leads, or cases? Are they eager to work with functionality that your company customized? Make Lightning for Gmail more relevant for sales reps by selecting the kinds of Salesforce records reps see and work with when they're in Gmail.

Get More Done Directly from Lightning for Gmail

Give your sales teams access to Salesforce content right where they work. That way, they can efficiently manage their sales pipeline and drive more deals to close without switching between Salesforce and Gmail.

From Lightning for Gmail, your sales team members can:

- View Salesforce contacts, leads, accounts, opportunities, and cases relevant to the Gmail messages they received or sent (1).
- Search for custom object records, and create a Salesforce record using actions available to them (2). With the inline editing feature, they can also modify records without leaving Gmail.

EDITIONS

Available in: Salesforce Classic and Lightning Experience

Available in: **Group, Professional, Enterprise, Performance, Unlimited, and Developer** Editions

The screenshot shows a Gmail inbox with several messages listed. On the right side, a sidebar titled "Search Salesforce" is open, containing sections for "People", "Accounts", "Opportunities", and "Cases". The "People" section shows entries for "Alex Liu" and "Sriram Patel". The "Accounts" section shows "Coca Cola" with details like phone number, address, and close date. The "Opportunities" section shows "South Africa - Exceptional Delivery". The "Cases" section shows a case for travel approval.

- Drill down for more details on a Salesforce record right from Lightning for Gmail. In addition to a record's detail page, reps get to see its Chatter feed, activity timeline, and related

Alex Darrow
Chairman of the Board • Clean Energy Foundation • 3124534000 • alex@execforce.x

ACTIVITY (highlighted)

Filter Timeline ▾

Next Steps

More Steps

Obtain donation pledge

Related To Clean Energy Foundation

Nov 4

Past Activity

- lists.
- View and relate Salesforce records to Google Calendar events and emails.

Einstein Brings Insights to Lightning for Gmail

Give your sales teams decision-driving data in Lightning for Gmail with Einstein. If you've set up with Einstein, your sales reps can use account and opportunity insights to prioritize their work while they tackle their emails.

SEE ALSO:

[Sales Cloud Einstein](#)

Rev Up Productivity with Enhanced Email

Want to help your sales reps stay on top of their emails as well as their important deals? Turn on Enhanced Email with Lightning for Gmail for your reps, so they can relate emails to relevant Salesforce records quickly and easily.

With Enhanced Email, when reps relate an email to a relevant account, opportunity, case, custom object, or contact, all contacts, leads, and users on the email are automatically related. Even better, the emails are added to Salesforce as Email Message records. So, reps can view emails in rich text format from Salesforce. Emails get to keep their personality in Salesforce and appear with their bold, italic, underlined, and colored characters, and their lists and tables intact. When you enable Enhanced Email for your reps, they can also add attachments to relevant Salesforce records.

To let sales reps experience Enhanced Email with Lightning for Gmail, first verify that Enhanced Email is enabled for your organization. Then, enable Enhanced Email for this feature from the Lightning for Gmail Settings page.

Before turning on Enhanced Email for Lightning for Gmail, there are some considerations to think about.

SEE ALSO:

[Enhanced Email with Lightning for Gmail \(can be outdated or unavailable during release preview\)](#)

Put Your Own Spin on Lightning for Gmail

Do your sales teams want to zero in on records other than accounts, contacts, opportunities, leads, or cases? Are they eager to work with functionality that your company customized? Make Lightning for Gmail more relevant for sales reps by selecting the kinds of Salesforce records reps see and work with when they're in Gmail.

Set up your reps with customized email application panes using App Builder. Add standard components that your reps use most, like accounts, contacts, or cases. Or work with your Salesforce developers to include custom Lightning components that reflect your company's custom processes and workflows. You can also leverage awesome components that you find on AppExchange.

From App Builder, drag and drop the standard or custom components that you want users to work with, or change component properties. You can also rearrange components so that reps can focus on the most important things first.

When you're finished, roll out email application panes to reps by assigning them to the right user profiles. Create multiple panes, and assign them to different user profiles to give team members in unique roles different experiences.

EDITIONS

Available in all editions

Lightning Sync for Google (Beta): More Sync Functionality and More Google Event Details in Salesforce

Now you can get your sales reps' contacts into Gmail™ easily. In addition, reps can see their Google Calendar™ meeting attendees directly from Salesforce. This change applies to both Lightning Experience and Salesforce Classic.

 **Note:** This release contains a beta version of Lightning Sync for Google, which means it's a high-quality feature with known limitations. Lightning Sync for Google 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 Lightning Sync for Google in the [Lightning Sync Success Community](#).

Editions

Available in: **Professional, Enterprise, Performance, Unlimited, and Developer** Editions

IN THIS SECTION:

[Get Sales Reps' Contacts into Gmail™](#)

Help your sales reps get up-to-date contact information for their prospects. Set up reps to sync Salesforce contacts to Google Contacts using Lightning Sync. That way, reps can work in Gmail™ to build relationships with prospects, and not lose time maintaining records in both systems. This change applies to both Lightning Experience and Salesforce Classic.

[See Who's Attending Meetings Booked from Google Calendar™ Directly from Salesforce](#)

If your company uses Lightning Sync with Google Calendar™, your sales team can see which prospects, customers, and colleagues are attending their meetings directly from Salesforce. This change applies to Salesforce Classic only.

Get Sales Reps' Contacts into Gmail™

Help your sales reps get up-to-date contact information for their prospects. Set up reps to sync Salesforce contacts to Google Contacts using Lightning Sync. That way, reps can work in Gmail™ to build relationships with prospects, and not lose time maintaining records in both systems. This change applies to both Lightning Experience and Salesforce Classic.

Set up Lightning Sync to sync Google contacts with the help of your Google admin. First, your Google admin gives Salesforce access to Google contacts from your company's Google for Work account so that the applications can communicate. Then, set up reps to sync contacts from their Lightning Sync configurations in Salesforce.

Reps start to see their Salesforce contacts sync to a group called "Salesforce Sync," which Lightning Sync creates in Google Contacts. Reps can access Salesforce Sync from Gmail, as well.

SEE ALSO:

[Salesforce Help: Prepare Your Google for Work Account for Lightning Sync](#) (can be outdated or unavailable during release preview)

[Salesforce Help: Define Sync Settings for Sales Reps Using Lightning Sync for Google](#) (can be outdated or unavailable during release preview)

See Who's Attending Meetings Booked from Google Calendar™ Directly from Salesforce

If your company uses Lightning Sync with Google Calendar™, your sales team can see which prospects, customers, and colleagues are attending their meetings directly from Salesforce. This change applies to Salesforce Classic only.

Meeting attendees and their responses sync to Salesforce automatically when:

- The event organizer is set up to sync events with Lightning Sync.
- The event attendees' email addresses match contacts, leads, or user profiles in Salesforce.

No additional setup is required to get meeting attendees to start syncing.

If you set up some team members to sync events and not others, there are some event sync limitations you should be aware of. To learn more, see "Event Attendee Sync" in the Salesforce Help.

USER PERMISSIONS

To see Google Calendar event attendees on Salesforce events:

- "Create" on events

AND

The event organizer must be assigned to an active Lightning Sync configuration with event sync enabled

Microsoft® Integration: More Custom Components and Saved Skype Chats

Help your reps maximize their Salesforce productivity directly from their Microsoft email and calendars. Let your reps initiate audio and video calls, see who's online, and start chats—all with Skype for Salesforce.

IN THIS SECTION:

[Lightning for Outlook: More Productivity and Increased Customization with Lightning App Builder](#)

Sales reps can view and work with more Salesforce content directly from Lightning for Outlook. We've also expanded the Microsoft® Outlook® context developers can use to build custom Lightning App Builder components. This feature is available to be managed from both Lightning Experience and Salesforce Classic.

[Lightning Sync for Microsoft® Exchange: More Microsoft Event Details in Salesforce](#)

Your sales reps' meeting attendees sync from reps' Microsoft® Exchange-based calendars to Salesforce. This change applies to Salesforce Classic only.

[Skype for Salesforce \(Beta\): Saved Chats, More Editions, and Lightning App Builder](#)

Help your sales reps work more efficiently using Skype for Salesforce. It now includes a chat-saving feature and is available in more Salesforce editions. You can even add Skype to standard and custom record pages.

[Salesforce for Outlook: Required Upgrade and System Requirements](#)

To continue using Salesforce for Outlook, it's critical that your sales reps upgrade to our latest version, and that reps' system meet our latest requirements, which we've revised for Spring '17.

Lightning for Outlook: More Productivity and Increased Customization with Lightning App Builder

Sales reps can view and work with more Salesforce content directly from Lightning for Outlook. We've also expanded the Microsoft® Outlook® context developers can use to build custom Lightning App Builder components. This feature is available to be managed from both Lightning Experience and Salesforce Classic.

IN THIS SECTION:

[Get More Done Directly from Lightning for Outlook](#)

Your sales teams can drill down for more details on a Salesforce record right from Lightning for Outlook. In addition to a record's detail page, reps get to see its Chatter feed, activity timeline, and related lists. But, we didn't stop there. Lightning for Outlook now supports inline editing, so reps can modify records without having to switch between Salesforce and Outlook.

[Einstein Brings Insights to Lightning for Outlook](#)

Give your sales teams decision-driving data in Lightning for Outlook with Einstein. If you've set up with Einstein, your sales reps can use account and opportunity insights to prioritize their work while they tackle their emails.

[Tailor Content in Email Application Panes Even More](#)

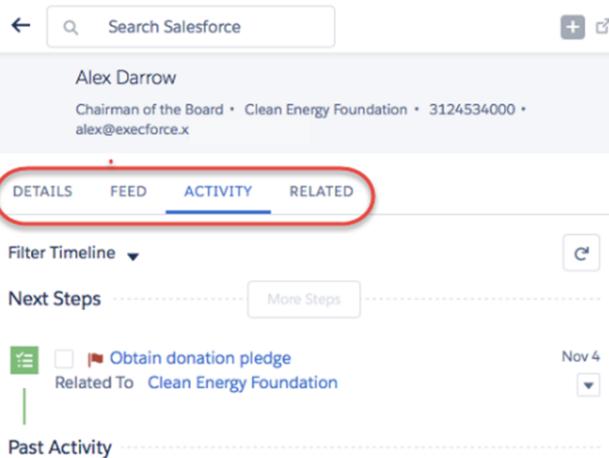
If your sales reps love working with customized functionality in Lightning for Outlook, we've got great news for you. Developers can now design custom Lightning components that leverage email content, or an event's description, start date, end date, participants, and location.

[Welcome Service Cloud and Force.com Customers](#)

Lightning for Outlook is now available to more folks. In this release, we extend support to customers with Service Cloud or Force.com licenses.

Get More Done Directly from Lightning for Outlook

Your sales teams can drill down for more details on a Salesforce record right from Lightning for Outlook. In addition to a record's detail page, reps get to see its Chatter feed, activity timeline, and related lists. But, we didn't stop there. Lightning for Outlook now supports inline editing, so reps can modify records without having to switch between Salesforce and Outlook.



EDITIONS

Available in: Salesforce Classic and Lightning Experience

Available in: **Group, Professional, Enterprise, Performance, Unlimited, and Developer** Editions



Example: Let's say Chris, a sales rep, just received an email that a customer is ready to close a deal. Chris can review recent activity for that customer in the activity timeline, update the Opportunity Sales stage, and post the great news on Chatter—all from Lightning for Outlook.

Einstein Brings Insights to Lightning for Outlook

Give your sales teams decision-driving data in Lightning for Outlook with Einstein. If you've set up with Einstein, your sales reps can use account and opportunity insights to prioritize their work while they tackle their emails.

SEE ALSO:

[Sales Cloud Einstein](#)

Tailor Content in Email Application Panes Even More

If your sales reps love working with customized functionality in Lightning for Outlook, we've got great news for you. Developers can now design custom Lightning components that leverage email content, or an event's description, start date, end date, participants, and location.



Example: For example, let's suppose Dan, your sales rep, receives a confirmation email for an upcoming Salesforce event. Want to make Dan's travel planning easier? Here's how your Salesforce developers can help. With a bit of developer magic, Dan can review the weather forecast for the event—right from a custom Lightning component in Lightning for Outlook. The outlook is sunny for Dan.

SEE ALSO:

[Salesforce Help: Customize Lightning for Outlook for Your Sales Reps](#) (can be outdated or unavailable during release preview)

[Salesforce Help: Create Components for Lightning for Outlook and Lightning for Gmail \(Beta\)](#) (can be outdated or unavailable during release preview)

Welcome Service Cloud and Force.com Customers

Lightning for Outlook is now available to more folks. In this release, we extend support to customers with Service Cloud or Force.com licenses.

Lightning Sync for Microsoft® Exchange: More Microsoft Event Details in Salesforce

Your sales reps' meeting attendees sync from reps' Microsoft® Exchange-based calendars to Salesforce. This change applies to Salesforce Classic only.

EDITIONS

Available in: **Professional, Enterprise, Performance, Unlimited, and Developer** Editions

IN THIS SECTION:

[See Who's Attending Meetings Booked from Microsoft Exchange® Calendars Directly from Salesforce](#)

If your company uses Lightning Sync with Microsoft Exchange, your sales team can see which prospects, customers, and coworkers are attending their meetings directly from Salesforce. This change applies to Salesforce Classic only.

See Who's Attending Meetings Booked from Microsoft Exchange® Calendars Directly from Salesforce

If your company uses Lightning Sync with Microsoft Exchange, your sales team can see which prospects, customers, and coworkers are attending their meetings directly from Salesforce. This change applies to Salesforce Classic only.

Meeting attendees and their responses sync to Salesforce automatically when:

- The event organizer is set up to sync events with Lightning Sync.
- The event attendees' email addresses match contacts, leads, or user profiles in Salesforce.

No additional setup is required to get meeting attendees to start syncing.

If you set up some team members to sync events and not others, there are some event sync limitations you should be aware of. To learn more, see "Event Attendee Sync" in the Salesforce Help.

USER PERMISSIONS

To see Microsoft Exchange calendar event attendees on Salesforce events:

- "Create" on events

AND

The event organizer must be assigned to an active Lightning Sync configuration with event sync enabled

Skype for Salesforce (Beta): Saved Chats, More Editions, and Lightning App Builder

Help your sales reps work more efficiently using Skype for Salesforce. It now includes a chat-saving feature and is available in more Salesforce editions. You can even add Skype to standard and custom record pages.

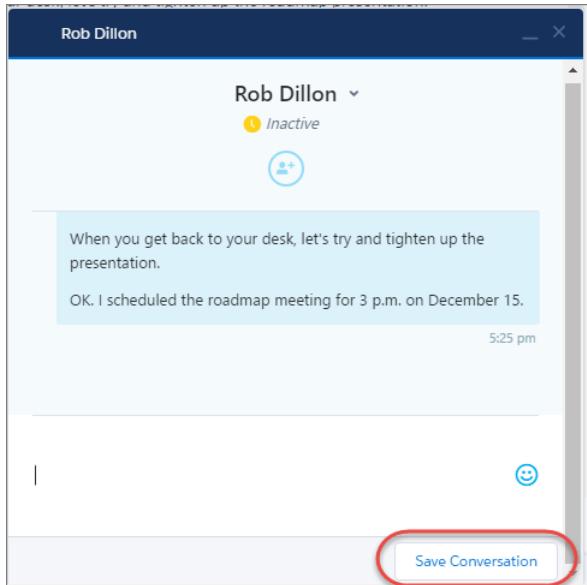
Save Chats Quickly and Easily

Let your reps save important chats as notes from the Skype window. Reps access saved chats from the Notes tab in Salesforce.

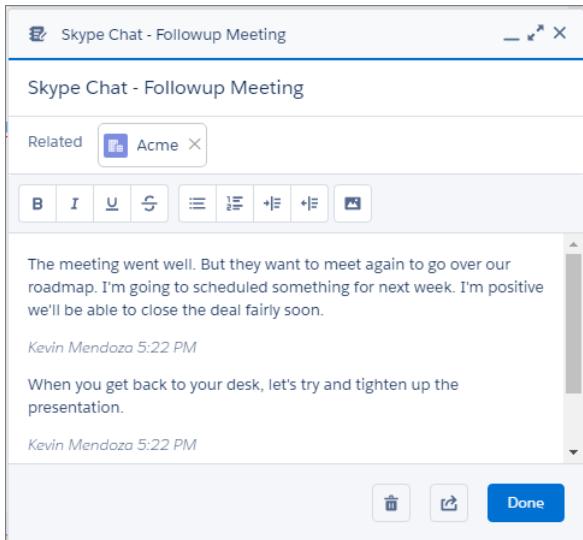
1. Click **Save Conversation**.

EDITIONS

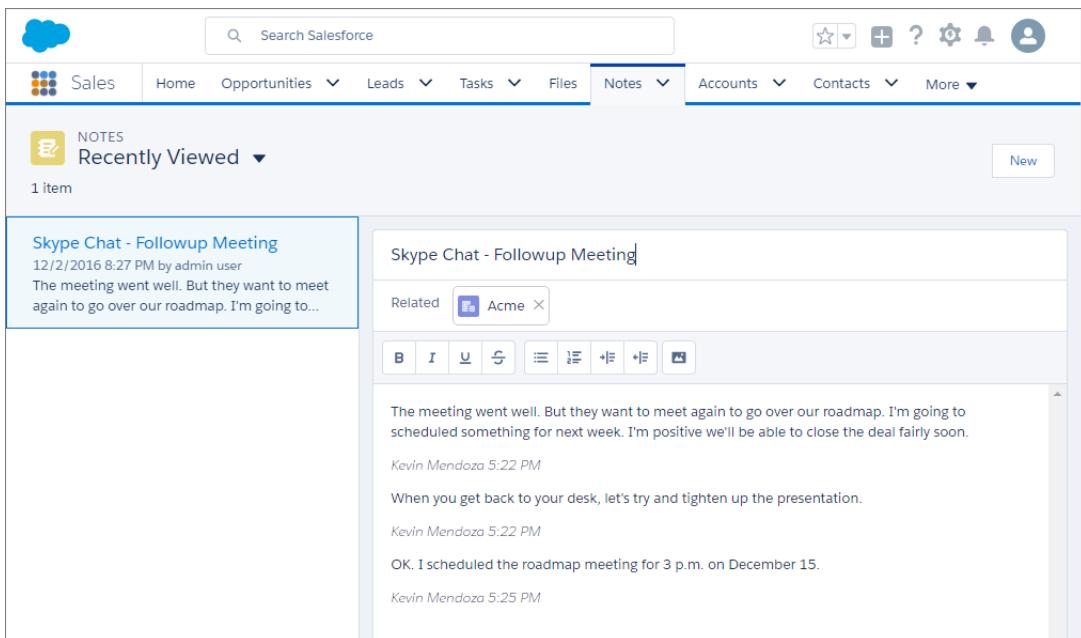
Available in: **Developer, Enterprise, Performance, Personal, and Unlimited** Editions



2. If you want, add a title and text.



- 3.** Access saved chats from the Notes tab in Salesforce.



Unleash Skype for Salesforce onto More Users

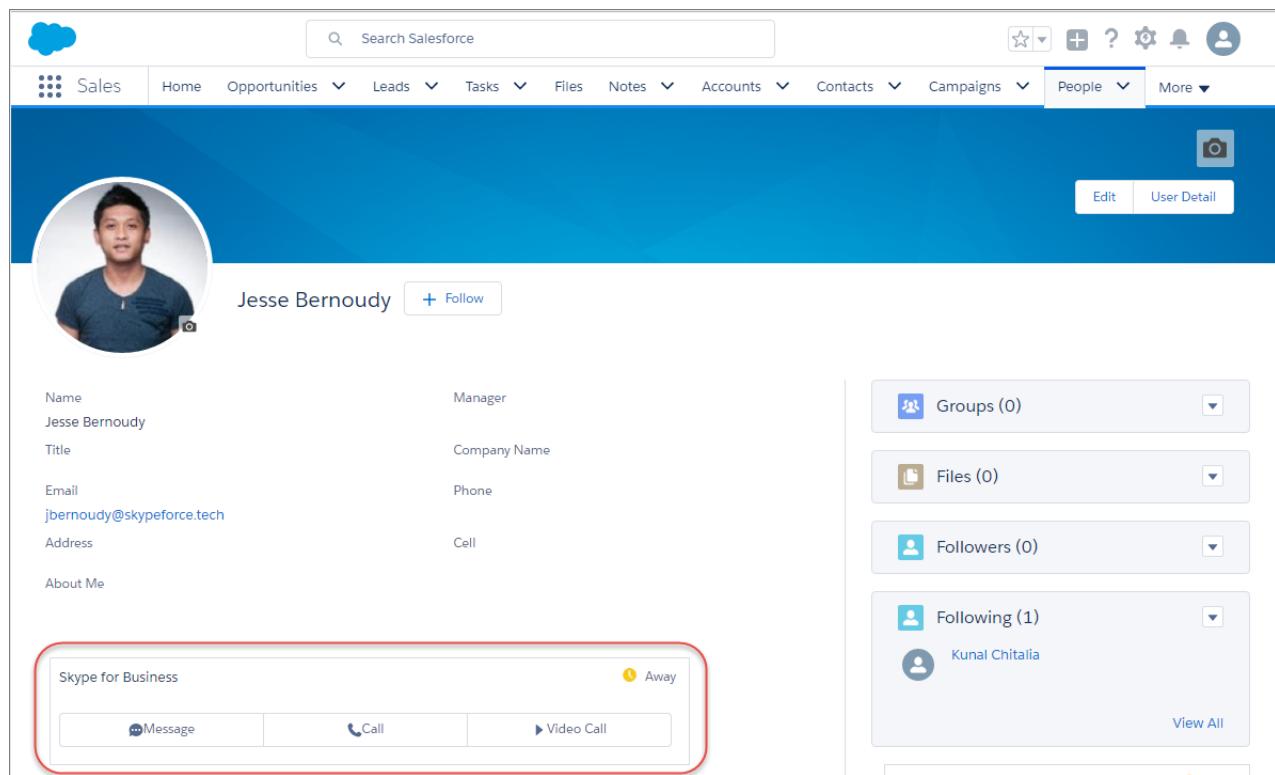
Skype for Salesforce is now available in Developer, Performance, and Personal Editions.

To help your sales teams communicate more efficiently, start with [Enable Skype for Salesforce](#) (can be outdated or unavailable during release preview).

Help Reps Communicate More Efficiently Throughout Lightning Experience

See who's online, chat, and initiate audio and video calls. You impress your sales teams when you add Skype for Salesforce features to standard and custom record pages using the Lightning App Builder.

With the Lightning App Builder, add the Skype for Business component to any standard or custom record page that includes an email field. Here, the component is on a standard record page.



SEE ALSO:

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

[Salesforce Help: Enable Skype for Salesforce](#) (can be outdated or unavailable during release preview)

[Add Skype to Lightning Record Pages \(Beta\)](#)

Salesforce for Outlook: Required Upgrade and System Requirements

To continue using Salesforce for Outlook, it's critical that your sales reps upgrade to our latest version, and that reps' system meet our latest requirements, which we've revised for Spring '17.

EDITIONS

Available in all editions

IN THIS SECTION:

[Critical Upgrade Required](#)

To avoid service disruption, all Salesforce for Outlook users must be working on version 3.0.0 or later by March 2017. Make sure that your sales teams upgrade as soon as possible to work through any installation issues before March.

[Support Ending for Several Microsoft® Applications](#)

To offer your sales reps compatibility with the latest Microsoft applications, Salesforce for Outlook is ending support for retired Microsoft applications, like Internet Explorer® 9, Internet Explorer® 10, Outlook 2007, and Exchange 2007. Move your reps off these applications soon to avoid issues.

Critical Upgrade Required

To avoid service disruption, all Salesforce for Outlook users must be working on version 3.0.0 or later by March 2017. Make sure that your sales teams upgrade as soon as possible to work through any installation issues before March.

When Salesforce disables TLS 1.0 encryption protocol on March 4, 2017, Salesforce for Outlook v2.9.3 and earlier no longer function. Reps working from those versions can't sync their Outlook items to Salesforce, nor can they work with their Salesforce records from the side panel.

In addition to upgrading reps, make sure that they meet all Salesforce for Outlook requirements for TLS 1.1 and 1.2 compatibility.

If you're not sure which Salesforce for Outlook versions your reps are working from, you can check from Salesforce.

SEE ALSO:

[Knowledge Article: Prepare Your Org to Continue Using Salesforce for Outlook After TLS 1.0 Disablement](#)

[Knowledge Article: Salesforce Disabling TLS 1.0](#)

[Salesforce Help: Track the Versions of Salesforce for Outlook Your Users Run \(can be outdated or unavailable during release preview\)](#)

Support Ending for Several Microsoft® Applications

To offer your sales reps compatibility with the latest Microsoft applications, Salesforce for Outlook is ending support for retired Microsoft applications, like Internet Explorer® 9, Internet Explorer® 10, Outlook 2007, and Exchange 2007. Move your reps off these applications soon to avoid issues.

Support for Internet Explorer 9 and 10 ends as of the Spring '17 release. At that time, all reps have to move to Internet Explorer 11. Otherwise, Salesforce content could render incompletely when reps create Salesforce records from Outlook using Side Panel Publisher.

Support for Outlook 2007 and Exchange 2007 ends when Microsoft retires support for those products in April 2017. At that time, reps must run Outlook and Exchange 2016, 2013, or 2010 to continue using Salesforce for Outlook. Otherwise, reps' items don't sync between Outlook and Salesforce, and the side panel stops working.

SEE ALSO:

[Salesforce Help: Salesforce for Outlook System Requirements \(can be outdated or unavailable during release preview\)](#)

Other Changes in the Sales Cloud

Learn about other changes we've made to improve usability.

IN THIS SECTION:

[Data Assessment Date Stamp Changed](#)

On the data assessment summary page, the line noting the last update now reads "Last updated [date]". Previously, it read "(Last Updated on [date])". This change applies to Lightning Experience only.

[Global Actions Added for Contracts and Orders](#)

Global actions are available for the Contract and Order objects, so you have more control over customizing actions for these objects. This change applies to both Lightning Experience and Salesforce Classic.

[Recently Scheduled Meetings Visible from Lightning Experience Home Without Browser Refresh](#)

If you've got one billion browser tabs open on your desktop, welcome to the club. But let's celebrate the little victories: When sales reps add events to their calendars, reps can see those events from other browser tabs right away under Upcoming Events on Lightning Experience Home. No refreshing? How refreshing. This change applies to Lightning Experience only.

[Calendar Navigation Buttons Moved in Lightning Experience](#)

But it's good news, we promise. Because now the buttons used to navigate between calendar weeks or months are in the same place as buttons on other records, like opportunities or leads. And the same place as buttons on custom pages built with the Lightning Design System. This change applies to Lightning Experience only.

[Cloud Scheduler is Being Retired](#)

Cloud Scheduler began phased retirement in Winter '17. This change applies to Salesforce Classic only.

[Rich-Text Editor for Notes Is Now Using Quill](#)

We've replaced the rich-text editor used in Notes, the Salesforce note-taking app. We're now using the Quill editor. The toolbar buttons for the Quill editor have a slightly different visual appearance, but the functionality is the same as before. This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

[Business Processes Use Name Field to Evaluate Person Accounts](#)

Triggers, validation rules, flows, approvals, workflow, and Process Builder evaluate person accounts more effectively. This change applies to both Lightning Experience and Salesforce Classic.

[Easier to Use Merge Fields When Emailing Person Accounts in Lightning Experience](#)

When reps use merge fields in an email to a person account, all person account merge fields now show up in the merge field search results. Previously, only account merge fields appeared in the search results, but now contact merge fields are returned, too. This change applies to Lightning Experience only.

[Person Account Quick View Always Shows Account Info in Lightning Experience](#)

When hovering over a person account link, the quick view always displays account information. Previously, contact info was displayed if the person account link was in a field that represented a contact (for example, the Name or Related Contact field). This change applies to Lightning Experience only.

[Account Autofill Now Called Automated Account Fields](#)

Automated Account Fields is the new name for the account feature that displays US-based companies in the Account Name field as sales reps enter information. Reps can select a suggested company from the list, making it easier to create business accounts. This change applies to Lightning Experience only.

[Sales Console Permissions Are Easier to Assign in Salesforce Classic](#)

A standard permission set is now available for the Sales Console in Salesforce Classic. Standard permission sets save you time when working with permission set licenses. When you purchase the Sales Console permission set license, you can immediately assign the permission set to users.

[Lead Assignment Rules Visible in Lightning Experience](#)

Salespeople can now see the Lead Assignment checkbox on new leads in Lightning Experience. This change applies to Lightning Experience only.

Data Assessment Date Stamp Changed

On the data assessment summary page, the line noting the last update now reads "Last updated [date]". Previously, it read "(Last Updated on [date])". This change applies to Lightning Experience only.

EDITIONS

Available in Lightning Experience in: **Professional, Enterprise, Performance, and Unlimited** Editions

Global Actions Added for Contracts and Orders

Global actions are available for the Contract and Order objects, so you have more control over customizing actions for these objects. This change applies to both Lightning Experience and Salesforce Classic.

We added the Quick Actions in the Salesforce Classic Publisher section to the page layout editor for Contracts and Orders and made global actions available there.

SEE ALSO:

[Salesforce Help: How Actions Are Ordered in Lightning Experience](#) (can be outdated or unavailable during release preview)

EDITIONS

Contracts are available in **Performance** and **Developer** Editions and in **Professional, Enterprise**, and **Unlimited** Editions with the Sales Cloud

Orders are available in: **Professional, Enterprise, Performance, Unlimited**, and **Developer** Editions

Recently Scheduled Meetings Visible from Lightning Experience Home Without Browser Refresh

If you've got one billion browser tabs open on your desktop, welcome to the club. But let's celebrate the little victories: When sales reps add events to their calendars, reps can see those events from other browser tabs right away under Upcoming Events on Lightning Experience Home. No refreshing? How refreshing. This change applies to Lightning Experience only.

EDITIONS

Available in: **Developer, Enterprise, Group, Performance, Professional**, and **Unlimited** Editions

Calendar Navigation Buttons Moved in Lightning Experience

But it's good news, we promise. Because now the buttons used to navigate between calendar weeks or months are in the same place as buttons on other records, like opportunities or leads. And the same place as buttons on custom pages built with the Lightning Design System. This change applies to Lightning Experience only.

Why did we do that? Because when your reps' buttons are always in the same place, they're easier to find. Streamlining our design lets reps navigate Salesforce quickly.

EDITIONS

Available in: **Group, Professional, Enterprise, Performance, Unlimited**, and **Developer** Editions

Cloud Scheduler is Being Retired

Cloud Scheduler began phased retirement in Winter '17. This change applies to Salesforce Classic only.

Cloud Scheduler is unavailable in Salesforce orgs created in Winter '17 or later. If you enabled Cloud Scheduler before Winter '17, it remains available in your org until Winter '18.

Important: Cloud Scheduler is unavailable in Salesforce orgs created in Winter '17 or later. If you enabled Cloud Scheduler before Winter '17, it remains available in your org until Winter '18. However, if you remove the **New Meeting Request** button, you can't add it back.

For more information, see [Cloud Scheduler to begin phased retirement with Winter '17](#).

EDITIONS

Available in: **All** Editions Except **Personal Edition** and **Database.com**

Rich-Text Editor for Notes Is Now Using Quill

We've replaced the rich-text editor used in Notes, the Salesforce note-taking app. We're now using the Quill editor. The toolbar buttons for the Quill editor have a slightly different visual appearance, but the functionality is the same as before. This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

EDITIONS

Notes available in Lightning Experience in: **Professional, Enterprise, Performance, Unlimited, and Developer** Editions

Notes available in Salesforce Classic in: **Contact Manager, Group, Professional, Enterprise, Performance, Unlimited, and Developer** Editions

Business Processes Use Name Field to Evaluate Person Accounts

Triggers, validation rules, flows, approvals, workflow, and Process Builder evaluate person accounts more effectively. This change applies to both Lightning Experience and Salesforce Classic.

Previously, an account-related process that used the `Name` field looked only at business accounts, even when the person account's first and last names matched the rule criteria. Now, a process that uses the `Name` field looks at person accounts.

If you prefer processes continue to ignore person accounts, add the `IsPersonAccount` field to the criteria so that person accounts are excluded.

SEE ALSO:

[Process Builder: Lightning Icons and Encrypted Data](#)

[Approvals: Consistency Across All Salesforce Experiences](#)

EDITIONS

Person Accounts and Process Builder available in: **Professional, Enterprise, Performance, Unlimited, and Developer** Editions

Flow, Approvals, and Workflow available in: **Enterprise, Performance, Unlimited, and Developer** Editions

Easier to Use Merge Fields When Emailing Person Accounts in Lightning Experience

When reps use merge fields in an email to a person account, all person account merge fields now show up in the merge field search results. Previously, only account merge fields appeared in the search results, but now contact merge fields are returned, too. This change applies to Lightning Experience only.

Person Account Quick View Always Shows Account Info in Lightning Experience

When hovering over a person account link, the quick view always displays account information. Previously, contact info was displayed if the person account link was in a field that represented a contact (for example, the `Name` or `Related Contact` field). This change applies to Lightning Experience only.

Account Autofill Now Called Automated Account Fields

Automated Account Fields is the new name for the account feature that displays US-based companies in the Account Name field as sales reps enter information. Reps can select a suggested company from the list, making it easier to create business accounts. This change applies to Lightning Experience only.

Sales Console Permissions Are Easier to Assign in Salesforce Classic

A standard permission set is now available for the Sales Console in Salesforce Classic. Standard permission sets save you time when working with permission set licenses. When you purchase the Sales Console permission set license, you can immediately assign the permission set to users.

SEE ALSO:

[Standard Permission Sets Make Your Life Easier](#)

Lead Assignment Rules Visible in Lightning Experience

Salespeople can now see the Lead Assignment checkbox on new leads in Lightning Experience. This change applies to Lightning Experience only.

Previously, the Lead Assignment Checkbox wasn't visible in Lightning Experience. To allow salespeople to trigger assignment rules manually when leads are created or edited, add the Lead Assignment Checkbox to the lead layout page.

SEE ALSO:

[Salesforce Help: Guidelines for Using the Enhanced Page Layout Editor](#) (can be outdated or unavailable during release preview)

Data.com: Continual, Customizable Record Updates Using Data Integration

Data Integration updates your data when you add or change a record. Updates are controlled by data integration rules, which replace Clean rules with improved customization, including customized field mapping. Like Data.com Clean, Data Integration updates your records from external data. However, while Data.com Clean makes updates when you run Clean jobs or update records manually, Data Integration makes updates when you add or update a record. Data Integration also works with the Data.com data service and with third-party data services contained in a data package. With a Data.com Clean license, you can also use data integration rules with Data.com Clean updates and Clean jobs.

EDITIONS

Available in: **Group, Professional, Enterprise, Performance, Unlimited, and Developer** Editions

EDITIONS

Available in: **Enterprise, Performance, Unlimited, and Developer** Editions

EDITIONS

Available in: Salesforce Classic and Lightning Experience

Company Info for Accounts and Company Info for Leads rules require a Data.com Premium Clean license.

Available in: **Professional, Enterprise, Performance, and Unlimited** Editions

IN THIS SECTION:

[Data Integration Rules Replace Clean Rules](#)

Data integration rules replace Data.com Clean rules with better control over how your data is updated. Rules are available for Data.com data and data in external data packages. Although data integration rules are designed for all external data services, they also work with Data.com Clean updates and Clean jobs.

[Try Data Integration in Your Org](#)

Want to see how Data Integration and data integration rules benefit your company? Get a quick look by setting them up in your org's sandbox.

[Update Annual Revenue in Records That Use Non-USD Currency](#)

Make your data as global as the economy. Data Integration can update annual revenue data in your records, even if you use currency other than US dollars.

[Update Addresses in Records That Use State and Country Picklists](#)

Standardizing account addresses using state and country picklists helps ensure data quality. You can use state and country picklists in accounts and still get the latest address data. The Company Info for Accounts data integration rule updates accounts even if they use state and country picklists.

[Keep Your Data Current with Data Refresh](#)

Fresh means *fresh*. Data integration rules update your records from a data service, but what happens when the data service itself gets updated data? With data refresh, you can keep your org updated as data services receive updates. Based on your choices, data refresh continually applies data integration rules to existing records.

[Customize Field Mapping for Data Integration Rules](#)

Customized field mapping lets you control how data integration rules match external data with your records and how rules update your records. Field mapping relates fields in the service to fields in your records. Each data integration rule has a match mapping and an update mapping. The match mapping controls how the service finds one of your records to update. The update mapping controls which of your fields the service updates. The Field Mapping detail page shows both mappings.

Data Integration Rules Replace Clean Rules

Data integration rules replace Data.com Clean rules with better control over how your data is updated. Rules are available for Data.com data and data in external data packages. Although data integration rules are designed for all external data services, they also work with Data.com Clean updates and Clean jobs.

Data integration rules control how Data.com uses data from an external data service to update your records. The rules are supplied by the service itself, and each rule controls updates for a single object in your org. Rules include mappings that tell Data.com how to find and update your records. Rules also include settings that control what happens in your org after a record is updated.

EDITIONS

Available in: Salesforce Classic and Lightning Experience

Company Info for Accounts and Company Info for Leads rules require a Data.com Premium Clean license.

Available in: **Professional**, **Enterprise**, **Performance**, and **Unlimited** Editions



Note: Each data integration rule has its own licensing and purchase requirements. Some rules require a license. Some rules are part of a data package that you purchase. Some rules, such as the geocode address rules provided by Data.com, are free.

SEE ALSO:

- [Try Data Integration in Your Org](#)
- [Customize Field Mapping for Data Integration Rules](#)
- [Update Annual Revenue in Records That Use Non-USD Currency](#)
- [Update Addresses in Records That Use State and Country Picklists](#)
- [Keep Your Data Current with Data Refresh](#)

Try Data Integration in Your Org

Want to see how Data Integration and data integration rules benefit your company? Get a quick look by setting them up in your org's sandbox.

The steps for finding and setting up rules have changed.

1. To set up data integration rules, from Setup, enter *Data Integration Rules* in the Quick Find box, then click **Data Integration Rules**.
2. To edit a rule, click its name to show the rule detail page, and then click **Edit Rule Settings**.
3. If you see the **Activate** button, the rule is inactive. To activate the rule, click **Activate**.

The rule is now active. When you add or update a record in an object associated with the rule, Data Integration updates the record with data from the rule's data service. For example, suppose that you activate the Geocodes for Lead Address rule provided by Data.com. When you add or update a lead, Data Integration updates the lead with geocode information based on the lead's address.

If you're using Salesforce Classic, update the page layouts for the object associated with the rule.

For example, to activate the Geocodes for Lead Address rule, update the lead page layout. Add the Data Integration Rules related list to the layout so that your users can see the update status for their lead records.

EDITIONS

Available in: Salesforce Classic and Lightning Experience

Company Info for Accounts and Company Info for Leads rules require a Data.com Premium Clean license.

Available in: **Professional**, **Enterprise**, **Performance**, and **Unlimited** Editions

Update Annual Revenue in Records That Use Non-USD Currency

Make your data as global as the economy. Data Integration can update annual revenue data in your records, even if you use currency other than US dollars.

The Company Info for Accounts and Company Info for Leads rules provided by Data.com update records with annual revenue data, even if the record currency isn't in US dollars. The Data.com Annual Revenue field is converted from US dollars to the record currency using the conversion rate defined for your org. This feature is available in orgs that use multiple currencies. It's not available in orgs that use a single non-US dollar currency.



Note: To enable this feature, make sure that the following currencies are active in your org's currency table:

- US dollars

EDITIONS

Available in: Salesforce Classic and Lightning Experience

Company Info for Accounts and Company Info for Leads rules require a Data.com Premium Clean license.

Available in: **Professional**, **Enterprise**, **Performance**, and **Unlimited** Editions

- Currency of the records you want to update

SEE ALSO:

[Idea Exchange: Data.com Clean - Ability to Update Non-USD Revenue Account Field](#)

Update Addresses in Records That Use State and Country Picklists

Standardizing account addresses using state and country picklists helps ensure data quality. You can use state and country picklists in accounts and still get the latest address data. The Company Info for Accounts data integration rule updates accounts even if they use state and country picklists.

Accounts can have state and country values that aren't included in the standard state and country picklists provided by Salesforce. You can add Data.com values to your org's state and country picklists.

SEE ALSO:

[Knowledge Article: Data.com: List of States and Countries available from Data.com](#)

EDITIONS

Available in: Salesforce Classic and Lightning Experience

Company Info for Accounts and Company Info for Leads rules require a Data.com Premium Clean license.

Available in: **Professional**, **Enterprise**, **Performance**, and **Unlimited** Editions

Keep Your Data Current with Data Refresh

Fresh means *fresh*. Data integration rules update your records from a data service, but what happens when the data service itself gets updated data? With data refresh, you can keep your org updated as data services receive updates. Based on your choices, data refresh continually applies data integration rules to existing records.

To ensure that this feature is available for a rule, select the rule setting **Update all records after this rule is activated or saved**.



Note: Some data integration rules don't support data refresh. For example, data refresh isn't available with the geocode data integration rules provided by Data.com.

EDITIONS

Available in: Salesforce Classic and Lightning Experience

Company Info for Accounts and Company Info for Leads rules require a Data.com Premium Clean license.

Available in: **Professional**, **Enterprise**, **Performance**, and **Unlimited** Editions

Customize Field Mapping for Data Integration Rules

Customized field mapping lets you control how data integration rules match external data with your records and how rules update your records. Field mapping relates fields in the service to fields in your records. Each data integration rule has a match mapping and an update mapping. The match mapping controls how the service finds one of your records to update. The update mapping controls which of your fields the service updates. The Field Mapping detail page shows both mappings.

From Setup, enter *Data Integration Rules* in the Quick Find box, then click a rule. On the rule's detail page, click **Edit Field Mapping**. The Field Mapping detail page appears.



The header shows the name of the data integration rule (1). In the example, the rule is Company Info for Accounts, which is provided by Data.com.



The tab bar (2) lets you choose between the match mapping and the update mapping settings. Regardless of the tab, the page shows a data service field list (3) and a field list for the object associated with the rule. In this example, the rule is Company Info for Accounts, so the object field list shows account fields.



A mapping contains pairs of fields. Each pair has a field in the data service (5) and a field in the object (6). For example, this mapping contains a pair in which the data service field City maps to the account field Billing City.

Notice that you can't choose the data service field, but you can choose the object field. In this example, you have to pair City with an account field. The current mapping shows that it's paired with Billing City. However, you can choose another account field, such as Shipping City, by clicking the field name to display the dropdown list.

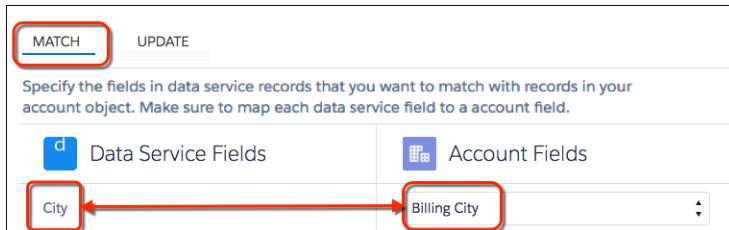
Match

EDITIONS

Available in: Salesforce Classic and Lightning Experience

Company Info for Accounts and Company Info for Leads rules require a Data.com Premium Clean license.

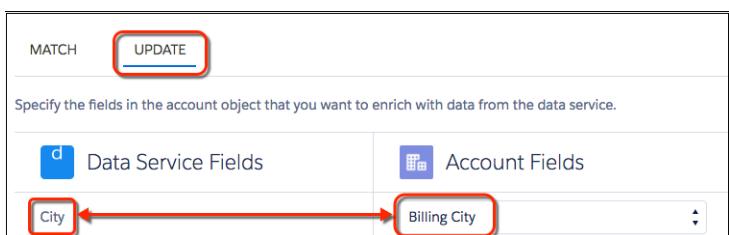
Available in: **Professional, Enterprise, Performance, and Unlimited** Editions



The match process uses the match mapping as filter criteria for data service records. Each pair of fields is compared. If all pairs satisfy the match criteria, matching can update the account.

The data service field list contains the minimum set of fields that the service considers necessary to match a record. A data service can offer data for different object types, so the data service fields can change based on the object type.

Update



The update process uses the update mapping as a guide for copying data. The process copies data from the data service field to the object field. In the example, Data.com provides data in the City field. During the update, the update process copies the value of City to the Billing City field in the matched account record. If you choose the Shipping City account field, the update copies City to Shipping City.

The list of data service fields includes fields for all the data that the service offers for your object. You can choose which fields in your record that the data service updates. A data service can offer data for different object types, so the data service fields can change based on the records you want to update.

 **Note:** When you use the Company Info for Accounts rule in data assessment mode, the Update tab doesn't appear. In data assessment mode, the rule can't update data.

Considerations

The match field list and the update field list for a data integration rule can contain different fields.

The data service copies data only when:

- The field value in your record is blank or null.
- The field types of the data service field and your record's field are compatible.

- The scale and precision of the data service field and your record's field are compatible.

SEE ALSO:

- [Try Data Integration in Your Org](#)
- [Data Integration Rules Replace Clean Rules](#)
- [Update Annual Revenue in Records That Use Non-USD Currency](#)
- [Update Addresses in Records That Use State and Country Picklists](#)
- [Keep Your Data Current with Data Refresh](#)

Service: Lightning Hits the Console and Knowledge; Field Service Comes to iOS

Zap! Lightning Experience has hit the Service Console. Enjoy its streamlined UI and the ease of customizing it with the drag-and-drop Lightning App Builder. Knowledge also gets a Lightning charge, with a unified Knowledge tab and standard record types replacing custom articles types. Field service comes to your technicians with an iOS app. And Open CTI comes to Lightning Console Apps, while Desktop CTI takes its final bow.

Editions

Available in: **Professional, Enterprise, Performance, Unlimited, and Developer** Editions

IN THIS SECTION:

[Console: Lightning Strikes the Service Console](#)

We've got some great news. The Salesforce Console is now part of Lightning Experience! We're giving you an out-of-the-box Service Console app, a streamlined setup flow just for service-related features, and even more bells and whistles. Previously, the console was available only in Salesforce Classic.

[Knowledge: Say Hello to Lightning Knowledge](#)

Knowledge has taken the leap to Lightning Experience, giving you a high-powered yet streamlined way to manage your knowledge base. With Lightning Knowledge, you get the benefits of standard objects that work just like other objects in Salesforce. Lightning Knowledge is best for orgs new to Knowledge or for existing orgs that can easily consolidate to one article type, have few data categories, and use single-language mode. This change applies to Lightning Experience only.

[Field Service: Outstanding in Your Field](#)

Technicians, rejoice! The Field Service mobile app for iOS (Generally Available) is your all-in-one solution. Take your onsite service to the next level with parts and van stock tracking, service appointment status, work order priority, and reporting.

[CTI: Support in Lightning Console and the Final Goodbye to Desktop CTI](#)

You can now use Open CTI in the new console in Lightning Experience. One of the Open CTI methods has a small behavior change. And finally, we say goodbye to Desktop CTI.

[Lightning Case Management](#)

Resolving customer issues and managing cases in Lightning keeps getting better and better! This release provides a revamped compact case feed so that agents can quickly see the case progression. The Case Assignment checkbox is now visible on the case page layout so that agents can trigger assignment rules when creating and editing cases. These changes apply to Lightning Experience only.

[Social Customer Service: Seamless Support](#)

Use the Chatter REST API to set up Social Customer Service in your org, do and discover more on the social post detail page, reply and direct message with ease on the case feed, and connect your API enabled Professional edition org with Social Customer Service.

[Omni-Channel: Supercharge Your Supervisors; Enjoy Increased Limits](#)

Put real-time insights at your support supervisors' fingertips with Omni-Channel Supervisor (Generally Available). We've also raised Omni-Channel org limits, and you can set a default user or queue for to assign work to when your org reaches the limits. Plus, some notification sounds have been improved. This change applies to Salesforce Classic only.

[Live Agent: Route Chats on Omni-Channel, and Enjoy Updated Chat Transcripts and Features](#)

Like other Omni-routed work, Live Agent chats routed with Omni-Channel can be sized and prioritized by queue, and the Live Chat Transcript is created when the chat's requested. Plus, customers can save chat transcripts on iOS, chats now display live hyperlinks, and some notification sounds have been improved. This change applies to Salesforce Classic only.

[Snap-ins for Web: Bring the Power of Service Cloud Components to Your Website](#)

Ever wish you could add nifty Service Cloud features like chat directly to your website or to a mobile browser? Snap-ins let you embed Service Cloud components into your web pages so that you can provide contextual support to your customers.

[Snap-ins for Mobile Apps](#)

We've added some great features to our Snap-ins SDKs for iOS and Android to make your mobile apps even better. With case deflection, solve your users' problems before they even need to create cases. Build knowledge bases customized for specific user profiles so that users get the right information for their needs. We've also improved Live Agent Chat and SOS so that you can provide even better real-time support to your customers.

[Other Changes in Service Cloud](#)

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

Console: Lightning Strikes the Service Console

We've got some great news. The Salesforce Console is now part of Lightning Experience! We're giving you an out-of-the-box Service Console app, a streamlined setup flow just for service-related features, and even more bells and whistles. Previously, the console was available only in Salesforce Classic.

Available in: **Professional, Enterprise, Performance, Unlimited, and Developer** Editions with Service Cloud

 **Important:** Lightning console apps are available only to Sales Cloud and Service Cloud users. To prevent unexpected issues, don't give other users access to Lightning console apps.

IN THIS SECTION:

[Meet the New Lightning Service Console](#)

The Service Console is now in Lightning Experience. You and your service agents can take advantage of all the awesomeness that Lightning Experience has to offer. Service agents will love the updated user interface and easy-to-use Lightning components, and you'll love the ability to customize the console in just a few clicks. Yes, just a few clicks! To get you up and running in the console quickly, we're giving you an out-of-the-box app called Service Console that you can customize to your heart's content.

[Lightning Service Setup—Your Life Just Got a Whole Lot Easier! \(Beta\)](#)

Setup. Fun like a root canal, right? Service Cloud is a powerful tool with so many features that setup can seem daunting, especially if you're new to the product. "Which feature do we set up first? Can we enable our Facebook pages? How do we add users to the Service Cloud app?" Thanks to Lightning Service Setup, those days of doubt are in the rearview mirror.

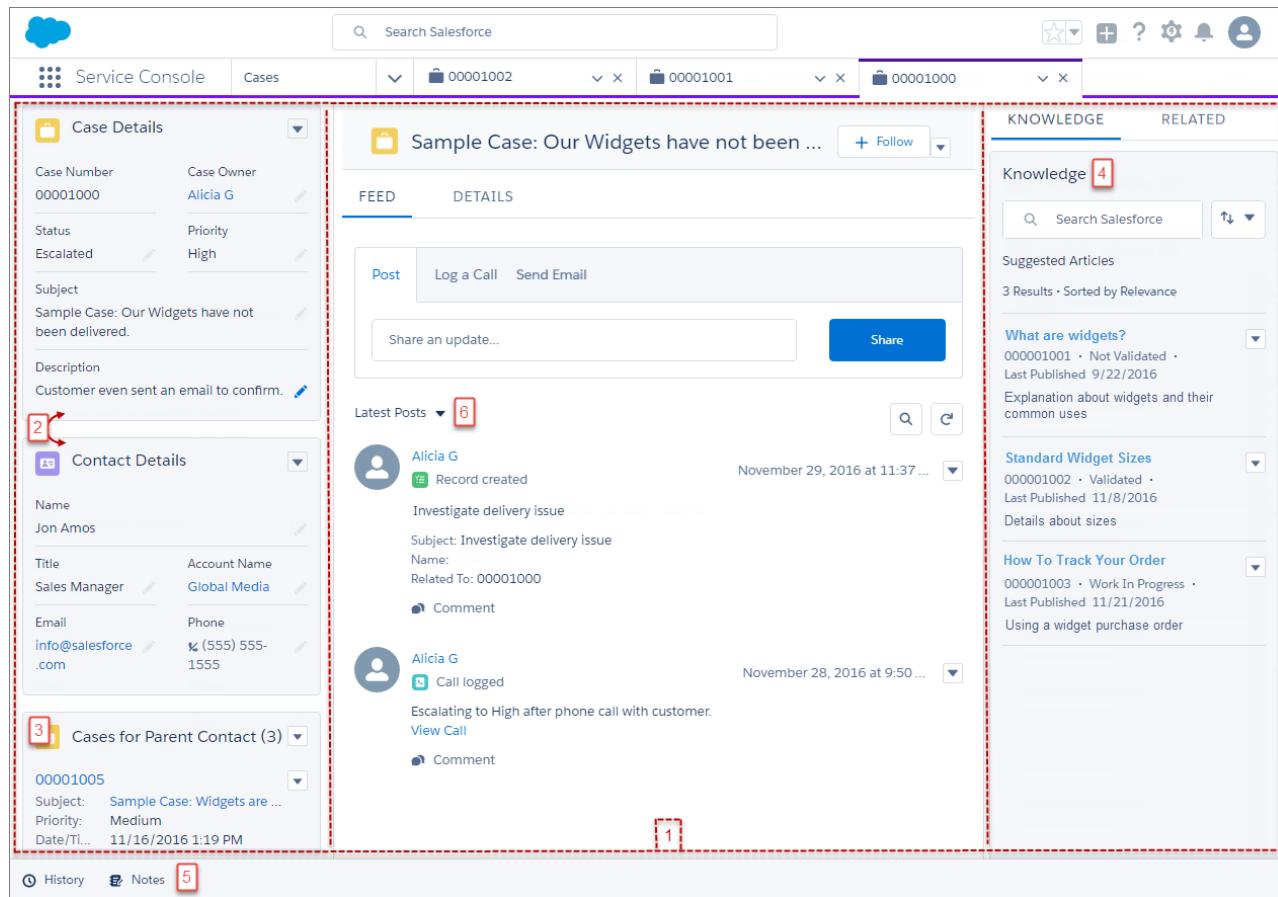
Meet the New Lightning Service Console

The Service Console is now in Lightning Experience. You and your service agents can take advantage of all the awesomeness that Lightning Experience has to offer. Service agents will love the updated user interface and easy-to-use Lightning components, and you'll love the ability to customize the console in just a few clicks. Yes, just a few clicks! To get you up and running in the console quickly, we're giving you an out-of-the-box app called Service Console that you can customize to your heart's content.

 **Note:** Lightning console apps don't yet have full parity with Salesforce Classic console apps. For example, some features in Salesforce Classic console apps, such as keyboard shortcuts and macros, aren't available in Lightning console apps.

You can't migrate Salesforce Classic console apps to Lightning Experience.

We know that consoles are powerful apps, and we're working on bringing that power into Lightning Experience. As we catch up to parity with Salesforce Classic consoles, for now, the Lightning Service Console is best for small- and medium-sized businesses. To learn about what's coming in Lightning Experience, check out our [Lightning Experience Roadmap](#).



Here's what the Service Console app comes with.

- Preconfigured Lightning page for cases that uses a three-column layout (1) that includes Related Record components (2), Related List components (3), and the [Knowledge sidebar](#) (4)
- Preconfigured utility bar with History and Notes (5)
- [Compact case feed](#) (6)



Note: To see and use the Notes utility, Notes must be enabled in your org. To see and use the Knowledge sidebar, Lightning Knowledge must be enabled in your org.

Ready to customize? You'll be happy to know that customizing a console in Lightning Experience is a breeze. From Setup, use the App Manager to:

- Add your own branding
- Add other items, such as products and contracts (the Service Console app includes accounts, contacts, cases, opportunities, and leads by default)
- Add other utilities, such as an Open CTI softphone
- Assign the app to the appropriate user profiles, like your service agent profile

Want to customize even more? To update Lightning pages, head over to the Lightning App Builder to drag and drop components on a page.

Remember that you can customize the Service Console app we give you, or you can create your own Lightning console app from scratch.

Want to roll out the Service Console quickly? To help you set up Service Cloud features, we've created [Service-specific setup flows](#). These setup flows guide you through setting up Email-to-Case and integrating Facebook and Twitter into your console.

SEE ALSO:

- [Customize Your Console App Record Pages with Lightning App Builder](#)
- [Enhance Your Lightning Apps with the Utility Bar](#)
- [Get Your Tab History in Lightning Console Apps](#)
- [View and Manage Your Console Apps in New Ways](#)
- [Understand the Differences Between Salesforce Classic and Lightning Experience Console Apps](#)

Lightning Service Setup—Your Life Just Got a Whole Lot Easier! (Beta)

Setup. Fun like a root canal, right? Service Cloud is a powerful tool with so many features that setup can seem daunting, especially if you're new to the product. "Which feature do we set up first? Can we enable our Facebook pages? How do we add users to the Service Cloud app?" Thanks to Lightning Service Setup, those days of doubt are in the rearview mirror.



Note: This release contains a beta version of Lightning Service Setup, which means it's a high-quality feature with known limitations. Lightning Service Setup isn't generally available in documentation or 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.

We now offer easy-to-follow setup flows, an intuitive setup tree displaying the most essential nodes, and a performance metrics dashboard. If you prefer a guided step-by-step experience, we've even got a Recommended Setup to help you get started.

Plus, let's not forget Service Console, Service Cloud's new Lightning console app. We hope you enjoy the new aesthetic, but if you prefer Salesforce Classic, hey, that works too!



Note: Keep in mind that changes you make in Lightning Service Setup (Beta) affect Salesforce Classic, and vice versa.

To get started with Lightning Service Setup, click the setup gear icon and select **Service Setup**.

Here's what the Lightning Service Setup home page looks like:

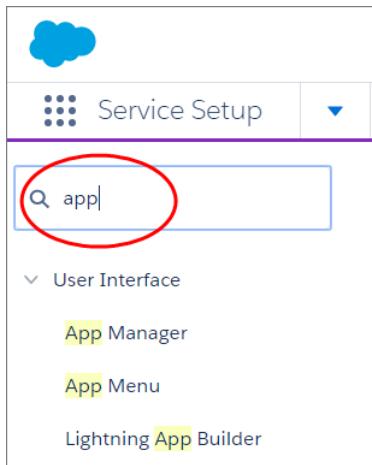
The screenshot shows the Service Setup Home page. On the left, a sidebar lists categories like Administration, Automation, User Interface, Mobile, and Settings. The main area displays "Today's Performance" with three donut charts: "By Priority" (High: orange, Medium: blue), "By Channel" (Email: light blue, Web: medium blue, Phone: dark blue), and "By Status" (New: green, Escalated: dark blue, Closed: pink). Below these are counts for "Cases Created" (15) and "Cases Closed" (7). A line graph titled "Lifetime Performance" shows the number of cases over time from Aug to Nov 2016, with "Open" cases in blue and "Closed" cases in green. At the bottom are counts for "Cases Created" (4.4K) and "Cases Closed" (2.6K). To the right, a "Recommended Setup" section lists 12 numbered steps with icons and descriptions, such as "Get Started with Recommended Setup" and "Import Your Business Data".

Setup Home: Have a Look Around!

Explore branches of the setup tree and check out all the features at your disposal. Notice that we've pared down the setup tree! Not all Service-related setup nodes are exposed in the Service Setup tree. Click the nodes to get where you want to go.

The screenshot shows the Service Setup tree sidebar. It includes sections for ADMINISTRATION (Users, Channels - highlighted with a red oval), AUTOMATION (Email, Phone, Web), and AUTOMATION (Process Automation).

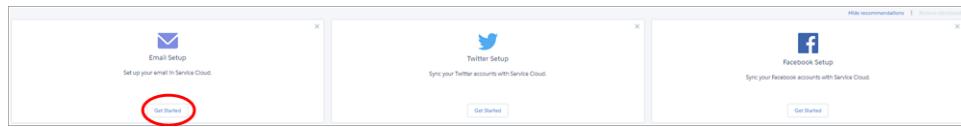
Otherwise, Quick Find gets you there in a jiffy. Just type in the Quick Find box to find the feature you're looking for.



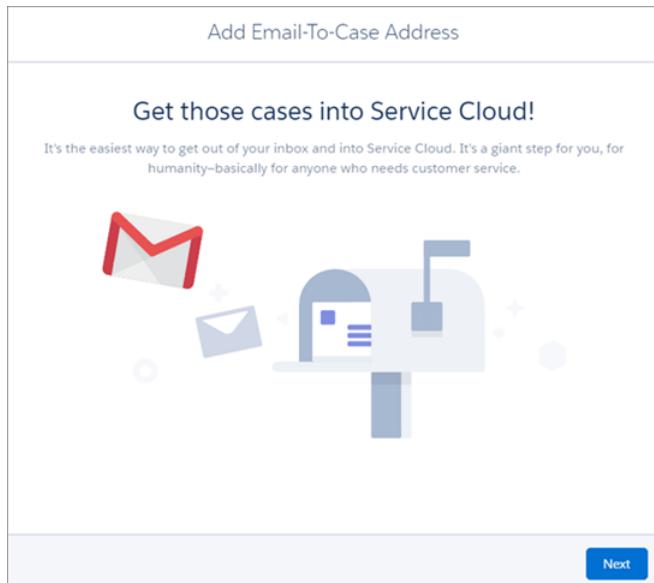
Guided Setup Flows

Maybe you want customer emails automatically turned into cases. Maybe you want Facebook posts and Tweets automatically turned into cases. Sound good? With guided setup flows you just follow a few simple prompts and your email and social channels are up and running, ready to field customer queries.

You can start a setup flow by clicking here:



Opening Email Setup takes you right into a setup flow.



Recommended Setup

Whether you're a Service Cloud newbie or a seasoned veteran, Recommended Setup is a fun and efficient way to get ready for customer success. In 10 simple steps you can set up key features, learn more about the power of Service Cloud, and get plugged into the Salesforce community!

Recommended Setup

60%

-  [Get Started with Recommended Setup](#)
Recommended Setup helps you succeed with Service Cloud. Watch this video to learn more.
-  [Overview of Setup Home](#)
Setup Home is where you configure Service Cloud to meet your company's needs. Watch this video to learn more.
-  [Learn More with Trailhead](#)
Get to know the key benefits of Service Cloud through this fun and interactive Trailhead module.
-  [Delete Your Sample Data](#)
Before you import your business data, we recommend deleting your sample data. Here's how.
-  [Import Your Business Data](#)
Now that you've wiped the slate clean it's time to import your business data. This article tells you how.
-  [Add Your Users](#) Add your team to Service Cloud in this simple setup flow.
-  [Set Up Email-to-Case](#)
Automatically turn incoming emails into cases. This setup flow walks you through the whole process.
-  [Join the Getting Started Community](#)
Share ideas and find answers to your Service Cloud questions.
-  [Attend Getting Started Webinars](#) Find a webinar that interests you and sign up!
-  [Salesforce Admin Training](#) Register for trainings to hone your Salesforce skills.

Performance

Setup Home also offers a performance dashboard to monitor your service metrics. See how your email and social channels are doing, analyze call center spikes, and view up-to-the-minute caseload stats—all from Lightning Service Setup!



Knowledge: Say Hello to Lightning Knowledge

Knowledge has taken the leap to Lightning Experience, giving you a high-powered yet streamlined way to manage your knowledge base. With Lightning Knowledge, you get the benefits of standard objects that work just like other objects in Salesforce. Lightning Knowledge is best for orgs new to Knowledge or for existing orgs that can easily consolidate to one article type, have few data categories, and use single-language mode. This change applies to Lightning Experience only.

IN THIS SECTION:

[Considerations for Lightning Knowledge](#)

Lightning Knowledge has some limitations. Consider the following as you decide whether to enable Lightning Knowledge. This change applies to Lightning Experience only.

[Dip into Salesforce Classic for Lightning Knowledge Setup](#)

Although your Knowledge work is in Lightning Experience, setup and administration tasks are in Salesforce Classic. When you make the leap to Lightning, your setup experience in Salesforce Classic changes. This change applies to Lightning Experience only.

[Simplified Access and Permissions with Lightning Knowledge](#)

For Lightning Knowledge, you don't assign article actions with public groups. Access and permissions are now based on record types, not article types, and there are new CRUD values and profile permissions. This change applies to Lightning Experience only.

[Knowledge Search: Pre-filtering and Other Enhancements, Accessible from Anywhere](#)

Use search in Lightning Experience to perform a Knowledge search, and use advanced search to pare down your potential results. Read snippets of top results before you click, search archived articles, and see the results count in the Knowledge tab and sidebar. This change applies to Lightning Experience only.

[Streamline Your Screen with a Unified Knowledge Home Page and List Views](#)

Everything you need, all in one place. Search, view, author, and manage articles on a single Knowledge home page. Plus, enjoy all the benefits of list views in Knowledge. This change applies to Lightning Experience only.

[Knowledge Record Types: Record Types Take the Main Stage](#)

When you enable Lightning Knowledge, record types replace article types to distinguish different types of articles. For each record type, you can customize its page layout and compact layout to control what displays for different types of articles or user profiles. You can also share fields and define Workflow across record types. This change applies to Lightning Experience only.

Editions

Available in: Salesforce Classic, Lightning Experience

Salesforce Knowledge is available in **Performance** and **Developer** Editions and in **Unlimited** Edition with the Service Cloud.

Salesforce Knowledge is available for an additional cost in: **Professional**, **Enterprise**, and **Unlimited** Editions.

[Standard Record Home: Get More from Your Articles with Five New Components](#)

Knowledge record types give you a standard record home for articles. We've added five components in the standard record home for Knowledge articles: Ratings, Files, Versions, Data Category Viewer, and Data Category Chooser. You can configure your standard record home through page layouts and compact page layouts, but you can't customize where the components appear. This change applies to Lightning Experience only.

[Search, Attach, and Follow Articles, with the Knowledge Sidebar for the Lightning Service Console](#)

Keep agents connected to your Knowledge base while they're working in the console with the new Knowledge sidebar. Agents can see suggested articles for the case they're viewing or perform a search to find more articles. They can use the sidebar to track articles and attach them to cases. This change applies to Lightning Experience only.

Considerations for Lightning Knowledge

Lightning Knowledge has some limitations. Consider the following as you decide whether to enable Lightning Knowledge. This change applies to Lightning Experience only.

- When you enable Lightning Knowledge, you can't disable it.
- Lightning Knowledge isn't ready for orgs with multiple article types. If you have multiple article types in Classic Knowledge, manually migrate your articles to one article type, delete or disable the other article types, and then enable Lightning Knowledge. No migration tools are available for this process.
- Lightning Knowledge doesn't support multiple languages and translation.
- We recommend using Lightning Knowledge only if you have fewer than 300 data categories. If you have more, you can experience slower performance.
- File attachments in your Classic Knowledge implementation don't transfer to Lightning Knowledge. To attach files after migrating your articles to Lightning Knowledge, use the Files related list on each article.
- Setup for Lightning Knowledge remains in Salesforce Classic. After Lightning Knowledge is enabled, a new setup node called Knowledge Object Setup appears to manage Knowledge record types, fields, page layouts, and validation rules.
- All rich text editors are disabled when LockerService is enabled. If you're using Lightning Knowledge in sandbox or a Developer Edition org, we recommend turning off LockerService in Lightning Experience. If you're using Lightning Knowledge in your production org, we recommend that you don't enable LockerService in Lightning Experience.

SEE ALSO:

[Customer Service Features: Lightning Experience Considerations](#)

Dip into Salesforce Classic for Lightning Knowledge Setup

Although your Knowledge work is in Lightning Experience, setup and administration tasks are in Salesforce Classic. When you make the leap to Lightning, your setup experience in Salesforce Classic changes. This change applies to Lightning Experience only.

Enabling Lightning Knowledge is as simple as checking a box. But Lightning Knowledge is a one-way ticket: You can't go back to Classic Knowledge. We recommend enabling Lightning Knowledge in your sandbox org first to test it out.

Here's how to move to Lightning Knowledge.

1. Make sure that your org meets all the prerequisites. You must have only one article type, be in single language mode, and have no more than 300 data categories.
2. From Setup, enter **Knowledge** in the Quick Find box and click **Knowledge Settings**.

EDITIONS

Available in: Salesforce Classic, Lightning Experience

Salesforce Knowledge is available in **Performance** and **Developer** Editions and in **Unlimited** Edition with the Service Cloud.

Salesforce Knowledge is available for an additional cost in: **Professional**, **Enterprise**, and **Unlimited** Editions.

3. Under General Settings, select **Enable Lightning Knowledge**.

 **Important:** After you enable Lightning Knowledge, you can't go back to Classic Knowledge. Only enable Lightning Knowledge if you're prepared to permanently move Knowledge to Lightning Experience.

4. Click **Save**.

Simplified Access and Permissions with Lightning Knowledge

For Lightning Knowledge, you don't assign article actions with public groups. Access and permissions are now based on record types, not article types, and there are new CRUD values and profile permissions. This change applies to Lightning Experience only.

You control access and permissions to Knowledge articles and actions using CRUD values, profile permissions, and page layouts. We've added two CRUD values to Knowledge that you might have seen for other Salesforce objects: View All and Modify All. We've also added two new profile permissions: Publish Articles and Archive Articles.

Plus, some article actions have changed to allow more specific permissions to be granted. For example, in Classic Knowledge, you could grant permission to delete draft articles and archived articles only with an article action. In Lightning Knowledge, deleting drafts and deleting archived articles are two separate actions.

Remember that all users who are working with Knowledge must have a Knowledge User license.

Knowledge Search: Pre-filtering and Other Enhancements, Accessible from Anywhere

Use search in Lightning Experience to perform a Knowledge search, and use advanced search to pare down your potential results. Read snippets of top results before you click, search archived articles, and see the results count in the Knowledge tab and sidebar. This change applies to Lightning Experience only.

Search Knowledge wherever you are in Lightning Experience.

1. In the search box at the top of the page, begin typing *know1edge*. Search starts recommending content and options for scoping search to specific objects.
2. Select **Limit Search to Knowledge**.
3. Optionally, click **Advanced Search** to pre-filter your results. Selected filters appear in the search box.
4. Enter your search terms.
5. Press Enter to run the search.

IN THIS SECTION:

[Get More Context with Snippets in Article Top Results](#)

Excerpts from Knowledge Articles on the Top Results page help users find what they're looking for faster. Top Results shows the best matches for your most frequently used objects. It's also the first page users land on when performing a Salesforce search. This change applies to Lightning Experience only.

[Search Archived Articles](#)

When you perform a Knowledge search, you can set a filter to limit your results to archived articles. Keep in mind that you can select only one publishing status filter (published, draft, or archived) at a time. This change applies to Lightning Experience only.

[1, 2, 3... See How Many Results Are Found for a Search](#)

When you perform a Knowledge search in global search or the new Knowledge sidebar for the Lightning Service Console, you can see how many results were found. Knowing helps you know when you need to change or expand your search terms or filters. This change applies to Lightning Experience only.

Get More Context with Snippets in Article Top Results

Excerpts from Knowledge Articles on the Top Results page help users find what they're looking for faster. Top Results shows the best matches for your most frequently used objects. It's also the first page users land on when performing a Salesforce search. This change applies to Lightning Experience only.

Editions

Available in: **All Editions except Database.com**

The layout is similar to the results page for the Knowledge Article search results page. Users can't sort results.

Search Archived Articles

When you perform a Knowledge search, you can set a filter to limit your results to archived articles. Keep in mind that you can select only one publishing status filter (published, draft, or archived) at a time. This change applies to Lightning Experience only.

1, 2, 3... See How Many Results Are Found for a Search

When you perform a Knowledge search in global search or the new Knowledge sidebar for the Lightning Service Console, you can see how many results were found. Knowing helps you know when you need to change or expand your search terms or filters. This change applies to Lightning Experience only.

Streamline Your Screen with a Unified Knowledge Home Page and List Views

Everything you need, all in one place. Search, view, author, and manage articles on a single Knowledge home page. Plus, enjoy all the benefits of list views in Knowledge. This change applies to Lightning Experience only.

Lightning Knowledge has one centralized home page instead of two tabs for Knowledge (searching and viewing articles) and Article Management (authoring, editing, and translating articles).

Plus, you can do several authoring actions without leaving Knowledge home. Allow other Knowledge users to access these actions using standard user permissions. You can also make these actions available on the record home with page layouts.

List Views

Use the same list views you enjoy elsewhere in Salesforce for your Lightning Knowledge base. Customize your list views to select which fields to display and sort with.

By default, you have list views for drafts, published articles, and archived articles. For custom list views, you can't choose fields that aren't on the article record, so you can't use data categories, ratings, view count, and cases.



Important: You must specify one language and one publishing status on each Knowledge list view. Otherwise you can't see records in your list view. We don't support multiple-selection on PublishStatus or Language. List view filters don't support the "IN" and "OR" operators.

Authoring Actions

Quickly access authoring actions in Knowledge home using the drop-down next to each article. Administrators, agents, and internal employees with the correct permissions can perform these actions.

On published articles, you can:

- Create an article
- Archive an article
- Edit an article as a new draft

On draft articles, you can:

- Create an article
- Publish a draft
- Delete an article
- Edit an article

On archived articles, you can:

- Create an article
- Restore an archived article



Note: These authoring actions are also available in the record home. Simply add them to your record type page layouts.

Knowledge Record Types: Record Types Take the Main Stage

When you enable Lightning Knowledge, record types replace article types to distinguish different types of articles. For each record type, you can customize its page layout and compact layout to control what displays for different types of articles or user profiles. You can also share fields and define Workflow across record types. This change applies to Lightning Experience only.

Don't worry if someone set a record type for an article that doesn't fit. Add the Change Record Type action to your record type page layout. Then, users with the correct permissions can change an article's record type to another record type that they have access to. The Knowledge user's user profile determines the displayed page layout, so the fields shown can change when the record type is changed.



Note: After you've enabled Lightning Knowledge and created record types for your articles, you can also view your record types in Salesforce Classic. You can set up Lightning Knowledge record types and page layouts only in Salesforce Classic Setup.

IN THIS SECTION:

[Customize Page Layouts for Different Types of Articles](#)

For each Knowledge record type, you can customize the fields, actions, and related lists for each record type and user profile. This change applies to Lightning Experience only.

Customize Page Layouts for Different Types of Articles

For each Knowledge record type, you can customize the fields, actions, and related lists for each record type and user profile. This change applies to Lightning Experience only.

For each record type, you can select page layouts by profile or choose to apply one layout to all profiles.

Step 2. Assign page layouts

Knowledge Article Record Type	General Knowledge Article
Record Type Name	General_Knowledge_Article
Description	General Knowledge article

Select the page layout that users with this profile see for records with this record type. After saving, choose the picklist values that are available with this record type.

Apply one layout to all profiles **Knowledge Article Layout ▾**

Apply a different layout for each profile

Profile:	Page Layout
Chatter External User	Knowledge Article Layout ▾
Chatter Free User	Knowledge Article Layout ▾
Chatter Moderator User	Knowledge Article Layout ▾
Contract Manager	Knowledge Article Layout ▾
Marketing User	Knowledge Article Layout ▾
Read Only	Knowledge Article Layout ▾
Solution Manager	Knowledge Article Layout ▾
Standard User	Knowledge Article Layout ▾
System Administrator	Knowledge Article Layout ▾

In Classic Knowledge, you can customize only the fields. With Lightning Knowledge, you can customize fields, actions, and related lists. That's a lot more personalization for your customers and Knowledge users!

Standard Record Home: Get More from Your Articles with Five New Components

Knowledge record types give you a standard record home for articles. We've added five components in the standard record home for Knowledge articles: Ratings, Files, Versions, Data Category Viewer, and Data Category Chooser. You can configure your standard record home through page layouts and compact page layouts, but you can't customize where the components appear. This change applies to Lightning Experience only.

Knowledge articles are now consistent with other objects in Salesforce, replacing the custom record home in Classic Knowledge. Configure your standard record home page layout in Salesforce Classic Setup.

 KNOWLEDGE
Email to Case overview

Version Number 3	Language English	Publication Status Published	Last Modified Date 11/8/2016 3:14 PM	Last Published Date 10/27/2016 12:13 PM	Article Number 000001152
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DETAILS **RELATED** **VERSIONS**

▼ Information

Summary
Automatically turn emails from your customers into cases in Salesforce to track and resolve customer cases quickly.

Next Review Date (1)

Answer
Available in: *Salesforce Classic and Lightning Experience*

Email-to-Case and On-Demand Email-to-Case are available in: **Professional, Enterprise, Performance, Unlimited, and Developer Editions**.

There are two versions of Email-to-Case:

- Email-to-Case, which uses an agent on your machine
- On-Demand Email-to-Case, which uses Salesforce Apex email services

Each version supports a different business case.

Details	Email-to-Case	On-Demand Email-to-Case
Business case:	Keep email traffic <i>inside</i> your network's firewall and accept emails larger than 25 MB	Keep email traffic <i>outside</i> your network's firewall and refuse emails larger than 25 MB
Set up:	Requires you to download and install the Email-to-Case agent on your local machine to turn emails into cases	Requires you to set up Salesforce Apex email services to turn emails into cases
Maximum number of emails converted to cases each day:	2,500	Number of user licenses multiplied by 1,000, up to a daily maximum of 1,000,000
Email size limit, including header, message, and attachments:	Over 25 MB	Under 25 MB

See Also:
[Set Up Email-to-Case](#)
[Set Up On-Demand Email-to-Case](#)

The move to a standard record home means that you get to enjoy what you already use with other Salesforce records, like the related list tab, details tab, and compact layouts. These are all based on the fields you set in your page layouts and compact page layouts. You can set page layouts per user profile and per record type.

IN THIS SECTION:

[Thumbs Up to Knowledge Article Ratings](#)

With the new ratings component, your agents, internal employees, and customers can see how others have rated an article and add their rating to the mix. Plus, agents and customers can now change their rating on an article. This change applies to Lightning Experience only.

[Add Files to Knowledge Articles in a Snap](#)

In Lightning Knowledge, the file selector replaces the custom Knowledge File fields in Classic Knowledge. This change applies to Lightning Experience only.

[View Previous Knowledge Article Versions and Changes](#)

You don't have to leave an article's record home to see its version history and the changes that were made. From the versions component, get a high-level view of the changes, or click through to see the complete article. This change applies to Lightning Experience only.

[View the Data Categories Assigned to a Knowledge Article](#)

See how articles have been tagged with the Data Category Viewer. You can expand and collapse data categories and subcategories for a high-level or granular view. This change applies to Lightning Experience only.

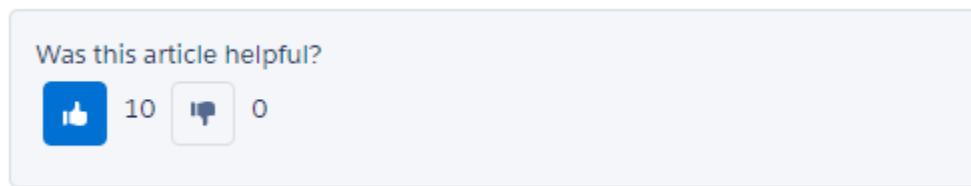
[Add Data Categories to a Knowledge Article](#)

Change the data categories on an article draft right from the Data Category Viewer. Anyone with the "Edit" permission on Knowledge can change the data categories for an article draft. Select individual subcategories, or a group. You can add up to 8 data categories per data category group per article. This change applies to Lightning Experience only.

Thumbs Up to Knowledge Article Ratings

With the new ratings component, your agents, internal employees, and customers can see how others have rated an article and add their rating to the mix. Plus, agents and customers can now change their rating on an article. This change applies to Lightning Experience only.

When you switch to Lightning Experience and view a published article, you can see the ratings component.



Change your mind? Change your vote! Simply click the rating you really wanted to switch it.

Add Files to Knowledge Articles in a Snap

In Lightning Knowledge, the file selector replaces the custom Knowledge File fields in Classic Knowledge. This change applies to Lightning Experience only.

Add files to articles the same way you add files to other Salesforce records. Add the Files related list in your record type page layouts using Salesforce Classic Setup.

 **Note:** File attachments in your Classic Knowledge implementation don't transfer to Lightning Knowledge. To attach files after migrating your articles to Lightning Knowledge, use the Files related list on each article.

View Previous Knowledge Article Versions and Changes

You don't have to leave an article's record home to see its version history and the changes that were made. From the versions component, get a high-level view of the changes, or click through to see the complete article. This change applies to Lightning Experience only.

And don't worry—you can't lose your place when browsing previous article versions. The versions component clearly labels which version you're viewing and which version is a draft (if there is one).

To make article version history and field changes available to users:

1. From Salesforce Classic Setup, enter **Knowledge** in the Quick Find box and click **Knowledge Object Setup**.
2. Under Knowledge Base Edit, click **Edit**.
3. Select **Track Field History**. This option makes article history information available to users.
4. Click **Save**.

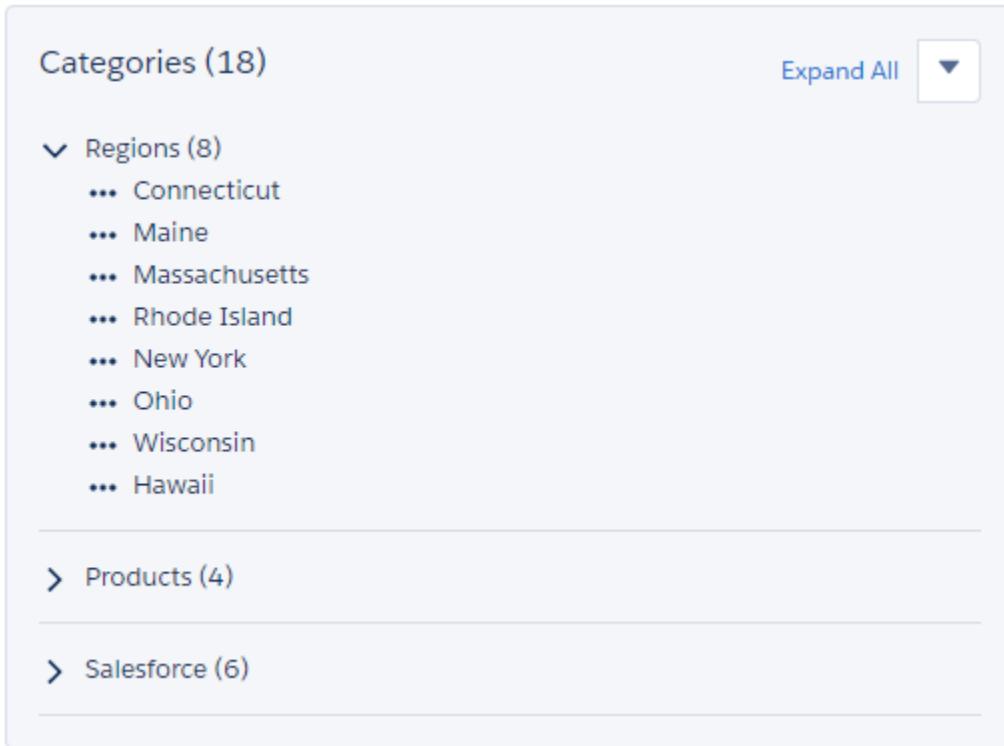
5. From Knowledge Object Setup, click **Select Set History Tracking**. This option makes version field changes available to users.
6. Select the values you want to track.
7. Click **Save**.

Make the versions component visible to Knowledge users with user profiles. Knowledge users must have "Read" on Knowledge to see the versions component.

 **Note:** You can see up to 30 versions of an article in the versions component. To see more versions, view the article's version history in Salesforce Classic.

View the Data Categories Assigned to a Knowledge Article

See how articles have been tagged with the Data Category Viewer. You can expand and collapse data categories and subcategories for a high-level or granular view. This change applies to Lightning Experience only.



The screenshot shows a "Categories (18)" section with an "Expand All" button and a dropdown arrow. It lists three main categories: "Regions (8)", "Products (4)", and "Salesforce (6)". The "Regions" category is expanded, showing subcategories for Connecticut, Maine, Massachusetts, Rhode Island, New York, Ohio, Wisconsin, and Hawaii. Each subcategory is preceded by a three-dot ellipsis.

Category	Subcategories
Regions (8)	Connecticut, Maine, Massachusetts, Rhode Island, New York, Ohio, Wisconsin, Hawaii
Products (4)	(None shown)
Salesforce (6)	(None shown)

Add Data Categories to a Knowledge Article

Change the data categories on an article draft right from the Data Category Viewer. Anyone with the "Edit" permission on Knowledge can change the data categories for an article draft. Select individual subcategories, or a group. You can add up to 8 data categories per data category group per article. This change applies to Lightning Experience only.

Search, Attach, and Follow Articles, with the Knowledge Sidebar for the Lightning Service Console

Keep agents connected to your Knowledge base while they're working in the console with the new Knowledge sidebar. Agents can see suggested articles for the case they're viewing or perform a search to find more articles. They can use the sidebar to track articles and attach them to cases. This change applies to Lightning Experience only.

The Knowledge sidebar is automatically included in the Lightning Service Console app. To add the sidebar to a custom Lightning console app, use Lightning App Builder to create a custom record page, and add Knowledge to your selected items.

By the way, the Knowledge sidebar isn't limited to console apps. You can add it to the Case record home in Lightning Experience using Lightning App Builder.

With the Knowledge sidebar, agents can use Knowledge while they work on cases.

Suggested Articles

Without running a search, agents get suggested articles delivered right to their Knowledge sidebar.

Search and Sort Your Results

Perform a Knowledge search and use the advanced search option to narrow the results to the kinds of articles that you want to see.

To sort the results, click the sort icon and select a sort option from the list. You can sort your search results by relevance, publish date, last modified date (for article drafts), A to Z, and Z to A. Suggested articles are always sorted by relevance.

When you select a sort order for your results, it stays selected when you perform another search. The sort order returns to relevance if you return to the suggested articles or select a new case.

Attach and Remove Articles

Agents can attach articles to cases and remove them using the drop-down next to any article.

Follow and Unfollow Articles

Agents can follow and unfollow an article using the drop-down next to the article. When an agent follows an article, changes to the article are shown in the agent's Chatter feed. Administrators, agents, and internal employees with read access to Knowledge can follow articles, and they can follow articles in any state such as published or draft.

Field Service: Outstanding in Your Field

Technicians, rejoice! The Field Service mobile app for iOS (Generally Available) is your all-in-one solution. Take your onsite service to the next level with parts and van stock tracking, service appointment status, work order priority, and reporting.

To access Salesforce's field service features, enable Field Service Lightning. Enter *Field Service Settings* in the Quick Find box in Setup. Click **Field Service Settings**, and then select **Enable Field Service Lightning**. To learn more about how to set up Field Service Lightning, see [Field Service Lightning Help](#) (can be outdated or unavailable during release preview).



Note: Users need a Field Service Lightning permission set license to access field service features other than work orders. Work orders don't require a special permission set license.

EDITIONS

Field Service Lightning features are available in: **Enterprise, Performance, Unlimited, and Developer** Editions with the Service Cloud. Work orders are also available in **Professional** Edition.

The Field Service Lightning managed packages are available for an additional cost in: **Enterprise, Performance, Unlimited, and Developer** Editions with the Service Cloud.

IN THIS SECTION:

[The Field Service Lightning iOS Mobile App \(Generally Available\)](#)

Take your field service operation to the next level with the Field Service Lightning iOS mobile app. Technicians can harness the wealth of data, scheduling and automation tools, and customizability of your Salesforce org to get work done quickly from anywhere. And offline-first design means that technicians can always do their job, even without internet access. More productive technicians means happier customers!

[Track Your Parts and Van Stock](#)

Track multiple aspects of your parts and van stock such as, which parts are available where, which parts are required for a work type, and which parts were consumed for a work order.

[Field Service Locations](#)

Sort your locations into vans, warehouses, customer sites, or whatever suits your organization and track parts available at each.

[Create Field Service Report Templates](#)

Make your customers happy with fast field service reports delivered to their inboxes. Your technicians and dispatchers can create reports for work orders, work order line items, and service appointments and email them directly to the customer. You can use standard templates or create variations of your own.

[Service Appointment Status](#)

Set and view the status of your service appointments in acute detail from not scheduled to completed, including late and running long.

[Turn Off GPS Tracking at the User Profile Level](#)

Need GPS tracking on for all your technicians except a few? Now you can turn off GPS tracking with a user profile.

[Work Order Line Items Take Priority](#)

You can prioritize the work order line items on your work orders so your dispatchers and technicians know which items to do first.

[Optimize Scheduling with Field Service Lightning Managed Packages](#)

The new version of the AppExchange package goes out right before Spring'17.

The Field Service Lightning iOS Mobile App (Generally Available)

Take your field service operation to the next level with the Field Service Lightning iOS mobile app. Technicians can harness the wealth of data, scheduling and automation tools, and customizability of your Salesforce org to get work done quickly from anywhere. And offline-first design means that technicians can always do their job, even without internet access. More productive technicians means happier customers!

 **Note:** You need a Field Service Lightning permission set license to use the Field Service Lightning iOS mobile app.

 **Important:** The Field Service Lightning iOS mobile app will be available from the Apple App Store later in Spring '17.

This all-in-one field service solution empowers technicians to:

- View their schedule of assignments.
- Use Salesforce data to check on work orders, reach contacts, verify addresses, and more.
- Create and edit records to log work and create follow up appointments.
- Capture signatures from customers for completed work.
- Use Chatter to collaborate with other technicians, managers, and dispatchers and even customers.

Editions

Field Service Lightning features are available in: **Enterprise, Performance, Unlimited, and Developer** Editions with the Service Cloud.

- Track updates with push notifications.
- View Salesforce Knowledge articles to complete tricky tasks.
- Track van inventory and parts consumed to complete jobs.

Field Service Lightning iOS Mobile App Requirements

Before getting started with the Field Service Lightning iOS mobile app you must first enable field service in your org, install the Field Service Lightning Mobile App connected app package in your org , and assign permission set licenses to field service users. Refer to the See Also section for more details about the requirements for the Field Service Lightning iOS mobile app.

Customize the Field Service Lightning iOS Mobile App

Flexible design means you can configure the Field Service mobile app to meet your company's unique field service needs.

- Prominently display key fields with layouts.
- Empower users with quick actions.
- Provide Salesforce Knowledge articles to technicians.
- Capture signatures from customers for completed work.
- Communicate with partners and customers using Chatter.
- Keep tabs on service resources with resource geolocation tracking.
- Set the calendar range of the work schedule.
- Brand the app with company colors.

Get the Field Service Lightning iOS Mobile App on Your Mobile Device

Deploying the app to your technicians is as simple as downloading it from Apple's App Store from the mobile device.

1. Open the App Store on your iOS device.
2. Press the Search tab. Enter *Field Service Lightning* and press **Search**.
3. Locate the app called **Field Service Lightning** by Salesforce, and push +GET, then **INSTALL**.

SEE ALSO:

[Salesforce Help: The Field Service Lightning Mobile App](#) (can be outdated or unavailable during release preview)

Track Your Parts and Van Stock

Track multiple aspects of your parts and van stock such as, which parts are available where, which parts are required for a work type, and which parts were consumed for a work order.

Product Items

Product Items associate your parts to your [service locations](#), such as vans, warehouses, and work sites.

PRODUCT ITEMS All Product Item			
9 items • Sorted by Product Item Number • Last updated a few seconds ago			
1	2	3	4
1 PI-0001	Screws	Technician Van A	90.00
2 PI-0002	Screws	BT location	0.00
3 PI-0003	Laptop	LandMark	0.00

On the Product Item tab, you can:

1. Click the product's item number to go to the product item detail page. There you'll find the [Product Item Transactions](#) related list.
2. Click the product's name to go to the product's detail page, which includes the related price book.
3. Click the part's location to go to the [location's](#) detail page.
4. View the part quantity at the location.

You can also create, edit, and delete product Items.

Products Required

Products Required is a related list of parts needed for a work type or work order.

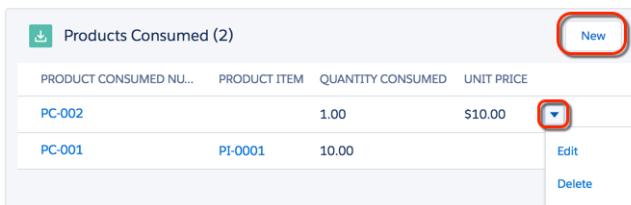


Products Required (2)		New
PRODUCT REQUIRED	QUANTITY REQUIRED	
phones	2.00	▼
Laptop	50.00	Edit Delete

You can create, edit, and delete required parts from the related list.

Products Consumed

Products Consumed is a related list of parts used to complete work type or work order.



