
Wave Analytics Platform Setup Guide

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WAVE ANALYTICS PLATFORM SETUP GUIDE

Wave Platform Setup

To set up your organization to use the Salesforce Wave Analytics platform, learn about Wave Analytics platform licenses and permissions. Then follow the same basic process you use to set up other Salesforce products.

 **Important:** If you purchased a Wave Analytics Platform license before October 20, 2015 with Analytics Cloud Builder or Analytics Cloud Explorer permission set licenses, read [Set up the Wave Analytics Platform With Licenses Purchased Before October 20, 2015](#). If you're migrating users from Builder or Explorer licenses to the new Analytics Cloud - Wave Analytics Platform license, see [Migrating From Wave Licenses Purchased Before 10/20/2015 to New Wave Platform Licenses](#) before you start the setup process for those users.

 **Note:** Sales Wave app users should see [The Sales Wave Analytics App](#) to get started with the app.

Each Analytics Cloud - Wave Analytics Platform license is a single-user license that provides access to the Salesforce Wave Analytics cloud. It includes a single Analytics Cloud - Sales Wave Analytics App single-user license. The table shows data storage limits for each license. If you require more data, you can purchase Analytics Cloud - Additional Data Rows, which entitles you to an additional 100 million rows.

License	Limit
Analytics Cloud - Wave Analytics Platform	100 million rows
Analytics Cloud - Sales Wave Analytics App	25 million rows when used without Analytics Cloud - Wave Analytics Platform license. Use of Sales Wave app license does not increase data limit for platform license
Analytics Cloud - Additional Data Rows	100 million rows

 **Important:** Wave Analytics license data storage limits are contractual, not technical. Licensee agrees to strictly monitor its total number of data rows.

Wave Platform Setup Process

Enable Wave and assign permission set licenses to users. The first step when you set up Wave is simply to enable it. Then, you assign an Analytics Cloud - Wave Analytics Platform permission set license to each user. Each permission set license can be assigned to only one user. Also, the user license that's associated with the user profile must support the Analytics Cloud - Wave Analytics Platform permission set license. Not all user licenses support the Wave platform permission set license.

Define user types and create and assign permission sets. Next, define the main user types in your organization and create permission sets to group related user permissions according to each user type's needs. After you create permission sets, assign them to users. Although you can assign a permission set to an individual user, for efficiency, you can also assign it to groups of users. You can assign multiple permission sets to a user.

EDITIONS

Available in: Salesforce Classic and Lightning Experience

Available in: **Developer** Edition

Available for an extra cost in: **Enterprise, Performance, and Unlimited** Editions

**Walk Through It: create, edit, and assign a permission set**

You can assign a Wave permission set license along with any of the following Salesforce user licenses:

- Force.com (app subscription)
- Force.com (one app)
- Full CRM
- Salesforce Platform
- Salesforce Platform One



Note: If you disable Wave Analytics, user permissions are removed from each defined permission set. If you re-enable Wave Analytics later, you must define the permission sets again.



Tip: For best results, follow the steps for setting up the Wave Analytics platform in the order shown here.

SEE ALSO:

[Set up the Wave Analytics Platform With Licenses Purchased Before October 20, 2015](#)


[Migrating From Wave Licenses Purchased Before 10/20/2015 to New Wave Platform Licenses](#)

Learn About the Analytics Cloud Permission Set License and User Permissions

The Analytics Cloud - Wave Analytics Platform permission set license enables all the user permissions needed to explore data with and manage Salesforce Wave Analytics.

Each Wave platform user needs an Analytics Cloud - Wave Analytics Platform permission set license to use Wave. The Analytics Cloud - Wave Analytics Platform permission set license enables the following permissions.

User Permission	What It Enables
"Use Wave Analytics"	Accessing Wave Analytics. Viewing and exploring datasets. Viewing and sharing lenses and dashboards.
"Create and Edit Wave Analytics Dashboards"	Creating, editing, and deleting Wave Analytics dashboards.
"Create Wave Analytics Apps"	Creating, editing, deleting, and sharing Wave Analytics applications.
"Upload External Data to Wave Analytics"	Uploading external data to Wave Analytics to create a dataset. Monitoring dataflow and system jobs in the data monitor.
"Edit Wave Analytics Dataflows"	Editing, starting, stopping, and rescheduling the dataflow. Monitoring dataflow and system jobs in the data monitor. Use discretion when assigning this user permission because it enables the user to access all Salesforce object data to which the Integration User has access. For more information see Salesforce Data Access .
"Manage Wave Analytics"	Accessing all Wave Analytics features. Provides Wave administrator-level capabilities.