Products Consumed (2)				New
PRODUCT CONSUMED NU...	PRODUCT ITEM	QUANTITY CONSUMED	UNIT PRICE	
PC-002		1.00	\$10.00	▼
PC-001	PI-0001	10.00		Edit Delete

You can create, edit, and delete consumed parts from the related list. When parts are recorded as consumed, their quantity on hand is decreased accordingly on the [Product Item](#).

Product Item Transaction

Product Item Transaction is a related list of actions taken on the product item.



Product Item Transaction (3)		
PRODUCT ITEM TRANSACTION NUMBER	TRANSACTION TYPE	QUANTITY
T-047	Adjusted	-10.00
T-002	Consumed	-10.00
T-001	Replenished	100.00

Product item transactions are:

- Replenished: When the quantity of the part is created at its location.
- Consumed: When parts are consumed to complete a work order or work order line item. The technician updates the products consumed related list on the work order or work order line item.
- Adjusted: When there is a discrepancy. Adjustments are made by editing the product item quantity on hand.



Example: Product Items connect your service parts to your service locations. Products Required allows you to suggest parts needed for work types. Products Consumed connects the parts needed to complete a work order successfully. While Product Item Transaction tracks the part restock flow.

Field Service Locations

Sort your locations into vans, warehouses, customer sites, or whatever suits your organization and track parts available at each.

Your service locations can be as large as a warehouse or as small as a tool box. They can be your client sites or your service vans. They vary in size, location, and what they contain, and they are unique to your company. Salesforce Field Service lets you create locations to fit your needs.

Add the Location Type and Inventory Location and Mobile fields to your location page layouts.

Name	Visitor Address
Technician Van A	
Location Type Van	Time Zone
Inventory Location <input checked="" type="checkbox"/>	Driving Directions
Description Van for Field Tech	Mobile Location <input checked="" type="checkbox"/>
Parent Location	

- You can set up Location Types according to your company's needs. For example, configure one large warehouse and a fleet of service vans, or a store room and tool boxes carried by technicians.
- Locations marked as Inventory Location can be connected to Product Items, which represents the part stored at that location.
- The Mobile Location field identifies locations that can travel.

You can also add Product Item as a related list to view which parts are at that location.

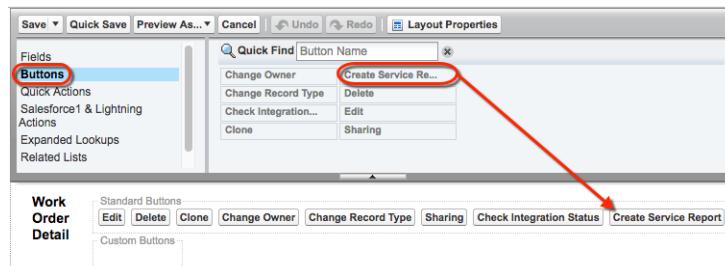
PRODUCT ITEM NUMBER	PRODUCT NAME	QUANTITY ON HAND	QUANTITY UNIT OF MEASURE	
PI-0009	Desktops	1.00	Each	<input type="button" value="Edit"/>
PI-0001	Screws	100.00	Each	<input type="button" value="Delete"/>

The Product Item Number and Product Name take you to the corresponding detail page.

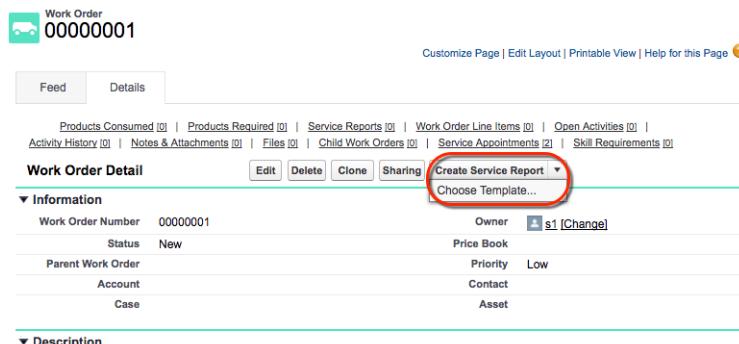
Create Field Service Report Templates

Make your customers happy with fast field service reports delivered to their inboxes. Your technicians and dispatchers can create reports for work orders, work order line items, and service appointments and email them directly to the customer. You can use standard templates or create variations of your own.

On the page layouts of Work Orders, Work Order Line Items, and Service Appointments, add the button **Create Service Report**.



Now technicians and dispatchers can access and send the reports from the object.



They can choose from the standard template for the object (work order, work order line item, or service appointment) or a custom one. The standard template has general account and contact information, details specific to the object, such as service appointment times, parts consumed, and customer and technician signatures.

The report is saved to its object detail page and, if selected, emailed to the customer.

You can adjust the standard template or create one according to your company's needs.

- From Setup enter **Service Report** in the Quick Find box, then click **Service Report Templates** under Field Service.
- Click **New** or **Edit** next to a report template you'd like to adjust.
- If you are creating a template, select an existing template as its base and give it a name.
- On the Service Report Template create page, add the fields to the appropriate sections.

You can also change templates and their related objects. However, when you change templates without saving, you lose your changes.



- Click **Save**.

Note: When you preview the report template, it shows the system administrator profile view. Depending on field-level security settings, other profiles may not see all fields. The data shown is simulated, except for images and rich text.

Service Appointment Status

Set and view the status of your service appointments in acute detail from not scheduled to completed, including late and running long.

To manage and view service appointment status, add the Status field to your Service Appointment page layout.

Status	Description
Not Scheduled	The service appointment isn't scheduled.
Scheduled	The service appointment is scheduled.
Dispatched	The service technician is in route.
In Progress	The service technician started work.
Completed	The service technician completed work.
Canceled	The service appointment has been canceled.
Missed	The service technician didn't make it to the location.
Running Long	The service technician started the job but didn't complete it by the scheduled end time.
Late	The service technician didn't start the job by the scheduled start time.

Turn Off GPS Tracking at the User Profile Level

Need GPS tracking on for all your technicians except a few? Now you can turn off GPS tracking with a user profile.

If your org has tracking turned on at the org level, but a few technicians need it off, add the `Exclude Technician from Geolocation Tracking` permission on their user profile.

Work Order Line Items Take Priority

You can prioritize the work order line items on your work orders so your dispatchers and technicians know which items to do first.

To set and view the status of a work order line item's priority, add the priority field to your work order line item page layout. Priority values are low, medium, high, and critical.

Optimize Scheduling with Field Service Lightning Managed Packages

The new version of the AppExchange package goes out right before Spring'17.

CTI: Support in Lightning Console and the Final Goodbye to Desktop CTI

You can now use Open CTI in the new console in Lightning Experience. One of the Open CTI methods has a small behavior change. And finally, we say goodbye to Desktop CTI.

Editions

Available in: **Professional, Enterprise, Performance, Unlimited, and Developer** Editions

IN THIS SECTION:

[Use Open CTI in Lightning Console Apps](#)

Last release we gave you Open CTI for Lightning Experience. This release we have even better news. You can now use Open CTI for Lightning Experience in Lightning console apps, including the Service Console.

[New Behavior for the Open CTI `onNavigationChange` Method](#)

The listener invoked by the `onNavigationChange` method now behaves differently depending on which type of app you're in—standard or console. This change applies to Lightning Experience only.

[Say Your Final Farewell to Desktop CTI](#)

The time has come. Desktop CTI, also known as the CTI Toolkit, has reached the end of its life. The Desktop CTI is no longer supported, and any adapters built on Desktop CTI will stop working (based on TLS 1.0 disablement). To continue using CTI functionality, migrate to Open CTI.

Use Open CTI in Lightning Console Apps

Last release we gave you Open CTI for Lightning Experience. This release we have even better news. You can now use Open CTI for Lightning Experience in Lightning console apps, including the Service Console.

For more information, see the *[Open CTI Developer Guide](#)*.

SEE ALSO:

[Open CTI Developer Guide: Why Your UI Matters](#)

[Open CTI Developer Guide: Methods for Lightning Experience](#)

New Behavior for the Open CTI `onNavigationChange` Method

The listener invoked by the `onNavigationChange` method now behaves differently depending on which type of app you're in—standard or console. This change applies to Lightning Experience only.

In a standard Lightning app, the method registers a function that is called when a user navigates between browser tabs or windows and the document comes back into focus. If the document doesn't come back into focus, the listener isn't invoked. For example, the listener is invoked when a user navigates away from a browser tab and then comes back to the tab.

In a console Lightning app, the method registers a function that is called when a user navigates between primary tabs and subtabs in a console, or when the document comes back into focus when a user navigates between browser tabs or windows.

SEE ALSO:

[Open CTI Developer Guide: `onNavigationChange` for Lightning Experience](#)

Say Your Final Farewell to Desktop CTI

The time has come. Desktop CTI, also known as the CTI Toolkit, has reached the end of its life. The Desktop CTI is no longer supported, and any adapters built on Desktop CTI will stop working (based on TLS 1.0 disablement). To continue using CTI functionality, migrate to Open CTI.

SEE ALSO:

[Knowledge Article: CTI Toolkit Retirement FAQ](#)

[Open CTI Developer Guide](#)

Lightning Case Management

Resolving customer issues and managing cases in Lightning keeps getting better and better! This release provides a revamped compact case feed so that agents can quickly see the case progression. The Case Assignment checkbox is now visible on the case page layout so that agents can trigger assignment rules when creating and editing cases. These changes apply to Lightning Experience only.

IN THIS SECTION:

[Compact Case Feed Gets a Makeover for Lightning Experience](#)

We've enhanced the compact case feed to make it easier for busy agents to quickly understand the case progression at a glance. This change applies to Lightning Experience only.

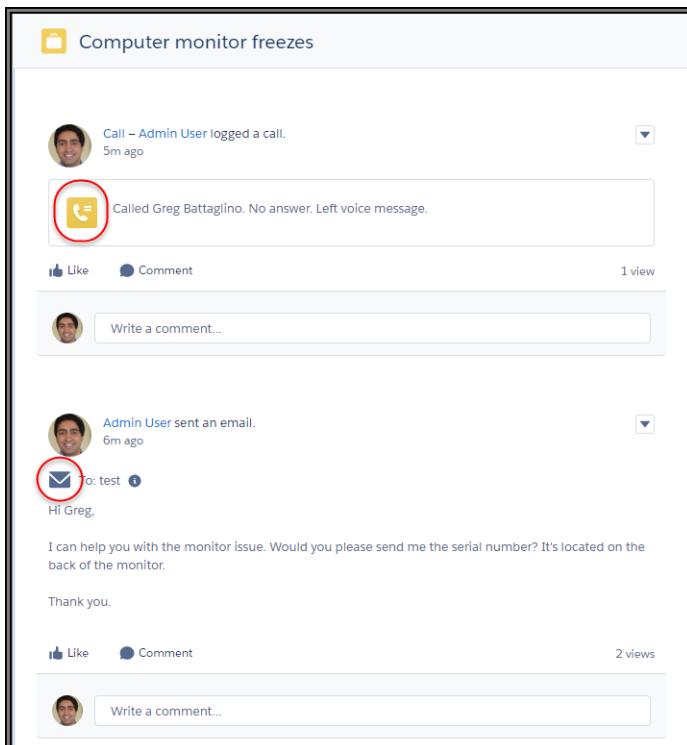
[Case Assignment Checkbox Visible in Lightning Experience](#)

Support agents now can see the Case Assignment checkbox on new cases in Lightning Experience. This change applies to Lightning Experience only.

Compact Case Feed Gets a Makeover for Lightning Experience

We've enhanced the compact case feed to make it easier for busy agents to quickly understand the case progression at a glance. This change applies to Lightning Experience only.

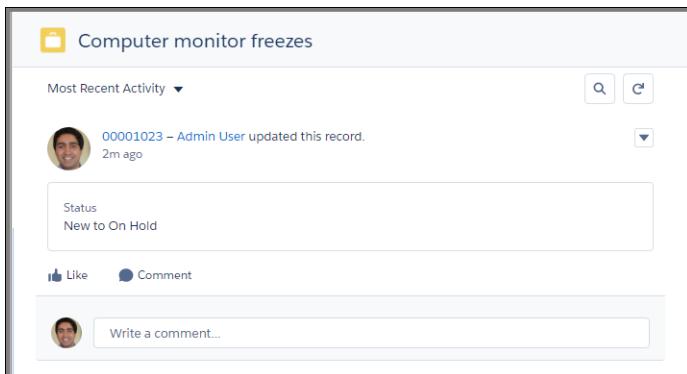
Distinguish Feed Items at a Glance with Colorful Icons



EDITIONS

Available in: **Enterprise, Performance, Unlimited, and Developer Editions**

Quickly See What's Changed When Records Are Created or Updated



Case Assignment Checkbox Visible in Lightning Experience

Support agents now can see the Case Assignment checkbox on new cases in Lightning Experience. This change applies to Lightning Experience only.

Previously, the Case Assignment Checkbox wasn't visible in Lightning Experience. To allow agents to trigger assignment rules manually when cases are created or edited, add the Case Assignment checkbox to the case layout page.

SEE ALSO:

[Salesforce Help: Guidelines for Using the Enhanced Page Layout Editor](#) (can be outdated or unavailable during release preview)

Social Customer Service: Seamless Support

Use the Chatter REST API to set up Social Customer Service in your org, do and discover more on the social post detail page, reply and direct message with ease on the case feed, and connect your API enabled Professional edition org with Social Customer Service.

IN THIS SECTION:

[Social Customer Service API Support](#)

Use the Chatter REST API to enable (or disable) Social Customer Service in your org, monitor your social accounts, get social network authorization information, retrieve a user's social accounts, and start social posts flowing.

[Social Post Detail Page Just Got a Little More Detailed](#)

From a social post detail page you can, triage the post, view the available social accounts, click into the social handles, see the status of the post and, in the related list, click the title to see the post content.

[Social Post Tab in Lightning](#)

Along with being available in Lighting, the Social Post tab has mass actions, allowing you to triage posts in bulk, icons to easily identify the provider, and a clickable Content field to see a post's content.

[Get More Accomplished Without Leaving the Case Feed](#)

Now in Lightning Service Console, when you hit reply or retweet in a case feed, the social customer service publisher is activated and pre-populated.

[Professional Edition Supported in Social Customer Service](#)

If you have an API enabled org, you can enable Social Customer Service.

Social Customer Service API Support

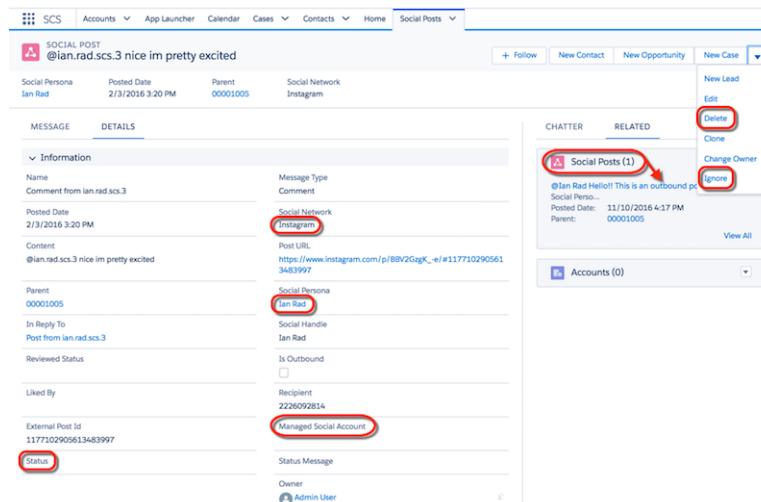
Use the Chatter REST API to enable (or disable) Social Customer Service in your org, monitor your social accounts, get social network authorization information, retrieve a user's social accounts, and start social posts flowing.

New methods are available in the Chatter REST API to work with Social Customer Service.

- **readTermsOfService:** This method returns the terms of service URL, and information about who has accepted it. The Terms of Service must be accepted before using any other setup API endpoints. This method is exposed in Apex.
- **acceptTermsOfService:** This method accepts the terms of service. This method is exposed in Apex.
- **enableSocialCustomerService:** This method enables Social Customer Service in your org. This method is not exposed in Apex.
- **disableSocialCustomerService:** This method disables Social Customer Service from your org. This method is not exposed in Apex.
- **getSocialCustomerServiceConfig:** This method retrieves the current Social Customer Service configuration. This method is not exposed in Apex.
- **initializeSocialCustomerServiceConfig:** This method fills in any missing configuration values with acceptable defaults. Use this method if configuration values were deleted. This method is not exposed in Apex.
- **setSocialCustomerServiceConfig:** This method updates your Social Customer Service configuration with parameters. This method is not exposed in Apex.
- **getSocialNetworkAuthData:** This method returns you to the login URL for a social network after you've added an account for SCS to manage. This method must be used with the GET managed-social-accounts call.
- **getManagedSocialAccounts** This method retrieves a list of all the accounts and pages managed by a social network user. This method is not exposed in Apex.
- **ExternalSocialAccounts:** This method adds a user's pages and accounts as social accounts and starts the flow of inbound social posts for this account. This method is not exposed in Apex.

Social Post Detail Page Just Got a Little More Detailed

From a social post detail page you can, triage the post, view the available social accounts, click into the social handles, see the status of the post and, in the related list, click the title to see the post content.



Social Post Tab in Lightning

Along with being available in Lightning, the Social Post tab has mass actions, allowing you to triage posts in bulk, icons to easily identify the provider, and a clickable Content field to see a post's content.

Get More Accomplished Without Leaving the Case Feed

Now in Lightning Service Console, when you hit reply or retweet in a case feed, the social customer service publisher is activated and pre-populated.

Note: Automatic activation and pre-population is not available in Salesforce Mobile.

To direct-message a customer in Twitter, the customer must be following your social account.

Professional Edition Supported in Social Customer Service

If you have an API enabled org, you can enable Social Customer Service.

Omni-Channel: Supercharge Your Supervisors; Enjoy Increased Limits

Put real-time insights at your support supervisors' fingertips with Omni-Channel Supervisor (Generally Available). We've also raised Omni-Channel org limits, and you can set a default user or queue for to assign work to when your org reaches the limits. Plus, some notification sounds have been improved. This change applies to Salesforce Classic only.

IN THIS SECTION:

[Omni-Channel Supervisor Is Generally Available](#)

Omni-Channel Supervisor brings real-time operational intelligence, all in a handy tab in the Salesforce Console. Information about your Omni-Channel agents, queues, and work is streamed live into the panel. Yes, you read that right: live. You see waiting times, open work, and more in real time. This change applies to Salesforce Classic only.

[Assign Overflow Work to a User or Queue](#)

You don't have to miss out on work that's created after your org reaches Omni-Channel limits. Set a user or queue to receive work until Omni-Channel is ready to use again. This change applies to Salesforce Classic only.

[Omni-Channel Org Limits Raised](#)

The Omni-Channel party continues as we "raise the roof" to 5,000 maximum queued work items per hour and 30,000 maximum pending routing requests. This change applies to Salesforce Classic only.

[Ping! New Sounds for Request and Disconnect Notifications](#)

Your team might notice new notification sounds in Live Agent and Omni-Channel. Request (push) and disconnect sounds have changed, but incoming and outgoing chat sounds remain the same. This change applies to Salesforce Classic only.

Omni-Channel Supervisor Is Generally Available

Omni-Channel Supervisor brings real-time operational intelligence, all in a handy tab in the Salesforce Console. Information about your Omni-Channel agents, queues, and work is streamed live into the panel. Yes, you read that right: live. You see waiting times, open work, and more in real time. This change applies to Salesforce Classic only.

Omni-Channel Supervisor updates continuously to reflect the latest data, so you always know how your support center's doing.

Supervisors can check the health of their call center using the Agents, Queues, and Work tabs. They can survey the landscape and see what's open and active, who's assigned to what, and other details, such as open capacities and average wait times for customers.

EDITIONS

Available in: Salesforce Classic

Omni-Channel is available in: **Professional, Enterprise, Performance, Unlimited, and Developer** Editions

The screenshot shows the Salesforce Omni Supervisor interface. At the top, there's a navigation bar with tabs for 'Agents', 'Queues', and 'Work'. Below this is a section titled 'Agent Summary' with two tabs: 'All Agents' and 'Agents by Queue'. The main area displays a table of agents, each with a profile picture, name, status (e.g., 'Online since Aug 5, 2016 2:57:02 PM'), action taken ('Change Status'), time in state, time since login, time since last accept, channels assigned, and assigned queues. It also shows work items, workload, and capacity.

AGENT	STATUS	ACTION	TIME IN STATE	TIME SINCE LOGIN	TIME SINCE LAST ACCEPT	CHANNELS	ASSIGNED QUEUES	WORK ITEMS	WORKLOAD	CAPACITY
Agent Awesome	Online since Aug 5, 2016 2:57:02 PM	Change Status	16 s	16 s	16 s	★ 📱 📲 📧	Case Queue, Order Queue	1	1 / 1	100%
Agent Casey	Online since Aug 5, 2016 2:57:07 PM	Change Status	12 s	12 s	--	★ 📱 📲 📧	Case Queue, Order Queue	0	0 / 1	0%
Agent Colleen	Online since Aug 5, 2016 2:57:08 PM	Change Status	13 s	13 s	12 s	★ 📱 📲 📧	Case Lead Queue, Case Queue, Order Queue	1	1 / 1	100%
Agent Kumar	Online since Aug 5, 2016 2:57:05 PM	Change Status	14 s	14 s	--	★ 📱 📲 📧	Case Lead Queue, Order Queue	0	0 / 1	0%
Agent Nicholas	Online since Aug 5, 2016 2:57:01 PM	Change Status	18 s	18 s	18 s	★ 📱 📲 📧	Case Lead Queue, Order Queue	1	1 / 1	100%
Agent Scott	Online since Aug 5, 2016 2:57:08 PM	Change Status	11 s	11 s	--	★ 📱 📲 📧	Hybrid Queue, Order Queue	0	0 / 1	0%
Agent Super	Online since Aug 5, 2016 2:57:04 PM	Change Status	15 s	15 s	--	★ 📱 📲 📧	Hybrid Queue, Order Queue	0	0 / 1	0%
Agent Ted	Online since Aug 5, 2016 2:57:09 PM	Change Status	10 s	10 s	--	★ 📱 📲 📧	Hybrid Queue, Order Queue	0	0 / 1	0%
Nicolas d'André	Online since Aug 5, 2016 2:57:01 PM	Change Status	18 s	18 s	16 s	★ 📱 📲 📧	Case Lead Queue, Case Queue, Hybrid Queue, Order Queue	2	2 / 3	67%
Super Awesome	Online since Aug 5, 2016 2:57:04 PM	Change Status	14 s	14 s	14 s	★ 📱 📲 📧	Case Lead Queue, Hybrid Queue, Order Queue	1	1 / 1	100%

Plus, they can drill down for more detail about a specific agent, work, or queue, or take a look at the agent timeline for a more visual way of checking up on their team.

The screenshot shows the Salesforce Omni Supervisor interface with the 'Agent Timeline' tab selected for 'Super Awesome'. It displays a timeline from Aug 5, 2016, showing various interactions. A specific interaction from 2:54 PM to 2:55 PM is highlighted, showing a 'Case Closed' event. A tooltip for this event provides details: Contact Name (empty), Status (New), Case Origin (Web), Priority (Medium), Subject (My router is not working), and Description (empty). The timeline also shows other interactions like 'Current Work' and 'Agent Timeline'.

In every tab, they can use sorting and filtering to focus what's on the screen and get what they need faster.

The screenshot shows the Salesforce Agent Summary interface. At the top, there's a navigation bar with tabs for 'Agents', 'Queues', and 'Work'. Below that is a search bar labeled 'Search Salesforce'. The main area is titled 'Agent Summary' and has two tabs: 'All Agents' and 'Agents by Queue'. The 'Agents by Queue' tab is selected and highlighted with a red border. It displays a table with columns: ACTION, TIME IN STATE, TIME SINCE LOGIN, and TIME SINCE LAST ACCEPT. The table lists various 'Change Status' events for different agents, such as 'Agent Casey' and 'Agent Ted', showing their current status (e.g., Online since Aug 5, 2016 2:59:31 PM) and the time since their last interaction.

ACTION	TIME IN STATE	TIME SINCE LOGIN	TIME SINCE LAST ACCEPT
Change Status	1 min 30 s	1 min 30 s	--
Change Status	1 min 28 s	1 min 28 s	1 min 27 s
Change Status	1 min 29 s	1 min 29 s	1 min 29 s
Change Status	1 min 31 s	1 min 31 s	1 min 31 s
Change Status	1 min 32 s	1 min 32 s	1 min 32 s
Change Status	1 min 33 s	1 min 33 s	1 min 32 s
Change Status	1 min 34 s	1 min 34 s	1 min 33 s
Change Status	1 min 36 s	1 min 36 s	1 min 34 s
Change Status	1 min 36 s	1 min 36 s	1 min 35 s

SEE ALSO:

[Salesforce Help: Omni-Channel Supervisor](#) (can be outdated or unavailable during release preview)

Assign Overflow Work to a User or Queue

You don't have to miss out on work that's created after your org reaches Omni-Channel limits. Set a user or queue to receive work until Omni-Channel is ready to use again. This change applies to Salesforce Classic only.

You set the Overflow Assignee in your Routing Configuration. Make sure that:

- The user or queue you set has access to the object types that the Omni-Channel queue handles
- All Omni-Channel queues in a bulk operation (such as changing the status or owner for multiple requests) use a routing configuration with an overflow assignee

Overflow assignment doesn't work if these conditions aren't met.

Omni-Channel Org Limits Raised

The Omni-Channel party continues as we "raise the roof" to 5,000 maximum queued work items per hour and 30,000 maximum pending routing requests. This change applies to Salesforce Classic only.

SEE ALSO:

[Salesforce Help: Salesforce Features and Edition Limits](#) (can be outdated or unavailable during release preview)

Ping! New Sounds for Request and Disconnect Notifications

Your team might notice new notification sounds in Live Agent and Omni-Channel. Request (push) and disconnect sounds have changed, but incoming and outgoing chat sounds remain the same. This change applies to Salesforce Classic only.

Live Agent: Route Chats on Omni-Channel, and Enjoy Updated Chat Transcripts and Features

Like other Omni-routed work, Live Agent chats routed with Omni-Channel can be sized and prioritized by queue, and the Live Chat Transcript is created when the chat's requested. Plus, customers can save chat transcripts on iOS, chats now display live hyperlinks, and some notification sounds have been improved. This change applies to Salesforce Classic only.

IN THIS SECTION:

[Omni-Channel Routing for Chats is Generally Available](#)

Route Live Agent chats with Omni-Channel to prioritize and size chats alongside other work and take advantage of Omni-Channel's powerful routing system. This change applies to Salesforce Classic only.

[Page Layouts for Active, Waiting, and Ended Chat Transcripts](#)

For chats routed with Omni-Channel, the Live Chat Transcript covers the entire chat lifecycle, starting from the chat request. You can customize page layouts based on the chat's state: Waiting, Active, or Ended. That way, your support staff has just the information they need at each phase of the chat. This change applies to Salesforce Classic only.

[Customize Your Default Sidebar Lookup Component](#)

A default sidebar lookup component for the Salesforce Console is now created for you when you create your first **Omni** chat button. This change applies to Salesforce Classic only.

[Customers Can Save Transcripts on iOS](#)

Your customers can now save the chat transcript on iOS devices when the chat has ended. They click **Save Chat** to open the transcript in the Notes app. Then, they can save their transcript in Notes or copy-and-paste to move the text somewhere else. This change applies to Salesforce Classic only.

[Use Clickable Links in Your Chats](#)

Sometimes customers want to share the web page or Knowledge article they're viewing with their agent. Your agents are busy enough—they don't have time to copy and paste. The links that your customers share in a chat now appear as hyperlinks for the agent in both the chat and the chat transcript. Previously, hyperlinks were available only for chats sent from agents to customers. This change applies to Salesforce Classic only.

[Ping! New Sounds for Request and Disconnect Notifications](#)

Your team might notice new notification sounds in Live Agent and Omni-Channel. Request (push) and disconnect sounds have changed, but incoming and outgoing chat sounds remain the same. This change applies to Salesforce Classic only.

Omni-Channel Routing for Chats is Generally Available

Route Live Agent chats with Omni-Channel to prioritize and size chats alongside other work and take advantage of Omni-Channel's powerful routing system. This change applies to Salesforce Classic only.

Instead of using Skills to route chats to the best-fit agent, select **Omni** as your button's routing type and use your Omni-Channel queues instead. With Omni-Channel routing, your chats are prioritized relative to each other and to your other channels. Plus, you can change the size and priority of your chats by updating the routing configuration settings for your chat queues.

EDITIONS

Available in: Salesforce Classic

Live Agent is available in:
Performance Editions and
in **Developer** Edition orgs
that were created after June
14, 2012

Live Agent is available in:
Unlimited Edition with the
Service Cloud

Live Agent is available for an
additional cost in: **Enterprise**
and **Unlimited** Editions

And there's even more to love with Omni-Channel routing for chats, including consolidated notifications for chat agents, more reporting options using Agent Work, and Omni-Channel Supervisor for chat supervisors.

SEE ALSO:

[Salesforce Help: Compare Live Agent and Omni-Channel Routing for Chats](#) (can be outdated or unavailable during release preview)

Page Layouts for Active, Waiting, and Ended Chat Transcripts

For chats routed with Omni-Channel, the Live Chat Transcript covers the entire chat lifecycle, starting from the chat request. You can customize page layouts based on the chat's state: Waiting, Active, or Ended. That way, your support staff has just the information they need at each phase of the chat. This change applies to Salesforce Classic only.

The page layouts are created automatically when you create your first **Omni** chat button, so all you have to do is customize and assign them.

Customize Your Default Sidebar Lookup Component

A default sidebar lookup component for the Salesforce Console is now created for you when you create your first **Omni** chat button. This change applies to Salesforce Classic only.

For chats routed through Omni-Channel, attached records move from the paper clip to the chat transcript. Customize the default sidebar lookup component to make it even easier for agents to attach records to the chat transcript.

1. From Setup, enter *Live Agent* in the Quick Find box, then select **Live Chat Transcripts > Page Layouts**.
2. Click **Edit** next to the Live Chat Transcript (In Progress) Page Layout.
3. Click **Custom Console Components**.
4. Under Primary Tab Components, adjust your objects and settings. Don't move the component to the left sidebar, because chats appear on the left side.
5. Click **Save**.

Customers Can Save Transcripts on iOS

Your customers can now save the chat transcript on iOS devices when the chat has ended. They click **Save Chat** to open the transcript in the Notes app. Then, they can save their transcript in Notes or copy-and-paste to move the text somewhere else. This change applies to Salesforce Classic only.

Use Clickable Links in Your Chats

Sometimes customers want to share the web page or Knowledge article they're viewing with their agent. Your agents are busy enough—they don't have time to copy and paste. The links that your customers share in a chat now appear as hyperlinks for the agent in both the chat and the chat transcript. Previously, hyperlinks were available only for chats sent from agents to customers. This change applies to Salesforce Classic only.

Ping! New Sounds for Request and Disconnect Notifications

Your team might notice new notification sounds in Live Agent and Omni-Channel. Request (push) and disconnect sounds have changed, but incoming and outgoing chat sounds remain the same. This change applies to Salesforce Classic only.

Snap-ins for Web: Bring the Power of Service Cloud Components to Your Website

Ever wish you could add nifty Service Cloud features like chat directly to your website or to a mobile browser? Snap-ins let you embed Service Cloud components into your web pages so that you can provide contextual support to your customers.

IN THIS SECTION:

[Snap-ins Chat Graduates from Beta to Generally Available](#)

Snap-ins Chat is ready for prime time! It now provides key customization features. You can customize the pre-chat form based on your company's needs. You can also customize the colors and font used in the chat widget so that the chat experience reflects your company's branding and image.

[Customize the Snap-ins Pre-Chat Form to Provide a Seamless Experience for Your Customers](#)

Create a pre-chat form that addresses your different business needs and associates customer information with Salesforce records, like leads, cases, and contacts. You can also customize the fields used on the form.

[Customize Your Snap-ins Chat Widget to Reflect Your Company's Brand](#)

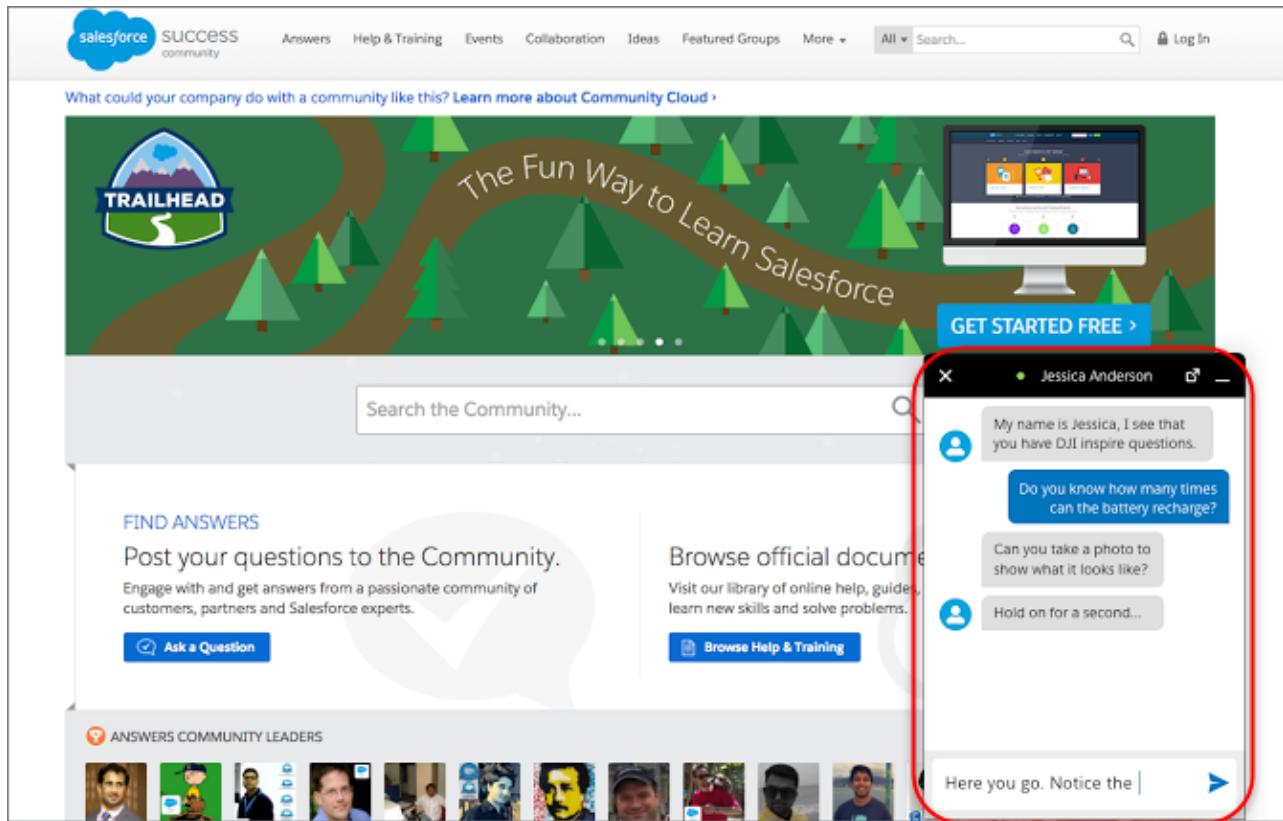
Specify your company's primary and accent colors so that the Snap-ins chat button and widget match your company's branding and image. Select the chat body text font to reflect your branding.

EDITIONS

Available in: **Enterprise**, **Performance**, **Unlimited**, and **Developer** Editions

Snap-ins Chat Graduates from Beta to Generally Available

Snap-ins Chat is ready for prime time! It now provides key customization features. You can customize the pre-chat form based on your company's needs. You can also customize the colors and font used in the chat widget so that the chat experience reflects your company's branding and image.



- (i) **Note:** Administrators must use Lightning Experience to access the Snap-ins Chat setup pages. However, other users in the org aren't required to have access to or use Lightning Experience with Snap-ins Chat.
- (i) **Important:** If you used the Snap-ins Chat beta, upgrade your Snap-ins Chat deployment so that you can use the pre-chat form and enjoy the improvements to Snap-ins Chat.

SEE ALSO:

[Knowledge Article: Upgrade Snap-ins Chat from Beta to GA](#) (can be outdated or unavailable during release preview)

[Salesforce Help: Snap-ins Chat](#) (can be outdated or unavailable during release preview)

[Salesforce Help: Set Up Snap-ins Chat for Your Website](#) (can be outdated or unavailable during release preview)

Customize the Snap-ins Pre-Chat Form to Provide a Seamless Experience for Your Customers

Create a pre-chat form that addresses your different business needs and associates customer information with Salesforce records, like leads, cases, and contacts. You can also customize the fields used on the form.

Pre-Chat Form

What kind of chats do your customers need?

We match your customer's details from the pre-chat form with Salesforce records, or create records if we find no matches.

<input type="radio"/>  Sales Scenarios Associate chats with leads	<input checked="" type="radio"/>  Service Scenarios Associate chats with contacts and cases	<input type="radio"/>  Basic Scenarios Associate chats with just contacts
---	---	---

Next, select a record type for Contact and Case.

Contact <input type="button" value="Contact Group A"/>	Case <input type="button" value="Case Group B"/>
---	---

Next

Associate Sales Inquiries with Lead Records

If customers use chat to ask questions about sales, design a form that gathers customer contact information and relates it to leads in Salesforce.

Associate Service Inquiries with Cases and Contacts Records

If customers use chat for service inquiries, design a pre-chat form that creates cases and contacts so that agents can easily resolve customer issues.

Associate Other Inquiries with Contacts Records

If customers use chat for other requests, design a form that creates only contacts based on the customer information so that the right department can follow up.

Pre-Chat Form

Now, let's design the pre-chat form.

Customize this form based on details you want to collect from your customers.
For the best customer experience, include up to four fields.

Pre-Chat Fields		
RECORD	FIELDS	REQUIRED
Contact	Full Name <input type="checkbox"/> Email <input checked="" type="checkbox"/>	↑ ↓ + ×
Case	Subject <input type="checkbox"/>	Field <input type="button" value="Product"/> Add

Back **Save**

Customize the fields displayed in the pre-chat form:

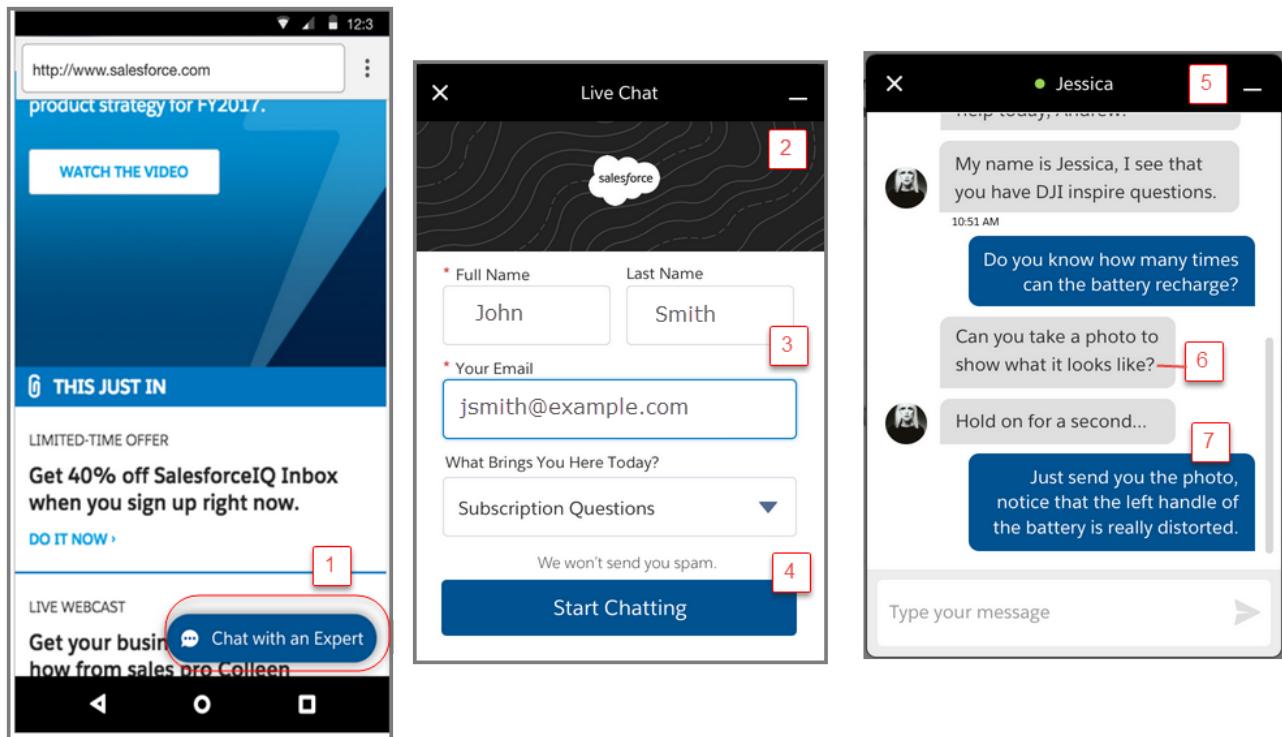
1. Make field required. If Salesforce requires a field to create a record, then the field is automatically required.
2. Move fields up and down.
3. Add or remove fields from the form. If Salesforce requires a field to create a record, then you can't delete the field.

SEE ALSO:

[Salesforce Help: Customize the Pre-Chat Form](#) (can be outdated or unavailable during release preview)

Customize Your Snap-ins Chat Widget to Reflect Your Company's Brand

Specify your company's primary and accent colors so that the Snap-ins chat button and widget match your company's branding and image. Select the chat body text font to reflect your branding.



You can customize the appearance of many elements of the Snap-ins Chat widget, including:

1. Call to Action button colors, like "Chat with an Expert"
2. Pre-chat form image backdrop color
3. Input field focus color
4. Start Chat button color
5. Navigation bar color
6. Chat text font

7. Chat text color

SEE ALSO:

[Salesforce Help: Customize the Branding and Appearance of Your Snap-ins Chat Widget](#) (can be outdated or unavailable during release preview)

Snap-ins for Mobile Apps

We've added some great features to our Snap-ins SDKs for iOS and Android to make your mobile apps even better. With case deflection, solve your users' problems before they even need to create cases. Build knowledge bases customized for specific user profiles so that users get the right information for their needs. We've also improved Live Agent Chat and SOS so that you can provide even better real-time support to your customers.

The iOS SDK is generally available. The Android SDK supports SOS and Knowledge, with Live Agent Chat and Case Management currently in pilot. For more information about joining the pilot, contact your account team.

There are many other new features available! To learn more, visit the [Snap-ins for Mobile Apps](#) site.

EDITIONS

Available in: **Enterprise**, **Unlimited**, and **Developer** Editions

Other Changes in Service Cloud

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

IN THIS SECTION:

[Web-to-Case: Thwart Spammers with reCAPTCHA](#)

Add reCAPTCHA to your Web-to-Case form to make it easy for customers to contact your company while making it difficult for spambots to waste service agents' time. The reCAPTCHA widget requires customers to select a checkbox before they can create a case. Enabling spam filtering lets customer service agents focus on resolving real customer issues, and not on spam cases. This change applies to both Lightning Experience and Salesforce Classic.

[Automatically Assign Cases to Queues When Customers Submit Cases via Email-to-Case](#)

Automatically assign cases to support queues when customers submit cases using Email-to-Case, so that service agents can quickly triage and respond to new cases. When you configure an Email-to-Case routing address, select a queue to assign cases to. This change applies to both Lightning Experience and Salesforce Classic.

[Call Center App Gets a New Name](#)

To better align with the future direction of the Service Cloud, we've renamed the Call Center app to Service. You can access this app in Salesforce Classic using the app menu and in Lightning Experience using the App Launcher.

[Chatter Answers Retires in Winter '18](#)

Start planning that retirement party for Chatter Answers! After years of faithful service helping users find answers to their pressing questions, Chatter Answers is calling it quits in Winter '18. Salesforce will no longer support Chatter Answers, and users of Chatter Answers will no longer be able to post, answer, comment, or view any of the existing Chatter Answers data. Chatter Answers is passing the torch to Chatter Questions, an eager young thing ready to take up the self-service mantle.

[Lightning for Outlook and Lightning for Gmail \(Beta\) Welcome Service Cloud Customers](#)

In this release, we extend support for Lightning for Outlook and Lightning for Gmail to customers with Service Cloud licenses.

Web-to-Case: Thwart Spammers with reCAPTCHA

Add reCAPTCHA to your Web-to-Case form to make it easy for customers to contact your company while making it difficult for spambots to waste service agents' time. The reCAPTCHA widget requires customers to select a checkbox before they can create a case. Enabling spam filtering lets customer service agents focus on resolving real customer issues, and not on spam cases. This change applies to both Lightning Experience and Salesforce Classic.

EDITIONS

Available in: Salesforce Classic and Lightning Experience

Available in: **Professional, Enterprise, Performance, Unlimited, and Developer** Editions

The screenshot shows a Web-to-Case form with fields for Contact Name (John Smith), Email (jsmith@example.com), Phone (555-123-4567), Product (Computer monitor), and Description (My computer monitor won't turn on.). Below these fields is a reCAPTCHA challenge. It consists of a text input field containing "My computer monitor won't turn on." followed by a checkbox labeled "I'm not a robot". To the right of the checkbox is the reCAPTCHA logo and the text "reCAPTCHA Privacy - Terms". A red oval highlights the "I'm not a robot" checkbox area. At the bottom of the form is a "Submit Query" button.

SEE ALSO:

[External Link: Google reCAPTCHA](#)

[Salesforce Help: Generate Web-to-Case HTML Code](#) (can be outdated or unavailable during release preview)

Automatically Assign Cases to Queues When Customers Submit Cases via Email-to-Case

Automatically assign cases to support queues when customers submit cases using Email-to-Case, so that service agents can quickly triage and respond to new cases. When you configure an Email-to-Case routing address, select a queue to assign cases to. This change applies to both Lightning Experience and Salesforce Classic.

When you assign cases to a user or queue via the routing address, your selection overrides the default case owner that's specified on the Support Settings page.

Previously, assigning cases to queues was supported only for Outlook routing addresses, not for Email-to-Case routing addresses.

EDITIONS

Available in: **Professional, Enterprise, Performance, Unlimited, and Developer** Editions

Email-to-Case Routing Information

Email Address Edit

Routing Information

Source: Email2Case
Routing Name: Customer Support
Email Address: support@example.com

Email Settings

Save Email Headers: [i](#)
Accept Email From: [i](#)

Task Settings

Create Task from Email: [i](#)
Task Status: Not Started [i](#)

Case Settings

Case Owner: Queue ▾ Priority Queue [i](#) [e](#)
Case Priority: Medium ▾
Case Origin: Email ▾

[Save](#) [Save & New](#) [Cancel](#)

SEE ALSO:

[Salesforce Help: Configure Routing Addresses for Email-to-Case and On-Demand Email-to-Case](#) (can be outdated or unavailable during release preview)

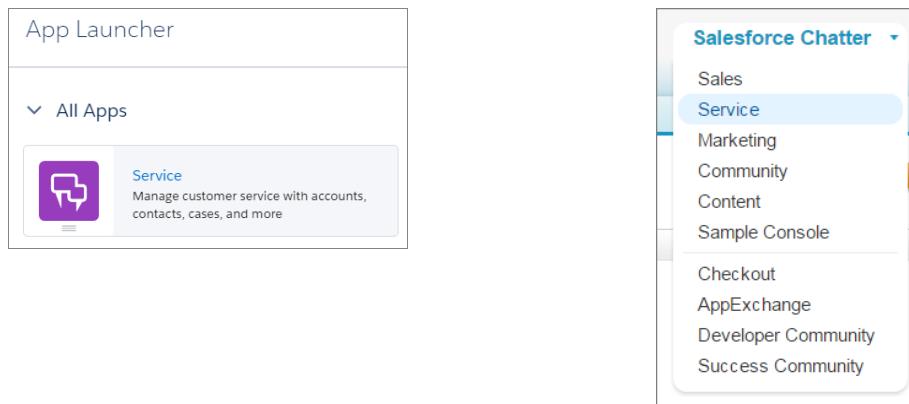
[Salesforce Help: Routing Address Settings for Email-to-Case and On-Demand Email-to-Case](#) (can be outdated or unavailable during release preview)

Call Center App Gets a New Name

To better align with the future direction of the Service Cloud, we've renamed the Call Center app to Service. You can access this app in Salesforce Classic using the app menu and in Lightning Experience using the App Launcher.

In Lightning Experience:

In Salesforce Classic:



Chatter Answers Retires in Winter '18

Start planning that retirement party for Chatter Answers! After years of faithful service helping users find answers to their pressing questions, Chatter Answers is calling it quits in Winter '18. Salesforce will no longer support Chatter Answers, and users of Chatter Answers will no longer be able to post, answer, comment, or view any of the existing Chatter Answers data. Chatter Answers is passing the torch to Chatter Questions, an eager young thing ready to take up the self-service mantle.

SEE ALSO:

[Knowledge Article: Chatter Answers Retirement FAQ](#)

Lightning for Outlook and Lightning for Gmail (Beta) Welcome Service Cloud Customers

In this release, we extend support for Lightning for Outlook and Lightning for Gmail to customers with Service Cloud licenses.

SEE ALSO:

[Salesforce Help: Lightning for Outlook: Set Up Sales Reps to Experience Salesforce from Microsoft® Outlook®](#) (can be outdated or unavailable during release preview)

Analytics: Lightning Enhancements, One-Stop Data Manager, Personal Wave Home, New Charts, and More

Drive decisions with insights from reports and dashboards and Wave Analytics. Lightning Experience reports and dashboards offer report subscriptions, dashboard sharing and following, and chart enhancements. Wave gets personal with one-stop shopping in Data Manager, the new personalized Wave home page, custom app navigation, new chart types, and much more.

IN THIS SECTION:

[Reports and Dashboards: Better Interaction with Your Data](#)

Lightning Experience gets even better with report subscriptions, better Chatter integration for dashboards, new funnel and scatter charts, other enhancements.

Wave Analytics: Easier, Personal Insights

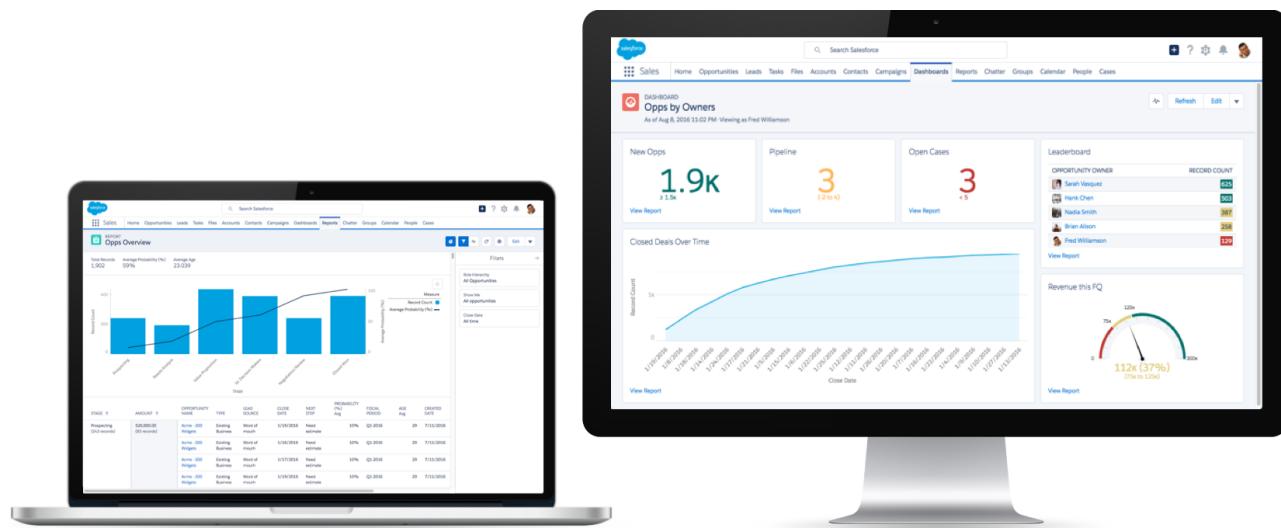
Wave gets personal, with more of what you need to quickly get insights from your data. Data prep is your recipe for success for data integration. The new Wave home brings personalized analytics to you with pinned apps and notifications. Create custom navigation within apps, and annotate dashboards in presentation mode. Enjoy the many enhancements to creating Wave assets, like bubble charts, pivot tables, and connected datasets, plus new features for trend in Wave, like scheduling.

Reports and Dashboards: Better Interaction with Your Data

Lightning Experience gets even better with report subscriptions, better Chatter integration for dashboards, new funnel and scatter charts, other enhancements.

EDITIONS

Available in: **Group, Professional, Enterprise, Performance, Unlimited, and Developer** Editions



IN THIS SECTION:

[Subscribe to Reports in Lightning Experience](#)

You know that report you check when you arrive in the office every Monday morning? Why not have it emailed to you every Monday at 8:00 AM instead? Subscribe to up to five reports and receive refreshed report results by email on a schedule you set: daily, weekly, or monthly. Report subscriptions in Lightning Experience are available within seven days of the Spring '17 release. This feature is new in Lightning Experience.

[Filter Reports via URL Parameters in Lightning Experience](#)

No need to futz with filters! Pass URL parameters to set filter values in Lightning Experience reports. When linking to reports or when bookmarking a report, add filter value parameters to the URL to customize how the report filters when opened. For example, bookmark your opportunities report and add a filter value parameter to specify whether you see *New Business* or *Existing Business*. This feature is new in Lightning Experience.

[View Dashboards as Other People in Lightning Experience](#)

Say that your sales people can only view their own opportunities, but you'd like to review all opportunities closed in the last quarter. Create a dashboard and let people view the dashboard as you (or anyone else who can see all opportunities). When your sales people open the dashboard, they see info about all opportunities instead of only their opportunities. Their data access in Salesforce remains unchanged. They can only see more data in your dashboard. This feature is new in Lightning Experience.

[Share Dashboard Charts by Posting Them to Chatter in Lightning Experience](#)

Start the conversation by sharing images of dashboard charts on Chatter. This feature is new in Lightning Experience.

[Expand Dashboard Components to Get the Big Picture in Lightning Experience](#)

Open a dashboard component in a window so you can see all the details. This feature is new in Lightning Experience.

[Follow Dashboards in Lightning Experience](#)

Instead of regularly opening a dashboard to take note of changes, follow a dashboard to get updates in your Chatter feed. After you enable feed tracking on dashboards, your users can follow dashboards by opening one up and clicking **Follow**. This feature is new in Lightning Experience.

[Move Dashboards Between Folders in the Lightning Experience Dashboard Builder](#)

If your org is using Enhanced Analytics Folder Sharing for Reports and Dashboards, folders govern who has access to the reports and dashboards saved inside. (If your org was created after the Summer '13 Salesforce release, you already have Enhanced Analytics Folder Sharing.) To move a dashboard from one folder to another, open the Properties menu in the Lightning Experience Dashboard Builder. This feature is new in Lightning Experience.

[Add Funnel and Scatter Charts to Lightning Experience Dashboards](#)

We've made funnel and scatter charts available in the dashboard component editor. Add a funnel chart to show relative measured amounts by stage. For example, funnel charts are ideal for showing how opportunities move through stages. Add a scatter chart to display one or two groupings of report data plus summaries. Scatter charts are useful for identifying trends across large datasets. This feature is new in Lightning Experience.

[External Object Reports Have Fewer Limitations](#)

We removed some previous limitations, hopefully before you even encountered them. The improvements affect reports that include external object relationships or use the cross-org adapter for Salesforce Connect. This change applies to both Lightning Experience and Salesforce Classic.

[Other Enhancements to Reports and Dashboards in Lightning Experience](#)

In addition to this release's major features, we've made some small-but-notable improvements to Reports and Dashboards. These changes apply to Lightning Experience only.

Subscribe to Reports in Lightning Experience

You know that report you check when you arrive in the office every Monday morning? Why not have it emailed to you every Monday at 8:00 AM instead? Subscribe to up to five reports and receive refreshed report results by email on a schedule you set: daily, weekly, or monthly. Report subscriptions in Lightning Experience are available within seven days of the Spring '17 release. This feature is new in Lightning Experience.

To start a report subscription, open a report and click **Subscribe**. Specify when to receive the report, and then go about your business. When you need the report data, it's waiting for you in your inbox.

USER PERMISSIONS

To subscribe to reports in Lightning Experience:

- "Run Reports"
- AND
- "Subscribe to Reports"

The screenshot shows the Salesforce Lightning Experience interface. At the top, there's a navigation bar with the Salesforce logo, a search bar, and various links like Sales, Home, Opportunities, Leads, Tasks, Files, Accounts, Contacts, Campaigns, Dashboards, Reports, Chatter, Groups, Calendar, People, and Cases. The 'Reports' tab is selected.

The main area displays a report titled 'Opp Overview'. It includes summary statistics: Total Records (129), Total Amount (\$10,000,000.00), and Average (50). Below this is a table with columns: TYPE, LEAD SOURCE, and AMOUNT Sum. The table lists opportunities categorized by Type (Existing Business) and Lead Source (Word of mouth), with their respective amounts.

A modal window titled 'Edit Subscription' is overlaid on the report. It contains sections for 'Schedule', 'Frequency' (with tabs for Daily, Weekly, and Monthly, where 'Weekly' is selected), 'Days' (with days Su through Sa), and 'Time (America/Los Angeles)' (set to 10:00 PM). A note at the bottom of the modal says, 'After subscribing, you'll receive refreshed report results by email.' At the bottom right of the modal are 'Cancel' and 'Save' buttons.

SEE ALSO:

[Reports and Dashboards](#)

Filter Reports via URL Parameters in Lightning Experience

No need to futz with filters! Pass URL parameters to set filter values in Lightning Experience reports. When linking to reports or when bookmarking a report, add filter value parameters to the URL to customize how the report filters when opened. For example, bookmark your opportunities report and add a filter value parameter to specify whether you see *New Business* or *Existing Business*. This feature is new in Lightning Experience.

Periodically throughout your day you check your opportunities report, and after opening it, you always edit a filter to show New Business or Existing Business. (The Type filter includes both New Business and Existing Business by default.)

The screenshot shows the 'Opps Overview' report in Salesforce. A modal dialog is open, focusing on the 'Type' filter. The 'Existing Business' option is selected. The 'New Business' option is highlighted with a red box. Other filters visible include 'Amount greater than >3,000' and 'Locked Filters'.

STAGE	AMOUNT	OPPORTUNITY NAME	TYPE	LEAD SOURCE	CLOSE DATE	NEXT STEP	PROBABILITY (%) Avg	FISCAL PERIOD
Prospecting (243 records)	\$20,000.00 (83 records)	Acme - 200 Widgets	Existing Business	Word of mouth	1/19/2016			
		Acme - 200 Widgets	Existing Business	Word of mouth	1/16/2016			
		Acme - 200 Widgets	Existing Business	Word of mouth	1/17/2016			
		Acme - 200 Widgets	Existing Business	Word of mouth	1/19/2016			
		Acme - 200 Widgets	Existing Business	Word of mouth	1/19/2016			
		Acme - 200 Widgets	Existing Business	Word of mouth	1/19/2016			
		Acme - 200 Widgets	Existing Business	Word of mouth	1/24/2016	Need estimate		
		Acme - 200 Widgets	Existing Business	Word of mouth	1/19/2016	Need estimate	10%	Q1-2016

Instead of loading the report, editing the filter, and reloading the report, create two bookmarks. One with a filter value parameter for New Business, and one with a filter value parameter for Existing Business. Take note of the opportunities report URL.

```
https://na1.salesforce.com/one/one.app#/sObject/00OR000000PCHYMA4/view?t=1479844235107
```

Edit the URL to set the Type filter value to New Business by appending the parameter `&fv0>New%20Business`. The full, bookmarked URL reads:

```
https://na1.salesforce.com/one/one.app#/sObject/00OR000000PCHYMA4/view?t=1479844235107&fv0>New%20Business
```

Let's take a closer look at what the parameter means.

- `&` — Denotes a new parameter in the URL. If no other parameters are present in the URL, then substitute `?` in place of `&`.
- `fv0` — The `fv` stands for "filter value," and is the name of the parameter. The `0` is the numerical order in which the filter appears in the report. (The first filter is 0, the second filter is 1, the third is 2, and so forth.) Standard filters don't count in this order, and can't be filtered using URL parameters, although they appear as the first three filters on any report. To set the value of the fifth filter in the report, specify `fv4`. In our example, we're filtering the first field filter in the report, the Type filter.

The order in which filters appear in Lightning Experience on the report run page isn't necessarily the order that filters appear in the report. Locked filters are listed beneath unlocked filters on the run page, but aren't necessarily ordered after all the unlocked filters. To see the order of filters in your report, refer to their order in the Report Builder. Alternatively, make a GET call to `/services/data/v39.0/analytics/reports/<report ID>/describe` and note their order in the JSON response.

- `=New%20Business` — Specifies that the Type filter value is New Business.

The parameter value must be URI encoded, which means certain characters (such as spaces) must be written in a format that URLs can understand. In our example, the space (' ') between "New" and "Business" becomes `%20` when URI encoded.

When you navigate to your opportunity report through the URL with a filter value parameter, the report opens filtered and ready to read.

The screenshot shows a Salesforce report titled 'Opps Overview'. The URL in the browser is <https://na1.salesforce.com/one/one.app#/sObject/00OR0000000PCHYMA4/view?t=1479857188845&fv0>New%20Business>. The sidebar on the right displays various filters, with one filter, 'Type equals New Business', highlighted with a red border.

Stage	Amount	Opportunity Name	Type	Lead Source	Close Date	Next Step	Probability (%) Avg	Fiscal Period
Needs Analysis (195 records)	\$20,000.00 (64 records)	Acme - 600 Widgets	New Business	Trade Show	1/24/2016	Need estimate	20%	Q1-2016
		Acme - 600 Widgets	New Business	Trade Show	1/17/2016	Need estimate	20%	Q1-2016
		Acme - 600 Widgets	New Business	Trade Show	1/19/2016	Need estimate	20%	Q1-2016
		Acme - 600 Widgets	New Business	Trade Show	1/22/2016	Need estimate	20%	Q1-2016
		Acme - 600 Widgets	New Business	Trade Show	1/18/2016	Need estimate	20%	Q1-2016
		Acme - 600 Widgets	New Business	Trade Show	1/24/2016	Need estimate	20%	Q1-2016
		Acme - 600 Widgets	New Business	Trade Show	1/14/2016	Need estimate	20%	Q1-2016

Take note of these limitations to setting filter values via the URL.

- Only field filters support edits from URL parameters. Standard filters (role hierarchy filters, scope filters, date filters), cross filters, and row limit filters aren't supported. Standard, cross, and row limit filters don't count when listing filters — `fv0` is the first field filter.
- Chart filters aren't supported.
- Filter operators (like `equals` and `greater than`) can't be modified via URL parameters.
- You can't change the field being filtered via URL parameters.
- You can't add new filters to reports using filter value URL parameters. You can only modify existing filters.
- You can't delete filters from reports using filter value URL parameters. Setting a blank value filters by no text or numerals, but doesn't remove the filter.

SEE ALSO:

[Reports and Dashboards](#)

View Dashboards as Other People in Lightning Experience

Say that your sales people can only view their own opportunities, but you'd like to review all opportunities closed in the last quarter. Create a dashboard and let people view the dashboard as you (or anyone else who can see all opportunities). When your sales people open the dashboard, they see info about all opportunities instead of only their opportunities. Their data access in Salesforce remains unchanged. They can only see more data in your dashboard. This feature is new in Lightning Experience.

To specify whom folks view a dashboard as, click **Edit** > . In the Properties window, choose who you want dashboard readers to view the dashboard as:

- Me** — Dashboard readers see data in the dashboard according to your access to data.

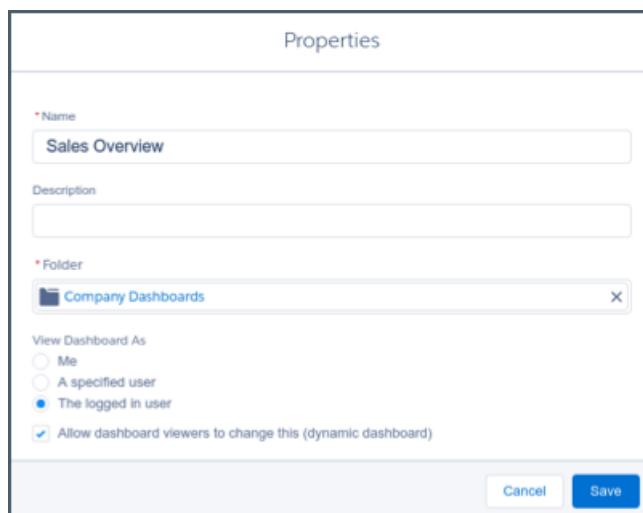
For example, if you can only see Opportunities in Canada, then dashboard readers only see data about Opportunities in Canada.

- **A specified user** — Dashboard readers see data in the dashboard according to the data access level of whomever you specify.

For example, if you choose someone who can see Opportunities from any country, then dashboard readers see data about Opportunities from all countries.

- **The logged in user** — Dashboard readers see data as themselves, according to their own access to data.

Optionally, select **Allow dashboard viewers to change this (dynamic dashboard)** to enable a reader with appropriate user permissions to choose who they view the dashboard as. With the “View My Team’s Dashboards” user permission, the reader can view the dashboard as themselves or as anyone beneath them in the role hierarchy. With the “View All Data” user permission, the reader can view the dashboard as anyone.



Remember, when you specify whom people view the dashboard as, they see data as though they were that person. Make sure that you aren't revealing sensitive data to too broad an audience.

In Lightning Experience, you can now edit, clone, and delete dynamic dashboards that were created in Salesforce Classic.

SEE ALSO:

[Salesforce Help: Choose a Running User in Salesforce Classic](#)

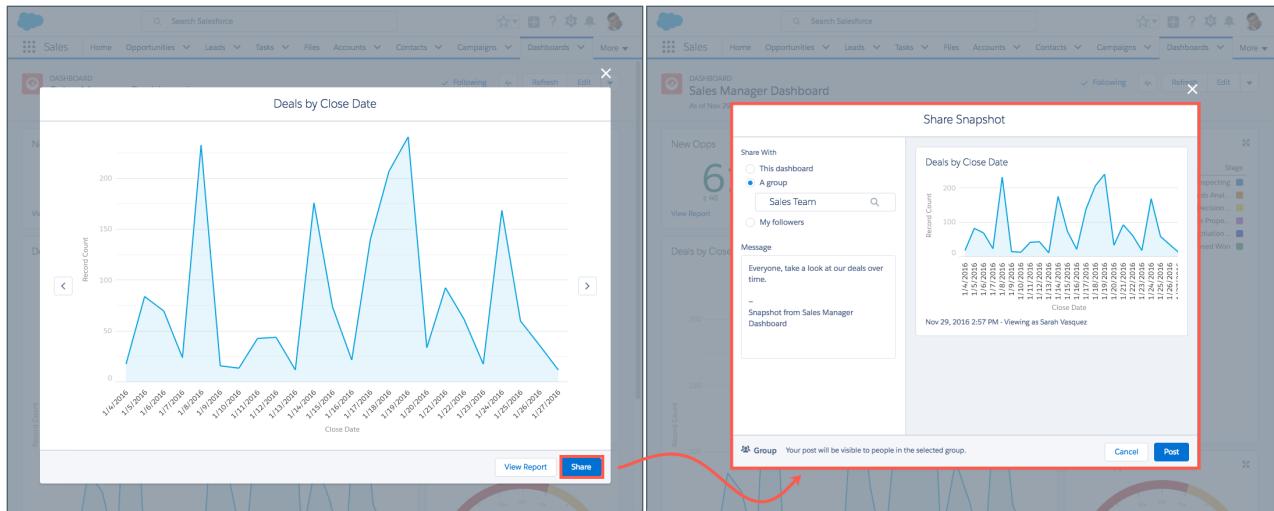
[Reports and Dashboards](#)

Share Dashboard Charts by Posting Them to Chatter in Lightning Experience

Start the conversation by sharing images of dashboard charts on Chatter. This feature is new in Lightning Experience.

After enabling feed tracking on dashboards, your users can post snapshots of dashboard charts on the dashboard's feed. Select **Enable Dashboard Component Snapshots** from the Reports and Dashboards Settings page in Setup to allow users to post charts to group feeds, or to their own Chatter feed. If you don't enable feed tracking, users can post charts to the dashboard's feed, ensuring that only people with access to the dashboard see the chart. Posting a chart to a person's or group's feed allows someone without access to the dashboard to see the chart.

After sharing the chart, mention people and groups by commenting on your post.



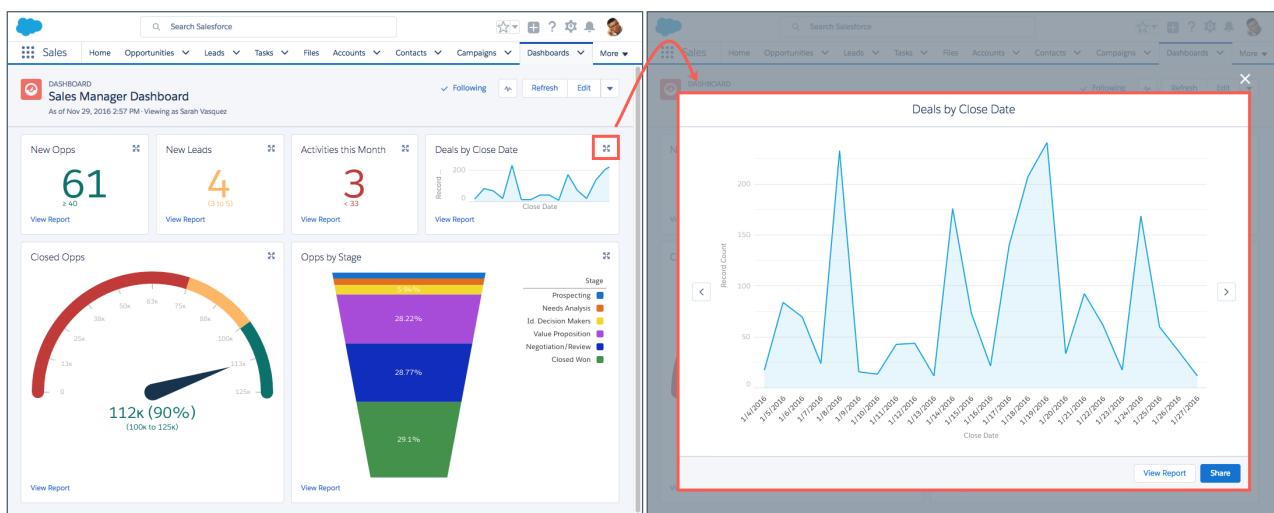
SEE ALSO:

[Salesforce Help: Feed Tracking](#)[Reports and Dashboards](#)

Expand Dashboard Components to Get the Big Picture in Lightning Experience

Open a dashboard component in a window so you can see all the details. This feature is new in Lightning Experience.

Click to see a larger version of the component.



SEE ALSO:

[Reports and Dashboards](#)

Follow Dashboards in Lightning Experience

Instead of regularly opening a dashboard to take note of changes, follow a dashboard to get updates in your Chatter feed. After you enable feed tracking on dashboards, your users can follow dashboards by opening one up and clicking **Follow**. This feature is new in Lightning Experience.

In Lightning Experience, users can't follow dashboard components. Users only see dashboard Feed activity (like posts) in their Lightning Experience feed.

To follow dashboard components, users must unfollow the dashboard in Lightning Experience, switch to Salesforce Classic, and then follow the dashboard in Salesforce Classic. When followed dashboard components cross a threshold (such as a breakpoint between segment ranges in a gauge chart), they alert followers by posting to their feeds.

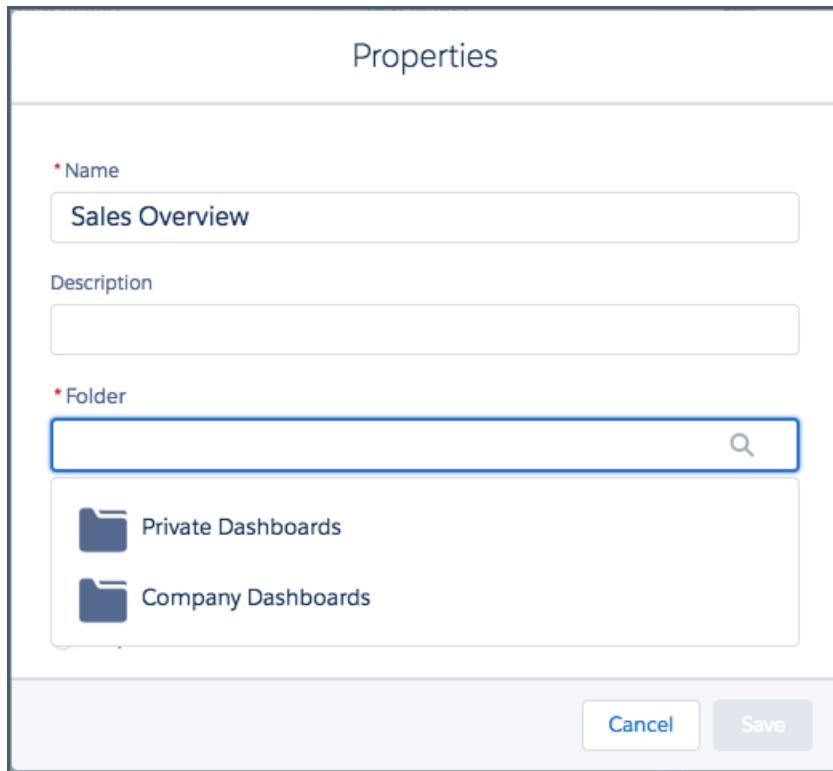
SEE ALSO:

[Salesforce Help: Feed Tracking](#)

[Reports and Dashboards](#)

Move Dashboards Between Folders in the Lightning Experience Dashboard Builder

If your org is using Enhanced Analytics Folder Sharing for Reports and Dashboards, folders govern who has access to the reports and dashboards saved inside. (If your org was created after the Summer '13 Salesforce release, you already have Enhanced Analytics Folder Sharing.) To move a dashboard from one folder to another, open the Properties menu in the Lightning Experience Dashboard Builder. This feature is new in Lightning Experience.

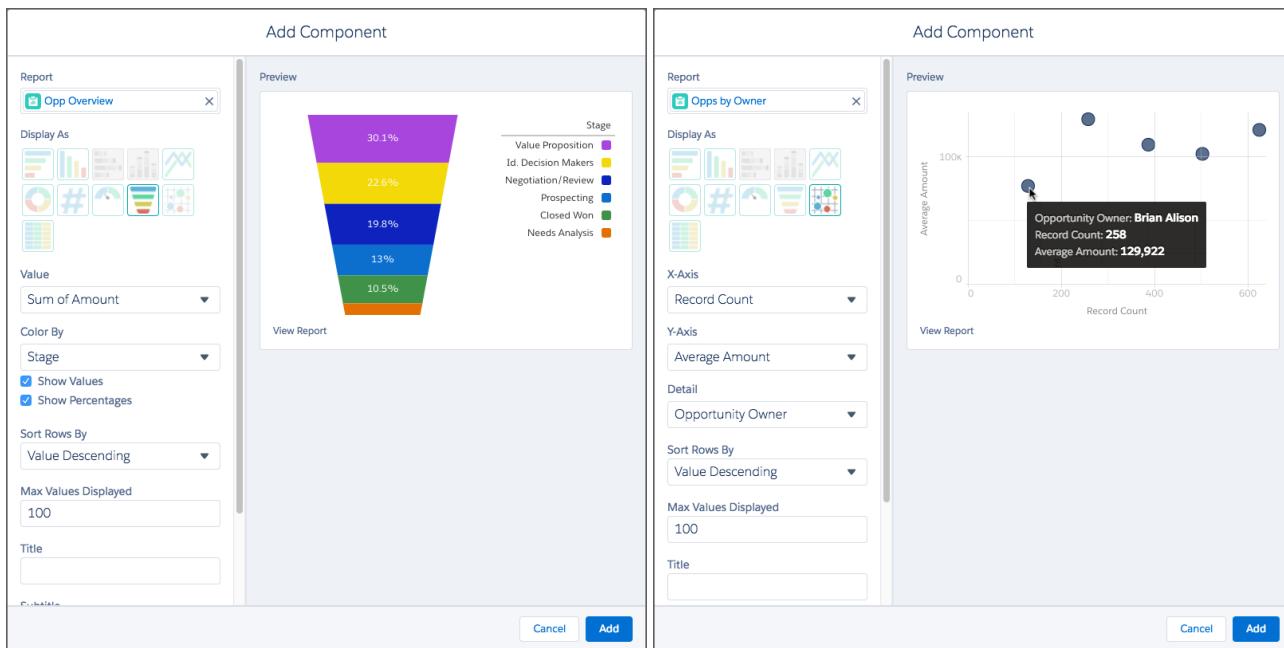
**SEE ALSO:**

[Salesforce Help: Turn On Enhanced Sharing for Reports and Dashboards](#)

[Reports and Dashboards](#)

Add Funnel and Scatter Charts to Lightning Experience Dashboards

We've made funnel and scatter charts available in the dashboard component editor. Add a funnel chart to show relative measured amounts by stage. For example, funnel charts are ideal for showing how opportunities move through stages. Add a scatter chart to display one or two groupings of report data plus summaries. Scatter charts are useful for identifying trends across large datasets. This feature is new in Lightning Experience.

**SEE ALSO:**

[Reports and Dashboards](#)

External Object Reports Have Fewer Limitations

We removed some previous limitations, hopefully before you even encountered them. The improvements affect reports that include external object relationships or use the cross-org adapter for Salesforce Connect. This change applies to both Lightning Experience and Salesforce Classic.

When you run reports that reference external objects via lookup, external lookup, and indirect lookup relationships, you no longer receive empty values for those relationship fields. Previously, reports returned empty values when external object relationship fields weren't Salesforce IDs or the name fields of parent objects.

With the cross-org adapter for Salesforce Connect, a report callout no longer fails if its URL exceeds 2 KB. A large callout is split into multiple HTTP calls, with each URL less than 2 KB. Report callouts for other Salesforce Connect adapters already behave this way.

SEE ALSO:

[Salesforce Help: Report Considerations for Salesforce Connect—All Adapters](#)

[Salesforce Help: External Object Relationships](#)

EDITIONS

Available in: **Developer** Edition

Available for an extra cost in: **Enterprise**, **Performance**, and **Unlimited** Editions

Other Enhancements to Reports and Dashboards in Lightning Experience

In addition to this release's major features, we've made some small-but-notable improvements to Reports and Dashboards. These changes apply to Lightning Experience only.

Dashboard Component Charts and Tables Display Up to 200 Groupings

Charts and tables in dashboard components display twice as many groupings as they did before. Previously, 100 groupings per component displayed. Now, see up to 200 groupings.

Sort Data in Dashboard Component Charts and Tables

Sort data by label or value ascending or descending.

Edit, Clone, and Delete Dynamic Dashboards in the Lightning Experience Dashboard Builder

In Lightning Experience, you can now edit, clone, and delete dynamic dashboards that were created in Salesforce Classic.

Lightning Experience Dashboard Filters Persist

Previously, if you set a dashboard filter and then closed the dashboard, the next time you opened the dashboard it would open unfiltered. Now, when you set a dashboard filter and then close the dashboard, the next time you open the dashboard it opens filtered.

Edit Dashboard Descriptions from the Properties Menu in the Lightning Experience Dashboard Builder

To edit a dashboard's description, edit the dashboard and then open the properties menu by clicking .

View Combo Charts That Include Line Charts

Previously, if a combo chart included a line chart, then there were some display differences between Salesforce Classic and Lightning Experience. In Lightning Experience:

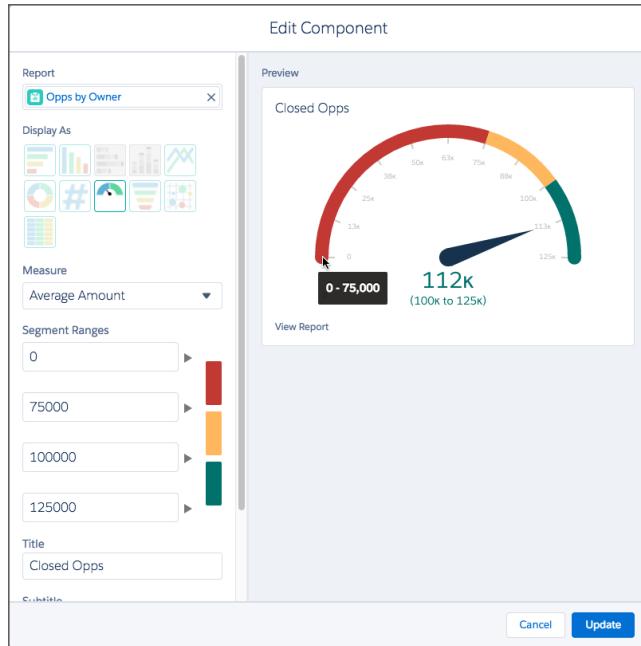
- Combination charts including both a stacked vertical bar chart and a line chart only showed the stacked vertical bar chart. The line chart wasn't drawn.
- Combination charts with two groupings and a line chart displayed differently in Lightning Experience than they did in Salesforce Classic. In Lightning Experience, the line chart depicted both groupings. In Salesforce Classic, the line chart depicted one grouping (the first one).
- A vertical combination chart with two groupings, two measures, and a line chart displayed as a bar chart in Lightning Experience. The bar chart displayed two groupings, but the measure depicted by the line chart wasn't shown.

Now, Lightning Experience displays combo charts that include line charts just like they appear in Salesforce Classic.

To add a combo chart to a dashboard, or to edit one, switch to Salesforce Classic.

Get More Info from Gauge Charts

Read gauge charts more easily thanks to a redesign which adds values to markers on your gauge charts. Hover over a gauge segment to get more info about it. Previously, gauge charts only included values at segment thresholds and segments didn't give additional information when hovered over.



SEE ALSO:

[Reports and Dashboards](#)

Wave Analytics: Easier, Personal Insights

Wave gets personal, with more of what you need to quickly get insights from your data. Data prep is your recipe for success for data integration. The new Wave home brings personalized analytics to you with pinned apps and notifications. Create custom navigation within apps, and annotate dashboards in presentation mode. Enjoy the many enhancements to creating Wave assets, like bubble charts, pivot tables, and connected datasets, plus new features for trend in Wave, like scheduling.

IN THIS SECTION:

[Wave: Bring Your Data into Wave](#)

Get your data into Wave, just the way you want it, with the data manager. Connect to your external sources with new connectors (pilot). Take advantage of full support for the latest version of extended metadata, plus better null handling for measures.

[Wave: Extend Wave Everywhere](#)

Personalize your Wave experience by pinning apps and tracking notifications on your own Analytics home page. Create custom navigation paths through Wave apps to let your team experience them the way you designed. Annotate and set notifications in dashboards while in presentation mode.

[Wave: Explore and Visualize](#)

Explore your data more easily with improved navigation and user experience, plus new functions, filters, and chart types.

[Wave: Design and Build](#)

Build dashboards more efficiently in Wave designer with connected datasets, more powerful filters, bulk actions, and pivot table support.

EDITIONS

Available for an extra cost in **Enterprise**, **Performance**, and **Unlimited** Editions. Also available in **Developer** Edition.

[Wave: Trend Data](#)

Schedule refreshes of your trended dashboards, and control impacts to data storage.

[Wave: Accelerate with Prebuilt Wave Apps](#)

Analytics keeps getting faster and easier with continual enhancements to Wave apps, including a smart configuration wizard that makes app creation more reliable and Wave Templates (Beta) that let you package your own apps for distribution.

[Wave: Go Places with Wave Mobile](#)

Take Wave with you with the latest version of the iOS or Android app.

[Wave: Develop on the Platform](#)

The Wave platform continues to grow with additional REST API support, new SAQL functions, and Wave Templates.

Wave: Bring Your Data into Wave

Get your data into Wave, just the way you want it, with the data manager. Connect to your external sources with new connectors (pilot). Take advantage of full support for the latest version of extended metadata, plus better null handling for measures.

IN THIS SECTION:

[Monitor, Replicate, and Prepare in the Data Manager](#)

The one-stop shop for all your dataset needs is now available for Wave Analytics in all orgs. What's more, it's now the permanent home of the data monitor. Monitor all your jobs and dataflows, view and edit your replications, and prepare your data with recipes. All in one place!

[Prepare Datasets with Recipes \(Generally Available\)](#)

Preparing data in Wave Analytics just got a whole lot easier. Dataset recipes are now generally available and come with a slew of new features. Take data in an existing dataset or replication and clean up or remove fields, and add fields from other datasets or replications. In addition, you can now filter rows, add calculations and bucket fields, and edit your recipe steps inline. When you run the recipe, you get a new dataset with just the data you need. And remember, still no JSON required!

[Get Better Results with Null Measure Handling](#)

Wave now supports null values in measures, instead of replacing nulls with zeros. Good news for all your calculated averages and minimum values! Learn more about how this feature works and what you need to consider before you turn it on.

[Extended Metadata Files on Dataset Edit Page Now Use XMD 2.0](#)

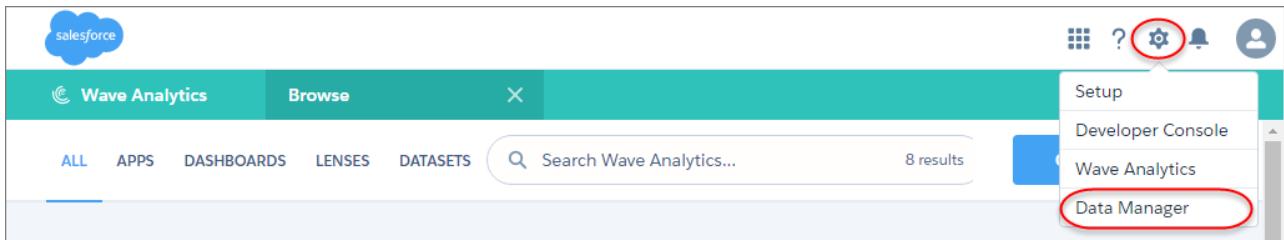
Extended metadata (XMD) files added through a dataset edit page now use XMD 2.0 syntax instead of XMD 1.1, and individual XMD files are now limited to 5 MB. Learn how this affects your existing XMD files, and what you need to do with new files that you upload.

Monitor, Replicate, and Prepare in the Data Manager

The one-stop shop for all your dataset needs is now available for Wave Analytics in all orgs. What's more, it's now the permanent home of the data monitor. Monitor all your jobs and dataflows, view and edit your replications, and prepare your data with recipes. All in one place!

The data manager was introduced in the Winter '17 release, but was only available when you enabled replication or used the data prep beta feature. Now it's available in all orgs.

Open the data manager in Wave from the gear icon. Notice that the data monitor is no longer available from this menu—it's now an integral part of the data manager.



The data manager opens on the Monitor tab, as this is likely the reason for most of your visits. Here you can track and manage all your jobs and dataflows, just as you did in the data monitor.

This screenshot shows the Data Manager interface with the 'Ingest' tab selected. The left sidebar has 'Monitor', 'Ingest' (selected), and 'Prepare' tabs. The main area is titled 'Ingest Data from Source' with the sub-instruction 'Replicate data from a source to use in dataset recipes and dataflows.' It shows a table for 'Source Data Replications' with a count of 4 objects. Buttons for 'Edit Replication Schedule' and 'Run Replication Now' are visible. The table columns are 'NAME', 'FIELDS', 'FILTER', 'INCREMENTAL', 'MODIFIED', and 'REFRESHED'. Two rows are shown: 'Opportunity' (13 fields, incremental, modified today at 12:18 PM, refreshed today at 10:38 AM) and 'Account' (7 fields, incremental, modified today at 10:36 AM, refreshed today at 10:38 AM).

Your replications now have their own space—on the new Ingest tab. If you have enabled replication in Wave, view and update replication settings here, and schedule and run your replications.

This screenshot shows the Data Manager interface with the 'Prepare' tab selected. The left sidebar has 'Monitor', 'Ingest', and 'Prepare' (selected) tabs. The main area is titled 'Ingest Data from Source' with the sub-instruction 'Replicate data from a source to use in dataset recipes and dataflows.' It shows a table for 'Source Data Replications' with a count of 4 objects. Buttons for 'Edit Replication Schedule' and 'Run Replication Now' are visible. The table columns are 'NAME', 'FIELDS', 'FILTER', 'INCREMENTAL', 'MODIFIED', and 'REFRESHED'. Two rows are shown: 'Opportunity' (13 fields, incremental, modified today at 12:18 PM, refreshed today at 10:38 AM) and 'Account' (7 fields, incremental, modified today at 10:36 AM, refreshed today at 10:38 AM).

Create and manage your dataset recipes on the Prepare tab, and get easy access to all the datasets available for preparation.

RECIPE NAME	RECIPE STATUS	RECIPE LAST SAVED	TARGET DATASET	TARGET DATASET STATUS
Leads with Geo Data	Saved	Today at 12:...	Leads with Geo Data	Not ...
Opportunities with Indu...	Push...	Today at 12:...	Opportunities with Indu...	Up to...

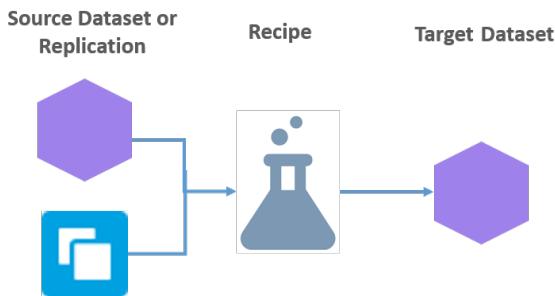
Prepare Datasets with Recipes (Generally Available)

Preparing data in Wave Analytics just got a whole lot easier. Dataset recipes are now generally available and come with a slew of new features. Take data in an existing dataset or replication and clean up or remove fields, and add fields from other datasets or replications. In addition, you can now filter rows, add calculations and bucket fields, and edit your recipe steps inline. When you run the recipe, you get a new dataset with just the data you need. And remember, still no JSON required!

Data preparation with recipes was introduced as a beta feature in the Winter '17 release, but is now generally available and already turned on for you in Wave.

What Is a Dataset Recipe?

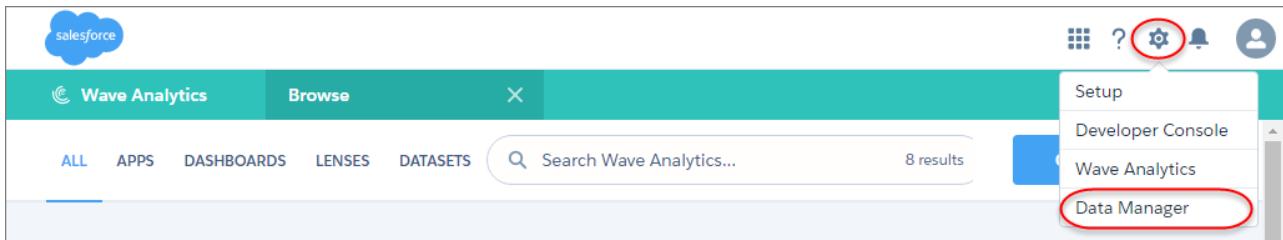
A dataset recipe is a saved set of transformations, or steps, to perform on a specific source dataset or replication. When you run a recipe, it applies the transformations and outputs the results to a new target dataset. You can schedule a recipe to run on a recurring basis to keep your target dataset up to date.



Use a recipe to combine data from different sources, and modify field values to ensure consistency in the new dataset you create. You can use the new dataset as a standalone dataset for exploration or dashboard creation, or in your dataflows or other recipes.

Create a Dataset Recipe

You create, run, schedule, and manage your recipes all in one place—the data manager.



Head to the Prepare area of the data manager, where you can access your existing recipes and datasets.

RECIPE NAME	RECIPE STATUS	RECIPE LAST SAVED	TARGET DATASET	TARGET DATASET STATUS
Leads with Geo Data	Saved	Today at 12...	Leads with Geo Data	Not ...
Opportunities with Indu...	Push...	Today at 12...	Opportunities with Indu...	Up to...

Go to any dataset or replication in the data manager to create a recipe for it, or click **Create Recipe** to select your source data and get started. All your data preparation takes place on a single dataset recipe page, so all the tools you need are close at hand.

The screenshot shows a dataset recipe named "Leads with Geodata". The left pane lists five steps:

- 1. LOOKUP FIELDS**: Looks up 6 fields from 'Zip Geodata' and merges keys: 'Zip', 'Zipcode'.
- 2. BUCKETED FIELD**: Buckets numbers into 3 ranges.
- 3. FILTER ROWS**: Filters on 1 fields with 1 criteria.
- 4. FIELD WITH REPLACED VALUES**: Finds & replaces in 'ZipCodeType' with 'STANDARD'. Replaces 'Residence'.
- 5. COMPUTED FIELD**: Rounds off Household values.

The right pane shows a preview of the data with columns: ZIP, Q. HOUSEHOLD, and HOUSEHOLD RANGEBUCKET. The preview table has 10 rows of data. A field navigator pane on the right lists fields like Household, ZIP, HOUSEHOLD, STATE, CITY, ZIPCODETYPE, and ZIPCODETYPE SEARCHREPLACE.

The recipe preview (1) gives you a real-time preview of your data as you prepare it. If you're feeling overwhelmed by too many fields or rows, click the above the preview to change what you see. As you work on your data, your changes appear as recipe steps in the left pane (2). When you can't find a field, use the field navigator in the right pane (3) to search for a field. If you see a field that you don't need in your preview, click the to hide it. You can toggle the field navigator on and off with the button at the top of the page.

Note: The recipe preview displays up to 100 fields. Modify the preview or hide fields to ensure that you can see just the fields you are preparing. When you create the dataset, you can select all the fields you want for the new dataset.

Prepare the Data

Your data preparation tools are all there for you at the top of the recipe page:



Let's say you have a US Leads dataset that you are preparing for use in a marketing dashboard. Here's what you can do.



Add fields from a lookup dataset or replication. Using a merge key field to match rows in your recipe with rows in your lookup, select the lookup fields you want to bring into your recipe.

For example, join a geodata dataset to your leads dataset using the zip code as a merge key.

ORIGIN DATASET Leads with Geo...		ZIP	LOOKUP DATASET Zip Geodata	12/12 Fields, 5000 Rows	ZIPCODE
A ZIP	HOUSEHOLD		A ZIPCODE	A CITY	
35064	5		00610	ANASCO	
36532	2		00611	ANGELES	
36533	4		00612	ARECIBO	
36533	1		00601	AGUADILLA	

Then select the geodata fields.

LOOKUP DATASET Zip Geodata		2 FIELDS SELECTED FOR LOOKUP		
A ZIPCODE	<input checked="" type="checkbox"/> A STATE	<input type="checkbox"/> DECOMMISSIONED	<input checked="" type="checkbox"/> A CITY	<input type="checkbox"/>
00610	PR	false	ANASCO	PRIM
00611	PR	false	ANGELES	PRIM

 **Note:** You can add fields from up to 10 datasets or replications. The lookup dataset preview can display up to 100 fields. Modify the preview or hide fields to ensure that you can see just the fields that you need. When you create the dataset, you can select all the lookup fields you want for the new dataset.



Filter the rows in your recipe.

For example, filter out leads that have a PO box zip code.

Filter Data Rows		
Include rows that meet ALL these conditions.		
Zip_Geo.ZipCodeType	Does Not Equal	PO BOX
		<input type="button" value="Filter Rows"/>



Add a field to bucket values from a specified dimension or measure field.

For example, add a field to categorize leads according to the number of people in the household.

Enter numeric ranges for new bucketed field

Range for "Household"

Range 1 < 3 Small

Add>>

Range 2 3 - 5 Medium

Add>>

Range 3 ≥ 5 Large



Add a formula field to calculate new values from measures in your recipe using arithmetic operators and math functions.

For example, calculate how the household size for each lead compares to the national average.

Define the formula for your new Formula Field

Formula Field Name
% of US Household Avg

Formula
`round(2.58/[Household]*100, 0)`



Transform values in a specified dimension field. You can change case, split values using a delimiter, truncate values, or replace values with new ones.

For example, change category values to match the values that marketing uses.

Find & Replace

Find STANDARD

Replace Residence

Apply

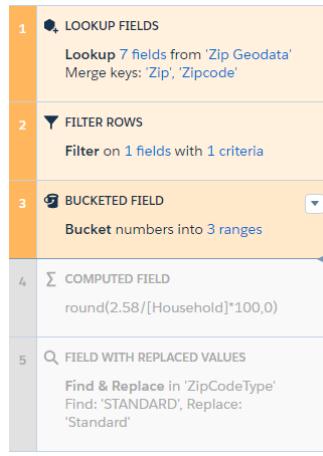
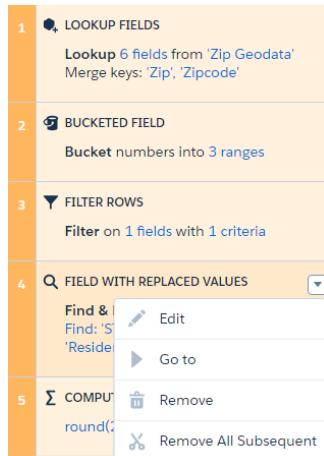
Navigate Your Changes

As you prepare your data, each change you make appears as a recipe step on the left. Don't worry if you don't get it right the first time. You can revisit each step to make changes.

Hover and click ▾ to see options.

Go to takes you back and forward to see your data at different steps.

Edit lets you make changes. Make changes to formula fields and transformations inline!



Note: A recipe can have up to 100 recipe steps.

Create the Dataset

You can save the recipe at any time to come back to it later. When the recipe is complete, click **Create Dataset**.

Note: A recipe run counts toward your limit of 24 dataflow runs per day. For example, in an org using the Sales Wave app, a user dataflow, and two recipes, there are four separate dataflows. If you schedule each one to run every six hours, you reach the daily limit. Consider this limit when you schedule a recipe.

Get Better Results with Null Measure Handling

Wave now supports null values in measures, instead of replacing nulls with zeros. Good news for all your calculated averages and minimum values! Learn more about how this feature works and what you need to consider before you turn it on.

Why Is Null Measure Handling Important?

When you create or update a dataset, through your dataflow or a CSV upload for example, any blank measure values in your data need to be replaced with concrete values. Wave uses the default values specified in your dataflow or CSV metadata file to replace blank values. Previously, this default had to be a numeric value, usually 0, and when no default value was set, Wave used 0.

However, replacing blank values with zeros can be problematic for a number of reasons. Consider this example of data with customer satisfaction scores, where some customers have not responded.

Source Data

Customer	CSAT
Customer 1	3
Customer 2	
Customer 3	4
Customer 4	
Customer 5	5
Average CSAT	4
Min CSAT	3

Dataset with Zeros for Blanks

Customer	CSAT
Customer 1	3
Customer 2	0
Customer 3	4
Customer 4	0
Customer 5	5
Average CSAT	2.4
Min CSAT	0

Calculated values such as average and minimum are correct in the source data, but when blank values are replaced with zeros when the dataset is created, the resulting calculations are incorrect. Here the zeros are included in the calculation.

Enabling null measure handling lets you specify defaults using the special “null” value in your dataflows and CSV metadata files. When no default value is specified, Wave replaces blanks with null values. When you create the customer CSAT dataset using null measures, the average and minimum calculations are correct.

Source Data

Customer	CSAT
Customer 1	3
Customer 2	
Customer 3	4
Customer 4	
Customer 5	5
Average CSAT	4
Min CSAT	3

Dataset with Nulls for Blanks

Customer	CSAT
Customer 1	3
Customer 2	null
Customer 3	4
Customer 4	null
Customer 5	5
Average CSAT	4
Min CSAT	3

Enable Null Measure Handling

Null measure handling is enabled in orgs created after the Spring '17 release and cannot be disabled.

When you enable null measure handling in an existing org, you must take additional steps to ensure that the upgrade goes smoothly. If you choose to enable the feature, you can't disable it. For this reason, first contact Salesforce Customer Support to evaluate your org.

Additional steps are necessary in existing orgs because null measure handling can't retroactively change zeros to nulls, if those zeros have previously replaced blank values. This behavior can result in datasets containing a mixture of zeros coming explicitly from the source data, zeros replacing blank values, and nulls. Aggregate calculations in such datasets continue to be incorrect.

Let's look at example opportunity data extracted incrementally before null measure handling is enabled. Again, aggregate calculations are not accurate.

Source Data

Opportunity	Amount
Opportunity 1	10,000.00
Opportunity 2	
Opportunity 3	30,000.00
Opportunity 4	0.00
Opportunity 5	40,000.00
Average Amt	20000

Dataset with Zeros for Blanks, Null Measure Handling Is OFF

Opportunity	Amount
Opportunity 1	10,000.00
Opportunity 2	0.00
Opportunity 3	30,000.00
Opportunity 4	0.00
Opportunity 5	40,000.00
Average Amt	16000

If you enable null measure handling and run an incremental extract that includes a new opportunity with a blank amount, the blank is now replaced with a null. However, aggregate calculations are still not accurate because of the mixture of zero replacements and nulls.

Source Data

Opportunity	Amount
Opportunity 1	10,000.00
Opportunity 2	
Opportunity 3	30,000.00
Opportunity 4	0.00
Opportunity 5	40,000.00
New Opportunity	
Average Amt	20000.000

Dataset with Zeros and Nulls for Blanks, Null Measure Handling Is ON

Opportunity	Amount
Opportunity 1	10,000.00
Opportunity 2	0.00
Opportunity 3	30,000.00
Opportunity 4	0.00
Opportunity 5	40,000.00
New Opportunity	null
Average Amt	16000.000

For this reason, it is important to take these steps, after enabling null measure handling.

1. Update your existing dataflow definition files to use null instead of 0 in `defaultValue` attributes for measure fields.
2. Create new instances of long-lived datasets used as a source for dataflows, using a `defaultValue` of null for measure fields. Long-lived datasets are typically reference datasets that are not updated through a dataflow and used to augment data in other datasets. For example, you might use a geolocation dataset to augment lead information based on zip codes.
3. If you have incrementally built datasets in which the source data is no longer available, use a custom dataflow to manually convert 0 values to null. Incrementally built datasets are datasets that are created over time by appending rows, such as logs.

In addition, reimplement `delta` transformations in your dataflows using the `computeRelative` transformation. The `delta` transformation is not supported when null measure handling is enabled, and dataflows containing `delta` transformations fail.

! **Important:** If you are considering enabling null measure handling, read [Enable Null Measure Handling](#) for more information about the steps to take.

When Salesforce makes null measure handling available in your org, you can enable it from Setup. Enter `Wave Analytics` in the Quick Find box, then click **Settings**. Select **Enable null measure handling in Wave Analytics**, and then click **Save**.

How Null Measure Handling Changes the Behavior of Dataflow Transformations

When you enable null measure handling, your existing dataflows and CSV uploads continue to work. However, consider these behavior changes.

append	Wave can append datasets with different measure fields. For example, if one dataset has an Amount field that is not present in a second dataset, the new dataset created after the append has an Amount field containing nulls in rows from the second dataset. Without null measure handling, appending datasets is not possible when measure fields are different.
augment	When the key in the left dataset is null or has no match in the right dataset, Wave appends columns from the right dataset and inserts nulls for dimensions and measures. Without null measure handling, Wave inserts zeros for measures.
computeExpression	The <code>defaultValue</code> attribute for a computed field accepts a value of null. For example:
computeRelative	The <code>defaultValue</code> attribute for a computed field accepts a value of null. When a value can't be calculated, such as when <code>previous()</code> or <code>next()</code> has no value, Wave uses this default. For example:

```
"SAQLNode": {
    "action": "computeExpression",
    "parameters": {
        "source": "extractOpp",
        "mergeWithSource": true,
        "computedFields": [
            {
                "name": "Amount2",
                "type": "Numeric",
                "precision": 18,
                "defaultValue": "null",
                "scale": 5,
                "saqlExpression": "Amount+Amount"
            }
        ]
    }
}
```

```
"computeTrending": {
    "action": "computeRelative",
    "parameters": {
        "partitionBy": ["OpportunityId"],
        "orderBy": [
            {
                "name": "CreatedDate",
                "direction": "asc"
            }
        ],
        "computedFields": [
            {
                "name": "AmountPrev",
                "defaultValue": "null",
                "expression": {
                    "sourceField": "Amount",
                    "offset": "previous()", 
                    "default": "null"
                }
            }
        ]
    }
}
```

delta	This transformation is not supported when null measure handling is enabled and dataflows containing delta transformations fail. Reimplement delta transformations in your dataflows using the <code>computeRelative</code> transformation (see Enable Null Measure Handling).
dim2mea	The <code>measureDefault</code> parameter accepts a value of null. Wave uses this value when it can't convert a dimension to a valid numeric value. When no default is specified, Wave uses a value of null. For example:
	<pre>"Create_Measure_From_Dimension": { "action": "dim2mea", "parameters": { "dimension": "StageVal__c", "measure": "StageValue", "measureDefault": "null", "source": "Extract_Opportunities" } }</pre>
sfdcDigest	The <code>defaultValue</code> attribute for a field accepts a value of null. When no default is specified, wave uses a value of null. For example:
	<pre>Sample Sfdc-digest :{ "Extract_Opportunities": { "action": "sfdcDigest", "parameters": { "object": "Opportunity", "fields": [{ "name": "Amount", "defaultValue": "null", "precision":18 "scale":2 }] } } }</pre>
Update	Wave can update non-null values with nulls.

Extended Metadata Files on Dataset Edit Page Now Use XMD 2.0

Extended metadata (XMD) files added through a dataset edit page now use XMD 2.0 syntax instead of XMD 1.1, and individual XMD files are now limited to 5 MB. Learn how this affects your existing XMD files, and what you need to do with new files that you upload.

XMD 2.0 uses the same parameters as XMD 1.1, but it has a different structure where each field has a block of parameters. In addition, some of these parameters have been renamed, and new parameters have been introduced.

Wave converts existing XMD files added through a dataset edit page to the new syntax. If it can't convert a file, you see an error message when you open the dataset edit page.

Whenever you upload a new XMD file, Wave validates the syntax and file size, returning an error if either are invalid.

We recommend that you update all your dataset XMD files to use the new XMD 2.0 syntax, using these steps.

1. Download the file from the dataset edit page and create a copy as a backup.
2. Convert the file syntax to XMD 2.0.
3. Upload the converted file in the dataset edit page, and check for errors.

Read Update a Dataset's Extended Metadata for help with these steps.

Wave: Extend Wave Everywhere

Personalize your Wave experience by pinning apps and tracking notifications on your own Analytics home page. Create custom navigation paths through Wave apps to let your team experience them the way you designed. Annotate and set notifications in dashboards while in presentation mode.

IN THIS SECTION:

[Customize Your Personal Analytics Home Page](#)

Welcome to your personal Analytics home! The new home page gives you the power to focus a spotlight directly on the analytics relevant for you. Pin the apps you use most, and track the progress of notifications that you've set.

[Create Interactive Wave Apps for Your Customers](#)

Wave apps are now the place to run Wave. Generate a custom navigation within each app to expose the right dashboards to the right users.

[Elevate Productivity During Presentations with Annotations and Notifications](#)

The new Wave app presentations provide Wave's interactive and collaborative features.

[Seamlessly Integrate Wave into Salesforce with Wave Tabs](#)

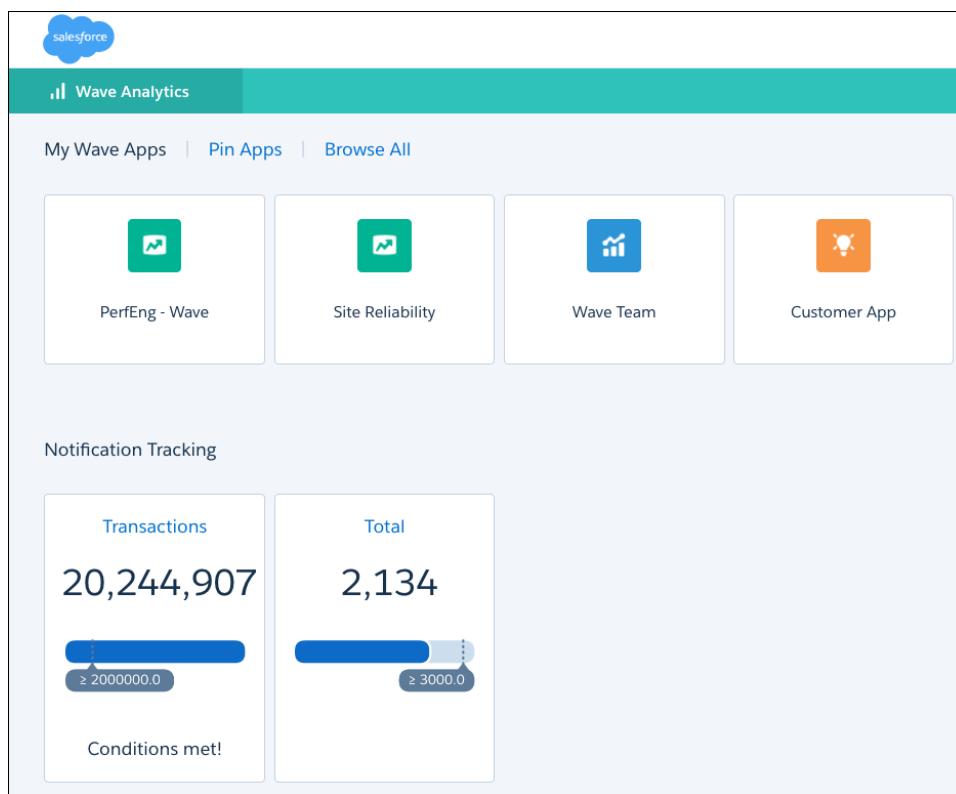
Now you can access your personal Analytics home and run Wave apps from a tab within Salesforce.

[Embed Wave in Any Web Page or Web-Based App](#)

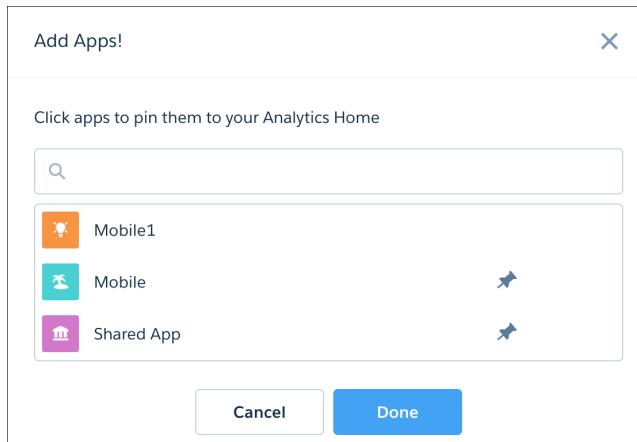
By specifying your trusted sites in the new Wave Analytics whitelist, you can include embedded Wave dashboards in websites and apps outside of Salesforce servers.

Customize Your Personal Analytics Home Page

Welcome to your personal Analytics home! The new home page gives you the power to focus a spotlight directly on the analytics relevant for you. Pin the apps you use most, and track the progress of notifications that you've set.



The first time that you click the new Wave Analytics tab, you're prompted to pin your favorite Wave apps. Click **Pin Apps** to select the apps that you want to access regularly. Apps appear on your Wave Analytics home in the order that you pinned them.



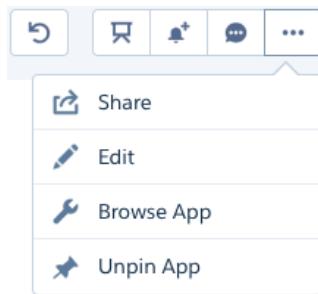
The lower part of the home page tracks the progress on the notifications that you've set. Notifications are created on number widgets in your dashboards. All your active notifications appear on your Analytics home page.

To view the organized lists of assets that you're familiar with from the previous version of Wave, click **Browse All**.

Create Interactive Wave Apps for Your Customers

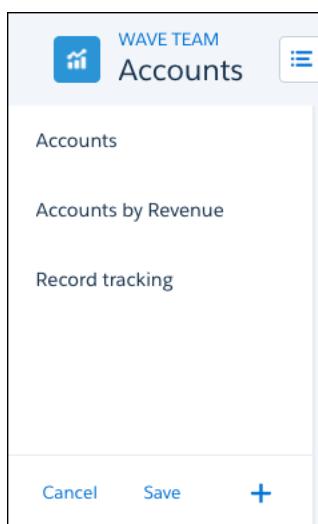
Wave apps are now the place to run Wave. Generate a custom navigation within each app to expose the right dashboards to the right users.

Clicking an app opens it in presentation mode, displaying the first dashboard on your navigation list. To view the contents of the app, select **Browse App** from the menu.



To open the navigation panel, click the navigation icon (≡). The panel lists the available dashboards. Click a dashboard to start it.

If you're the manager of an app, click **Organize** to set up the app. You can change the presentation order by sliding dashboards up or down, and click dashboard names to hide or show them.



Click the plus sign to add dashboards from the browse view of the app. Click **Save** to retain the navigation for your app, and then share the app with your customers.

Elevate Productivity During Presentations with Annotations and Notifications

The new Wave app presentations provide Wave's interactive and collaborative features.

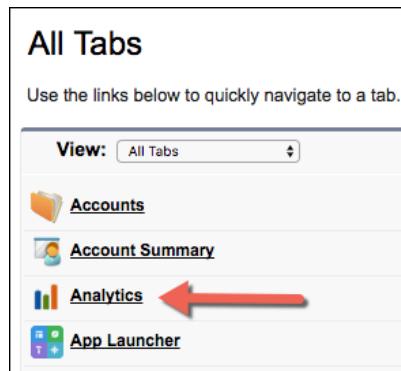


You can share, download, access the dashboard designer, set notifications, and collaborate in a dashboard's feed with annotations. In addition, presentations no longer use hidden dropdown controls. The controls and navigation are always available.

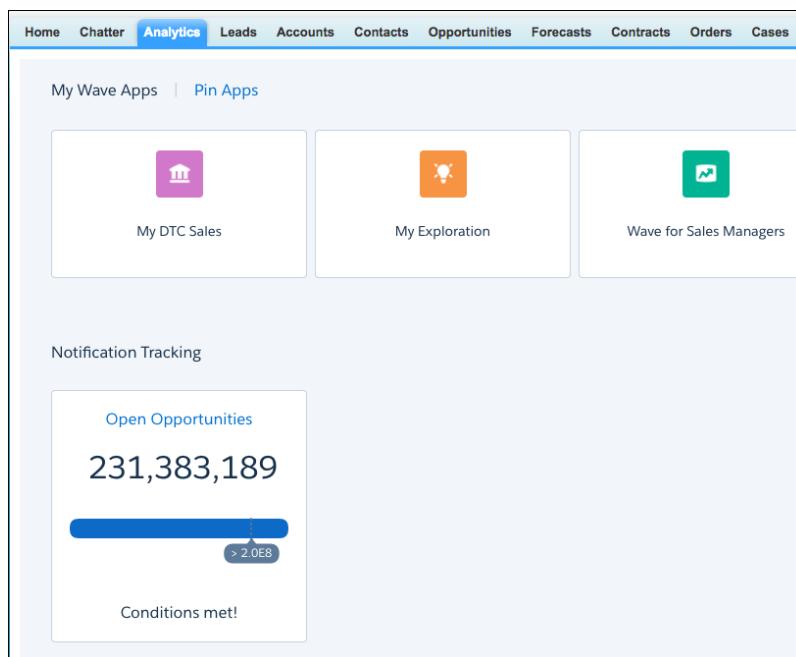
Seamlessly Integrate Wave into Salesforce with Wave Tabs

Now you can access your personal Analytics home and run Wave apps from a tab within Salesforce.

The Analytics tab is available in new Wave-enabled orgs.



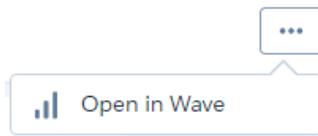
In existing orgs, set up the Analytics tab as you would any new tab.



Wave in the Analytics tab can include these Wave features:

- Annotations, notifications, and full-screen presentation
- Sharing and downloading options
- Links to other Wave assets
- Record actions menu

- Link to native Wave (available for Wave users but not Community users)



Embed Wave in Any Web Page or Web-Based App

By specifying your trusted sites in the new Wave Analytics whitelist, you can include embedded Wave dashboards in websites and apps outside of Salesforce servers.

First, add a Wave dashboard component to your site, using [Visualforce embedding](#), [Lightning App Builder](#), or Lightning Out. This code sample shows how to add a Wave dashboard component via Lightning Out.

```
$Lightning.use("wave:waveApp", function() {
    $Lightning.createComponent("wave:waveDashboard", {
        dashboardId: "0FKxx00000006bOGAQ"
    }, "app");
}, url, accessToken)
```

Second, set up a whitelist using the Content Security Policy (CSP). From Setup, enter *Whitelist* in the Quick Find box, and then select **Whitelist** under Wave Analytics.

Site Name	Site URL	Active	Created By	Created Date	Last Modified By	Last Modified Date
No records to display.						

Click **New** and enter the information for your site.

The whitelist for embedded Wave includes the following by default:

- *.salesforce.com:*
- *.force.com:*
- Your org's custom domain.

Wave: Explore and Visualize

Explore your data more easily with improved navigation and user experience, plus new functions, filters, and chart types.

IN THIS SECTION:

[Enhanced Compare Table Navigation](#)

Quickly and easily create new columns and navigate between existing ones using clicks or keystrokes.

[Improved Pivot and Values Tables](#)

The values and pivot tables now allow you to copy values directly from cells. The values table also supports column-based sorting and has a summary row.

[Explore New Filters and Functions](#)

Two new filter conditions allow you to include or exclude nulls from range-based measures. And a whole new group of SAQL functions has joined the party to expand your aggregation choices.

[Broaden Your Visualization Horizons with New Wave Charts](#)

Use radars, trees, and bubbles to visualize your business. These new charts, along with other new types such as matrix and multi-metric timeline charts, add to your options for visualizing any kind of data.

[Enhanced Wave Charts](#)

From predictive lines to scaled axes, customizable label sizes to better handling of null values, Wave charts continue to expand the boundaries of utility and flexibility.

Enhanced Compare Table Navigation

Quickly and easily create new columns and navigate between existing ones using clicks or keystrokes.

You can navigate columns in the column editor using arrow buttons or your keyboard's left and right arrow keys.

The screenshot shows a compare table with columns A, B, and C. To the right of the table is a column editor for column B, titled "EDITING COLUMN B". The editor includes fields for "Name" (with placeholder "Enter a column name..."), "Calculation" (with tabs for "Formula" and "f(x)"), and "Format" (set to "Number (1,234)"). Below these are "Close" and "Apply" buttons. The table data includes rows for various products like "12-1/2 Diameter Round Wall Clock" and "Aluminum Document Frame".

		A	B	C
PRODUCT_CATEGORY	PRODUCT_NAME	COUNT OF ROWS	SUM OF PROFIT	PROFIT (LOSS) PER SALE
Furniture	12-1/2 Diameter Round Wall Clock	12	2,687.3685	\$223.95
	36X48 HARDFLOOR CHAIMAT	2	-813.262	-\$406.63
	3M Hangers With Command Adhesive	4	45.7125	\$11.43
	3M Polarizing Light Filter Sleeves	5	626.0546	\$125.21
	3M Polarizing Task Lamp with Clamp Ar...	10	5,100.9404	\$510.09
	6" Cubicle Wall Clock, Black	5	-325.1779	-\$65.04
	9-3/4 Diameter Round Wall Clock	7	-173.5256	-\$24.79
	Advantus Employee of the Month Certifi...	7	468.4434	\$66.92
	Advantus Panel Wall Acrylic Frame	2	4,903.3071	\$2,451.65
	Advantus Panel Wall Certificate Holder - ...	5	-45.0217	-\$9
	Aluminum Document Frame	15	-442.7878	-\$29.52

When you reach the right-most column, the right arrow button becomes an add-column button. You can click the add-column button or use your keyboard's Enter key to add a new formula column.

The screenshot shows the same compare table and column editor for column C. The editor now has "Name" set to "Profit (Loss) Per Sale", "Calculation" set to "B/A", and "Format" set to "Currency with Cents (\$1,234.56)". The "Apply" button is visible at the bottom of the editor.

		A	B	C
PRODUCT_CATEGORY	PRODUCT_NAME	COUNT OF ROWS	SUM OF PROFIT	PROFIT (LOSS) PER SALE
Furniture	12-1/2 Diameter Round Wall Clock	12	2,687.3685	\$223.95
	36X48 HARDFLOOR CHAIMAT	2	-813.262	-\$406.63
	3M Hangers With Command Adhesive	4	45.7125	\$11.43
	3M Polarizing Light Filter Sleeves	5	626.0546	\$125.21
	3M Polarizing Task Lamp with Clamp Ar...	10	5,100.9404	\$510.09
	6" Cubicle Wall Clock, Black	5	-325.1779	-\$65.04
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	Advantus Panel Wall Certificate Holder - ...	5	-45.0217	-\$9
	Aluminum Document Frame	15	-442.7878	-\$29.52

You can also add columns directly from the compare table using the new add-column menu.

cells (formula)		Group	Subgroup	Profit (Loss) Per Sale by Product_Category and Product_Name		+ Group	≡	✖	☰
PRODUCT_CATEGORY	PRODUCT_NAME			COUNT OF ROWS	SUM OF PROFIT	PROFIT (LOSS) PER SALE			
Furniture	12-1/2 Diameter Round Wall Clock			12	2,687.3685	\$223.95		Add Column	Add Formula Column
	36X48 HARDFLOOR CHAIMAT			2	-813.262	-\$406.63			
	3M Hangers With Command Adhesive			4	45.7125	\$11.43			
	3M Polarizing Light Filter Sleeves			5	626.0546	\$125.21			
	3M Polarizing Task Lamp with Clamp Ar...			10	5,100.9404	\$510.09			
	6" Cubicle Wall Clock, Black			5	-325.1779	-\$65.04			
	9-3/4 Diameter Round Wall Clock			7	-173.5256	-\$24.79			
	Advantus Employee of the Month Certifi...			7	468.4434	\$66.92			
	Advantus Panel Wall Acrylic Frame			2	4,903.3071	\$2,451.65			
	Advantus Panel Wall Certificate Holder - ...			5	-45.0217	-\$9			

Choose **Add Formula Column** to add a column and open the column editor.

Use the new **Close** button to exit the column editor without applying changes to the column.

Improved Pivot and Values Tables

The values and pivot tables now allow you to copy values directly from cells. The values table also supports column-based sorting and has a summary row.

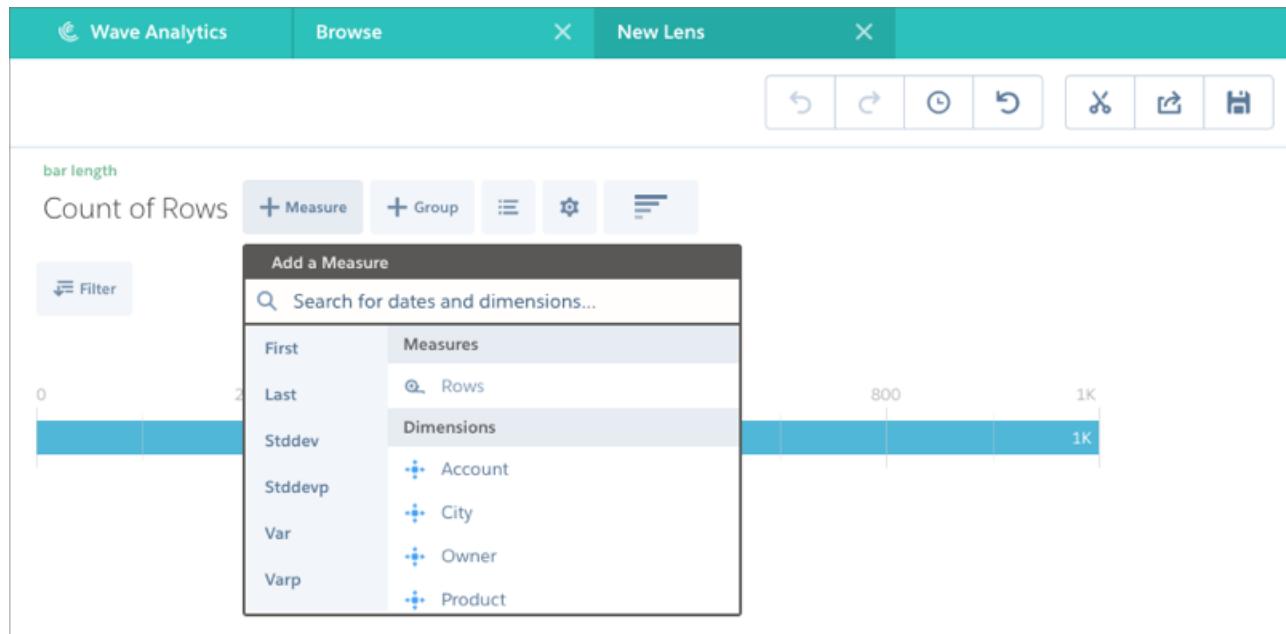
rows		columns		Raw Data Description, Challenger, PenaltyType, YardLineDirection, OffenseTeam, IsTwoPoint...															
#	Description	CHALLENGER	PENALTYPY	YARDLINEDIRECTION	OFFENSETEAM	IS TWO POINT CONVERSION SUCCESSFUL	QUARTER	ISNOPLAY	T	YARDLINE	YARDLINE2	YARDLINE3	YARDLINE4	YARDLINE5	YARDLINE6	YARDLINE7	YARDLINE8	YARDLINE9	YARDLINE10
Summary	-	-	-	-	-	45	119,507	2,627	1										
1	7-C.CATANZARO EXTRA POINT IS GOOD...	-	DEFENSIVE OFFSIDE	OPP	ARI	0	2	0	1										
2	7-C.CATANZARO KICKS 60 YARDS FROM...	-	-	OWN	ARI	0	2	0	2										
3	(11:47) 23-C.JOHNSON LEFT TACKLE TO...	-	-	OPP	ARI	0	4	0	3										
4	(1:45) 3-C.PALMER PASS SHORT LEFT TO...	-	-	OPP	ARI	0	1	0	2										
5	(4:13) 23-C.JOHNSON RIGHT TACKLE T...	-	-	OWN	ARI	0	3	0	3										
6	(3:31) 23-C.JOHNSON UP THE MIDDLE ...	-	-	OWN	ARI	0	3	0	3										
7	(9:12) (SHOTGUN) 3-C.PALMER PASS SH...	-	-	OWN	ARI	0	3	0	3										

Explore New Filters and Functions

Two new filter conditions allow you to include or exclude nulls from range-based measures. And a whole new group of SAQL functions has joined the party to expand your aggregation choices.

Two new filter conditions allow you to include or exclude nulls from range-based measures. Use **IsNull** to return all nulls in a specified range. Use **IsNotNull** to exclude all nulls from results in a specified range.

New SAQL aggregate functions give you more ways to aggregate measures: **first()**, **last()**, **median()**, **stddev()** (standard deviation), **stddevp()** (population standard deviation), **var()** (variance), **varp()** (population variance).



And if you use the Wave dashboard designer's query builder to create steps, the new roomier version gives you a better view of the charts or tables you create.

Broaden Your Visualization Horizons with New Wave Charts

Use radars, trees, and bubbles to visualize your business. These new charts, along with other new types such as matrix and multi-metric timeline charts, add to your options for visualizing any kind of data.

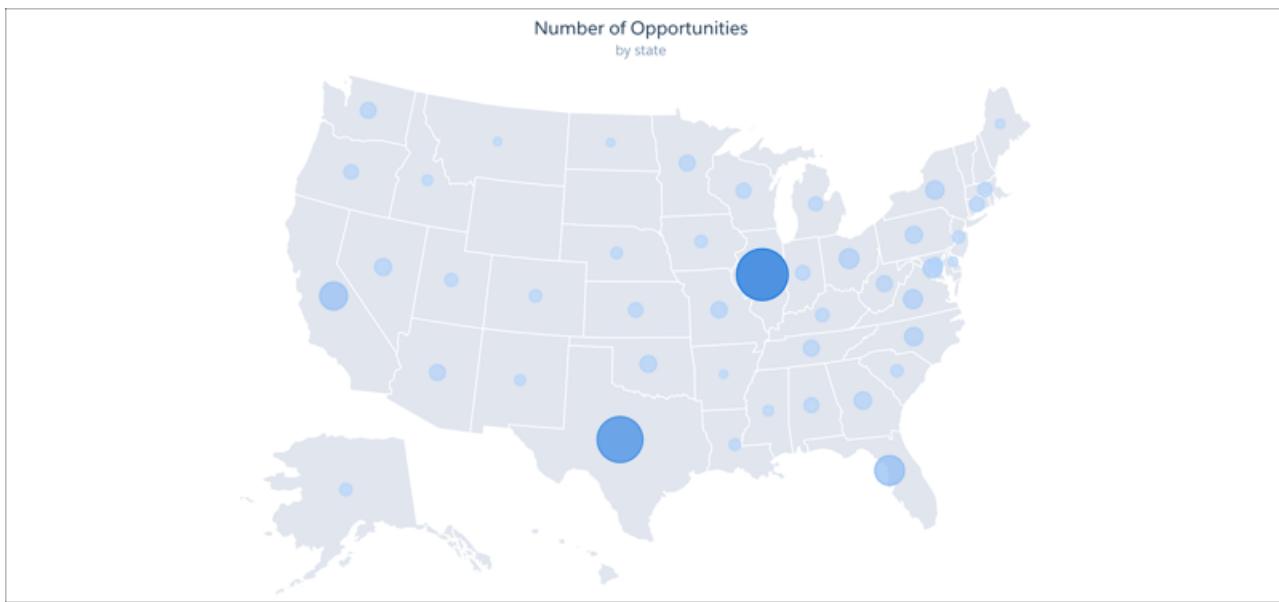
Use radar charts to display a small dataset with one dimension and at least three measure columns. For example, compare the year's quarterly numbers for contracts signed, total contract amount, and average contract amount.



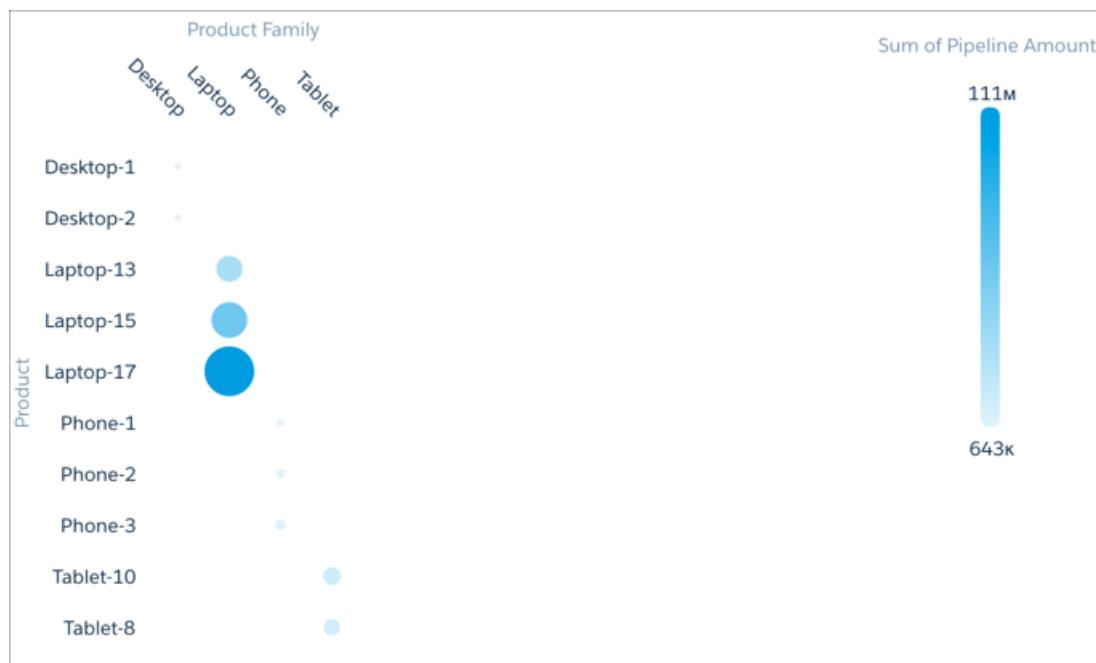
Use tree maps to visualize hierarchical quantitative data, where containing rectangles designate relationship with color, and "leaf" rectangles represent quantity using area. For example, you can show the number of opportunities by city in each state.



Like map charts, bubble maps use visual cues to indicate measure values in specified geographical areas. For example, you can show the relative number of opportunities in each state.



Use matrix charts (new to Wave dashboard designer) to create a table that represents measures visually, allowing you to quickly spot extreme values. For example, show which product families are generating the most opportunities.



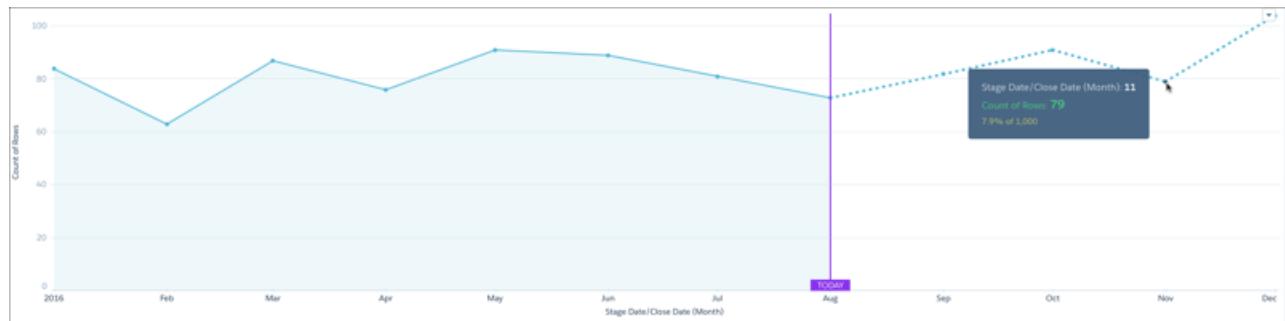
With multi-metric timeline charts, you can simultaneously compare multiple measures over time, all with one visualization. For example, you can plot monthly closed opportunities along with total contract value.



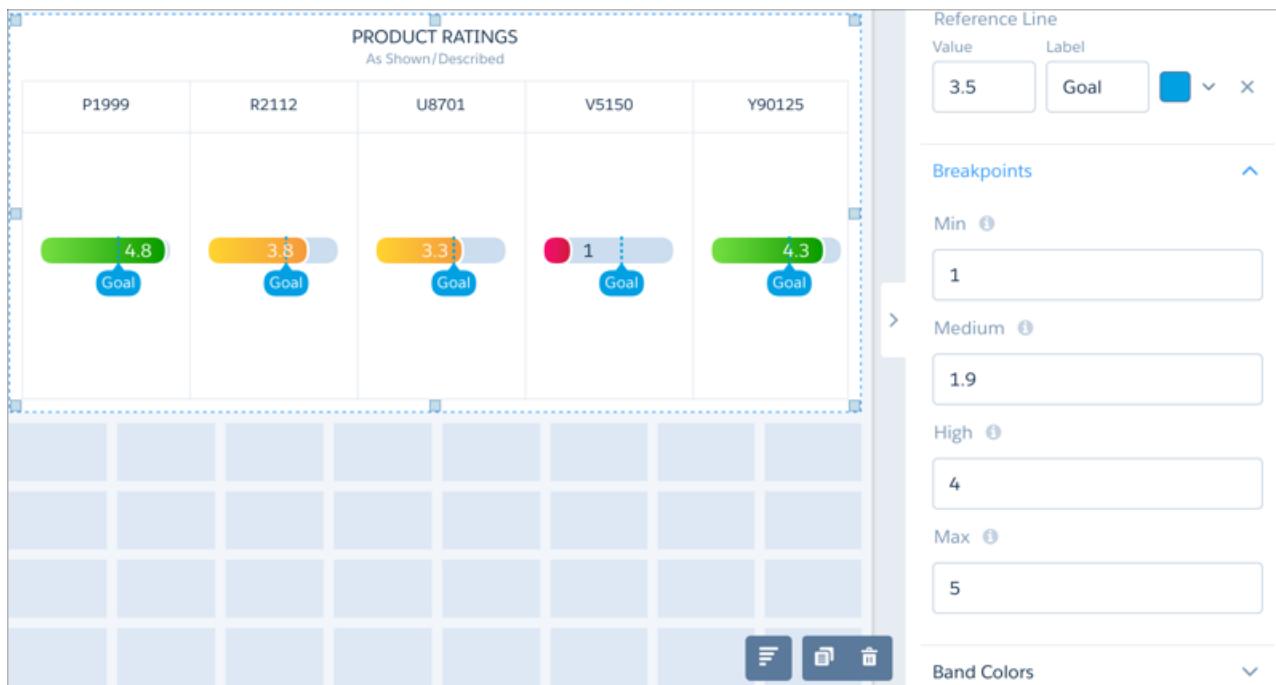
Enhanced Wave Charts

From predictive lines to scaled axes, customizable label sizes to better handling of null values, Wave charts continue to expand the boundaries of utility and flexibility.

Need to drive home the point that your data is looking into the future? Look no further than adding a predictive line to your timeline chart. You set the date at which the timeline leaves existing data behind and uses predicted data to chart its course.



Speaking of the future, you can now set goals on flat gauges using reference lines.



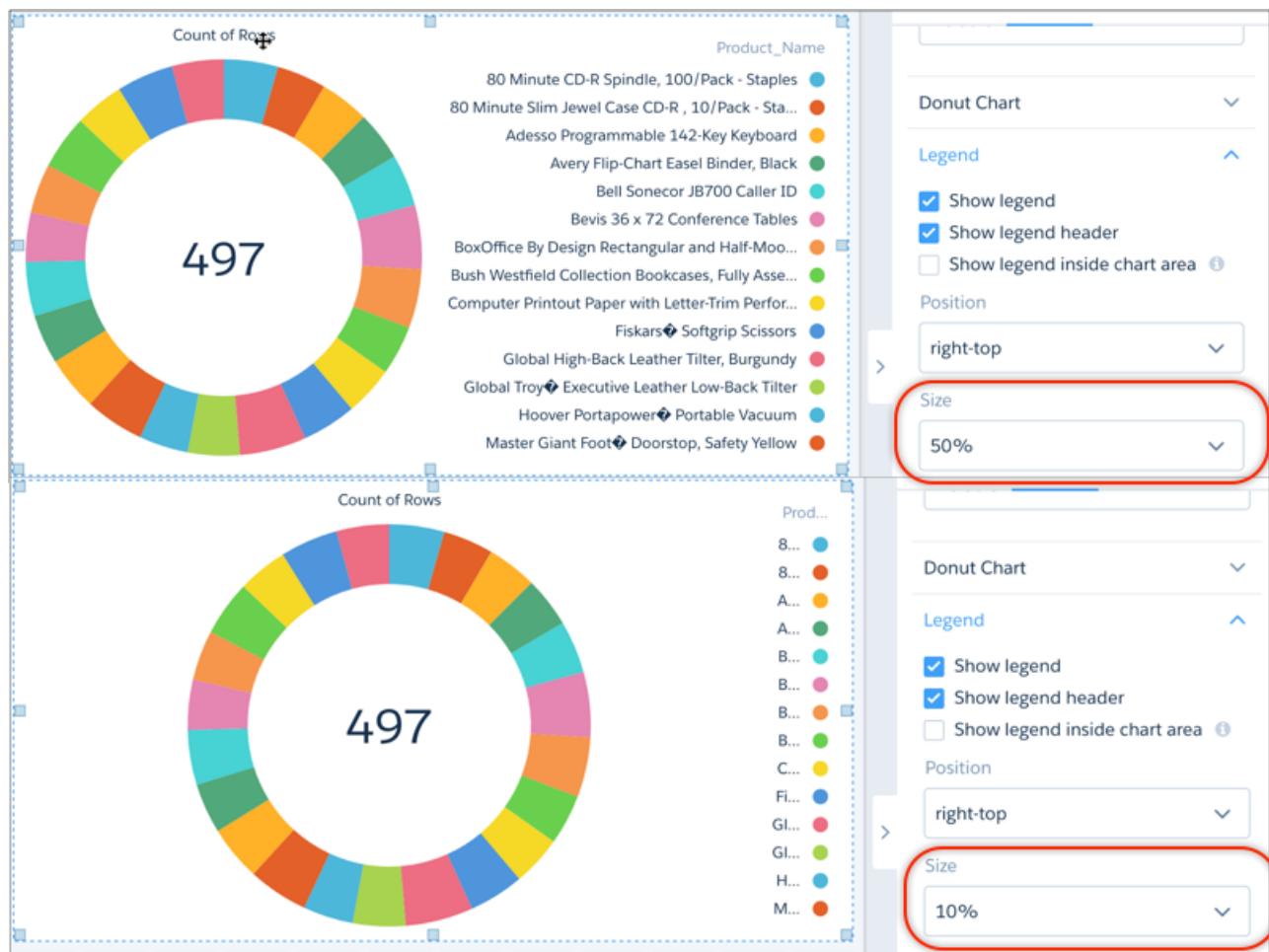
Improving the readability of your charts is even easier with custom label spacing and a log-style scale for vertical axes. Your finished chart could start out being a bit difficult to read:



But with some help from log-like scaling, it can become a star performer:



Control the size of legend text in charts to make it more readable, or keep it out of the way, with the legend sizing menu.



Other improvements include allowing screen readers to read all data points in a chart and indicating nulls with hyphens.

Wave: Design and Build

Build dashboards more efficiently in Wave designer with connected datasets, more powerful filters, bulk actions, and pivot table support.

IN THIS SECTION:

[Build Dashboards Faster with Widget Cloning and Step Replacement](#)

Clone widgets to create similar looking components in a Wave dashboard. For example, quickly create three number widgets and swap out their steps to show total open, total won, and total lost opportunity amounts. You can also clone chart widgets and change the chart type to get a different view of the same results.

[Automate Cross-Dataset Filtering with Connected Data Sources](#)

By default, steps from the same dataset are faceted—automatically filtering each other. To facet steps from different datasets or even static steps in a Wave designer dashboard, connect them. Previously, you had to modify JSON and use bindings to facet these steps.

[Customize the Display Values for List and Toggle Widgets](#)

You can now configure list and toggle widgets to show values from multiple fields. For example, a list widget can show sales rep and region, with values like SalesRepA-West, SalesRepB-West, and SalesRepC-North—allowing you to filter on both fields. You can also display measures as part of the value, and format the display.

[Take Action on Multiple Table Records with a Single Click](#)

You can create custom bulk actions that apply to all records shown in a table widget of a Wave designer dashboard. Use bulk actions to update records or perform an action on each of them. For example, if the table shows patients who haven't seen their doctor in two years, the bulk action can email each of them a reminder.

[Summarize Data Across Dimensions with Pivot Tables](#)

You can now display a table widget as a pivot table in a Wave designer dashboard. The widget pivots the table based on the last defined grouping. The grouping must be defined on a single dimension.

[Save and Package Images with Wave Apps](#)

You can now use Wave designer to upload images for image widgets and backgrounds. Wave designer saves them to an image gallery associated with the dashboard's app. The maximum file size for an image is 2 GB. If you package a Wave dashboard, Wave now includes images.

[Get Accurate Calculations with the New Null Measure Handling](#)

Calculations now ignore null measures. Previously, they were counted as zeroes. If all values in a calculation are null, the result is also null. As a result, your widgets might show different results. A null measure now appears as a dash in the Wave designer and explorer.

[Query Datasets and Salesforce Objects with New Step Types](#)

Wave designer dashboards support more step types, which allow you to query Salesforce objects and datasets.

[Experience More Intuitive Controls for the Date Widget](#)

You can configure the date widget to show fiscal and calendar years as well as the relative and absolute date ranges. While the dashboard is in preview mode, the date widget offers a more intuitive design for selecting absolute and relative dates.

[Identify Steps with Descriptive Labels](#)

Make it easier to work with steps by giving them a descriptive label. For example, "Won Opportunity Amount" is more informative than the default ID "Amount_1." Specify the label when you create the step because Wave generates the step ID based on the label. After creating the step, you can change the label but not the ID, unless you edit the JSON. Step IDs are required when working in the dashboard JSON, like when defining bindings.

[Take Advantage of Other Enhancements to Wave Dashboard Designer](#)

Do more with Wave designer. Package more parts of the dashboard. Apply descriptive labels to steps. Customize the Wave designer grid.

Build Dashboards Faster with Widget Cloning and Step Replacement

Clone widgets to create similar looking components in a Wave dashboard. For example, quickly create three number widgets and swap out their steps to show total open, total won, and total lost opportunity amounts. You can also clone chart widgets and change the chart type to get a different view of the same results.



1. Click to edit the dashboard.
2. To clone a widget:
 - Select the widget. You can clone any widget, except date or range.



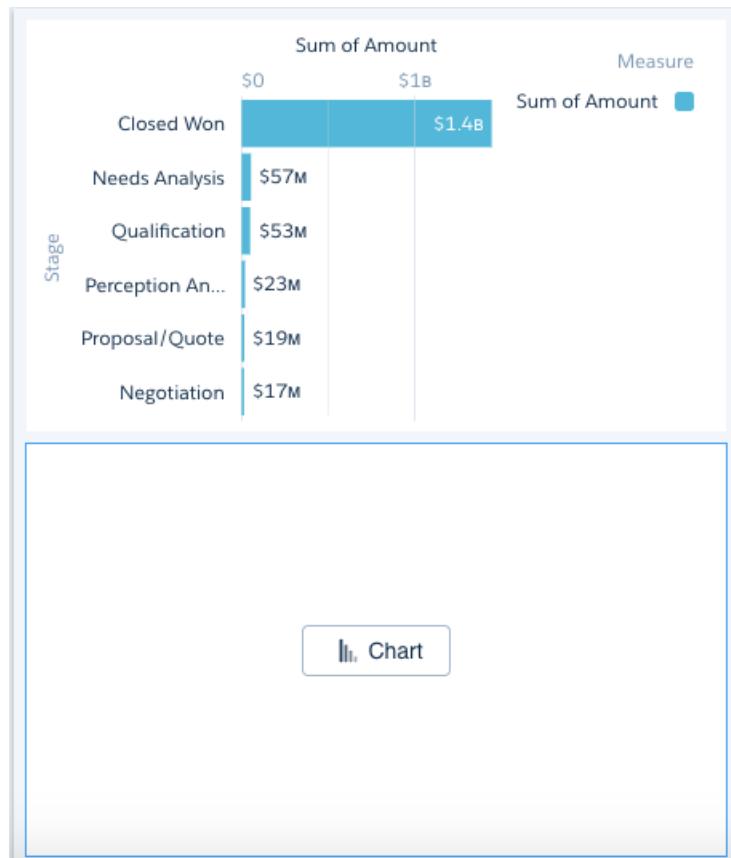
- Click .

Wave places a copy of the widget in the bottom of the dashboard. The cloned widget references the same step.

3. To change the step of a widget:

- Click  to open the step action menu.
- Click .

Wave removes the step, resulting in an empty widget.



- Add another step to the widget.

4. Save the dashboard.

Automate Cross-Dataset Filtering with Connected Data Sources

By default, steps from the same dataset are faceted—automatically filtering each other. To facet steps from different datasets or even static steps in a Wave designer dashboard, connect them. Previously, you had to modify JSON and use bindings to facet these steps.

 **Note:** You can't connect static steps that specify date and measure ranges.

- Click  to edit the dashboard.
- Click  and then select **Connect Data Sources**.
- Click **New Connection**.

New Connection X

Connection Name

Data Source 1

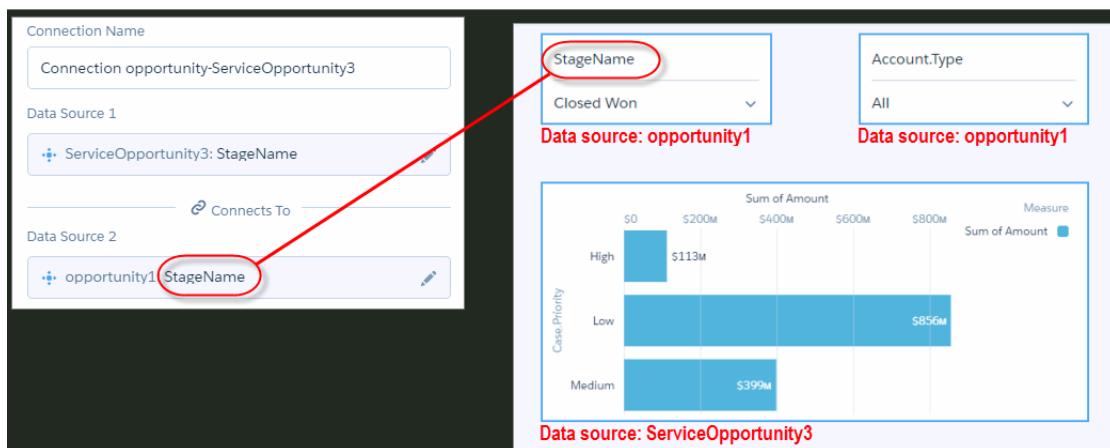
@ Connects To

Data Source 2

Back Save

4. Enter a name for the connection.
5. Click **Choose Data Source 1** to select the first data source. For each data source, select a dataset or a static step used in the dashboard.
6. Choose one field from the data source so that Wave can match records between the specified sources.

 **Note:** Faceting only works on the fields used to define the connection. For example, the connection in the following screenshot is based on the StageName field. As a result, the StageName list widget is faceted to the bar chart. If a selection is made in the Account.Type list widget, faceting doesn't happen—the results are not filtered. To enable faceting on the Account.Type field, define another connection based on this field using the same data sources.



7. Click **Choose Data Source 2** to select the second source, and then choose a field.

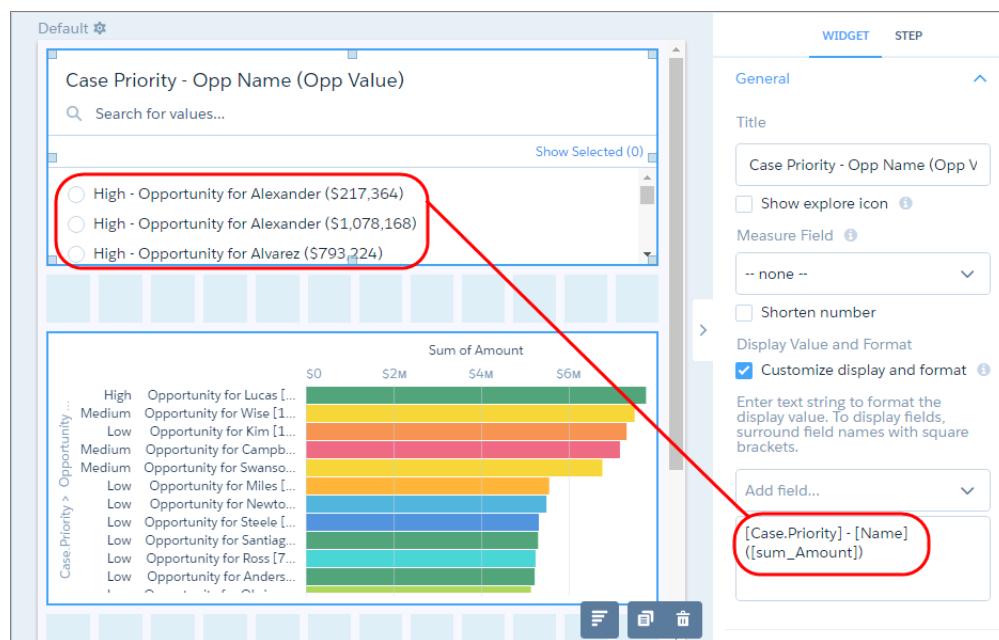
- To add another data source, click **Add Data Source**. This option appears after you connect two data sources.
 - Click **Save**.

 **Note:** If you previously added a dataset and dimension to a static step definition to facet it with another step, Wave creates a data source connection between them. It also removes the dataset and dimension from the step definition.

Customize the Display Values for List and Toggle Widgets

You can now configure list and toggle widgets to show values from multiple fields. For example, a list widget can show sales rep and region, with values like SalesRepA-West, SalesRepB-West, and SalesRepC-North—allowing you to filter on both fields. You can also display measures as part of the value, and format the display.

To customize the display values, click **Customize display and format** in the widget properties. From the **Add field...** dropdown, select a grouping or measure defined in the step query. You can insert more characters directly into the editor box to format the display. For instance, you can add parentheses to enclose the measure value as shown here.



Take Action on Multiple Table Records with a Single Click

You can create custom bulk actions that apply to all records shown in a table widget of a Wave designer dashboard. Use bulk actions to update records or perform an action on each of them. For example, if the table shows patients who haven't seen their doctor in two years, the bulk action can email each of them a reminder.

Wave doesn't support bulk actions on table widgets that are built on static or sqql step types.

To add a bulk action to a table widget:

1. In a Visualforce page, define the logic that the bulk action performs.
 2. Configure the following widget properties to display the bulk action in the table widget's action menu.

Property	Description
Show Custom Action	Select to display the bulk action in the widget's action menu.

Property	Description
Custom Action Label	Label for the action in the action menu.
Visualforce Page Name	API name of the Visualforce page where you defined the logic for the bulk action.
Visualforce Namespace Prefix	Optional. Namespace prefix specified for the Visualforce page.

The bulk action appears in the action menu of the table widget.

 **Note:** This widget-level action menu is different from the record-level action menu that you can access from a record.

For more information, see "[Configure Bulk Actions on Table Records](#)."

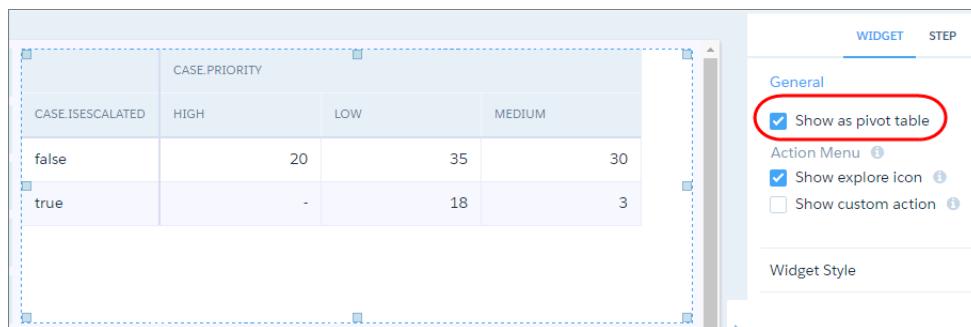
Summarize Data Across Dimensions with Pivot Tables

You can now display a table widget as a pivot table in a Wave designer dashboard. The widget pivots the table based on the last defined grouping. The grouping must be defined on a single dimension.

The following table pivots on the Priority grouping.

	PRIORITY		
STAGE	HIGH	LOW	MEDIUM
Closed Lost	\$1,436,163	\$51,214,534	\$19,697,035
Closed Won	\$22,078,755	\$151,381,085	\$83,735,126
Needs Analysis	\$1,035,203	\$37,006,802	\$12,008,182
Negotiation	\$3,986,982	\$11,130,635	-
Perception Analysis	\$945,768	\$11,152,438	\$2,295,603

To display a table widget as a pivot table, select **Show as pivot table**. This option appears only if the step query contains a grouping.

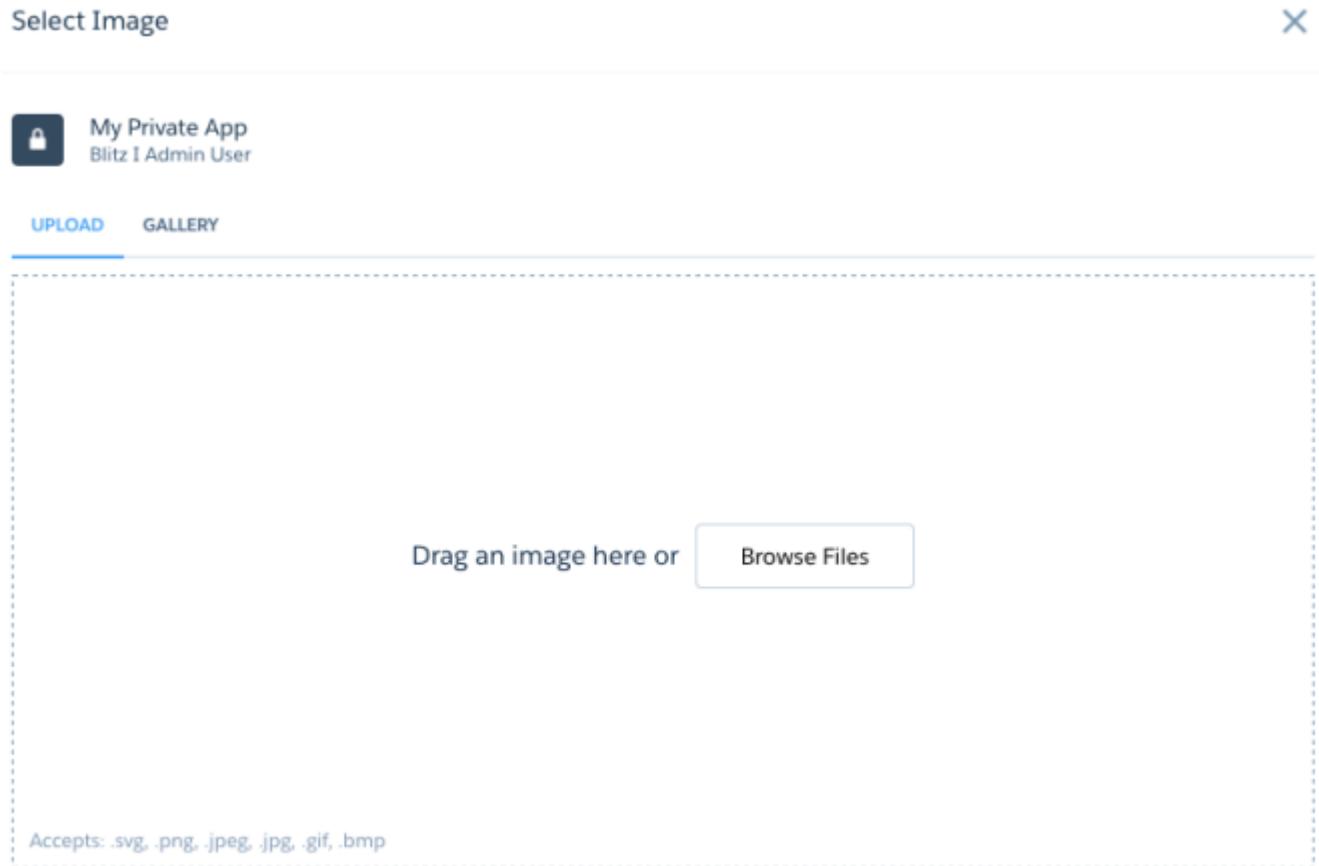


Save and Package Images with Wave Apps

You can now use Wave designer to upload images for image widgets and backgrounds. Wave designer saves them to an image gallery associated with the dashboard's app. The maximum file size for an image is 2 GB. If you package a Wave dashboard, Wave now includes images.

To upload an image, you need the "Create and Edit Wave Analytics Dashboards" and "Create Wave Analytics Apps" user permissions.

When you need an image, you can upload one or use an existing one from the gallery.



If you previously added images using the document ID, those images continue to work. The document ID is visible, but not editable, in the user interface. To replace these images, remove them and pick a new image from the image gallery.

Get Accurate Calculations with the New Null Measure Handling

Calculations now ignore null measures. Previously, they were counted as zeroes. If all values in a calculation are null, the result is also null. As a result, your widgets might show different results. A null measure now appears as a dash in the Wave designer and explorer.

Null measure handling is enabled in orgs created during or after the Spring '17 release—it can't be disabled. For information about enabling null measure handling in an existing org, see [Get Better Results with Null Measure Handling](#).

Query Datasets and Salesforce Objects with New Step Types

Wave designer dashboards support more step types, which allow you to query Salesforce objects and datasets.

You can manually define the following new step types in the dashboard JSON. You can't use these step types in compact form.

saql Step Type

Use the `saql` step type for special cases when querying a Wave dataset. With this step type, you can write a custom SAQL query to create derived fields in a values table. You can specify dimensions without groupings. Also, you can bind the dataset name or entire query. For example, you can bind this step type to a static step that provides different SAQL queries or datasets.

Here's an example of the JSON syntax for a `saql` step.

```
"Oppty2ProdsAQL": {
  "type": "saql",
  "label": "Oppty2ProdsAQL",
  "query": "q = load \"Goppty\";
            q = group q by id;
            q = foreach q generate id as 'id',
                  first('Account') as 'Account',
                  sum(Oppty_Amount) as 'sum_Oppty_Amount';";
  "isFacet": true,
  "useGlobal": true,
  "selectMode": "single"
}
```

 **Tip:** For the query to return dimensions that aren't included in groupings, use the `first()` function. In the example, because there's a unique id for each opportunity record, the first retrieved account for each ID is the right account—it's actually the only account. If there were duplicate IDs for an opportunity, the query would assign the wrong account to all subsequent opportunities after the first one.

Property	Description
type	Step type. Set to <code>saql</code> .
label	Step label.
query	SAQL query. For more information about SAQL queries, see Wave Analytics SAQL Reference .
isFacet	Enables this step to facet and be faceted by other steps. Faceting is when a selection in a widget filters other steps in the dashboard. By default, steps from the same dataset are faceted. To facet steps from different datasets, connect the data sources. The <code>autofilter</code> property is not required to enable faceting for these step types.
useGlobal	Apply global filters to this step.

soql Step Type

Use to directly query Salesforce objects—both standard and custom—to get Salesforce data that's not available in datasets. You can also query external objects created with an OData adapter for Salesforce Connect. For more information about using Salesforce Connect to access external data, see the [Salesforce Connect](#) online help. The user viewing the dashboard must have access to the object and fields queried by the `soql` step.

Here's an example of the JSON syntax for a `soql` step.

```
"soql": {
  "type": "soql",
  "query": "SELECT Name from ACCOUNT",
  "strings": ["Name"],
  "numbers": [],
  "groups": [],
  "selectMode": "single"
}
```

Property	Description
type	Step type. Set to <code>soql</code> .
label	Step label.
query	SOQL query. For more information about SOQL queries, see Force.com SOQL and SOSL Reference .
strings	Flags the specified fields as non-grouping dimensions. For example, you can flag a field as a dimension for a values table in which no groupings are allowed.
numbers	Flags the specified fields as measures.
groups	Flags the specified fields as groupings. For example, you can flag a field as a grouping for a pivot table or chart.

The `isFacet` and `useGlobal` properties don't apply to this step type. You can use a binding to filter other steps based on a selection in a `soql` step.

 **Note:** You can also optionally specify the "strings", "numbers", and "groups" step properties for static steps. Specify these properties to apply a static step to a widget that requires groupings or measures.

Experience More Intuitive Controls for the Date Widget

You can configure the date widget to show fiscal and calendar years as well as the relative and absolute date ranges. While the dashboard is in preview mode, the date widget offers a more intuitive design for selecting absolute and relative dates.

The screenshot shows the Wave Analytics interface. On the left, there is a date range selector with 'From' set to '02/23/2013' and 'To' set to '03/25/2017'. Below it is a large calendar grid. On the right, under the 'WIDGET' tab, is a configuration panel for a 'New Date Widget'. The 'General' section includes a title 'New Date Widget' and an unchecked 'Update instantly' checkbox. The 'Date' section contains settings for 'Default Date Mode' (radio buttons for 'Absolute' and 'Relative', with 'Absolute' selected), a checked 'Allow date mode switching' checkbox, 'Default Calendar Type' (radio buttons for 'Calendar' and 'Fiscal', with 'Calendar' selected), and an unchecked 'Allow calendar type switching' checkbox. A red box highlights the 'Default Date Mode' and 'Default Calendar Type' sections.

While previewing a dashboard, you can quickly scroll through years and months when selecting an absolute date. Previously, you had to enter the date or use the slider to pick a date.

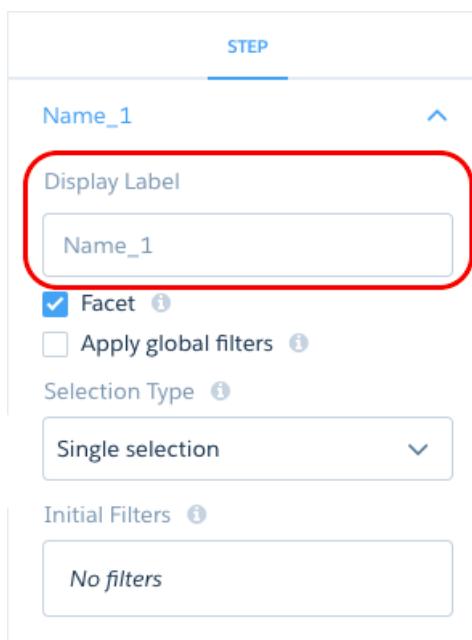
This screenshot shows the same date range selector as above, but the calendar grid in the center is highlighted with a red box. The grid displays the month of January 2016, with the current date (January 1, 2016) highlighted in blue. The 'RELATIVE' and 'ABSOLUTE' tabs are visible at the top of the date range selector.

In relative date mode, the new, intuitive design allows you to select dates relative today, where today is based on UTC. You can also type in your own values for the range.

Identify Steps with Descriptive Labels

Make it easier to work with steps by giving them a descriptive label. For example, "Won Opportunity Amount" is more informative than the default ID "Amount_1." Specify the label when you create the step because Wave generates the step ID based on the label. After creating the step, you can change the label but not the ID, unless you edit the JSON. Step IDs are required when working in the dashboard JSON, like when defining bindings.

The label appears when you clip a step, when you create a step from a widget wizard, and, as shown below, in the step panel.



Note: You don't get the option to add the step label when you use a widget wizard to create the step for a list, toggle, date, or range widget.

Take Advantage of Other Enhancements to Wave Dashboard Designer

Do more with Wave designer. Package more parts of the dashboard. Apply descriptive labels to steps. Customize the Wave designer grid.

Wave designer contains the following enhancements.

- Dashboards created in or after Spring '17 are fully packageable. Link widgets and images are now included in packages. To enable this feature, you can no longer delete assets (like images, dashboards, lenses) that other assets reference. To delete them, you must first remove the reference. This new behavior applies only to assets that you create from this release onwards. Previously, you could delete referenced assets, which would cause errors in the dashboard.
- Control the size of widgets by selecting the "fine" row height for the Wave designer grid. When using this option, the vertical spacing is set to 0 and can't be changed. Wave determines the default size of a widget based on number of columns and the row height to ensure that the widgets are readable and retain their relative sizes.
- Change the color of the designer grid and the gutter that appears when the device's screen size is wider than the maximum width of the dashboard.

- Specify horizontal alignment options for number and text widgets.
- Use bindings to dynamically set the dataset name in the `load` statement of a SAQL query. You can also use them to replace the entire string for a query as shown here.

```
"query": "{{cell(static_1.selection, 0, \"query\").asString()}"}
```

Given the `static_1` step with the following values:

```
values: [
{query: "q = load \"opp\"; ..."}
{query: "q = load \"account\"; ..."}
]
```

Wave: Trend Data

Schedule refreshes of your trended dashboards, and control impacts to data storage.

IN THIS SECTION:

[Configure Snapshot Schedule for Trending Reports](#)

Use the new scheduling configuration to set the frequency of your trending dashboard updates. Put trending on your schedule by choosing daily, weekly, or monthly updates using relative or specific days.

[Set Org-Wide Limits on Dataset Size for Trending Reports](#)

Admins can now control the impact that trending datasets have on general org-wide limits. Use these limits, available on the Wave Analytics Settings page, to prevent trending datasets from taking too large of a bite out of your available data storage.

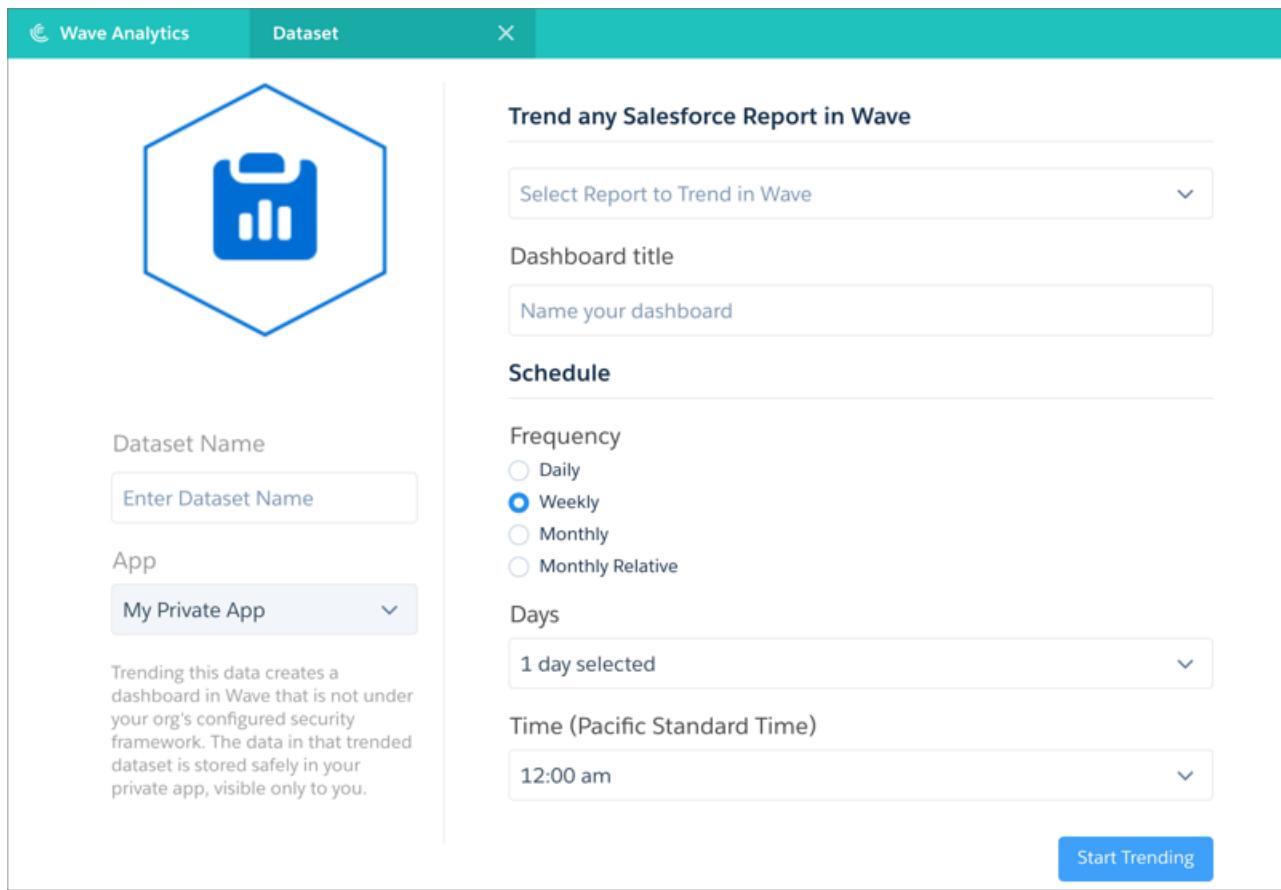
[Group Columns with Boolean Values in Trending Dashboards](#)

Trending dashboards now surface Boolean data as both a measure column and a dimension column, so you can group and filter these values.

Configure Snapshot Schedule for Trending Reports

Use the new scheduling configuration to set the frequency of your trending dashboard updates. Put trending on your schedule by choosing daily, weekly, or monthly updates using relative or specific days.

Intuitive scheduling controls are part of the flow for creating the trending dashboard.



Similar scheduling controls are available when trending from Salesforce Lightning and Salesforce Classic.

Set Org-Wide Limits on Dataset Size for Trending Reports

Admins can now control the impact that trending datasets have on general org-wide limits. Use these limits, available on the Wave Analytics Settings page, to prevent trending datasets from taking too large of a bite out of your available data storage.

Use the **Max number of rows per snapshot** option to control the maximum number of rows that a trended report can have when a snapshot is taken. If the report exceeds the limit, the snapshot is not taken and an error email is sent to the user.

Use the **Max total number of rows in a trended dataset** option to limit the maximum number of rows that the Wave dataset containing the snapshots can have. If the dataset exceeds the limit, the oldest snapshot is deleted from the dataset.

These limits don't apply to admin users.

Group Columns with Boolean Values in Trending Dashboards

Trending dashboards now surface Boolean data as both a measure column and a dimension column, so you can group and filter these values.

Previously, trending dashboards surfaced Boolean values as measures. You could add them as numbers, for example, but not group them.

Wave: Accelerate with Prebuilt Wave Apps

Analytics keeps getting faster and easier with continual enhancements to Wave apps, including a smart configuration wizard that makes app creation more reliable and Wave Templates (Beta) that let you package your own apps for distribution.

IN THIS SECTION:

[Wave for Sales and Service Easier Than Ever to Create](#)

The enhanced configuration wizard checks Salesforce data to assure you can successfully create an app.

SEE ALSO:

[Package and Distribute Apps with Wave Templates \(Beta\)](#)

USER PERMISSIONS

To use Wave apps:

- “Use Analytics Cloud Templatized Apps”
- Additional permission as specified for each app

To create and manage Wave apps:

- “Manage Analytics Cloud Templatized Apps”
- “Edit Wave Analytics Dataflows”

Wave for Sales and Service Easier Than Ever to Create

The enhanced configuration wizard checks Salesforce data to assure you can successfully create an app.

Wave for Service - Personalize

Service Analytics uses your answer to do additional scans on your org. Step 6 of 6

1. Do you want to Service Wave to verify that your org's data meets minimum requirements to successfully create an app? *

Answer Yes to run a scan of your data (recommended). If you have the required data, Service Wave creates the app. If you don't, Service Wave tells you what you need to fix before you can create the app. For larger orgs, the scan may take a few minutes. Answer No if you have already created an app successfully.

No

Back Looks good, next

USER PERMISSIONS

To use the Wave for Sales app:

- “Use Analytics Cloud Templatized Apps”
- “Access Sales Cloud Analytics Templates and Apps”

To use the Wave for Service app:

- “Use Analytics Cloud Templatized Apps”
- “Access Service Cloud Analytics Templates and Apps”

When you open the Sales Wave or Service Wave configuration wizard, Wave checks your Salesforce data and assembles wizard questions and default answers that are appropriate for your data. After you answer questions in the wizard, Wave asks you if you want to run a second scan. That scan validates that your org meets minimum data requirements. If your data doesn't meet the app's requirements, Wave displays an error message that tells you what data to add or change to ensure that the app is created successfully.

Wave: Go Places with Wave Mobile

Take Wave with you with the latest version of the iOS or Android app.

IN THIS SECTION:[Experience the Latest Wave for iOS](#)

Wave Analytics is available for Apple® devices running iOS 9 and later.

[Get the Latest for Wave Analytics for Android](#)

Wave Analytics is available for Android™ devices running Android 5 or later.

Experience the Latest Wave for iOS

Wave Analytics is available for Apple® devices running iOS 9 and later.

For the latest enhancements, download Wave Analytics from the App Store. Here's what's new.

- Fire up Wave Analytics in iOS 10.
- Experience dashboards built in the new Wave designer with most features, including conditional formatting for number widgets.
- Increase security via Mobile Device Management (MDM) with the option to show only authorized hosts.

Get the Latest for Wave Analytics for Android

Wave Analytics is available for Android™ devices running Android 5 or later.

For the latest enhancements, download Wave Analytics from Google Play™. Here's what's new.

- Go native! 26 languages are now supported.
- Deploy Wave for Android using common Mobile Device Management (MDM) vendors.
- Tap the share icon on a lens or dashboard to copy its link, and share at will.
- Open any URL directly from a lens or dashboard (if linking is set up in your Salesforce org on the web).
- View custom fonts in your dashboards and lenses.

Wave: Develop on the Platform

The Wave platform continues to grow with additional REST API support, new SAQL functions, and Wave Templates.

IN THIS SECTION:[Take Advantage of the Latest SAQL Functionality](#)

Wave's SAQL functionality continues to expand with new helper functions, performance tips, and support for null measures.

[Review Updates to the REST API for Wave](#)

The REST API for Wave has new endpoints and representations.

[Migrate or Deploy Your Customizations with Packageable User XMD](#)

Wave packaging adds support for user XMD.

[Package and Distribute Apps with Wave Templates \(Beta\)](#)

Salesforce ISVs, partners, and customers can now turn apps developed on the Wave platform into templates for distribution.

Take Advantage of the Latest SAQL Functionality

Wave's SAQL functionality continues to expand with new helper functions, performance tips, and support for null measures.

Date and Time Helper Functions

The new date and time helper functions enable manipulation of the date type. The functions produce scalar values and can be used in a projection clause or in filter by clauses in post-projection. You cannot use them within group by or order by in pre-projection.

- `date_diff` returns the number of specified interval parts (days, years, seconds, and so on) that elapsed between two dates.
- `day_in_week` returns a number representing the day of the week (1 = Sunday, 2 = Monday, and so on) for a specific date.
- `day_in_month` returns a number representing the day of the month for a specific date.
- `day_in_quarter` returns a number representing the day of the quarter for a specific date.
- `day_in_year` returns a number representing the day of the year for a specific date.
- `week_last_day` returns the date of the last day of the week for a specific date.
- `month_last_day` returns the date of the last day of the month for a specific date.
- `quarter_last_day` returns the date of the last day of the quarter for a specific date.
- `year_last_day` returns the date of the last day of the year for a specific date.
- `month_days` returns the number of days in the month for a specific date.
- `quarter_days` returns the number of days in the quarter for a specific date.
- `year_days` returns the number of days in the year for a specific date.

Support for Null Measures

Measures in Wave are dataset columns that contain numerical values. Enabling null measure handling lets you distinguish between null and non-null values—for example, the number 0—in numerical data. SAQL support for null measures facilitates this preference, for example, when using aggregation, comparison, and math functions, and for order by or group by clauses. Support for null measures is enabled in orgs created during or after the Spring '17 release. With existing orgs, an admin can turn it on. For more information, see [Get Better Results with Null Measure Handling](#).

Tips to Avoid Query Performance Pitfalls

The SAQL Reference now contains details on how to improve performance by adopting best practices in query design, based on real-life cases. For more information, see the [Wave Analytics SAQL Reference](#).

Review Updates to the REST API for Wave

The REST API for Wave has new endpoints and representations.

Schedule Trending Reports

The APIs for trending report snapshots in Wave—GET and POST on `/wave/trendedreports` and GET and PATCH on `/wave/trendedreports/<Id>`—have been extended and now support timed daily, weekly, monthly, and relative monthly scheduling.

Create Custom Map Charts

Wave custom map charts are supported through the following new endpoints:

`/eclair/maps`

Get the collection of maps, or post a new map.

`/eclair/maps/<Id>`

Get or update a specific map.

`/eclair/geodata`

Get the collection of geodata definitions, or post a new one.

`/eclair/geodata/<Id>`

Get or update a specific geodata definition.

/eclair/geodata/<Id>/file

Get the binary file associated with a geodata definition.

General Updates

Many representations have new properties to support new or changed features, particularly dashboard steps and widgets. For example, steps now support SAQL and SOQL queries.

For more information, see the [Wave REST API Developer Guide](#).

Migrate or Deploy Your Customizations with Packageable User XMD

Wave packaging adds support for user XMD.

Metadata API, change set and packaging support for Wave assets provide an excellent platform for creating and deploying Wave apps, and now you have the ability to package and deploy user XMD too. User XMD is a JSON document that allows an application to override certain metadata for a dataset. You can govern settings to control how the data is presented—for example, colors, formats, and labels. To deploy the overridden dataset metadata, you must package the user XMD attributes.

Metadata API support allows migration tools to migrate datasets with user XMD between orgs—for example, you can migrate user XMD overrides from sandbox to production. Partners can deploy their application-specific user XMD with their AppExchange package. They retain control of the user XMD and can update it with future package versions.

For more information, see:

- The [Metadata API Developer Guide](#).
- The [Wave Analytics Extended Metadata \(XMD\) Reference](#).
- The [Wave REST API Developer Guide](#).

Package and Distribute Apps with Wave Templates (Beta)

Salesforce ISVs, partners, and customers can now turn apps developed on the Wave platform into templates for distribution.

Use Wave Templates (Beta) to create a template based on a Wave platform app. Salesforce admins can use the template to create the app, just as they would with Salesforce prebuilt Wave apps, like Sales Wave. Start using Wave Templates by selecting **Enable Wave Template Support** from Wave Analytics settings in Salesforce Setup. Developers create templates using an API.

Wave Templates is available in beta, which means that it's a high-quality feature with known limitations. General availability, with complete documentation and support, is planned for a subsequent release. Provide feedback and suggestions for Wave Templates in the [IdeaExchange](#).

USER PERMISSIONS

To use Wave Templates:

- "Manage Wave Templates"
- "Edit Wave Dataflows"
- "Upload External Data"

To use Metadata API (MDAPI)

- "Modify All Data"

Communities: Community Workspaces, Criteria-Based Audiences, Mobile Actions, and More

The cool breeze of Spring '17 blows in some significant changes for Communities—from refreshed tools to fresh components. Community Workspaces centralizes access to *all* the tools you use to build, moderate, and manage your community, and Community Builder gives you more room to work. With criteria-based audiences, you can assign location and record type criteria to page variations to hit your target audience. And mobile actions make it easy to create, edit, and update Salesforce records directly from your mobile device.

 **Tip:** There's lots of Lightning striking Salesforce these days—Lightning Experience, Lightning Bolts, Lightning components—and it can be tricky to know how it all applies to Communities. Here's the rundown.

Lightning Bolt solutions and community templates 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.

Although Communities is available in Lightning Experience Setup, it isn't fully supported in Lightning Experience because the global header isn't available. Without the global header, internal users in your org can't switch between their Salesforce org and their communities.

If you enable Lightning Experience in your org, internal users must switch back to Salesforce Classic to access the global header. Due to this limitation, we state that Communities is fully supported in Salesforce Classic only.

IN THIS SECTION:

[It's Time to Update Your Pre-Winter '16 Template](#)

Effective Spring '17, we no longer support Koa, Kokua, or Customer Service (Napili) template versions that are earlier than Winter '16 (October 2015).

[Prepare Your Communities for TLS 1.0 Disablement](#)

Starting on March 4, 2017, Salesforce is disabling support for TLS 1.0 (Transport Layer Security protocol) for all orgs in production. After this date, any inbound connections to or outbound connections from your Salesforce org will require the TLS 1.1 or TLS 1.2 encryption protocol. This change affects user access to communities, customer portals, partner portals, and sites built on Force.com and Site.com.

[LockerService: Critical Update Changes and Improved Security](#)

Understand how LockerService, a powerful security architecture for Lightning components, affects your community.

[Usability and Design Improvements: Refreshed Tools, More Design Control](#)

Better usability, whether you're building, moderating, or managing. Greater design control over the look and feel of your communities.

[Focus Your Community with Audience Targeting for Pages and Groups](#)

In addition to profiles, you can now add location and record type criteria to page variations and hit your target audience. For example, by combining criteria, you can have a page that's visible only to sales users in San Francisco or create a custom group geared just to that set of users.

[Lightning Bolt: Package More Easily and Distribute on AppExchange](#)

Exported and packaged Lightning Bolt solutions now support more page types and properties. Not only that—if you're a consulting partner or ISV, you can distribute Lightning Bolt solutions on the Salesforce AppExchange to connect customers to your custom offering. And if you're a Salesforce administrator or user, you can visit AppExchange to find solutions to jump-start your community.

EDITIONS

Available in: **Enterprise, Performance, Unlimited, and Developer** Editions

[Community Templates: Improved Search Results, Direct Messages, and More](#)

We toiled through the winter months to bring you a slew of fresh spring features and components, including direct messages for community members, commenting in article feeds, topic enhancements, and nested navigation menu items.