 **Note:** When you create permission sets for Wave users, selecting any Wave Analytics permission automatically enables the “Use Wave Analytics” permission as well. Also, the type of access granted on an app controls the actions a user can perform on its datasets, lenses, and dashboards. For example, if a user has the “Use Wave Analytics” permission, the user must also have Viewer access on an app to view its datasets, lenses, and dashboards.

Identify Wave Analytics Platform User Types

Identifying types of Wave users and the tasks they need to perform helps assure that the setup process meets the majority of your team members’ analytics needs.

The Wave Analytics Platform license includes the permissions users in your organization need to administer Wave as well as to import, work with, and explore data. To set up Wave in the most useful way, think through the different ways people need to access Wave features and categorize them into user types. Here are a few examples:

In most cases, you’ll need to set up Wave to meet the needs of two basic types of people on your team:

- Users, who need to be able to view Wave dashboards, lenses, and datasets and occasionally import data to Wave.
- Administrators or managers, who need access to all of Wave functionality to create apps, dashboards, lenses, and datasets, edit data, and otherwise customize the Wave experience.

Accordingly, when you set up the Wave platform, creating two basic permission sets can probably meet the needs of most users in your organization:

- A “view” permission set that contains the permissions needed by most basic-level users when they access Wave.
- A “manage” permission set that’s reserved for a select few administrators and managers and contains permissions to use all Wave features

You can set up Wave Analytics however you want, defining other user types and permissions sets based on the needs of users in your organization. For example, you may need to create a “superuser” permission set who need capabilities to create and share apps and dashboards or a “data wizard” permission set for users who want to work closely with datasets.

We focus on two main types of people on your team -- users and administrators -- in the example permission sets we show you how to create and assign in our detailed setup instructions.

EDITIONS

Available in: **Salesforce Classic and Lightning Experience**

Available in: **Developer Edition**

Available for an extra cost in: **Enterprise, Performance, and Unlimited Editions**

Enable Wave Analytics and Select Analytics Cloud - Wave Analytics Platform Permission Set License

After Salesforce provisions you with the Wave Analytics platform license, you need to enable Wave and select the Wave Analytics permission set license and assign it to users.

1. In the Salesforce Setup menu, under administer, click **Analytics Cloud | Getting Started**.
2. Click **Enable Analytics**.
3. In the Setup menu, click **Manage Users | Users**.
4. Click the name of a user you want to access Wave. You might want to start with **User, Admin**, or whatever name has been given to the system administrator.
5. Position the cursor over **Permission Set License Assignments** and click **Edit Assignments**.
6. Select the Analytics Cloud - Wave Analytics Platform permission set license and click **Save**.

- Repeat the above steps for all users in your organization who require access to Wave.


 **Note:** No data is available for queries until you load data into Wave Analytics.

Create Wave Analytics Permission Sets

To give users in your organization access to Wave features, create and assign one or more permission sets based on the level of analytics capabilities they need.


After assigning permission set licenses to users, the next step in the setup process is to create permission sets made up of Wave user permissions and assign them to users. You can create any permission sets you need to meet the needs of your users. We show you how to create two permission sets:

- Manage Wave Analytics* permission set, for users who administer and manage Wave Analytics and need access to all Wave Analytics features.
- View Wave Analytics* permission set, for users who explore data and occasionally upload new data to Wave Analytics and need access to a limited set of Wave Analytics features.


 **Note:** Customers who purchased Wave before October 20, 2015: See [Set up the Wave Analytics Platform With Licenses Purchased Before October 20, 2015](#) before following the instructions here.



Walk Through It: create, edit, and assign a permission set


-  **Note:** The Manage Wave Analytics permission set enables the equivalent functionality provided by the previous Wave Analytics Builder license (purchased before October 20, 2015). If you have a Builder license or you're migrating to the new Wave Analytics platform license, follow these steps to create a permission set with the same functionality.