[Custom Lightning Components: Develop for Communities](#)

Use the Lightning Component framework to build custom components for Communities.

[Chatter and Files in Community Templates: Create Custom Groups, Track Top Posts, Filter Questions, Share Posts, and More](#)

Create completely custom groups. Sort by the most popular posts. Filter questions in group feeds in communities. Share posts with your followers.

[Search, Reports, and Analytics: Know More About Your Community](#)

Get the most from search with improved search reports and dashboards and see click-through rates on related questions.

[Moderation: Preconfigured Rules and Spam IQ](#)

Our ready-to-go moderation rules lessen your load, and Spam IQ protects your community at all times. Time to put up your feet, Moderators!

[Other Changes in Communities](#)

Learn about smaller changes that improve your experience with Communities.

[Communities Documentation: Spruced Up for Spring](#)

With the UI getting a new look, we felt that it was time to do some housekeeping with our documentation. We retired some doc and we also moved things around to consolidate our content into fewer PDFs and make it searchable from the Salesforce Help.

It's Time to Update Your Pre-Winter '16 Template

Effective Spring '17, we no longer support Koa, Kokua, or Customer Service (Napili) template versions that are earlier than Winter '16 (October 2015).

 **Important:** If your community uses a pre-Winter '16 template and you don't update it now, members lose access to your site in the Spring '17 release.

In addition to maintaining member access to your community, by updating right away, you benefit from:

- Continued assistance from Salesforce Customer Support
- The latest Community Builder and template features, such as new Lightning components, page creation, and custom layouts

The impact of updating your template depends on the version.

Template Type and Version	What to Expect When Updating to Spring '17
Pre-Winter '16 Koa, Kokua, or Customer Service (Napili)	<p>Most component customizations and properties are overwritten. However:</p> <ul style="list-style-type: none"> For Koa and Kokua, general settings, such as Category Group Name, Top-Level Category, and Company Name, carry over. For Customer Service (Napili), topic definitions carry over. <p>Most branding properties defined using the Branding Editor in Community Builder are maintained. However, sometimes your community's colors are reset to the default value. After you update the template, check the branding properties and update the ones that were reset.</p>

Template Type and Version	What to Expect When Updating to Spring '17
Winter '16 (October 2015) Koa, Kokua, or Customer Service (Napili)	<ul style="list-style-type: none"> • Your customizations are maintained for all pages, except login pages. • Login pages retain branding, but lose custom code or component customizations. <p> Note: If your community uses the Winter '16 (October 2015) version of Koa, Kokua, or Customer Service (Napili), it's a good idea to update your template version now. The Winter '16 template uses the Lightning platform and Lightning components in all pages except the Login pages. Support for Winter '16 will be discontinued in a future release.</p>

Prepare Your Communities for TLS 1.0 Disablement

Starting on March 4, 2017, Salesforce is disabling support for TLS 1.0 (Transport Layer Security protocol) for all orgs in production. After this date, any inbound connections to or outbound connections from your Salesforce org will require the TLS 1.1 or TLS 1.2 encryption protocol. This change affects user access to communities, customer portals, partner portals, and sites built on Force.com and Site.com.

At Salesforce, trust is our highest priority, and we take the protection of our customers' data very seriously. We're disabling TLS 1.0 so we can maintain the highest security standards, ensure the safety of your data, and align with industry-wide best practices.

As a result of this change, browser access, inbound API integrations, and call-out integrations are required to be compliant with TLS 1.1 or above. We encourage you to prep your org and inform your community, portal, and site audiences about this upcoming change. All licensed and unlicensed visitors must use browsers and browser settings that are compliant with TLS 1.1 or above.

To prepare for this change ahead of time:

- Inform both licensed and unlicensed guest users about browser requirements for TLS version compatibility and consider adding appropriate messaging to your communities, portals, and sites.
- Encourage users to check their browsers for compatibility with TLS 1.1 or above early on with our [test site](#). If their browser is compliant, the web site displays a "Test passed" message.
- Ensure that the TLS 1.1 or above are enabled for your API integrations.

For detailed information TLS 1.0 disablement, see [this knowledge article](#).

LockerService: Critical Update Changes and Improved Security

Understand how LockerService, a powerful security architecture for Lightning components, affects your community.

IN THIS SECTION:

[LockerService for Communities Critical Update Replaced](#)

We removed the Lightning LockerService Security in Communities critical update. Instead, the general Lightning LockerService Security critical update now includes Communities.

Improve the Security of Your Page <Head> Markup

For security purposes, we restrict the tags, attributes, and values allowed in the `head` markup of your pages when LockerService is activated. Before LockerService is automatically activated for all orgs in the Summer '17 release, make sure that any existing `head` markup contains only the allowed tags, attributes, and values. In Summer '17, `head` markup with invalid tags, attributes, and values will be disabled.

LockerService for Communities Critical Update Replaced

We removed the Lightning LockerService Security in Communities critical update. Instead, the general Lightning LockerService Security critical update now includes Communities.

LockerService remains a critical update for Spring '17. In the Summer '17 release, we're automatically activating LockerService for all orgs. Before that time, you can manually activate the update to evaluate the impact on your entire Salesforce org, including Communities.

How Does the Change Affect You?

If you previously enabled:

- Only the LockerService for Communities critical update, LockerService is no longer in effect. Activate the general LockerService critical update.
- Only the general LockerService critical update, LockerService now applies to Communities as well. No need to take further action.
- Both the general and the Communities-specific critical updates, LockerService applies to your entire Salesforce org, including Communities.

We recommend that you test LockerService in a sandbox or Developer Edition org to verify correct behavior of your components before enabling it in your production org.



Note:

- LockerService doesn't affect text editing in production orgs. However, when LockerService is activated in sandboxes or Developer Edition orgs:
 - The Rich Content Editor is disabled in Community Builder.
 - In the community, any component that contains a rich-text editor, such as the Feed component, is disabled.
- IE11 is supported for Communities even if LockerService is enabled. However, because IE11 doesn't support Content Security Policy (CSP), we recommend using other supported browsers instead for enhanced security.

SEE ALSO:

[LockerService Has Stricter Content Security Policy](#)

[Rich-Text Editors Disabled When LockerService Critical Update Is Active](#)

Improve the Security of Your Page <Head> Markup

For security purposes, we restrict the tags, attributes, and values allowed in the `head` markup of your pages when LockerService is activated. Before LockerService is automatically activated for all orgs in the Summer '17 release, make sure that any existing `head` markup contains only the allowed tags, attributes, and values. In Summer '17, `head` markup with invalid tags, attributes, and values will be disabled.

Allowed Tags	Allowed Attributes
<base>	href, target
<link>	as, charset, crossorigin, disabled, href, hreflang, id, import, integrity, media, rel, ¹ relList, rev, sheet, sizes, target, title, type ¹ For rel, allowed values are alternate, author, bookmark, external, help, icon, license, manifest, next, noreferrer, noopener, noreferrer, pingback, prefetch, preload, prev, search, stylesheet, and tag.
<meta>	charset, content, http-equiv, ² name, scheme ² For http-equiv, allowed values are cleartype, content-type, content-language, and default-style.
<title>	None allowed

Usability and Design Improvements: Refreshed Tools, More Design Control

Better usability, whether you’re building, moderating, or managing. Greater design control over the look and feel of your communities.

IN THIS SECTION:

[Community Workspaces: The New Center of Your Communities Universe](#)

Tired of jumping between two different pages to build and manage your community? Ever forget where to find Administration or Dashboards? Now you can access Builder, Administration, Dashboards, and all your moderation tools in one place—Community Workspaces.

[Community Builder Gets More Elbow Room](#)

The new and improved Community Builder gives you more room to work, lets you focus on designing and configuring, and provides easier access to tools. You no longer have to switch between editors, whether you’re adding and configuring components, customizing branding, adding pages, or adjusting settings. As part of this improved workflow, we made the following changes.

[See What Goes Where with Better Visual Feedback While Building](#)

Labels on theme and content layout regions make it easier to drag and drop Lightning components where you want them on your pages.

[Gain Control of Each Page Layout with Theme Layout Types](#)

Looking for more granular control over the layout of each page in your community? With theme layouts and theme layout types, that’s exactly what you get! Previously, a theme layout applied to all the pages in your community. But with theme layout types, you can apply theme layouts to individual pages and easily switch layouts from one central location. And for developers, we’ve introduced the ability to add properties to custom theme layouts, which are configurable in the Theme area. This feature is available in communities using the Customer Service (Napili) template.

[Find and Create Asset Files from Community Builder](#)

Customizing your community with images for your header, logo, or custom components just got easier. Upload and select images using the file selector. Once uploaded, files are converted to packageable asset files and stored in your org asset library for easy reference and retrieval.

Control Capitalization of Titles in Your Community

Use the new Text Case property in the Fonts section of the Branding panel to quickly adjust the case of titles in your community. The Text Case property affects all out-of-the-box components such as the Navigation Menu, Ask Button, Profile Header, and Headline. You can use lowercase or initial capitals in addition to all uppercase.

Community Workspaces: The New Center of Your Communities Universe

Tired of jumping between two different pages to build and manage your community? Ever forget where to find Administration or Dashboards? Now you can access Builder, Administration, Dashboards, and all your moderation tools in one place—Community Workspaces.

The new streamlined Community Workspaces centralizes all your community needs, whether you're moderating, building, or administering your community. Also access quick links to frequently visited pages, catch up on release notes, and dive into Help & Training.

The screenshot shows the 'Community Workspaces' page for the 'Tealovers' community. At the top, there's a navigation bar with a home icon, the community name, and a search bar. Below the navigation is a 'My Workspaces' section containing six cards: 'Builder' (Build, brand, and customize your community pages), 'Moderation' (Monitor posts and comments, create rules, and engage with community members), 'Content Targeting' (Recommend resources, use topics to boost visibility, and target content to audiences), 'Dashboards' (Examine the health of your community with reports and dashboards), and 'Administration' (Configure settings and properties for your community). To the right of these cards is a 'Quick Links' sidebar with links to 'Internal Org', 'Salesforce Setup', 'Success Community: Community Implementation Group', 'Set Up and Manage Communities Guide', and 'AppExchange'. Further down on the right is a 'Trailhead' module titled 'Expand Your Reach with Communities' with a 'START LEARNING >' button. At the bottom right is a 'Salesforce Spring '17 Release Notes' module with a 'READ THE RELEASE NOTES >' button. On the left side, there's a 'What's New' section for 'Featured in Spring '17' with cards for 'Criteria-Based Audiences' (Combine criteria, such as location, user profile, or record types, to target page variations at different audiences) and 'Google Analytics' (Access real-time data through Google Analytics to view member search activity and gain insight into case deflection). There's also a 'Help & Training' section with links to 'Build and Design Your Community', 'Drive Adoption and Engagement', and 'Visit the Success Community'.

Enable Community Workspaces

To enable Community Workspaces, in Setup enter **Communities** in the Quick Find box and click **Communities Settings**. Under Community Management Settings, select **Enable Community Workspaces**. Community Workspaces are enabled by default in all orgs created after Spring '17.

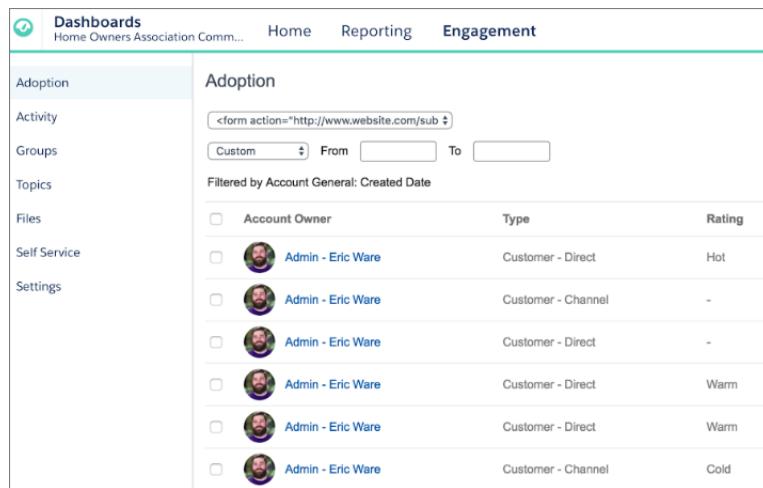
Not ready to move to Community Workspaces yet? You don't have to do a thing. Your settings stay the same unless you enable Community Workspaces. Want to check out Workspaces? Feel free to give it a try. You can easily revert to Community Management by deselecting **Enable Community Workspaces**.

 **Note:** Internet Explorer® version 11 does not support Community Workspaces.

What's Different?

Community Workspaces offers a streamlined area to access all the tools that you need for building, managing, and tracking your community. Even though it looks different, everything you use is still there. Some things have been moved around a bit.

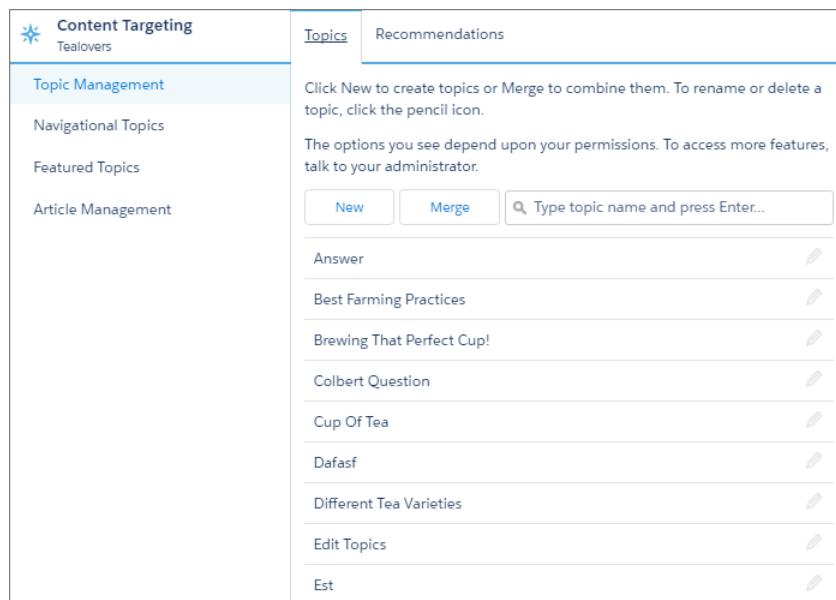
Engagement reports have been moved into the Dashboard workspace. Reporting dashboards and your Home dashboards are also located in the Dashboard workspace.



The screenshot shows the Engagement workspace with the following interface elements:

- Header:** Dashboards, Home Owners Association Comm..., Home, Reporting, Engagement (selected).
- Left Sidebar:** Adoption, Activity, Groups, Topics, Files, Self Service, Settings.
- Central Content:**
 - Section Header:** Adoption
 - Form:** <form action="http://www.website.com/sub">
 - Filter:** Custom From _____ To _____
 - Text:** Filtered by Account General: Created Date
 - Table:** A list of account entries for "Admin - Eric Ware" with columns: Account Owner, Type, and Rating. The entries are: Customer - Direct (Hot), Customer - Channel (-), Customer - Direct (-), Customer - Direct (Warm), Customer - Direct (Warm), and Customer - Channel (Cold).

Recommendations and Topics are in the new Content Targeting workspace.



The screenshot shows the Content Targeting workspace with the following interface elements:

- Header:** Content Targeting, Tealovers, Topics (selected), Recommendations.
- Left Sidebar:** Topic Management, Navigational Topics, Featured Topics, Article Management.
- Central Content:**
 - Text:** Click New to create topics or Merge to combine them. To rename or delete a topic, click the pencil icon.
 - Text:** The options you see depend upon your permissions. To access more features, talk to your administrator.
 - Buttons:** New, Merge, Type topic name and press Enter...
 - List:** A list of topics: Answer, Best Farming Practices, Brewing That Perfect Cup!, Colbert Question, Cup Of Tea, Dafasf, Different Tea Varieties, Edit Topics, and Est.

Moderation pages have been organized into separate areas within the Moderation workspace. You can access moderation Insights from the Home tab and create and customize moderation rules, member criteria, and content criteria from the Rules tab.

Name	Moderation Type	Comment Body	Comment Type
emma	inappropriate	Yes! It worked. Thanks (@005R0000000IE2IAO)!	T
emma	inappropriate	Sample flag comment	T
emma	inappropriate	Sample flag comment	T
emma	inappropriate	test	T
emma	inappropriate	test	T
emma	inappropriate	No I do not agree	T

Want to jump to another workspace from the workspace you are in? It's easy! Click the icon in the upper-left corner and a navigation dropdown menu appears. You can also switch between communities without leaving Community Workspaces.

Community Builder Gets More Elbow Room

The new and improved Community Builder gives you more room to work, lets you focus on designing and configuring, and provides easier access to tools. You no longer have to switch between editors, whether you're adding and configuring components, customizing branding, adding pages, or adjusting settings. As part of this improved workflow, we made the following changes.

Left-hand Side Changes

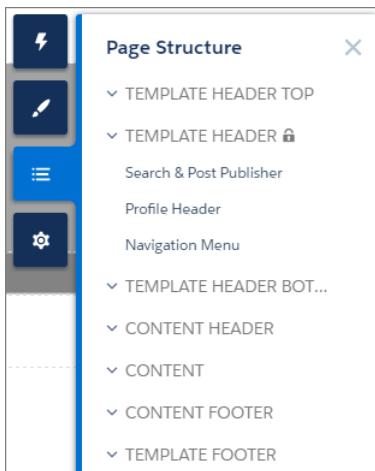
The panels on the left-hand side now slide out of sight when you don't need them.



- Access your other workspaces from the streamlined Communities menu (1).
- Use the Pages and Page Variations menus (2) to jump to pages and page properties.
- Access Lightning Components (3) and the Page Structure (5) in different panels.
- The Branding Editor (4) is now called Branding.

Page Structure Panel Easier to Find

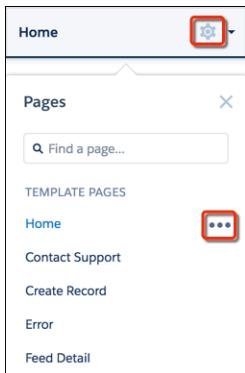
Page Structure now has its own panel. View all components on the current page, and select a component to bring it quickly into view.



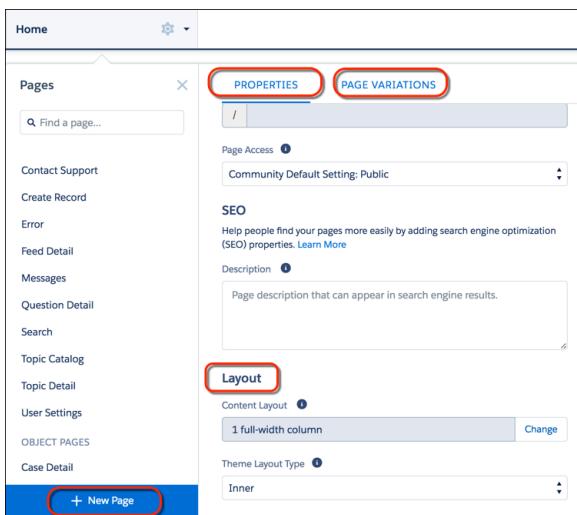
Page Properties Redesigned

Looking for all the settings from the Page Manager area? They're now consolidated in the Page Properties area available from the Pages menu.

To open properties for the current page, click next to the page name in the toolbar. To open properties for any page in your community, hover over the page name in the Pages menu and click .



From the centralized Properties area, create pages, manage page variations, and set the page's layout properties in one easy-to-use location. The New Page option is available from the Pages menu and a Page Layout area has been added.



See What Goes Where with Better Visual Feedback While Building

Labels on theme and content layout regions make it easier to drag and drop Lightning components where you want them on your pages.

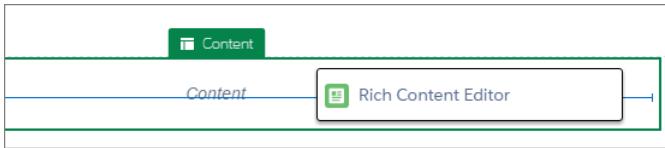
When you drag a component into a theme layout region, the region name appears to help you place the component.



A component in a theme layout region appears on every page that uses the theme layout. The Shared label indicates components that appear on other pages.



When you drag a component into a content layout region, the region name appears to help you place the component.



A component in a content layout region is specific to a single page. Components in content layout regions don't have the Shared label.



Gain Control of Each Page Layout with Theme Layout Types

Looking for more granular control over the layout of each page in your community? With theme layouts and theme layout types, that's exactly what you get! Previously, a theme layout applied to all the pages in your community. But with theme layout types, you can apply theme layouts to individual pages and easily switch layouts from one central location. And for developers, we've introduced the ability to add properties to custom theme layouts, which are configurable in the Theme area. This feature is available in communities using the Customer Service (Napili) template.

A theme layout defines the top-level regions of your page, such as the header and footer, navigation, search, and the user profile menu. A theme layout type is used to *categorize* the pages in your community that share the same theme layout. In **Settings > Theme** in Community Builder, assign theme layouts to existing types or create custom types for more flexibility. Then apply the theme layout type in the page's properties.

Customer Service (Napili) includes the following default theme layout types and theme layouts, but you can create custom types or switch layouts as needed.

- Home applies the Customer Service theme layout to the Home page.
- Login applies the Login Body Layout theme layout to the login pages.
- Inner applies the Customer Service theme layout theme to all other pages.

 **Example:** Let's say you create three pages for your upcoming Spring campaign. You want them to use the Large Header theme layout. In the Theme area, you create a custom theme layout type called *Spring* to categorize these pages and assign the Large Header layout to it.

Theme

Control the appearance of each page in your community with theme layouts and theme layout types. Quickly update the layout of multiple pages from one place.

THEME LAYOUT TYPE	THEME LAYOUT
Login	Login Body Layout
Home	Customer Service
Inner	Customer Service
Spring	Large Header

New Theme Layout Type

Next, you apply the Spring theme layout type in each page's properties, which instantly applies the Large Header layout to each page.

Spring Campaign

Pages

Find a page...

MY PAGES

- Spring Campaign
- ...

TEMPLATE PAGES

- Home
- Contact Support
- Create Record
- Error
- Feed Detail
- Messages
- Question Detail

PROPERTIES

SEO

Help people find your pages more easily by adding search engine optimization (SEO) properties. [Learn More](#)

Description

Page description that can appear in search engine results.

Layout

Content Layout

1 full-width column

Change

Theme Layout Type

Spring

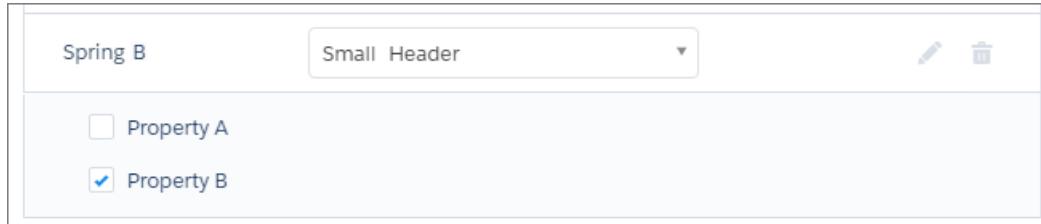
Everything looks rosy until your VP of marketing decides that the header takes up too much room. Because you don't have to update the properties of each page to change the theme layout, that's an easy fix. With one click in the Theme area, you can switch Spring to the Small Header layout and instantly update all three pages!

Spring	Small Header
--------	--------------



Example: Now let's say that the Small Header layout includes two custom properties—Property A and Property B—which you've enabled and applied to all your campaign pages. However, for one page, you want to apply only Property B.

In this case, you could create a theme layout type called *Spring B*, assign the Small Header layout to it, and enable Property B. Then, you simply apply the Spring B layout type to the page.

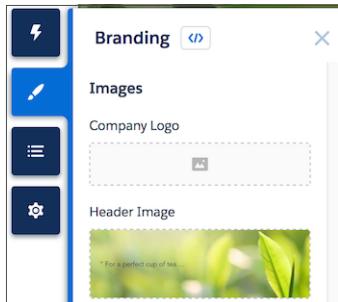


Theme layout types make it easy to reuse the same theme layout in several different ways, while maintaining as much granular control as you need.

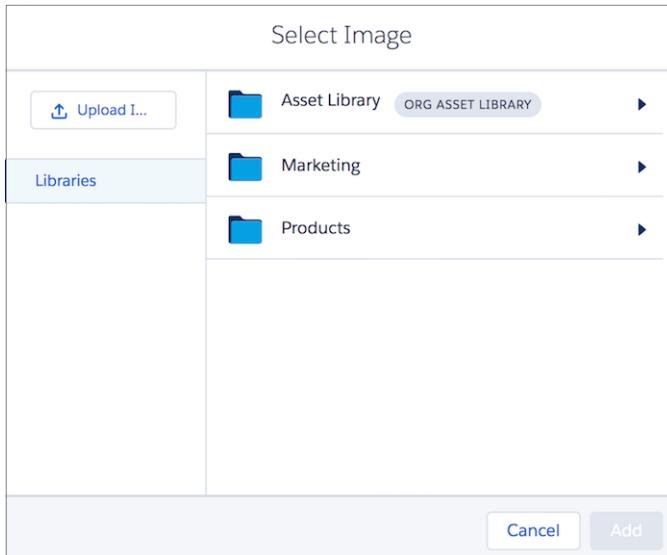
Find and Create Asset Files from Community Builder

Customizing your community with images for your header, logo, or custom components just got easier. Upload and select images using the file selector. Once uploaded, files are converted to packageable asset files and stored in your org asset library for easy reference and retrieval.

From Community Builder, click an image icon in the Branding panel to open the unified file selector.



The file selector displays only image files, so you don't have to wade through all your files to find your logo or header image. If the image file you want is already an asset file, it's in the asset library, which is clearly marked by the Org Asset Library badge. Asset files for your Salesforce org and all your Communities are stored in the Org Asset Library, so you don't need to maintain copies in different places.



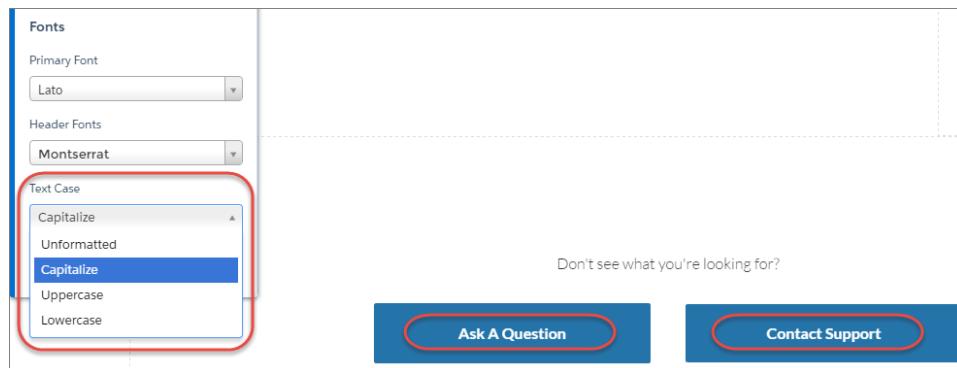
When you add an image to your community for the first time, an asset file is automatically created and stored in the Org Asset Library. Admins have full access to the Org Asset Library and can search for, tag, and subscribe to asset files. Anyone with "Customize Application" and "Create and Set Up Communities" permissions can access the Org Asset Library. To provide access to others, add them as members of the library with the appropriate permissions. Users without these permissions don't see the Org Asset Library. The Org Asset Library is available in all new orgs, and is automatically activated in existing orgs.

 **Note:** If public access is enabled in Community Builder at the page or community level, the **Let guest users view asset files on public pages** preference is enabled in Administration | Preferences. This preference remains enabled as long as any page has public access enabled.

Control Capitalization of Titles in Your Community

Use the new Text Case property in the Fonts section of the Branding panel to quickly adjust the case of titles in your community. The Text Case property affects all out-of-the-box components such as the Navigation Menu, Ask Button, Profile Header, and Headline. You can use lowercase or initial capitals in addition to all uppercase.

You can also leave the text unformatted to use the component's default font formatting.



Focus Your Community with Audience Targeting for Pages and Groups

In addition to profiles, you can now add location and record type criteria to page variations and hit your target audience. For example, by combining criteria, you can have a page that's visible only to sales users in San Francisco or create a custom group geared just to that set of users.

The screenshot shows the 'Set Audience Criteria' interface. It has three tabs: 'Profile', 'Location', and 'Record Type'. The 'Profile' tab is selected. Under 'Profile', there is a sub-section for 'Select the profiles that can see this page'. A dropdown menu labeled 'Filter profiles by' is set to 'Customer'. Below this are two sections: 'Available Profiles' containing 'Customer Portal Manager', 'Customer Community User', and 'cust2'; and 'Selected Profiles' which is currently empty. To the right, there is an 'Audience Summary' box stating 'No audience criteria selected.' At the bottom right are 'Cancel' and 'Save' buttons.

Here are some considerations when using criteria to target an audience.

- If you have multiple page variations, the page with the most assigned criteria is displayed. If you have pages with similar criteria, the rank of the criteria determines which page is displayed. Priority is determined in this order:
 - Profile
 - Record type
 - Location going from the most specific (like city) to the most general (like country)

For example, you have two pages with the profile criteria set to sales user. One also uses the record type criteria while the other uses location. The page set to sales user and record type displays because record type has a high priority.

- The profile criteria determines the navigation menu items. For example, if you turned off an item for a sales user profile, it's off regardless of any additional criteria.

Location criteria have a few more specific items to note.

- Location is actually the user's IP location, which could potentially be located in a neighboring city.
- The location permission is not on by default in Developer Edition orgs. Contact Salesforce if you want to use this feature in that edition.
- Use of Google API is not permitted in some countries. Location criteria don't work for those areas.

Lightning Bolt: Package More Easily and Distribute on AppExchange

Exported and packaged Lightning Bolt solutions now support more page types and properties. Not only that—if you're a consulting partner or ISV, you can distribute Lightning Bolt solutions on the Salesforce AppExchange to connect customers to your custom offering. And if you're a Salesforce administrator or user, you can visit AppExchange to find solutions to jump-start your community.

 **Tip:** Lightning Bolt solutions are available on AppExchange shortly after the Spring '17 release.

At its simplest, a Lightning Bolt solution comprises an exported template that's made up of a theme layout and CSS, along with pages, content layouts, and Lightning components. Bolt solutions seamlessly integrate with Salesforce and incorporate business logic, custom objects, and industry best practices.

When you export and package a Lightning Bolt solution, we now support:

- Login pages
- Page-level properties
- Asset files
- Theme layout properties and types

And if you're a consulting partner or ISV, you can publish your custom Lightning Bolt solution as a managed package to AppExchange. Market your solution with an AppExchange listing in the same way you list any other app, component, or consulting service. Describe your solution, pricing, support, and other details so that customers can determine if your offering is right for them.

 **Note:** Under Setup, we changed:

- Lightning Community Templates to Lightning Bolt Solutions
- Lightning Community Pages to Lightning Bolt Pages

Community Templates: Improved Search Results, Direct Messages, and More

We toiled through the winter months to bring you a slew of fresh spring features and components, including direct messages for community members, commenting in article feeds, topic enhancements, and nested navigation menu items.

IN THIS SECTION:

[Do More with Mobile in Template-Driven Communities](#)

One of the best features of Community Builder template-driven communities is their mobile responsiveness. Now community users can use their mobile device to execute more actions and get things done on the go. For example, a partner working at a client site can quickly add leads or update opportunities. A field service technician can close out appointments right from the job site or add new work orders. And customers accessing a community on a mobile device can log cases.

[Send Direct Messages in Communities](#)

Community members can now send direct messages to start a private conversation with one or more members. Direct messages are supported in all communities based on the Customer Service (Napili) template and in Lightning Bolt solutions, such as the Lightning Partner Management solution.

[Add a Collaboration Feed to Your Articles](#)

Have you ever read a knowledge article in a community that you know is incorrect? Now you can add your comments in article feeds in communities. Other community members can see your feedback and give their own, and community managers can incorporate your suggestions into the article itself.

[Leave No Question Unanswered](#)

Let community members help each other by highlighting questions that haven't been answered. Community members, managers, moderators, and even customer support can then easily see the most viewed unanswered questions and jump in. Drop the Unanswered Questions component on any page. The component shows the top unanswered questions based on the view count from across the community. As questions are answered, they are removed from view.

[See More Relevant Suggested Search Results](#)

Community members see more relevant suggested search results when using autocomplete search. Previously, you'd see suggested search results listing only discussions and articles. Now, autocomplete search checks for any object exposed in your community and made searchable by the admin. Admins have greater flexibility in setting up autocomplete search results. They can choose to have the results show in order of relevance or grouped by type. Admins can also add any searchable object available in the community to the autocomplete search results.

[Create Report and Dashboard List Views and Detail Pages](#)

Community members can now access report and dashboard list views and detail pages to see important records and drill down to what they need. When you create an object page in Community Builder for a report or dashboard, list view and detail pages are automatically created. Community members can also collaborate using feeds.

[Create New Records from Lookups](#)

Community members can now create records via lookups, a handy trick that saves time and frustration. Imagine a partner community member who creates the opportunity Awesome Widgets to track a potential sale. The partner looks up the contact Jess Fabulous to see if Jess exists in the system. If Jess isn't in the system, the partner simply clicks **New** to create the contact. No break in flow, and no time lost.

[Tasks Now Available in Communities](#)

You can now add tasks to opportunities, leads, accounts, and contacts in communities using the Record List component. Let community members keep track of their tasks by adding it to the navigation menu.

[See How Often a Topic Is Followed and Used](#)

Community members can now see various metrics around topics usage: The number of posts using the topics, the number of articles associated with the topics, how often a topic has been used in the past 60 days, and how many followers it has. With this information at their fingertips, community members know whether a topic is as fresh as a daisy or as stale as a week-old baguette. Admins can also use these metrics to feature certain topics in their communities or consolidate similar topics based on usage.

[Simplified Guest User Access for Object Data in Communities](#)

Topics, articles, and recommendations no longer require you to enable the **Give access to public API requests on Chatter** preference in Community Management or Community Workspaces. Previously, if the preference wasn't enabled, topics, articles, or recommendations data didn't load correctly on public pages in communities.

[Bookmarks Feed Comes To Community Builder](#)

In Community Builder, the **Type** field on Feed and Feed Compact components has one more option: bookmarks. Create bookmark feeds to show users everything that they bookmarked in one place.

[Customize Community Navigation with Nested Menu Items](#)

The new **Menu Label** type in the Navigation Menu component lets you create parent headings for your navigation menu and nest items underneath.

[Harness the Power of Visualforce in Template-Based Communities](#)

Have you customized and perfected your community using the Salesforce Tabs + Visualforce template? Would like to enjoy the benefits and enhancements available in a Lightning-based community but still continue to use your Visualforce customizations? We've got you covered! Your Visualforce pages, actions, buttons, links, and canvas apps now work in Customer Service (Napili)-based communities.

[Modify the Kanban View](#)

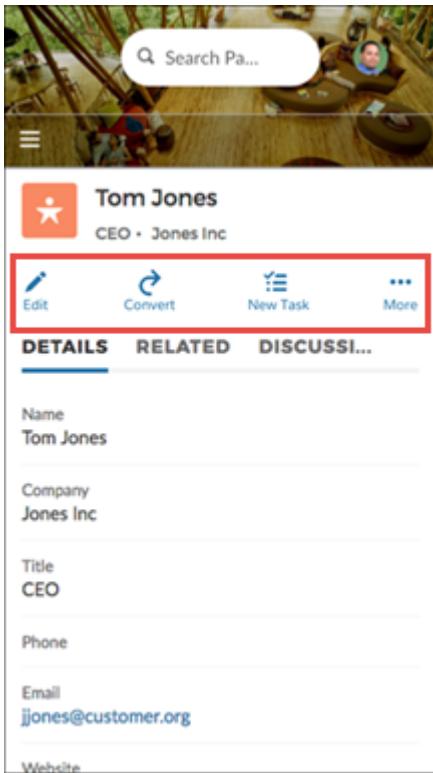
Community members with the "Create and Customize List Views" permission can modify the Kanban view of records in their community. This feature is available only in Lightning component-based communities.

Do More with Mobile in Template-Driven Communities

One of the best features of Community Builder template-driven communities is their mobile responsiveness. Now community users can use their mobile device to execute more actions and get things done on the go. For example, a partner working at a client site can quickly add leads or update opportunities. A field service technician can close out appointments right from the job site or add new work orders. And customers accessing a community on a mobile device can log cases.

 **Note:** Community members can perform actions from the record detail and record list view pages.

 **Example:**



Send Direct Messages in Communities

Community members can now send direct messages to start a private conversation with one or more members. Direct messages are supported in all communities based on the Customer Service (Napili) template and in Lightning Bolt solutions, such as the Lightning Partner Management solution.

To enable direct messages for your community:

1. Select **Enable Direct Messages** under **Administration > Preferences** in Community Management (or [Community Workspaces](#), if you enable it).
2. In Community Builder, click the **Profile Header** component on the community Home page and select **Include My Messages**. This displays the My Messages link in the user profile dropdown menu.
3. Optionally, you can add other components to your community pages to facilitate easy access to direct messages.
 - Add the **Messages** page to the community navigation menu for prominent placement and easy access.

- Add the **New Message Button** component to any page you want to allow community members to create messages from.
- Add the **Message Notification** component to the community home page to allow community members to view the last three messages they received.

The screenshot shows a "RECENT MESSAGES" section with a "New" button. It lists three messages:

- Francis McDonald (2h ago): "this is some te..."
- Andre, George (Dec 6, 2016): "Planning for N..."
- Lucas Schnell (Nov 29, 2016): "Re: Jacket is p..."

Community members can start a direct message conversation:

- From the Messages page.
- From user profiles and hovers on users.
- From the Message Notification and the New Message Button components on community pages.
- By sharing a feed post as a direct message.

They can also flag a direct message if they think it's inappropriate or spam.

Community members can view all direct messages in the My Messages list, which they can conveniently access from their user profile menu.

The screenshot shows the Salesforce Chatter interface. At the top, there's a search bar with 'Search...' placeholder text and a blue 'Search' button. To the right of the search bar is a user profile for 'HOWAR...'. Below the header, there are two tabs: 'TOPICS' and 'MESSAGES'. The 'MESSAGES' tab is selected, and it displays a list of messages on the left and a detailed view of a specific message on the right.

Messages List:

- Francis McDonald - Take a look at this! (Nov 11, 2016)
- David, Lena, Lucas - Re: Help with broken z... (Jul 26, 2016)
- Lena Weber - Case #3231 (Jul 26, 2016)
- Francis, Lena - This Month's Promotio... (Jul 26, 2016)
- George, Lena, Steven - Thursday's Meeting (Jul 26, 2016)
- David, George, Lena - Daily User Growth (Jul 26, 2016)
- Andre, David, Lara, Le... - New Escalation Policy (Jul 26, 2016)
- David, Lena - Re: Pricing of Boots (Jul 26, 2016)

Message Detail View:

Subject: Re: Help with broken zipper
Participants: David, Lena, and Lucas

Message Content:

Howard Brew Jul 26, 2016 at 3:34 PM
Hey All - We have customer with a zipper issue (see image). Is this covered under our warranty policy?

Reply:

Lena Weber Jul 26, 2016 at 3:41 PM
Yeah, that's covered. Here's our latest warranty document for your reference.

Chatter REST API and [Chatter in Apex](#) support direct messages.

Example: Direct messages offer privacy for more sensitive conversations. Imagine a scenario where a customer brings up a product issue in the community feed. A support rep can share that post and address the customer's concerns privately in a direct message. Similarly, a channel manager can discuss sensitive sales data with one or more partner users in a partner community.

Add a Collaboration Feed to Your Articles

Have you ever read a knowledge article in a community that you know is incorrect? Now you can add your comments in article feeds in communities. Other community members can see your feedback and give their own, and community managers can incorporate your suggestions into the article itself.

Articles must have feed tracking enabled for feeds on articles to work. To use article feeds, in Community Builder, add the Feed and Feed Publisher components to the article detail page, and instantly start seeing the results.



Note: The Feed and Feed Publisher components are included by default in communities built after Spring '17. In older communities, admins must add these components to the article detail page.

Leave No Question Unanswered

Let community members help each other by highlighting questions that haven't been answered. Community members, managers, moderators, and even customer support can then easily see the most viewed unanswered questions and jump in. Drop the Unanswered Questions component on any page. The component shows the top unanswered questions based on the view count from across the community. As questions are answered, they are removed from view.



Note: Only questions created after the Spring '17 release are displayed in the Unanswered Questions component.

Chatter REST API and [Chatter in Apex](#) support top unanswered questions.



The screenshot shows a component titled "CAN YOU ANSWER THIS?" containing three questions with their respective view counts:

- Which grandslam is played on grass? (21 views)
- How many players can play tennis? (17 views)
- Who won last Men's US open????? (7 views)

See More Relevant Suggested Search Results

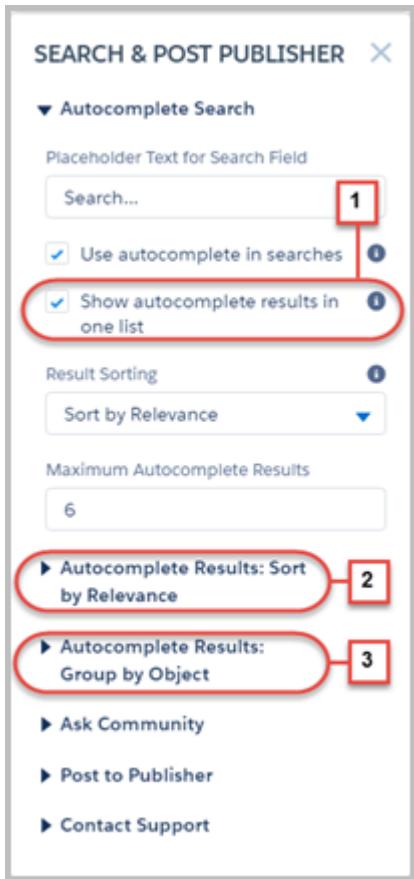
Community members see more relevant suggested search results when using autocomplete search. Previously, you'd see suggested search results listing only discussions and articles. Now, autocomplete search checks for any object exposed in your community and made searchable by the admin. Admins have greater flexibility in setting up autocomplete search results. They can choose to have the results show in order of relevance or grouped by type. Admins can also add any searchable object available in the community to the autocomplete search results.

For instance, if a community member searches for "coffee" in the community, the suggested autocomplete search result shows the most relevant object containing "coffee." For a partner community user, it could be the Awesome Coffee account, while customers can find "coffee grinds too fine" in cases.

To customize your autocomplete results so that they include objects beyond discussions and articles, enable **Show autocomplete results in one list** (1) in the Search & Post Publisher component's properties. Admins can configure properties in the Autocomplete Results: Sort by Relevance (2) and Autocomplete Results: Group by Object (3) sections to set up autocomplete search.



Example:



Create Report and Dashboard List Views and Detail Pages

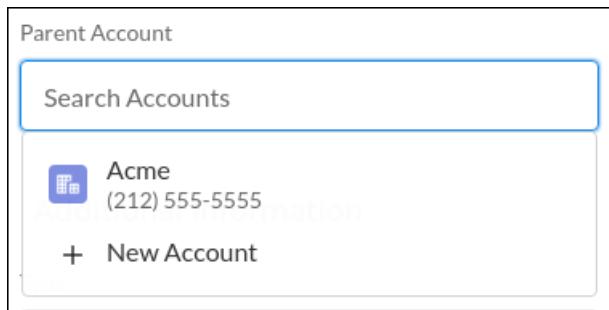
Community members can now access report and dashboard list views and detail pages to see important records and drill down to what they need. When you create an object page in Community Builder for a report or dashboard, list view and detail pages are automatically created. Community members can also collaborate using feeds.

Create New Records from Lookups

Community members can now create records via lookups, a handy trick that saves time and frustration. Imagine a partner community member who creates the opportunity Awesome Widgets to track a potential sale. The partner looks up the contact Jess Fabulous to see if Jess exists in the system. If Jess isn't in the system, the partner simply clicks **New** to create the contact. No break in flow, and no time lost.



Example:



Tasks Now Available in Communities

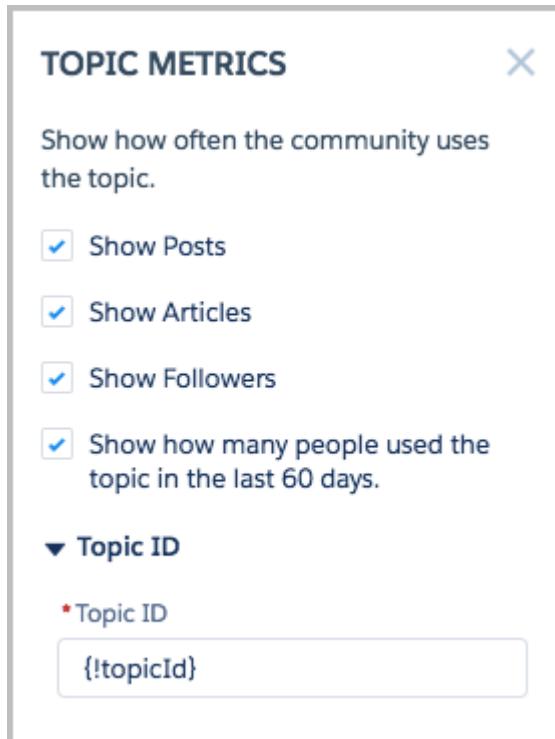
You can now add tasks to opportunities, leads, accounts, and contacts in communities using the Record List component. Let community members keep track of their tasks by adding it to the navigation menu.

See How Often a Topic Is Followed and Used

Community members can now see various metrics around topics usage: The number of posts using the topics, the number of articles associated with the topics, how often a topic has been used in the past 60 days, and how many followers it has. With this information at their fingertips, community members know whether a topic is as fresh as a daisy or as stale as a week-old baguette. Admins can also use these metrics to feature certain topics in their communities or consolidate similar topics based on usage.

The Trending Topic and Related Topic components can now also include a metric showing how many people are using topics.

Example: The Topic Metrics component properties in Community Builder.



Simplified Guest User Access for Object Data in Communities

Topics, articles, and recommendations no longer require you to enable the **Give access to public API requests on Chatter** preference in Community Management or Community Workspaces. Previously, if the preference wasn't enabled, topics, articles, or recommendations data didn't load correctly on public pages in communities.

The following components load data correctly and are no longer dependent on the **Give access to public API requests on Chatter** preference:

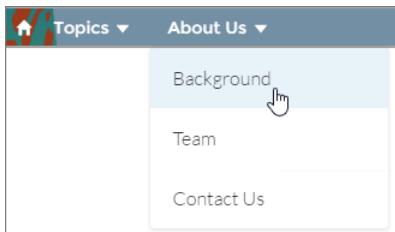
- Featured topics
- Navigational topics
- Related topics
- Trending topics
- Related articles
- Trending articles
- Recommendations

Bookmarks Feed Comes To Community Builder

In Community Builder, the **Type** field on Feed and Feed Compact components has one more option: bookmarks. Create bookmark feeds to show users everything that they bookmarked in one place.

Customize Community Navigation with Nested Menu Items

The new **Menu Label** type in the Navigation Menu component lets you create parent headings for your navigation menu and nest items underneath.



Add a menu item, and set the type to **Menu Label**. Nest other menu items underneath by dragging them to the right under the menu label.



Note: You can't nest navigational topics under menu labels.

Navigation Menu
Navigation changes will be immediately published to your community.

Menu Structure

- Home
- Topics
- About Us
- Background
- Team
- Contact Us

Add Menu Item

Menu Item

*Name: About Us

*Type: Menu Label

Publicly available

Cancel **Publish**

Harness the Power of Visualforce in Template-Based Communities

Have you customized and perfected your community using the Salesforce Tabs + Visualforce template? Would like to enjoy the benefits and enhancements available in a Lightning-based community but still continue to use your Visualforce customizations? We've got you covered! Your Visualforce pages, actions, buttons, links, and canvas apps now work in Customer Service (Napili)-based communities.

For example, say that you have the Salesforce CPQ (Steelbrick) app installed in your org. You can create a Quote detail page and use the Visualforce Page component to display the Quote line editor or other pages. Your configured actions, buttons, and links, associated with standard or custom objects, work in communities as well. And canvas app overlays let you host third-party applications in your community.

Getting Started

1. Give Visualforce page access to users by profile.

From Setup, enter *Profiles* in the Quick Find box, then select **Enabled Visualforce Page Access**.

Enable Visualforce Page Access

Select the Visualforce pages that you want to make accessible at this Force.com site.

Available Visualforce Pages	Enabled Visualforce Pages
AnswersHome	BandwidthExceeded
ChangePassword	CommunitiesLanding
IdeasHome	CommunitiesLogin
InMaintenance	CommunitiesSelfReg
MyProfilePage	CommunitiesSelfRegConfirm
ProfilePageA	CommunitiesTemplate
SiteTemplate	Exception
StdExceptionTemplate	FileNotFoundException
Unauthorized	ForgotPassword

Add **Remove**

Save **Cancel**

2. Make the Visualforce page available for your community.

From Setup, enter **Visualforce** in the Quick Find box, then select **Visualforce Pages**. Enable **Available for Salesforce mobile apps and Lightning Pages**.

Visualforce Page

Page Edit **Save** **Quick Save** **Cancel**

Page Information

Label: MyProfilePage
Name: MyProfilePage
Description: Default Force.com My Profile Page

Available for Salesforce mobile apps and Lightning Pages

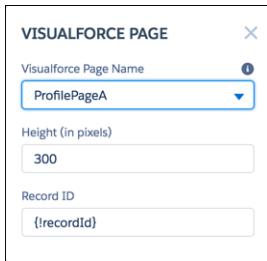
Require CSRF protection on GET requests



Tip: When developing your Visualforce page code, set the `showHeader` attribute to `true`. Branding properties you set in **Administration > Branding** in Community Workspaces or Community Management also apply to the Visualforce page component in your Customer Service (Napili) community.

Visualforce Page Component

In Community Builder, add the Visualforce Page component to your page. Then edit the component to select the Visualforce page to use. If you installed the Salesforce CPQ (Steelbrick) app, those pages are available for selection here.



 **Note:** If the Visualforce page requires the Record ID from an object such as Account, create object pages for Account. Then drag and drop the Visualforce Page component onto the object's detail page. The Record ID field adjusts to the object's ID.

Custom Actions

Visualforce custom actions let users perform tasks, such as creating records. If you have custom actions with an action type of **Custom Visualforce** associated with a Visualforce page, these actions now work in published communities. When users click the action button, the associated Visualforce page displays.

 **Note:** Overrides to standard Visualforce actions such as View, New, Edit, and Delete are not supported in communities. These buttons on record detail pages don't display in communities.

Custom Buttons and Links

Visualforce custom buttons and links let users interact with Salesforce data and with external websites and services. If you have custom buttons and links with a content source of Visualforce Page, these buttons and links now work in published communities. When users click the button or link, the associated Visualforce page displays.

 **Note:** The Behavior setting for custom buttons and links is not supported. When users click custom buttons in published communities, the Visualforce page is always displayed in the current window.

Visualforce custom list buttons are not supported in communities.

Canvas Apps

Use canvas apps as custom actions to give users access to the functionality of your apps in communities. Configure your canvas app for Lightning Component and Visualforce Page in Canvas App Settings. You can then load the canvas app inside a Visualforce page, Visualforce action, and Lightning components in published communities.

 **Note:** Canvas quick actions are not available for guest users.

You can opt to hide the publisher header and publisher Share button in Canvas App Settings.

Modify the Kanban View

Community members with the "Create and Customize List Views" permission can modify the Kanban view of records in their community. This feature is available only in Lightning component-based communities.

Custom Lightning Components: Develop for Communities

Use the Lightning Component framework to build custom components for Communities.

IN THIS SECTION:

[Write Once, Reuse Everywhere: Support for `force:hasRecordId`](#)

Lightning components that implement the `force:hasRecordId` interface now work seamlessly in Community Builder. The `force:hasRecordId` interface makes a component context-aware by adding the record ID from the component's page to the component at runtime. For example, a component on a record page receives the record ID of the currently displayed record.

[Access Lightning Apps in Public Communities](#)

Add the `ltng:allowGuestAccess` interface to your Lightning app to make it available to users without requiring that they register with or log in to your community. This interface makes your Lightning app available to more people, with fewer barriers to using it.

[Customize with Global Lightning Components and Events](#)

We added the new `forceCommunity:routeLink` component, which you can use to improve SEO link equity in communities based on the Customer Service (Napili) template. We also updated the `forceCommunity:analyticsInteraction` event, so now you can measure social interactions, periods of time, and errors.

Write Once, Reuse Everywhere: Support for `force:hasRecordId`

Lightning components that implement the `force:hasRecordId` interface now work seamlessly in Community Builder. The `force:hasRecordId` interface makes a component context-aware by adding the record ID from the component's page to the component at runtime. For example, a component on a record page receives the record ID of the currently displayed record.

Previously, the `force:hasRecordId` interface was supported in Lightning App Builder and Salesforce1 only. Now it's supported in communities as well. If you already created components that implement the interface, you can use them in Community Builder.

If you have components that include expression language to obtain the record ID, there's no need to remove the expression language. Expressions take precedence over the `force:hasRecordId` interface.



Note: To make your Lightning components available for communities, you still need the `forceCommunity:availableForAllPageTypes` interface.

SEE ALSO:

[Lightning Components Developer Guide: Configure Components for Lightning Experience Record Pages](#)

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Add the `ltng:allowGuestAccess` interface to your Lightning app to make it available to users without requiring that they register with or log in to your community. This interface makes your Lightning app available to more people, with fewer barriers to using it.



Note: You can only add the `ltng:allowGuestAccess` interface to Lightning apps, not to individual components.

Once you've enabled your app for guest access, your app is available as a stand-alone Lightning app at the following URL:

`https://yourCommunityDomain/communityURL/namespace/appName.app`.

Stand-alone Lightning apps don't display any Salesforce branding, nor do they use your community template. You have complete control over the visual design of a stand-alone app.

Here's an example that shows you how to translate your org's settings into the URL to your app.

- You set your community domain to "universalcontainers.force.com".
- You don't have a namespace defined for your org.
- You've created a community with the URL "ourstores".

- You've added `implements="l1tng:allowGuestAccess"` to a Lightning app named "locator.app".

The URL to your Lightning app is: <https://universalcontainers.force.com/ourstores/c/locator.app>.

 **Important:** When you make a Lightning app accessible to guest users by adding the `l1tng:allowGuestAccess` interface, it's available through **every** community in your org, whether that community is enabled for public access or not. You can't prevent it from being accessible via community URLs, and you can't make it available for some communities but not others.

 **Warning:** Be extremely careful about apps you open for guest access. Apps enabled for guest access bypass the object- and field-level security (FLS) you set for your community's guest user profile. Lightning components don't automatically enforce CRUD and FLS when you reference objects or retrieve the objects from an Apex controller. This means that the framework continues to display records and fields for which users don't have CRUD access and FLS visibility. You must manually enforce CRUD and FLS in your Apex controllers. A mistake in code used in an app enabled for guest access can open your org's data to the world.

SEE ALSO:

[Share Lightning Apps with Non-Authenticated Users](#)

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

[Getting Started with Communities: Enable Public Access to a Community](#)

[Lightning Components Developer Guide: CRUD and Field-Level Security \(FLS\)](#)

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SEE ALSO:

[New and Changed Lightning Components](#)

[Changed Lightning Events](#)

Chatter and Files in Community Templates: Create Custom Groups, Track Top Posts, Filter Questions, Share Posts, and More

Create completely custom groups. Sort by the most popular posts. Filter questions in group feeds in communities. Share posts with your followers.

IN THIS SECTION:

[Sort by the Most Popular Posts in Your Community](#)

The list of feed sorting options grows in this release with Top Posts. Users select Top Posts to see the latest posts with the most engagement as measured by comments, likes, and views. The Top Posts sorting option is available on discussion feeds in communities based on the Customer Service (Napili) template.

[Filter Questions in Your Community in More Ways](#)

You have more ways to look at questions in your communities. You can already sort questions, and now you can filter them, too. Filter by All Questions, Unanswered Questions, Questions with No Best Answer, and Questions with Best Answer. This feature is available in communities based on the Customer Service (Napili) template.

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When someone posts something you'd like more people to see, you can share it with your followers. If you like, you can add your own introductory remarks before you post. When you share a post to a direct message (Send as Message), your share starts a new direct message thread. This feature is available in communities based on the Customer Service (Napili) template.

[Use Keyboard Keys to Post to Your Community](#)

Power users can use a keyboard to complete posts and comments. In Windows, enter content and press Ctrl+Enter. In macOS, press either Control+Enter or Command+Enter. This feature is available in communities based on the Customer Service (Napili) template.

[Feeds Look and Feel Gets Refreshed in Your Community](#)

We're continuing the work of conforming all our platforms to the same usability standards. In this release, we changed the likes bar. Now it shows you a count and lists the names of up to three people who liked the post. This feature is available in communities based on the Customer Service (Napili) template.

[Manage Members with Greater Ease](#)

We're bringing you a trifecta of ways to make managing your group's members easier. Curious about who members are before you add them to your group? Hover over their name to see their details. And to add members more quickly, click **Add more** to directly open the **Add Members** dialog. Last, but not least, you can sort your full member list by column (except for photo). These features are available in Lightning Experience and in communities using the Customer Service (Napili) template.

[User Profile Header Is More Streamlined](#)

User profile pages can start to be a bit packed with all that information in the header. We cleaned it up to make the page feel less crowded. The header now shows four basic fields: name, title, company name, and active. Not to worry, though—more fields display when you hover.

[User Info on Hover Comes to Communities](#)

You know how cool it is when you hover over a photo and the person's information pops up? That same functionality is now available in communities. No longer do you have to navigate away from the page that you're on to get member details. This feature is available in communities using the Customer Service (Napili) template.

[Place Users' Reputation Levels Where You Want Them](#)

When your community uses the Reputation feature, a user's reputation level normally displays below the profile photo. But all that information can make that space feel tight. So you can now choose to have the reputation display in the Influence section, making the world a bit tidier. This feature is available in communities based on the Customer Service (Napili) template.

[Customizable Groups Now Generally Available](#)

We're pleased to announce the biggest improvement to Chatter groups in years! Now, all Chatter groups are completely customizable. With this feature, Groups take a quantum leap and become quick, easy containers for providing any kind of rich collaborative experience you want to give to your members. This feature is available in communities using Lightning-based templates.

[Organize Your Groups List View Using Tiles](#)

Use tiles on the Groups list view for a decluttered view of all your groups. You can easily toggle between the tile view and the normal grid view. This feature is available in Lightning Experience and in communities based on the Customer Service (Napili) template.

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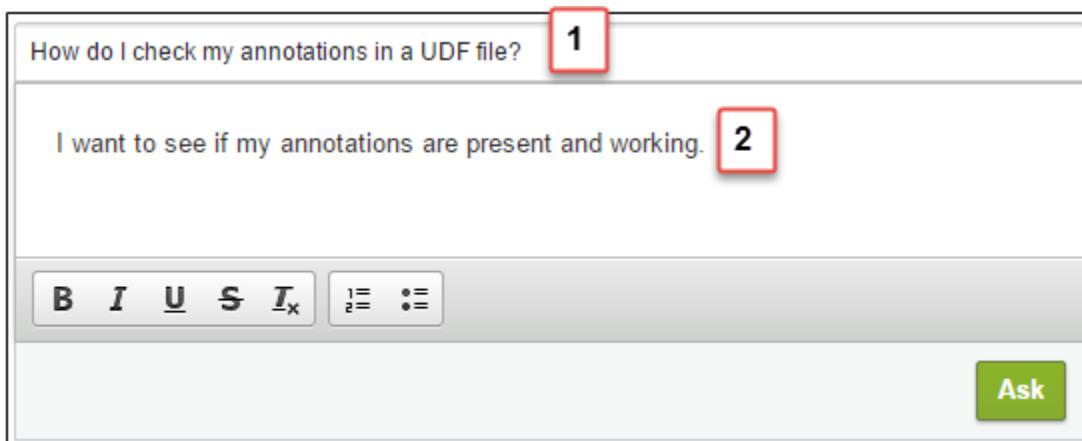
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Power users can use a keyboard to complete posts and comments. In Windows, enter content and press Ctrl+Enter. In macOS, press either Control+Enter or Command+Enter. This feature is available in communities based on the Customer Service (Napili) template.



Note: In questions, shortcut keys work with question details, but not on the question itself. So, if you just ask a question (1), the shortcuts don't work. But if you include details with the question (2), shortcuts work.



SEE ALSO:

[Use Keyboard Keystrokes to Post](#)

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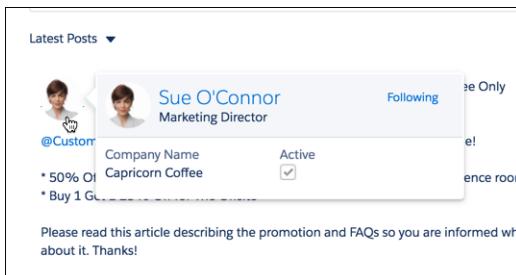
We're bringing you a trifecta of ways to make managing your group's members easier. Curious about who members are before you add them to your group? Hover over their name to see their details. And to add members more quickly, click **Add more** to directly open the **Add Members** dialog. Last, but not least, you can sort your full member list by column (except for photo). These features are available in Lightning Experience and in communities using the Customer Service (Napili) template.

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What does this mean? Previously you could use Community Builder to change which components appeared in your Groups, but every group would look the same. Now, every group can have its own layout. This means components, actions, publisher, and related lists can all be customized to meet a given use case perfectly.



Example: A group devoted to providing support to customers could have its publisher default to Questions, and components arrayed around the feed containing a welcome video, a FAQ, top KB articles, the user's list of open cases, and anything else needed to provide top-notch support experience.

Organize Your Groups List View Using Tiles

Use tiles on the Groups list view for a decluttered view of all your groups. You can easily toggle between the tile view and the normal grid view. This feature is available in Lightning Experience and in communities based on the Customer Service (Napili) template.

Group Name	Members	Last Activity	Access Type	Owner
Customer Service Team	6	Aug 28, 2023	Public	Steven Bletry
Support Management Team	7	Aug 24, 2023	Public	Andrea Becker
Training Information	10	Jan 16, 2023	Public	Ted Schmitt
Marketing Strategy	11	Nov 13, 2021	Public	Franck Jaeger
Product Experts	13	Feb 24, 2019	Public	Franck Jaeger
Coffee Klatch	1	Dec 12, 2016	Public	Eric Ware
Agronomists Experts	12	Nov 3, 2016	Private	Eric Ware
Product Marketing Assets	1	Oct 31, 2016	Public	Eric Ware

Search, Reports, and Analytics: Know More About Your Community

Get the most from search with improved search reports and dashboards and see click-through rates on related questions.

IN THIS SECTION:

[Get More Granular Information with Improved Search Reporting](#)

We now count every time Salesforce fetches results. Search reports show which search terms produced no results in the community and which ones did. Admins can also see the average number of results per search term and which searches were confined to a specific subset of records. Previously, search queries were counted every time a user entered a search query and pressed Enter, clicked Search, or selected a search option in autocomplete results.

[Dive Deeper into Self-Service Communities Using Google Analytics](#)

Does your company use Google Analytics™ to track site analytics? Now you can use it to track search activity in self-service communities and track deflection from cases. Using Google Analytics, you can dive deeply into your community's search behavior and pull that information into meaningful reports.

[Create a Custom Report Type to See Click-Through Rates for Related Questions](#)

Find out how often members click related questions suggested by your community. Create a custom report type from Object>Networks that monitors click-through rates of related questions. You can then have a daily tracker of the number of times a related question was shown in the community (impressions), how often it was clicked, and the ratio between the two. Use the click-through rates to create content around the most accessed questions, empowering your customers to find the information they need.

Get More Granular Information with Improved Search Reporting

We now count every time Salesforce fetches results. Search reports show which search terms produced no results in the community and which ones did. Admins can also see the average number of results per search term and which searches were confined to a specific subset of records. Previously, search queries were counted every time a user entered a search query and pressed Enter, clicked Search, or selected a search option in autocomplete results.

Dive Deeper into Self-Service Communities Using Google Analytics

Does your company use Google Analytics™ to track site analytics? Now you can use it to track search activity in self-service communities and track deflection from cases. Using Google Analytics, you can dive deeply into your community's search behavior and pull that information into meaningful reports.

Google Analytics integrates with your self-service community to track community user types, User IDs, Salesforce Objects, and customer search activity.

wireless keyboards

Search

"wireless keyboards" in Logitech

"wireless keyboards" in the "Keyboard" topic

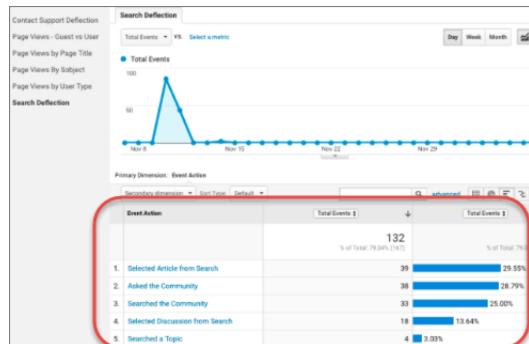
Wireless Keyboard
Article • 10 Nov, 2016

Wireless Combos
Article • 10 Nov, 2016

Wireless Solar Keyboard
Article • 10 Nov, 2016

Wireless Mouse
Article • 10 Nov, 2016

Didn't find it? [Ask the Community](#)



After you enter your Google Analytics ID in **Settings > Advanced** in Community Builder, select **Let Google Analytics access your Salesforce data for deeper insights into search activity**. When you publish your community to enable the service, your community's search data streams directly to the Google Analytics service. Some [additional setup in Google Analytics](#) is required to track your self-service community activity. To access preconfigured reports and dashboards, install the Google Analytics for Salesforce Communities Package.

Note: All template-based communities support Google Analytics integration.

Create a Custom Report Type to See Click-Through Rates for Related Questions

Find out how often members click related questions suggested by your community. Create a custom report type from Object>Networks that monitors click-through rates of related questions. You can then have a daily tracker of the number of times a related question was shown in the community (impressions), how often it was clicked, and the ratio between the two. Use the click-through rates to create content around the most accessed questions, empowering your customers to find the information they need.

Moderation: Preconfigured Rules and Spam IQ

Our ready-to-go moderation rules lessen your load, and Spam IQ protects your community at all times. Time to put up your feet, Moderators!

IN THIS SECTION:

[Get a Head Start with Preconfigured Moderation Rules](#)

Moderators, we know that you work hard to keep your community free of inappropriate posts and spam, so we added something extra for you this release. We set up moderation rules! Simply turn on the rules and you have a prepped ally against malicious content.

[Protect Your Community and Improve Productivity with Spam IQ \(Pilot\)](#)

Your community is the place customers go to get answers and talk to other customers. It's also the place where your customers get to know you. The last thing you want is spam getting in the way, but it can be hard to keep up. Enter Spam IQ. Spam IQ steps in and monitors your customer community for spam using the community moderator's activity as a guide.

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Set up and ready to go, these moderation rules block, flag, and replace blacklisted keywords and freeze members who don't follow the rules. Are these rules not exactly what you are looking for? No worries. You can customize these rules to fit your community's needs and add or remove terms from the list of blocked keywords.

Preconfigured moderation rules are available only for communities created after Spring '17. To activate the rules, go to **Moderation > Rules**, select **Edit** next to the rule that you want to activate and select the **Active** box. To modify the banned keywords, go to **Moderation > Content Criteria** and click **Banned Keywords**.

Rules

[Visit our Success Stories](#)

View and create rules to moderate member-generated content. Before creating a rule, make sure you've created criteria to use in that rule.

Action	Name ↑	Description	Moderation Action	Active	Created Date
Edit Del	Block posts or comments containing banned keywords	Posts or comments with banned words aren't saved to the community feed	Block	<input type="checkbox"/>	11/14/2016 2:24 PM
Edit Del	Flag posts or comments containing banned keywords	Community moderators review posts and comments containing banned keywords	Flag	<input type="checkbox"/>	11/14/2016 2:24 PM
Edit Del	Freeze members whose posts or comments exceed the allowed rate	Freezes members who post or comment more frequently than is allowed	Freeze Member And Notify Moderator	<input type="checkbox"/>	11/14/2016 2:24 PM
Edit Del	Replace banned keywords with asterisks	Posts and comments using banned keywords are replaced with asterisks	Replace	<input type="checkbox"/>	11/14/2016 2:24 PM
Edit Del	Review the first post or comment made by a new member	Community moderators review the first post or comment from new members	Review	<input type="checkbox"/>	11/14/2016 2:24 PM

Protect Your Community and Improve Productivity with Spam IQ (Pilot)

Your community is the place customers go to get answers and talk to other customers. It's also the place where your customers get to know you. The last thing you want is spam getting in the way, but it can be hard to keep up. Enter Spam IQ. Spam IQ steps in and monitors your customer community for spam using the community moderator's activity as a guide.

Unlike manual moderation, Spam IQ is a machine-learning system that protects your community all the time. Unlike rule-based moderation, it can automatically adapt to fit a specific community's data by learning from what your moderators moderate.

Spam IQ works by classifying user generated content and learning from it. For example, when a comment is added to the feed of your community, that information is stored and classified based on previous comments of its type. If the comment is classified as spam, it's flagged as spam and marked with an Einstein Flag to distinguish the flag from a flag added by a moderator or customer. The more information that the system collects, the more refined the moderation becomes. Content collected by Spam IQ is stored for 365 days.

 **Note:** During the pilot of this feature, not all Spam IQ functionality is available. For this release, Spam IQ only classifies the content that it's collecting.

 **Important:** We provide Spam IQ 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, so we can't guarantee acceptance. Spam IQ 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.

Other Changes in Communities

Learn about smaller changes that improve your experience with Communities.

IN THIS SECTION:

[Create List Views in Communities](#)

Give community members the ability to create list views in communities! Just enable the "Create and Customize List Views" permission for your community users, and watch as they create the list views of their dreams.

[Edit Records Inline in Communities](#)

Users with edit permission for an object can now edit records inline, saving time and effort. Snap - it just got easier.

[Refine Reputation to Reflect Meaningful Activity](#)

Points mean a lot when it comes to reputation, but those numbers can be inflated when they include points for contributions to records, like opportunities. You can now exclude record contributions from overall reputation points, so reputation levels more accurately represent a user's activities in the community.

[Article URLs Now Include the Record ID](#)

To improve consistency and robustness, the record ID is now included in article URLs. Previously, article URLs used the format /article/:urlName, but we now redirect to /article/:recordId/:urlName. This enhancement also makes it easier to create custom components that rely on a generic record ID and use them on the article detail page.

[Customer Community Plus License](#)

Now Customer Community Plus users can get task reminders, add notes and attachments, access events and calendars, send email, and update the status of a case.

[Create More Communities in Your Salesforce Org](#)

You asked for it. We delivered. You can now create up to 100 communities in your org. Hooray!

[Perform Mass Inline Edits in a Community](#)

Community members can now edit up to 200 records at a time. With inline editing and enhanced lists enabled in your org, give community members the "Mass Edits from Lists" permission. No longer are the days of having to open every record to make the same change in each. This feature is available only in communities using Salesforce Tabs + Visualforce.

[Stamp Your Users with a Specialty](#)

User Specialty is one more way of identifying community members. Create different types of specialties, like MVP, Expert, or Team Captain, and assign them to specific members. Other members can quickly identify those stamped with a specialty, and can follow them for more help and insights. The specialties you create is completely up to you, but each user can only be assigned one specialty.

[Communities Supports All Platform Languages](#)

Previously, Communities offered only fully supported and end user languages. Communities now supports all platform languages, making Communities language support on par with the Salesforce platform.

[Back Button Support Now Available in Tabs in Template-Driven Communities](#)

Use the back button in template-driven communities to navigate to the tab that you previously selected in community pages.

Create List Views in Communities

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For example, `https://mycommunity.com/s/article/some_article` redirects to `https://mycommunity.com/s/article/0D5B0000007qtP7KAI/some_article`.



Note: If your org has custom components that rely on the article's `urlName`, update the components to use `recordId` instead.

Customer Community Plus License

Now Customer Community Plus users can get task reminders, add notes and attachments, access events and calendars, send email, and update the status of a case.



Note: To turn off customer access to notes and attachments, deselect the **Let customer users access notes and attachments** org preference.

Create More Communities in Your Salesforce Org

You asked for it. We delivered. You can now create up to 100 communities in your org. Hooray!



Note: This includes Published, Inactive, and Active communities.

Perform Mass Inline Edits in a Community

Community members can now edit up to 200 records at a time. With inline editing and enhanced lists enabled in your org, give community members the "Mass Edits from Lists" permission. No longer are the days of having to open every record to make the same change in each. This feature is available only in communities using Salesforce Tabs + Visualforce.

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User Specialty is one more way of identifying community members. Create different types of specialties, like MVP, Expert, or Team Captain, and assign them to specific members. Other members can quickly identify those stamped with a specialty, and can follow them for more help and insights. The specialties you create is completely up to you, but each user can only be assigned one specialty.

In Spring '17, creating and assigning specialties is available only through the API. Use `Stamp` to create your specialty and the `StampAssignment` to assign it to a user. The specialty appears on the user's profile page below the profile photo.

Communities Supports All Platform Languages

Previously, Communities offered only fully supported and end user languages. Communities now supports all platform languages, making Communities language support on par with the Salesforce platform.

Back Button Support Now Available in Tabs in Template-Driven Communities

Use the back button in template-driven communities to navigate to the tab that you previously selected in community pages.

Communities Documentation: Spruced Up for Spring

With the UI getting a new look, we felt that it was time to do some housekeeping with our documentation. We retired some doc and we also moved things around to consolidate our content into fewer PDFs and make it searchable from the Salesforce Help.

So what's changing?

- We retired the *Getting Started with Communities* implementation guide. All the information from this implementation guide already lives in the Salesforce Help, which is fully searchable and translated into all our supported languages. If you prefer to download your content, use the [Set Up and Manage Communities](#) guide instead. It has all the help topics consolidated into a single PDF.
- If you use partner portals, we strongly recommend that you migrate your partner users to communities. To that end, we added a ton of new content for managing partner relationships and [using the Lightning Partner Management solution](#) to create partner communities.
- We also removed the partner portal documentation from the Salesforce Help and moved it all into the [Create and Manage Partner Portals](#) guide.
- And as a final cherry on top, we put together a handy list of [all the guides, Trailhead modules, and developer resources](#) you need to create communities.

Chatter: Company Highlights Feed, Create Custom Feeds, Customize Groups

We redesigned the Chatter home page in Lightning Experience to give you more of what you want—customization. We introduced the Company Highlights feed, the ability to create your own feeds with streams, a list of your recently updated groups, and a way to share posts. You can also create custom groups for any use case and filter questions in group feeds in communities and Lightning Experience.

IN THIS SECTION:

[Chatter Feeds: Create Custom Feeds, Share Posts, Love Live Comments](#)

Create custom feeds with streams, share posts in Lightning Experience, and see how we enhanced live comments.

[Groups: Create Custom Groups, Filter Questions, Invite External Users](#)

Create groups customized to your needs in Lightning Experience, filter questions in group feeds in communities and Lightning Experience, and invite external users to groups in Lightning Experience.

EDITIONS

Available in: **Group, Professional, Enterprise, Performance, Unlimited, Contact Manager, and Developer** Editions

Chatter Feeds: Create Custom Feeds, Share Posts, Love Live Comments

Create custom feeds with streams, share posts in Lightning Experience, and see how we enhanced live comments.

IN THIS SECTION:

[Lightning Chatter Home Page Gets a Makeover](#)

A lot is happening in the left column of the Lightning Chatter Home page. The All Company feed is now called Company Highlights and serves up a dynamic list of the most popular posts from your entire company (Top Posts). Under Company Highlights, we introduce a new feature called Streams. Create up to five custom feeds that each combines posts from up to 25 of your most useful sources. Under your list of Streams, you now have quick access to five of your most recently updated groups. This change applies to Lightning Experience only.

[Create Custom Feeds with Chatter Streams](#)

Now you can put together the information that's most useful to you in your own custom feeds with Chatter streams. Create up to five Chatter streams that combine posts from different feeds and different feed types. Combine feeds from people, groups, and records, like your accounts, opportunities, and cases. This feature is new in Lightning Experience.

[All Company Feed Renamed to Company Highlights](#)

Your All Company feed is now named Company Highlights. The Company Highlights feed incorporates Einstein artificial intelligence (AI) to bring you a ranked view of what's trending in your org (Top Posts). Now you can easily catch up on the hottest news from across your company. This change applies to Lightning Experience only.

[Shield Platform Encryption Comes To Chatter \(Pilot\)](#)

We're running a public pilot for Shield Platform Encryption for Chatter. Encryption for Chatter enables you to encrypt sensitive data when it's stored, and not just when it's transmitted over a network. Encryption for Chatter isn't ready for production, but you can safely try it out in your org sandbox. This change applies to all Chatter feeds.

[Share Posts in Lightning Experience](#)

When someone posts something you'd like more people to see, you can share it with your followers. If you like, you can add your own introductory remarks before you post. This feature is available in Lightning Experience and in communities based on the Customer Service (Napili) template.

[Live Comments Are Better Than Ever](#)

We enhanced live comments for better usability. For example, an animation now shows you when people are commenting. Right by that animation is a list of up to three people who are actively typing comments. This feature is new in Lightning Experience.

[Use Keyboard Keystrokes to Post](#)

Power users can use the keyboard to complete posts and comments. On Windows, enter content and press Ctrl+Enter. On macOS, press either Control+Enter or Command+Enter. This feature is available in Lightning Experience and communities based on the Customer Service (Napili) template.

[Feeds Look and Feel Gets Refreshed](#)

We're continuing the work of conforming all our platforms to the same usability standards. In this release, we changed the likes bar. Now it shows you a count and lists the names of up to three people who liked the post. These changes are available in Lightning Experience and communities based on the Customer Service (Napili) template.

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A lot is happening in the left column of the Lightning Chatter Home page. The All Company feed is now called Company Highlights and serves up a dynamic list of the most popular posts from your entire company (Top Posts). Under Company Highlights, we introduce a new feature called Streams. Create up to five custom feeds that each combines posts from up to 25 of your most useful sources. Under your list of Streams, you now have quick access to five of your most recently updated groups. This change applies to Lightning Experience only.

The screenshot shows the Salesforce Chatter interface. On the left sidebar, under 'What I Follow', 'Company Highlights' is selected. Below it are sections for 'STREAMS' (Best Groups Evah!, Folks in the Know, Line Item Details, My Favorite Accounts, The Best People) and 'RECENT GROUPS' (Resurgent, All JCBilitzee206). The main content area displays a post from 'Pat Urquhart' with the text: 'Pat Urquhart created the publi November 14, 2016 at 4:30 PM'. Below the post are 'Liked', 'Comment', and 'Share' buttons. A second post from 'Pat Urquhart' follows, with the text: 'I'm going to like this, too'. It includes a 'Liked' button, '1 like', and the date 'November 16, 2016'. At the bottom is a 'Write a comment...' input field.

Read more about these and other new features in these release notes.

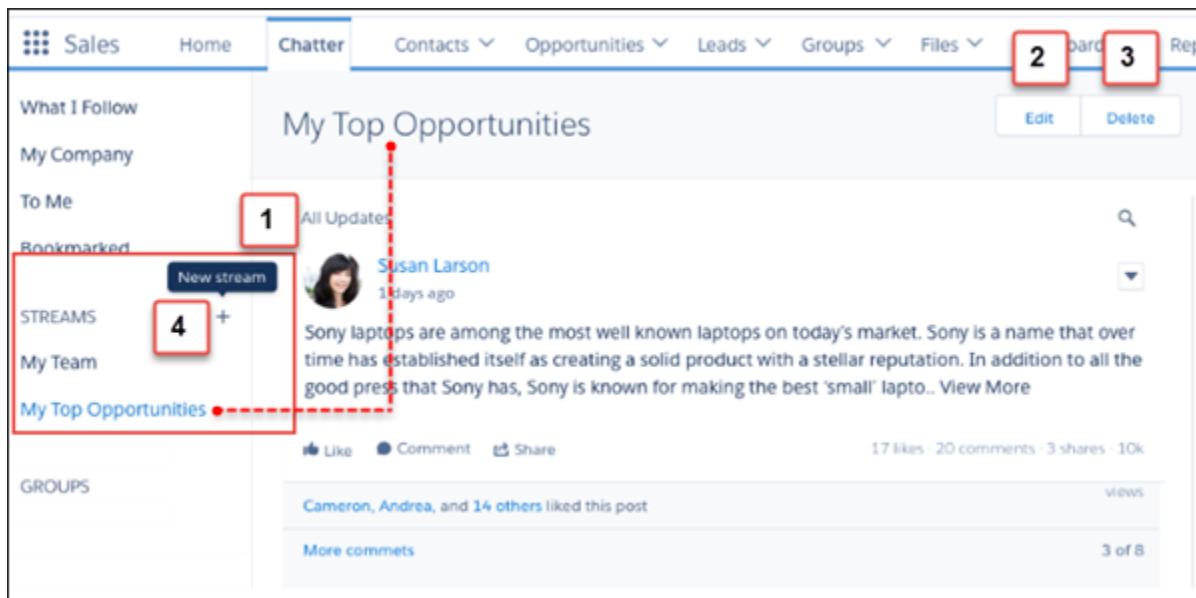
SEE ALSO:

- [Create Custom Feeds with Chatter Streams](#)
- [All Company Feed Renamed to Company Highlights](#)

Create Custom Feeds with Chatter Streams

Now you can put together the information that's most useful to you in your own custom feeds with Chatter streams. Create up to five Chatter streams that combine posts from different feeds and different feed types. Combine feeds from people, groups, and records, like your accounts, opportunities, and cases. This feature is new in Lightning Experience.

- ⓘ **Note:** To include a person account in your stream, add it as an Account in the **Include in Stream** field. If you add a person account as a Contact, the related feed posts don't appear.



Add up to 25 entities (feeds and records) to one stream to create a nicely rounded body of information. Create up to five streams, and get to them easily from the left column of your Chatter home page (1). Didn't come out perfect the first time? Fine! Edit your stream to get it flowing with the right information (2). Isn't useful to you anymore? Delete the stream (3), and replace it with something new (4).

Note: You can add 25 unique feeds, records, groups, and people to a stream. If your access to any of them is removed, the removed entity is still counted as part of the 25. You can't replace it with something else.

You don't have to follow a person, group, or record before you add it to a stream. The great thing about adding a feed to a stream is it doesn't count against the number of follows you're allowed.

Note: Because a stream is made up of multiple feeds, no publisher is provided for posting to a stream.

If you're new to streams, you may see a generated stream, named Frequently Viewed. It's provided to demonstrate streams and to get you started. Frequently Viewed is created using Einstein AI to determine the five feeds you visited most when the stream was created. You can edit and even delete Frequently Viewed; it's counted as one of your five streams. If you never see this stream, it's because you performed a stream-related action before we ran our algorithm.

[Chatter REST API](#) and [Chatter in Apex](#) support Chatter Streams.

All Company Feed Renamed to Company Highlights

Your All Company feed is now named Company Highlights. The Company Highlights feed incorporates Einstein artificial intelligence (AI) to bring you a ranked view of what's trending in your org (Top Posts). Now you can easily catch up on the hottest news from across your company. This change applies to Lightning Experience only.

The screenshot shows the Salesforce Chatter interface. On the left, there's a sidebar with sections like 'What I Follow', 'To Me', 'Bookmarked', and 'Company Highlights' (which is highlighted with a blue bar). Below that are 'STREAMS' and 'RECENT GROUPS'. The main area shows a feed of posts. A red dashed arrow points from the 'Company Highlights' section to the 'Top Posts' dropdown menu. The feed includes a post by 'Pat Urquhart' with a profile picture, the text 'Pat Urquhart created the publi...', and the date 'November 14, 2016 at 4:30 PM'. Below it is another post by 'Pat Urquhart' with the text 'I'm going to like this, too' and the date 'November 16, 2016 at 10:30 AM'. At the bottom of the feed is a placeholder 'Write a comment...'.

AI ranking brings out your company's most popular content. What ranks highest?

- Latest posts
- Posts with lots of engagement, like comments, likes, and views

Shield Platform Encryption Comes To Chatter (Pilot)

We're running a public pilot for Shield Platform Encryption for Chatter. Encryption for Chatter enables you to encrypt sensitive data when it's stored, and not just when it's transmitted over a network. Encryption for Chatter isn't ready for production, but you can safely try it out in your org sandbox. This change applies to all Chatter feeds.

With encryption for Chatter, your company can confidently comply with privacy policies, regulatory requirements, and contractual obligations for handling Chatter data.

What's encrypted? Chatter encryption applies to feed posts, questions and answers, link names, and all comments. It also applies to poll questions, but not poll choices.

 **Note:** We provide encryption for Chatter 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. Encryption for Chatter 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 encryption for Chatter in the [Chatter Product group in the Success Community](#).

Enabling encryption for Chatter disables Spam IQ and exposes Chatter to the global limitations that come with encryption.

SEE ALSO:

[Salesforce Help: Tradeoffs and Limitations of Shield Platform Encryption](#) (can be outdated or unavailable during release preview)

[Salesforce Help: Which Fields Can I Encrypt?](#) (can be outdated or unavailable during release preview)

[Encrypt Your Data in Chatter \(Pilot\)](#)

Share Posts in Lightning Experience

When someone posts something you'd like more people to see, you can share it with your followers. If you like, you can add your own introductory remarks before you post. This feature is available in Lightning Experience and in communities based on the Customer Service (Napili) template.

Click **Share** (1) to start.



Note: When you share a post that has file attachments, only the post is shared, not the files.

Chatter REST API and [Chatter in Apex](#) support sharing posts.

SEE ALSO:

[View Posts in Salesforce1 That Were Shared in Lightning Experience](#)

Live Comments Are Better Than Ever

We enhanced live comments for better usability. For example, an animation now shows you when people are commenting. Right by that animation is a list of up to three people who are actively typing comments. This feature is new in Lightning Experience.

Lou Briggs
Businesses often become known today through effective marketing. The marketing may be in the form of a regular news item or half column society news in the Sunday newspaper.
Like · 2 mins ago

*** William Bus and Vanessa Sun are typing...

Write a comment...

Use Keyboard Keystrokes to Post

Power users can use the keyboard to complete posts and comments. On Windows, enter content and press Ctrl+Enter. On macOS, press either Control+Enter or Command+Enter. This feature is available in Lightning Experience and communities based on the Customer Service (Napili) template.

Note: In questions, shortcut keys work with question details, but not on the question itself. So if you just ask a question (1), the shortcuts don't work. But if you include details with the question (2), shortcuts work.

How do I check my annotations in a UDF file? **1**

I want to see if my annotations are present and working. **2**

B I U S Tx 1= 2=

Ask

Feeds Look and Feel Gets Refreshed

We're continuing the work of conforming all our platforms to the same usability standards. In this release, we changed the likes bar. Now it shows you a count and lists the names of up to three people who liked the post. These changes are available in Lightning Experience and communities based on the Customer Service (Napili) template.



Susan Larson
1 days ago

Sony laptops are among the most well known laptops on today's market. Sony is a name that over time has established itself as creating a solid product with a stellar reputation. In addition to all the good press that Sony has, Sony is known for making the best 'small' laptop... [See More](#)

Like Comment Share 20 comments · 10K views

You, Cam Area, Andrea Cron, and 14 others liked this post

Groups: Create Custom Groups, Filter Questions, Invite External Users

Create groups customized to your needs in Lightning Experience, filter questions in group feeds in communities and Lightning Experience, and invite external users to groups in Lightning Experience.

IN THIS SECTION:

[Customizable Chatter Groups Now Generally Available](#)

We're pleased to announce the biggest improvement to Chatter groups in years—custom groups. Groups become quick, easy containers for accelerating any business process that is key to your organization. This feature is available only in Lightning Experience.

[Filter Questions in Groups in More Ways](#)

You have more ways to look at questions in your communities and Lightning Experience group feeds. You can already sort questions, now you can filter them, too. This feature is available in Lightning Experience and in communities based on the Customer Service (Napili) template.

[Organize Your Groups List View Using Tiles](#)

Use tiles on the Groups list view for a decluttered view of all your groups. You can easily toggle between the tile view and the normal grid view. This feature is available in Lightning Experience.

[Invite External Users to Chatter Groups in Lightning Experience](#)

We're bringing more power to Chatter in Lightning Experience, including the ability to invite external users to your groups. Simply add external users to groups with their email addresses.

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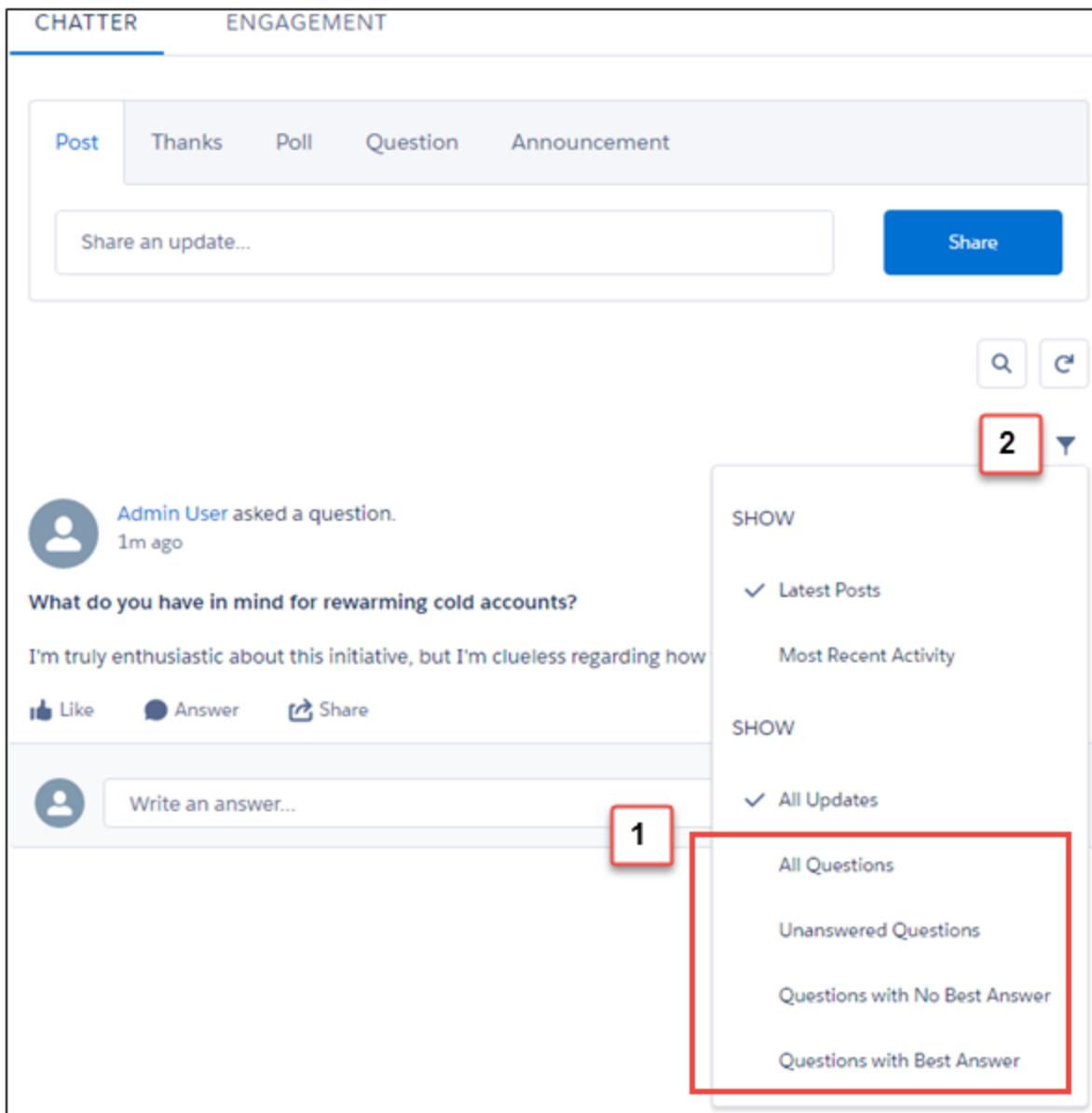
What does this mean? Previously, you could use Lightning App Builder to change which components appeared in your groups, but every group would look the same. Now, every group can have its own layout. This means components, actions, publisher, and related lists can all be customized to meet a given use case perfectly.

 **Example:** A group devoted to closing opportunities could have a chart showing key success indicators in the upper right column, other components holding key sales collateral, associated records like opportunities, training videos showing sales techniques—the sky is the limit.

Filter Questions in Groups in More Ways

You have more ways to look at questions in your communities and Lightning Experience group feeds. You can already sort questions, now you can filter them, too. This feature is available in Lightning Experience and in communities based on the Customer Service (Napili) template.

Look for All Questions, Unanswered Questions, Questions with No Best Answer, and Questions with Best Answer (1) on the Sort By menu (2).



CHATTER ENGAGEMENT

Post Thanks Poll Question Announcement

Share an update... Share

Admin User asked a question.
1m ago

What do you have in mind for rearming cold accounts?
I'm truly enthusiastic about this initiative, but I'm clueless regarding how

Like Answer Share

Write an answer...

Sort By

- ✓ Latest Posts
- Most Recent Activity
- SHOW
- ✓ All Updates
- All Questions
- Unanswered Questions
- Questions with No Best Answer
- Questions with Best Answer

Organize Your Groups List View Using Tiles

Use tiles on the Groups list view for a decluttered view of all your groups. You can easily toggle between the tile view and the normal grid view. This feature is available in Lightning Experience.

The screenshot shows the 'My Groups' list view in Lightning Experience. At the top, there's a header with a 'GROUPS' icon and the text 'My Groups'. Below it, a sub-header indicates '9 items · Sorted by Last Activity · Filtered by Archive · Last updated a few seconds ago'. The main area displays ten groups in a grid. Each group card includes a thumbnail, the group name, member count, access type, and owner information. On the far right of the grid, there's a 'DISPLAY AS' dropdown menu with options 'Grid' and 'Tile', with 'Tile' currently selected. A 'New' button is also visible in the top right corner of the list view.

Group Name	Members	Last Activity	Access Type	Owner
Customer Service Team	6	Aug 28, 2023	Public	Steven Bletry
Support Management Team	7	Aug 24, 2023	Public	Andrea Becker
Training Information	10	Jan 16, 2023	Public	Ted Schmitt
Marketing Strategy	11	Nov 13, 2021	Public	Franck Jaeger
Product Experts	13	Feb 24, 2019	Public	Franck Jaeger
Coffee Klatch	1	Dec 12, 2016	Public	Eric Ware
Agronomists Experts	12	Nov 3, 2016	Private	Eric Ware
Product Marketing Assets	1	Oct 31, 2016	Public	Eric Ware

Invite External Users to Chatter Groups in Lightning Experience

We're bringing more power to Chatter in Lightning Experience, including the ability to invite external users to your groups. Simply add external users to groups with their email addresses.

[Chatter REST API](#) and [Chatter in Apex](#) support inviting external users to groups.

Files: Folders in Libraries (Beta), Attach Salesforce Files to Records, and Rename Files from the Related List

We enhanced the files experience to get you more functionality with less friction. Freshen up your libraries by organizing your library files into folders (beta). Use Apex to customize file downloads for security and tracking. Work faster and better in Lightning Experience by attaching and renaming files right from the Files related list.

IN THIS SECTION:

[Organize Library Files in Folders \(Beta\)](#)

You asked for folders, and we delivered. In Lightning Experience, you can create, rename, and delete folders to organize the files in your libraries. This change applies to Lightning Experience only.

[Add Salesforce Files to a Record from the Related List in Lightning Experience](#)

Increase productivity by attaching Salesforce Files to a record, right from the files card. No Chatter? No problem! You can attach Files Connect files and library files too. This change applies to Lightning Experience only.

[Rename Files in Lightning Experience](#)

Do you have file namer's remorse? Now you can easily rename a file in Lightning Experience.

EDITIONS

Files and Files Connect for cloud-based external data sources are available in: **Professional, Enterprise, Performance, Unlimited, and Developer** Editions

Files Connect for on-premises external data sources is available for an extra cost in the same editions.

[Convert a Link to an External File into a Files Connect File Reference](#)

Post the hyperlink of an external Files Connect Google Drive file in Chatter, and it automatically becomes a Files Connect file reference. The icon and the file title appear under the body of your post. This change applies to Lightning Experience and the Salesforce1 mobile browser app.

[Salesforce Files Sync Now Supports macOS Sierra](#)

If you use Files Sync on your Mac, you can update your operating system to macOS Sierra (OS X 10.12).

[Decide When to Send Files as Links](#)

When users attach files to emails, the files can be sent as attachments or as content delivery links. Previously, files were sent as content delivery links only when the total size of all attached files exceeds 3 MB. Now you can choose from a few different options.

Organize Library Files in Folders (Beta)

You asked for folders, and we delivered. In Lightning Experience, you can create, rename, and delete folders to organize the files in your libraries. This change applies to Lightning Experience only.



Note: This release contains a beta version of library folders, which means it's a high-quality feature with known limitations.

Library managers can create folders to organize content so users can find what they need quickly. Folders are visible to all users who have access to the library.

FILES > LIBRARIES		
Internal Events 1		
5 items		
Owned by Me Shared with Me Recent Following Libraries EXTERNAL SOURCES Files Connect Box Google Drive	TITLE ↑ LAST MODIFIED DATE	
	Q3 Manager's Offsite	11/29/2016 11:27 AM
	Sales Kickoff 2017	11/27/2016 2:18 PM
	IMG_0005	11/23/2016 10:58 AM
	IMG_2394	11/23/2016 1
	Training Loyalty Scorecard_June Update	11/23/2016 1
		Share Download File Details Edit File Details Move 3

The library title is in the upper left with a file path (1). The New Folder button adds a folder to the library or within a folder (2). You can create multiple levels of subfolders. Move a file among folders within a library with the row-level move action (3).

Folders are supported in the file selector, so when you're adding a file to a record or a Chatter post, the file selector displays the same folders in Files home. When you view your libraries in Salesforce Classic or from a mobile device, you can see the folder structure that you created in Lightning Experience. You can't create folders or move files into folders in Salesforce Classic, but you can add files to libraries.

Folders are a beta feature. Here are a few things to know.

- Create folders in Lightning Experience to organize files already in libraries.
- An Upload File button is available when you're in a library, but files uploaded here show up in your Owned by Me filter rather than inside the library.
- To add a file to a library, switch to Salesforce Classic. From the library, choose **Contribute** and add the file. Or, from the file's row-level actions or the file detail page, choose **Share with Library**.

Action	Lightning Experience	Salesforce Classic
Create, rename, and delete library folders	Yes	No
Move files in a library into folders	Yes	No
View folders	Yes	Yes
View libraries	Yes	Yes
Add files to a library	No	Yes
Create, edit, or delete libraries	No	Yes
Manage library membership	No	Yes

Enabling Folders

Your mind is churning with organizational possibilities. What do you need to know to get started?

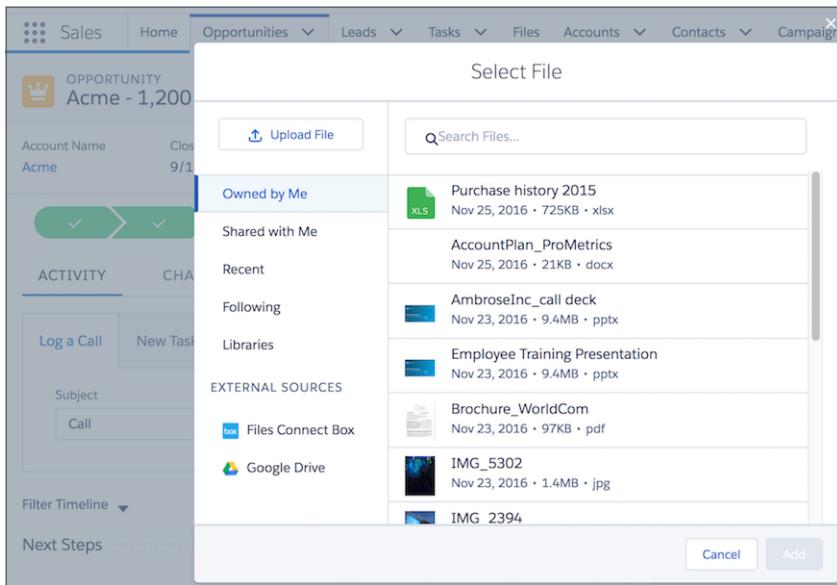
- In orgs with Lightning Experience enabled, folders are enabled by default in any new libraries you create. Folders are not enabled by default in existing libraries. To enable folders, click the Add Folder button. Depending on the size of the library, enabling folders may take a few moments.
- In orgs that don't have Lightning Experience enabled, folders aren't enabled by default in new libraries.
- Folders can't be enabled in libraries with more than 5,000 files.

Add Salesforce Files to a Record from the Related List in Lightning Experience

Increase productivity by attaching Salesforce Files to a record, right from the files card. No Chatter? No problem! You can attach Files Connect files and library files too. This change applies to Lightning Experience only.

Previously, to attach a file from Salesforce to your record, you had to post it in the record's Chatter feed. Now, in Lightning Experience and communities, you can attach Salesforce files to a record as easily as a local file.

Add an account plan to an account, collaborate on a pitch deck right from the opportunity, or keep warranty information connected to a case. It's easier than ever to share and track documents right where you want them: on the record!



Rename Files in Lightning Experience

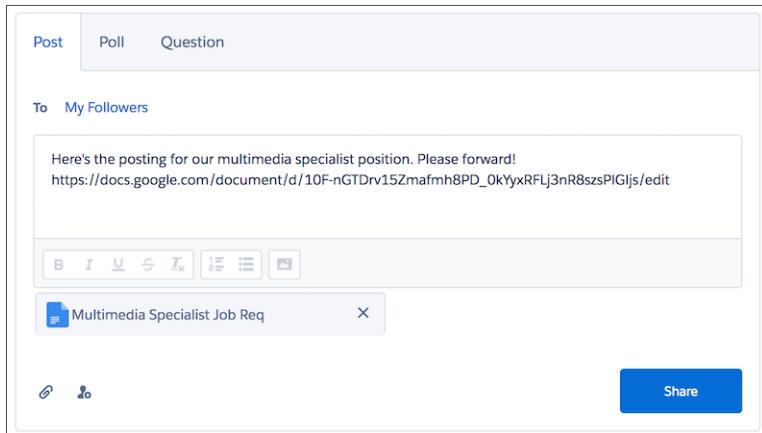
Do you have file namer's remorse? Now you can easily rename a file in Lightning Experience.

OPPORTUNITIES > ACME - 1,200 WIDGETS				
Files				
3 items • Sorted by Last Modified • Last updated a few seconds ago				
TITLE	OWNER	LAST MODIFIED	SIZE	
1 Purchase history 2015	Lauren Miller	11/25/2016 3:57 PM	725KB	Edit File Details
2 Brochure_WorldCom	Lauren Miller	11/23/2016 11:28 AM	97KB	Edit File Details
3 NA_Proposal	Lauren Miller	11/23/2016 11:03 AM	21KB	Edit File Details

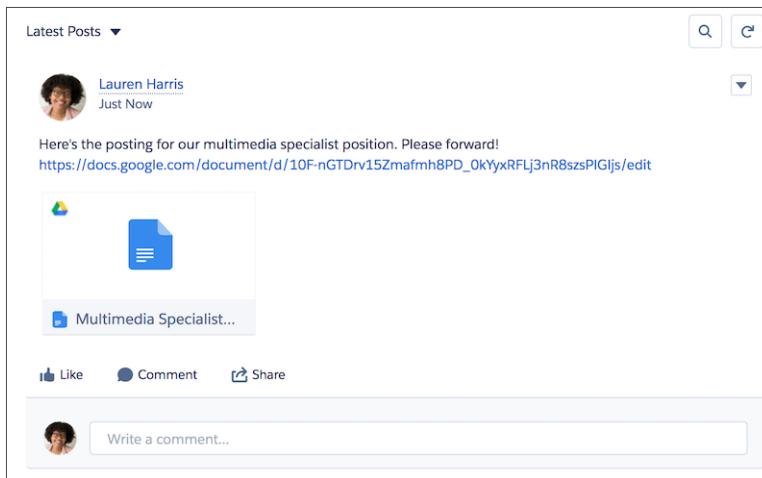
Convert a Link to an External File into a Files Connect File Reference

Post the hyperlink of an external Files Connect Google Drive file in Chatter, and it automatically becomes a Files Connect file reference. The icon and the file title appear under the body of your post. This change applies to Lightning Experience and the Salesforce1 mobile browser app.

A file reference is created for the first link in each post. Select the file icon to open the file preview right from your feed. File references are not created for links in comments. When the file reference has been created, you can find it in your Owned by Me filter as a file reference. When you paste a link for which you have already created a file reference, the existing file reference is used. The file reference is created when you paste the link into your Chatter post.



You can open a preview of the file right from the file icon in the Chatter post.



Links conversion is enabled by default. To disable, search for Files Connect in Setup and deselect **Enable links conversion**.

[Chatter REST API](#) supports link conversion.

Salesforce Files Sync Now Supports macOS Sierra

If you use Files Sync on your Mac, you can update your operating system to macOS Sierra (OS X 10.12).

Decide When to Send Files as Links

When users attach files to emails, the files can be sent as attachments or as content delivery links. Previously, files were sent as content delivery links only when the total size of all attached files exceeds 3 MB. Now you can choose from a few different options.

You can keep the default setting of emailing files as links only if the total size exceeds 3 MB, or choose one of two new options:

- Always send files as links
- Send files as links only when the total size of all attached files exceeds the maximum supported by most email servers

The new settings provide more flexibility and control over how files are sent and what the experience is on the receiving end. See [Email Files as Attachments or Links: You Decide](#) for more information.

Mobile: Do More on the Go

Salesforce mobile apps help your users stay productive throughout their busy days, no matter where they are. Salesforce1 offers improvements to tasks, enhanced charts, approvals, and many other sales features, so sales professionals can take care of even more business from their phones. Salesforce Authenticator gets a design update that makes it easier to read notifications at a glance. And introducing the new Field Service Lightning iOS mobile app, an all-in-one tool that puts everything your field service technicians need at their fingertips.

IN THIS SECTION:

[Salesforce1: Better Task Management and More Sales Data](#)

The Salesforce1 mobile app has your sales team's back. Everyone can manage their to-do lists more completely with follow-up and recurring tasks, plus the addition of events and tasks to global search results. On-the-go sales reps get a boost with expanded options for managing quotes, orders, and person accounts and more views into your org's data with enhanced charts improvements. And the whole team benefits when your approval process goes faster, which it will because users can now select the next approver immediately after submitting or approving a request.

[Salesforce Authenticator: New iOS 10 Notifications, Sleeker Design](#)

We know how hard it can be to read information on small screens. So we've improved the design across the Salesforce Authenticator mobile app. Notifications are easier to scan and read from the lock screen on mobile devices, and improved dialog boxes offer more options for managing account details.

[Field Service Lightning iOS: Technicians, Rejoice! Here's Your All-In-One Mobile Solution \(Generally Available\)](#)

Take your field service operation to the next level with the Field Service Lightning iOS mobile app. Technicians can harness the wealth of data, scheduling and automation tools, and customizability of your Salesforce org to get work done quickly from anywhere. And the app's offline-first design means that technicians can always do their job, even without internet access. More productive technicians means happier customers!

[Salesforce Classic Mobile App to Retire in December 2017](#)

To improve the overall mobile user, developer, and deployment experience, Salesforce is focusing mobile development on the Salesforce1 app. As a result, we are retiring the Salesforce Classic Mobile app on December 1, 2017. Also, iOS 10 and Android 7.0 are the final mobile OS versions that we'll use for Salesforce Classic Mobile compatibility testing. We encourage you to start transitioning your mobile users to an alternative experience, such as rolling out the Salesforce1 downloadable apps or deploying custom mobile apps that address your current and future mobile needs.

SEE ALSO:

[Wave: Go Places with Wave Mobile](#)

[Snap-ins for Mobile Apps](#)

Salesforce1: Better Task Management and More Sales Data

The Salesforce1 mobile app has your sales team's back. Everyone can manage their to-do lists more completely with follow-up and recurring tasks, plus the addition of events and tasks to global search results. On-the-go sales reps get a boost with expanded options for managing quotes, orders, and person accounts and more views into your org's data with enhanced charts improvements. And the whole team benefits when your approval process goes faster, which it will because users can now select the next approver immediately after submitting or approving a request.

EDITIONS

Available in: **All** Editions
except Database.com

IN THIS SECTION:

[Access the Salesforce1 Mobile App](#)

Your users have several options for accessing Salesforce1 on mobile devices that meet minimum platform requirements.

[Everything That's New in Salesforce1 This Release](#)

Our latest round of new and improved Salesforce1 features makes it easier to access Salesforce on the go.

[Spring '17 Features That Are Different or Not Available in Salesforce1](#)

The Salesforce1 mobile app doesn't include all the functionality that's available in the full Salesforce site, whether your org is using Lightning Experience or Salesforce Classic. Learn about the Spring '17 Salesforce enhancements that either aren't available in Salesforce1, have functional gaps from the full site, or work differently in the mobile app.

Access the Salesforce1 Mobile App

Your users have several options for accessing Salesforce1 on mobile devices that meet minimum platform requirements.

- Install the Salesforce1 downloadable app on Android™ and Apple® mobile devices. Users can download the app from Google Play™ or the App Store.
- Access the Salesforce1 mobile browser app from a supported mobile browser on Android and Apple devices or select Windows mobile phones. This option doesn't require anything to be installed.

Everything That's New in Salesforce1 This Release

Our latest round of new and improved Salesforce1 features makes it easier to access Salesforce on the go.

The Salesforce1 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 Salesforce1 user.

Salesforce1 Enhancements and Changes	Android Downloadable App	iOS Downloadable App	Mobile Browser App	Setup in the Full Site
Device and Browser Support				
Reminder that Salesforce1 Requires iOS 10 in Spring '17		✓		(As of v12.0)
Data Access and Views				
Work Seamlessly Across All Your Orgs from Salesforce1 with Writable External Objects	✓	✓	✓	✓
Search				
Get Search Results for More Objects	✓	✓	✓	
Search for Contacts Using the Account Name	✓	✓	✓	
Provide More Relevant Results with Dependent Lookup Filters	✓	✓	✓	✓
Sales Features				
Sell Directly to Customers with Person Accounts in Professional Edition	✓	✓	✓	✓

Salesforce1 Enhancements and Changes	Android Downloadable App	iOS Downloadable App	Mobile Browser App	Setup in the Full Site
Go Straight to Person Accounts from Contact List Views	✓	✓	✓	
Continue to Be Impressed with Contacts to Multiple Accounts	✓	✓	✓	✓
See Lead Scores	✓	✓	✓	✓
Let Marketing and Sales Ops Users View Converted Leads	✓	✓	✓	✓
Manage Campaign Member Statuses	✓	✓	✓	✓
Do More with Orders	✓	✓	✓	
Get Better Access to Quotes	✓	✓	✓	
Sales Path Renamed to Path	✓	✓	✓	
Path Pays Attention to Fields Required by the Page Layout	✓	✓	✓	✓
Manage Duplicate Person Accounts	✓	✓	✓	✓
Productivity Features				
Create Follow-Up Tasks	✓	✓	✓	✓
Use Recurring Tasks	✓	✓	✓	✓
Search for Tasks and Events	✓	✓	✓	
Rich-Text Editor for Notes Is Now Using Quill	✓	✓	✓	
Reports and Dashboards				
Enhanced Charts Replace Legacy Charts in Salesforce1 (Phased Retirement)	✓	✓	✓	✓
See up to 200 Groupings on Enhanced Charts	✓	✓	✓	
View Bar + Line Combination Charts	✓	✓	✓	
Files				
Convert a Link to an External File into a Files Connect File Reference				✓
Chatter				
View Posts That Were Shared from Lightning Experience	✓	✓		
Make Calls or Send Emails from Profiles	✓	✓	✓	(In an earlier release)
Business Logic and Process Automation				
Select Next Approver	✓	✓	✓	

Salesforce1 Enhancements and Changes	Android Downloadable App	iOS Downloadable App	Mobile Browser App	Setup in the Full Site
Embed Your Flows in Lightning Pages (Beta)	✓	✓	✓	✓
Display Flow Screens in Two Columns (Generally Available)	✓	✓	✓	✓
Offline Access				
Unified Create and Edit Experience in Salesforce1 for Online and Offline Sessions	✓ (As of v11.0)	✓ (As of v11.0)		
Setup				
Customize Your Lightning Pages Even More with New Templates	✓	✓	✓	✓
Other Enhancements				
Rich-Text Editors Disabled When LockerService Critical Update Is Active	✓	✓	✓	✓

Reminder that Salesforce1 Requires iOS 10 in Spring '17

In Spring '17, the minimum mobile operating system requirement for iOS devices is iOS 10 or later. To ensure a smooth transition, we recommend that your iPhone and iPad users update to iOS 10 in advance of your org's Spring '17 release date. Upgrading is especially important for Salesforce1 for iOS downloadable app users because the Spring '17 version of the app, version 12.0, won't appear in the App Store for devices with older OS versions.

Your users can easily install the latest version of iOS for free on their iPhone and iPad devices. For help upgrading iOS, see [Update the iOS software on your iPhone, iPad, and iPod touch](#) on the Apple Support site.

SEE ALSO:

[Salesforce Help: Requirements for the Salesforce1 Mobile App](#) (can be outdated or unavailable during release preview)

Go Straight to Person Accounts from Contact List Views in Salesforce1

When Salesforce1 users view person accounts from contact list views, they see the details on an account page layout. Previously, person account details were presented on a contact page layout, which might not have included all the fields, related lists, and actions that users expected. This change applies to all versions of the Salesforce1 mobile app.

Editions

Person Accounts available in: **Professional, Enterprise, Performance, Unlimited, and Developer** Editions

See Lead Scores in Salesforce1

If your org turns on Einstein Lead Insights, sales reps can use Salesforce1 to keep track of which leads are most likely to convert. Lead scores are available from any lead list view that includes the Score field. This feature is new in all versions of the Salesforce1 mobile app.

Keep your mobile reps up to date on lead scores by adding the Score field to your org's public list views for leads. And encourage your users to add this field to their own list views, so they can keep their leads prioritized from anywhere.

Editions

Sales Cloud Einstein available for an extra cost in: **Professional, Enterprise, and Unlimited** Editions

Lead insights on lead detail pages are available in Lightning Experience only.

Do More with Orders in Salesforce1

Managing orders in Salesforce1 just got better. Your mobile reps can create, activate, and deactivate orders, change order owners, and clone orders. Mobile reps can also manage order products from the Order Products related list. This change applies to all versions of the Salesforce1 mobile app.



Note: The **New** button isn't available on the Orders home page in the Salesforce1 downloadable apps. Downloadable app users can create new orders from Orders list views, however.

EDITIONS

Orders available in:
Professional, Enterprise, Performance, Unlimited, and Developer Editions

Get Better Access to Quotes in Salesforce1

The Quotes item is now available from the Salesforce1 navigation menu. From the Quotes home page, mobile sales reps can easily view all their quotes. And reps can quickly find specific quotes with global search. This change applies to all versions of the Salesforce1 mobile app.

The Quotes item is available in the Recent section of the Salesforce1 navigation menu. It might be necessary to expand the Recent section by tapping **More**. Quotes is automatically included in the navigation menu as part of the Smash Search Items element. See [Salesforce1 Mobile App Navigation Menu](#) in the Salesforce Help for information about how the navigation menu is populated.

EDITIONS

Quotes available in:
Performance and Developer Editions

In Sales Cloud, also available in: **Professional, Enterprise, and Unlimited** Editions

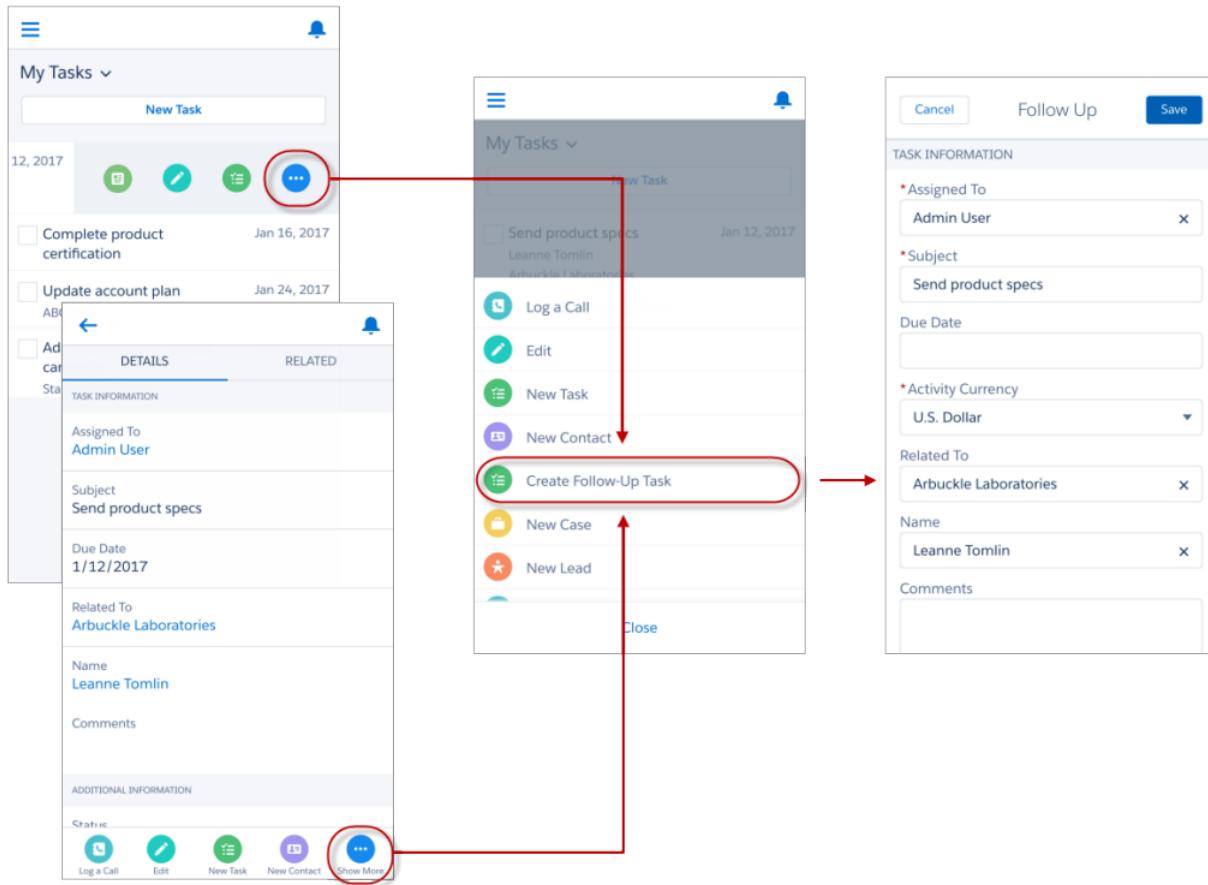
Create Follow-Up Tasks in Salesforce1

Complete and up-to date task lists are a critical productivity tool for your on-the-go sales reps. Now when reps want to follow up on completed tasks or need a new task that's related to a current one, they can create follow-up tasks in Salesforce1 instead of waiting to get back to the office. This feature is new in all versions of the Salesforce1 mobile app.

Follow-up tasks pull information from the original task's Subject, Assigned to, Name, and Related To fields. The due date is blank, but, optimistically, defaults to today when the user taps the field.

Salesforce1 users can create follow-up tasks in two ways.

- From a task list—Swipe left on a task, tap the action menu icon, and then select **Create Follow-Up Task**.
- From a task—Tap the **Create Follow-Up Task** icon in the action bar. Depending on your org's configuration, users may need to open the action menu to see the icon.



The **Create Follow-Up Task** action is automatically included in the set of predefined Salesforce1 and Lightning Experience actions on Task page layouts. If you've overridden the Salesforce1 and Lightning Experience Actions section on any of your org's Task page layouts, manually add the **Create Follow-Up Task** action from the Salesforce1 & Lightning Actions palette.

SEE ALSO:

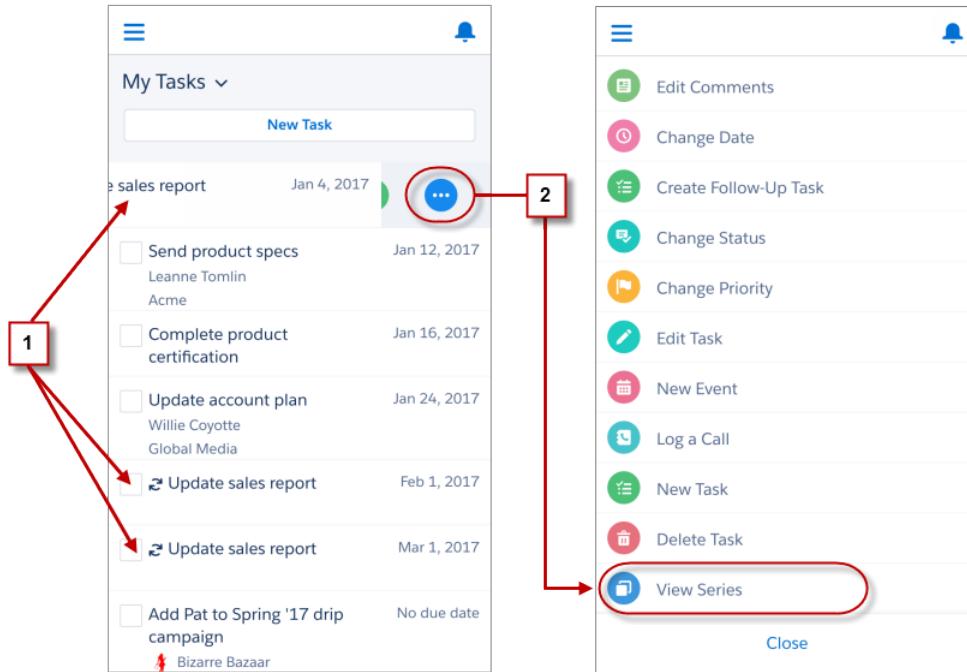
[Create Follow-Up Tasks](#)

Use Recurring Tasks in Salesforce1

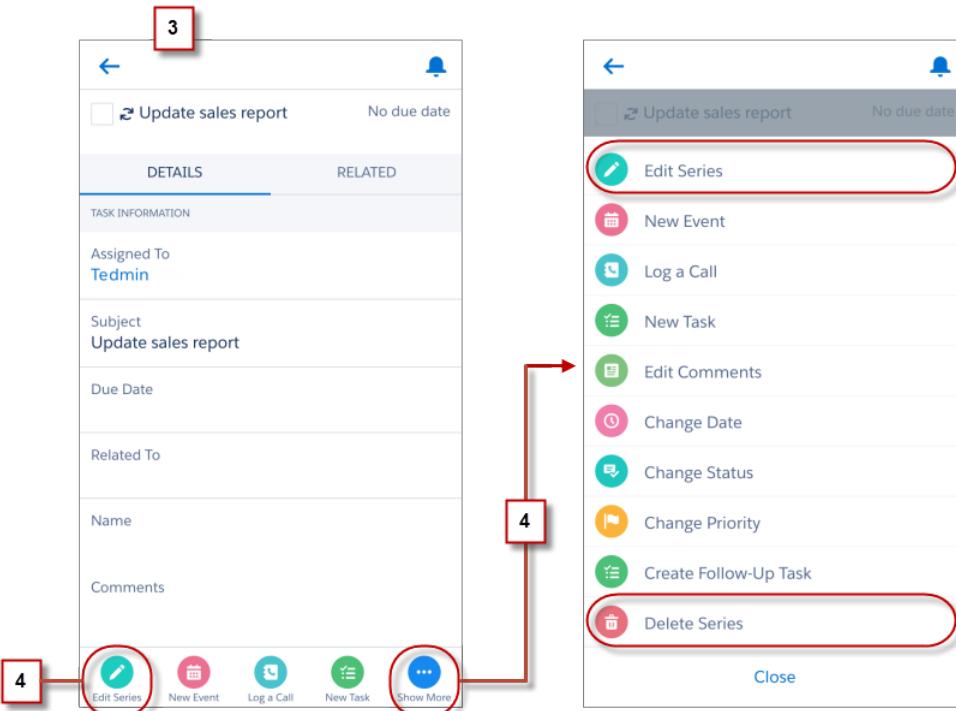
With recurring tasks in Salesforce1, your mobile sales team members can keep important repeating activities from getting lost amongst all the other work that needs doing. This feature is new in all versions of the Salesforce1 mobile app.

In Salesforce1, users create recurring tasks via the **New Task** button on tasks lists. Creating recurring tasks with a **New Task** quick action isn't supported.

Each task that's created as part of a recurring series appears in the user's task list (1). To view, edit, or delete the entire series, swipe left on any one of the recurring tasks then select **View Series** from the action menu (2).



When viewing the series (3), users can update details for all tasks in the series or delete the entire series from the action bar (4).



Set Up Recurring Tasks for Salesforce1

Confirm these settings in Setup.

- On the Activity Settings page, deselect the `Show simpler New Task form in Salesforce1` checkbox. The simpler New Task form doesn't include the options for creating a series of recurring tasks.
- On your org's Tasks page layouts, the same settings that make recurring tasks available in Lightning Experience are needed for Salesforce1.
 - Add the `Create Recurring Series of Tasks` field to the Task Detail section of your org's Task page layouts.
 - If the Salesforce1 and Lightning Experience Actions section on a Task page layout has been overridden, make sure that the **Delete Series** and **View Series** actions from the Salesforce1 & Lightning Actions palette are included in the section. Add these actions if they're not already there.

SEE ALSO:

[Use Recurring Tasks \(Again and Again\) in Lightning Experience](#)

Enhanced Charts Replace Legacy Charts in Salesforce1 (Phased Retirement)

Legacy Charts have been part of the Salesforce1 experience for many years, but let's bid them farewell. Enhanced Charts (the mobile version of Lightning Experience charts) replace Legacy Charts in all versions of the Salesforce1 mobile app. Not ready to switch? Revert Salesforce1 to Legacy Charts from Setup. But it's a good idea to familiarize yourself with Enhanced Charts now because Legacy Charts are retiring in Summer '17. This change applies to all versions of the Salesforce1 mobile app.

Here's what the Legacy Charts retirement means for your org.

- In Summer '17, Salesforce1 will include only Enhanced Charts, and you won't be able to turn them off.
- Orgs created during or after the Summer '16 release already provide Enhanced Charts as the only charts experience for Salesforce1. For these orgs, the option to disable Enhanced Charts doesn't appear in Setup.
- Legacy Charts retirement doesn't affect charts in the full Salesforce site (Salesforce Classic and Lightning Experience).

For more information, see the [Legacy Charts Retirement](#) announcement. To switch between Enhanced Charts and Legacy Charts, see [Show Enhanced Charts in Salesforce1](#) in the Salesforce Help.

 **Note:** Legacy Charts are being retired as part of a phased retirement, and the date of full retirement might be moved to a later release. We will keep the release notes and the Legacy Charts Retirement Announcement updated with information as it becomes available.

See up to 200 Groupings on Enhanced Charts in Salesforce1

In Salesforce1, Enhanced Charts display twice as many groupings as before. Users can now see up to 200 groupings by scrolling through charts in reports and dashboards. Previously, a maximum of 100 groupings per chart was available. This change applies to all versions of the Salesforce1 mobile app.

EDITIONS

Enhanced Charts available in: **Group, Professional, Enterprise, Performance, Unlimited, and Developer** Editions

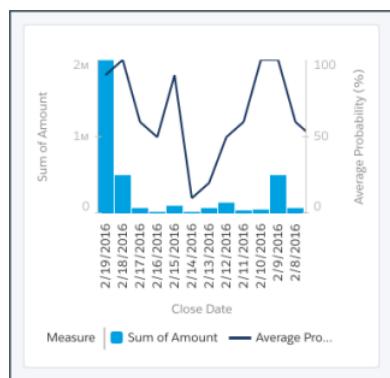
EDITIONS

Enhanced Charts available in: **Group, Professional, Enterprise, Performance, Unlimited, and Developer** Editions



View Bar + Line Combination Charts in Salesforce1

Dashboards in Salesforce1 now display bar charts that include line charts. Bar charts with line charts drawn over the bars are great for tracking two measures in a single set of data. Use this chart type to track the sum of closed opportunity amounts (as a bar) by the average probability to close opportunities (as a line) over time. This feature is new in all versions of the Salesforce1 mobile app.



EDITIONS

Enhanced Charts available in: **Group, Professional, Enterprise, Performance, Unlimited, and Developer** Editions

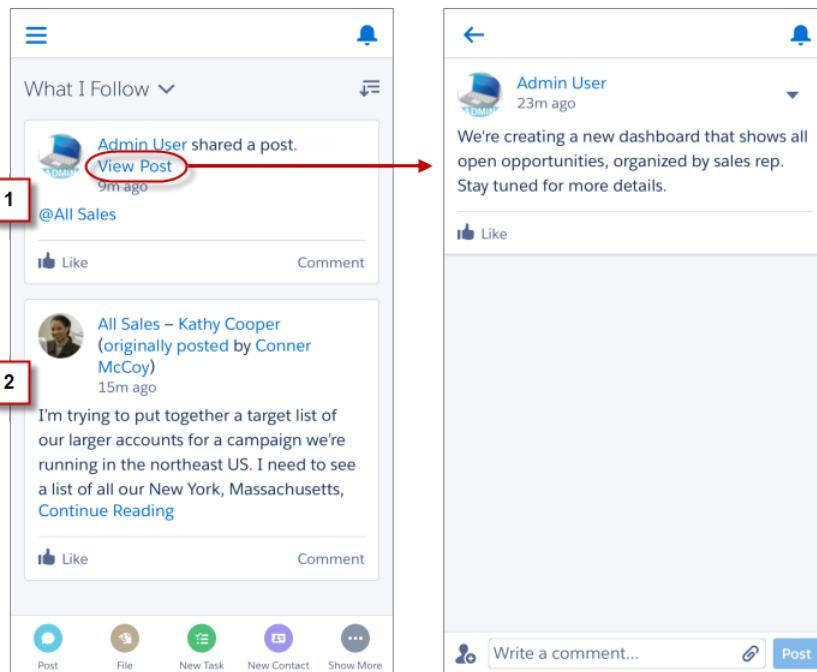
View Posts in Salesforce1 That Were Shared in Lightning Experience

Feeds in Salesforce1 now include posts shared from Chatter in Lightning Experience. But the full content of these shared posts doesn't appear directly in certain feeds in the Salesforce1 downloadable apps. In these cases, users see who shared a post but must take an extra step to see other details. In contrast, Salesforce1 mobile browser app users see the content of posts shared in Lightning Experience directly in all their feeds. And posts shared in Salesforce Classic or the Salesforce1 downloadable apps continue to appear directly in feeds in all *flavors* of Salesforce1.

When a post shared in Lightning Experience appears in these feeds in the Salesforce1 downloadable apps, tap the **View Post** link to see the post's content (1).

- Main Chatter feed
- Feeds on profiles (*Salesforce1 for iOS app only*)

In other feeds in the Salesforce1 downloadable apps, such as group feeds, record feeds, and profile feeds in Salesforce1 for Android, the content of posts shared in Lightning Experience appears directly in the feed—the same way posts shared in Salesforce Classic or the Salesforce1 downloadable apps appear in feeds in all Salesforce1 flavors (2).



SEE ALSO:

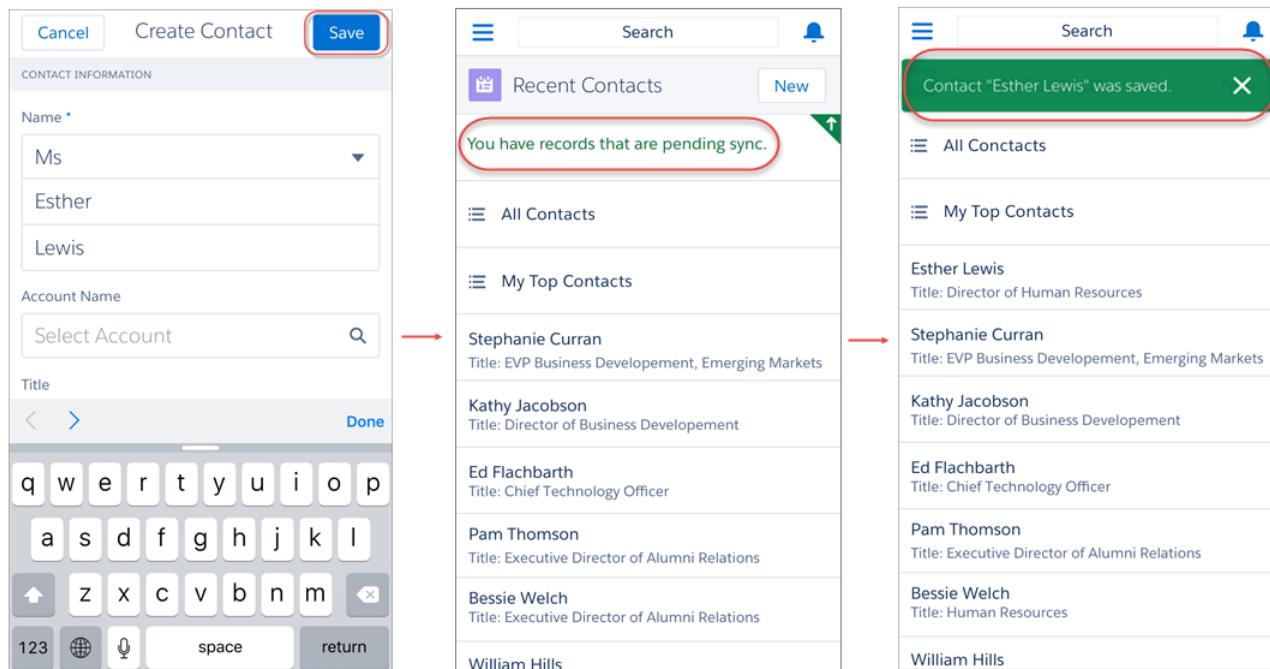
[Share Posts in Lightning Experience](#)

Make Calls or Send Email from Profiles in Salesforce1

Reaching colleagues while on the go just got faster for your Salesforce1 for Android downloadable app and Salesforce1 mobile browser app users. Phone and email fields on profiles—in the highlights area and on the record detail page—are now links that users can tap to instantly start a call or send an email message. Salesforce1 for iOS users have always been able to do these actions on colleagues' profiles. But Salesforce1 for Android and the mobile browser app take it up a notch because users can even send voice and email messages to themselves from their own profiles.

Unified Create and Edit Experience in Salesforce1 for Online and Offline Sessions

Previously when Salesforce1 downloadable app users created or edited records when working online, there was a delay while the app confirmed the updates. Wait times varied, depending on a mobile device's network signal strength. Now when users create or edit records—whether online or offline—updates are saved as pending changes. Users can immediately move on to additional work in Salesforce1 while the app syncs the pending changes with Salesforce. This feature is new in the Salesforce1 downloadable apps for Android and iOS, version 11.0 or later.



Spring '17 Features That Are Different or Not Available in Salesforce1

The Salesforce1 mobile app doesn't include all the functionality that's available in the full Salesforce site, whether your org is using Lightning Experience or Salesforce Classic. Learn about the Spring '17 Salesforce enhancements that either aren't available in Salesforce1, have functional gaps from the full site, or work differently in the mobile app.

 **Note:** For the complete list of differences between Salesforce1 and the full site, see [What's Different or Not Available in the Salesforce1 Mobile App](#) in the Salesforce Help.

Sales Features

Account Hierarchy

- Account hierarchy isn't available in Salesforce1.

Campaigns

When working with Campaigns in Salesforce1, users can't:

- View the Campaign Hierarchy Preview or the Campaign Hierarchy related list.
- Perform mass actions on the Campaign Members related list.

Contracts

- When creating a new task or event or logging a call from a contract in Salesforce1, the Related To field isn't pre-populated with the contract number.

Data.com and Data Integration

Data.com Clean:

- Users can see fields updated by Clean jobs, but the option to manually clean records isn't available.

Data.com Prospector:

Data.com Prospector isn't supported in Salesforce1. Users can't:

- Search for or add accounts, contacts, or leads.
- See Prospecting Insights.
- See Company Hierarchy.

Data Integration:

- Users can see fields that were updated by data integration rules, but can't use Data Integration to manually update records.

Leads

When working with Leads in Salesforce1, users can't:

- Perform mass actions on leads list views.

Orders

- When creating an order from the Orders related list on a contract, the `Contract Number` field isn't pre-populated with the default contract number.
- When creating a new task or event or logging a call from an order, the `Related To` field isn't pre-populated with the order number.

Quotes

- Quote PDFs appear in the related list but aren't viewable.
- Users can't add or edit multiple quote line items at the same time.
- Users can't perform these actions.
 - Email quotes.
 - Create or delete PDFs.
 - Start sync or stop sync.
 - Create quotes from the Quotes home page. Instead, create quotes from opportunities.

Sales Cloud Einstein

- Except for lead scores appearing in lead list views in Salesforce1, all other Sales Cloud Einstein features are unavailable in the mobile app.

Productivity Features

Tasks

- Recurring tasks are now available in Salesforce1, but recurring events aren't supported.

The `Create Recurring Series of Tasks` field isn't supported on quick action layouts. Only a portion of the recurring task interface appears in new task quick actions, making it impossible for users to save any recurring tasks they attempt to create.

- Salesforce1 users can't create recurring tasks with a frequency of every weekday. And we don't recommend editing tasks with this frequency in Salesforce1 because the edit page doesn't show the task's recurrence settings. To create or edit tasks that repeat every weekday, use Salesforce Classic.
- If a task doesn't include a subject, it appears in feeds in Salesforce1 as [No Subject].

Inbox

- Inbox isn't available in Salesforce1.

Salesforce Files

Folders

- Salesforce1 users can see library folders that were created in Lightning Experience, and the files contained in folders. But creating or modifying library folders in Salesforce1 isn't available.

Duplicate Management

Merge Duplicate Records

- Users can't merge accounts, contacts, and leads.

Salesforce Customization

Locker Service and Rich-Text Editors

- In Salesforce1, you can't use rich-text editors or edit fields with rich text when the LockerService critical update is active in sandboxes and Developer Editions orgs. See [Rich-Text Editors Disabled When LockerService Critical Update Is Active](#) for more details.

Salesforce Authenticator: New iOS 10 Notifications, Sleeker Design

We know how hard it can be to read information on small screens. So we've improved the design across the Salesforce Authenticator mobile app. Notifications are easier to scan and read from the lock screen on mobile devices, and improved dialog boxes offer more options for managing account details.

IN THIS SECTION:

[Salesforce Authenticator Sports a New Design](#)

A sleek, improved design makes it easier for users to manage their accounts. New icons help users see which actions to take, and clearer dialog boxes offer more options for managing account settings. We think your team like what they see.

[Salesforce Authenticator Notifications for iOS 10 Easier to Read](#)

Notifications for iOS 10 devices are now easier on the eyes. Action, username, service, and device information now displays directly on the lock screen. Users can quickly scan the details without unlocking their phone or waiting for the app to open. When a notification appears on a locked device, simply press and hold the notification to see information about the action. On older devices, swipe and touch. Then approve or deny the action right from the locked screen.

Salesforce Authenticator Sports a New Design

A sleek, improved design makes it easier for users to manage their accounts. New icons help users see which actions to take, and clearer dialog boxes offer more options for managing account settings. We think your team like what they see.

Smarter updates guide users to the best path. If a user can't complete act an action immediately because their app is out of date, we redirect the user to the App Store or Google Play. Salesforce Authenticator is available for free for both Apple and Android devices.

Salesforce Authenticator Notifications for iOS 10 Easier to Read

Notifications for iOS 10 devices are now easier on the eyes. Action, username, service, and device information now displays directly on the lock screen. Users can quickly scan the details without unlocking their phone or waiting for the app to open. When a notification appears on a locked device, simply press and hold the notification to see information about the action. On older devices, swipe and touch. Then approve or deny the action right from the locked screen.

And because we live and breathe two-factor authentication, we make sure that the right person is acting on notifications. The app always asks the user to provide a fingerprint, PIN, or password from the locked screen before it finalizes actions.

Field Service Lightning iOS: Technicians, Rejoice! Here's Your All-In-One Mobile Solution (Generally Available)

Take your field service operation to the next level with the Field Service Lightning iOS mobile app. Technicians can harness the wealth of data, scheduling and automation tools, and customizability of your Salesforce org to get work done quickly from anywhere. And the app's offline-first design means that technicians can always do their job, even without internet access. More productive technicians means happier customers!

 **Important:** The Field Service Lightning iOS mobile app will be available from the Apple App Store later in Spring '17.

This all-in-one field service solution empowers technicians to:

- Prominently display key fields with layouts.
- Empower users with quick actions.
- Provide Salesforce Knowledge articles to technicians.
- Capture signatures from customers for completed work.
- Communicate with partners and customers using Chatter.
- Keep tabs on service resources with resource geolocation tracking.
- Set the calendar range of the work schedule.
- Brand the app with company colors.

And best of all, the app works offline, so technicians can always complete their work, even with limited or no internet connectivity.

To learn about deploying the app, see [The Field Service Lightning iOS Mobile App \(Generally Available\)](#).

EDITIONS

Available in: Field Service Lightning features are available in: **Enterprise**, **Performance**, **Unlimited**, and **Developer** Editions with the Service Cloud.

Salesforce Classic Mobile App to Retire in December 2017

To improve the overall mobile user, developer, and deployment experience, Salesforce is focusing mobile development on the Salesforce1 app. As a result, we are retiring the Salesforce Classic Mobile app on December 1, 2017. Also, iOS 10 and Android 7.0 are the final mobile OS versions that we'll use for Salesforce Classic Mobile compatibility testing. We encourage you to start transitioning your mobile users to an alternative experience, such as rolling out the Salesforce1 downloadable apps or deploying custom mobile apps that address your current and future mobile needs.

On December 1, 2017, Salesforce Classic Mobile will be removed from the App Store and Google Play, and access to currently installed Salesforce Classic Mobile apps will be immediately disabled for all users and orgs.

For more information about the retirement of Salesforce Classic Mobile and your transition options, see [Salesforce Classic Mobile App to Retire on December 1, 2017](#) and join the conversation in the [Salesforce1 Mobile App Success](#) group in the Success Community.

Financial Services Cloud: Client and Household Relationship Mapping, Alerts, Client Service Enhancements

Advisors can now create, maintain, and visualize clients and households through new relationship groups. Get new client service enhancements, including alerts on a client's profile page and financial accounts to help advisors keep up with changes to client's financial accounts.

Read the [Financial Services Cloud Implementation Guide](#) to get the most out of these new features and enhancements.

Editions

Available in Lightning Experience for an extra cost in: **Professional, Enterprise, and Unlimited** Editions

IN THIS SECTION:

[Add Businesses to Households](#)

A business entity, like a trust or corporation, can now be a member of a household and included in roll-up summaries. Advisors can create groupings (relationship groups) of people and entities to measure the value of a relationship and identify opportunities for new business.

[Create Relationship Groups with New Wizard](#)

The new relationship group builder helps advisors create and maintain memberships in groups and relationships between people and business entities.

[Add an Individual Client to Multiple Households](#)

You can now add a client to multiple households. For upgraded orgs, you can enable this feature. For new orgs, this feature is enabled by default. You can roll up summary fields only to the client's primary group.

[Visualize Financial Relationships](#)

The new Financial Services Cloud relationship map component helps advisors manage complex households and relationships. Get a visual model of the relationships for people, households, and business entities. And advisors can make changes directly in the relationship map.

[Get Timely Alerts About Financial Accounts](#)

An external core financial system can now push financial account alerts to Financial Services Cloud so advisors can keep up with critical information about their clients' financial accounts.

[Create Cases from Financial Accounts](#)

A Financial Services Cloud advisor can now create a case from a client's financial account so the advisor can see the case from the financial account's page or the client's profile page.

[Sync Accounts and Contacts](#)

Now you can keep an individual's account owner and contact owner as the same owner automatically. Account and contact synchronization is enabled by default for new data for both new and existing orgs. For orgs with existing data, if a discrepancy occurs during synchronizing, the account owner is used for the individual.

[Changed Financial Services Cloud Object](#)

Do more with the Account Contact Relation object.

[Changed Financial Services Cloud Metadata](#)

Financial Services Cloud includes changes to metadata types.

Add Businesses to Households

A business entity, like a trust or corporation, can now be a member of a household and included in roll-up summaries. Advisors can create groupings (relationship groups) of people and entities to measure the value of a relationship and identify opportunities for new business.

To include a business in a household, the business must have a relationship with a person in the household. An advisor can associate a person with business entities through an account contact relationship. The contact part of an individual is related to the business entity account. You can't include the same business entity in more than one household or group.

The screenshot shows the Household page for 'Thompson Household'. At the top, it displays 'TOTAL FINANCIAL ACCOUNTS \$1,900,000', 'WALLET SHARE 5 %', 'LAST INTERACTION', and 'NEXT INTERACTION'. Below this, there are three rows representing household members:

- Aaron Thompson** (PRIMARY): Roles Client, Age, Phone, Mobile, Email. Interaction history: Last Interaction, Next Interaction. Action menu: Events, Tasks, Calls, Emails.
- Phyllis Romero**: Roles Decision Maker, Age, Phone, Mobile, Email. Interaction history: Last Interaction, Next Interaction. Action menu: Events, Tasks, Calls, Emails.
- ABC Store**: Contact Aaron Thompson, Roles Board Member, Phone. Interaction history: Last Interaction, Next Interaction. Action menu: Events, Tasks, Calls, Emails.

Create Relationship Groups with New Wizard

The new relationship group builder helps advisors create and maintain memberships in groups and relationships between people and business entities.

On the Details page, advisors can edit group attributes, such as account name and important notes.

The Members & Relationships page is the place to create and edit relationships with group members and other related accounts and contacts.

EDITIONS

Available in Lightning Experience for an extra cost in: **Professional, Enterprise, and Unlimited** Editions

EDITIONS

Available in Lightning Experience for an extra cost in: **Professional, Enterprise, and Unlimited** Editions

Create Relationship Group: Household

DETAILS MEMBERS & RELATIONSHIPS

1. Who Are the Members of This Group?

Member Name	Role in Group	Activities & Objects to Roll Up	Primary Member	Primary Group
Phyllis Romero	Client	All	<input checked="" type="checkbox"/> Enabled	<input checked="" type="checkbox"/> Enabled

+ Add Row

2. Do the Members Have Relationships with Other Accounts?

Related Member	Member Role	Account Name	Add to Group
Phyllis Romero	Board Member	ABC Store	<input checked="" type="checkbox"/> Enabled

+ Add Row

3. Do the Members Have Relationships with Other People?

Related Member	Related Role	Contact Name
Phyllis Romero	Client	Anne Tucker

+ Add Row

 **Note:** Page layouts require post-installation tasks to use the new functionality for relationship groups.

Add an Individual Client to Multiple Households

You can now add a client to multiple households. For upgraded orgs, you can enable this feature. For new orgs, this feature is enabled by default. You can roll up summary fields only to the client's primary group.

EDITIONS

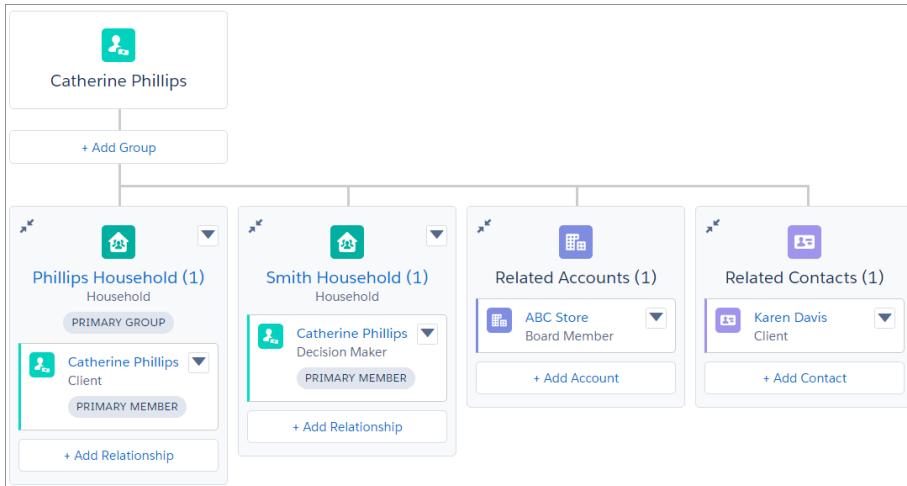
Available in Lightning Experience for an extra cost in: **Professional, Enterprise, and Unlimited** Editions

Visualize Financial Relationships

The new Financial Services Cloud relationship map component helps advisors manage complex households and relationships. Get a visual model of the relationships for people, households, and business entities. And advisors can make changes directly in the relationship map.

EDITIONS

Available in Lightning Experience for an extra cost in: **Professional, Enterprise, and Unlimited** Editions



Get Timely Alerts About Financial Accounts

An external core financial system can now push financial account alerts to Financial Services Cloud so advisors can keep up with critical information about their clients' financial accounts.

The alert appears when an advisor views the client's profile associated to that financial account or the financial account page. Three alert types are available: Error, Warning, and Info. You can dismiss or snooze alerts. Dismissed alerts are hidden from the client profile but still available from the Alerts list view. Snoozed alerts are temporarily hidden until the next time the client profile is visited.

Use the new custom object, `Alert__c`, to alert advisors about their clients' financial accounts.

EDITIONS

Available in Lightning Experience for an extra cost in: **Professional, Enterprise, and Unlimited** Editions

Create Cases from Financial Accounts

A Financial Services Cloud advisor can now create a case from a client's financial account so the advisor can see the case from the financial account's page or the client's profile page.

Create a case from the Financial Account details page or the Financial Accounts tab on the client's profile page.

The 'New Case' form includes fields for Subject (Fees Related Query), Status (New), Description, Priority (Medium), Contact Name (Eric Perry), and Financial Account (Retirement Account). The 'Financial Account' field is highlighted with a red box.

EDITIONS

Available in Lightning Experience for an extra cost in: **Professional, Enterprise, and Unlimited** Editions

The case appears on the Cases section of the client's Related tab and the Financial Account's Related tab.

Sync Accounts and Contacts

Now you can keep an individual's account owner and contact owner as the same owner automatically. Account and contact synchronization is enabled by default for new data for both new and existing orgs. For orgs with existing data, if a discrepancy occurs during synchronizing, the account owner is used for the individual.

EDITIONS

Available in Lightning Experience for an extra cost in: **Professional, Enterprise, and Unlimited** Editions

Changed Financial Services Cloud Object

Do more with the Account Contact Relation object.

AccountContactRelation

The following fields have been added.

IncludeInPrimary__c

Includes this account in a related individual's primary group.

PrimaryGroup__c

Indicates a person's primary group.

EDITIONS

Available in Lightning Experience for an extra cost in: **Professional, Enterprise, and Unlimited** Editions

Changed Financial Services Cloud Metadata

Financial Services Cloud includes changes to metadata types.

IndividualRecordTypeMapper

The following fields have been added.

LeadRecordType__c

Not in use.

LeadRecordTypeNameSpace__c

Not in use.

EDITIONS

Available in Lightning Experience for an extra cost in: **Professional, Enterprise, and Unlimited** Editions

Health Cloud: Wave for Health Cloud: Risk Stratification, Lead-to-Patient Conversion, and More

Optimize care coordination and proactively manage patients who are at risk with Wave dashboards. And we've made it super easy to take Salesforce leads and convert them into Health Cloud patient records. To top it off, we've added to the Health Cloud data model, and improved the performance of the Health Cloud console.

IN THIS SECTION:

[Manage Patient Risk with Wave for Health Cloud: Risk Stratification](#)

The Wave for Health Cloud: Risk Stratification app gives you prebuilt Wave dashboards that identify your at-risk patients and lets you drill down into their detailed information. Through dashboards of configurable patient data and custom charts, you can gain new insight into the patients your company manages.

EDITIONS

Health Cloud is available in Salesforce Classic

Available in: **Enterprise, Performance, and Unlimited** Editions

[Seamlessly Convert Leads into Patients](#)

Give care coordinators the power to convert Salesforce leads into Health Cloud patients—each with their own care plan and care team. When you install the Health Cloud Unmanaged Package Extension care coordinators select up to 200 leads, and let the system create the necessary records for that individual. Using leads to add patients allows seamless support from patient acquisition through enrollment in Health Cloud.

[Faster Load Times for the Patient Timeline](#)

We've given you the option to show only a subset of events when the timeline first appears in the console—dramatically improving load times for the page. The timeline contains a personal history of each patient, which sometimes is a lot of information to load. Although good things are worth waiting for, you can now whittle down the initial view to quickly load only the most important events. After that, care coordinators can use the events filter to select which extra events they'd like to view for a particular patient.

[Health Cloud Has New Custom Objects](#)

Health Cloud contains new custom objects.

[Health Cloud Metadata: New and Changed Types](#)

Health Cloud includes new and changed metadata types.

[Console Performance Improvements](#)

We've improved performance throughout Health Cloud, notably improving speed and performance for Health Cloud console users.

[Create Precise Patient Lists with Advanced Patient Segmentation](#)

Give care coordinators the ability to create more accurate patient lists with the Advanced Patient Segmentation feature that lets them fine-tune their search criteria.

Manage Patient Risk with Wave for Health Cloud: Risk Stratification

The Wave for Health Cloud: Risk Stratification app gives you prebuilt Wave dashboards that identify your at-risk patients and lets you drill down into their detailed information. Through dashboards of configurable patient data and custom charts, you can gain new insight into the patients your company manages.

! Important: Legal Disclaimer for Wave for Health Cloud: Risk Stratification

Wave for Health Cloud: Risk Stratification is solely intended to help you provide quality care to your patients by giving you insights into the health trends of your patient population.

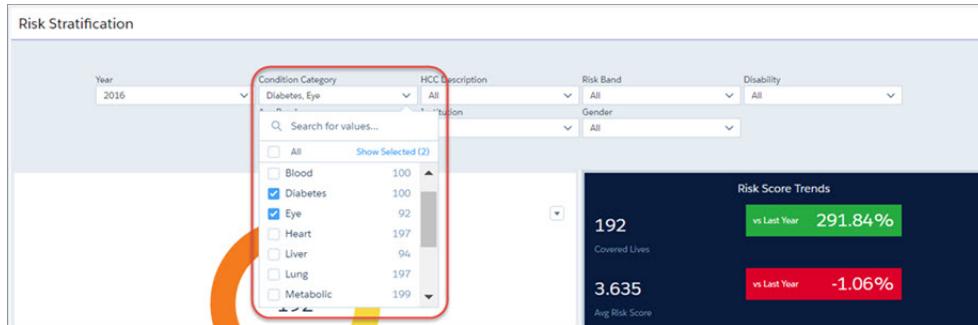
It's not intended to be used for any other purpose. For example, don't use the Risk Stratification feature for any purposes related to health care reimbursement by Medicare, Medicaid, other federal or state health programs, or private health insurers.

Use Wave for Health Cloud: Risk Stratification in compliance with HIPAA and other health privacy laws. In particular, HIPAA contains a "minimum necessary requirement" that mandates what information a health care organization's employees and contractors can see. These individuals must only access the minimum amount of Protected Health Information (PHI) necessary to perform their job functions.

Wave for Health Cloud: Risk Stratification exposes PHI for all patients within your organization. Only grant feature access to individuals who have a valid need to know the PHI of all individuals your company treats. For example, limit access to hospital administrators or those people responsible for quality of care initiatives who already can see PHI for all individuals. It is your responsibility to determine which individuals within your organization can access this feature and then to set the appropriate permissions. As a default, this feature is unavailable to licensed Health Cloud users.

Health Cloud now has delivered a Wave risk scoring dashboard based on the CMS Hierarchical Condition Categories (HCC) risk scoring model. The CMS HCC model looks at patient diagnoses and other key demographic information to assign a risk score to each patient. The dashboard helps people like clinical administrators or executives get a complete view of the trends affecting patients being cared for. A dashboard is a curated set of charts, metrics, and tables based on the data in one or more lenses. When you look at data in an exploratory mode, you do so in a lens. A lens has several aspects: it's how you view data in a dataset, it's the place where you explore

the data graphically, and it's the basis for building any dashboard. Those individuals with permission to access the app can apply filters in a lens to focus on the subset of data that's most relevant. For example, filters can limit the visualization to certain calendar years or patient populations.



The Wave for Health Cloud: Risk Stratification app comes with charts and lists that give you important insight into the overall health of the patients you manage. Each Health Cloud org gets five Wave app permission set licenses.



- Risk Score (1):** The number of patients being evaluated and the number of patients who fall into each risk band category.

- **Risk Score Trends (2)**: The number of patients in the program and the average risk score in a calendar year compared with the numbers from the preceding year.
- **Age Group (3)**: The number of covered patients in each age group.
- **Age Group Trends (4)**: The number of male and female covered patients in the program in a given calendar year compared with the numbers from the preceding year.
- **Patient Distribution by Number of Conditions (5)**: The number of patients who have one or more medical conditions.
- **Patient Distribution Trends (6)**: The number of patients with one or more conditions compared with the numbers from the preceding year.
- **Enrollment Type (7)**: The number of patients enrolled in each program type.
- **Enrollment Type Trends (8)**: The number of patients enrolled in each program type compared with the numbers from the preceding year.
- **Patient Details (9)**: A list of patients with their associated risk score, conditions, Hierarchical Condition Categories (HCC) codes, and so on. You can grant permission to let users download a .CSV file of the patient list. The list can be used to assign at-risk patients to a care management program and then manage them in Health Cloud.

Clicking the elements within a widget can also change the view of the entire dashboard. For example, here is a section of the dashboard that shows age groups and patient distribution based on number of conditions.



After selecting patients in 60–64 years old age group, the charts and graphs change to reflect that lens.



The filtered information is also reflected in the patient details list. The patient list can be shared with other individuals who have permission to view information for all patients.

A screenshot of a patient details list table. The columns include: #, PATIENT NAME, RISKBAND, RISK SCORE, HCC CODES, CONDITIONS, and NUMBER OF CONDITIONS. The data is as follows:

#	PATIENT NAME	RISKBAND	RISK SCORE	HCC CODES	CONDITIONS	NUMBER OF CONDITIONS
1	Kelly Bennett	1-2	1.1	HCC58, HCC2	Psychiatric,Infection	2
2	Anne Hunt	1-2	2	HCC6,HCC72, HCC189	Infection,Spinal,Amputation	3
3	Denise Hudson	1-2	1.1	HCC58, HCC2	Psychiatric,Infection	2
4	Lois Stephens	1-2	1.7	HCC8,HCC186	Neoplasm,Transplant	2
5	Adam Thompson	1-2	1.1	HCC58, HCC2	Psychiatric,Infection	2
6	Roy Black	1-2	1.3	HCC10, HCC17, HCC77	Neoplasm,Diabetes,Neurological	3
7	Debra Jacobs	1-2	1.1	HCC58, HCC2	Psychiatric,Infection	2
8	Theresa Hawkins	1-2	1.1	HCC58, HCC2	Psychiatric,Infection	2

Tip: If you haven't used Wave before, learn more about it from the [Wave Analytics Library](#).

Seamlessly Convert Leads into Patients

Give care coordinators the power to convert Salesforce leads into Health Cloud patients—each with their own care plan and care team. When you install the Health Cloud Unmanaged Package Extension care coordinators select up to 200 leads, and let the system create the necessary records for that individual. Using leads to add patients allows seamless support from patient acquisition through enrollment in Health Cloud.

Leads can be acquired in Sales Cloud, Service Cloud, or from an integration with an (electronic health record (EHR) system, data warehouse, patient registration system, or call center. For example, a care coordinator can easily enroll a person who has contacted your company's call center through a chronic care program.

The screenshot shows the Salesforce Health Cloud Leads page. At the top, there's a navigation bar with the Salesforce logo, 'health cloud', and a search bar labeled 'Search Salesforce'. Below the navigation is a toolbar with buttons for 'New Lead', 'Change Status', 'Change Owner', 'Add to Campaign', and 'Convert to Patient'. The 'Convert to Patient' button is circled in red. The main area is a table listing leads. The columns are: ACTION, NAME ↑, COMPANY, LEAD STATUS, CREATED DATE, OWNER ALIAS, and UNREAD BY OWNER. There are 7 rows of lead data. At the bottom of the page, there's a pagination bar showing '1-7 of 7' and '4 Selected'.

For each patient, Salesforce performs the following actions.

- Creates the patient as an individual. An individual is an object view of both Account and Contact linked by the Individual ID.
- Creates an account for the individual that is linked to the patient ID and MRN fields.
- Creates a contact record for the individual that is linked to the account through the Individual ID.
- Creates a case with a CarePlan record type so that the page layout for the care plan appears automatically. If a care coordinator has been selected, the coordinator becomes the owner of the case.
- Adds the case that represents the care plan to the account record.
- Creates a case team with the individual as the patient, and adds the care coordinator, when one has been selected.
- Adds the patient's account ID to the Patient record.

Faster Load Times for the Patient Timeline

We've given you the option to show only a subset of events when the timeline first appears in the console—dramatically improving load times for the page. The timeline contains a personal history of each patient, which sometimes is a lot of information to load. Although good things are worth waiting for, you can now whittle down the initial view to quickly load only the most important events. After that, care coordinators can use the events filter to select which extra events they'd like to view for a particular patient.

All timeline configurations that have the `Active` option selected are available to appear on the timeline when they're selected using the events filter. But only those configuration records with the `Show on Load` setting selected appear on the timeline by default.

For existing Health Cloud customers, we automatically select `Show on Load` for every active timeline view configuration record you already have in the org. You can then decide if you want to change the setting in the configuration records to decrease the timeline's initial load time.

Health Cloud Has New Custom Objects

Health Cloud contains new custom objects.

ConditionToHCCCodeMapping__c

Represents a mapping of patient conditions to Hierarchical Condition Category (HCC) codes.

Program__c

Represents information about the program that the company is participating in. Programs include Medicare Chronic Care Management (CCM), Medicare accountable care organization HCC risk scoring, among others.

ProgramPatientAffiliation__c

Represents the program that the patient is enrolled in.

ProgramPatientSummary__c

Represents a record that contains calculated values for the relevant program that the patient is enrolled in.

Provider__c

Represents a person providing healthcare.

Health Cloud Metadata: New and Changed Types

Health Cloud includes new and changed metadata types.

New Metadata Types

RiskScoreAgeBandContinuedEnrollee

Indicates risk score based on age and continued enrollment status.

RiskScoreAgeBandNewEnrollee

Indicates risk score based on age and new enrollment status.

RiskScoreHCCCode

Maps risk score to HCC codes.

RiskScoreDiseaseInteraction

Maps risk scores to disease interactions.

RiskScoreMedicaidInteractions

Maps risk scores to Medicaid and originally disabled interactions.

Updated Metadata Types and Fields

IndividualRecordTypeMapper

The following fields have been added.

LeadRecordType__c

Lead Record Type used when converting Lead records. Leave this field blank to use any record type. All available record types are converted to an Individual record type, unless another mapping is specified.

LeadRecordTypeNameSpace__c

Lead namespace for your custom record type's org.

Console Performance Improvements

We've improved performance throughout Health Cloud, notably improving speed and performance for Health Cloud console users.

Create Precise Patient Lists with Advanced Patient Segmentation

Give care coordinators the ability to create more accurate patient lists with the Advanced Patient Segmentation feature that lets them fine-tune their search criteria.

With the new **Filter Logic** text box on the Patients tab, you can apply the **AND** and **OR** logic filter operators to your filters.

The screenshot shows the '1. ADD FILTERS' step of a filter configuration interface. It displays three rows of filter criteria:

- Row 1: Account equals Individual
- Row 2: Contact equals Individual
- Row 3: Account equals 657445678

Below these rows is a red-bordered input field labeled 'Filter Logic' containing the expression '(1 OR 2) AND 3'. At the bottom right of the interface are 'Cancel' and 'Next' buttons.

Customization: More Control Over Record Page Assignments and Flow Screens, Connect to External Services

Now clicks take you further than ever. They get you more granular control over how you assign Lightning record pages to your users. They give you control over your flow screens – including a way to make them look like Lightning Experience. And although a little bit of code is involved, clicks make it easy to connect your org to external services.

Customization features help you extend your org by enhancing your objects, data, and fields, updating your org's look and feel, augmenting your business processes, creating websites, and creating apps—all by using point-and-click tools and maybe some code. Customization features also include tools to administer and secure your org.

IN THIS SECTION:

[Lightning App Builder: Record Page Assignment by Record Type and Profile, New Page Templates, New Components, and More](#)

We've made lots of enhancements to page customization in Lightning Experience. Assign record pages not only by app, but also by record type and user profile. Create pages from a template—several are new with this release—or clone the system default. Add more functionality to your pages with new components. The Lightning App Builder is available in both Lightning Experience and Salesforce Classic. Unless otherwise noted, the feature changes are only for Lightning Experience.

[External Services: Connect to Salesforce Using a Wizard, Schema, and Flow \(Beta\)](#)

Use External Services to connect your Salesforce org to a service of your choice. Invoke methods based on the external source via a flow. Import data from the service into Salesforce. You can do all this with the help of an easy-to-use wizard. This feature is new in Lightning Experience.

[Salesforce Connect: Cross-Org Writable External Objects, More External Objects per Org, Salesforce Console, Quick Actions, and Improved Reports and Relationships](#)

Now you can create, edit, and delete records in your other Salesforce orgs. You can have twice as many external objects per org, and external objects support quick actions and Salesforce Console in Salesforce Classic. We also fixed some unpleasant behavior in external object relationships and reports.

[Approvals: Consistency Across All Salesforce Experiences](#)

We want your approvers to have the same experience, no matter if they're using Lightning Experience, Salesforce Classic, or Salesforce1. These enhancements were available in Salesforce Classic before this release. Some enhancements are new to Salesforce1, some are new to Lightning Experience, and some are new to both experiences.

[Visual Workflow: Have More Control over Your Screens](#)

Make your flows look and feel like Lightning Experience with Lightning runtime and the Flow component for Lightning App Builder. Dynamically control whether to show or hide screen fields with field rules. These changes apply to both Lightning Experience and Salesforce Classic.

[Process Builder: Lightning Icons and Encrypted Data](#)

We streamlined the icons in Process Builder to match the rest of Lightning Experience and are piloting support for encrypted data. These changes are available in both Lightning Experience and Salesforce Classic.

[Picklist Administration: Improved Global Picklists, Decoupled Labels and Identifiers, and New API Items](#)

Picklists are getting more versatile. Easily convert from unrestricted to restricted picklists, and update your picklist labels without changing any code referring to them. If you like coding, now you can use the Tooling API in addition to the Metadata API with both standard and global value sets.

[AppExchange: Streamlined Listings and Integrated Experience Reviews](#)

Find the best app, Lightning component, or consulting service in less time with streamlined AppExchange listings. After you try a product or service, write a review directly from your Salesforce org.

[General Setup: More Details in Object Manager, Standard Permission Sets](#)

With the Object Manager, easily see how your org is using your Lightning record pages. When you purchase the Sales Console permission set license, don't worry about manually creating a permission set to match. With standard permission sets, you can move straight to assigning the permission set to users. And Lightning for Outlook and Lightning for Gmail (Beta) are available for users with Force.com licenses.

Lightning App Builder: Record Page Assignment by Record Type and Profile, New Page Templates, New Components, and More

We've made lots of enhancements to page customization in Lightning Experience. Assign record pages not only by app, but also by record type and user profile. Create pages from a template—several are new with this release—or clone the system default. Add more functionality to your pages with new components. The Lightning App Builder is available in both Lightning Experience and Salesforce Classic. Unless otherwise noted, the feature changes are only for Lightning Experience.

Editions

Available in: **Group, Professional, Enterprise, Performance, Unlimited, and Developer** Editions

IN THIS SECTION:

[Assign Record Pages by App, Record Type, and Profile](#)

Now you can customize your users' experience even more granularly by creating custom record pages and assigning them by app, record type, and user profile. Give your sales managers a different view of opportunities than your sales reps. Configure nonprofit account pages differently than standard business account pages.

[Customize Person Account Pages](#)

In Summer '16, we gave person accounts its own page in the Lightning App Builder, but you couldn't edit it. Now you can! So go ahead and customize those person account pages. This change applies to Lightning Experience only.

[Customize Your Lightning Pages Even More with New Templates](#)

You now have more templates to choose from, increasing your page design options. We've added three app page templates and five record page templates. The app page templates adjust dynamically between Lightning Experience and Salesforce1. The record page templates are supported in Lightning Experience only.

[Clone Salesforce Default Lightning Pages](#)

You can now create a Lightning Page in two different ways. Use a template to create an empty page that you can fill with the components you want. Or you can clone the system default page to create a page prepopulated with standard components. This feature is available for Home, Record, and Email Application pages.

[Lightning App Builder New Page Wizard Is Restructured](#)

Previously, when creating a page, you chose a page type, selected a template, and then named the page. We've changed the order and moved the template selection later in the process. This change applies to both Lightning Experience and Salesforce Classic.

[Customize the Highlights Panel with More Action Buttons](#)

Make your record highlights more useful by including up to 10 action buttons on the highlights panel. Previously, the limit was three. We updated the label to reflect this change, and renamed the option for displaying the highlights panel in a compact view. These highlights panel customizations are available in Lightning Experience only.

[Add the Related Record Component to Your Lightning Pages](#)

Give your users the record details they need most. Use the Related Record component to customize your Lightning pages and display the details of a related record, including the parent record, on any record page. This feature is new in Lightning Experience.

[Add the Related List Component to Your Lightning Pages](#)

We want you to get exactly what you want on your Lightning pages. Instead of displaying all the related lists for a record, you now get to pick exactly which list you want with the new Related List component. This feature is new in Lightning Experience.

[Customize How Related Lists Display on Lightning Pages](#)

Use a new attribute on the Related Lists component to choose whether to display related list items in a list or as tiles on your custom Lightning Pages. If you put the Related Lists component in a narrow region on the page, the list items display only as tiles.

[Power Up Your Lightning Pages with the Flow Component \(Beta\)](#)

Welcome a new component to the Lightning App Builder. Use the Flow component to embed active flows in your Lightning Page.

[Display Pending Approval Requests on Home Pages](#)

Use the new Items to Approve component to display approval requests that your users haven't responded to yet. This component is supported only on Home pages. This change applies to Lightning Experience only.

[Add Skype to Lightning Record Pages \(Beta\)](#)

A new Skype for Business component is available for the Lightning App Builder. Add it to your record pages to get Skype controls that let you see who's online, initiate audio and video calls, and chat. To add this component, Skype for Salesforce (Beta) must be set up for your org. To use the component, the record page must include at least one email field.

[Rich Text Component Disabled When LockerService Critical Update Is Active](#)

In sandboxes and Developer Edition orgs, if you have the LockerService critical update active, the Rich Text component becomes read-only in the Lightning App Builder.

Assign Record Pages by App, Record Type, and Profile

Now you can customize your users' experience even more granularly by creating custom record pages and assigning them by app, record type, and user profile. Give your sales managers a different view of opportunities than your sales reps. Configure nonprofit account pages differently than standard business account pages.

We also revamped the activation process. You can now activate a page as the org default, app default, or for the most granularity, assign it to a combination of apps, record types, and profiles all in one place. For example, create a page specifically for person account records and assign it to the person account record type.

The screenshot shows the 'Activation' section of the Lightning App Builder. At the top, it says 'Activation: Custom Opportunity Page for Inside Sales'. Below that, a box contains text about record page assignment levels and a link to learn more. A navigation bar at the bottom has tabs: 'ORG DEFAULT', 'APP DEFAULT', and 'APP, RECORD TYPE, AND PROFILE', with the last one being underlined. A note below the tabs says 'Set a combination of apps, record types, and profiles to display this custom record page. This setting is the most specific and allows for fine-grained customization within a Lightning app.' At the bottom of the section is a button labeled 'Assign to Apps, Record Types, and Profiles'.

Customize Person Account Pages

In Summer '16, we gave person accounts its own page in the Lightning App Builder, but you couldn't edit it. Now you can! So go ahead and customize those person account pages. This change applies to Lightning Experience only.

The default person account page looks the same as a business account. Use the Lightning App Builder to create the desired layout, and then assign it to the person account record type.

SEE ALSO:

[Assign Record Pages by App, Record Type, and Profile](#)

[Get More Out of Person Accounts](#)

EDITIONS

Person accounts are available in **Professional**, **Enterprise**, **Performance**, **Unlimited**, and **Developer** Editions

Customize Your Lightning Pages Even More with New Templates

You now have more templates to choose from, increasing your page design options. We've added three app page templates and five record page templates. The app page templates adjust dynamically between Lightning Experience and Salesforce1. The record page templates are supported in Lightning Experience only.

The new app page templates are:

- Header and Left Sidebar—Full-width header above a left sidebar and main column. On a tablet in portrait orientation, the columns below the header are equal width.
- Header and Three Columns—Full-width header above three equal-width columns. On a tablet in portrait orientation, the first column becomes the main column with the other two regions stacked in a right sidebar.
- Header and Two Columns—Full-width header above two equal-width columns.

When you view an app page template on a phone, the regions stack vertically.

The new record page templates are:

- Header and Left Sidebar—Full-width header above a left sidebar and main column.

- Header, Subheader, Left Sidebar—Full-width header and a narrower subheader above a left sidebar and main column.
- Header and Three Columns—Full-width header above three equal-width columns.
- One Column—Full-width single main area.
- Three Columns—A main column and two sidebars with fixed proportional widths. The main column width is 50%, and the side columns widths are each 25%. This template is designed for record pages in a Salesforce Console. The minimum supported resolution for this template is 1280 pixels.

We've also renamed some of our existing templates to be more descriptive.

Type	Old Template Name	New Template Name
App Page	Header and Two Columns	Header and Right Sidebar
App Page	Main Column and Sidebar	Main Column and Right Sidebar
Record Page	Header, Subheader, Two Columns	Header, Subheader, Right Sidebar
Record Page	Header and Two Columns	Header and Right Sidebar

Clone Salesforce Default Lightning Pages

You can now create a Lightning Page in two different ways. Use a template to create an empty page that you can fill with the components you want. Or you can clone the system default page to create a page prepopulated with standard components. This feature is available for Home, Record, and Email Application pages.

Lightning App Builder New Page Wizard Is Restructured

Previously, when creating a page, you chose a page type, selected a template, and then named the page. We've changed the order and moved the template selection later in the process. This change applies to both Lightning Experience and Salesforce Classic.

Customize the Highlights Panel with More Action Buttons

Make your record highlights more useful by including up to 10 action buttons on the highlights panel. Previously, the limit was three. We updated the label to reflect this change, and renamed the option for displaying the highlights panel in a compact view. These highlights panel customizations are available in Lightning Experience only.

To access the changed attribute and labels, in Lightning App Builder, click the highlights panel in the canvas.



Add the Related Record Component to Your Lightning Pages

Give your users the record details they need most. Use the Related Record component to customize your Lightning pages and display the details of a related record, including the parent record, on any record page. This feature is new in Lightning Experience.

Want to show details about an associated contact on a case? You got it! Want to show the details of a case's parent case? You got it! To top it off, your users will love the built-in record creation, inline edit, and ability to unlink a record and link a new one. Talk about increased efficiency!

Under the covers, the component uses quick actions and global actions to create and update the records. If there are no actions available for your lookup, follow the links in the Lightning App Builder property editor to create the actions. You can select any associated lookup field to display related details—even lookups for custom objects.



Tip: If you've ever set up a Salesforce Console, Related Record might sound familiar. Remember the Lookup component that you used in the Salesforce Classic console? Well, the new Related Record component provides the same functionality in Lightning consoles apps. Want to make your console app awesome? Create a record page using the Three Columns template, then add the Related Record component to one of the side columns.

Sample Related Record Component

Component properties in Lightning App Builder:

Page > Related Record

Header Label

*Lookup Field

Contact Name

*Update Action

Update Contact

Create Action

New Contact

If there are no actions available for the selected lookup field, you can create them.

New Update Action

New Create Action

Component displaying a case's related contact:

Contact Details

Name
Jon Amos

Title
Sales Manager

Email
info@salesforce.com

Account Name
Global Media

Phone
(555) 555-1555

Component displaying a case's related parent case:

Parent Case

Case Number
00001001

Case Owner
Admin User

Status
New

Priority
Medium

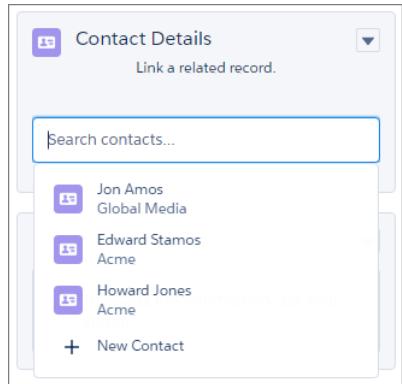
Subject
Sample Case 2: The widgets we received are the wrong size.

Description

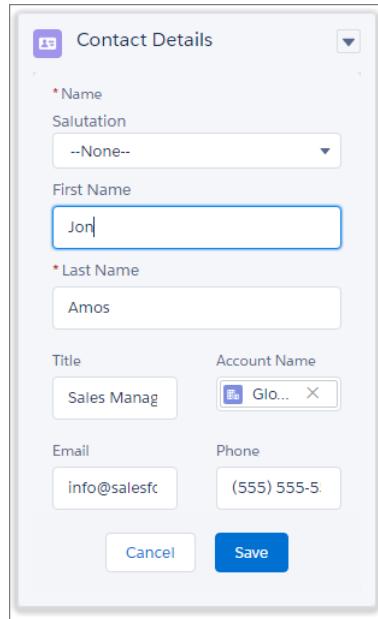
Let's take a walk in your users' shoes. Say that you set up this component to display contact information for a case. However, a user opens a case that doesn't have a related contact. With this component, they can create a contact or link one, all without leaving the

page. And if they later find out that the contact info is out of date, they can update the details in-line. And if the info is incorrect, they can simply remove (unlink) the record and add a new record. Hooray for always staying in context!

Component displaying no linked record:



Component displaying inline edit:



Note:

- Cases are linked to default accounts that can't be removed (unlinked) from the component unless the contact is also removed at the same time.
- To use the Parent Case and Asset lookup fields on cases, update the field-level security to visible instead of hidden. Otherwise, your users see an error.

When you're ready to use this component, head over to the Lightning App Builder and edit or create a custom record page.

SEE ALSO:

[Customize Your Console App Record Pages with Lightning App Builder](#)

Add the Related List Component to Your Lightning Pages

We want you to get exactly what you want on your Lightning pages. Instead of displaying all the related lists for a record, you now get to pick exactly which list you want with the new Related List component. This feature is new in Lightning Experience.

With the Related List component, your users can focus on the things that matter most. For example, you can use this component to display activity history front-and-center on all case pages. You can even configure this component to display a related list for a parent record. Say that you want your users to know if a case's contact has any other open cases. Your users will never miss a beat.

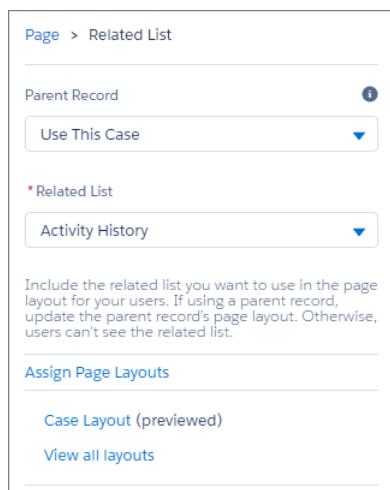


Tip: The Related List component is great for pages in Lightning console apps. Want to make your console app awesome? Create a record page using the Three Columns template, then add the Related List component to one of the side columns.

When you're ready to use this component, head over to the Lightning App Builder and edit or create a custom record page.

Sample Related List Component

Component properties in Lightning App Builder:



Component displaying related activity history on a case:



Component displaying related cases for the case's parent contact:



SEE ALSO:

[Customize Your Console App Record Pages with Lightning App Builder](#)

Customize How Related Lists Display on Lightning Pages

Use a new attribute on the Related Lists component to choose whether to display related list items in a list or as tiles on your custom Lightning Pages. If you put the Related Lists component in a narrow region on the page, the list items display only as tiles.

Power Up Your Lightning Pages with the Flow Component (Beta)

Welcome a new component to the Lightning App Builder. Use the Flow component to embed active flows in your Lightning Page.

 **Note:** This release contains a beta version of the Flow component for Lightning Pages, which means it's a high-quality feature with known limitations. The Flow component 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 Flow component for Lightning Pages in the [IdeaExchange](#).

EDITIONS

Available in: **Enterprise**, **Performance**, **Unlimited**, and **Developer** Editions

For more details, see [Embed Your Flows in Lightning Pages \(Beta\)](#) in the Visual Workflow section.

Display Pending Approval Requests on Home Pages

Use the new Items to Approve component to display approval requests that your users haven't responded to yet. This component is supported only on Home pages. This change applies to Lightning Experience only.

SEE ALSO:

[Review Pending Approval Requests from Lightning Experience](#)

[Idea Exchange: Items To Approve on Lightning Experience Homepage](#)

EDITIONS

Available in: **Enterprise**, **Performance**, **Unlimited**, and **Developer** Editions

Add Skype to Lightning Record Pages (Beta)

A new Skype for Business component is available for the Lightning App Builder. Add it to your record pages to get Skype controls that let you see who's online, initiate audio and video calls, and chat. To add this component, Skype for Salesforce (Beta) must be set up for your org. To use the component, the record page must include at least one email field.

SEE ALSO:

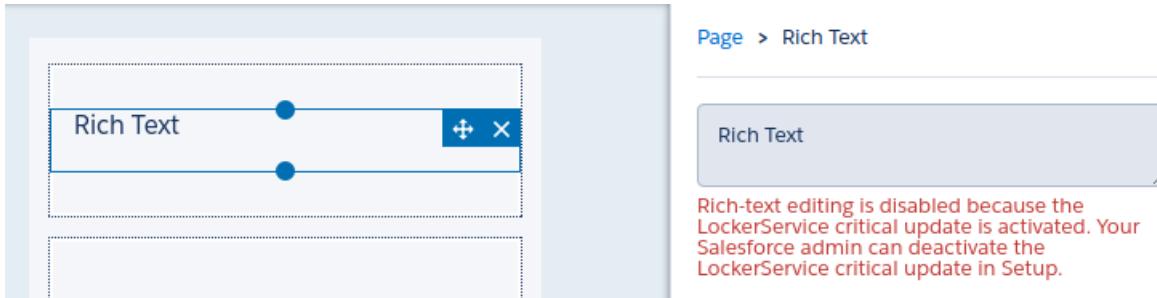
[Salesforce Help: Enable Skype for Salesforce \(can be outdated or unavailable during release preview\)](#)

Rich Text Component Disabled When LockerService Critical Update Is Active

In sandboxes and Developer Edition orgs, if you have the LockerService critical update active, the Rich Text component becomes read-only in the Lightning App Builder.

You can see the rich text inside the component on the canvas, but you can't edit it. The rich-text editor in the component properties pane doesn't render.

 Example:



For more information, see [Rich-Text Editors Disabled When LockerService Critical Update Is Active](#).

External Services: Connect to Salesforce Using a Wizard, Schema, and Flow (Beta)

Use External Services to connect your Salesforce org to a service of your choice. Invoke methods based on the external source via a flow. Import data from the service into Salesforce. You can do all this with the help of an easy-to-use wizard. This feature is new in Lightning Experience.

 **Note:** This release contains a beta version of External Services, which means it's a high-quality feature with known limitations. External Services 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 in the [IdeaExchange App Cloud \(Platform\) Integration group](#) in the Success Community.

Let's say you want to connect to a service that determines if credit is extended to a Salesforce account. You also want to know the payment terms. With External Services, you:

- Supply a named credential, a URL, and authentication settings. Salesforce uses this information to make callouts to the external service.
- Enter a schema URL path (or endpoint) or provide a complete schema.
- Create a flow based on the Apex classes generated from your external service registration using Salesforce's point-and-click automation tool.

When you run the flow, the output contains the credit decision and, if applicable, payment terms. The wizard walks you through the process.