Create Manage Wave Analytics permission set, which gives users access to all Wave features.

- In the Setup menu, under administer, click **Manage Users | Permission Sets** and then click **New**.
- Enter `Manage Wave Analytics` in the Label field. This automatically creates the API name, as well, which you can change if you'd like. Note that the API name can't include spaces, end with an underscore, or have two consecutive underscores.
-  **Warning:** Follow this step precisely or some users in your organization may not be able to access Wave.

In the User License field, keep the default value `--None--`. Do *not* select a user license.

- Click **Save**. The permission set details page shows the new permission set. Now add user permissions to the set.
- Scroll to the bottom of the permission set details page, and click **System Permissions**. Then click **Edit**.
- Select "Manage Wave Analytics" user permissions and click **Save**. You've successfully created a permission set that enables a user to access all Wave features. You can now assign it to users, which is covered in Assign Permission Sets to Users. You should assign this permission set sparingly because it provides access to all Wave features, many of which are inappropriate for most analytics users.

-  **Note:** The View Wave Analytics permission set enables the equivalent functionality provided by the previous Wave Analytics Explorer license (purchased before October 20, 2015). If you have an Explorer license or you're migrating to the new Wave Analytics platform license, follow these steps to create a permission set with the same functionality.


Create View Wave Analytics permission set, which enables users to view Wave lenses, dashboards, and datasets and import data to Wave.

- In the Setup menu, under administer, click **Manage Users | Permission Sets** and then click **New**.

USER PERMISSIONS



To create permission sets:

- "Manage Profiles and Permission Sets"

- b. Enter `View Wave Analytics` in the Label field. This automatically creates the API name, as well, which you can change if you'd like. Note that the API name can't include spaces, end with an underscore, or have two consecutive underscores.
- c.  **Warning:** Follow this step precisely or some users in your organization may not be able to access Wave.
In the User License field, keep the default value `--None--`. Do *not* select a user license.
- d. Click **Save**. The permission set details page shows the new permission set. Now add user permissions to the set.
- e. Scroll to the bottom of the permission set details page, and click **System Permissions**. Then click **Edit**.
- f. Select "Use Wave Analytics Cloud" and "Upload External Data to Wave Analytics" user permissions and click **Save**. You've successfully created a permission set that enables a user to view the Wave datasets, lenses, and dashboards that they have permission to view upload data files from outside Salesforce. You can now assign it to users, which is covered in Assign Permission Sets to Users.

Assign Wave Analytics Permission Sets to Users

Assign permission sets to one or more users—either one at a time, or in bulk—to give them access to the Wave functionality.

1.  [Walk Through It: assign a permission set](#)
2. In the Setup menu, under administer, click **Manage Users | Permission Sets**.
3.  **Warning:** Assign the Manage Wave Analytics permission set sparingly, since it provides access to all Wave features. It should only be assigned to users who administer or manage the Wave platform.

Click the permission set you want to assign to users. If you've followed the instructions in [Create Wave Analytics Permission Sets](#) on page 4, select either the Manage Wave Analytics or View Wave Analytics permission sets.

4. Click **Manage Assignments** and click **Add Assignments**.
5. Select the users who need access to Wave, and click **Done**.

USER PERMISSIONS

To assign a permission set to users:

- "Assign Permission Sets"


Complete Setting up the Wave Analytics Platform

Enhance the Wave platform user experience and fine-tune Wave access to Salesforce data with optional setup procedures.

Enable Preview Thumbnails for All Lenses and Dashboards

Make it easier for users to find their lenses and dashboards on the home page and on app pages. Replace the generic icons with preview thumbnails of the contents of all lenses and dashboards, including those assets that have row-level security restrictions.


If no security predicate is defined for a dataset, then preview thumbnails always appear. If a security predicate is defined, then preview thumbnails don't show unless this setting is enabled. With the setting enabled, preview thumbnails appear for all assets.

 **Important:** Even if row-level security applies to the dataset used by a lens or dashboard, the preview thumbnail could expose data from restricted rows. Row-level security restrictions take effect only after you've clicked through to the lens or dashboard.

1. From Setup, enter *Wave Analytics* in the **Quick Find** box, then select **Settings**.
2. Select **Show preview thumbnails for lenses and dashboards with row level-security enabled**.
3. Click **Save**.

Enable Wave Analytics for Communities

Securely share Wave Analytics apps with community partner and customer users.

 **Note:** Only users with a Customer Community Plus or Partner Community license can use this feature. This feature is supported in communities but not in portals.

To set up Wave Analytics for sharing with Communities, complete the following steps.

1. Set up your Salesforce org as described in the [Wave Platform Setup](#) section.
2. From Setup, enter *Wave Analytics* in the **Quick Find** box, then select **Settings**. Select **Enable Wave Analytics for Communities**.
3. Assign your community members the Analytics Cloud - Wave Community Users permission set license.
4. Create a permission set that includes the "View Wave Analytics on Communities Pages" permission and assign it to your community members.
5. In Wave, create dashboards and save them in a Wave app. Designate that app for sharing with the community.
6. Embed your Wave dashboards in Visualforce pages on your community site. For more information, see [Add a Wave Analytics Dashboard to a Visualforce Page](#).
7. From the app containing your dashboards, give access to community members by selecting **Share**.

EDITIONS

Available in: Salesforce Classic and Lightning Experience

Available in: **Developer Edition**

Available for an extra cost in: **Enterprise, Performance, and Unlimited Editions**

USER PERMISSIONS

To modify settings:

- "Manage Wave Analytics"

EDITIONS

Available in: Salesforce Classic

Available in: **Developer Edition**

Available for an extra cost in: **Enterprise, Performance, and Unlimited Editions**

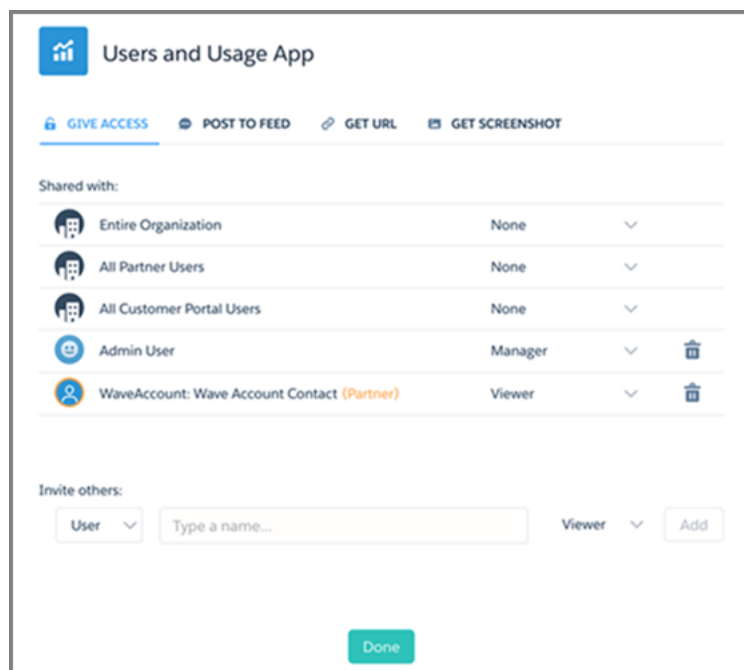
USER PERMISSIONS

To modify settings:

- "Manage Wave Analytics"

To view Wave dashboards and lenses:

- "View Wave Analytics on Communities Pages"



8. Invite community partners and customers to share the app. They appear highlighted in orange to distinguish them as external users, and Viewer is the only access available for them.

For information about building Communities, see [Getting Started With Communities](#).

Grant Users Access to the Flex Dashboard Designer

To grant users access to the flex dashboard designer, enable the feature and assign the “Create and Edit Wave Analytics Dashboards” user permission to the users. If you assign the permission but don’t enable the feature, the users can’t access the new designer, but they can access the old one.

1. From Setup, enter *Wave Analytics* in the Quick Find box, then select **Settings**.
2. Select **Enable Flex Dashboard Designer (Beta)**, and then click **Save**.
3. For each user that builds dashboards, assign the “Create and Edit Wave Analytics Dashboards” user permission to them.
Each user has a choice whether to use the old or new designer for each dashboard.