IN THIS SECTION:

[External Services Wizard Walks You Through Setup \(Beta\)](#)

The External Services wizard makes it quick and easy to set up an external service. Just supply some basic information, like your service name and schema endpoint, and then you're ready to build your application.

[Easily Add a Schema to External Services \(Beta\)](#)

A schema describes the methods in your service. You don't have to write the methods or calls to get your service working. However, the service requires a description. Schema methods translate to inputs and outputs for the actions that you create in a flow.

[Perform Repeatable Actions with Flows and External Services \(Beta\)](#)

Use a flow to perform repeatable Salesforce actions with data from your non-Salesforce service. You can create a flow based on a registered external service schema without writing code.

External Services Wizard Walks You Through Setup (Beta)

The External Services wizard makes it quick and easy to set up an external service. Just supply some basic information, like your service name and schema endpoint, and then you're ready to build your application.

To build an application, called a flow, you can use Cloud Flow Designer, a tool with a drag-and-drop interface.

Need help? You can always return to the Introduction screen to get assistance.

EDITIONS

Available in: Lightning Experience

Available in: **Enterprise, Performance, Unlimited, and Developer** Editions

Get Started with External Services

Quickly connect to external micro-services to trigger actions from Salesforce events.

Introduction to External Services
Learn about how it works, which data types you can access and more...

REGISTER NEW

AUTHENTICATION

INTRODUCTION

APEX ACTIONS

FLOW

Overview

What is an External Service Registration?

External Services Documentation

Salesforce Integration Patterns and Practices

Creating External Services
July 2016

Belinda Wong
Director, Product Management

Easily Add a Schema to External Services (Beta)

A schema describes the methods in your service. You don't have to write the methods or calls to get your service working. However, the service requires a description. Schema methods translate to inputs and outputs for the actions that you create in a flow.

External Services uses the [Interagent](#) hyper-schema, which uses JSON. For example, here's a snippet from a schema called Evaluate. It contains a POST method for the credit decision. As input, the method takes orderId, orderAmount, accountId, and creditRating

```

"title": "Evaluate",
"description": "Evaluates credit rating and decides what payment terms to offer.",

"href": "/decision",
"method": "POST",
"schema": {
  "type": [
    "object"
  ],
  "properties": {
    "orderId": {
      "$ref": "#/definitions/creditDecision/definitions/orderId"
    },
    "orderAmount": {
      "$ref": "#/definitions/creditDecision/definitions/orderAmount"
    },
    "accountId": {
      "$ref": "#/definitions/creditDecision/definitions/accountId"
    },
    "creditRating": {
      "$ref": "#/definitions/creditDecision/definitions/creditRating"
    }
  }
}

```

```

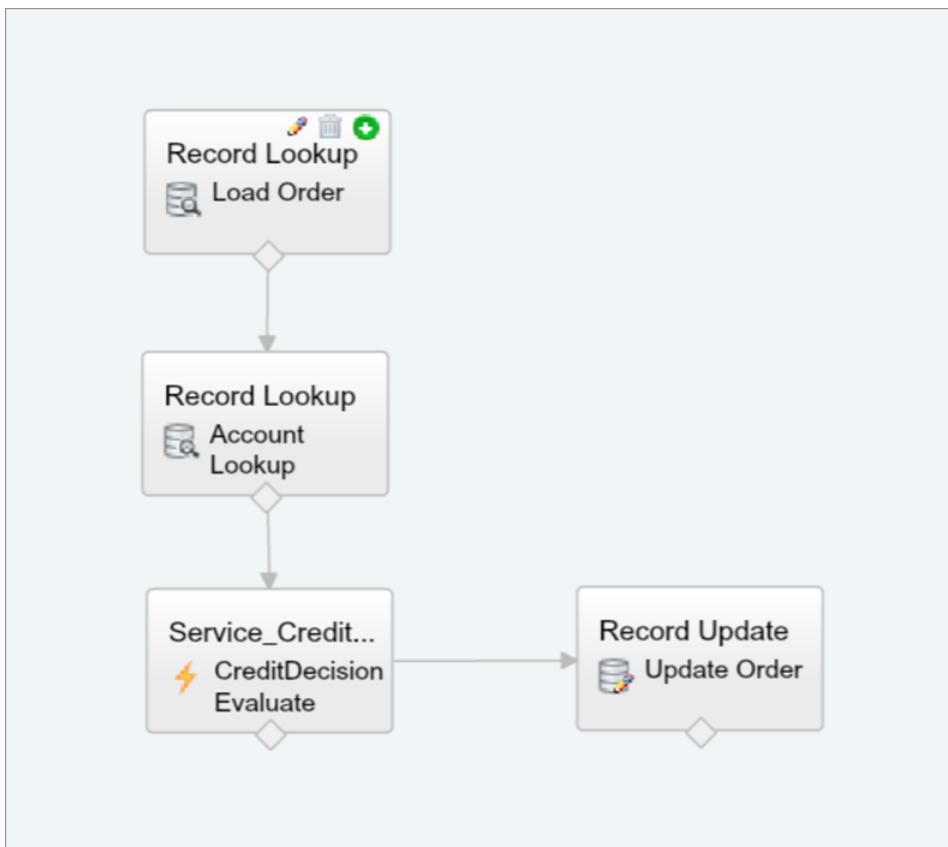
        "$ref": "#/definitions/creditDecision/definitions/creditRating"
    }
},
"required": [
    "orderId",
    "orderAmount",
    "accountId",
    "creditRating"
]
},
}

```

Perform Repeatable Actions with Flows and External Services (Beta)

Use a flow to perform repeatable Salesforce actions with data from your non-Salesforce service. You can create a flow based on a registered external service schema without writing code.

For example, let's say you want to create a flow for a credit service. Include a record lookup step so that the service accesses a specific account. You can also include a credit-worthiness evaluation and a step that updates the account with the evaluation results. Your flow might look something like this one.



When the flow completes successfully, the related account and order record are updated.

Salesforce Connect: Cross-Org Writable External Objects, More External Objects per Org, Salesforce Console, Quick Actions, and Improved Reports and Relationships

Now you can create, edit, and delete records in your other Salesforce orgs. You can have twice as many external objects per org, and external objects support quick actions and Salesforce Console in Salesforce Classic. We also fixed some unpleasant behavior in external object relationships and reports.

IN THIS SECTION:

[Work Seamlessly Across All Your Salesforce Orgs—Cross-Org Connector with Write Support](#)

Writable external objects are available with the cross-org adapter for Salesforce Connect. Now your users and developers can create, update, and delete records that are stored in connected Salesforce orgs. In addition, lookup search is available for external lookup relationship fields whose parent external objects are associated with the cross-org adapter for Salesforce Connect. These changes apply to Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

[Ask and You Shall Receive ... More External Objects](#)

We increased the maximum number of external objects per org from 100 to 200 so that you can access even more external data. We also updated the documentation to clarify that external objects don't count toward custom object limits. This behavior hasn't changed but wasn't clearly stated. This change applies to both Lightning Experience and Salesforce Classic.

[Access External Objects from the Salesforce Console in Salesforce Classic](#)

The Salesforce Console boosts productivity by providing a tab-based interface for working with multiple records simultaneously. Now that the console can access external objects, you and your users can work efficiently across system boundaries. Quickly access data that's stored both inside and outside your Salesforce org from a single screen. This change applies to Salesforce Classic only.

[Improved External Lookup Relationship Fields—How Important Is a Name?](#)

External lookup relationship fields now display the names of parent records, which are much more meaningful to your users than the IDs that were displayed. This change applies to Salesforce Classic only. In Lightning Experience, external lookup relationships already display names instead of IDs.

[Create Quick Actions for External Objects](#)

Quick actions are now available for external objects in Lightning Experience. Previously, external objects supported quick actions only in Salesforce Classic.

[Improved Reports for External Objects](#)

We removed some previous limitations, hopefully before you even encountered them. The improvements affect reports that include external object relationships or use the cross-org adapter for Salesforce Connect. This change applies to both Lightning Experience and Salesforce Classic.

EDITIONS

Available in: **Developer** Edition

Available for an extra cost in: **Enterprise**, **Performance**, and **Unlimited** Editions

Work Seamlessly Across All Your Salesforce Orgs—Cross-Org Connector with Write Support

Writable external objects are available with the cross-org adapter for Salesforce Connect. Now your users and developers can create, update, and delete records that are stored in connected Salesforce orgs. In addition, lookup search is available for external lookup relationship fields whose parent external objects are associated with the cross-org adapter for Salesforce Connect. These changes apply to Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

To enable writable external objects:

1. When you [define the external data source](#), select **Writable External Objects**.
2. When you [enable user access to external objects](#), select the following object permissions as needed.
 - Read—Always required
 - Create—Required to create external object records
 - Edit—Required to create or edit external object records
 - Delete—Required to delete external object records
3. [Enable user access to the fields](#) on the external objects.

For more information, see [Set Up Salesforce Connect to Access Data in Another Org with the Cross-Org Adapter](#).

Read the writable external objects considerations in Salesforce Help.

SEE ALSO:

[Salesforce Help: Writable External Objects Considerations for Salesforce Connect—All Adapters](#) (can be outdated or unavailable during release preview)

[Salesforce Help: Writable External Objects Considerations for Salesforce Connect—Cross-Org Adapter](#) (can be outdated or unavailable during release preview)

[Salesforce Help: Currency Considerations for Salesforce Connect—Cross-Org Adapter](#) (can be outdated or unavailable during release preview)

Ask and You Shall Receive ... More External Objects

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The Salesforce Console boosts productivity by providing a tab-based interface for working with multiple records simultaneously. Now that the console can access external objects, you and your users can work efficiently across system boundaries. Quickly access data that's stored both inside and outside your Salesforce org from a single screen. This change applies to Salesforce Classic only.

SEE ALSO:

[Salesforce Help: Console Considerations for Salesforce Connect—All Adapters](#) (can be outdated or unavailable during release preview)

[Salesforce Help: Salesforce Console in Salesforce Classic](#) (can be outdated or unavailable during release preview)

USER PERMISSIONS

To create and edit external data sources:

- "Customize Application"

To edit permission sets and user profiles:

- "Manage Profiles and Permission Sets"

Improved External Lookup Relationship Fields—How Important Is a Name?

External lookup relationship fields now display the names of parent records, which are much more meaningful to your users than the IDs that were displayed. This change applies to Salesforce Classic only. In Lightning Experience, external lookup relationships already display names instead of IDs.

Previously, an external lookup field in Salesforce Classic displayed either the parent object ID or the value of the parent object's External ID standard field. The External ID standard field appeared by default. If, however, a custom field on the parent object had the Is Name Field attribute, the parent object ID was displayed.

This behavior can still occur, but only if your org hasn't yet retrieved the parent record. If you see an ID in an external lookup field, reload the page to replace the ID with the name.

SEE ALSO:

[Salesforce Help: Relationship Considerations for Salesforce Connect—All Adapters](#) (can be outdated or unavailable during release preview)

[Salesforce Help: External Lookup Relationship Fields on External Objects](#)

Create Quick Actions for External Objects

Quick actions are now available for external objects in Lightning Experience. Previously, external objects supported quick actions only in Salesforce Classic.

Improved Reports for External Objects

We removed some previous limitations, hopefully before you even encountered them. The improvements affect reports that include external object relationships or use the cross-org adapter for Salesforce Connect. This change applies to both Lightning Experience and Salesforce Classic.

When you run reports that reference external objects via lookup, external lookup, and indirect lookup relationships, you no longer receive empty values for those relationship fields. Previously, reports returned empty values when external object relationship fields weren't Salesforce IDs or the name fields of parent objects.

With the cross-org adapter for Salesforce Connect, a report callout no longer fails if its URL exceeds 2 KB. A large callout is split into multiple HTTP calls, with each URL less than 2 KB. Report callouts for other Salesforce Connect adapters already behave this way.

SEE ALSO:

[Salesforce Help: Report Considerations for Salesforce Connect—All Adapters](#)

[Salesforce Help: External Object Relationships](#)

Approvals: Consistency Across All Salesforce Experiences

We want your approvers to have the same experience, no matter if they're using Lightning Experience, Salesforce Classic, or Salesforce1. These enhancements were available in Salesforce Classic before this release. Some enhancements are new to Salesforce1, some are new to Lightning Experience, and some are new to both experiences.

EDITIONS

Available in: **Enterprise**, **Performance**, **Unlimited**, and **Developer** Editions

IN THIS SECTION:

[Review Pending Approval Requests from Lightning Experience](#)

Gone are the days when approvers had to dig through notifications or try to remember with which record an approval request was associated. With the new Items to Approve component in the Lightning App Builder and the Approval Requests navigation bar item, approvers using Lightning Experience can review their pending approval requests in one place. This change applies to Lightning Experience only.

[Don't Worry About That Submit Button Anymore!](#)

Raise your hand if you've ever activated an approval process and forgotten to add the Submit for Approval button to the object's page layout. Happens to everyone. So we decided to remove that step and automatically add the button to all the associated page layouts when you activate an approval process. This change applies to both Lightning Experience and Salesforce Classic.

[Select Next Approver from Lightning Experience and Salesforce1](#)

If you have approval processes that require a user to select the next approver, they're now supported in Lightning Experience and Salesforce1. Previously, only Salesforce Classic let users select the next approver manually. This change applies to Lightning Experience and all versions of the Salesforce1 mobile app.

["Make Sure Records that Are Submitted Behind the Scenes Are Routed to the Right Approval Process" Critical Update Postponed](#)

This critical update, released in Summer '16, was scheduled for auto-activation in Winter '17, but has been postponed to Spring '18.

SEE ALSO:

[Business Processes Use Name Field to Evaluate Person Accounts](#)

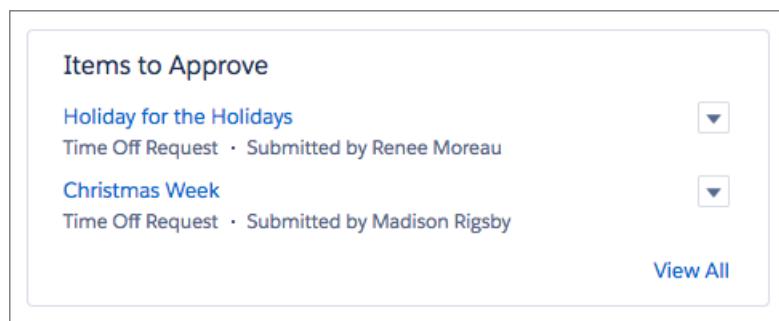
[Approvals Evaluate Person Accounts](#)

Review Pending Approval Requests from Lightning Experience

Gone are the days when approvers had to dig through notifications or try to remember with which record an approval request was associated. With the new Items to Approve component in the Lightning App Builder and the Approval Requests navigation bar item, approvers using Lightning Experience can review their pending approval requests in one place. This change applies to Lightning Experience only.

Previously, approvers had to look at their notifications and hope they hadn't received 20 new ones since receiving the approval request. Or they had to switch to Salesforce Classic or use Salesforce1.

Edit the appropriate home pages in Lightning App Builder to add the Items to Approve component.



Previously, the Approval Requests navigation bar item was available only in Salesforce1. Now it's also available in Lightning Experience. Edit the appropriate Lightning apps to add the Approval Requests item to the app navigation bar.

RELATED TO	TYPE	MOST RECENT AP...	DATE SUBMITTED
1 Holiday for the Holidays	Time_Off_Request__c	Renee Moreau	12/8/2016 3:06 PM
2 Christmas Week	Time_Off_Request__c	Madison Rigsby	12/8/2016 3:05 PM

SEE ALSO:

[Idea Exchange: Items To Approve on Lightning Experience Homepage](#)

Don't Worry About That Submit Button Anymore!

Raise your hand if you've ever activated an approval process and forgotten to add the Submit for Approval button to the object's page layout. Happens to everyone. So we decided to remove that step and automatically add the button to all the associated page layouts when you activate an approval process. This change applies to both Lightning Experience and Salesforce Classic.

When you create an approval process, look for this setting: **Add the Submit for Approval button and Approval History related list to all Object page layouts**. Previously, the setting added only the Approval History related list to the object's page layouts, and it was disabled by default. It now includes the Submit for Approval button and is enabled by default.

This setting is available only when you create an approval process. When the setting is enabled, Salesforce adds the Submit for Approval button to the Standard Buttons section of that object's page layouts.

Select Next Approver from Lightning Experience and Salesforce1

If you have approval processes that require a user to select the next approver, they're now supported in Lightning Experience and Salesforce1. Previously, only Salesforce Classic let users select the next approver manually. This change applies to Lightning Experience and all versions of the Salesforce1 mobile app.

"Make Sure Records that Are Submitted Behind the Scenes Are Routed to the Right Approval Process" Critical Update Postponed

This critical update, released in Summer '16, was scheduled for auto-activation in Winter '17, but has been postponed to Spring '18.

SEE ALSO:

[Summer '16 Release Notes: Make Sure Records That Are Submitted Behind the Scenes Are Routed to the Right Approval Process \(Critical Update\)](#)

[Critical Updates: LockerService Changes, CSRF Protection for Visualforce Pages, and Masking Decoupled from Shield Platform Encryption](#)

Visual Workflow: Have More Control over Your Screens

Make your flows look and feel like Lightning Experience with Lightning runtime and the Flow component for Lightning App Builder. Dynamically control whether to show or hide screen fields with field rules. These changes apply to both Lightning Experience and Salesforce Classic.

IN THIS SECTION:

[Run Flows with a Lightning Skin \(Generally Available\)](#)

Have you ever wanted your flows to look better? So have we. When you enable this feature, all your URL-based flows render using the Lightning runtime instead of the Classic runtime. The new skin fits in with the rest of Lightning Experience, but it's also available in Salesforce Classic.

[Embed Your Flows in Lightning Pages \(Beta\)](#)

We're rolling out a Flow component for the Lightning App Builder. You can now add flows to any Lightning Page—App pages, Record pages, and Home pages alike. All Lightning Pages are available in Lightning Experience. App pages are available in all versions of the Salesforce1 mobile app.

[Now You See Me, Now You Don't: Dynamically Update Flow Screen Fields \(Pilot\)](#)

The fewer times your users have to click **Next**, the better. If you agree, keep reading! Use field rules to control when to show or hide particular screen fields. Turn your flows into guided UIs that respond to users' inputs and selections. Save your users time by showing only what they need when they need it. This feature is available in Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app. However, it takes effect only for flows that use Lightning runtime.

[Customize the Look and Feel of Flow Interviews with the REST API \(Pilot\)](#)

We're continuing to pilot REST API resources that give you full access to flows and their interviews. Use the REST API to build your own flow runtime experience.

[More Context for Flow Errors](#)

Some of the messages you see when a flow fails are error codes that are generated by the API, Apex, or another service. To help you make sense of these error codes, we cleaned up some common messages and added links to relevant documentation. This change applies to both Lightning Experience and Salesforce Classic.

[Enforce Field-Level Security for All Flow Operations](#)

For most operations, a flow is only as powerful as the user who's running it. So if the user doesn't have edit access to one of the fields, the flow fails, and you receive an email with details about why it failed. For Fast Create and Fast Update elements, you choose whether to enforce field-level security or ignore inaccessible fields. This change applies to both Lightning Experience and Salesforce Classic.

["Trust Percent Values in Flow sObject Variables Again" Critical Update Activates in Spring '17](#)

This critical update, released in Summer '16, was scheduled for auto-activation in Winter '17, but was postponed to Spring '17.

[Access Encrypted Data in Your Flows \(Pilot\)](#)

Flows support encrypted fields, except when filtering or sorting records. This change applies to both Lightning Experience and Salesforce Classic.

[Display Flow Screens in Two Columns \(Generally Available\)](#)

When you build flows that collect lots of information, their screens can render as a never-ending skinny column of fields. Break up the layout of those screens by rendering specific flows in two columns. This feature is available in Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app. However, it takes effect only for flows that use Lightning runtime.

SEE ALSO:

[Business Processes Use Name Field to Evaluate Person Accounts](#)

EDITIONS

Available in: **Enterprise**, **Performance**, **Unlimited**, and **Developer** Editions

Run Flows with a Lightning Skin (Generally Available)

Have you ever wanted your flows to look better? So have we. When you enable this feature, all your URL-based flows render using the Lightning runtime instead of the Classic runtime. The new skin fits in with the rest of Lightning Experience, but it's also available in Salesforce Classic.

Since the beta version of Lightning runtime, we made minor improvements to the look and feel.

From Process Automation Settings, select the option to enable Lightning runtime. And voilà! Your flows use Lightning runtime when someone runs them from:

- A direct link
- A custom button
- Setup: the flow list page, flow detail page, and the Cloud Flow Designer

The screenshot shows a Visual Workflow form titled "Survey Customers". The form contains the following fields:

- A text input field labeled "Name".
- A dropdown menu labeled "*Rate Product" with the value "Satisfied".
- A section labeled "Rate Customer Service" with three radio button options: "Excellent", "No Opinion", and "Needs Improvement".
- A text area labeled "Other Comments".

SEE ALSO:

[Idea Exchange: Screen Layout in Visual Workflow / Flow Should Not Suck](#)

Embed Your Flows in Lightning Pages (Beta)

We're rolling out a Flow component for the Lightning App Builder. You can now add flows to any Lightning Page—App pages, Record pages, and Home pages alike. All Lightning Pages are available in Lightning Experience. App pages are available in all versions of the Salesforce1 mobile app.

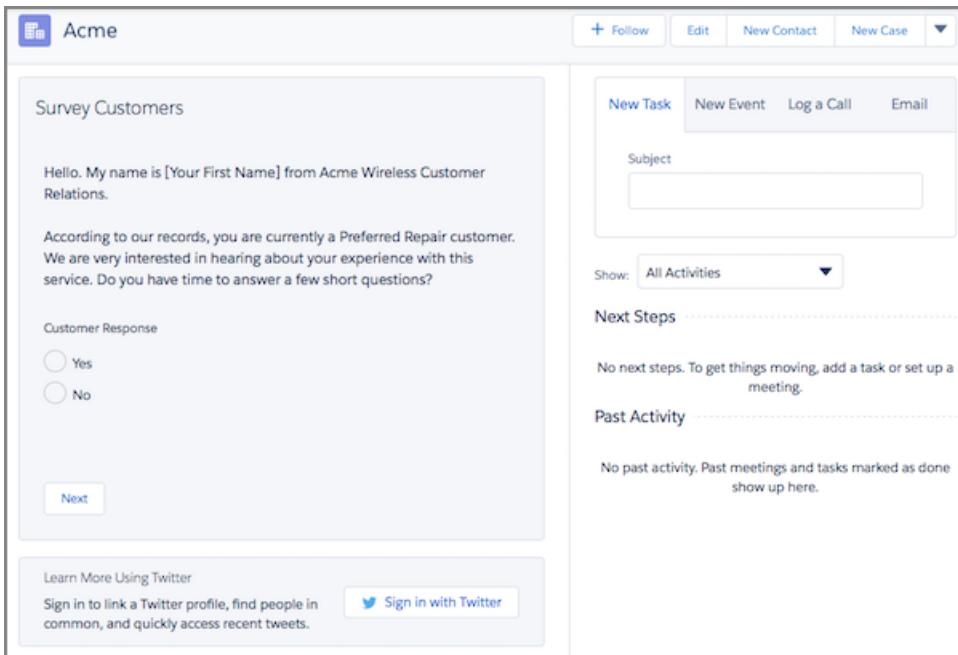
 **Note:** This release contains a beta version of the Flow component for Lightning Pages, which means it's a high-quality feature with known limitations. The Flow component isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or 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 Flow component for Lightning Pages in the [IdeaExchange](#).

Add the Flow component to your Lightning Pages just like you would any other component.

Your flow might need the ID of the record that it's operating on, but don't worry! When you configure the Flow component for a Record page, you can identify to which Text variable to pass the record ID.

 **Example:** Here's how a flow called Survey Customers appears when embedded in a Record page in Lightning Experience.



Changes Since Last Release

We changed how you pass the record ID from a Record page into a flow. Previously, you configured a variable with a specific name. Now you can pass the record ID to any Text variable, no matter what your naming convention is. To do so, select the checkbox under the appropriate Text variable.

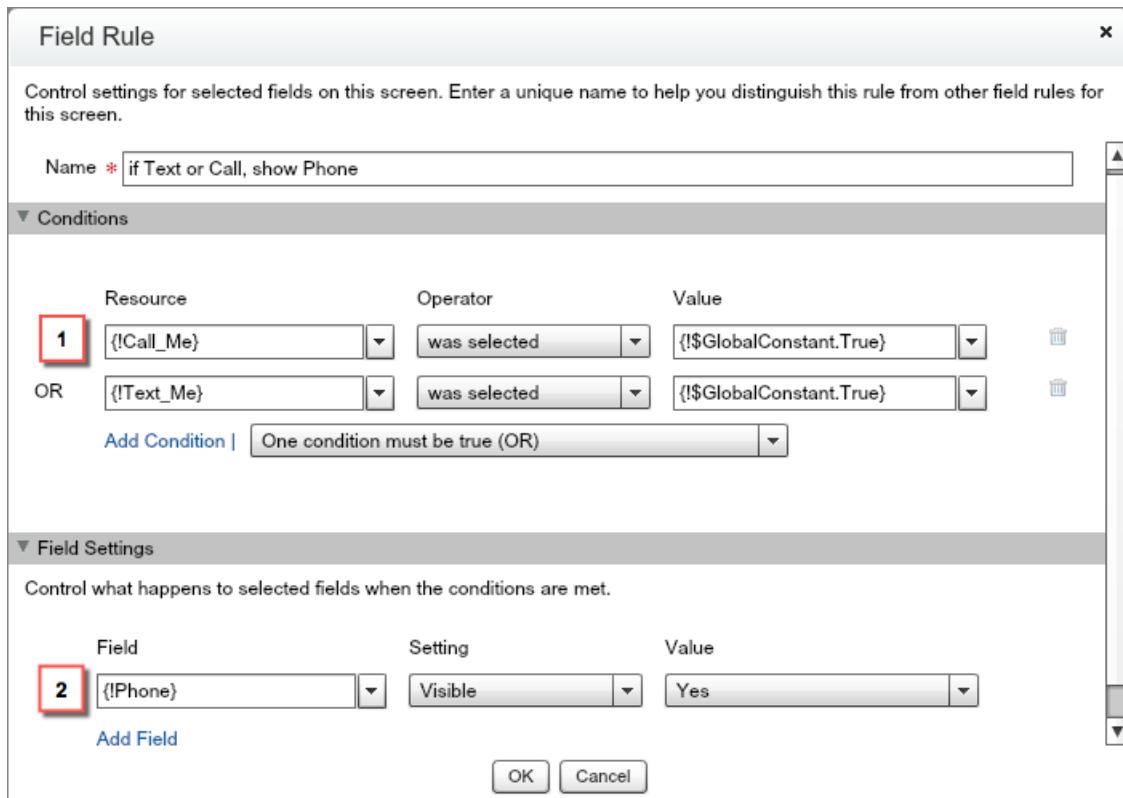
accountId	<input type="text"/>
<input type="checkbox"/> Pass record ID into this variable	
opportunityId	<input type="text" value=" {!Record.Id}"/>
<input checked="" type="checkbox"/> Pass record ID into this variable	

If you created a Text input variable called `recordId` for the flow component during Winter '17, the checkbox is automatically selected when your org upgrades to Spring '17. This default selection happens only when your org upgrades to Spring '17. If you create a Text variable called `recordId` in Spring '17 or later, the checkbox is not selected by default.

Now You See Me, Now You Don't: Dynamically Update Flow Screen Fields (Pilot)

The fewer times your users have to click **Next**, the better. If you agree, keep reading! Use field rules to control when to show or hide particular screen fields. Turn your flows into guided UIs that respond to users' inputs and selections. Save your users time by showing only what they need when they need it. This feature is available in Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app. However, it takes effect only for flows that use Lightning runtime.

Each field rule consists of conditions (1) and field settings (2). The conditions specify when to execute the rule. The field settings let you control whether the field is visible, hidden, required, or optional.



Example: You want to ask your users how they prefer to be contacted. Reveal the Phone Number textbox only if they prefer calls or texts, and reveal the Email Address textbox only if they prefer emails.

The screenshot shows a user interface for contact preferences. It includes a radio button group for 'Contact Preference' with options 'Call Me' (selected), 'Text Me', and 'Email Me'. Below this is a 'Phone Number' input field, which is currently empty.

Contact Preference
<input type="radio"/> Call Me
<input type="radio"/> Text Me
<input checked="" type="radio"/> Email Me
Email Address
<input type="text"/>

SEE ALSO:

[Run Flows with a Lightning Skin \(Generally Available\)](#)

[Salesforce Help: Flow Runtime Experiences](#) (can be outdated or unavailable during release preview)

Customize the Look and Feel of Flow Interviews with the REST API (Pilot)

We're continuing to pilot REST API resources that give you full access to flows and their interviews. Use the REST API to build your own flow runtime experience.



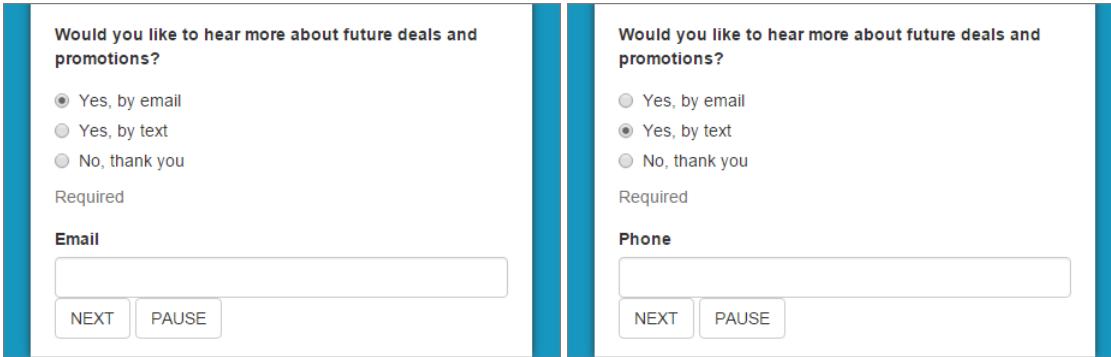
Note: We provide Flow Runtime REST API to selected customers through a pilot program that requires agreement to specific terms and conditions. To be nominated to participate in the program, contact Salesforce. Pilot programs are subject to change, and we can't guarantee acceptance. Flow Runtime REST API 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 Flow Runtime REST API in the [IdeaExchange](#).

If you're an existing pilot customer, nothing has changed since the last release.

Here are some of the things that you can do with this API.

- Apply your company's branding
- Create two-column layouts
- Create choice buttons, instead of requiring users to select a choice and click **Next**
- Update screens dynamically based on the user's response

-  **Example:** In this screen, the text box changes based on the answer in the first field. If you select **Yes, by email**, the text box prompts you for your email address. If you select **Yes, by text**, the text box prompts you for your phone number instead.



SEE ALSO:

[New Resources: Flows and Flow Interviews \(Pilot\)](#)

More Context for Flow Errors

Some of the messages you see when a flow fails are error codes that are generated by the API, Apex, or another service. To help you make sense of these error codes, we cleaned up some common messages and added links to relevant documentation. This change applies to both Lightning Experience and Salesforce Classic.

-  **Example:** Let's say your flow tries to create an opportunity without a value for `Close Date`, which is a required field. Compare the error messages.

Winter '17

```
INSERT --- INSERT FAILED --- ERRORS : (REQUIRED_FIELD_MISSING) Required fields are missing: [CloseDate]
```

Spring '17

```
This error occurred when the flow tried to create records: REQUIRED_FIELD_MISSING: Required fields are missing: [CloseDate]. For details, see API Exceptions.
```

Enforce Field-Level Security for All Flow Operations

For most operations, a flow is only as powerful as the user who's running it. So if the user doesn't have edit access to one of the fields, the flow fails, and you receive an email with details about why it failed. For Fast Create and Fast Update elements, you choose whether to enforce field-level security or ignore inaccessible fields. This change applies to both Lightning Experience and Salesforce Classic.

To control the behavior, toggle the `Filter Inaccessible Fields from Flow Requests` preference on the Process Automation Settings page in Setup. If your org was created in Winter '17 or earlier, the preference is enabled by default; otherwise, the preference is disabled by default.

-  **Warning:** If you change your org's selection for this preference, use a sandbox to test how the change impacts your flows. Consider following the same process as you would for a critical update.

	When Filter Inaccessible Fields from Flow Requests is	
	Selected	Not Selected (Recommended)
Result when the running user doesn't have edit access to all fields	The operation partially succeeds. The flow filters read-only fields out of the operation. The fields that the user can edit are updated. The fields that the user can't edit aren't updated. The flow doesn't execute the fault path.	The operation fails. No fields in the operation are updated. The flow executes the fault path if there is one.
Notification when one or more fields aren't updated	No notification is sent to the user or admin to indicate that some fields weren't updated.	The admin receives a flow error email with full details.
Compared to Record Create and Record Update elements	Inconsistent	Consistent

 **Example:** Using a Fast Update element, a flow updates several fields on an opportunity. At runtime, the flow tries to update the Acme account on behalf of your user. The user can edit Stage and Close Date but not Amount. As a result, the flow doesn't have permission to update Amount.

- If `Filter Inaccessible Fields from Flow Requests` is selected, the flow successfully updates the account, but it only updates Stage and Close Date. The flow doesn't notify anybody that Amount wasn't updated.
- If `Filter Inaccessible Fields from Flow Requests` is not selected, the flow fails to update the account. The admin receives a flow error email. The email includes this error.

`INVALID_FIELD_FOR_INSERT_UPDATE: Unable to create/update fields: Amount`
That's API-speak for "The running user doesn't have permission to edit the Amount field."

"Trust Percent Values in Flow sObject Variables Again" Critical Update Activates in Spring '17

This critical update, released in Summer '16, was scheduled for auto-activation in Winter '17, but was postponed to Spring '17.

SEE ALSO:

[Critical Updates: LockerService Changes, CSRF Protection for Visualforce Pages, and Masking Decoupled from Shield Platform Encryption](#)

[Summer '16 Release Notes: Trust Percent Values in Flow sObject Variables Again \(Critical Update\)](#)

Access Encrypted Data in Your Flows (Pilot)

Flows support encrypted fields, except when filtering or sorting records. This change applies to both Lightning Experience and Salesforce Classic.

 **Note:** Encryption support for flows and processes is a pilot program available in Developer Edition and in sandboxes for Enterprise, Unlimited, and Performance Editions. We provide this feature 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. Because pilot programs are

subject to change, we can't guarantee acceptance. This pilot feature isn't generally available, as referenced in this document 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 features.

If you're an existing pilot customer, nothing has changed since the last release.



Example: If you've encrypted `Account Name`, you can update that field's value, but you can't filter or sort based on that field.

SEE ALSO:

[Access Encrypted Data with Flows and Process Builder \(Pilot\)](#)

Display Flow Screens in Two Columns (Generally Available)

When you build flows that collect lots of information, their screens can render as a never-ending skinny column of fields. Break up the layout of those screens by rendering specific flows in two columns. This feature is available in Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app. However, it takes effect only for flows that use Lightning runtime.

Nothing has changed since the beta version of the two-column layout.

When you distribute a flow via a URL (such as with a custom button) or a Lightning Page, you can decide whether to display a flow in two columns. The layout takes effect on URL-based flows only if you've enabled Lightning runtime in your org's Process Automation Settings.

The screenshot shows a survey flow titled "Survey Customers". The interface is divided into two columns. The left column contains a "Name" input field and a "Rate Customer Service" section with three radio button options: "Excellent", "No Opinion", and "Needs Improvement". The right column contains a "*Rate Product" dropdown menu set to "Satisfied" and an "Other Comments" text area. A large "Finish" button is located at the bottom of the screen.

SEE ALSO:

[Run Flows with a Lightning Skin \(Generally Available\)](#)

[Salesforce Help: Considerations for Two-Column Flows \(can be outdated or unavailable during release preview\)](#)

Process Builder: Lightning Icons and Encrypted Data

We streamlined the icons in Process Builder to match the rest of Lightning Experience and are piloting support for encrypted data. These changes are available in both Lightning Experience and Salesforce Classic.

IN THIS SECTION:

[Process Builder Has Updated Icons](#)

The next time you open Process Builder, check out our new icons. We swapped out the old ones for Salesforce Lightning Design System icons, so now we match the rest of Lightning Experience. This change applies to both Lightning Experience and Salesforce Classic.

[Access Encrypted Data in Process Builder \(Pilot\)](#)

Process Builder now supports encrypted fields, except in filters, like in the Update Records action. This change applies to both Lightning Experience and Salesforce Classic.

SEE ALSO:

[Business Processes Use Name Field to Evaluate Person Accounts](#)

Process Builder Has Updated Icons

The next time you open Process Builder, check out our new icons. We swapped out the old ones for Salesforce Lightning Design System icons, so now we match the rest of Lightning Experience. This change applies to both Lightning Experience and Salesforce Classic.

Example:

Winter '17	Spring '17
	
	

Access Encrypted Data in Process Builder (Pilot)

Process Builder now supports encrypted fields, except in filters, like in the Update Records action. This change applies to both Lightning Experience and Salesforce Classic.

 **Note:** Encryption support for flows and processes is a pilot program available in Developer Edition and in sandboxes for Enterprise, Unlimited, and Performance Editions. We provide this feature 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. Because pilot programs are subject to change, we can't guarantee acceptance. This pilot feature isn't generally available, as referenced in this document or in

EDITIONS

Available in: **Professional, Enterprise, Performance, Unlimited, and Developer** Editions

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 features.

If you're an existing pilot customer, nothing has changed since the last release.

 **Example:** If you've encrypted Account Name, you can update that field's value, but you can't filter based on that field.

SEE ALSO:

[Access Encrypted Data with Flows and Process Builder \(Pilot\)](#)

Picklist Administration: Improved Global Picklists, Decoupled Labels and Identifiers, and New API Items

Picklists are getting more versatile. Easily convert from unrestricted to restricted picklists, and update your picklist labels without changing any code referring to them. If you like coding, now you can use the Tooling API in addition to the Metadata API with both standard and global value sets.

EDITIONS

Available in all editions

IN THIS SECTION:

[Global Picklist Fields Now Have Their Own Record Type](#)

All global picklist fields that use the same global value set now have individual record types. This change gives you more flexibility than having only one record type for all fields.

[Add Global Picklist Fields to All Record Types](#)

You can now automatically add a value in a global value set to all record types using that value set. The default is still to not automatically add the value to record types using the value set.

[Value Labels Are No Longer Tied to API Names](#)

Each picklist value has a display label and an API name. Now you can change the label without the API name changing. You can also edit the API name. However, you can disable the ability to change API names.

[Access Picklists with the Tooling API](#)

Standard and global value sets are now available in the Tooling API and Metadata API. Choose the API that best suits your needs.

Global Picklist Fields Now Have Their Own Record Type

All global picklist fields that use the same global value set now have individual record types. This change gives you more flexibility than having only one record type for all fields.

Add Global Picklist Fields to All Record Types

You can now automatically add a value in a global value set to all record types using that value set. The default is still to not automatically add the value to record types using the value set.

To have the new value appear in all records, select **Add the new picklist values to all Record Types that use this Global Value Set** when you add the value.

Value Labels Are No Longer Tied to API Names

Each picklist value has a display label and an API name. Now you can change the label without the API name changing. You can also edit the API name. However, you can disable the ability to change API names.

The label is displayed in a picklist field on a record, and the API name is used everywhere else. For example, data import and export and Apex code use the API name.

You can prevent users from changing a picklist value's API name. From Setup in Salesforce Classic, enter *Picklist Settings* in the Quick Find box, and then select **Disable editing picklist values' API names**.

Access Picklists with the Tooling API

Standard and global value sets are now available in the Tooling API and Metadata API. Choose the API that best suits your needs.

The new Tooling API items are:

- **StandardValueSet**—Represents the set of values in a standard picklist field.
- **GlobalValueSet**—Represents the definition of a value used in a global value set or local custom picklist.

For type and field descriptions and sample definitions, see the *Force.com Tooling API Developer's Guide*.

AppExchange: Streamlined Listings and Integrated Experience Reviews

Find the best app, Lightning component, or consulting service in less time with streamlined AppExchange listings. After you try a product or service, write a review directly from your Salesforce org.

IN THIS SECTION:

[Get More Information with Streamlined AppExchange Listings](#)

We simplified AppExchange listings so that you can view key product details with fewer clicks. On listings that include a package, you see more about what the package contains, such as the number of components that can be used in Lightning App Builder. This change applies to both Lightning Experience and Salesforce Classic.

[Review AppExchange Offerings in Salesforce](#)

You can now share feedback on apps, Lightning components, and consulting services from the integrated AppExchange experience. Previously, if you wanted to write or interact with reviews, we directed you to the AppExchange website. This change applies to both Lightning Experience and Salesforce Classic.

Get More Information with Streamlined AppExchange Listings

We simplified AppExchange listings so that you can view key product details with fewer clicks. On listings that include a package, you see more about what the package contains, such as the number of components that can be used in Lightning App Builder. This change applies to both Lightning Experience and Salesforce Classic.

The highlights, description, and media for a product or service now appear on the Details tab (1) instead of the Overview tab, which was retired. By consolidating high-level information with product or service details, you get a complete view of an offering and spend less time navigating between tabs.

EDITIONS

Available in: **Group, Professional, Enterprise, Performance, Unlimited, and Developer** Editions

Agile Accelerator

by Salesforce Labs

Highlights

- Agile Project Management: one single application, the Salesforce Platform
- Collaboration: work in context with your peers using Chatter
- Leverage Expertise: tool built by Salesforce Agile teams for Agile Organizations

Contact Information

<http://www.sfdc.co/AgileSuccess>

Technical Details

- Package Name: Salesforce Agile Accelerator
- Package Version: Winter 2016 / 1.42.0
- Package Type: Managed Package
- First Release: March 2015
- Latest Release: November 2015
- Support: Support not provided
- Languages: English
- Industries: Information not provided

Supported Features

No Limits	3
Package Contents	Lightning Components
Objects: 91	Global: 0
Apps: 1	App Builder: 0
Tabs: 23	Community Builder: 0

REVIEWS

PROVIDER

DETAILS

Salesforce has been recognized multiple times for being the most innovative company in the world. We constantly get asked how we do it. Two of the biggest ways we stay innovative is our Agile mindset and using our own products. Salesforce has been practicing the Agile process for over six years. At the core of our Agile process is Agile Accelerator. Internally we call it Grand Unification System (GUS). As our single source of truth, it provides us with team visibility throughout the company and helps us quickly collaborate on work. We've taken the most popular features in GUS and packaged it up for our customers.

Get It Now

App and Lightning component listings also give you more information about the associated packages. Package Contents (2) shows the number of custom apps, tabs, and components in the package. For unmanaged packages, this information helps you understand how the offering affects your org's app, tab, and component limits. Lightning Components (3) shows the number of global Lightning components in the package, along with compatible Salesforce features. If you're building a community or custom app, you can quickly verify whether the offering has components that you can reuse in your project.

SEE ALSO:

[Lightning Experience: A Modern and Intelligent User Experience](#)

Review AppExchange Offerings in Salesforce

You can now share feedback on apps, Lightning components, and consulting services from the integrated AppExchange experience. Previously, if you wanted to write or interact with reviews, we directed you to the AppExchange website. This change applies to both Lightning Experience and Salesforce Classic.

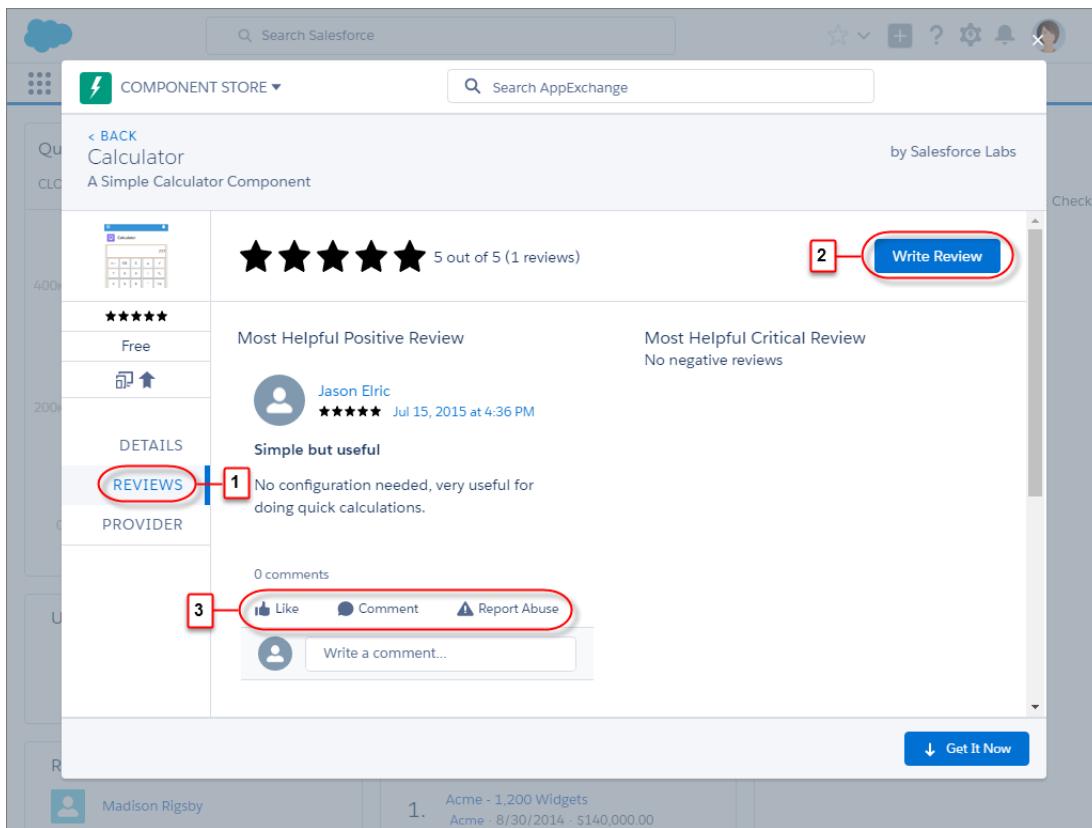
 **Note:** To access the integrated experience, you must have the "Download AppExchange Packages" permission.

To review an app, Lightning component, or consulting service, go to its listing in the integrated experience. Then click the **Reviews** tab (1). From here, you can:

- Write a new review or edit an existing one (2).
- Interact with reviews posted by Salesforce community members (3). For example, if you want to like a review or add a comment.

EDITIONS

Available in: **Group, Professional, Enterprise, Performance, Unlimited, and Developer** Editions



To write or interact with a review, you log in to your AppExchange account. If you don't have an AppExchange account, log in with your Salesforce credentials to set up an account.

SEE ALSO:

[Lightning Experience: A Modern and Intelligent User Experience](#)

General Setup: More Details in Object Manager, Standard Permission Sets

With the Object Manager, easily see how your org is using your Lightning record pages. When you purchase the Sales Console permission set license, don't worry about manually creating a permission set to match. With standard permission sets, you can move straight to assigning the permission set to users. And Lightning for Outlook and Lightning for Gmail (Beta) are available for users with Force.com licenses.

IN THIS SECTION:

[See Your Lightning Record Page Assignments at a Glance](#)

We gave the Lightning Record Pages related list in the Object Manager a makeover. Now you can easily see whether your custom Lightning record pages are assigned as org or app defaults or assigned to apps, record types, and profiles. We added a View Page Assignments button to the related list to get more details about which custom Lightning pages are assigned to specific apps, record types, and profiles.

[Lightning for Outlook and Lightning for Gmail \(Beta\) Welcome Force.com Users](#)

Lightning for Outlook and Lightning for Gmail (Beta) are available to users with Force.com licenses.

[Standard Permission Sets Make Your Life Easier](#)

A standard permission set is now available for the Sales Console in Salesforce Classic. Standard permission sets save you time when working with permission set licenses. When you purchase the Sales Console permission set license, you can immediately assign the permission set to users.

[Get More Control Over Customizing Actions for Contracts and Orders](#)

Global actions are available for the Contract and Order objects, so you have more options when customizing actions for these objects.

[Eliminating JavaScript from Functions Increases Security](#)

A URL for the HYPERLINK function can no longer contain JavaScript. This increases security for your org. Using JavaScript is still permitted in packages, sandbox copies, and change sets.

See Your Lightning Record Page Assignments at a Glance

We gave the Lightning Record Pages related list in the Object Manager a makeover. Now you can easily see whether your custom Lightning record pages are assigned as org or app defaults or assigned to apps, record types, and profiles. We added a View Page Assignments button to the related list to get more details about which custom Lightning pages are assigned to specific apps, record types, and profiles.

We also removed the Default and Assignments by App columns and replaced them with three new columns.

- Org Default—Indicates whether a page is assigned as the default record page for an object throughout the org.
- App Default—Shows how many Lightning apps the page is assigned to as the app default record page.
- Other Assignments—Shows how many other assignments use that page, whether by app, profile, or record type.

Lightning for Outlook and Lightning for Gmail (Beta) Welcome Force.com Users

Lightning for Outlook and Lightning for Gmail (Beta) are available to users with Force.com licenses.

Standard Permission Sets Make Your Life Easier

A standard permission set is now available for the Sales Console in Salesforce Classic. Standard permission sets save you time when working with permission set licenses. When you purchase the Sales Console permission set license, you can immediately assign the permission set to users.

For example, let's say you purchase five Sales Console for Salesforce Classic permission set licenses. If you go to Setup and look at your permission sets, you see one named Salesforce Console User. You can assign this permission set to users who need to access permissions associated with the Sales Console User permission set license.

You can also clone the Salesforce Console User permission set and assign users to that instead. For example, you can clone the standard permission set and call it "Sales Console Ops Users," and clone another one named "Sales Console Reps." (You can't edit a standard permission set.)

To see which permission sets are standard, add `Is Custom` to your list view. The `Is Custom` box isn't checked if it's a standard permission set. Permission sets you manually create or clone are indicated with a checkmark.

Editions

Available in: Salesforce Classic and Lightning Experience

Available in: **Contact Manager, Professional, Group, Enterprise, Performance, Unlimited, Developer, and Database.com Editions**

Permission Sets

On this page you can create, view, and manage permission sets.

In addition, you can use the Salesforce mobile app to assign permission sets to a user. Download Salesforce from the App Store or Google Play: [iOS](#) | [Android](#)

Standard Perm Sets (isCustor ▾) [Edit](#) | [Delete](#) | [Create New View](#)

Action	Permission Set Label	Is Custom
Del Clone	Finance Users	<input checked="" type="checkbox"/>
Del Clone	IdentityConnect	<input checked="" type="checkbox"/>
Del Clone	Salesforce Console Sales Reps	<input checked="" type="checkbox"/>
Clone	Salesforce Console User	<input type="checkbox"/>

1-4 of 4 [Selected](#) [Previous](#) [Next](#) Page 1 of 1

Get More Control Over Customizing Actions for Contracts and Orders

Global actions are available for the Contract and Order objects, so you have more options when customizing actions for these objects.

SEE ALSO:

[Global Actions Added for Contracts and Orders](#)

Eliminating JavaScript from Functions Increases Security

A URL for the HYPERLINK function can no longer contain JavaScript. This increases security for your org. Using JavaScript is still permitted in packages, sandbox copies, and change sets.

While no new HYPERLINK formula fields containing `javascript` can be created, existing formula fields containing JavaScript hyperlink still work.

EDITIONS

Contracts are available in **Performance** and **Developer** Editions and in **Professional**, **Enterprise**, and **Unlimited** Editions with the Sales Cloud

Orders are available in: **Professional**, **Enterprise**, **Performance**, **Unlimited**, and **Developer** Editions

Security and Identity: Easier Health Check, Chatter Encryption, OAuth for Connected Apps

Security Health Check offers custom baselines to streamline the job of setting up security for your users and customers. You can encrypt Chatter posts and attachments, and protect Internet of Things devices with OAuth 2.0.

IN THIS SECTION:

[Authentication and Identity: Enhanced Verification Requirements, More OAuth Options, Connected Apps Enhancements](#)

We've added the ability to manage security policies for all the OAuth connected apps that users in your org are running. We've introduced additional verification requirements for users and admins, and new OAuth flows that provide identity for connected devices in the Internet of Things. Also, for those implementing their own authentication provider, we've extended the plug-in to support customized error handling and refresh tokens.

[Health Check: Import Custom Baselines and Assign New Permissions](#)

We've introduced new permissions for Health Check, as well as the ability to import custom baselines into the tool.

[Salesforce Shield: More Event Log Data, Dedicated Encryption Keys](#)

Salesforce Shield now provides more Lightning Experience event log data to help you keep better track of how your users are doing. You can use formulas based on encrypted fields, and your search index files can have their own separate encryption keys.

[Other Security Changes: Browser Security and New Session Settings](#)

We've made more changes that impact security, including improvements to browser security and protection against cross-site scripting and malicious files.

Authentication and Identity: Enhanced Verification Requirements, More OAuth Options, Connected Apps Enhancements

We've added the ability to manage security policies for all the OAuth connected apps that users in your org are running. We've introduced additional verification requirements for users and admins, and new OAuth flows that provide identity for connected devices in the Internet of Things. Also, for those implementing their own authentication provider, we've extended the plug-in to support customized error handling and refresh tokens.

IN THIS SECTION:

[Manage the Once Unmanageable OAuth Connected Apps](#)

Flex your muscles, admins. You can now control security policies for all those OAuth connected apps that you couldn't before. Previously, when a developer created a connected app in another Salesforce org but didn't package it, users in your org could use it, but you couldn't manage it. Say, what? That's right. If you don't install a connected app in your local org, you can't set its security policies. With this release, we've added the ability to install OAuth connected apps locally so that you can manage their policies in your org. This feature is new in both Lightning Experience and Salesforce Classic.

[Identity Verification Required for Two-Factor Authentication and Email Address Changes](#)

Identity verification is now required when users attempt to add two-factor authentication methods or change an email address. For even stronger security in case account credentials are stolen, users adding a 2FA method are now prompted for identity verification instead of login with username and password. Email address changes now also require identity verification. These changes apply to both Lightning Experience and Salesforce Classic.

[Admins Logging In as Users Are Subject to Two-Factor Authentication Requirements](#)

As an admin attempting to log in as another user who has the "Two-Factor Authentication for User Interface Logins" user permission, you now must satisfy the 2FA identity verification requirement. Coordinate with your users so that they're available to verify their identity when you need account access. This change applies to both Lightning Experience and Salesforce Classic.

[Lightning Login Enhancements Available with Salesforce Authenticator Version 2.7.0](#)

Winter '17 introduced Lightning Login, a simple, secure password-free option that replaces username and password logins. To make Lightning Logins even easier, we've refined how we enforce two-factor authentication. On mobile devices that are already unlocked with a fingerprint or PIN, tapping **Approve** in Salesforce Authenticator completes the Lightning Login. A fingerprint or PIN is no longer required unless the device is locked or the user has the "Two-Factor Authentication for User Interface Logins" permission. Also, Lightning Login now requires Salesforce Authenticator version 2.7.0 or higher. These changes apply to both Lightning Experience and Salesforce Classic.

[Client Secret Can Be Optional in OAuth Web Server Authentication Flow](#)

If a client application can't securely store the client secret and can't use the user-agent authentication flow, the web server flow is your best option. Previously, the client secret was always required. Now, you can make the `client_secret` parameter optional in the web server flow by configuring the connected app to not require it. This option is best suited for client apps, such as mobile apps, that have these limitations. This feature is new in both Lightning Experience and Salesforce Classic.

Introducing Identity for the Internet of Things

With the rise of the Internet of Things (IoT), you're no longer simply managing users and apps. You're managing security and identity for connected devices, assets, and the customers behind every connected product. This release introduces new authentication flows and identity management features for IoT devices. *Asset tokens* are authentication tokens that verify and secure requests from connected devices. During asset token issuance, we let you link device data with your Salesforce CRM data and the Asset object in the Service Cloud. The *device authentication flow* lets you authorize applications running on devices with limited input or display capabilities, such as TVs, appliances, or command-line applications. These features are designed for distinct IoT use cases and are easily configured in OAuth-enabled connected apps.

Customize Your Custom Authentication Provider

Authentication providers give your users the option to log in to your org using other login credentials, like their Facebook or Gmail account. Salesforce includes several authentication providers for social sign-on, including Facebook, Google, LinkedIn, Twitter, and Microsoft Office 365. You can also create your own authentication provider to enable social sign-on from providers that Salesforce doesn't support. This feature was released in Spring '16. In this release, we've added support for custom error handling and refresh tokens. This feature is new in both Lightning Experience and Salesforce Classic.

Manage the Once Unmanageable OAuth Connected Apps

Flex your muscles, admins. You can now control security policies for all those OAuth connected apps that you couldn't before. Previously, when a developer created a connected app in another Salesforce org but didn't package it, users in your org could use it, but you couldn't manage it. Say, what? That's right. If you don't install a connected app in your local org, you can't set its security policies. With this release, we've added the ability to install OAuth connected apps locally so that you can manage their policies in your org. This feature is new in both Lightning Experience and Salesforce Classic.

Now you can set such security policies as:

- Who can run the connected app
- How long a user's session can be
- Whether IP restrictions are enforced
- Whether a mobile connected app requires a PIN

Check it out. Go to your Connected Apps OAuth Usage page. From Setup, enter *Connected Apps* in the Quick Find box and select **Connected Apps OAuth Usage**. The page looks a little different with this release.

Connected Apps OAuth Usage					Help for this Page 
1-4 of 4					
Connected App	Description	Manage App Policies	User Count	Actions	
Identity Connect		Manage App Policies	1	Block	
Marketing Cloud SSO		Manage App Policies	1	Block Uninstall	
Remote App One	Connected app created on another org. Install on your org to manage OAuth policies.	Manage App Policies	1	Block Uninstall	
Remote App Two	Another connected app from another org. Install on your org to manage OAuth policies.		1	Block Install	

The connected apps in your org still have a link to adjust security policies, but we've renamed it to **Manage App Policies**. Clicking the link takes you to the app's detail page. From there, you click **Edit Policies** to modify the app's policies to meet your access and security needs.

USER PERMISSIONS

To manage, create, edit, and delete OAuth apps:

- "Manage Connected Apps"

But what about the connected apps that don't have a link to the app's detail page? These apps were created by developers in another org. Users can connect to them because OAuth apps are available throughout Salesforce. However, you can't manage their security policies because they're not installed in your org.

Until now. With this release, you can install the apps locally so that you can manage them. Click **Install** next to the app and the Manage App Policies link appears. Click the link to go to the app's detail page, and then click **Edit Policies** to modify the policies to meet your access and security needs.

The screenshot shows the 'Connected App Detail' page for 'Identity Connect'. At the top, there is a 'Connected App' header with the name 'Identity Connect'. Below it is a 'Connected App Detail' section with a 'Back to List' link and an 'Edit Policies' button, which is circled in red. To the right of the 'Edit Policies' button, it says 'Version 1' and 'Description'. Below this, there is a placeholder image of a cloud. Under the 'System Info' section, it shows 'Installed By' as Matt Bahrenburg, 'Installed Date' as 9/6/2016 6:07 PM, 'Last Modified By' as Matt Bahrenburg, and 'Last Modified Date' as 9/6/2016 6:07 PM. The 'Basic Information' section includes 'Info URL' and 'Start URL' (Mobile Start URL). The 'OAuth policies' section contains settings for 'Permitted Users' (All users may self-authorize), 'IP Relaxation' (Refresh Token Policy: Refresh token is valid until revoked), and 'Usage' (View OAuth Usage). It also lists permissions: 'Perform requests on your behalf at any time', 'Access your basic information', and 'Access and manage your data'. The 'Session Policies' section has a 'Timeout Value' setting. The 'Custom Connected App Handler' section includes 'Apex Plugin Class' and 'Run As'. The 'User Provisioning Settings' section has a checkbox for 'Enable User Provisioning'.

After you've installed the app, the button changes to Uninstall. However, it's recommended that you uninstall an app only when the original developer deletes the app on the other org. Uninstall doesn't remove the connected app. Instead, it removes the OAuth policies that you set for the app in your org. You're actually loosening your security measures. To make the connected app inaccessible to your org's users, click **Block**. Blocking an app ends all current user sessions with the connected app and blocks all new sessions. You can restore access to the app by clicking **Unblock**.

SEE ALSO:

[Salesforce Help: Monitor Usage for an OAuth Connected App](#)

Identity Verification Required for Two-Factor Authentication and Email Address Changes

Identity verification is now required when users attempt to add two-factor authentication methods or change an email address. For even stronger security in case account credentials are stolen, users adding a 2FA method are now prompted for identity verification instead of login with username and password. Email address changes now also require identity verification. These changes apply to both Lightning Experience and Salesforce Classic.

EDITIONS

Available in all editions

For email address changes, we continue to require that users confirm the request by clicking a link in the email sent to the new address.

After login, if necessary, users are then prompted for identity verification.

Users can verify their identity using any method that they have access to, which varies from user to user.

- Salesforce Authenticator
- Verification codes from an authenticator app
- U2F security keys
- Temporary verification codes generated by an admin or user with the "Manage Two-Factor Authentication in User Interface" permission
- One-time passwords sent via email to the old email address (if no other method is available)

SEE ALSO:

[Changed Objects](#)

Admins Logging In as Users Are Subject to Two-Factor Authentication Requirements

As an admin attempting to log in as another user who has the "Two-Factor Authentication for User Interface Logins" user permission, you now must satisfy the 2FA identity verification requirement. Coordinate with your users so that they're available to verify their identity when you need account access. This change applies to both Lightning Experience and Salesforce Classic.

Users can use an authenticator app, a U2F security key, or a temporary identity verification code. If a user hasn't already set up a 2FA method, setup is required before you can log in as the user.

EDITIONS

Available in all editions

USER PERMISSIONS

To log in as another user:

- "Modify All Data"

Lightning Login Enhancements Available with Salesforce Authenticator Version 2.7.0

Winter '17 introduced Lightning Login, a simple, secure password-free option that replaces username and password logins. To make Lightning Logins even easier, we've refined how we enforce two-factor authentication. On mobile devices that are already unlocked with a fingerprint or PIN, tapping **Approve** in Salesforce Authenticator completes the Lightning Login. A fingerprint or PIN is no longer required unless the device is locked or the user has the "Two-Factor Authentication for User Interface Logins" permission. Also, Lightning Login now requires Salesforce Authenticator version 2.7.0 or higher. These changes apply to both Lightning Experience and Salesforce Classic.

Encourage all your Lightning Login users to upgrade now to the latest version of Salesforce Authenticator so that they can continue logging in password-free. Users can check their current version in the app store on their mobile device. A fingerprint or PIN is still required when users initially set up Lightning Login.

As a reminder, 2FA is built in to Lightning Login, saving you the work of managing a separate, redundant 2FA requirement for Lightning Login users. We encourage you to give users either the "Lightning Login User" permission or the "Two-Factor Authentication for User Interface Logins" permission—not both. Lightning Login and 2FA are assigned these default session security levels:

- Lightning Login—Standard
- Two-Factor Authentication—High Assurance

If your org has kept the defaults, users who have both permissions end up with a High Assurance session requirement. Without the 2FA permission, Lightning Logins result in a Standard session.

EDITIONS

Available in all editions

Client Secret Can Be Optional in OAuth Web Server Authentication Flow

If a client application can't securely store the client secret and can't use the user-agent authentication flow, the web server flow is your best option. Previously, the client secret was always required. Now, you can make the `client_secret` parameter optional in the web server flow by configuring the connected app to not require it. This option is best suited for client apps, such as mobile apps, that have these limitations. This feature is new in both Lightning Experience and Salesforce Classic.

The new **Require Secret for Web Server Flow** setting in the connected app definition is selected by default. Deselect it to make `client_secret` optional. If a client app is able to securely store and protect the secret, we recommend that you keep `client_secret` required.

If you deselect **Require Secret for Web Server Flow**, we still create a client secret when the connected app is saved. During the web server flow, if the client request for an access token includes the client secret, Salesforce proceeds to validate it.

Important: The optional client secret is generally available as of February 11, 2017. Before then, it's not available in sandboxes.

SEE ALSO:

[Salesforce Help: Create a Connected App](#)

Introducing Identity for the Internet of Things

With the rise of the Internet of Things (IoT), you're no longer simply managing users and apps. You're managing security and identity for connected devices, assets, and the customers behind every connected product. This release introduces new authentication flows and identity management features for IoT devices. *Asset tokens* are authentication tokens that verify and secure requests from connected devices. During asset token issuance, we let you link device data with your Salesforce CRM data and the Asset object in the Service Cloud. The *device authentication flow* lets you authorize applications running on devices with limited input or display capabilities, such as TVs, appliances, or command-line applications. These features are designed for distinct IoT use cases and are easily configured in OAuth-enabled connected apps.

The Internet of Things introduces new requirements for the security tokens used to manage connected products.

- Open, self-describing, and contextual—Devices must talk to various backend systems, requiring a token format based on open standards. Tokens must carry metadata that enables both their verification and enable the enrichment of devices' service requests with extra context about the device or customer.
- Long term, high scale—Customers must be able to authorize a device, walk away, and have that device continue to act autonomously on their behalf. These transactions are required for lots of devices, on behalf of lots of customers.
- Delegated, constrained authorization—A device can act on a user's behalf but only in a limited capacity, according to the specific rights that the user granted to the device.
- Spectrum of assurance—Devices have varying capabilities and needs for protection based on their manufacturing cost and use cases they support. Devices require a spectrum of capabilities ranging from self-asserted IDs to certificates that allow proof of possession of private keys and verification of manufacturer.
- Integrated with CRM—Connected products are an extension of a company's brand and customer interactions. Integrating these interactions with the company's CRM platform is essential.

Salesforce Identity has designed asset tokens with the unique requirements of IoT devices in mind.

- Open source JWT-based tokens—Asset tokens are based on the JSON Web Token (JWT) standard as defined in RFC 7519. This format is simple, extensible, and secure. It's easy for humans to work with, while being relatively compact, making it a good fit for devices.

EDITIONS

Available in all editions

USER PERMISSIONS

To manage, create, edit, and delete OAuth apps:

- "Manage Connected Apps"

EDITIONS

Available in all editions

- Automatic integration with Salesforce—Asset tokens include a registration protocol, allowing a device to be linked to the Asset object and custom business processes. Asset token issuance allows dynamic Asset creation, linking to an existing Asset, or even linking to other Salesforce data.
- Extensible—Asset tokens contain standard claims for security purposes, and can also carry custom attributes or permissions. They can carry metadata for a wide variety of use cases and are fully extensible using the Salesforce App Cloud.
- Signatures and Proof-of-Possession—Asset tokens are signed by Salesforce org-specific keys. The tokens are self-describing, allowing for the verification process to be dynamically performed outside of Salesforce. Also, device-specific keys and metadata can be bound into the token to provide assurance against tampering and support advanced use cases, such as proof of possession of a specific device key.

We've designed the device authentication flow specifically for a class of IoT devices that has limited user interface capabilities.

IN THIS SECTION:

[OAuth 2.0 Asset Token Flow for Securing Connected Devices \(Generally Available\)](#)

Asset tokens are an open-standards-based JWT authentication token for verifying and securing requests from connected devices. They identify the device to a backend service that processes the stream of data and events from the device. They allow registration of device data with the Salesforce platform and linking it to Salesforce CRM data about the customer, account, or contact, helping you to act on behalf of the customer. You can even support custom business processes using asset token events. Asset tokens enable more proactive support and more predictive engagement with your customers, on an unprecedented scale. This feature is new in both Lightning Experience and Salesforce Classic.

[OAuth 2.0 Authentication Flow for Applications on Limited Input Devices](#)

OAuth 2.0 is now supported for applications on devices with limited input or display capabilities, such as TVs, appliances, or command-line applications. Configure a connected app with the new device flow setting, and design your device's user interface to prompt users for authorization to access their Salesforce data. This feature is new in both Lightning Experience and Salesforce Classic.

OAuth 2.0 Asset Token Flow for Securing Connected Devices (Generally Available)

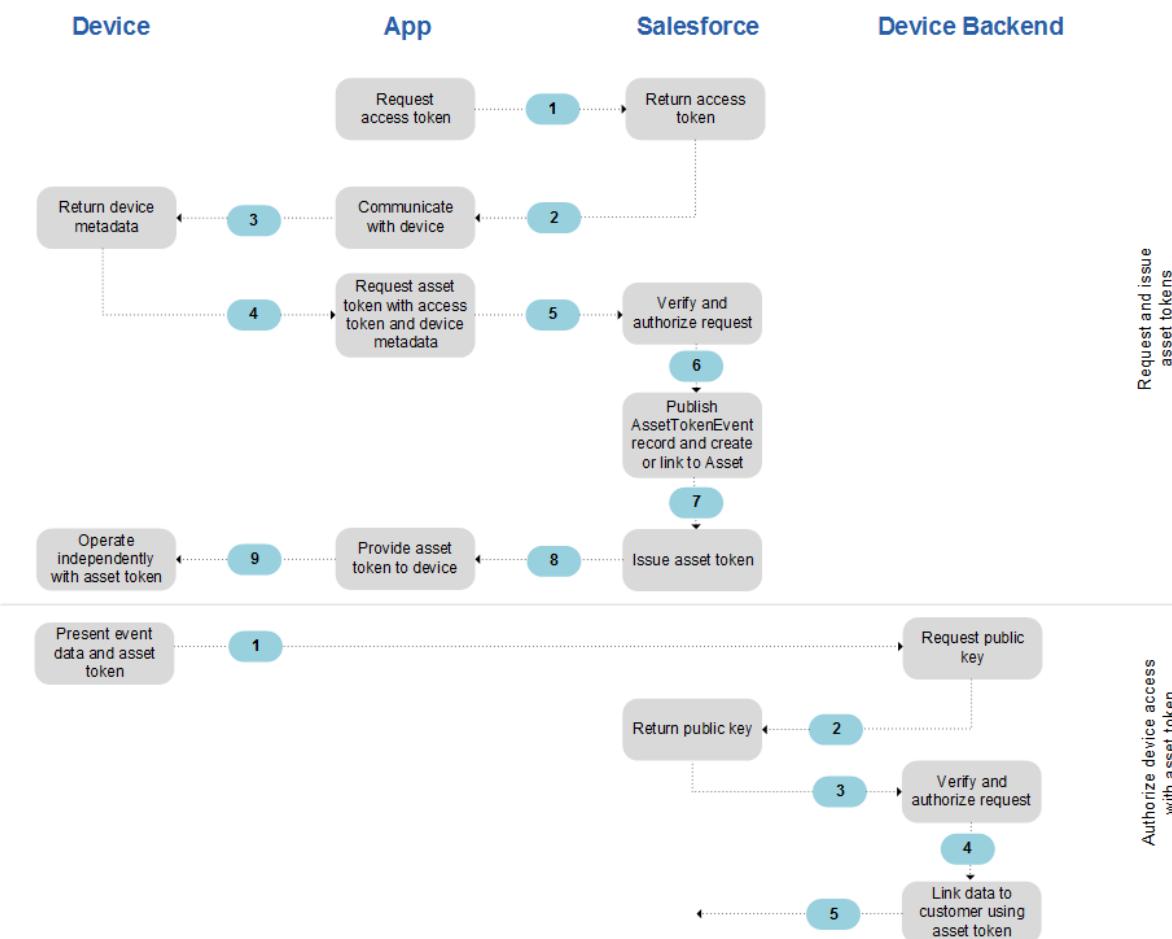
Asset tokens are an open-standards-based JWT authentication token for verifying and securing requests from connected devices. They identify the device to a backend service that processes the stream of data and events from the device. They allow registration of device data with the Salesforce platform and linking it to Salesforce CRM data about the customer, account, or contact, helping you to act on behalf of the customer. You can even support custom business processes using asset token events. Asset tokens enable more proactive support and more predictive engagement with your customers, on an unprecedented scale. This feature is new in both Lightning Experience and Salesforce Classic.

Editions

Available in all editions

For example, let's say that your customer purchases a connected device and registers an account with your support community. Your company offers an app, such as a mobile app or a provisioning gateway, that acts as an agent for device registration. The app allows the user to connect to the device, log in to your support community, and register the device. Your community issues an asset token that identifies the device to your backend cloud service. After registration, the device can operate independently of the app, routinely sending data about its state and operations to your backend service. If the backend proactively detects an abnormal behavior or state, indicating an issue or potential issue, it automatically creates a case. The case is associated with the asset, which is tied directly to the customer's contact record and your company's support process. The device can also signal that resources such as ink toner are running low, predicting potential new opportunities to market and sell.

This diagram shows how asset tokens are issued, verified, and used to secure calls to backend services for a connected device. Detailed steps follow.



Requesting and Issuing Asset Tokens

1. The app that interacts with your device requests an access token for API access. The app can be any application, such as a mobile app or a provisioning gateway, that serves as a bridge between the device and Salesforce.
2. Salesforce returns the access token.
3. The app communicates with your device to request metadata, which can include a name, device ID, serial number, public key, or custom attributes.
4. The device returns the requested metadata.
5. The app sends its access token and device metadata to Salesforce, requesting an asset token.
6. Salesforce verifies the authenticity of the request and the authorization of the app and user.
7. Salesforce publishes an asset token event record and attempts to associate the device with an existing or new asset in the Service Cloud. If you've subscribed to receive platform events in Apex triggers to support custom business processes, they execute.
8. Salesforce returns the asset token to the app.
9. The app has now registered the asset and provides the asset token to the device, which can now operate independently from the app.

Authorizing Device Access with Asset Tokens

1. The device presents its data or event to your backend service along with the asset token. The backend service provides device functionality such as gathering telemetry data, monitoring device performance, and acting on behalf of the user.
2. Your backend service requests the public key from Salesforce.
3. Salesforce returns the device-specific public key.
4. Your backend service validates the asset token and determines whether the device is authorized for the requested operation.
5. Optionally, your backend service can use the asset token to identify the Salesforce account or contact who owns the device.

Differences from the Pilot and Limitations

- Asset tokens were previously available through a pilot program. In the pilot, asset token event data was saved in an Asset Token object. This functionality is now provided by the Asset Token Event object, new in API version 39.0.
- Asset token integration with the Salesforce IoT cloud isn't currently supported.

Implementation Prerequisites

Before you implement asset tokens:

- My Domain must be enabled.
- Create a self-signed certificate for asset token use, signed with the SHA-256 signature algorithm. Asset tokens are signed with this algorithm using a private key that is specific to, and protected by your Salesforce org. The private key can be verified using the corresponding public key in the asset token.
- While not required, it's highly recommended that you enable Salesforce Identity for External Users, so that your customers can register asset tokens. If you follow the steps in the External Identity Implementation Guide, complete the steps through implementation of self-registration. Confirm that you can log in to your community as an external user.
- If you need a refresher on the JSON Web Token (JWT) format, we recommend reviewing the RFC 7519 specification. Review how claims work in a JWT, how JWTs are encoded as a JSON object, and how the object is protected in a JWS structure.

Implementation Steps

At a high level, implementing and using asset tokens involves these steps.

1. Create an OAuth-based connected app with asset tokens enabled. The connected app is required for API access and for asset token issuance. Look for the new asset token settings in the OAuth section when you create a connected app.

The screenshot shows a configuration form for enabling asset tokens. It includes the following fields:

- Enable Asset Tokens:** A checked checkbox.
- Token Valid for:** A dropdown menu showing "12 Month(s)".
- Asset Signing Certificate:** A dropdown menu showing "Self-Signed Certificate".
- Asset Audiences:** A text input field containing "https://your_device_backend.com".
- Include Custom Attributes:** An unchecked checkbox.
- Include Custom Permissions:** An unchecked checkbox.

2. Acquire an access token using any app that supports the OAuth 2.0 token exchange protocol. Access tokens enable authentication for API access. They are required for asset token issuance and device registration. For connected devices, an access token must be associated with a connected app that has asset tokens enabled. If you're just getting familiar with asset tokens and want to get started quickly without completely setting up your own device, app, and backend, we offer the [Asset Token Explorer](#) demo app. The demo app simplifies your initial experience and lets you quickly get an access token that you can exchange for the asset token.

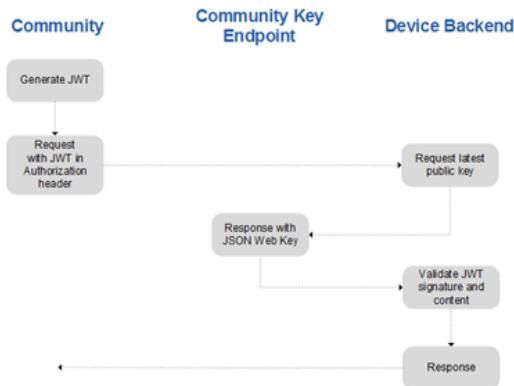
3. Create an asset token JWT. Parameters include:

- `grant_type`—`urn:ietf:params:oauth:grant-type:token-exchange`
- `subject_token`—Your access token
- `actor_token`—Optional JWT containing metadata about the device you're registering as a new or existing Asset. It can include a confirmation claim containing an RSA public key, in case your use case requires proof of possession of a private key.

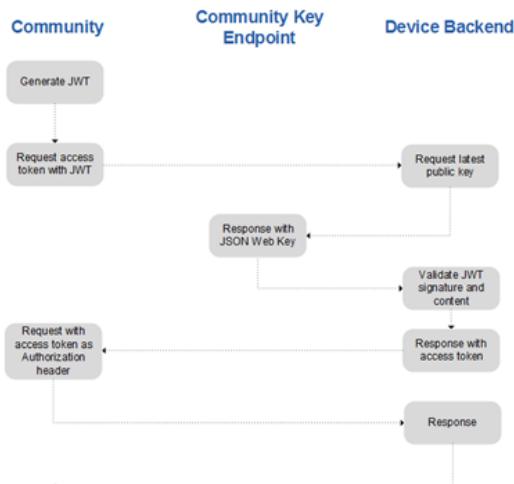
4. POST your asset token request to the Salesforce OAuth token endpoint.

5. Salesforce returns an asset token. The asset token is a JWT containing various claims about your device and any custom attributes or permissions that you defined in your connected app.

6. Secure communications between the device and your backend service. When the device presents its data or event to your backend service, it also provides the asset token. Common methods for securing communications between the device and your backend service are the bearer token sequence and the JWT bearer token exchange sequence. In the bearer token sequence, the client presents the access token in the Authorization header—with one token generated for each call.



In JWT bearer token exchange, the client generates the request, calls the target system to exchange its asset token, and receives an OAuth token that it presents for subsequent calls. This usage can be more efficient if you're orchestrating a series of calls or if the target is session-oriented.



SEE ALSO:

[Salesforce Help: OAuth 2.0 Asset Token Flow](#)[New Objects](#)[Salesforce Help: Create a Connected App](#)

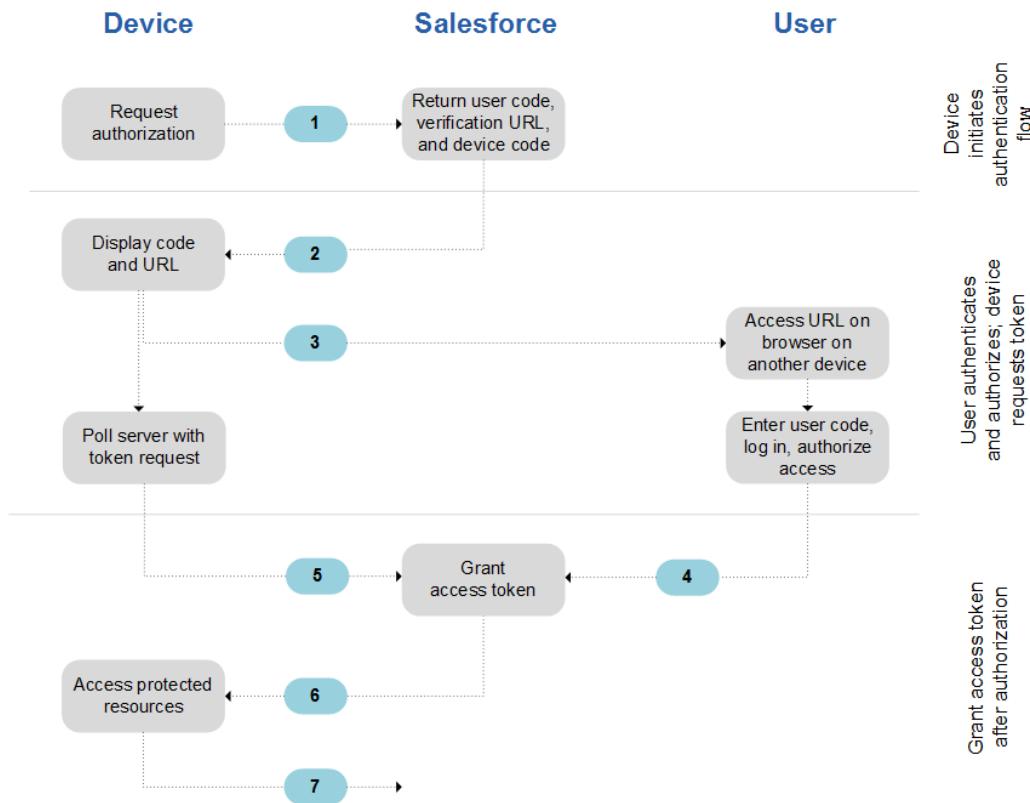
OAuth 2.0 Authentication Flow for Applications on Limited Input Devices

OAuth 2.0 is now supported for applications on devices with limited input or display capabilities, such as TVs, appliances, or command-line applications. Configure a connected app with the new device flow setting, and design your device's user interface to prompt users for authorization to access their Salesforce data. This feature is new in both Lightning Experience and Salesforce Classic.

Here's how the device authentication flow works.

EDITIONS

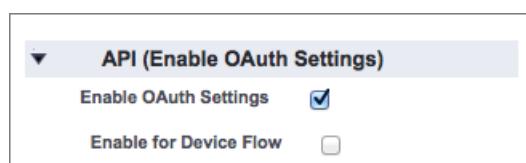
Available in all editions



1. The device requests authorization from Salesforce.
2. Salesforce verifies the request and returns the following: human-readable user code, verification URL, device code, and minimum polling interval (in seconds).
3. The device displays the user code and instructs the user to enter it at the specified verification URL.
4. On a separate device that has more developed input capabilities, such as a desktop computer or smartphone, the user opens a browser.
 - a. The user navigates to the verification URL and is prompted to enter the user code.

- b.** If the code is valid, the user is prompted to log in if not already logged in.
 - c.** After successful login, the user is prompted to allow the device to access Salesforce data.
5. After displaying the user code and verification URL, the device starts polling the token endpoint for authorization. Polling frequency can't exceed the minimum polling interval. The device continues polling until the user has allowed (or denied) access, or the user code has expired.
 6. If allowed, the authorization server returns to the device an access token, a refresh token if requested, and other information.
 7. After the access token is granted, the device can use it in API requests to access data on the user's behalf and use a refresh token to get a new access token if it becomes invalid.

To implement device flow for an OAuth-enabled connected app, select **Enable for Device Flow** in the connected app definition.



Note the following about other OAuth settings for device flows.

- A callback URL isn't used in this flow. You can specify your own callback URL as needed, such as when this same consumer is being used for a different flow. If you don't specify your own callback URL, the value defaults to a placeholder that you can ignore.
- All supported scopes are allowed in device flows. No scopes are selected by default. Specify desired scopes using the optional `scope` parameter in the request that initiates the authentication flow.

After you save the connected app, make note of the consumer key. You're required to pass it in the `client_id` parameter when initiating a device flow request. The consumer secret is not required. You can optionally pass it in the `client_secret` parameter when polling the token endpoint.

! **Important:** The OAuth 2.0 flow for limited input devices is generally available as of February 11, 2017. Before then, it's not available in sandboxes.

SEE ALSO:

[Salesforce Help: OAuth 2.0 Device Authentication Flow](#)

[Salesforce Help: Create a Connected App](#)

Customize Your Custom Authentication Provider

Authentication providers give your users the option to log in to your org using other login credentials, like their Facebook or Gmail account. Salesforce includes several authentication providers for social sign-on, including Facebook, Google, LinkedIn, Twitter, and Microsoft Office 365. You can also create your own authentication provider to enable social sign-on from providers that Salesforce doesn't support. This feature was released in Spring '16. In this release, we've added support for custom error handling and refresh tokens. This feature is new in both Lightning Experience and Salesforce Classic.

To enhance this feature, we replaced the Apex `AuthProviderPlugin` interface with a new Apex abstract class, `AuthProviderPluginClass`. If you've implemented a custom authentication provider using the `AuthProviderPlugin` interface, don't worry, it still works. However, if you want to add new functionality or implement a new provider, you must use the `AuthProviderPlugin` class.

We've also extended the authentication provider plug-in so that you can customize error handling. When an exception is thrown, you can define how to handle it and redirect to your own error page with your own error messages. We've also added refresh token support when using your custom authentication provider through a named credential. You can now add custom code to handle the refresh.

Health Check: Import Custom Baselines and Assign New Permissions

We've introduced new permissions for Health Check, as well as the ability to import custom baselines into the tool.

IN THIS SECTION:

[Import a Custom Security Baseline into Health Check](#)

You can now customize the Health Check security baseline to compare your org's security settings with your industry standards. This feature is new in both Lightning Experience and Salesforce Classic.

[New Permission Required for Viewing and Managing Health Check](#)

You now must have View Health Check permission to view your Health Check score, and view and edit Health Check settings. You must have the Manage Health Check permissions create, edit, and delete custom baselines in Health Check. Admins are granted this permission by default. When you enable the Manage Health Check permission, the View Health Check permissions is also enabled. This change applies to both Lightning Experience and Salesforce Classic.

Import a Custom Security Baseline into Health Check

You can now customize the Health Check security baseline to compare your org's security settings with your industry standards. This feature is new in both Lightning Experience and Salesforce Classic.

You create a custom baseline by exporting an existing baseline, like the Salesforce baseline standard, modifying and saving the XML file, and importing it back into Health Check. From Setup, enter *Health Check* in the Quick Find box, then select **Health Check**.

Editions

Available in: **Professional, Enterprise, Performance, Unlimited, and Developer** Editions



(1) Select either the Salesforce Baseline Standard or a custom baseline. (2) Choose to export or import an XML file, or delete a custom baseline.

SEE ALSO:

[Salesforce Help: Create a Custom Baseline for Health Check](#)

[Salesforce Help: Custom Baseline File Requirements](#)

New Permission Required for Viewing and Managing Health Check

You now must have View Health Check permission to view your Health Check score, and view and edit Health Check settings. You must have the Manage Health Check permissions create, edit, and delete custom baselines in Health Check. Admins are granted this permission by default. When you enable the Manage Health Check permission, the View Health Check permissions is also enabled. This change applies to both Lightning Experience and Salesforce Classic.

EDITIONS

Available in: **Professional, Enterprise, Performance, Unlimited, and Developer** Editions

Salesforce Shield: More Event Log Data, Dedicated Encryption Keys

Salesforce Shield now provides more Lightning Experience event log data to help you keep better track of how your users are doing. You can use formulas based on encrypted fields, and your search index files can have their own separate encryption keys.

IN THIS SECTION:

[Platform Encryption: Encrypt Formula Fields and Chatter Posts](#)

Formulas now work with encrypted fields. If you're encrypting your search index, you can manage that encryption key separately. You can encrypt Chatter posts and attachments, on a beta basis. Try it out!

[Event Monitoring: Track Lightning Experience Adoption and Your Admins' Activity](#)

Four new Lightning UI event types were added to the event log file to help you identify your reps' actions in Lightning Experience. Also, you can audit the actions of any Salesforce administrator while they were logged in as another user.

Platform Encryption: Encrypt Formula Fields and Chatter Posts

Formulas now work with encrypted fields. If you're encrypting your search index, you can manage that encryption key separately. You can encrypt Chatter posts and attachments, on a beta basis. Try it out!

IN THIS SECTION:

[Encryption Checks Go Faster](#)

When you encrypt fields or files, Salesforce checks that everything you've specified can be encrypted. We've optimized the validation process for speed and accuracy.

[Retrieve Encrypted Data with Custom Formula Fields \(Beta\)](#)

Get more value out of the Shield Platform Encryption service by referencing encrypted fields in formulas. Quickly and securely filter and search for just the right data, even when it's encrypted.

[Encrypt Your Data in Chatter \(Pilot\)](#)

Collaboration and security don't have to be mutually exclusive. Shield Platform Encryption now offers another layer of protection for sensitive information shared in your Chatter feed. You can encrypt feed posts, questions and answers, link names, comments, and poll questions all with one click.

[Turn Off Masking for Encrypted Data](#)

Data masking is being decoupled from Shield Platform Encryption. The "View Encrypted Data" permission and its resulting masking behavior will no longer be available in Shield Platform Encryption when you activate this critical update. Field-level and object-level security features control who has access to data, regardless of whether it is encrypted.

[Encrypt Search Index Files With a Dedicated Tenant Secret Type](#)

Sometimes it's smart to apply different key rotation cycles or destruction policies to keys that encrypt different types of data. Shield Platform Encryption now lets you do exactly that, through either the Setup page or the API.

[Search Index Encryption for Government Cloud](#)

Your Government Cloud-hosted org can now leverage the Search Index Encryption service and embed strong encryption capabilities to your search indexes at rest, according to your org's encryption policy.

[Embed Encryption in Analytics Cloud \(Beta\)](#)

Add yet another layer of security and protection to your Wave data at rest with this Beta feature. You can aggregate your customer data into a single, secure, encrypted location to power critical enterprise activities such as marketing and sales.

[Access Encrypted Data with Flows and Process Builder \(Pilot\)](#)

The Shield Platform Encryption service extends to flows and Process Builder. This pilot program allows even more options for customizing how you interact with your encrypted data. This change applies to both Lightning Experience and Salesforce Classic.

Encryption Checks Go Faster

When you encrypt fields or files, Salesforce checks that everything you've specified can be encrypted. We've optimized the validation process for speed and accuracy.

Some setup combinations can make it impossible to encrypt some data. For example, if you have SOSL queries that reference a field, then that field can't be encrypted. The validation service detects those situations and suggests ways to work around them.

Some of the potential limitations are easy to detect. We now test for those right when you set up your encryption preferences, so that the encryption can take place quickly.

Other situations are more complex. Those tests now run asynchronously, so they don't hold up the encryption process, and you get the results in an email.

For example, we'll let you know right away if you can't encrypt fields because you have a portal enabled. However, checking whether a formula works with an encrypted field might take longer.

SEE ALSO:

[Fix Compatibility Problems](#)

Retrieve Encrypted Data with Custom Formula Fields (Beta)

Get more value out of the Shield Platform Encryption service by referencing encrypted fields in formulas. Quickly and securely filter and search for just the right data, even when it's encrypted.

You can use several operations and functions, including concatenate (& and +), `isBlank`, `isNull`, `if`, `hyperlink`, and `image`. You can reference Quick Actions, and render encrypted data in text, date, and date/time formats. What's more, your formulas can reference an unlimited number of encrypted fields, giving you even more of the data you're looking for.



Note: This release contains a beta version of encryption support for formulas, which means it's a high-quality feature with known limitations. Encryption support for formulas 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 encryption support for formulas in the [IdeaExchange](#).

SEE ALSO:

[Salesforce Help: Retrieve Encrypted Data with Formulas](#)

Encrypt Your Data in Chatter (Pilot)

Collaboration and security don't have to be mutually exclusive. Shield Platform Encryption now offers another layer of protection for sensitive information shared in your Chatter feed. You can encrypt feed posts, questions and answers, link names, comments, and poll questions all with one click.



Note: This release contains a pilot version of encryption for Chatter in Developer Edition and in Sandboxes for Enterprise, Unlimited, and Performance Editions. We provide this feature 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. Because pilot programs are subject to change, we can't guarantee acceptance. This pilot feature isn't generally available, as referenced in this document 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 features.

You can provide feedback and suggestions for encryption for Chatter in the [Chatter Product group](#) in the Success Community.

SEE ALSO:

[Shield Platform Encryption Comes To Chatter \(Pilot\)](#)

Turn Off Masking for Encrypted Data

Data masking is being decoupled from Shield Platform Encryption. The "View Encrypted Data" permission and its resulting masking behavior will no longer be available in Shield Platform Encryption when you activate this critical update. Field-level and object-level security features control who has access to data, regardless of whether it is encrypted.