EDITIONS

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Available for an extra cost in: **Enterprise**, **Performance**, and **Unlimited** Editions

USER PERMISSIONS

To access the old or new designer:

- “Create and Edit Wave Analytics Dashboards”

Connected App for Wave Analytics for iOS

Install the Analytics for iOS Connected App to allow your mobile clients to easily connect to your org. The Connected App gives you control over who's logging in and how your mobile clients share images and links.

1. While logged in as an admin, navigate to <https://login.salesforce.com/packaging/installPackage.apexp?p0=04tB0000000DKTA>.
2. Select **Install for All Users**.
If you install the Connected App only for certain roles, then only those clients are subject to your policies.
3. After clicking **Done**, open the Salesforce Insights for iOS package.
4. To configure policies and other settings, click **Edit**. When you are finished, save your changes.
For more information about Connected App settings, see [Edit a Connected App](#).
5. If you want to disable sharing options for mobile users, click **New** in the Custom Attributes section.

All sharing options are enabled by default. To disable an option, add its attribute key and enter `"false"` for the attribute value. See the table for the supported attribute keys.

Attribute Key	Mobile clients can share
SHARE_IMAGE_AIRDROP	Images via AirDrop
SHARE_IMAGE_CAMERAROLL	Images from Camera Roll
SHARE_IMAGE_OPEN	The image that's currently open on the mobile device
SHARE_IMAGE_S1	Images in Salesforce1
SHARE_IMAGE_EMAIL	Images via email
SHARE_LINK_AIRDROP	Links via AirDrop
SHARE_LINK_CLIPBOARD	The link that's currently in the clipboard of the mobile device
SHARE_LINK_S1	Links in Salesforce1
SHARE_LINK_EMAIL	Links via email
SPOTLIGHT_SEARCH	Mobile clients can see Wave Analytics assets in Spotlight search results



Note: To apply custom attributes to connected users, you can revoke them and ask them to reconnect.

6. To view and control how mobile clients connect to your Wave-enabled org, from Setup, enter *Connected Apps* in the Quick Find box, then select **Connect Apps OAuth Usage**.

You can block user sessions, revoke individual users, and drill in to user details. For more information, see [Monitoring Usage for a Connected App](#).

EDITIONS

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Available in: **Developer** Edition

Available for an extra cost in: **Enterprise, Performance,** and **Unlimited** Editions

USER PERMISSIONS

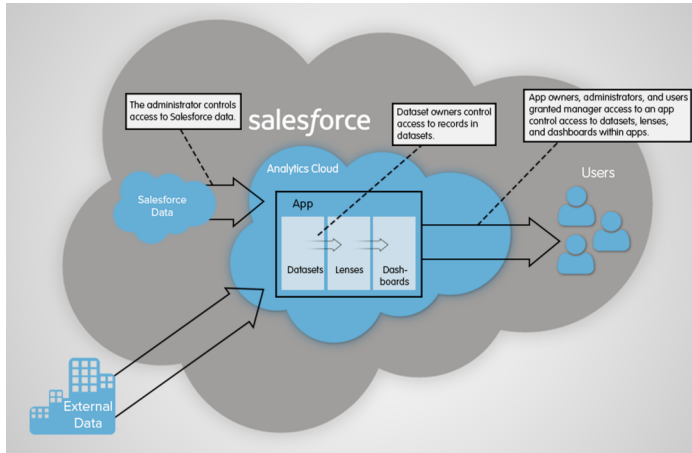
To install and configure Connected App:

- "Manage Wave Analytics"


 **Note:** For certificate-based authentication, users must set their desktop browsers to allow cookies.

Wave Analytics Security Implementation Guide

Wave Analytics has different levels of security that your organization can implement to ensure that the right user has access to the right data.