With this change:

- You get a more consistent experience for users when they access encrypted data
- You reduce confusion between data that's masked and data that's encrypted. They aren't the same thing.

The "View Encrypted Data" permission still applies to Classic Encryption.

Encrypt Search Index Files With a Dedicated Tenant Secret Type

Sometimes it's smart to apply different key rotation cycles or destruction policies to keys that encrypt different types of data. Shield Platform Encryption now lets you do exactly that, through either the Setup page or the API.

You can apply a tenant secret to all data stored in Salesforce or just to your search index files. From then on, that tenant secret only encrypts the data in that specific category.

Choose which kind of data you want to encrypt from the dropdown menu, and then generate or upload your tenant secret. You can have one active tenant secret per data type, and view all active, exported, and archived tenant secrets by type. As in the past, you can track these tenant secrets in the Setup Audit Trail.

To support this via the API, we've added the `Type` restricted picklist to the `TenantSecret` object, with two values:

- `Data`—A tenant secret that encrypts data stored in the Salesforce database. Includes data in files, fields, and attachments, but not search index files.
- `SearchIndex`—A tenant secret that encrypts search index files.

SEE ALSO:

[Changed Objects](#)

Search Index Encryption for Government Cloud

Your Government Cloud-hosted org can now leverage the Search Index Encryption service and embed strong encryption capabilities to your search indexes at rest, according to your org's encryption policy.

Embed Encryption in Analytics Cloud (Beta)

Add yet another layer of security and protection to your Wave data at rest with this Beta feature. You can aggregate your customer data into a single, secure, encrypted location to power critical enterprise activities such as marketing and sales.

 **Note:** This is a beta version, which means it's a high-quality feature with known limitations. The 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 in the [Success Community](#).

Access Encrypted Data with Flows and Process Builder (Pilot)

The Shield Platform Encryption service extends to flows and Process Builder. This pilot program allows even more options for customizing how you interact with your encrypted data. This change applies to both Lightning Experience and Salesforce Classic.

You can access encrypted data from most elements in flows and Process Builder, except when filtering or sorting records. You can update the value for an encrypted field or reference an encrypted field in logic, but you can't look up records based on a specific value in an encrypted field.

 **Note:** Encryption support for flows and processes is a pilot program available in Developer Edition and in sandboxes for Enterprise, Unlimited, and Performance Editions. We provide this feature 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. Because pilot programs are subject to change, we can't guarantee acceptance. This pilot feature isn't generally available, as referenced in this document 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 features.

Event Monitoring: Track Lightning Experience Adoption and Your Admins' Activity

Four new Lightning UI event types were added to the event log file to help you identify your reps' actions in Lightning Experience. Also, you can audit the actions of any Salesforce administrator while they were logged in as another user.

IN THIS SECTION:

[Track User Actions in Lightning Experience with Event Log Files](#)

We added event types to the EventLogFile standard object to better track user adoption and app performance in Lightning Experience. These event types improve on the existing UI Tracking event type by separating user data into four distinct categories. These events are available in the API, but not yet in the Event Monitoring Wave app.

[See the Actions of Salesforce Administrators Who Logged In as Another User](#)

Depending on your org settings, admins can log in to Salesforce as another user. Now you can use Login As event type data to review those actions to identify any security breaches or vulnerabilities, and also to inform your users what occurred.

Track User Actions in Lightning Experience with Event Log Files

We added event types to the EventLogFile standard object to better track user adoption and app performance in Lightning Experience. These event types improve on the existing UI Tracking event type by separating user data into four distinct categories. These events are available in the API, but not yet in the Event Monitoring Wave app.

We added four event types to the EventLogFile object.

- Lightning Error—Errors that occurred during user interactions with the Lightning Experience UI, such as a user receives an Aura error on a page in the app.
- Lightning Interaction—User interactions with the Lightning Experience UI, such as a user clicks in the navigation header or a task list.
- Lightning Page View—Information about the page on which the event occurred in the Lightning Experience UI, such as the effective page time and the page entities that the user interacted with.
- Lightning Performance—Data to spot trends in your Lightning Experience app performance, such as page start times and duration.

 **Example:** You want to research how your reps use the Tasks page in your app to customize it to their needs. You use the data in the Lightning Page View event type to review how reps get to the page, how long they stay, and the page entities they interact with.

	J	K	L	M	N	O	P	Q	R	S	T
1	CLIENT_IP	UI_EVENT_ID	UI_EVENT_TIMESTAMP	PAGE_START_TIME	DURATION	PAGE_ENTITY_ID	PAGE_ENTITY_TYPE	PAGE_CONTEXT	PREVPAGE_ENTITY_ID	PREVPAGE_ENTITY_TYPE	PREVPAGE_CONTEXT
2	107.77.212.1tng:pageView	1.47761E+12	1.47761E+12	7941	005R00000000IKAA	Task	sfa:taskList	005R00000000IKOKIA4	User	force:recordHome	
3	107.77.212.1tng:pageView	1.47761E+12	1.47761E+12	8708	005R00000000IKOKI	User	force:recordHome	Task	sfa:taskList		
4	107.77.212.1tng:pageView	1.47761E+12	1.47761E+12	11877	0F9R000000000ua5	CollaborationGroup	force:recordHome	005R00000000IKOKIA4	User	force:recordHome	

You drill down into your users' interactions with Tasks page elements, like the task list and Lightning navigation header, by reviewing the Lightning Interaction event type data.

	R	S	T	U	V	W	X	Y	Z	AA
1	DEVICE_MODEL	DEVICE_ID	CLIENT_IP	UI_EVENT_ID	UI_EVENT_SOURCE	UI_EVENT_TIMESTAMP	PAGE_ENTITY_TYPE	PAGE_CONTEXT	TARGET_UI_ELEMENT	PARENT_UI_ELEMENT
2	SAMSUNG-SM-G9316ce807ad4fa	204.14.239.1bc17e8b5-adb7-4			click	1.47761E+12	Toggle Bar	hamburger-icon	header	
3	SAMSUNG-SM-G9316ce807ad4fa	204.14.239.19300d339-95d0-4e			click	1.47761E+12	Main Feed	stage-left-item	stage-left	
4	SAMSUNG-SM-G92/472358a2f8d	107.77.212.1tng:interaction			reads	1.47761E+12	force:recordHome	reads	force_record	
5	SAMSUNG-SM-G92/472358a2f8d	107.77.212.1tng:interaction			read	1.47761E+12	Task	sfa:taskList	read	force_record
6	SAMSUNG-SM-G92/472358a2f8d	107.77.212.1tng:interaction			read	1.47761E+12	Task	sfa:taskList	read	force_record
7	SAMSUNG-SM-G92/472358a2f8d	107.77.212.1tng:interaction			read	1.47761E+12	Task	sfa:taskList	read	force_record
8	SAMSUNG-SM-G92/472358a2f8d	107.77.212.1tng:interaction			read	1.47761E+12	Task	sfa:taskList	read	force_record

SEE ALSO:

[Changed Objects](#)

See the Actions of Salesforce Administrators Who Logged In as Another User

Depending on your org settings, admins can log in to Salesforce as another user. Now you can use Login As event type data to review those actions to identify any security breaches or vulnerabilities, and also to inform your users what occurred.

We added the following fields to the LoginAs event type in the EventLogFile object. You can use LOGIN_KEY and SESSION_KEY together to uniquely identify a user's session to show Salesforce administrators' click paths through your app while they were logged in as another user. Many other event types also include LOGIN_KEY and SESSION_KEY, giving you a complete picture of a user's activity across your org.

EDITIONS

Available in: **Enterprise, Performance, Unlimited, and Developer** Editions

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- **CPU_TIME** — The CPU time in milliseconds used to complete the request. This field indicates the amount of activity taking place in the app server layer, highlighting pieces of Apex or Visualforce code that need refactoring.
- **LOGIN_KEY** — The string that ties together all events in a given user's login session. It starts with a login event and ends with either a logout event or the user session expiring.
- **RUN_TIME** — The amount of time that the request took in milliseconds.
- **SESSION_KEY** — The string that ties together all events for a particular activity session. For example, URL events while the user is interacting with an Accounts page.
- **URI_ID_DERIVED** — The 18-character case insensitive ID of the URL of the page that's receiving the request.

 **Example:** Your org's security officer performed an audit to find out who updated records containing sensitive information on Tuesday. The security officer identifies a sales rep who changed the records. However, the sales rep insists that she didn't modify the records on Tuesday. To investigate further, you use Login As event data along with URL event data to narrow down (based on LOGIN_KEY and SESSION_KEY) who really modified the records. You determine that an admin who logged in on behalf of the sales rep updated the records on Tuesday.

SEE ALSO:

[Changed Objects](#)

Other Security Changes: Browser Security and New Session Settings

We've made more changes that impact security, including improvements to browser security and protection against cross-site scripting and malicious files.

IN THIS SECTION:

[Browser Security Features Are Enabled on All Accounts](#)

To increase security for all Salesforce customers, we've added browser features to better protect sensitive information and monitor SSL certificates. These updates are enabled on all accounts and can't be disabled.

[Protect Against Cross-Site Scripting and Malicious Files](#)

New Session Settings increase the security of your org.

Browser Security Features Are Enabled on All Accounts

To increase security for all Salesforce customers, we've added browser features to better protect sensitive information and monitor SSL certificates. These updates are enabled on all accounts and can't be disabled.

Updated Referer Header

When loading assets outside of Salesforce, or navigating outside of Salesforce, the referer header shows only salesforce.com rather than the entire URL. This feature eliminates the potential for a referer header to reveal sensitive information that could be present in a full URL, such as an org ID. The updated referer header feature is supported only for Chrome and Firefox.

Public Key Pinning

To detect man-in-the-middle attacks, Salesforce now monitors which SSL certificates users can see. Custom certificates aren't affected. Public key pinning is supported only for Chrome and Firefox.

Protect Against Cross-Site Scripting and Malicious Files

New Session Settings increase the security of your org.

To enable these security features, from Setup, enter *Session Settings* in the Quick Find box.

XSS Protection

Protects against cross-site scripting attacks. If a reflected cross-site scripting attack is detected, the browser renders a blank page with no content.

Content Sniffing Protection

Prevents the browser from inferring the MIME type from the document content. It also prevents malicious files from being executed as dynamic content (JavaScript, Stylesheet).

Deployment: Deployment Permission Dependency Now Selected Automatically

The “Modify All Data” permission is now selected automatically when the “Deploy Change Sets” permission is selected.

IN THIS SECTION:

[“Modify All Data” Permission Is Automatically Selected When “Deploy Change Sets” Is Selected](#)

The “Modify All Data” permission is now selected automatically when the “Deploy Change Sets” permission is selected. Users must have the “Modify All Data” permission in addition to the “Deploy Change Sets” permission to deploy or validate inbound change sets and to edit deployment connections. Salesforce admins have this permission enabled by default.

“Modify All Data” Permission Is Automatically Selected When “Deploy Change Sets” Is Selected

The “Modify All Data” permission is now selected automatically when the “Deploy Change Sets” permission is selected. Users must have the “Modify All Data” permission in addition to the “Deploy Change Sets” permission to deploy or validate inbound change sets and to edit deployment connections. Salesforce admins have this permission enabled by default.

The following table lists the permissions needed for change sets.

User Permissions Needed	
To edit deployment connections:	“Deploy Change Sets” AND “Modify All Data”
To use outbound change sets:	“Create and Upload Change Sets,” “Create AppExchange Packages,” AND “Upload AppExchange Packages”
To use inbound change sets:	“Deploy Change Sets” AND “Modify All Data”

Development: Create Your Own Salesforce App

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

IN THIS SECTION:[**Lightning Components: Security, Developer Productivity, and App Reach**](#)

The Lightning Component framework powers Lightning Experience and Salesforce1. Use the framework to build mobile apps and pages in Lightning Experience, Salesforce1, Salesforce Classic, and Communities. Enhancements in this release are focused on LockerService and Content Security Policy changes, new ways to make your Lightning apps available, performance and error handling improvements, and other new features for developers.

[**Visualforce: Enhanced for Lightning Experience**](#)

Develop apps to customize your org using Visualforce. Changes in this release make it easier to adopt the Lightning Design System in your Visualforce pages and improve integration with Lightning Experience. This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

[**Apex Code**](#)

The Apex stub API is now generally available. We've added a page to help you monitor Apex batch jobs, and we've fixed some bugs with the `instanceOf` keyword and test setup methods.

[**API**](#)

Access more metadata types and data objects in API version 39.0.

[**Custom Metadata Types: Relationship Field Enhancements, Long Text Areas**](#)

Build better apps than ever before with custom metadata types which let you base your apps on types of metadata rather than just data. Do even more with the features you've been waiting for, including metadata relationships to field definitions and long text areas in custom metadata types. These changes apply to both Lightning Experience and Salesforce Classic.

[**Developer Console: Create Exception Classes, See More Code Coverage**](#)

Use new Developer Console features to more easily manage code in your org. Create Apex classes that extend `Exception`, and view your org's code coverage results even when you have more than 2,000 Apex classes or triggers. This change applies to both Lightning Experience and Salesforce Classic.

[**Debugging: ISV Customer Debugging, No Nested Trace Flag Durations**](#)

Root out problems in your Salesforce org more easily, thanks to improvements to the debugging experience. Debug managed packages in subscriber orgs, and avoid issues that arose when trace flags had nested time windows. This change applies to both Lightning Experience and Salesforce Classic.

[**ISVforce: Package Manager in Lightning Experience, Packaging Enhancements, ISV Customer Debugging**](#)

ISVforce tools make it easy to build, package, and distribute apps and Lightning components. This release surfaces the Package Manager in Lightning Experience and enhances the security of package push upgrades. You can also abort package push requests using the API and debug your Managed - Released packages in subscriber orgs.

Lightning Components: Security, Developer Productivity, and App Reach

The Lightning Component framework powers Lightning Experience and Salesforce1. Use the framework to build mobile apps and pages in Lightning Experience, Salesforce1, Salesforce Classic, and Communities. Enhancements in this release are focused on LockerService and Content Security Policy changes, new ways to make your Lightning apps available, performance and error handling improvements, and other new features for developers.

Use out-of-the-box components or build your own components with JavaScript, HTML, CSS, Apex, or any web-enabled code.

AppExchange lets you install components created by Salesforce partners or publish your own components.

For more information, refer to the [Lightning Components Developer Guide](#).

IN THIS SECTION:

[Host Single-Page Apps Developed with Third-Party Frameworks Using lightning:container \(Developer Preview\)](#)

Upload an app developed with a third-party framework as a static resource, and host the content in a Lightning component using `lightning:container`. Use `lightning:container` to use third-party frameworks like AngularJS or React within your Lightning pages.

[Server-Side Access Checks for Events](#)

It's easier to find access check failures for events. Previously, only client-side access check failures were enforced and resulted in a partially functional component. Depending on the code and how you tested it, the failure could be easy to miss. Now, if a component references an event for which it doesn't have access, additional server-side access checks result in the component failing to load.

[New Lightning LockerService Informational Setup Page](#)

LockerService enhances security by isolating individual Lightning components in their own containers. LockerService also promotes best practices that improve the supportability of your code by only allowing access to supported APIs and eliminating access to non-published framework internals. The new Setup page describes the LockerService critical update and provides links to more information. The page increases visibility for this important critical update. The page is purely informational and doesn't include any settings.

[Banner Reminds You About LockerService](#)

The new banner in Lightning Experience informs Salesforce admins about the enforcement of the LockerService critical update scheduled for June 13, 2017. Admins can dismiss the banner, but it will reappear once a month during the Spring '17 release.

[LockerService Has Stricter Content Security Policy](#)

The existing LockerService critical update tightens Content Security Policy (CSP) to eliminate the possibility of cross-site scripting attacks. These CSP changes are enforced only in sandboxes and Developer Edition orgs. The CSP changes have no effect in production orgs, even when LockerService is activated. The Lightning Component framework uses Content Security Policy (CSP) to control the source of content that can be loaded on a page.

[Create CSP Trusted Sites to Access Third-Party APIs](#)

The Lightning Component framework uses Content Security Policy (CSP) to control the source of content that can be loaded on a page. To use third-party APIs that make requests to an external (non-Salesforce) server, add the server as a CSP Trusted Site.

[Use Unbound Expressions for One-Way Data Binding Between Components](#)

Use the `{#expression}` syntax for unbound expressions when you pass an expression from a parent component to a child component, unless you require bidirectional data binding. Bound expressions with `{!expression}` create a bidirectional data binding that's expensive for performance. Bound expressions can also create hard-to-debug errors due to the propagation of data changes through nested components.

EDITIONS

Available for use in: **Contact Manager, Group, Professional, Enterprise, Performance, Unlimited, and Developer** Editions

Create Lightning components using the UI in **Enterprise, Performance, Unlimited, Developer** Editions or a sandbox.

[Customize the Look and Feel of Lightning Apps by Overriding Tokens \(Developer Preview\)](#)

Easily redefine standard tokens with your own token values to tailor your Lightning apps.

[Share Lightning Apps with Non-Authenticated Users](#)

Add the `lntng:allowGuestAccess` interface to your Lightning Out dependency app to make it available to users without requiring them to authenticate with Salesforce. This interface lets you build your app with Lightning components, and deploy it anywhere and to anyone.

[Find Component Markup Errors Faster with Improved Error Messages](#)

We've improved the details provided and the presentation of run-time errors caused by certain kinds of Lightning component markup errors. It's now easier for your users to report errors they encounter, and for you to find and fix those errors. This change affects all users of your org, and doesn't depend on debug mode being enabled.

[Create Lightning Components for Quick Actions in the Developer Console](#)

The New Lightning Bundle panel in the Developer Console now includes an option to add the interface for a Lightning quick action when you create a Lightning component bundle.

[Lightning Data Service \(Developer Preview\)](#)

Lightning Data Service continues to be available in Developer Preview, with updated documentation to help you get started. Use Lightning Data Service to load, create, edit, or delete a record in your component, without requiring Apex code. Lightning Data Service handles sharing rules and field level security for you. In addition to not needing Apex, Lightning Data Service improves performance and user interface consistency.

[Simplified Event Handling Across Base Lightning Components](#)

Take the guesswork out of event handling and go straight to the source. Base Lightning Components now let you access the component firing the event using `event.getSource()` with or without LockerService.

[New and Changed Lightning Components](#)

We added several new components and made improvements to others so you that can create apps faster.

[Changed Lightning Events](#)

Lightning events facilitate communication between components and increase interactivity in your apps.

[New JavaScript API Methods](#)

Use JavaScript API methods in your component's client-side controller, helper, or renderer.

Host Single-Page Apps Developed with Third-Party Frameworks Using `lightning:container` (Developer Preview)

Upload an app developed with a third-party framework as a static resource, and host the content in a Lightning component using `lightning:container`. Use `lightning:container` to use third-party frameworks like AngularJS or React within your Lightning pages.



Note: The `lightning:container` component is available as a developer preview. `lightning:container` isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. All commands, parameters, and other features are subject to change or deprecation at any time, with or without notice. Don't implement functionality developed with these commands or tools.

The `lightning:container` component hosts the content in an iframe. You can use `lightning:container` only for single-page applications.

You can implement communication to and from the framed application, allowing it to interact with the Lightning component. `lightning:container` provides the `message()` method, which you can use in the JavaScript controller to send messages to the application. In the component, specify a method for handling messages with the `onmessage` attribute.

This example loads a third-party app developed with React, `myReactApp`, which is uploaded as a static resource. The app is a single-page application, with the landing page `index.html`, and takes two attributes, `messageToSend` and `messageReceived`. These attributes store the value of the message to send and receive. The `handleMessage` method specified by the `onmessage` attribute handles these attributes in the component's controller.

```
<aura:component implements="flexipage:availableForAllPageTypes">
    <aura:attribute name="messageToSend" type="String"/>
    <aura:attribute name="messageReceived" type="String"/>
    <lightning:container src="{!$Resource.myReactApp + '/index.html'}"
        onmessage="{!!c.handleMessage}"/>

</aura:component>
```

`lightning:container` has known limitations. You might observe performance and scrolling issues associated with the use of iframes. This component is not designed for the multi-page model, and it doesn't integrate with browser navigation history.

For now, content in `lightning:container` is being served from the Visualforce domain. `lightning:container` can't be used in Lightning pages that aren't served from the Lightning domain, such as Visualforce pages or Community Builder. These restrictions allow `lightning:container` to comply with LockerService security, and might change in future releases.

Server-Side Access Checks for Events

It's easier to find access check failures for events. Previously, only client-side access check failures were enforced and resulted in a partially functional component. Depending on the code and how you tested it, the failure could be easy to miss. Now, if a component references an event for which it doesn't have access, additional server-side access checks result in the component failing to load.

If a component references an event that doesn't have an `access` system attribute allowing the component to access the event:

- Client-side code doesn't execute or returns `undefined`. If you enabled debug mode, you see an error message in your browser console.
- Server-side code results in the component failing to load. If you enabled debug mode, you see a popup error message.

For more information about the `access` system attribute, see the [Lightning Components Developer Guide](#).

New Lightning LockerService Informational Setup Page

LockerService enhances security by isolating individual Lightning components in their own containers. LockerService also promotes best practices that improve the supportability of your code by only allowing access to supported APIs and eliminating access to non-published framework internals. The new Setup page describes the LockerService critical update and provides links to more information. The page increases visibility for this important critical update. The page is purely informational and doesn't include any settings.

1. From Setup, enter `LockerService` in the Quick Find box.
2. Select **Lightning LockerService**.

LockerService remains a critical update for Spring '17. LockerService will be automatically activated for all orgs in the Summer '17 release. Before the Summer '17 release, you can manually activate and deactivate the update as often as you need to evaluate the impact on your org.

What Does LockerService Affect?

LockerService enforces security in:

- Lightning Experience
- Salesforce1

- Template-based Communities
- Standalone apps that you create (for example, `myApp.app`)

LockerService has no effect in Salesforce Classic or Lightning Out, which includes usage of Lightning components in Visualforce.

Graceful Degradation for Unsupported Browsers

LockerService relies on some basic JavaScript features in the browser: support for strict mode and the `Map` object. These requirements align with the supported browsers for Lightning Experience. If a browser doesn't meet the requirements, LockerService can't enforce all its security features.

We've improved the user experience for unsupported browsers. However, if you use an unsupported browser, you're likely to encounter issues that won't be fixed. Make your life easier and your browsing experience more secure by using a supported browser.

 **Note:** IE11 doesn't support CSP, so we recommend using other supported browsers for enhanced security.

SEE ALSO:

[Salesforce Help: Supported Browsers for Lightning Experience](#) (can be outdated or unavailable during release preview)

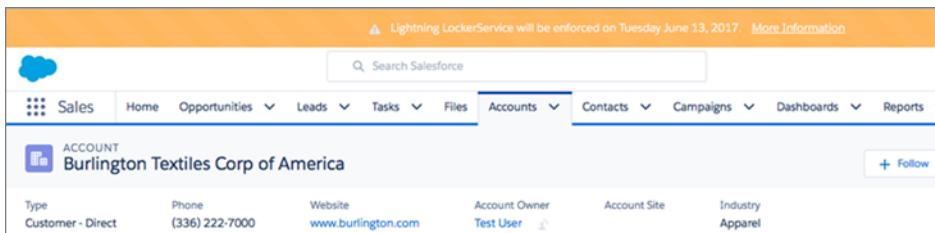
Banner Reminds You About LockerService

The new banner in Lightning Experience informs Salesforce admins about the enforcement of the LockerService critical update scheduled for June 13, 2017. Admins can dismiss the banner, but it will reappear once a month during the Spring '17 release.

We're not trying to annoy you. We just want to remind you to test LockerService in a sandbox or Developer Edition org to verify correct behavior of your components before enforcement in Summer '17.

The banner appears only if:

- You have the "View Setup and Configuration" permission.
- Your org has at least one Lightning component.



SEE ALSO:

[LockerService Has Stricter Content Security Policy](#)

LockerService Has Stricter Content Security Policy

The existing LockerService critical update tightens Content Security Policy (CSP) to eliminate the possibility of cross-site scripting attacks. These CSP changes are enforced only in sandboxes and Developer Edition orgs. The CSP changes have no effect in production orgs, even when LockerService is activated. The Lightning Component framework uses Content Security Policy (CSP) to control the source of content that can be loaded on a page.

This change enables you to test LockerService in its entirety before the critical update is activated for all orgs in Summer '17.

LockerService remains a critical update for Spring '17. LockerService will be automatically activated for all orgs in the Summer '17 release. Before the Summer '17 release, you can manually activate and deactivate the update as often as you need to evaluate the impact on your org. We recommend that you test LockerService in a sandbox or Developer Edition org to verify the behavior of your components before enabling it in your production org.

In Spring '17, LockerService now disallows the `unsafe-inline` and `unsafe-eval` CSP keywords for inline scripts (`script-src`). Ensure that your code and third-party libraries you use adhere to these rules by removing all calls using `eval()` or inline JavaScript code execution. You might have to update your third-party libraries to modern versions that don't depend on `unsafe-inline` or `unsafe-eval`. These CSP changes are enforced only in sandboxes and Developer Edition orgs.

**Note:**

- When LockerService is activated in sandboxes or Developer Edition orgs, you can't edit rich-text fields, and the fields are grayed out. Rest assured that the limitation is only temporary for Spring '17. We're removing this limitation before LockerService is activated for all orgs in Summer '17. For more information, see [Rich-Text Editors Disabled When LockerService Critical Update Is Active](#).
- IE11 doesn't support CSP, so we recommend using other supported browsers for enhanced security.

[CSP](#) is a Candidate Recommendation of the W3C working group on Web Application Security. The framework uses the `Content-Security-Policy` HTTP header recommended by the W3C.

The CSP changes in Spring '17 are in addition to the existing security features in the LockerService critical update in Winter '17.

LockerService enhances security by isolating individual Lightning components in their own containers. LockerService also promotes best practices that improve the supportability of your code by only allowing access to supported APIs and eliminating access to non-published framework internals. For more information, see the [Lightning Components Developer Guide](#).

SEE ALSO:

[Salesforce Help: Supported Browsers for Lightning Experience](#) (can be outdated or unavailable during release preview)

Create CSP Trusted Sites to Access Third-Party APIs

The Lightning Component framework uses Content Security Policy (CSP) to control the source of content that can be loaded on a page. To use third-party APIs that make requests to an external (non-Salesforce) server, add the server as a CSP Trusted Site.

[CSP](#) is a Candidate Recommendation of the W3C working group on Web Application Security. The framework uses the `Content-Security-Policy` HTTP header recommended by the W3C. By default, the framework's headers allow content to be loaded only from secure (HTTPS) URLs and forbid XHR requests from JavaScript.

When you define a CSP Trusted Site, the site's URL is added to the list of allowed sites for the following directives in the CSP header.

- `connect-src`
- `frame-src`
- `img-src`
- `style-src`
- `font-src`
- `media-src`

This change to the CSP header directives allows Lightning components to load resources, such as images, styles, and fonts, from the site. It also allows client-side code to make requests to the site.

! **Important:** You can't load JavaScript resources from a third-party site, even a CSP Trusted Site. To use a JavaScript library from a third-party site, add it to a static resource, and then add the static resource to your component. After the library is loaded from the static resource, you can use it as normal.

✓ Note: CSP Trusted Sites affect the CSP header only for Lightning Component framework requests. To enable corresponding access for Visualforce or Apex, create a Remote Site.

CSP isn't enforced by all browsers. For a list of browsers that enforce CSP, see [caniuse.com](#).

IE11 doesn't support CSP, so we recommend using other supported browsers for enhanced security.

SEE ALSO:

[Lightning Components Developer Guide: Content Security Policy Overview](#)

[Salesforce Help: Create CSP Trusted Sites to Access Third-Party APIs](#) (can be outdated or unavailable during release preview)

Use Unbound Expressions for One-Way Data Binding Between Components

Use the `{ #expression }` syntax for unbound expressions when you pass an expression from a parent component to a child component, unless you require bidirectional data binding. Bound expressions with `{ !expression }` create a bidirectional data binding that's expensive for performance. Bound expressions can also create hard-to-debug errors due to the propagation of data changes through nested components.

This concept is a little tricky, but it will make more sense when we look at an example. Consider a `c:parent` component that has a `parentAttr` attribute. `c:parent` contains a `c:child` component with a `childAttr` attribute that's initialized to the value of the `parentAttr` attribute. We're passing the `parentAttr` attribute value from `c:parent` into the `c:child` component, which results in a data binding, also known as a value binding, between the two components.

```
<!--c:parent-->
<aura:component>
    <aura:attribute name="parentAttr" type="String" default="parent attribute"/>

    <!-- Instantiate the child component -->
    <c:child childAttr="{!v.parentAttr}" />
</aura:component>
```

`{!v.parentAttr}` is a bound expression. Any change to the value of the `childAttr` attribute in `c:child` also affects the `parentAttr` attribute in `c:parent` and vice versa.

Now, let's change the markup from:

```
<c:child childAttr="{!v.parentAttr}" />
```

to:

```
<c:child childAttr="{#v.parentAttr}" />
```

`{#v.parentAttr}` is an unbound expression. Any change to the value of the `childAttr` attribute in `c:child` doesn't affect the `parentAttr` attribute in `c:parent` and vice versa.

Here's a summary of the differences between the forms of expression syntax.

`{#expression}` (Unbound Expressions)

Data updates behave as you would expect in JavaScript. Primitives, such as `String`, are passed by value, and data updates for the expression in the parent and child are decoupled.

Objects, such as `Array` or `Map`, are passed by reference, so changes to the data in the child propagate to the parent. However, change handlers in the parent aren't notified. The same behavior applies for changes in the parent propagating to the child.

`{ !expression }` (Bound Expressions)

Data updates in either component are reflected through bidirectional data binding in both components. Similarly, change handlers are triggered in both the parent and child components.

Customize the Look and Feel of Lightning Apps by Overriding Tokens (Developer Preview)

Easily redefine standard tokens with your own token values to tailor your Lightning apps.

 **Note:** Overriding standard tokens is available as a developer preview. This feature isn't generally available unless or until Salesforce announces its general availability in documentation or in press releases or public statements. You can provide feedback and suggestions for this feature on the [IdeaExchange](#).

To override a standard token for your Lightning app, create a tokens bundle with a unique name, for example `myOverrides`. In the tokens resource, redefine the value for a standard token:

```
<aura:tokens>
  <aura:token name="colorTextBrand" value="#8d7d74"/>
</aura:tokens>
```

In your Lightning app, specify the tokens bundle in the `tokens` attribute:

```
<aura:application tokens="c:myOverrides">
  <!-- Your app markup here -->
</aura:application>
```

Token overrides apply across your app, including resources and components provided by Salesforce and components of your own that use tokens.

Packaging apps that use the `tokens` attribute is unsupported.

 **Important:** Overriding standard token values within `defaultTokens.tokens`, a required resource in a tokens bundle, is unsupported. If you create a token with the same name as a standard token, it overrides the standard token's value in some contexts, and has no effect in others. Overrides should only be done in a separate resource as described above.

Share Lightning Apps with Non-Authenticated Users

Add the `ltng:allowGuestAccess` interface to your Lightning Out dependency app to make it available to users without requiring them to authenticate with Salesforce. This interface lets you build your app with Lightning components, and deploy it anywhere and to anyone.

A Lightning Out dependency app with the `ltng:allowGuestAccess` interface can be used with Lightning Components for Visualforce and with Lightning Out.

- Using Lightning Components for Visualforce, you can add your Lightning app to a Visualforce page, and then use that page in Salesforce Tabs + Visualforce communities. Then you can allow public access to that page.
- Using Lightning Out, you can deploy your Lightning app anywhere Lightning Out is supported—which is almost anywhere!

The `ltng:allowGuestAccess` interface is only usable in orgs that have Communities enabled, and your Lightning Out app is associated with all community endpoints that you've defined in your org.

! **Important:** When you make a Lightning app accessible to guest users by adding the `ltng:allowGuestAccess` interface, it's available through **every** community in your org, whether that community is enabled for public access or not. You can't prevent it from being accessible via community URLs, and you can't make it available for some communities but not others.

⚠️ Warning: Be extremely careful about apps you open for guest access. Apps enabled for guest access bypass the object- and field-level security (FLS) you set for your community's guest user profile. Lightning components don't automatically enforce CRUD and FLS when you reference objects or retrieve the objects from an Apex controller. This means that the framework continues to display records and fields for which users don't have CRUD access and FLS visibility. You must manually enforce CRUD and FLS in your Apex controllers. A mistake in code used in an app enabled for guest access can open your org's data to the world.

Usage

To begin with, add the `ltng:allowGuestAccess` interface to your Lightning Out dependency app. For example:

```
<aura:application access="GLOBAL" extends="ltng:outApp"
  implements="ltng:allowGuestAccess">

  <aura:dependency resource="c:storeLocatorMain"/>

</aura:application>
```

💡 Note: You can only add the `ltng:allowGuestAccess` interface to Lightning apps, not to individual components.

Next, add the Lightning Out JavaScript library to your page.

- With Lightning Components for Visualforce, simply add the `<apex:includeLightning />` tag anywhere on your page.
- With Lightning Out, add a `<script>` tag that references the library directly, using a community endpoint URL. For example:

```
<script
  src="https://yourCommunityDomain/communityURL/lightning/lightning.out.js"></script>
```

For example, `https://universalcontainers.force.com/ourstores/lightning/lightning.out.js`

Finally, add the JavaScript code to load and activate your Lightning app. This code is standard Lightning Out, with the important addition that you must use one of your org's community URLs for the endpoint. The endpoint URL takes the form `https://yourCommunityDomain/communityURL/`. The relevant line is emphasized in the following sample.

```
<script>
  $Lightning.use("c:locatorApp",      // name of the Lightning app
    function() {                      // Callback once framework and app loaded
      $Lightning.createComponent(
        "c:storeLocatorMain",          // top-level component of your app
        {},                            // attributes to set on the component when created
        "lightningLocator",            // the DOM location to insert the component
        function(cmp) {
          // callback when component is created and active on the page
        }
      );
    },
    'https://universalcontainers.force.com/ourstores/' // Community endpoint
  );
</script>
```

```
) ;
</script>
```

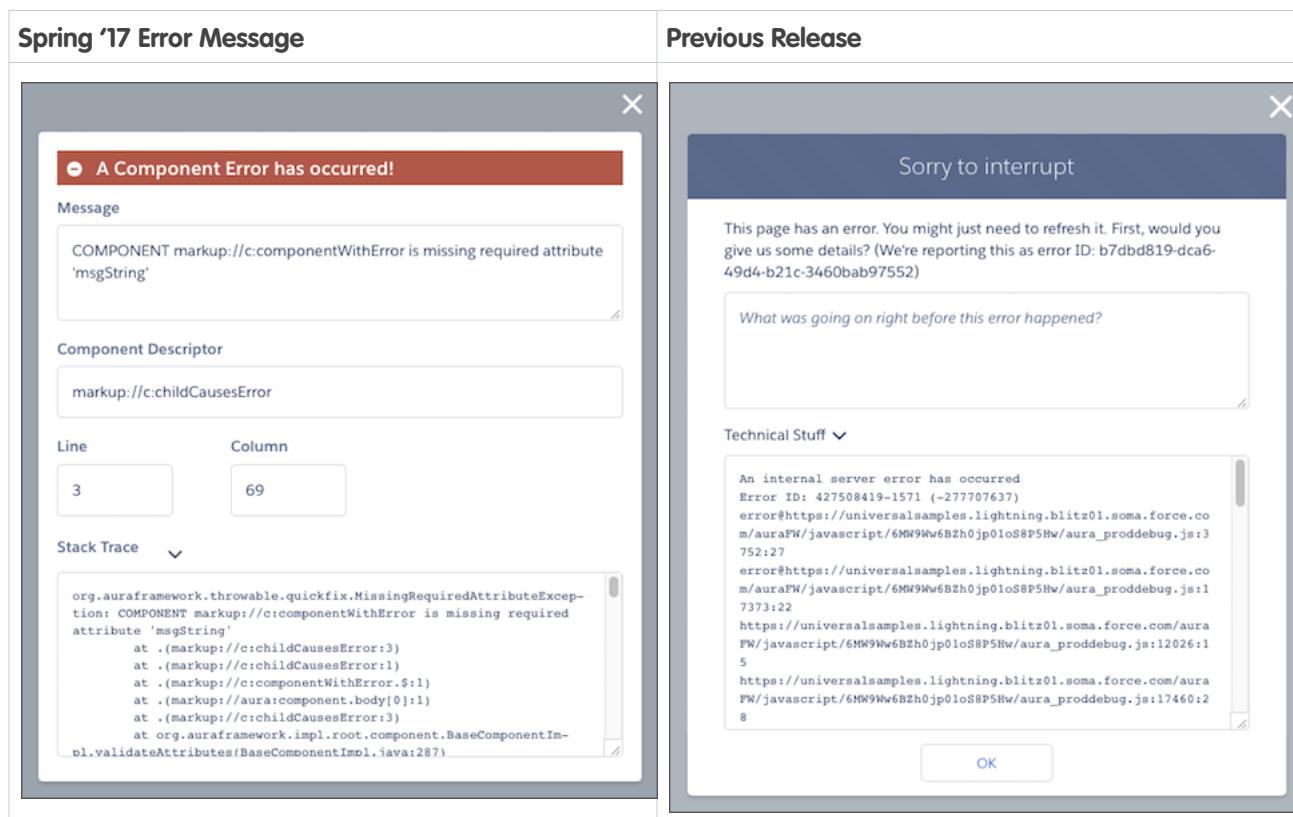
SEE ALSO:

[Access Lightning Apps in Public Communities](#)[Lightning Components Developer Guide: Use Lightning Components in Visualforce Pages](#)[Lightning Components Developer Guide: Add Lightning Components to Any App with Lightning Out \(Beta\)](#)[Lightning Components Developer Guide: CRUD and Field-Level Security \(FLS\)](#)

Find Component Markup Errors Faster with Improved Error Messages

We've improved the details provided and the presentation of run-time errors caused by certain kinds of Lightning component markup errors. It's now easier for your users to report errors they encounter, and for you to find and fix those errors. This change affects all users of your org, and doesn't depend on debug mode being enabled.

Because a picture is worth a thousand words, here are two of them.



Note: The new error panel doesn't have an OK button. To dismiss the panel, click the "X" in the top right.

The new error panel appears only when a relevant error occurs in Lightning Experience or Salesforce1. The error panel's expandable stack trace appears only on desktop and tablet form factors—not on a phone.

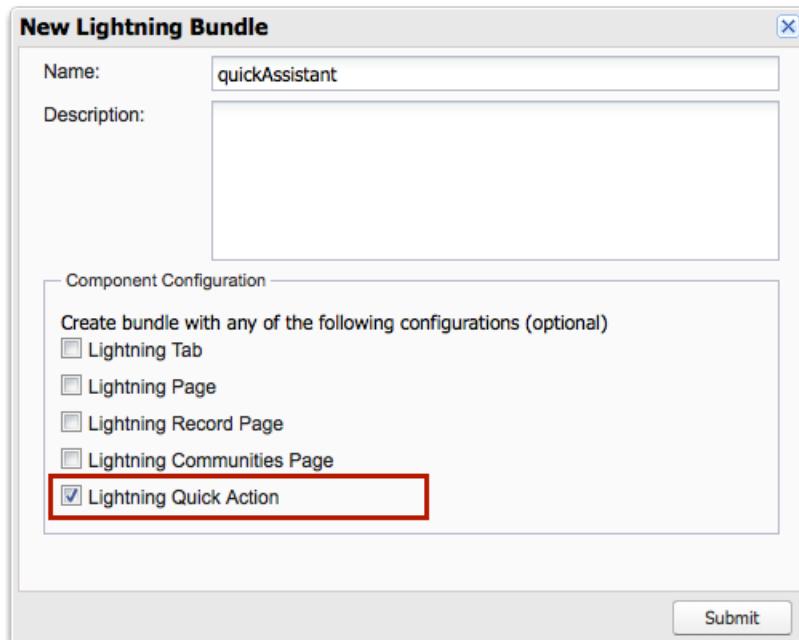
Only certain kinds of markup errors result in the new error reporting. Errors in your component controller or helper JavaScript code display with the old error output. The new error reporting affects only your custom components, not standard components provided

with the framework. Outside of Lightning Experience and Salesforce1, for example, in Lightning Out or a standalone app, error output can include details that were previously omitted, such as a complete stack trace.

Create Lightning Components for Quick Actions in the Developer Console

The New Lightning Bundle panel in the Developer Console now includes an option to add the interface for a Lightning quick action when you create a Lightning component bundle.

The Lightning Quick Action option adds the `force:lightningQuickAction` interface to the new component as a value on the component's `implements` attribute.



If you're creating a quick action with a completely custom user interface, edit the resulting markup to use the `force:lightningQuickActionWithoutHeader` interface instead.

SEE ALSO:

[Lightning Components Developer Guide: Configure Components for Custom Actions](#)

[Lightning Components Developer Guide: Lightning Bundle Configurations Available in the Developer Console](#)

Lightning Data Service (Developer Preview)

Lightning Data Service continues to be available in Developer Preview, with updated documentation to help you get started. Use Lightning Data Service to load, create, edit, or delete a record in your component, without requiring Apex code. Lightning Data Service handles sharing rules and field level security for you. In addition to not needing Apex, Lightning Data Service improves performance and user interface consistency.

Simplified Event Handling Across Base Lightning Components

Take the guesswork out of event handling and go straight to the source. Base Lightning Components now let you access the component firing the event using `event.getSource()` with or without LockerService.

`event.getSource()` returns an instance of the component that fires the event. For example:

```
<aura:component>
    <lightning:button name="myButton" onclick="{!!c.doSomething}" />
</aura:component>

({
    doSomething: function(cmp, event, helper) {
        var button = event.getSource();

        //The following patterns are not supported
        //when you're trying to access another component's
        //DOM elements.
        var el = event.target;
        var currentEl = event.currentTarget;
    }
})
```

Retrieve a component attribute that's passed to the event by using this syntax.

```
event.getSource().get("v.name")
```

 **Note:** In Summer '17, LockerService will be automatically enabled for all orgs. In anticipation of this change, we recommend that you update your JavaScript code to use `event.getSource()`. This pattern is consistent with event handling in other components, such as those in the `ui` namespace.

IN THIS SECTION:

[Handling the `onactive` Event](#)

Get a reference to the active component when a `lightning:tab` or `lightning:menuItem` component is clicked by using the `onactive` event.

SEE ALSO:

[LockerService Has Stricter Content Security Policy](#)

Handling the `onactive` Event

Get a reference to the active component when a `lightning:tab` or `lightning:menuItem` component is clicked by using the `onactive` event.

With the `onactive` event handler, you know which tab or menu item is clicked or selected.

 **Note:** If you only need the ID or value of the tab or menu item and you don't need a reference to the target component, use the `onselect` event handler.

For example, you can toggle a check mark on a menu item in a `lightning:buttonMenu` component when it's clicked.

```
<aura:component>
    <lightning:buttonMenu alternativeText="Show menu">
        <lightning:menuItem value="new" onactive="!!c.handleActive" label="New"
```

```

checked="true" />
    <lightning:menuItem value="edit" onactive="{! c.handleActive }" label="Edit"
checked="false" />
    <lightning:menuItem value="delete" onactive="{! c.handleActive }" label="Delete"
checked="false" />
</lightning:buttonMenu>
</aura:component>

```

```

({
    handleActive: function (cmp, event) {
        var menuItem = event.getSource();
        menuItem.set("v.checked", !menuItem.get("v.checked"));
    }
})

```

Although the `event.detail` syntax continues to be supported, we recommend that you update your JavaScript code to use the following patterns for the `onselect` handler as we plan to deprecate `event.detail` in a future release.

- `event.getParam("id")`
- `event.getParam("value")`

For example, you want to retrieve the value of a selected menu item in a `lightning:buttonMenu` component from a client-side controller.

```

//Before
var menuItem = event.detail.menuItem;
var itemValue = menuItem.get("v.value");
//After
var itemValue = event.getParam("value");

```

New and Changed Lightning Components

We added several new components and made improvements to others so you can create apps faster.

New Components

The following components are new.

forceCommunity:routeLink

Sets an HTML anchor (`<a>`) tag with an `href` attribute that's automatically generated from the provided record ID. Use it to improve SEO link equity in communities based on the Customer Service (Napili) template.

lightning:avatar

A visual representation of a person.

lightning:container (Developer Preview)

A container for a single-page application created with a third-party framework such as AngularJS or React, uploaded as a static resource and hosted in an iFrame. For more information, see [Host Single-Page Apps Developed with Third-Party Frameworks Using lightning:container \(Developer Preview\)](#).

Changed Components

The following components have changed.

lightning:button

The following attributes are new.

- `title`—Tooltip text on the button.
- `type`—Specifies the type of button. Valid values are button, reset, and submit. This value defaults to button.

lightning:buttonIcon

The following attributes are new.

- `iconClass`—CSS class to apply to the contained icon element.
- `title`—Tooltip text on the button.
- `type`—Specifies the type of button. Valid values are button, reset, and submit. This value defaults to button.

lightning:buttonMenu

The following attribute has changed.

- `iconName`—If an icon other than `utility:down` or `utility:chevronDown` is used, a `utility:down` icon is appended to the right of that icon.

lightning:icon

The following attribute has changed.

- `variant`—The `bare` variant has been added for utility icons.

The following attribute is new.

- `title`—Tooltip text on the icon.

lightning:input

Field validation now occurs after a 2-second delay of continuous keystrokes during a user's interaction in the field. During an `onblur` event, field validation occurs immediately. Validation errors are displayed when you leave the field.

The following types are new.

- `file`—Input field for uploading files using a Upload Files button or a drag-and-drop zone.
- `search`—Input field for entering a search string.

The following attributes are new.

- `accept`—Specifies the types of files that the server accepts. You can use this attribute only when `type='file'`.
- `multiple`—Specifies that a user can enter more than one value. You can use this attribute only when `type='file'`.

The following attribute has changed.

- `validity`—The initial value is no longer `null`, which means that you can check an input field's validity even if users haven't interacted with the field.

lightning:menuItem

The following attribute is new.

- `onactive`—The action triggered when the menu item is clicked. For more information, see [Handling the onactive Event](#).

lightning:select

Field validation now occurs after a 2-second delay of continuous keystrokes during a user's interaction in the field. During an `onblur` event, field validation occurs immediately. Validation errors are displayed when you leave the field.

The following attribute has changed.

- `validity`—The initial value is no longer `null`, which means that you can check an input field's validity even if users haven't interacted with the field.

lightning:spinner

The following attribute is new.

- `alternativeText`—Describes the reason for the wait and need for a spinner.

lightning:tab

The following attribute is new.

- `onactive`—The action triggered when the tab is clicked. For more information, see [Handling the onactive Event](#).

lightning:textarea

Field validation now occurs after a 2-second delay of continuous keystrokes during a user's interaction in the field. During an `onblur` event, field validation occurs immediately. Validation errors are displayed when you leave the field.

The following attribute has changed.

- `validity`—The initial value is no longer `null`, which means that you can check an input field's validity even if users haven't interacted with the field.

ui:outputText

The following attribute is new.

- `title`—Displays extra information as hover text.

Changed Lightning Events

Lightning events facilitate communication between components and increase interactivity in your apps.

Changed Events

The following event has changed.

forceCommunity:analyticsInteraction

The `hitType` attribute now supports the following values.

- `social`, which measures social interactions, such as clicking the **Like** button on Facebook
- `exception`, which measures the type and number of errors that occur on a property
- `timing`, which measures periods of time in milliseconds, such as page load time

New JavaScript API Methods

Use JavaScript API methods in your component's client-side controller, helper, or renderer.

The following method is new.

Component.getName()

Returns the component's name in the format `namespace:cmpName`; for example, `ui:button`. This format is also known as the component's descriptor.

Visualforce: Enhanced for Lightning Experience

Develop apps to customize your org using Visualforce. Changes in this release make it easier to adopt the Lightning Design System in your Visualforce pages and improve integration with Lightning Experience. This change applies to Lightning Experience, Salesforce Classic, and all versions of the Salesforce1 mobile app.

For more information on features affected by these enhancements, refer to the [Visualforce Developer's Guide](#).

Editions

Available in: **Contact Manager, Group, Professional, Enterprise, Performance, Unlimited, and Developer** Editions

IN THIS SECTION:

[Use the Lightning Design System in Visualforce Pages](#)

Use the `<apex:slds>` element to incorporate the Lightning Design System in your Visualforce pages and align them with the styling of Lightning Experience. This component is a streamlined alternative to uploading the Lightning Design System as a static resource and using it in your Visualforce pages.

[Reference Lightning Design System Assets with the \\$Asset Global Variable](#)

Use the `$Asset` global variable to access images, sprites, and other assets that are part of the Lightning Design System. Use it in Visualforce pages that also use the `<apex:slds>` component.

[Add More Security to Your Visualforce Pages](#)

We added a login setting that enables access to Force.com site standard pages. If your site serves only Visualforce pages, then disabling this setting adds a layer of access protection to your site.

[Allow CSRF Protection on GET Requests to Visualforce Pages \(Critical Update\)](#)

This critical update makes it possible to enable CSRF checks for GET requests on Visualforce pages, and might break links to existing Visualforce pages.

Use the Lightning Design System in Visualforce Pages

Use the `<apex:slds>` element to incorporate the Lightning Design System in your Visualforce pages and align them with the styling of Lightning Experience. This component is a streamlined alternative to uploading the Lightning Design System as a static resource and using it in your Visualforce pages.

Because you don't have to upload the Lightning Design System as a static resource, you can keep the syntax of your page simple and stay under the 250-MB static resource limit. To use Lightning Design System stylesheets in your Visualforce page, add `<apex:slds />` anywhere in your page markup.

In general, the Lightning Design System is already scoped. However, if you set `applyBodyTag` or `applyHtmlTag` to false, you must include the scoping class `slds-scope`. Within the scoping class, your markup can reference Lightning Design System styles and assets.

To reference assets in the Lightning Design System, such as SVG icons and images, use the `URLFOR()` formula function and the `$Asset` global variable.

SEE ALSO:

[Reference Lightning Design System Assets with the \\$Asset Global Variable](#)

[Visualforce Developer Guide: Using the Lightning Design System](#)

Reference Lightning Design System Assets with the \$Asset Global Variable

Use the `$Asset` global variable to access images, sprites, and other assets that are part of the Lightning Design System. Use it in Visualforce pages that also use the `<apex:slds>` component.

Use `$Asset` instead of `$Resource`. The variable takes dot notation and `sLDS`. For example, this markup references a JPG avatar in the Lightning Design System.

```
<apex:page>
  <apex:slds />
  <span class="slds-icon_container slds-icon--small slds-icon-standard-account"
title="Contact Avatar">
    
  </span>
</apex:page>
```

SEE ALSO:

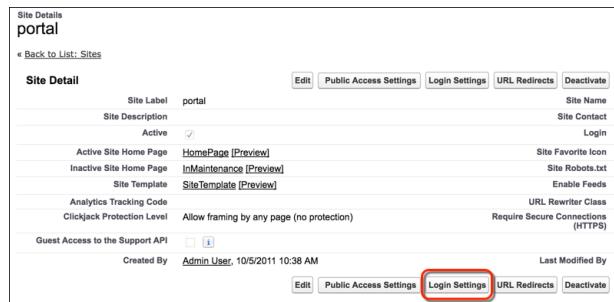
[Use the Lightning Design System in Visualforce Pages](#)

[Visualforce Developer Guide: \\$Asset](#)

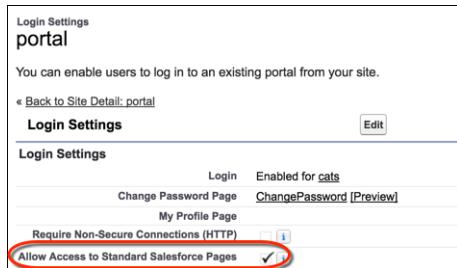
Add More Security to Your Visualforce Pages

We added a login setting that enables access to Force.com site standard pages. If your site serves only Visualforce pages, then disabling this setting adds a layer of access protection to your site.

From Setup, enter *Sites* in the Quick Find box, then select **Sites**. Click the site name, and in the Site Details page, click **Login Settings**.



Standard pages are provided by Salesforce as a part of the platform, as opposed to Visualforce pages that you create. When enabled, the **Allow access to standard Salesforce pages** setting allows authenticated users to access standard Salesforce pages in the site as allowed by their access controls. When disabled, authenticated users can't access standard Salesforce pages, even if their access controls allow it.



Note: The setting is only visible in non-community Force.com sites. However, you can use this setting with a community's Force.com site through the Metadata API.

Allow CSRF Protection on GET Requests to Visualforce Pages (Critical Update)

This critical update makes it possible to enable CSRF checks for GET requests on Visualforce pages, and might break links to existing Visualforce pages.

When creating a Visualforce page in Setup, you can select **Require CSRF Protection on GET requests**. This option adds an extra layer of security to your Visualforce page that guards against cross-site request forgery (CSRF).

In general, a POST request from a Visualforce page submits data, while a GET request asks for data. POST requests always have CSRF protection. This critical update gives you the option of ensuring that Visualforce pages receive a CSRF token with a GET request.

When this option is enabled for a Visualforce page, you can't access the page by entering its URL—/apex/PageName. Also, plain links to that page using <a> tags don't work. If you try to access a Visualforce page with CSRF protection enabled, the page doesn't load and you get an error.

Plain links from a page with CSRF checks work, but links to the page do not. For example, if your page has the name PageName, the link Link doesn't work. Instead, use the URLFOR() formula function, the \$Page global variable, or the apex:outputLink component.

```
<apex:outputLink value="/apex/PageName">Link using apex:outputlink</apex:outputlink>
<a href="{ !$Page.PageName }">Link using $Page</a>
<a href="{ !URLFOR($Page.PageName) }">Link using URLFOR()</a>
```

CSRF checks on GET requests also affect how Visualforce pages are referenced from Apex controllers. Methods that return the URL of CSRF-protected pages for navigation don't work:

```
public String getPage() {
    return '/apex/PageName';
}
```

Instead, use methods that return a reference to the Visualforce page instead of the URL directly.

```
public class customController {
    public PageReference getPage() {
        return new PageReference('/apex/PageName');
    }

    public PageReference getPage1() {
        return Page.PageName;
    }
}
```

When you use one of these methods to link to a page, Visualforce adds the required CSRF token to the URL. These are the preferred methods for linking to Visualforce pages, regardless of whether CSRF protection is enabled for the page. You can use only these methods to add a CSRF token to a URL for a Visualforce page.

Test This Critical Update

This update is enabled everywhere on the auto-activation date, June 11, 2017. We recommend that you test your Visualforce code in a Developer Edition org before then and verify that links to all your Visualforce pages using CSRF protection still work. If you must work in your production org, do so during off-peak hours.

1. From Setup, enter *Critical Updates* in the Quick Find box, and then select **Critical Updates**.
2. For "Allow CSRF Protection on GET Requests to Visualforce Pages", click **Activate**.
3. Test links to any Visualforce pages that have CSRF protection on GET requests enabled.

Apex Code

The Apex stub API is now generally available. We've added a page to help you monitor Apex batch jobs, and we've fixed some bugs with the `instanceOf` keyword and test setup methods.

For more information on these enhancements, refer to the [Apex Developer Guide](#).

IN THIS SECTION:

[Apex Stub API Is Now Generally Available](#)

Apex provides a stub API for implementing a mocking framework. A mocking framework has many benefits. It can streamline and improve testing and help you create faster, more reliable tests. You can use it to test classes in isolation, which is important for unit testing. Building your mocking framework with the stub API can also be beneficial because stub objects are generated at runtime. Because these objects are generated dynamically, you don't have to package and deploy test classes. You can use the stub API to build your own mocking framework, or you can use one built by someone else.

[Monitor the Status of Apex Batch Jobs](#)

Get more information about the status of Apex batch jobs. For a particular batch class, you can get information about parent jobs, such as submitted and completion dates and the number of batches processed or failed. This change applies to both Lightning Experience and Salesforce Classic.

[Only One Test Setup Method per Class is Allowed](#)

You can now have only one test setup method per Apex test class. A test setup method is a method annotated with `@testSetup`. In previous versions, multiple test setup methods were allowed due to a bug, which has now been fixed. If you run Apex test classes that have more than one test setup method, you get a compile-time exception. Update your code and rerun the tests.

[Goodbye to `instanceOf` Keyword Bugs](#)

The Apex `instanceOf` keyword works more consistently with managed base packages. In previous versions, it didn't give the correct value if the expression on the left side was an Apex class that extended the target type specified in the expression on the right side, and the Apex class was declared in a different package from the target type.

[Make Web Service Callouts from Chained Queueable Jobs](#)

Apex now allows web service callouts from chained queueable jobs. Previously, a queueable job could make a web service callout, but additional chained jobs that made callouts would throw exceptions.

EDITIONS

Available in: **Enterprise**, **Performance**, **Unlimited**, **Developer**, and **Database.com** Editions

[Maps of Populated SObject Fields Return Correct Values](#)

The `sobject.getPopulatedFieldsAsMap()` method returns a map of populated field names and their corresponding values. The map contains only the fields that have been populated in memory for the SObject instance. Previously, the method didn't return fields that were added to an SObject after it had been retrieved via a SOQL query. This bug has been fixed, and the method returns the correct fields.

[Apex Has New Transaction Security Policy Testing Requirements](#)

If you're using the policy condition interface in the org where the policy was implemented, test classes for the policy are not required. If you move the policy to another org, you must have test classes for the Apex policy in the new org. Testing is required whether the policy is moved from a sandbox to production, with a change set, or some other way. Why? If you're making a policy available outside of its development environment, it needs testing to make sure it works correctly.

[Apex: New and Changed Classes and Interfaces](#)

These classes and interfaces are new or have changed.

[ConnectApi \(Chatter in Apex\)](#)

Create custom experiences in Salesforce using Chatter in Apex. In this release, you can access Files Connect with the new `ConnectApi.ContentHub` class, create and manage custom feeds with streams, send direct messages, share feed posts, and more.

Apex Stub API Is Now Generally Available

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You can define the behavior of stub objects, which are created at runtime as anonymous subclasses of Apex classes. The stub API comprises the `System.StubProvider` interface and the `System.Test.createStub()` method.

To use a stub version of an Apex class:

1. Define the behavior of the stub class by implementing the `System.StubProvider` interface.
2. Instantiate a stub object by using the `System.Test.createStub()` method.
3. Invoke the relevant method of the stub object from within a test class.

This GA version resolves the following limitations that were present in the pilot version of the stub API.

- When calling the `createStub()` method in the pilot version, your Apex class was required to have a constructor that took zero arguments. This limitation is no longer present in the GA version.
- You can now mock exceptions.
- You can now mock classes that implement the `Schedulable` and `Queueable` interfaces.

Monitor the Status of Apex Batch Jobs

Get more information about the status of Apex batch jobs. For a particular batch class, you can get information about parent jobs, such as submitted and completion dates and the number of batches processed or failed. This change applies to both Lightning Experience and Salesforce Classic.

1. From Setup, enter `Apex` in the Quick Find box, and select **Apex Jobs** to view all Apex jobs for your org.
2. Click the link at the top of the page to go to the new batch jobs page and see all Apex batch classes.

3. Click **More Info** on a particular batch class to show the parent jobs of the batch class, including information about:

- Status
- Submitted and completion dates
- Elapsed time for each batch
- Number of processed batches
- Number of failed batches

The screenshot shows the 'Apex Batch Jobs' page. At the top, there's a link to 'Click here to go back to the classic view'. Below it, the title 'Apex Batch Jobs' and a subtitle 'Monitor the status of all Apex Batch jobs.' are displayed. A date range '11/13/2016, 5:25 PM - 11/21/2016, 5:25 PM' is shown. The main area is a table with the following data:

Action	Class Id	Namespace Prefix	Class Name	Queued	Processing	Aborted	Completed	Failed
More Info	01pxx00000001ZQ		BatchTest	0	0	0	50	0

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Make Web Service Callouts from Chained Queueable Jobs

Apex now allows web service callouts from chained queueable jobs. Previously, a queueable job could make a web service callout, but additional chained jobs that made callouts would throw exceptions.

SEE ALSO:

[Idea Exchange: Allow Callouts from Chained Queueable Apex Jobs](#)

Maps of Populated SObject Fields Return Correct Values

The `SObject.getPopulatedFieldsAsMap()` method returns a map of populated field names and their corresponding values. The map contains only the fields that have been populated in memory for the `SObject` instance. Previously, the method didn't return fields that were added to an `SObject` after it had been retrieved via a SOQL query. This bug has been fixed, and the method returns the correct fields.

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Apex: New and Changed Classes and Interfaces

These classes and interfaces are new or have changed.

IN THIS SECTION:

[New Apex Classes](#)

These classes were introduced in this release.

[Changed Apex Interface](#)

This interface was deprecated in this release.

New Apex Classes

These classes were introduced in this release.

Classes in the `Auth` Namespace

`AuthProviderPluginClass` Class

The new `Auth.AuthProviderPluginClass` class contains a method to get a refresh token.

`refresh(authProviderConfiguration, refreshToken)`

Returns a new access token, which is used to update an expired access token.

`OAuthRefreshResult` Class

The new `Auth.OAuthRefreshResult` class stores the results of the `Auth.AuthProviderPluginClass.refresh` method. OAuth authentication flow provides a refresh token that you can use to get a new access token. Access tokens have limited lifetime specified by the session timeout value. When an access token expires, use a refresh token to get a new access token. The class has the following properties.

`accessToken`

The OAuth access token for the user who is currently logged in.

`error`

Error that occurs when a user unsuccessfully attempts to authenticate with the custom authentication provider.

`refreshToken`

The OAuth refresh token for the user who is currently logged in.

Classes in the `visualEditor` Namespace

`DataRow` Class

The new `VisualEditor.DataRow` class contains information about one item in a picklist used in a Lightning component on a Lightning page.

`clone()`

Makes a duplicate copy of the `VisualEditor.DataRow` object.

compareTo(o)

Compares the current `VisualEditor.DataRow` object to the specified one. Returns an integer value that is the result of the comparison.

getLabel()

Returns the user-facing label of the picklist item.

getValue()

Returns the value of the picklist item.

isSelected()

Returns the state of the picklist item, indicating whether it's selected or not.

DynamicPicklist Class

The new `VisualEditor.DynamicPicklist` class is used to display the values of a picklist in a Lightning component on a Lightning page.

clone()

Makes a duplicate copy of the `VisualEditor.DynamicPicklist` object.

getDefaultValue()

Returns the picklist item that is set as the default value for the picklist.

getLabel(attributeValue)

Returns the user-facing label for a specified picklist value.

getValues()

Returns the list of picklist item values.

isValid(attributeValue)

Returns the valid state of the picklist item's value. A picklist value is considered valid if it's a part of any `VisualEditor.DataRow` in the `VisualEditor.DynamicPickListRows` returned by `getValues()`.

DynamicPicklistRows Class

The new `VisualEditor.DynamicPicklistRows` class contains a list of picklist items in a Lightning component on a Lightning page.

addAllRows(rows)

Adds a list of picklist items to a dynamic picklist rendered in a Lightning component on a Lightning page.

addRow(row)

Adds a single picklist item to a dynamic picklist rendered in a Lightning component on a Lightning page.

clone()

Makes a duplicate copy of the `VisualEditor.DynamicPickListRows` object.

containsAllRows()

Returns a Boolean value indicating whether all values of the picklist are included when a user does a type-ahead search query (true) or only those values initially displayed when the list is clicked on (false).

get(i)

Returns a picklist element stored at the specified index.

getDataRows()

Returns a list of picklist items.

setContainsAllRows(containsAllRows)

Sets the value indicating whether all values of the picklist are included when a user does a type-ahead search query (true) or only those values initially displayed when the list is clicked on (false).

Changed Apex Interface

This interface was deprecated in this release.

Auth.AuthProviderPlugin Interface

Deprecated

We replaced the `Auth.AuthProviderPlugin` interface with the new abstract class `Auth.AuthProviderPluginClass`. If you've implemented a custom authentication provider with the `Auth.AuthProviderPlugin`, it still works. However, if you want to add new functionality or implement a new provider, use the `Auth.AuthProviderPluginClass` abstract class.

ConnectApi (Chatter in Apex)

Create custom experiences in Salesforce using Chatter in Apex. In this release, you can access Files Connect with the new `ConnectApi.ContentHub` class, create and manage custom feeds with streams, send direct messages, share feed posts, and more.

Many Chatter 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. The `ConnectApi` namespace is referred to as *Chatter in Apex*.

In Apex, it's possible to access some Chatter data using SOQL queries and objects. However, `ConnectApi` classes expose Chatter data in a much simpler way. Data is localized and structured for display. For example, instead of making many calls to access and assemble a feed, you can do it with a single call.



Note: To integrate mobile apps, intranet sites, and third-party web applications with Chatter and Communities, use [Chatter REST API](#).

IN THIS SECTION:

[New and Changed Chatter in Apex Classes](#)

[New and Changed Chatter in Apex Input Classes](#)

[New and Changed Chatter in Apex Output Classes](#)

[New and Changed Chatter in Apex Enums](#)

New and Changed Chatter in Apex Classes

Announcements

These methods are in the `ConnectApi.Anouncements` class.

Announcements are available to guest users

If your community allows access without logging in, these methods are available to guest users.

- `getAnnouncements(communityId, parentId)`—Get the first page of announcements.
- `getAnnouncements(communityId, parentId, pageParam, pageSize)`—Get the specified page of announcements.

Content Hub

These methods are in the new `ConnectApi.ContentHub` class.

Get file previews of repository files

- `getFilePreview(repositoryId, repository fileId, formatType)`—Get a repository file preview.
- `getFilePreview(repositoryId, repository fileId, formatType, startPageNumber, endPageNumber)`—Get a page or page range of a repository file preview.
- `getFilePreview(communityId, repositoryId, repository fileId, formatType)`—Get a repository file preview in a community.
- `getFilePreview(communityId, repositoryId, repository fileId, formatType, startPageNumber, endPageNumber)`—Get a page or page range of a repository file preview in a community.
- `getPreviews(repositoryId, repository fileId)`—Get information about a repository file's supported previews.
- `getPreviews(communityId, repositoryId, repository fileId)`—Get information about a repository file's supported previews in a community.

Get repositories

- `getRepositories()`—Get a list of repositories.
- `getRepositories(communityId)`—Get a list of repositories in a community.
- `getRepositories(pageParam, pageSize)`—Get a page of repositories.
- `getRepositories(communityId, pageParam, pageSize)`—Get a page of repositories in a community.
- `getRepository(repositoryId)`—Get a repository.
- `getRepository(communityId, repositoryId)`—Get a repository in a community.

Get repository files

- `getRepositoryFile(repositoryId, repository fileId)`—Get a repository file.
- `getRepositoryFile(repositoryId, repository fileId, includeExternalFilePermissionsInfo)`—Get a repository file with or without permissions information.
- `getRepositoryFile(communityId, repositoryId, repository fileId)`—Get a repository file in a community.
- `getRepositoryFile(communityId, repositoryId, repository fileId, includeExternalFilePermissionsInfo)`—Get a repository file with or without permissions information in a community.

Get repository folders

- `getRepositoryFolder(repositoryId, repositoryFolderId)`—Get a repository folder.
- `getRepositoryFolder(communityId, repositoryId, repositoryFolderId)`—Get a repository folder in a community.

Get repository folder items

- `getRepositoryFolderItems(repositoryId, repositoryFolderId)`—Get repository folder items.
- `getRepositoryFolderItems(communityId, repositoryId, repositoryFolderId)`—Get repository folder items in a community.
- `getRepositoryFolderItems(repositoryId, repositoryFolderId, pageParam, pageSize)`—Get a page of repository folder items.
- `getRepositoryFolderItems(communityId, repositoryId, repositoryFolderId, pageParam, pageSize)`—Get a page of repository folder items in a community.

Add repository items

- `addRepositoryItem(repositoryId, repositoryFolderId, file)`—Add a repository item.
- `addRepositoryItem(communityId, repositoryId, repositoryFolderId, file)`—Add a repository item in a community.
- `addRepositoryItem(repositoryId, repositoryFolderId, file, fileData)`—Add a repository item, including the binary file.
- `addRepositoryItem(communityId, repositoryId, repositoryFolderId, file, fileData)`—Add a repository item, including the binary file, in a community.

Update repository files

- `updateRepositoryFile(repositoryId, repository fileId, file)`—Update the metadata of a repository file.
- `updateRepositoryFile(repositoryId, repository fileId, file, fileData)`—Update the content of a repository file.
- `updateRepositoryFile(communityId, repositoryId, repository fileId, file)`—Update the metadata of a repository file in a community.
- `updateRepositoryFile(communityId, repositoryId, repository fileId, file, fileData)`—Update the content of a repository file in a community.

Get the item types that the context user is allowed to create in the repository folder

- `getAllowedItemTypes(repositoryId, repositoryFolderId)`—Get the item types that the context user is allowed to create in the repository folder.
- `getAllowedItemTypes(repositoryId, repositoryFolderId, filter)`—Get the item types, filtered by type, that the context user is allowed to create in the repository folder.
- `getAllowedItemTypes(communityId, repositoryId, repositoryFolderId)`—Get the item types that the context user is allowed to create in the repository folder in a community.
- `getAllowedItemTypes(communityId, repositoryId, repositoryFolderId, filter)`—Get the item types, filtered by type, that the context user is allowed to create in the repository folder in a community.

Get information about an item type associated with a repository

- `getItemType(repositoryId, repositoryItemId)`—Get information about an item type associated with a repository.
- `getItemType(communityId, repositoryId, repositoryItemId)`—Get information about an item type associated with a repository in a community.

Chatter Feeds

These methods are in the `ConnectApi.ChatterFeeds` class.

Get the supported emojis for the org

- `getSupportedEmojis()`—Get supported emojis for the org.
To get the list, emojis must be enabled in your org.

Like or unlike a comment

- `updateLikeForComment(communityId, commentId, isLikedByCurrentUser)`—Like or unlike a comment.

To like a comment, set the `isLikedByCurrentUser` parameter to `true`. To unlike a comment, set it to `false`.

Like or unlike a post

- `updateLikeForFeedElement(communityId, feedElementId, isLikedByCurrentUser)`—Like or unlike a feed element.

To like a post, set the `isLikedByCurrentUser` parameter to `true`. To unlike a post, set it to `false`.

Update a feed element with a shared feed entity

- `updateFeedElement(communityId, feedElementId, feedElement)`

Use this existing method with the new `ConnectApi.FeedEntityShareCapabilityInput` class.



Note: The `shareFeedElement(communityId, subjectId, feedElementType, originalFeedElementId)` method is no longer supported for sharing feed elements.

Create a feed element that has a shared feed entity

- `postFeedElement(communityId, feedElement)`

Use this existing method with the new `ConnectApi.FeedEntityShareCapabilityInput` class.

Get a stream feed

- `getFeed(communityId, feedType, subjectId)`

Use this existing method, where `feedType` is `Streams` and `subjectId` is the stream ID.

- `getFeed(communityId, feedType, subjectId, sortParam)`

Use this existing method, where `feedType` is `Streams` and `subjectId` is the stream ID.

Get feed elements from a stream feed

- `getFeedElementsFromFeed(communityId, feedType, subjectId)`

Use this existing method, where `feedType` is `Streams` and `subjectId` is the stream ID.

- `getFeedElementsFromFeed(communityId, feedType, subjectId, pageParam, pageSize, sortParam)`

Use this existing method, where `feedType` is `Streams` and `subjectId` is the stream ID.

- `getFeedElementsFromFeed(communityId, feedType, subjectId, recentCommentCount, density, pageParam, pageSize, sortParam)`

Use this existing method, where `feedType` is `Streams` and `subjectId` is the stream ID.

Create, delete, get information about, and update feed streams

- `createStream(communityId, streamInput)`—Create a Chatter feed stream.
- `deleteStream(communityId, streamId)`—Delete a Chatter feed stream.
- `getStream(communityId, streamId)`—Get information about a Chatter feed stream.
- `getStreams(communityId)`—Get the Chatter feed streams for the context user.
- `updateStream(communityId, streamId, streamInput)`—Update a Chatter feed stream.

Get the direct message feed

- `getFeed(communityId, feedType)`

Use this existing method, where `feedType` is `DirectMessages`.

- `getFeed(communityId, feedType, sortParam)`

Use this existing method, where `feedType` is `DirectMessages` and `sortParam` is `LastModifiedDateDesc`.

Get feed elements from the direct message feed

- `getFeedElementsFromFeed(communityId, feedType)`

Use this existing method, where `feedType` is `DirectMessages`.

- `getFeedElementsFromFeed(communityId, feedType, pageParam, pageSize, sortParam)`

Use this existing method, where `feedType` is `DirectMessages` and `sortParam` is `LastModifiedDateDesc`.

- `getFeedElementsFromFeed(communityId, feedType, recentCommentCount, density, pageParam, pageSize, sortParam)`

Use this existing method, where `feedType` is `DirectMessages` and `sortParam` is `LastModifiedDateDesc`.

Update a direct message

- `updateFeedElement(communityId, feedElementId, feedElement)`

Use this existing method with the new `ConnectApi.DirectMessageCapabilityInput` class.

Create a direct message

- `postFeedElement(communityId, feedElement)`

Use this existing method with the new `ConnectApi.DirectMessageCapabilityInput` class.

Get or search a list of the top unanswered questions in a community

- `getFeedElementsFromFeed(communityId, feedType, recentCommentCount, density, pageParam, pageSize, sortParam, filter)`

Use the existing method, where `feedType` is `Home`, `sortParam` is `MostViewed`, and `filter` is `UnansweredQuestions`.

- `searchFeedElementsInFeed(communityId, feedType, recentCommentCount, density, pageParam, pageSize, sortParam, q, filter)`

Use this existing method, where `feedType` is `Home`, `sortParam` is `MostViewed`, and `filter` is `UnansweredQuestions`.

Get the pending review feed

- `getFeed(communityId, feedType)`, where `feedType` is `PendingReview`.
- `getFeed(communityId, feedType, sortParam)`, where `feedType` is `PendingReview`.

Get and search feed posts and comments that are pending review

- `getFeedElementsFromFeed(communityId, feedType)`, where `feedType` is `PendingReview`.
- `getFeedElementsFromFeed(communityId, feedType, pageParam, pageSize, sortParam)`, where `feedType` is `PendingReview`.
- `getFeedElementsFromFeed(communityId, feedType, recentCommentCount, density, pageParam, pageSize, sortParam)`, where `feedType` is `PendingReview`.
- `searchFeedElementsInFeed(communityId, feedType, q)`, where `feedType` is `PendingReview`.
- `searchFeedElementsInFeed(communityId, feedType, pageParam, pageSize, sortParam, q)`, where `feedType` is `PendingReview`.

- `searchFeedElementsInFeed(communityId, feedType, recentCommentCount, density, pageParam, pageSize, sortParam, q)`, where `feedType` is `PendingReview`.

Email Merge Field Service

This method is in the new `ConnectApi.EmailMergeFieldService` class.

Extract a list of merge fields for an object

- `getMergeFields(objectApiNames)`—Extract the merge fields for a specific object.

Groups

This method is in the `ConnectApi.ChatterGroups` class.

Invite internal and external users to join a group

- `inviteUsers(groupId, invite)`—Invite internal and external users to join a group.

Managed Topics

This method is in the `ConnectApi.ManagedTopics` class.

Get managed topics associated with a list of up to 100 topics

- `getManagedTopics(communityId, managedTopicType, recordIds, depth)`
Use this existing method, where `recordIds` is a list of up to 100 topic IDs.

SalesforceInbox

This method is in the `ConnectApi.SalesforceInbox` class.

Share specific emails or events with certain groups of users

- `shareActivity(activityId, sharingInfo)`—Share specific emails or events with certain groups of users.

New and Changed Chatter in Apex Input Classes

Chatter Feeds

`ConnectApi.ChatterStreamInput`

This new input class has these properties.

- `description`—Description of the stream, up to 1,000 characters.
- `name`—Name of the stream, up to 120 characters.
- `subscriptionsToAdd`—List of up to 25 entities whose feeds are included in the stream.
- `subscriptionsToRemove`—List of entities whose feeds are removed from the stream.

`ConnectApi.DirectMessageCapabilityInput`

This new input class is a subclass of `ConnectApi.FeedElementCapabilityInput`. It has these properties.

- `membersToAdd`—List of user IDs for members to include in the direct message.
- `subject`—Subject of the direct message.

`ConnectApi.FeedElementCapabilitiesInput`

This input class has these new properties.

- `directMessage`—Describes the direct message.
- `feedEntityShare`—Describes the feed entity shared with the feed element.

ConnectApi.FeedEntityShareCapabilityInput

This new input class is a subclass of `ConnectApi.FeedElementCapabilityInput`. It has one property.

- `feedEntityId`—ID of the feed entity to share with a feed element.

ConnectApi.FeedItemInput

The `originalItemId` property is no longer supported. Use the `capabilities.feedEntityShare.feedEntityId` property instead.

ConnectApi.StreamSubscriptionInput

This new input class has one property.

- `entity`—ID of any feed-enabled entity, such as a group, record, or user, that the context user can access. When subscribed, the entity's feed is included in the feed stream.

Content Hub

ConnectApi.ContentHubFieldValueInput

This new input class has these properties.

- `name`—Name of the item field.
- `value`—Value of the item field.

ConnectApi.ContentHubItemInput

This new input class has these properties.

- `fields`—List of fields for the item to be created.
- `itemTypeId`—ID of the item type.

Groups

ConnectApi.InviteInput

This new input class has these properties.

- `invitees`—List of email addresses to send the invitation to.
- `message`—Message to include in the invitation.

Salesforce Inbox

ConnectApi.ActivitySharingInput

This new input class has these properties.

- `groupsToShareWith`—List of IDs for the groups that you share the activity with. Valid only if `sharingType` is `MyGroups`.
- `sharingType`—Type of sharing operation.

New and Changed Chatter in Apex Output Classes

Content Hub

ConnectApi.AbstractContentHubItem

This new abstract output class is a super class of `ConnectApi.ContentHubItemTypeDetail` and `ConnectApi.ContentHubItemTypeSummary`. It has these properties.

- `contentStreamSupport`—Specifies support for content streaming. Values are:
 - `ContentStreamAllowed`
 - `ContentStreamNotAllowed`
 - `ContentStreamRequired`
- `description`—Description of the item type.
- `displayName`—Display name of the item type.
- `id`—ID of the item type.
- `isVersionable`—Indicates whether the item type can have versions.
- `url`—URL to the detailed information of the item type.

ConnectApi.AbstractDirectoryEntrySummary

This new abstract output class is a super class of `ConnectApi.RepositoryGroupSummary` and `ConnectApi.RepositoryUserSummary`. It has these properties.

- `domain`—Domain of the directory entry.
- `email`—Email of the directory entry.
- `id`—ID of the directory entry.
- `type`—Type of directory entry. Values are:
 - `GroupEntry`
 - `UserEntry`

ConnectApi.AbstractRepositoryFile

This new abstract output class is a subclass of `ConnectApi.AbstractRepositoryItem` and a super class of `ConnectApi.RepositoryFileDetail` and `ConnectApi.RepositoryFileSummary`. It has these properties.

- `checkinComment`—Checkin comment of the file.
- `contentSize`—Length in bytes of the content of the file.
- `downloadUrl`—URL to the repository file content.
- `externalContentUrl`—URL of this file's content in the external system.
- `externalDocumentUrl`—URL of this file in the external system.
- `externalFilePermissionInformation`—External file permission information, such as available groups, available permission types, and current sharing status, or `null` if `includeExternalFilePermissionsInfo` is `false`.
- `mimeType`—Mime type of the file.
- `previewUrlThumbnail`—URL to the thumbnail preview (240 x 180 PNG).
- `previewUrlThumbnailBig`—URL to the big thumbnail preview (720 x 480 PNG).
- `previewUrlThumbnailTiny`—URL to the tiny thumbnail preview (120 x 90 PNG).
- `prevIEWSUrl`—URL to the prevIEWS.
- `title`—Title of the file.
- `versionId`—ID of the file version in the external system.

ConnectApi.AbstractRepositoryFolder

This new abstract output class is a subclass of `ConnectApi.AbstractRepositoryItem` and a super class of `ConnectApi.RepositoryFolderDetail` and `ConnectApi.RepositoryFolderSummary`. It has these properties.

- `externalFolderUrl`—URL of this folder in the external system.
- `folderItemsUrl`—URL that lists the files and folders in this folder.

- `path`—Absolute path of the folder in the external system.

ConnectApi.AbstractRepositoryItem

This new abstract output class is a super class of `ConnectApi.AbstractRepositoryFile` and `ConnectApi.AbstractRepositoryFolder`. It has these properties.

- `createdBy`—Name of the user who created the item.
- `createdDate`—Date the item was created.
- `description`—Description of the item.
- `id`—ID of the item.
- `itemTypeUrl`—URL to the item type information.
- `modifiedBy`—Name of the user who last modified the item.
- `modifiedDate`—Date the item was last modified.
- `motif`—Motif of the item.
- `name`—Name of the item.
- `repository`—Item external repository.
- `type`—Item type, `file` or `folder`.
- `url`—The URL to the item.

ConnectApi.ContentHubAllowedItemTypeCollection

This new output class has one property.

- `allowedItemTypes`—Collection of item types that the context user is allowed to create in a repository folder.

ConnectApi.ContentHubFieldDefinition

This new output class has these properties.

- `displayName`—Label or caption of this field.
- `isMandatory`—Specifies whether this field is mandatory for the item type.
- `maxLength`—Maximum length of the value of this field.
- `name`—Name of the field.
- `type`—Specifies the data type of the value of the field. Values are:
 - `BooleanType`
 - `DateTimeType`
 - `DecimalType`
 - `HtmlType`
 - `IdType`
 - `IntegerType`
 - `StringType`
 - `UriType`
 - `XmlType`

ConnectApi.ContentHubItemTypeDetail

This new output class is a subclass of `ConnectApi.AbstractContentHubItemType`. It has one property.

- `fields`—List of fields that the context user is allowed to set in the metadata of this item type.

ConnectApi.ContentHubItemTypeSummary

This new output class is a subclass of `ConnectApi.AbstractContentHubItemType` and has no properties.

ConnectApi.ContentHubPermissionType

This new output class has these properties.

- `id`—Internal ID of the permission type in the repository.
- `label`—Label as returned by the repository.

ConnectApi.ContentHubProviderType

This new output class has these properties.

- `label`—Localized label of the provider type.
- `type`—Provider type. Values are:
 - ContentHubBox
 - ContentHubGDrive
 - ContentHubSharepoint
 - ContentHubSharepointOffice365
 - ContentHubSharepointOneDrive
 - SimpleUrl

ConnectApi.ContentHubRepository

This new output class is a subclass of `ConnectApi.ActorWithId`. It has these properties.

- `features`—Repository features.
- `label`—Repository label.
- `name`—Repository name.
- `providerType`—Repository provider type.
- `rootFolderItemsUrl`—URL to the list of items in the repository root folder.

ConnectApi.ContentHubRepositoryCollection

This new output class has these properties.

- `currentPageUrl`—URL to the current page of repositories.
- `nextPageUrl`—URL to the next page of repositories.
- `previousPageUrl`—URL to the previous page of repositories.
- `repositories`—Collection of repositories.

ConnectApi.ContentHubRepositoryFeatures

This new output class has these properties.

- `canBrowse`—Specifies whether the repository's folder hierarchy can be browsed (`true`) or not (`false`).
- `canSearch`—Specifies whether the repository can be searched (`true`) or not (`false`).

ConnectApi.ExternalFilePermissionInformation

This new output class has these properties.

- `externalFilePermissionTypes`—Available permission types for the parent folder of the external file, or `null` for non-external files or when `includeExternalFilePermissionsInfo` is `false`.
- `externalFilePermissionsFailure`—`true` if the retrieval of external file information failed or if `includeExternalFilePermissionsInfo` is `false`; `false` otherwise.
- `externalFilePermissionsInfoFailureReason`—Explanation of the failure if a failure occurred and `includeExternalFilePermissionsInfo` is `true`; `null` otherwise.
- `externalFileSharingStatus`—Specifies the sharing status for the external file. Values are:

- DomainSharing—File is shared with the domain.
 - PrivateSharing—File is private or shared only with individuals.
 - PublicSharing—File is publicly shared.
- repositoryPublicGroups—Available public groups in the external repository or null for non-external files or when includeExternalFilePermissionsInfo is false.

ConnectApi.FilePreview

This new output class has these properties.

- format—Format of the preview.
- previewUrlCount—Total number of preview URLs for this preview format.
- previewUrls—List of file preview URLs.
- status—Availability status of the preview.
- url—URL for the file preview.

ConnectApi.FilePreviewCollection

This new output class has these properties.

- fileId—ID of the file.
- previews—Previews supported for the file.
- url—URL to the current page of file previews.

ConnectApi.FilePreviewUrl

This new output class has these properties.

- pageNumber—Preview page number starting from zero, or null for PDF files.
- previewUrl—File preview URL.

ConnectApi.RepositoryFileDetail

This new output class is a subclass of `ConnectApi.AbstractRepositoryFile` and has no properties.

ConnectApi.RepositoryFileSummary

This new output class is a subclass of `ConnectApi.AbstractRepositoryFile` and has no properties.

ConnectApi.RepositoryFolderDetail

This new output class is a subclass of `ConnectApi.AbstractRepositoryFolder` and has no properties.

ConnectApi.RepositoryFolderItem

This new output class has these properties.

- file—if the folder item is a file, the file summary. If the folder item is a folder, null.
- folder—if the folder item is a folder, the folder summary. If the folder item is a file, null.
- type—Specifies the type of item in a folder. Values are:
 - file
 - folder

ConnectApi.RepositoryFolderItemsCollection

This new output class has these properties.

- currentPageUrl—URL to the current page.
- items—Collection of items in a repository folder.
- nextPageUrl—URL to the next page.
- previousPageUrl—URL to the previous page.

ConnectApi.RepositoryFolderSummary

This new output class is a subclass of `ConnectApi.AbstractRepositoryFolder` and has no properties.

ConnectApi.RepositoryGroupSummary

This new output class is a subclass of `ConnectApi.AbstractDirectoryEntrySummary`. It has these properties.

- `groupType`—Specifies the type of group. Values are:
 - `Everybody`—Group is public to everybody.
 - `EverybodyInDomain`—Group is public to everybody in the same domain.
 - `Unknown`—Group type is unknown.
- `name`—Name of the group.

ConnectApi.RepositoryUserSummary

This new output class is a subclass of `ConnectApi.AbstractDirectoryEntrySummary`. It has these properties.

- `firstName`—First name of the user.
- `lastName`—Last name of the user.

Chatter Feeds

ConnectApi.ChatterStream

This new output class has these properties.

- `createdDate`—Date the stream was created.
- `description`—Description of the stream.
- `id`—18-character ID of the stream.
- `name`—Name of the stream.
- `subscriptions`—List of entities whose feeds are included in the stream.
- `url`—URL to the stream.

ConnectApi.ChatterStreamPage

This new output class has these properties.

- `currentPageUrl`—URL to the current page of streams.
- `items`—List of streams.
- `nextPageUrl`—URL to the next page of streams.
- `total`—Total number of streams in the collection.

ConnectApi.DirectMessageCapability

This new output class is a subclass of `ConnectApi.FeedElementCapability`. It has these properties.

- `members`—Members included in the direct message.
- `subject`—Subject of the direct message.

ConnectApi.DirectMessageMemberPage

This new output class has these properties.

- `currentPageToken`—Page token to access the current page of direct message members.
- `currentPageUrl`—URL to the current page of direct message members.
- `nextPageToken`—Page token to access the next page of direct message members.
- `nextPageUrl`—URL to the next page of direct message members.

- `users`—Collection of direct message members.

ConnectApi.Emoji

This new output class has these properties.

- `category`—Emoji category.
- `shortcut`—Emoji shortcut.
- `unicodeCharacter`—Emoji's unicode character.

ConnectApi.EmojiCollection

This new output class has one property.

- `emojis`—Collection of emojis.

ConnectApi.Features

This output class has these new properties.

- `feedStreamEnabled`—Indicates whether Chatter feed streams are enabled for the org.
- `maxEntitySubscriptionsPerStream`—Specifies the maximum number of feed-enabled entities that can be subscribed to in a Chatter stream.
- `maxStreamsPerPerson`—Specifies the maximum number of Chatter streams that a user can have.

ConnectApi.FeedElementCapabilities

This output class has these new properties.

- `directMessage`—If a feed element has this capability, it's a direct message.
- `feedEntityShare`—If a feed element has this capability, a feed entity is shared with it.

ConnectApi.FeedEntityNotAvailableSummary

This new output class is a subclass of `ConnectApi.FeedEntitySummary` and has no properties.

ConnectApi.FeedEntityShareCapability

This new output class is a subclass of `ConnectApi.FeedElementCapability`. It has one property.

- `feedEntity`—Summary of the feed entity that is shared with the feed element.

ConnectApi.FeedEntitySummary

This new output class is a superclass of `ConnectApi.FeedItemSummary` and `ConnectApi.FeedEntityNotAvailableSummary` and has these properties.

- `actor`—Entity that created the feed entity.
- `body`—Information about the feed entity.
- `createdDate`—ISO8601 date string, for example, 2011-02-25T18:24:31.000Z, when the entity was created.
- `feedElementType`—Type of feed entity.
- `id`—18-character ID of the feed entity.
- `isEntityAvailable`—Specifies whether the entity is available. If `false`, either the user doesn't have access to the entity or the entity was deleted.
- `parent`—Parent of the feed entity.
- `relativeCreatedDate`—Relative created date, for example, "2h ago."
- `url`—URL to the feed entity.

ConnectApi.FeedItem

This output class has one new property.

- `isSharable`—Indicates whether the feed item can be shared.



Note: The `canshare` property is no longer supported.

ConnectApi.FeedItemSummary

This new output class is a subclass of `ConnectApi.FeedEntitySummary` and has these properties.

- `capabilities`—Container for all capabilities that can be included with a feed item.
- `header`—Title of the post. This property contains renderable plain text for all the message segments. If a client doesn't know how to render a feed element type, it should render this text.
- `modifiedDate`—When the feed item was modified in the form of an ISO8601 date string, for example, 2011-02-25T18:24:31.000Z.
- `originalFeedItem`—Reference to the original feed item if this feed item is a shared feed item; otherwise, `null`.
- `originalFeedItemActor`—If this feed item is a shared feed item, information about the original poster of the feed item; otherwise, `null`.
- `photoUrl`—URL of the photo associated with the feed item.
- `visibility`—Specifies who can see a feed item.

ConnectApi.SocialAccount

This output class has one new property.

- `socialPersonaId`—ID of the social persona, if the `externalSocialAccountId` isn't available.

ConnectApi.SupportedEmojis

This new output class has one property.

- `supportedEmojis`—Collection of supported emojis.

Email Merge Field Services

ConnectApi.EmailMergeFieldInfo

This new output class has one property.

- `entityToMergeFieldsMap`—Map for multiple objects and their merge field collections.

ConnectApi.EmailMergeFieldCollection

This new output class has one property.

- `mergeFields`—List of merge fields for a single object.

Groups

ConnectApi.Invitation

This new output class has these properties.

- `email`—Email address of the user.
- `status`—Specifies the status of an invitation to join a group. Values are:
 - `ActedUponUser`—The user was added to the group. An email was sent asking the user to visit the group.
 - `Invited`—An email was sent asking the user to sign up for the org.
 - `MaxedOutUsers`—The group has the maximum allowed members.
 - `MultipleError`—The user wasn't invited due to multiple errors.
 - `NoActionNeededUser`—The user is already a member of the group.
 - `NotVisibleToExternalInviter`—The user is not accessible to the user sending the invitation.
 - `Unhandled`—The user couldn't be added to the group for an unknown reason.

- `userId`—ID of the user.

ConnectApi.Invitations

This new output class has one property.

- `invitations`—Collection of invitations.

Salesforce Inbox

ConnectApi.ActivitySharingResult

This new output class has one property.

- `success`—Specifies whether the share operation succeeded or not.

Users

ConnectApi.Stamp

This new output class has these properties.

- `description`—Description of the stamp.
- `id`—ID of the stamp.
- `imageUrl`—Image URL of the stamp.
- `label`—Label of the stamp.

ConnectApi.User

This output class has one new property.

- `stamps`—Collection of the user's stamps.

New and Changed Chatter in Apex Enums

For information about these enums, see ConnectApi Enums in *Apex Developer Guide*.

ConnectApi.ActivitySharingTypeEnum

This new enum has these values.

- `Everyone`—The activity is shared with everyone.
- `MyGroups`—The activity is shared only with a selection of the context user's groups.
- `OnlyMe`—The activity is private.

ConnectApi.ContentHubDirectoryEntryType

This new enum has these values.

- `GroupEntry`
- `UserEntry`

ConnectApi.ContentHubExternalItemSharingType

This new enum has these values.

- `DomainSharing`—File is shared with the domain.
- `PrivateSharing`—File is private or shared only with individuals.
- `PublicSharing`—File is publicly shared.

ConnectApi.ContentHubGroupType

This new enum has these values.

- `Everybody`—Group is public to everybody.

- `EverybodyInDomain`—Group is public to everybody in the same domain.
- `Unknown`—Group type is unknown.

ConnectApi.ContentHubItemType

This new enum has these values.

- `Any`—Includes files and folders.
- `FilesOnly`—Includes files only.
- `FoldersOnly`—Includes folders only.

ConnectApi.ContentHubStreamSupport

This new enum has these values.

- `ContentStreamAllowed`
- `ContentStreamNotAllowed`
- `ContentStreamRequired`

ConnectApi.ContentHubVariableType

This new enum has these values.

- `BooleanType`
- `DateTimeType`
- `DecimalType`
- `HtmlType`
- `IdType`
- `IntegerType`
- `StringType`
- `UriType`
- `XmlType`

ConnectApi.FeedElementCapabilityType

This enum has these new values.

- `FeedEntityShare`—The feed element has a feed entity shared with it.
- `DirectMessage`—The feed element is a direct message.

ConnectApi.FeedSortOrder

This enum has one new and one updated value.

- `MostViewed`—Sorts the feed by the most viewed content. This value is available only for `Home` feeds when the `ConnectApi.FeedFilter` is set to `UnansweredQuestions`.
- `Relevance`—This value is available for `Company`, `Home`, and `Topics` feeds.

ConnectApi.FeedType

This enum has these new values.

- `DirectMessages`—Contains all feed items of the context user's direct messages.
- `PendingReview`—Contains all feed items and comments that are pending review.
- `Streams`—Contains all feed items for any combination of up to 25 feed-enabled entities, such as people, groups, and records, that the context user subscribes to in a stream.

ConnectApi.FilePreviewFormat

This new enum specifies the format of the file preview. Values are:

- `Pdf`—Preview format is PDF.
- `Svg`—Preview format is compressed SVG.
- `Thumbnail`—Preview format is 240 x 180 PNG.
- `ThumbnailBig`—Preview format is 720 x 480 PNG.
- `ThumbnailTiny`—Preview format is 120 x 90 PNG.

ConnectApi.FilePreviewStatus

This new enum specifies the status of the file preview. Values are:

- `Available`—Preview is available.
- `InProgress`—Preview is being processed.
- `NotAvailable`—Preview is unavailable.
- `NotScheduled`—Generation of the preview isn't scheduled yet.

ConnectApi.FolderItemType

This new enum has these values.

- `file`
- `folder`

ConnectApi.GroupViralInvitationsStatus

This new enum specifies the status of a viral invitation to join a group. Values are:

- `ActedUponUser`—The user was added to the group. An email was sent asking the user to visit the group.
- `Invited`—An email was sent asking the user to sign up for the org.
- `MaxedOutUsers`—The group has the maximum allowed members.
- `MultipleError`—The user wasn't invited due to multiple errors.
- `NoActionNeededUser`—The user is already a member of the group.
- `NotVisibleToExternalInviter`—The user is not accessible to the user sending the invitation.
- `Unhandled`—The user couldn't be added to the group for an unknown reason.

ConnectApi.RecommendationExplanationType

This enum has one new value.

- `ArticleHasRelatedContent`—Indicates articles that are recommended because they have content that is related to a context article.

ConnectApi.SocialNetworkProvider

This enum has these new values.

- `KakaoTalk`
- `Kik`
- `Messenger`
- `QQ`
- `SMS`
- `Snapchat`
- `Telegram`

API

Access more metadata types and data objects in API version 39.0.

EDITIONS

IN THIS SECTION:

[New and Changed Objects](#)

Access more data through these new and changed standard objects.

[SOSL](#)

Salesforce Object Search Language (SOSL) includes a new WITH HIGHLIGHT clause and updated description for the " " operator.

[REST API](#)

REST API includes changed resources and a generally available resource for making several requests at once.

[SOAP API](#)

SOAP API includes new, changed, and deprecated calls.

[Chatter REST API](#)

Integrate mobile apps, intranet sites, and third-party web applications with Salesforce using Chatter REST API. In this release, you can create and manage custom feeds with streams, send direct messages, share feed posts, use activity reminders, and more.

[Reports and Dashboards REST API](#)

Reports and Dashboards REST API enhancements include new a new resource describing report types, lets you create reports and delete report instances, and includes analytics notifications for report subscriptions in Lightning Experience.

[Lightning API—Developer Preview](#)

Use Lightning API to create native mobile apps and custom web apps with your own branding and look and feel. A single REST request returns enough metadata, layout information, and data to display, edit, or create a record! Lightning API supports most objects that are available in Lightning Experience.

[Bulk API](#)

Bulk API now supports the queryAll operation and SOQL relationships. Also, we're moving toward the next iteration of the Bulk API with a pilot version of Bulk API 2.0. This new API provides a simple interface for quickly loading large amounts of data into your Salesforce org.

[Messaging](#)

Messaging includes enhancements to the beta feature, Platform Events, and a connector for Streaming API and Platform Events.

[Tooling API](#)

Tooling API includes new and changed objects, calls, and resources.

[Metadata API](#)

Metadata API includes new and changed types and fields.

[Data Services](#)

You can define and query composite primary keys for custom BigObjects, and additional functions are supported by Async SOQL.

[Open CTI API](#)

You can now use Open CTI for Lightning Experience in Lightning console apps.

[Build AI-Powered Apps Fast \(Pilot\)](#)

With the Predictive Vision Service, developers can harness the power of image recognition to build AI-powered apps. Without a data science degree! You can train deep-learning models to recognize and classify images at scale with the Predictive Vision Service REST API. Leverage pre-trained classifiers, or train your own custom classifiers to solve a vast array of specialized image-recognition use cases. Developers can bring the power of image recognition to CRM and third-party applications so that end users across sales, service, and marketing can discover new insights about their customers and predict outcomes that lead to smarter decisions.

[Other API Changes](#)

We've updated Data.com terminology.

New and Changed Objects

Access more data through these new and changed standard objects.

IN THIS SECTION:

[New Objects](#)

These objects are new.

[Changed Objects](#)

These objects have changed.

New Objects

These objects are new.

AssetTokenEvent

Represents an event associated with an asset token, such as token issuance and registration of a connected device as an Asset.

ForecastingUserPreference

Represents the forecasting selections that a user has made, such as display options, date range, forecasting type, and currency.

QuoteFeed

Represents a single feed item on the quote record detail page.

SecurityCustomBaseline

Provides the ability to read, create, and delete user-defined custom security baselines, which define an org's security standards.

Stamp

Represents a User Specialty.

StampAssignment

Represents assignment of a User Specialty to a user.

VoiceCall

Represents a Voice phone call.

VoiceCallList

Represents a prioritized list of numbers to call.

VoiceCallListItem

Represents a single phone number in a prioritized call list.

VoiceCallListShare

Represents a sharing entry on a VoiceCallList.

VoiceCallShare

Represents a sharing entry on a VoiceCall object.

VoiceMailContent

Represents a voicemail message.

VoiceMailContentShare

Represents a sharing entry on a VoiceMailContent.

VoiceUserLine

Represents a user's forwarding phone number.

VoiceUserLineShare

Represents a sharing entry on a user's phone number.

VoiceVendorInfo

Represents information about the voice provider's vendor.

VoiceVendorLine

Represents a user's phone number reserved with the vendor.

VoiceVendorLineShare

Represents a sharing entry on a vendor's phone number.

Changed Objects

These objects have changed.

Changed Objects

AccountContactRelation

The name of the `CurrencyIsoCode` field has been changed to `AccountContactRelationshipCurrency`.

CampaignMemberStatus

- The `layoutable` attribute is now true.
- The `nillable` property of the `SortOrder` field has changed to true.
- The `updateable` property of the `Label` field has changed to true.

Contract

The `status` field no longer has the `Defaulted on create` property.

Event

Depending on your API version, errors with the `DurationInMinutes` and `EndDateTime` fields may appear in different places.

- Versions 38.0 and before—Errors always appear in the `DurationInMinutes` field.
- Versions 39.0 and later—if there's no value for the `DurationInMinutes` field, errors appear in the `EndDateTime` field. Otherwise, they appear in the `DurationInMinutes` field.

EmailMessage

The following fields have been added:

- `MessageIdentifier`—The ID of the email message.
- `ThreadIdentifier`—The ID of the email thread the email message belongs to.

EmailTemplate

The `RelatedEntityType` field has been added.

The `EntityType` field has been deprecated. Use the new field, `RelatedEntityType`, instead.

EventLogFile

The `EventLogFile` object has the following new event types.

- Lightning Error
- Lightning Interaction

- Lightning Page View
- Lightning Performance

The following fields were added to the Login As event type. You can use LOGIN_KEY and SESSION_KEY together to uniquely identify a user's session. For example, use LOGIN_KEY and SESSION_KEY to show Salesforce administrators' click paths through your app while they were logged in as another user. Many other event types also include LOGIN_KEY and SESSION_KEY, giving you a complete picture of a user's activity across your org.

- **CPU_TIME**—The CPU time in milliseconds used to complete the request. This field indicates the amount of activity taking place in the app server layer, highlighting pieces of Apex or Visualforce code that need refactoring.
- **LOGIN_KEY**—The string that ties together all events in a given user's login session. It starts with a login event and ends with either a logout event or the user session expiring.
- **RUN_TIME**—The amount of time that the request took in milliseconds.
- **SESSION_KEY**—The string that ties together all events for a particular activity session. For example, URI events while the user is interacting with an Accounts page.
- **URI_ID_DERIVED**—The 18-character case insensitive ID of the URI of the page that's receiving the request.

One field has been added to the Login event type. You can use this field to determine whether your users' login attempts to your Salesforce org were successful.

- **LOGIN_STATUS**—The status of the login attempt. For successful logins, the value is LOGIN_NO_ERROR. All other values indicate errors or authentication issues. For more information, see "Login Event Type - LOGIN_STATUS Values" in the *Object Reference for Salesforce and Force.com*.

ExternalDataSource

The new `AuthProviderId` field contains the Salesforce ID of the authentication provider, which defines the service that provides the login process and approves access to the external system.

You can now set the `isWritable` field to `true` with the cross-org adapter for Salesforce Connect.

ExternalDataUserAuth

The new `AuthProviderId` field contains the Salesforce ID of the authentication provider, which defines the service that provides the login process and approves access to the external system.

FeedAttachment

The value `FeedEntity` was added to the `Type` picklist. `FeedEntity` is a feed entity, such as a post, that's shared. Available in API version 39 and later in Lightning Experience.

FeedItem

The `HasFeedEntity` field was added to `FeedItem`. `HasFeedEntity` indicates whether the feed item has a feed entity, such as a post, as an attachment. Available in API version 39 and later when sharing a feed entity in Lightning Experience.

Lead

The following fields were added.

- `ActivityMetricId`
- `ScoreIntelligenceId`

LiveChatBlockingRule

The `Language` field no longer has the Defaulted on create property.

LiveChatButton

The `Language` field no longer has the Defaulted on create property.

LiveChatSensitiveDataRule

The `Language` field no longer has the Defaulted on create property.

LiveChatUserConfig

The `Language` field no longer has the `Defaulted on create` property.

MatchingRule

The following field was added.

SubjectSubType

Read-only. Indicates if the matching rule is defined for the `Person` subtype of `Account`.

NamedCredential

The new `AuthProviderId` field contains the Salesforce ID of the authentication provider, which defines the service that provides the login process and approves access to the external system.

NetworkActivityAudit

The `ParentEntityId` field now supports direct messages.

NetworkMember

The new `PreferencesDisableDirectMessageEmail` field has been added. When set to `false`, community members receive notifications for direct messages.

ObjectTerritory2AssignmentRule

The `Language` field no longer has the `Defaulted on create` property.

OrderItem

The `Product2Id` field has been added.

PermissionSet

The `IsCustom` field has been added.

PresenceDeclineReason

The `Language` field no longer has the `Defaulted on create` property.

PresenceUserConfig

The `Language` field no longer has the `Defaulted on create` property.

QueueRoutingConfig

The `Language` field no longer has the `Defaulted on create` property. Plus, the following field has been added:

- `OverflowAssigneeId` – The ID of the user or queue that's set as the Overflow Assignee.

QuoteDocument

The `ContentVersionDocumentId` field has been added. This field is the ID of a document's version.

QuoteLineItem

In API 38.0 and earlier, if `Product2Id` is populated with `PricebookEntryId` data, you receive an error message. In API 39.0 and later, `Product2Id` is made null, and `PricebookEntryId` is populated with the `PricebookEntryId` data.

Pricebook2

The `isArchived` field has been added.

Territory2Type

The `Language` field no longer has the `Defaulted on create` property.

TenantSecret

The `Type` restricted picklist has been added with two values.

- `Data`—A tenant secret that encrypts data stored in the Salesforce database. Includes data in files, fields, and attachments, but not search index files.
- `SearchIndex`—A tenant secret that encrypts search index files.

VerificationHistory

The following fields have new picklist values.

- **Activity** field
 - ChangeEmail—The user attempted to change an email address.
 - ConnectToopher—The user attempted to connect Salesforce Authenticator.
 - ConnectTotp—The user attempted to connect a one-time password generator.
 - ConnectU2F—The user attempted to register a U2F security key.
- **Policy** field
 - PageAccess—Identity verification required for users attempting to perform an action, such as changing an email address or adding a two-factor authentication method.

Vote

The following fields have been added:

- `LastModifiedById` – ID of the user most recently associated with this vote.
- `LastModifiedDate` – The datetime when this vote was last modified.

SEE ALSO:

[See the Actions of Salesforce Administrators Who Logged In as Another User](#)

SOSL

Salesforce Object Search Language (SOSL) includes a new WITH HIGHLIGHT clause and updated description for the " " operator.

IN THIS SECTION:

[Changed Resource: FIND {SearchQuery}](#)

The description of the `FIND` resource now indicates that the " " operator returns matches for the exact order of the search terms entered.

[Highlight Matching Terms in Search Results by Using the WITH HIGHLIGHT Clause](#)

`WITH HIGHLIGHT` is an optional clause that you can add to a SOSL query for account, campaign, contact, lead, opportunity, quote, and user searches. In search results, it highlights the terms that match the search query, making it easier to identify relevant content.

[Changed Resource: FIND {SearchQuery}](#)

The description of the `FIND` resource now indicates that the " " operator returns matches for the exact order of the search terms entered.

Highlight Matching Terms in Search Results by Using the WITH HIGHLIGHT Clause

`WITH HIGHLIGHT` is an optional clause that you can add to a SOSL query for account, campaign, contact, lead, opportunity, quote, and user searches. In search results, it highlights the terms that match the search query, making it easier to identify relevant content.

For example:

```
FIND {salesforce} IN ALL FIELDS RETURNING Account (Name, Description) WITH HIGHLIGHT
```



Note: The `WITH HIGHLIGHT` clause does not return snippets in search results. To return snippets that include highlighted matching terms, use `WITH SNIPPET`.

REST API

REST API includes changed resources and a generally available resource for making several requests at once.

IN THIS SECTION:

[Make Several Requests at Once with the Composite Resource \(Generally Available\)](#)

Imagine you're writing a mobile app. To cut down on the number of round trips between your client and Salesforce, you want to make several REST API requests in a single call. You consider the Batch resource, but Batch doesn't let you pass information between subrequests. Are you out of luck? Not anymore! The Composite resource lets you make several requests in a single call and provides a way to reference the results of one subrequest in later subrequests.

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Have you ever wanted to build your own runtime experience for Visual Workflow? Here's your chance. We're providing two resources to describe flows and three resources to describe and manipulate interviews. If you're an existing pilot customer, nothing has changed since the last release.

[Changed Resource: Search for a String](#)

The example response body that includes the `metadata` parameter changed.

[Removed Resource: FlexiPage](#)

The FlexiPage resource has been deprecated in API version 39.0 and has been removed from all previous API versions as well.

Make Several Requests at Once with the Composite Resource (Generally Available)

Imagine you're writing a mobile app. To cut down on the number of round trips between your client and Salesforce, you want to make several REST API requests in a single call. You consider the Batch resource, but Batch doesn't let you pass information between subrequests. Are you out of luck? Not anymore! The Composite resource lets you make several requests in a single call and provides a way to reference the results of one subrequest in later subrequests.

Composite is supported for the following resources.

- All sObject resources (`vXX.X/sobjects/`)
- The Query resource (`vXX.X/query/?q=soql`)
- The QueryAll resource (`vXX.X/queryAll/?q=soql`)

You can have up to 25 subrequests in a single call. Up to 10 of these subrequests can be query operations, including Query, QueryAll, and "Query More" requests to obtain the next batch of query results.

Composite

`/vXX.X/composite`

New Resources: Flows and Flow Interviews (Pilot)

Have you ever wanted to build your own runtime experience for Visual Workflow? Here's your chance. We're providing two resources to describe flows and three resources to describe and manipulate interviews. If you're an existing pilot customer, nothing has changed since the last release.



Note: We provide Flow Runtime REST API 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. Flow Runtime REST API 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 Flow Runtime REST API in the [IdeaExchange](#).

Flows

Lists active flow definitions in your org.

```
/vXX.X/process/flows
```

Specific Flow

Lists summary information about a specific flow.

```
/vXX.X/process/flows/FlowName
```

Paused Interviews

Lists paused interviews that the running user can resume.

```
/vXX.X/process/interviews
```

New Interview

Starts a flow interview.

```
/vXX.X/process/interviews/FlowName
```

Specific Interview

Continues, pauses, or finishes an in-progress interview, or resumes a paused interview.

```
/vXX.X/process/interviews/FlowName/guid
```

SEE ALSO:

[Customize the Look and Feel of Flow Interviews with the REST API \(Pilot\)](#)

Changed Resource: Search for a String

The example response body that includes the `metadata` parameter changed.

Here's the new example:

```
{
  "searchRecords" : [ {
    "attributes" : {
      "type" : "Account",
      "url" : "/services/data/v35.0/sobjects/Account/001D000000IqhSLIAZ"
    },
    "Id" : "001D000000IqhSLIAZ",
  }, {
    "attributes" : {
      "type" : "Account",
      "url" : "/services/data/v35.0/sobjects/Account/001D000000IomazIAB"
    },
    "Id" : "001D000000IomazIAB",
  } ],
}
```

```
"metadata" : {  
    "entityMetadata" : [ {  
        "entityName" : "Account",  
        "fieldMetadata" : [ {  
  
            "name" : "Name",  
            "label" : "Account Name"  
        } ]  
    } ]  
}
```

Removed Resource: FlexiPage

The FlexiPage resource has been deprecated in API version 39.0 and has been removed from all previous API versions as well.

The FlexiPage resource returned a list of Lightning Pages and their details.

The `/vXX.X/flexiPage/` REST endpoint has been removed as part of this deprecation.

You can still get FlexiPage metadata via the Metadata and Tooling APIs, however.

SOAP API

SOAP API includes new, changed, and deprecated calls.

New, Changed, and Deprecated Calls

Changed Calls

`merge()` now supports the following:

Account hierarchies

Merge an account (the *victim*) that's part of an account hierarchy into another account (the *master*). The victim's child records become children of the master.

Reports To relationships

Merge a contact (victim) with a "reports to" relationship into another contact (master). The victim's value of `ReportsToId` is moved into the master.

Contacts and portal users

Merge a contact (victim) with an associated portal user into another contact (master). The victim's portal ID is moved into the master.

Person Accounts

Merge a person account (victim) into another person account (master).

`findDuplicates()` now finds duplicate person accounts.

Deprecated Calls

`describeFlexiPages()` and `DescribeFlexiPageResult` have been deprecated in API version 39.0 and have been removed from all previous API versions as well. You can still get FlexiPage metadata via the Metadata and Tooling APIs, however.

Chatter REST API

Integrate mobile apps, intranet sites, and third-party web applications with Salesforce using Chatter REST API. In this release, you can create and manage custom feeds with streams, send direct messages, share feed posts, use activity reminders, and more.



Note: To create custom Chatter and Communities experiences in Salesforce, use [ConnectApi \(Chatter in Apex\)](#).

IN THIS SECTION:

- [New and Changed Chatter REST API Resources](#)
- [New and Changed Chatter REST API Request Bodies](#)
- [New and Changed Chatter REST API Response Bodies](#)

New and Changed Chatter REST API Resources

Activity Reminders

Get information about an activity reminder in Salesforce Classic

Make a GET request to the new `/connect/reminders/activityId` resource.

Create an activity reminder in Salesforce Classic

Make a PUT request to the new `/connect/reminders/activityId` resource with the new Activity Reminder Input or with query parameters.

Delete an activity reminder in Salesforce Classic

Make a DELETE request to the new `/connect/reminders/activityId` resource.

Update an activity reminder in Salesforce Classic

Make a PATCH request to the new `/connect/reminders/activityId` resource with the new Activity Reminder Input or with query parameters.

Get a list of upcoming activity reminders in Salesforce Classic

Make a GET request to the new `/connect/reminders/activities` resource.

Async Queries (Pilot)

Filter BigObjects by Boolean Fields

Async SOQL supports filtering BigObjects by boolean fields.

Use MIN() and MAX() to Query Data

Calculate the minimum or maximum of the numerical values or chararrays in a single column using the MIN() and MAX() functions.



Note: MIN() and MAX() don't support picklists.

Use CALENDAR_YEAR() and CALENDAR_MONTH() to Query Data

Return a number representing the year or month from a dateTime field using the CALENDAR_YEAR() and CALENDAR_MONTH() functions.

Upsert Results to Target sObject

To upsert results to a target sObject, use `targetExternalIdField` to specify the target sObject. Include "operation": "upsert" in your request.



Note: Upsert is not supported for BigObjects.

Chatter

Get the supported emojis for the org

Make a GET request to the new `/chatter/emojis` resource.

To get the list, emojis must be enabled in your org.

Get the URL to the streams feed

Make a GET request to the new `/chatter/feeds/streams/streamId` resource.

Get all feed elements of a stream

Make a GET request to the new `/chatter/feeds/streams/streamId/feed-elements` resource.

Get streams for the context user

Make a GET request to the new `/chatter/streams` resource.

Create a stream

Make a POST request to the new `/chatter/streams` resource with the new Chatter Stream Input or with query parameters.

Get information about a stream

Make a GET request to the new `/chatter/streams/streamId` resource.

Update a stream

Make a PATCH request to the new `/chatter/streams/streamId` resource with the new Chatter Stream Input or with query parameters.

Delete a stream

Make a DELETE request to the new `/chatter/streams/streamId` resource.

Chatter Feeds

Like or unlike a comment

Make a PATCH request to the existing `/chatter/comments/commentId/likes` resource. To like a comment, set the new `isLikedByCurrentUser` parameter to `true`. To unlike a comment, set it to `false`.

Like or unlike a post

Make a PATCH request to the existing `/chatter/feed-elements/feedElementId/capabilities/chatter-likes/items` resource. To like a post, set the new `isLikedByCurrentUser` parameter to `true`. To unlike a post, set it to `false`.

Access the feed entity share capability of a feed element

Make a GET request to the new `/chatter/feed-elements/feedElementId/capabilities/feed-entity-share` resource.

Update a feed element with a shared feed entity

Make a PATCH request to the existing `/chatter/feed-elements/feedElementId` resource with the Feed Item Input and the new Feed Entity Share Capability Input.

Create a feed element that has a shared feed entity

Make a POST request to the existing `/chatter/feed-elements` resource with the Feed Item Input and the new Feed Entity Share Capability Input.



Note: The `originalFeedItemId` request parameter is no longer supported for the `/chatter/feed-elements` resource to share feed elements.

Get the URL to the direct message feed

Make a GET request to the new /chatter/feeds/direct-messages resource.

Get all feed elements of the direct message feed

Make a GET request to the new /chatter/feeds/direct-messages/feed-elements resource.

Access the direct message capability of a feed element

Make a GET request to the new /chatter/feed-elements/**feedElementId**/capabilities/direct-message resource.

Get all members of a direct message

Make a GET request to the new /chatter/feed-elements/**feedElementId**/capabilities/direct-message/members resource.

Update a direct message

Make a PATCH request to the existing /chatter/feed-elements/**feedElementId** resource with the Feed Item Input and the new Direct Message Capability Input.

Create a direct message

Make a POST request to the existing /chatter/feed-elements resource with the Feed Item Input and the new Direct Message Capability Input.

Get a list of the top unanswered questions in a community

Make a GET request to the existing /connect/communities/**communityId**/chatter/feeds/home/feed-elements resource. Set the filter parameter to UnansweredQuestions and the sort parameter to MostViewed.

Get the URL to the pending review feed

Make a GET request to the new /chatter/feeds/pending-review resource.

Get all posts and comments that are pending review

Make a GET request to the new /chatter/feeds/pending-review/feed-elements resource.

Content Workspaces

Get a user's permissions for a content workspace

Make a GET request to the new /connect/content/workspaces/**workspaceId**/permissions/**userId** resource.

Email Merge Field Services

See a list of merge fields for a specific object

Make a GET request to the new /email-merge-fields resource.

Files

Share an asset file with multiple orgs, communities, and content workspaces

Make a POST request to the existing /connect/files/**fileId**/asset resource with the new shareWithIds parameter.



Note: In version 38.0, the shareWith parameter allowed sharing with a single org, community, or content workspace. In version 39.0, shareWith is no longer supported. Use the shareWithIds parameter to share with one or more orgs, communities, or workspaces.

Get information about a file image

Make a GET request to the new /connect/files/**fileId**/image resource.

Files Connect

Create a file reference from an external file URI

Make a POST request to the existing `/connect/files/users/userId` resource with the new `repositoryFileUri` parameter or the updated File Input.

Groups

Invite internal and external users to join a group

Make a POST request to the new `/chatter/groups/group/groupId/invite` resource with the new Invite Collection Input.

Managed Topics

Get managed topics associated with a list of up to 100 topics

Make a GET request to the existing `/connect/communities/communityId/managed-topics` resource with the new `recordIds` parameter, which is a list of up to 100 topic IDs.

Share Captured Activity

Share an email or event captured by Automated Activity Capture

Make a PUT request to the new `/salesforce-inbox/shared-activities/activityId` resource with the new Share Captured Activity Input.

New and Changed Chatter REST API Request Bodies

Activity Reminders

Activity Reminder Input

This new request body has these properties.

- `isReminderDisplayed`—Indicates whether the activity reminder is displayed.
- `reminderDateTime`—Date and time that the activity reminder displays.

Chatter

Chatter Stream Input

This new request body has these properties.

- `description`—Description of the stream, up to 1,000 characters.
- `name`—Name of the stream, up to 120 characters.
- `subscriptionsToAdd`—List of up to 25 entities whose feeds are included in the stream.
- `subscriptionsToRemove`—List of entities whose feeds are removed from the stream.

Stream Subscription Input

This new request body has one property.

- `entity`—ID of any feed-enabled entity, such as a group, record, or user, that the context user can access. When subscribed, the entity's feed is included in the feed stream.

Chatter Feeds

Direct Message Capability Input

This new request body has these properties.

- `membersToAdd`—List of user IDs for members to include in the direct message.
- `subject`—Subject of the direct message.

Feed Element Capabilities Input

This request body has these new properties.

- `directMessage`—Describes the direct message.
- `feedEntityShare`—Describes the feed entity shared with the feed element.

Feed Entity Share Capability Input

This new request body has one property.

- `feedEntityId`—ID of the entity to share with a feed element.

Feed Item Input

The `originalFeedItemId` property is no longer supported. Use the `capabilities.feedEntityShare.feedEntityId` property instead.

Files Connect

File Input

This request body has one new property.

- `repositoryFileUri`—URL to the external file.

Groups

Invite Collection Input

This new request body has these properties.

- `invitees`—List of email addresses to send the invitation to.
- `message`—Message to include in the invitation.

Share Captured Activity

Share Captured Activity Input

This new request body has these properties.

- `groupsToShareWith`—List of IDs for the groups that you share the activity with. Valid only if `sharingType` is `MyGroups`.
- `sharingType`—Type of sharing operation.

New and Changed Chatter REST API Response Bodies

Activity Reminders

Activity Reminder

This new response body has these properties.

- `entityId`—Activity (task or event) ID.
- `isReminderDisplayed`—Indicates if the reminder is displayed to the user.

- `message`—Activity subject.
- `platformActionGroups`—List of action groups with action links available for the activity reminder.
- `reminderDate`—Reminder due date and time.

Activity Reminder Collection

This new response body has one property.

- `reminders`—List of upcoming activity reminders.

Chatter

Chatter Stream

This new response body has these properties.

- `createdDate`—Date the stream was created.
- `description`—Description of the stream.
- `id`—18-character ID of the stream.
- `name`—Name of the stream.
- `subscriptions`—List of entities whose feeds are included in the stream.
- `url`—URL to the stream.

Chatter Stream Collection

This new response body has these properties.

- `currentPageUrl`—URL to the current page of streams.
- `items`—List of streams.
- `nextPageUrl`—URL to the next page of streams.
- `total`—Total number of streams in the collection.

Emoji

This new response body has these properties.

- `category`—Emoji category.
- `shortcut`—Emoji shortcut.
- `unicodeCharacter`—Emoji's unicode character.

Emoji Collection

This new response body has one property.

- `emojis`—Collection of emojis.

Error with Output

This response body has one new property.

- `enhancedErrorType`—Contains more information about a group membership request conflict.

Features

This response body has these new properties.

- `feedStreamEnabled`—Indicates whether Chatter feed streams are enabled for the org.
- `maxEntitySubscriptionsPerStream`—Specifies the maximum number of feed-enabled entities that can be subscribed to in a Chatter stream.
- `maxStreamsPerPerson`—Specifies the maximum number of Chatter streams that a user can have.

Supported Emojis

This new response body has one property.

- `supportedEmojis`—Collection of supported emojis.

Chatter Feeds

Direct Message Capability

This new response body has these properties.

- `members`—Members included in the direct message.
- `subject`—Subject of the direct message.

Direct Message Member Collection

This new response body has these properties.

- `currentPageToken`—Page token to access the current page of direct message members.
- `currentPageUrl`—URL to the current page of direct message members.
- `nextPageToken`—Page token to access the next page of direct message members.
- `nextPageUrl`—URL to the next page of direct message members.
- `users`—Collection of direct message members.

Feed Element Capabilities

This response body has these new properties.

- `directMessage`—If a feed element has this capability, it's a direct message.
- `feedEntityShare`—If a feed element has this capability, a feed entity is shared with it.

Feed Entity Not Available Summary

This new response body has these properties.

- `actor`
- `body`
- `createdDate`
- `feedElementType`
- `id`
- `isEntityAvailable`
- `parent`
- `relativeCreatedDate`
- `url`

All these properties are `null`, except `isEntityAvailable`, which is `false`.

Feed Entity Share Capability

This new response body has one property.

- `feedEntity`—Summary of the feed entity shared with the feed element.

Feed Item

This response body has one new property.

- `isSharable`—Indicates whether the feed item can be shared.

 **Note:** The `canShare` property is no longer supported.

Feed Item Summary

This new response body has these properties.

- `actor`—Entity that created the feed entity.
- `body`—Information about the feed entity.
- `capabilities`—Container for all capabilities that can be included with a feed item.
- `createdDate`—ISO8601 date string, for example, 2011-02-25T18:24:31.000Z, when the entity was created.
- `feedElementType`—Type of feed entity.
- `header`—Title of the post. This property contains renderable plain text for all the message segments. If a client doesn't know how to render a feed element type, it should render this text.
- `id`—18-character ID of the feed entity.
- `isEntityAvailable`—Specifies whether the entity is available. If `false`, either the user doesn't have access to the entity or the entity was deleted.
- `modifiedDate`—When the feed item was modified in the form of an ISO8601 date string, for example, 2011-02-25T18:24:31.000Z.
- `originalFeedItem`—Reference to the original feed item if this feed item is a shared feed item; otherwise, `null`.
- `originalFeedItemActor`—If this feed item is a shared feed item, information about the original poster of the feed item; otherwise, `null`.
- `parent`—Parent of the feed entity.
- `photoUrl`—URL of the photo associated with the feed item.
- `relativeCreatedDate`—Relative created date, for example, "2h ago."
- `url`—URL to the feed entity.
- `visibility`—Specifies who can see a feed item.

Social Account

This response body has one new property.

- `socialPersonaId`—ID of the social persona if the `externalSocialAccountId` isn't available.

Content Workspaces

Workspace Permission

This new response body has these properties.

- `canAddFileComments`—Specifies whether the user can add comments on files in the workspace.
- `canAddFiles`—Specifies whether the user can add files to the workspace.
- `canAddFilesOnBehalfOfOthers`—Specifies whether the user can add files on behalf of others to the workspace.
- `canArchiveFiles`—Specifies whether the user can archive files in the workspace.
- `canAttachOrShareFilesToFeed`—Specifies whether the user can attach or share files in the workspace to a feed.
- `canDeleteFiles`—Specifies whether the user can delete files in the workspace.
- `canDeliverContent`—Specifies whether the user can create a content delivery from files in the workspace.
- `canFeatureFiles`—Specifies whether the user can feature files in the workspace.
- `canManageWorkspace`—Specifies whether the user can perform any action on the workspace or change the workspace membership.
- `canModifyFileComments`—Specifies whether the user can modify comments on files in the workspace.
- `canOrganizeFilesAndFolders`—Specifies whether the user can organize files and folders in the workspace.

- `canTagFiles`—Specifies whether the user can add tags to files in the workspace.
- `canViewFileComments`—Specifies whether the user can view comments on files in the workspace.

Email Merge Field Services

Email Merge Field

This new response body has one property.

- `entityToMergeFieldsMap`—Map for multiple objects and their merge field collections.

Email Merge Field Collection

This new response body has one property.

- `mergeFields`—List of merge fields for a single object.

Files

Image File

This new response body has these properties.

- `masterDetail`—Original image's details.
- `renditionDimensions`—Original image's available rendition dimensions.

Image File Detail

This new response body has these properties.

- `height`—Image's height in pixels.
- `imageFormat`—Image's format.
- `orientation`—Image's EXIF orientation value, if present.
- `width`—Image's width in pixels.

Groups

Invite

This new response body has these properties.

- `email`—Email address of the user.
- `status`—Specifies the status of an invitation to join a group. Values are:
 - `ActedUponUser`—The user was added to the group. An email was sent asking the user to visit the group.
 - `Invited`—An email was sent asking the user to sign up for the org.
 - `MaxedOutUsers`—The group has the maximum allowed members.
 - `MultipleError`—The user wasn't invited due to multiple errors.
 - `NoActionNeededUser`—The user is already a member of the group.
 - `NotVisibleToExternalInviter`—The user is not accessible to the user sending the invitation.
 - `Unhandled`—The user couldn't be added to the group for an unknown reason.
- `userId`—ID of the user.

Invite Collection

This new response body has one property.

- `invitations`—Collection of invitations.

Share Captured Activity

Share Captured Activity Result

This new response body has one property.

- `success`—Specifies whether the share operation succeeded or not.

Users

Stamp

This new response body has these properties.

- `description`—Description of the stamp.
- `id`—ID of the stamp.
- `imageUrl`—Image URL of the stamp.
- `label`—Label of the stamp.

User Detail

This response body has one new property.

- `stamps`—Collection of the user's stamps.

User Summary

This response body has one new property.

- `stamps`—Collection of the user's stamps.

Reports and Dashboards REST API

Reports and Dashboards REST API enhancements include new a new resource describing report types, lets you create reports and delete report instances, and includes analytics notifications for report subscriptions in Lightning Experience.

New Resource and Parameters: Report Types, lightningSubscribe

The Reports and Dashboards REST API includes a new resource that describes report types, and a new parameter is available for the Analytics Notifications endpoint to describe Lightning Subscriptions.

Resource URI	Supported HTTP Methods	Description
<code>/services/data/v39.0/analytics/reportTypes</code>	GET	Return a list of report types.
<code>/services/data/v39.0/analytics/reportTypes/reportType</code>	GET	Return information about the specified report type.
<code>/services/data/v39.0/analytics/notifications?source=LightningSubscription</code>	GET POST	Returns a list of recent notifications (GET). Creates an analytics notification (POST).
<code>/services/data/v39.0/analytics/notifications/limits?source=LightningSubscription</code>	GET	Check to see how many more analytics notifications you can create. There is no org-wide limit

Resource URI	Supported HTTP Methods	Description
/services/data/v39.0/analytics/reports		on the number of analytics notifications. Instead, the limit is per-user.

For more information, see the [Reports and Dashboards REST API Developer Guide](#).

New Methods

You can now create new reports and delete report instances using new Reports and Dashboards REST API methods.

Resource	Supported HTTP Method	Description
/services/data/v39.0/analytics/reports	POST	Create a new report.
/services/data/v39.0/analytics/reports/<report ID>/instances/<report instance ID>	DELETE	If the given report instance has a status of Success or Error, delete the report instance.

For more information about these methods, see the [Reports and Dashboards REST API Developer Guide](#).

Changed Resources: Dashboard DescribedashboardMetadata and Dashboard Results

The Reports and Dashboards REST API includes new properties to describe role hierarchy filters, picklist value colors, and Chatter photos.

Dashboards

The Dashboard Describe resource contains new properties and has a new parameter.

Property	Type	Description
canUseStickyFilter	Boolean	Indicates whether dashboard filters persist after closing the dashboard (<code>true</code>) or not (<code>false</code>). Filters that persist keep the dashboard filtered the next time you open it. Filters persist for users on a per-user basis, so if you apply a filter then it doesn't persist for other people.
dashboardType	String	Indicates whether a dashboard is a dynamic dashboard, a dashboard with running users, or a standard dashboard. Possible values are: <ul style="list-style-type: none"> • <code>SpecifiedUser</code> — Dashboard readers view data as though they are the person specified by <code>runningUser</code> • <code>LoggedInUser</code> — Dashboard readers view data as themselves. The dashboard is a dynamic dashboard. • <code>MyTeamUser</code> — Dashboard readers view data as the person specified by <code>runningUser</code> by default. If they have the "View

Property	Type	Description
		All Data" user permission then they can change the <code>runningUser</code> to anyone. If they have the "View My Team's Dashboards" user permission then they can change the <code>runningUser</code> to people subordinate to them in the role hierarchy.

The `Filters` object contains a new property.

Property	Type	Description
<code>errorMessage</code>	Boolean	If there is no error with a dashboard filter, then <code>null</code> . Otherwise, the error message is returned.

A new URL parameter is available.

Parameter	Description
<code>loadComponentData</code> <code>/services/data/v39.0/analytics/dashboards/01Z0000008jjMA/describe?loadComponentProperties=false</code>	Optional. Specifies whether or not to return properties for each dashboard component. The default value is <code>true</code> . Valid values are: <ul style="list-style-type: none"> • <code>true</code> — Return component properties. • <code>false</code> — Don't return component properties. The <code>properties</code> value instead returns <code>null</code>.

For more information, see the [Reports and Dashboards REST API Developer Guide](#).

Lightning API—Developer Preview

Use Lightning API to create native mobile apps and custom web apps with your own branding and look and feel. A single REST request returns enough metadata, layout information, and data to display, edit, or create a record! Lightning API supports most objects that are available in Lightning Experience.

 **Note:** Lightning API is available as a Developer Preview in all DE orgs. To use the API in another type of org, contact Salesforce.

EDITIONS

Available in: **Developer**
Edition

Get to Know Lightning API

The Lightning API base URL is

`https://{your_instance}.salesforce.com/services/data/v{api_version}/lapi`.

To get metadata and data to display a record, your code makes a simple REST request to a resource.

```
GET /lapi/record-ui/001R0000003GeJ1IAK
```

Behind the scenes, Salesforce does the heavy lifting.

- Checks field-level security settings, sharing settings, and perms.
- Makes SOQL queries to get record data.
- Gets object metadata and theme information.
- Gets layout information.

You are one happy developer, because Salesforce transforms the results into an easy-to-consume JSON response with all the information you need to display a record.

 **Tip:** The [Lightning API Developer Guide](#) contains a step-by-step Quick Start to get you up and running. Here's the quick version of the Quick Start: open [Workbench](#), log in to a DE org, and make a request to a Lightning API resource!

Authorization

Like other Salesforce REST APIs, Lightning API uses OAuth 2.0.

Versioning

Lightning API is versioned. Specify the API version number in each request.

```
GET https://{your_instance}.salesforce.com/services/data/v39.0/1api
```

Response Filtering

Lightning API is built on the same REST framework as Chatter REST API and observes the same [filtering rules](#).

Also, several Lightning API resources support additional parameters that change the response to include what your UI needs.

- `formFactor`—The layout display size for the record.
 - `Large`—(Default) Use this value to get a layout for desktop display size.
 - `Medium`—Use this value to get a layout for tablet display size.
 - `Small`—Use this value to get a layout for phone display size.
- `layoutType`—The layout type for the record.
 - `Compact`—Use this value to get a layout that contains a record's key fields.
 - `Full`—(Default) Use this value to get a full layout.
- `mode`—The access mode for the record. This value determines which fields to get from a layout. Layouts have different fields for create, edit, and view modes. For example, formula fields are rendered in view mode, but not in create mode because they're calculated at run time, like formulas in a spreadsheet.
 - `Create`—Use this mode if you intend to build UI that lets a user create a record. This mode is used by the `/1api/record-defaults/create/{apiName}` resource.
 - `Edit`—Use this mode if you intend to build UI that lets a user edit a record. This mode is used by the `/1api/record-defaults/clone/{recordId}` resource.
 - `View`—(Default) Use this mode if you intend to build UI that displays a record.

Error Handling

The response header contains an HTTP status code. If the response isn't successful, the response body contains an error message, and if appropriate, information about the field or object where the error occurred.

Rate Limiting

Lightning API requests are subject to rate limiting. Lightning API has a per user, per application, per hour rate limit. When you exceed the rate limit, all Lightning API resources return a 503 Service Unavailable error code.

Resources

Use the resources in the pilot version of Lightning API to display records.

- `/lapi/record-ui/{recordIds}`
- `/lapi/layout/{objectApiName}`
- `/lapi/object-info/{objectApiName}`
- `/lapi/records/{recordId}`
- `/lapi/records/batch/{recordIds}`
- `/lapi/records`
- `/lapi/record-defaults/clone/{recordId}`
- `/lapi/record-defaults/create/{apiName}`
- `/lapi/object-info/{objectApiName}/picklist-values/{recordTypeId}/{fieldApiName}`

Record UI—GET

```
GET /lapi/record-ui/{recordIds}
[?layoutTypes={layoutTypeList}&modes={modeList}
&formFactor={formFactor}&optionalFields={fieldNameList}]
```

This resource is the top dog of Lightning API. Use it to get layout information, metadata, and data to build UI for a single record or for a collection of records. The response includes three nested response bodies:

- `layouts`—A map of object API names to layout information for each object
- `objectInfos`—A map of object API names to metadata for each object
- `records`—A map of record IDs to data for each record

Record Layout—GET

```
GET /lapi/layout/{objectApiName}
[?formFactor={formFactorType}&layoutType={layoutType}
&mode={mode}&recordTypeId={recordTypeId}]
```

Get the layout for a specific record in a specific form factor, layout type, and mode.

The response is also the nested `layouts` response body returned from `GET /lapi/record-ui/{recordIds}`, and the nested `layout` response body returned from `GET /lapi/record-defaults/clone/{recordId}` and `GET /lapi/record-defaults/create/{apiName}`.

Object Info—GET

```
GET /lapi/object-info/{objectApiName}
[?layoutTypes={layoutTypeList}&modes={modeList}
&recordTypeId={recordTypeId}]
```

Get an object's metadata for one or more layout types and modes.

The response is also the nested `objectInfos` response body returned from `GET /lapi/record-ui/{recordIds}`, and the nested `objectInfo` response body returned from `GET /lapi/record-defaults/clone/{recordId}` and `GET /lapi/record-defaults/create/{apiName}`.

Record—GET, PATCH (Update), DELETE

```
GET /lapi/records/{recordId}?layoutTypes={layoutTypeList}
[&modes={modeList}&optionalFields={optionalFieldList}]
```

```
GET /lapi/records/{recordId}?fields={fieldList} [&optionalFields={optionalFieldList}]
PATCH /lapi/records/{recordId}?apiName={apiName}&fields={fieldList}
DELETE /lapi/records/{recordId}
```

Get, update, and delete data for a specific record.

The response is also the nested `records` response body returned from `GET /lapi/record-ui/{recordIds}`, and the nested `record` response body returned from `GET /lapi/record-defaults/clone/{recordId}` and `GET /lapi/record-defaults/create/{apiName}`.

Record—Batch GET

```
GET /lapi/records/batch/{recordIds}?layoutTypes={layoutTypeList}
    [&modes={modeList}&optionalFields={optionalFieldList}]

GET /lapi/records/batch/{recordIds}?fields={fieldList}
    [&optionalFields={optionalFieldList}]
```

Get data for a batch of records. The response contains record data or error information for each record in the batch.

Record—POST (Create)

```
POST /lapi/records

{
  "apiName": "Account",
  "fields": {
    "Name": "Universal Containers"
  }
}
```

Create a record.

Before you create a record, get the default values for the record. Make a request to either `/lapi/record-defaults/clone/{recordId}` or `/lapi/record-defaults/create/{apiName}`, depending on whether you want to clone an existing record or create a record.

Clone Record Defaults—GET

```
GET
/lapi/record-defaults/clone/{recordId} [?formFactor={formFactor}&recordTypeId={recordTypeId}]
```

Get the default values for fields for cloning a record. After getting the default values, make a request to `POST /lapi/records` to create the record.

The response includes three nested response bodies.

- `layout`—Layout information for the object
- `objectInfo`—Metadata for the object
- `record`—Data for each record

Create Record Defaults—GET

```
GET
/lapi/record-defaults/create/{apiName} [?formFactor={formFactor}&recordTypeId={recordTypeId}]
```

Get the default values for fields for a new record of a particular object. After getting the default values, make a request to `POST /lapi/records` to create the record.

The response includes three nested response bodies.

- `layout`—Layout information for the object
- `objectInfo`—Metadata for the object
- `record`—Data for each record

Picklist Values—GET

```
GET /lapi/object-info/{objectApiName}/picklist-values/{recordTypeId}/{fieldApiName}
```

Get the values for a picklist.

When you make a request to `/lapi/record-ui/{recordIds}` or `/lapi/object-info/{objectApiName}`, if the response includes a picklist field, it also includes a `picklistValueUrl` property. That property contains a Picklist Values resource with the `{objectApiName}`, `{recordTypeId}`, and `{fieldApiName}` filled in, such as in the following example.

```
GET /services/data/v39.0/lapi/object-info/Account/picklist-values/012000000000000AAA/Type/  
  
{  
    "controllerValues" : { },  
    "defaultValue" : null,  
    "url" :  
        "/services/data/v39.0/lapi/object-info/Account/picklist-values/012000000000000AAA/Type",  
  
    "values" : [ {  
        "attributes" : null,  
        "label" : "Analyst",  
        "picklistValueType" : "Standard",  
        "validFor" : [ ],  
        "value" : "Analyst"  
    }, {  
        "attributes" : null,  
        "label" : "Competitor",  
        "picklistValueType" : "Standard",  
        "validFor" : [ ],  
        "value" : "Competitor"  
    },  
    ... some picklist values removed for space ...  
  
    {  
        "attributes" : null,  
        "label" : "Other",  
        "picklistValueType" : "Standard",  
        "validFor" : [ ],  
        "value" : "Other"  
    } ]  
}
```

Bulk API

Bulk API now supports the queryAll operation and SOQL relationships. Also, we're moving toward the next iteration of the Bulk API with a pilot version of Bulk API 2.0. This new API provides a simple interface for quickly loading large amounts of data into your Salesforce org.

IN THIS SECTION:

[Bulk API Now Supports More Complex Queries](#)

Bulk queries now support the queryAll operation and SOQL relationships.

[Introducing Bulk API 2.0 \(Pilot\)](#)

Bulk API 2.0 provides a simple interface for quickly loading large amounts of data into your Salesforce org.

Bulk API Now Supports More Complex Queries

Bulk queries now support the queryAll operation and SOQL relationships.

The `queryAll` operation

The queryAll operation returns records that have been deleted because of a merge or delete. The queryAll operation also returns information about archived Task and Event records. To make a queryAll request, set the `operation` field on the JobInfo resource to `queryall`. For more information about bulk queries, see [Use Bulk Query](#) in the *Bulk API Developer Guide*.

SOQL relationships

Relationship queries traverse parent-to-child and child-to-parent relationships between objects to filter and return results. You can now use SOQL relationships in bulk queries. For more information about SOQL relationships, see [Using Relationship Queries](#) in the *Force.com SOQL and SOSL Reference*.

Introducing Bulk API 2.0 (Pilot)

Bulk API 2.0 provides a simple interface for quickly loading large amounts of data into your Salesforce org.



Note: We provide Bulk API 2.0 to selected customers through a pilot program that requires agreement to specific terms and conditions. Bulk API 2.0 is subject to change and 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.

Bulk API 2.0 includes the following features.

Support for OAuth 2.0

Bulk API 2.0 supports all OAuth flows supported by Salesforce's other REST APIs.

Automatic File Batching

Bulk API 2.0 simplifies uploading large amounts of data by breaking the files into batches automatically. All you have to do is upload a CSV file with your record data and check back when the results are ready.

Daily Limits Based on Number of Records

Instead of limiting the amount of data uploaded daily by the quantity of batches, Bulk API 2.0 uses a limit of total records uploaded. For the pilot, the limit is 1,000,000 records per 24-hour period.

Messaging

Messaging includes enhancements to the beta feature, Platform Events, and a connector for Streaming API and Platform Events.

EDITIONS

IN THIS SECTION:

[Deliver Customizable Events with Platform Events \(Beta\)](#)

Platform events simplify the process of communicating changes and responding to them without writing complex logic. Publishers and subscribers communicate with each other through events. Multiple subscribers can listen to the same event and carry out different actions. This change applies to both Lightning Experience and Salesforce Classic. You can define platform events in Salesforce Classic only.

[Easily Subscribe to Streaming API in Java with EMP Connector](#)

The Enterprise Messaging Platform (EMP) connector simplifies the process of subscribing to streaming events and platform events in Java through CometD. It also supports replaying past events with durable streaming. No need to write complex logic to implement those functions yourself! When you use EMP connector, call the provided functions to log in and subscribe to a channel.

Deliver Customizable Events with Platform Events (Beta)

Platform events simplify the process of communicating changes and responding to them without writing complex logic. Publishers and subscribers communicate with each other through events. Multiple subscribers can listen to the same event and carry out different actions. This change applies to both Lightning Experience and Salesforce Classic. You can define platform events in Salesforce Classic only.

 **Note:** This release contains a beta version of Platform Events, which means it's a high-quality feature with known limitations. For information on enabling this feature in your org, contact Salesforce. Platform Events 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 Platform Events in the [Success Community](#).

Use platform events to deliver secure and scalable custom notifications within Salesforce or from external sources. Define fields to customize your platform event. Your custom platform event determines the event data that the Force.com Platform can produce or consume.

By using platform events, publishers can send customized event data through Apex or an API. Subscribers can receive custom notifications from Salesforce or an external system and respond with actions using Apex or CometD clients. For example, a software system monitoring a printer can make an API call to publish an event when the ink is low. The custom printer event can contain custom fields for the printer model, serial number, and ink level. The event is processed in Salesforce by an Apex trigger that places an order for a new cartridge.

Define Your Platform Event

Define your platform event on the Platform Events page in the Salesforce user interface. From Setup, enter *Platform Events* in the Quick Find box, then select **Platform Events**.

Platform events are sObjects, similar to custom objects but with some limitations. Event notifications are instances of platform events. Unlike sObjects, you can't update event notifications. You also can't view them in the user interface. When you delete platform event definitions, they're permanently removed.

Platform Events (Beta) Improvements in Spring '17

Platform Events (Beta) was available last release. In this release, we made the following improvements and changes.

Enforcement of Event Field Attributes

New platform event records are validated to ensure that the attributes of their custom fields are enforced. Field attributes include the Required and Default attributes, the precision of number fields, and the maximum length of text fields.

Apex Testing Support

You can publish platform events in Apex tests and test their associated Apex triggers.

Trigger Number of Refires

A new class, `EventBus.TriggerContext`, provides information about the currently executing trigger. This information includes the number of times the trigger was re-fired with `EventBus.RetryableException`, enabling you to set a limit on the number of refires.

Packaging and Metadata API Support

You can add platform events and their associated Apex triggers to packages. Platform events are supported in Metadata API through the `CustomObject` type.

Limits

New limits are added for platform event publishing, event delivery to CometD clients, and event definitions.

Databinding.ObjectMapper No Longer Supported

The `transform` methods in the `Databinding.ObjectMapper` class have been deprecated and will be removed in a future release.

To learn more about platform events, see the [Platform Events \(Beta\) Developer Guide](#).

Easily Subscribe to Streaming API in Java with EMP Connector

The Enterprise Messaging Platform (EMP) connector simplifies the process of subscribing to streaming events and platform events in Java through CometD. It also supports replaying past events with durable streaming. No need to write complex logic to implement those functions yourself! When you use EMP connector, call the provided functions to log in and subscribe to a channel.

EMP connector is based on Java 8 and uses CometD version 3.0.9. The connector supports PushTopic and generic streaming events, as well as platform events. It also supports username and password authentication and OAuth bearer token authentication.



Example: This Java example logs in with the specified username and password credentials and performs a handshake with CometD. Next, it subscribes to a PushTopic called `myTopic` with the channel name `/topic/myTopic`. The replay ID is initially set to the `REPLAY_FROM_EARLIEST` constant, which means that the subscription returns the oldest saved event (up to 24 hours) in addition to new events. The `EmpConnector` class is the main class that exposes the functions for starting a connection and subscribing. Event notifications are written to the output through the Java lambda expression (`event -> System.out.println(..)`).

```
// Replay from the start of the event window.  
// May be any valid replayFrom position in the event stream.  
long replayFrom = EmpConnector.REPLAY_FROM_EARLIEST;  
  
// Get parameters from login  
BayeuxParameters params = login("<username>", "<password>");  
  
// The event consumer.  
// This lambda expression prints the received event to the output  
// each time a notification is received.  
Consumer<Map<String, Object>> consumer = event -> System.out.println(  
    String.format("Received:\n%s", event));  
  
// Instantiate the EMP connector  
EmpConnector connector = new EmpConnector(params);
```

```
// Wait for handshake with Streaming API
connector.start().get(5, TimeUnit.SECONDS);

// Subscribe to a topic
// Block and wait for the subscription to succeed for 5 seconds
TopicSubscription subscription = connector.subscribe("/topic/myTopic",
    replayFrom, consumer).get(5, TimeUnit.SECONDS);

// Here's our subscription
System.out.println(String.format("Subscribed: %s", subscription));
```

To use OAuth bearer token authentication instead, replace the `BayeuxParameters` value with the following. The URL corresponds to your Salesforce instance URL.

```
BayeuxParameters params = new BayeuxParameters() {

    @Override
    public String bearerToken() {
        return "<token>";
    }

    @Override
    public URL host() {
        try {
            return new URL("<URL>");
        } catch (MalformedURLException e) {
            throw new IllegalArgumentException(String.format("Unable to create url: %s", argv[0]), e);
        }
    }
};
```

The following function calls end a subscription.

```
// Cancel a subscription
subscription.cancel();

// Stop the connector
connector.stop();
```

For a complete example, see the [EMP-Connector GitHub repository](#).

And we saved the best for last: EMP Connector is an open-source project, which means that you can contribute to it with your own enhancements! Feel free to submit your contributions in the [EMP-Connector GitHub repository](#).

Tooling API

Tooling API includes new and changed objects, calls, and resources.

The [Force.com Tooling API Developer's Guide](#) contains all Tooling API information.

IN THIS SECTION:

[Tooling API New and Changed Objects](#)

Tooling API includes new and changed objects. Also, you can update individual fields of top-level Settings objects and their child objects.

Tooling API New and Changed Objects

Tooling API includes new and changed objects. Also, you can update individual fields of top-level Settings objects and their child objects.

New Objects

FormulaFunction

Retrieves functions available for specific uses. For example, use this object to find the functions available for use in flows or Visualforce pages.

FormulaOperator

Retrieves all available formula operators, such as `STAR` (multiplication) or `AND`.

GlobalValueSet

Represents the definition of a value used in a global value set or local custom picklist.

StandardValueSet

Represents the set of values in a standard picklist field.

Changed Objects

SecurityHealthCheck

The following field has been added.

CustomBaselineID

Unique identifier for the field. Identifies which baseline is used to import settings and calculate score.

FlexiPage

The following field has been added.

EntityDefinitionId

The name of the standard object or ID of the custom object that the Lightning Page is associated with. For Lightning Pages of type `AppPage` or `HomePage`, this field is `null`. Replaces the `SObjectType` field.

The following field has been deprecated.

SObjectType

Deprecated as of API version 39.0. Use `EntityDefinitionId` instead.

Access To Metadata Settings Now Available in Tooling API

You can now use the Tooling API to update metadata settings that are available in Metadata API.

You can identify one of these types in the Tooling API WSDL if its definition includes the following element.

```
<xsd:extension base="mns:MetadataForSettings">
```

For these top-level Settings objects, you have multiple options for update. You can use the `Metadata` field on the object to update the Settings (currently available via SOAP tooling access, not REST). The `Metadata` field represents the entire Metadata API contract of the object.

Alternatively, to update a subset of fields in the hierarchy of a Settings object, we have modified our interface so that you can update individual fields directly.

To access the Tooling API WSDL, from Setup, enter **API** in the **Quick Find** box, then select **API** and click **Generate Tooling WSDL**.

Metadata API

Metadata API includes new and changed types and fields.

New Metadata Types

CspTrustedSite

Represents a CSP Trusted Site. The Lightning Component framework uses Content Security Policy (CSP) to control the source of content that can be loaded on a page. To use third-party APIs that make requests to an external (non-Salesforce) server, add the server as a CSP Trusted Site.

ExternalServiceRegistration

Represents the External Service configuration for an org. Available in a Beta. See [External Services: Connect to Salesforce Using a Wizard, Schema, and Flow \(Beta\)](#).

FileUploadAndDownloadSecuritySettings

Represents the security settings for uploading and downloading files.

LeadConvertSettings

Represents an organization's custom field mappings for lead conversion. Custom fields can be mapped from Leads to Accounts, Contacts, and Opportunities. Options for creating opportunities during lead conversion can also be specified.

PersonalJourneySettings

Represents an organization's Adoption Manager setting, which enables or disables the Adoption Manager tool.

ProfileActionOverride

Represents an override of an ActionOverride by a user profile. You can use it to override an ActionOverride on a standard Home tab or object record page in Lightning Experience. When a user logs in with a profile, a matching ProfileActionOverride assignment takes precedence over existing overrides for the Home tab or record page specified in ActionOverride.

UserCriteria

The description of the user criteria.

Wavexmd

Represents the WaveXmd object in the Wave Analytics application.

Updated Metadata Types and Fields

These metadata types have changed or have fields that have been added or changed.

CommunityTemplateDefinition

The following field has been added to the CommunityTemplatePageSetting subtype.

themeLayout

Required. The name of the FlexiPage for the theme layout.

CommunityThemeDefinition

The following field has been added.

customThemeLayoutType

The list of custom theme layout types available to the theme layout.

The `themeLayoutType` field now supports the following new values: `Home` or `Login`.

The following field has been added to the CommunityThemeSetting subtype.

customThemeLayoutType

Required when themeLayoutType is not specified. The custom theme layout type associated with the theme layout.

CustomApplication

The following field has been added.

profileActionOverrides

A list of the Lightning Experience record page ProfileActionOverrides that are assigned to this custom app. When a user invokes the custom app, a matching ProfileActionOverride assignment takes precedence over existing overrides for the record page specified in ActionOverride. This lets you override a record page for the custom app by record type and profile.

CustomField

The following field has been added.

metadataRelationshipControllingField

In custom metadata relationships, represents the controlling field that specifies the standard or custom object in an entity definition metadata relationship. Required when creating a field definition metadata relationship on a custom metadata type. The object specified in the controlling field determines the values available in its dependent field definition. For example, specifying the Account object filters the available fields in the field definition to Account fields only.

CustomSite

The following field has been added.

allowStandardPortalPages

Required. When enabled, authenticated users in this site can access standard Salesforce pages as allowed by their access controls. When disabled, authenticated users in this site can't access standard Salesforce pages, even if their access controls allow it. If your site serves only Visualforce pages, disabling this setting helps add a layer of access protection to your site.

EmailToCaseRoutingAddress

The following field has changed.

caseOwner

You can specify a user or a queue as the case owner in the Email-to-Case routing address. Specifying the case owner in the Email-to-Case routing address overrides the value of defaultCaseOwner in CaseSettings.

ExternalDataSource

The following fields have changed.

isWritable

You can now set the field to true with the cross-org adapter for Salesforce Connect.

type

The field now supports the value outgoingemail—A data source used for sending an email through a quick action.

FlexiPage

The following field has been deprecated.

pageTemplate

For API version 39.0 and later, use template instead.

The following field has been added.

template

Required. The template associated with the FlexiPage.

The type field now supports the following values.

- CommForgotPasswordPage—A Lightning Page that's used to override a forgot-password page, as created in Community Builder, in Communities.

- `CommLoginPage`—A Lightning Page that's used to override the login page, as created in Community Builder, in Communities.
- `CommSelfRegisterPage`—A Lightning Page used to override the self-registration page, as created in Community Builder, in Communities.

The following fields have been added to the `FlexiPageTemplateInstance` subtype.

name

Required. The name of a single instance of a template.

properties

The value of a single property in a template instance.

ExternalDataSource

The following field has changed.

isWritable

You can now set the field to `true` with the cross-org adapter for Salesforce Connect.

KnowledgeSettings

The following field has changed.

suggestedArticles

Two complex types with subtypes have been added. Use `KnowledgeWorkOrderFieldsSettings` to retrieve a list of the work order fields used to suggest articles for the work order. Use `KnowledgeWorkOrderLineItemFieldsSettings` to retrieve a list of the work order line item fields used to suggest articles for the work order line item.

ModerationRule

The following fields have been added.

actionLimit

Indicates the moderation action limit.

notifyLimit

Indicates the notification limit of the moderation rule.

timePeriod

Indicates the time period of the rate limit.

type

Indicates the type of rule used to moderate member-generated content.

userCriteria

Represents the member criteria to use in community moderation rules.

TransactionSecurityPolicy

The following fields have been added.

description

A description of the policy.

developerName

This unique name prevents conflicts with other policies that have the same `masterLabel`.

masterLabel

The master label for this object. This display value is the internal label that is not translated.

Data Services

You can define and query composite primary keys for custom BigObjects, and additional functions are supported by Async SOQL.

IN THIS SECTION:

[Required Fields for Custom BigObjects \(Pilot\)](#)

Fields in a custom BigObject can now be defined as required.

[Define Composite Primary Keys for Custom BigObjects \(Pilot\)](#)

You must now define the fields you want to use to represent your primary key, replacing the previous method of using our auto-generated IDs.

[BigObjects Offers Enhanced Query Capabilities \(Pilot\)](#)

The fields that make up the composite primary key can be used in query filters using SOQL.

[Enhancements to Async SOQL \(Pilot\)](#)

Async SOQL supports additional aggregate functions, and the ability to upsert results to a target sObject.

Required Fields for Custom BigObjects (Pilot)

Fields in a custom BigObject can now be defined as required.

Record creation fails and an error is generated if values are not provided. Fields are marked as required using the `required` tag in the field definition.

```
<fields>
  <fullName>Field__c</fullName>
  <label>Field</label>
  <length>20</length>
  <required>true</required>
  <type>Text</type>
</fields>
```

Define Composite Primary Keys for Custom BigObjects (Pilot)

You must now define the fields you want to use to represent your primary key, replacing the previous method of using our auto-generated IDs.

Using the indexes tag, you must define which Custom BigObject fields make up your composite primary key. A composite primary key can have up to five fields, and the number of characters from all text fields must not exceed 50. The order that the fields are defined within the indexes tag determines the composite primary key order.

All fields included in the composite primary key must be defined in the BigObject and marked as required.



Note: You must use Metadata API version 39.0 or later. Older API versions can't deploy Custom BigObjects because they don't support indexes.

```
<?xml version="1.0" encoding="UTF-8"?>
<CustomObject xmlns="http://soap.sforce.com/2006/04/metadata">
  <deploymentStatus>Deployed</deploymentStatus>
  <fields>
    <fullName>FirstName__c</fullName>
    <label>Field</label>
    <length>20</length>
    <required>true</required>
    <type>Text</type>
  </fields>
  <fields>
```

```

<fullName>Quantity__c</fullName>
<label>Another Field</label>
<scale>2</scale>
<precision>10</precision>
<required>true</required>
<type>Number</type>
</fields>
<indexes>
  <type>PRIMARY</type>
  <fullName>MyFirstObjectPK</fullName>
  <fields>
    <name>FirstName__c<name>
    <sortDirection>ASC</sortDirection>
  </fields>
  <fields>
    <name>Quantity__c<name>
    <sortDirection>DESC</sortDirection>
  </fields>
</indexes>
<label>MyFirstObject</label>
<pluralLabel>MyFirstObjects</pluralLabel>
</CustomObject>

```

BigObjects Offers Enhanced Query Capabilities (Pilot)

The fields that make up the composite primary key can be used in query filters using SOQL.

You can use a subset of SOQL commands to query the fields in a composite primary key. You build a composite primary key query starting from the first field defined in the primary key, without any gaps between the first and last field in the query.

You can use range operations only on the last field queried. Any preceding fields can only use the = operator.

The following queries assume that LastName__c, FirstName__c, and PhoneNumber__c define the composite primary key in the table.

This query specifies all three fields in the index. In this case, the filter on PhoneNumber__c can be a range.

```

SELECT LastName__c, FirstName__c, PhoneNumber__c
FROM Phone_Book__b
WHERE LastName__c='Kelly' AND FirstName__c='Charlie' AND PhoneNumber__c='2155555555'

```

This query specifies only the first two fields in the index. In this case, the filter on FirstName__c can be a range.

```

SELECT LastName__c, FirstName__c, PhoneNumber__c
FROM Phone_Book__b
WHERE LastName__c='Kelly' AND FirstName__c='Charlie'

```

This query specifies only the first field in the index. The filter on LastName__c can be a range.

```

SELECT LastName__c, FirstName__c, PhoneNumber__c
FROM Phone_Book__b
WHERE LastName__c='Kelly'

```

This query doesn't work because there is a gap between LastName__c and PhoneNumber__c.

```
SELECT LastName__c, FirstName__c, PhoneNumber__c
FROM Phone_Book__b
WHERE LastName__c='Kelly' AND PhoneNumber__c='2155555555'
```

 **Note:** These restrictions do not apply to Async SOQL queries against BigObjects.

Enhancements to Async SOQL (Pilot)

Async SOQL supports additional aggregate functions, and the ability to upsert results to a target sObject.

Additional Async SOQL Resources

Async SOQL now supports these resources.

Filter BigObjects by Boolean Fields

Async SOQL supports filtering BigObjects by boolean fields.

Use MIN() and MAX() to Query Data

Calculate the minimum or maximum of the numerical or text values in a single column using the MIN() and MAX() functions.

 **Note:** MIN() and MAX() don't support picklists.

```
{
  "query": "SELECT Name, MIN(CreatedDate) FROM Account",
  "targetObject": "CustomObject1__c",
  "targetFieldMap": {"expr0": "CustomField__c"}
}
```

Use CALENDAR_YEAR() and CALENDAR_MONTH() to Query Data

Return a number representing the year or month from a dateTime field using the CALENDAR_YEAR() and CALENDAR_MONTH() functions.

```
{
  "query": "SELECT Calendar_Year(CreatedDate) FROM Account GROUP BY
Calendar_Year(CreatedDate)",
  "targetObject": "CustomObject1__c",
  "targetFieldMap": {"expr0": "CustomField__c"}
}
```

Upsert Results to Target sObject

To upsert results to a target sObject, use targetExternalIdField to specify the target sObject. Include "operation": "upsert" in your request.

 **Note:** Upsert is not supported for BigObjects.

```
{
  "query": "Select count(id) c, AccountId from Contact",
  "operation": "upsert",
  "targetObject": "Account",
  "targetFieldMap": {"AccountId": "Id", "c": "NumContacts__c"},
  "targetExternalIdField": "Id"
}
```

Open CTI API

You can now use Open CTI for Lightning Experience in Lightning console apps.

If you implement Open CTI in a Lightning console app, the `onNavigationChange` method behaves a bit differently than it does in standard Lightning apps.

For more information, see the *Open CTI Developer Guide*.

SEE ALSO:

[New Behavior for the Open CTI onNavigationChange Method](#)

[Open CTI Developer Guide: Why Your UI Matters](#)

[Open CTI Developer Guide: Methods for Lightning Experience](#)

Build AI-Powered Apps Fast (Pilot)

With the Predictive Vision Service, developers can harness the power of image recognition to build AI-powered apps. Without a data science degree! You can train deep-learning models to recognize and classify images at scale with the Predictive Vision Service REST API. Leverage pre-trained classifiers, or train your own custom classifiers to solve a vast array of specialized image-recognition use cases. Developers can bring the power of image recognition to CRM and third-party applications so that end users across sales, service, and marketing can discover new insights about their customers and predict outcomes that lead to smarter decisions.

EDITIONS

Available in: **All** Editions
except Database.com

 **Note:** We provide the Predictive Vision Service to selected customers through a pilot program. The Predictive Vision Service 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 Predictive Vision Service on the [IdeaExchange](#) in the Success Community.

For information about signing up for the service and using the API, see the [Predictive Vision Service \(Pilot\) Developer Guide](#).

When to Use the Predictive Vision Service

Images contain contextual clues about all aspects of your business, including your customers' preferences, your inventory levels, and the quality of your products. You can use these clues to enrich what you know about your sales, service, and marketing efforts to gain new insights about your customers and take action. The possibilities are limitless with applications that include:

- Visual search—Expand the ways that your customers can discover your products and increase sales.
 - Provide customers with visual filters to find products that best match their preferences while browsing online.
 - Allow customers to take photos of your products to discover where they can make purchases online or in-store.
- Brand detection—Monitor your brand across all your channels to increase your marketing reach and preserve brand integrity.
 - Better understand customer preferences and lifestyle through their social media images.
 - Monitor user-generated images through communities and review boards to improve products and quality of service.
 - Evaluate banner advertisement exposure during broadcast events to drive higher ROI.
- Product identification—Increase the ways that you can identify your products to streamline sales processes and customer service.
 - Identify product issues before sending out a field technician to increase case resolution time.
 - Discover which products are out of stock or misplaced to streamline inventory restocking.

- Measure retail shelf-share to optimize product mix and represent top-selling products among competitors.

Classifying Images

Use the API to classify images by:

- Accessing them via a URL
- Uploading them from a local location
- Passing in the image converted into a Base64 string

You can also classify images stored in Salesforce by converting them into a Base64 string.

The Predictive Vision Service is a REST API, so you can call it from any language that supports REST calls. This cURL call passes an image of a tree frog into the pre-built model called `GeneralImageClassifier`.

```
curl -X POST -H "Authorization: Bearer <TOKEN>" -H "Cache-Control: no-cache" -H "Content-Type: multipart/form-data" -F "sampleLocation=http://metamind.io/images/generalimage.jpg" -F "modelId=GeneralImageClassifier" https://api.metamind.io/v1/vision/predict
```

Here's what the prediction results look like.

```
{  
  "probabilities": [  
    {  
      "label": "tree frog, tree-frog",  
      "probability": 0.7963114976882935  
    },  
    {  
      "label": "tailed frog, bell toad, ribbed toad, tailed toad, Ascaphus trui",  
      "probability": 0.1978749930858612  
    },  
    {  
      "label": "banded gecko",  
      "probability": 0.001511271228082478  
    },  
    {  
      "label": "African chameleon, Chamaeleo chamaeleon",  
      "probability": 0.0013212867779657245  
    },  
    {  
      "label": "bullfrog, Rana catesbeiana",  
      "probability": 0.0011536618694663048  
    }  
  "object": "predictresponse"  
}
```

Other API Changes

We've updated Data.com terminology.

IN THIS SECTION:[Change to Data.com Terminology](#)

Data.com Clean rules are now known as data integration rules. Data.com APIs still use "Clean" in object names, field names, REST endpoint URLs, and property names. The documentation for Data.com APIs now refers to data integration rules instead of clean rules.

Change to Data.com Terminology

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Data.com Clean rules are now known as data integration rules.

API entity names

Data.com APIs still use "Clean" in object names, field names, REST endpoint URLs, and property names.

For example, the metadata object that describes a data service is still CleanDataService.

API documentation

Data.com API documentation uses the following terms:

- "data integration rule" instead of "Clean rule"
- "update" instead of "clean"
- "data service" instead of "clean data service"

EDITIONS

Available in: **Developer**,
Professional (add-on),
Enterprise, **Performance**,
and **Unlimited** Editions

Custom Metadata Types: Relationship Field Enhancements, Long Text Areas

Build better apps than ever before with custom metadata types which let you base your apps on types of metadata rather than just data. Do even more with the features you've been waiting for, including metadata relationships to field definitions and long text areas in custom metadata types. These changes apply to both Lightning Experience and Salesforce Classic.

IN THIS SECTION:[Metadata Relationships Now Support Field Definition Relationships](#)

Metadata relationship fields for custom metadata types now let you look up field definitions. Previously, you could look up entity definitions for standard and custom Salesforce objects, but not a specific field on an object. Now, field definitions are supported as a type of metadata relationship field.

[Long Text Areas in Custom Metadata Types \(Pilot\)](#)

Essential configuration data often runs longer than the 255-character text field limit. Until this release, storing longer strings, such as API keys, specialized markup, or SOQL queries, required workarounds using text fields. Now, you can create, package, and deploy long text areas as a custom field type.

[queryMore\(\) Supported in Custom Metadata Types](#)

The `queryMore()` API call is now supported for paging through large numbers of custom metadata records.

EDITIONS

Available in: **Professional**,
Enterprise, **Performance**,
Unlimited, **Developer**, and
Database.com Editions

Professional Edition orgs can create, edit, and delete custom metadata records only from types in installed packages.

SEE ALSO:[Lightning Experience: A Modern and Intelligent User Experience](#)

Metadata Relationships Now Support Field Definition Relationships

Metadata relationship fields for custom metadata types now let you look up field definitions. Previously, you could look up entity definitions for standard and custom Salesforce objects, but not a specific field on an object. Now, field definitions are supported as a type of metadata relationship field.

The first screenshot shows the 'Step 2. Choose the related object' page for creating a new relationship. It includes a dropdown menu labeled 'Related To' with options like 'None', 'VAT Data', 'Entity Definition', and 'Field Definition'. The 'Field Definition' option is highlighted. The second screenshot shows the 'Step 3. Enter the details' page for creating a new custom field. It includes fields for 'Field Label' (SFA Field), 'Controlling Field' (SFA Object), 'Field Name' (SFA_Field), and 'Description'.

The Field Definition option is available whenever the custom metadata type has at least one relationship to Entity Definition.

- The relationship to Entity Definition is the controlling field.
- The relationship to Field Definition specifies the standard or custom field from the entity definition object.

On the details page, set the **Controlling Field** to the relationship to Entity Definition.

When adding a record to the custom metadata type that has the relationship fields, select the specific object and field to reference. For example, select the Industry field on the Account object.

This screenshot shows the 'Risk Tier Edit' page. Under the 'Information' section, there are fields for 'Label' (Bronze Option A), 'Risk Tier Name' (Bronze_Option_A), 'Account Tier' (Bronze), 'Vacation' (Deep Sea Beta Fishing), 'Service Tier' (empty), 'SFA Object' (Account), and 'SFA Field' (Industry).

When creating a view and filter on a field definition relationship field, two separate filters are required—the field definition and the controlling entity definition. Filtering by the field definition relationship field alone isn't enough. For example, to view all records that look up the Industry field on Account, make sure that the filter criteria specify the API names of the object and field.

This screenshot shows the 'Step 2. Specify Filter Criteria' page. It displays a table for 'Filter By Additional Fields (Optional)'. The table has columns for 'Field', 'Operator', and 'Value'. There are four rows of data:

Field	Operator	Value	
SFA Object	equals	Account	AND
SFA Field	equals	Industry	AND
-None-	--None--		AND
-None-	--None--		AND
-None-	--None--		

Note these other related changes.

- In the Metadata API, `MetadataRelationshipControllingField` is new.

- In the user interface, the field description for the Metadata Relationship field type has been expanded to include the entity definition and field definition relationship options.

SEE ALSO:

[Metadata API](#)

Long Text Areas in Custom Metadata Types (Pilot)

Essential configuration data often runs longer than the 255-character text field limit. Until this release, storing longer strings, such as API keys, specialized markup, or SOQL queries, required workarounds using text fields. Now, you can create, package, and deploy long text areas as a custom field type.

-  **Note:** We provide long text areas in custom metadata types 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. This 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 this feature in the [Custom Metadata Types group](#) in the Success Community.

When creating Long Text Area fields, optimize field lengths for the data being stored so that you avoid reaching the cached data limit. Keep in mind these limits and limitations.

- Default character limit—32,768 (32 KB)
- Maximum character limit—131,072 (128 KB)
- Minimum character limit—256
- Long text area fields aren't supported in SOQL filters.

`queryMore()` Supported in Custom Metadata Types

The `queryMore()` API call is now supported for paging through large numbers of custom metadata records.

Developer Console: Create Exception Classes, See More Code Coverage

Use new Developer Console features to more easily manage code in your org. Create Apex classes that extend `Exception`, and view your org's code coverage results even when you have more than 2,000 Apex classes or triggers. This change applies to both Lightning Experience and Salesforce Classic.

IN THIS SECTION:

[Create Exception Classes in the Developer Console](#)

You can now create Apex classes that extend `System.Exception` in the Developer Console. Previously, creating classes whose names contained `Exception` resulted in an error. This change applies to both Lightning Experience and Salesforce Classic.

[See More Code Coverage Results in the Developer Console](#)

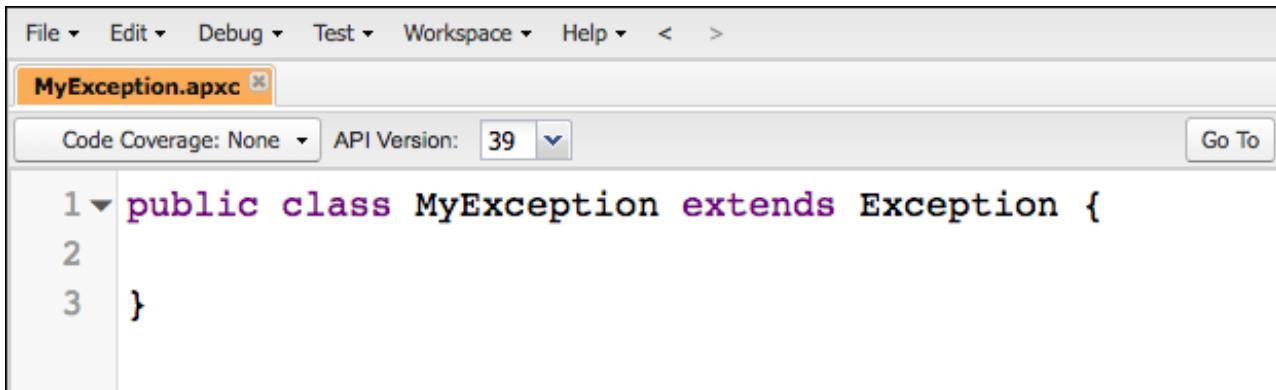
You can now view all your code coverage results in the Developer Console, even when you have more than 2,000 Apex classes and triggers. Previously, the Developer Console displayed only up to 2,000 rows of code coverage results. This change applies to both Lightning Experience and Salesforce Classic.

EDITIONS

Available in: **Enterprise**, **Performance**, **Unlimited**, **Developer**, and **Database.com** Editions

Create Exception Classes in the Developer Console

You can now create Apex classes that extend `System.Exception` in the Developer Console. Previously, creating classes whose names contained `Exception` resulted in an error. This change applies to both Lightning Experience and Salesforce Classic.



The screenshot shows the Salesforce Developer Console interface. The title bar includes 'File', 'Edit', 'Debug', 'Test', 'Workspace', and 'Help' menus. Below the menu bar, the file name 'MyException.apxc' is displayed in an orange box. To the right of the file name are dropdowns for 'Code Coverage: None' and 'API Version: 39'. A 'Go To' button is also present. The main code editor area contains three lines of code:

```
1 public class MyException extends Exception {  
2  
3 }
```

SEE ALSO:

[Apex Developer Guide: Exception Class and Built-In Exceptions](#)

See More Code Coverage Results in the Developer Console

You can now view all your code coverage results in the Developer Console, even when you have more than 2,000 Apex classes and triggers. Previously, the Developer Console displayed only up to 2,000 rows of code coverage results. This change applies to both Lightning Experience and Salesforce Classic.

Debugging: ISV Customer Debugging, No Nested Trace Flag Durations

Root out problems in your Salesforce org more easily, thanks to improvements to the debugging experience. Debug managed packages in subscriber orgs, and avoid issues that arose when trace flags had nested time windows. This change applies to both Lightning Experience and Salesforce Classic.

IN THIS SECTION:

[Debug Your Managed Packages in Subscriber Orgs](#)

Each License Management Org now has one free ISV Customer Debugger session. The "View and Debug Managed Apex" user permission controls access to this feature.

[Set Discrete Trace Flag Durations](#)

You can have only one trace flag per traced entity active at a time. However, you could previously set overlapping trace flags on the same entity if you nested the trace flags' active time windows. To avoid confusing errors, we've fixed this bug. You can no longer set overlapping trace flags, even when one trace flag has a later start time and an earlier end time than another trace flag.

Editions

Available in: **Enterprise**, **Performance**, **Unlimited**, **Developer**, and **Database.com** Editions

Debug Your Managed Packages in Subscriber Orgs

Each License Management Org now has one free ISV Customer Debugger session. The "View and Debug Managed Apex" user permission controls access to this feature.



Note: This feature is available to eligible Salesforce partners. For more information on the Partner Program, including eligibility requirements, visit www.salesforce.com/partners.

SEE ALSO:

[Debug Apex Code in Subscriber Orgs](#)

Set Discrete Trace Flag Durations

You can have only one trace flag per traced entity active at a time. However, you could previously set overlapping trace flags on the same entity if you nested the trace flags' active time windows. To avoid confusing errors, we've fixed this bug. You can no longer set overlapping trace flags, even when one trace flag has a later start time and an earlier end time than another trace flag.

SEE ALSO:

[Salesforce Help: Set Up Debug Logging](#)

[Force.com Tooling API: TraceFlag](#)

ISVforce: Package Manager in Lightning Experience, Packaging Enhancements, ISV Customer Debugging

ISVforce tools make it easy to build, package, and distribute apps and Lightning components. This release surfaces the Package Manager in Lightning Experience and enhances the security of package push upgrades. You can also abort package push requests using the API and debug your Managed - Released packages in subscriber orgs.

EDITIONS

Available in: **Developer**
Edition

IN THIS SECTION:

[Manage Packages Using Lightning Experience](#)

You can now create and manage packages using Lightning Experience, just like you always could in Salesforce Classic.

[Package Push Upgrades Deactivate New or Modified Remote Sites by Default](#)

If a package push upgrade creates a new remote site, or modifies an existing site, the site is set to Inactive by default. Previously, the remote site was set to Active without explicit approval from the subscriber system administrator, which was a potential product security issue.

[ISVforce: Updating Lightning and Salesforce Classic App Packages](#)

As a developer, you can change Lightning and Salesforce Classic apps and have your subscribers pick up the changes when they receive the new package version.

[Abort a Package Push Request Using an API](#)

You abort a package push request by changing its status to Canceled.

[Debug Apex Code in Subscriber Orgs](#)

Each License Management Org can use one free ISV Customer Debugger session at a time. The ISV Customer Debugger is part of the Apex Debugger, which is part of the Force.com IDE plug-in for Eclipse and is normally a paid feature. The Apex Debugger can be used only in sandbox orgs, so you can initiate debugging sessions only from a customer's sandbox.

[Control LMO Users' Access to Your Code in Subscriber Orgs with a New Permission](#)

Previously, you could control License Management Org (LMO) users' access to obfuscated code in subscriber orgs with the "Author Apex" permission. The "View and Debug Managed Apex" permission now controls this access. Users with the "Author Apex" permission can no longer view obfuscated code in subscriber orgs.

Manage Packages Using Lightning Experience

You can now create and manage packages using Lightning Experience, just like you always could in Salesforce Classic.

To access the package manager, search Setup for Packages.

The screenshot shows the Salesforce Lightning Experience setup interface. In the left sidebar, under the 'Apps' section, the 'Package Manager' item is highlighted with a red oval. The main content area is titled 'SETUP Package Manager' and contains two tabs: 'Developer Settings' and 'Packages'. The 'Developer Settings' tab is active, showing developer configuration details. The 'Packages' tab displays a table of packages, with one entry named 'MyPackage'.

Action	Package Name	Description
Edit	MyPackage	

SEE ALSO:

[Lightning Experience: A Modern and Intelligent User Experience](#)

[ISVforce Guide](#)

Package Push Upgrades Deactivate New or Modified Remote Sites by Default

If a package push upgrade creates a new remote site, or modifies an existing site, the site is set to Inactive by default. Previously, the remote site was set to Active without explicit approval from the subscriber system administrator, which was a potential product security issue.

To activate the new or modified remote site, navigate to its details and check the Active box.

The screenshot shows the Salesforce Setup interface with the 'Remote Site Settings' page selected. The 'Active' checkbox under 'Description' is highlighted with a red circle. Other visible fields include 'Remote Site Name' (remotesite1), 'Remote Site URL' (http://www.pinterest.com), and 'Disable Protocol Security' (unchecked).

SEE ALSO:

[ISVforce Guide](#)

ISVforce: Updating Lightning and Salesforce Classic App Packages

As a developer, you can change Lightning and Salesforce Classic apps and have your subscribers pick up the changes when they receive the new package version.

Here's what can and can't be changed in an app.

- Developer-controlled fields can be updated
- Subscriber-controlled fields can't be updated
- Salesforce Classic consoles aren't upgradeable because all their fields are subscriber-controlled
- A managed Salesforce Classic app deleted by the subscriber org can't be recreated on package upgrade
- Both push and pull upgrades are supported

Abort a Package Push Request Using an API

You abort a package push request by changing its status to Canceled.

For example, if you're using the REST API, submit a PATCH request to the PackagePushRequest sObject endpoint as shown.

```
PATCH
/services/data/v38.0/sobjects/packagepushrequest/0DV...
{
  "Status" : "Canceled"
}
```

If the push request was in a Created or Pending status, the push is aborted and all associated push jobs are canceled. If the request was in a Canceled, Succeeded, Failed, or In Progress status, the abort does not occur and an error message is returned. This behavior mimics that of the UI.

SEE ALSO:

[ISVforce Guide](#)

Debug Apex Code in Subscriber Orgs

Each License Management Org can use one free ISV Customer Debugger session at a time. The ISV Customer Debugger is part of the Apex Debugger, which is part of the Force.com IDE plug-in for Eclipse and is normally a paid feature. The Apex Debugger can be used only in sandbox orgs, so you can initiate debugging sessions only from a customer's sandbox.



Note: This feature is available to eligible Salesforce partners. For more information on the Partner Program, including eligibility requirements, visit www.salesforce.com/partners.

The "View and Debug Managed Apex" user permission controls access to the ISV Customer Debugger.

Initiate a debugging session from Setup. In your browser, while logged in to your subscriber's org, enter *Apex Debugger* in the Quick Find box, then select **Apex Debugger**. Click **Start Partner Debugging Session**. Then, drag the icon () from your browser to your Eclipse window.

SEE ALSO:

[Force.com IDE Developer Guide: Get Started with the Apex Debugger](#)

Control LMO Users' Access to Your Code in Subscriber Orgs with a New Permission

Previously, you could control License Management Org (LMO) users' access to obfuscated code in subscriber orgs with the "Author Apex" permission. The "View and Debug Managed Apex" permission now controls this access. Users with the "Author Apex" permission can no longer view obfuscated code in subscriber orgs.



Note: This feature is available to eligible Salesforce partners. For more information on the Partner Program, including eligibility requirements, visit www.salesforce.com/partners.

The code contained in an Apex class, trigger, or Visualforce component that's part of a managed package is obfuscated and can't be viewed in an installing org. The only exceptions are methods declared as global. You can view global method signatures in an installing org. In addition, License Management Org users with the "View and Debug Managed Apex" permission can view their packages' obfuscated Apex classes when logged in to subscriber orgs via the Subscriber Support Console.

Marketing: Tools to Engage Your Customers Like Never Before

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, and plan and optimize unique customer journeys based on your business objectives. Deliver personalized content across every channel and device at precisely the right time, and measure the impact of each interaction on your business so you can optimize your approach in real time and deliver better results.

SEE ALSO:

- [Marketing Cloud Overview](#)
- [Marketing Cloud: October 2016 Release Notes](#)
- [Marketing Cloud: September 2016 Release Notes](#)
- [Marketing Cloud: July 2016 Release Notes](#)
- [Marketing Cloud: May 2016 Release Notes](#)
- [Marketing Cloud: Earlier Release Notes](#)
- [Salesforce Marketing Cloud Facebook Page](#)

Critical Updates: LockerService Changes, CSRF Protection for Visualforce Pages, and Masking Decoupled from Shield Platform Encryption

This release includes two new critical updates. One changes how Visualforce pages implement CSRF protection for GET requests. The other decouples the "View Encrypted Data" permission from Shield Platform Encryption. In addition, the LockerService, approvals, and flow critical updates from Summer '16 have been postponed.

To ensure a smooth transition, each critical update has an opt-in period, which ends on the auto-activation date that's displayed on the Critical Updates page in Setup. During this period, you can manually activate and deactivate the update as often as you need to evaluate the impact on your org and modify affected customizations. After the opt-in period has passed, the update is automatically activated. For more details, see [Respond to Critical Updates](#).

LockerService Has Stricter Content Security Policy

The existing LockerService critical update tightens Content Security Policy (CSP) to eliminate the possibility of cross-site scripting attacks. These CSP changes are enforced only in sandboxes and Developer Edition orgs. The CSP changes have no effect in production orgs, even when LockerService is activated. The Lightning Component framework uses Content Security Policy (CSP) to control the source of content that can be loaded on a page.

Allow CSRF Protection on GET Requests to Visualforce Pages

This critical update makes it possible to enable CSRF checks for GET requests on Visualforce pages, and might break links to existing Visualforce pages.

Turn Off Masking for Encrypted Data

This critical update decouples masking from the Shield Platform Encryption service. This means that the "View Encrypted Data" permission, and its resulting masking behavior, will no longer be available. Customers should review their field and object-level security settings before activating this critical update.

"Make Sure Records that Are Submitted Behind the Scenes Are Routed to the Right Approval Process" Critical Update Postponed

This critical update, released in Summer '16, was scheduled for auto-activation in Winter '17, but has been postponed to Spring '18.

"Trust Percent Values in Flow sObject Variables Again" Critical Update Activates in Spring '17

This critical update, released in Summer '16, was scheduled for auto-activation in Winter '17, but was postponed to Spring '17.

Other Salesforce Products

desk.com

Desk.com is an all-in-one customer support app for small businesses and growing teams.

For information on new features, go to the [Desk.com Product Updates Blog](#).

Heroku

Heroku is a cloud-based application platform for building and deploying web apps.

For information on new features, go to the [Heroku Changelog](#).

LiveMessage

LiveMessage allows your service agents to receive inbound text messages from your customers on the same landline or 800 number that customers use to call. Agents can also initiate outbound text messages to your customers for proactive communications, meeting your customers wherever they are.

For information on new features, go to the [LiveMessage release page](#)