- The administrator can implement object-level and field-level security to control access to Salesforce data. For example, the administrator can restrict access to prevent the dataflow from loading sensitive Salesforce data into datasets. This document describes how Wave Analytics uses object-level and field-level security on Salesforce data and how to configure permissions on Salesforce objects and fields.
- Dataset owners can implement row-level security on each dataset that they create to restrict access to its records. If a dataset does not have row-level security, users who have access to the dataset can view all records. This document describes how to configure row-level security on datasets and provides some sample implementations based on datasets created from Salesforce data and external data.
- App owners, administrators, and users granted manager access to an app control access to datasets, lenses, and dashboards within apps. This document describes the different levels of access for apps and how to share datasets, lenses, dashboards in an app with other users.

 **Note:** Wave Analytics doesn't synchronize with sharing that's configured in Salesforce. Instead, you configure security separately in Wave Analytics. Wave Analytics provides a robust row-level security feature that enables you to model many different types of access controls on datasets.

For complete information about implementing Wave Analytics security, see [Wave Analytics Security Implementation Guide](#).

Salesforce Data Access

Wave Analytics requires access to Salesforce data when extracting the data and also when the data is used as part of row-level security. Wave Analytics gains access to Salesforce data based on permissions of two internal Wave Analytics users: Integration User and Security User.


Wave Analytics uses the permissions of the Integration User to extract data from Salesforce objects and fields when a dataflow job runs. Because the Integration User has View All Data access, you might choose to restrict access to particular objects and fields that contain sensitive data. If the dataflow is configured to extract data from an object or field on which the Integration User does not have permission, the dataflow job fails.

Wave Analytics uses the permissions of the Security User to access the User object and its fields when a user queries a dataset that has row-level security based on the User object. The Security User must have at least read permission on each User object field included in a predicate. A predicate is a filter condition that defines row-level security for a dataset. By default, the Security User has read permission on all standard fields of the User object. If the predicate is based on a custom field, then you must grant the Security User read access on the field. If the Security User does not have read access on all User object fields included in a predicate expression, an error appears when a user tries to query the dataset on which the predicate is applied.

Control Access to Salesforce Objects and Fields

Wave Analytics requires access to Salesforce data when extracting the data and also when the data is used as part of row-level security. Configure the permissions of the Integration User on Salesforce objects and fields to control the dataflow's access to Salesforce data. Configure the permissions of the Security User to enable row-level security based on custom fields of the User object.

When configuring permissions for the Integration User or Security User, make changes to a cloned version of the user profile.

1. From Setup, enter *Profiles* in the **Quick Find** box, then select **Profiles**, and then select the user profile.
For the Integration User, select the Analytics Cloud Integration User profile. For the Security User, select the Analytics Cloud Security User profile.
 2. Click **Clone** to clone the user profile.
 3. Name and save the cloned user profile.
 4. Click **Object Settings**.
 5. Click the name of the Salesforce object.
 6. Click **Edit**.
 - a. To enable permission on the object, select **Read** in the Object Permissions section.
 - b. To enable permission on a field of the object, select **Read** for the field in the Field Permissions section.
-  **Note:** You can't change the permissions on standard fields of the User object.
7. Save the object settings.
 8. Assign the cloned user profile to the Integration User or Security User.
 - a. From Setup, enter *Users* in the **Quick Find** box, then select **Users**.
 - b. Select the user to which you want to assign the user profile.
 - c. Click **Edit**.
 - d. In the Profile field, select the user profile.
 - e. Click **Save**.

USER PERMISSIONS

To clone a user profile:

- "Manage Profiles and Permission Sets"

To edit object permissions:


- "Manage Profiles and Permission Sets"


AND

"Customize Application"

Set up the Wave Analytics Platform With Licenses Purchased Before October 20, 2015

If you purchased Wave Analytics Builder or Explorer licenses before October 20, 2015, you can continue to use your licenses to set up the Wave platform for users in your organization or you can migrate to the new single-user Wave Analytics platform license.

 **Note:** This information applies only to customers who purchased Wave Analytics licenses before October 20, 2015, and continue to use the Analytics Cloud Builder or Analytics Cloud Explorer permission set licenses after that without migrating to the new Analytics Cloud Wave Platform license. If you purchased Wave on or after October 20, 2015, go to [Wave Platform Setup](#).

 **Important:** If you're migrating from the previous Analytics Cloud Builder or Analytics Cloud Explorer platform licenses to the single-user Wave Analytics platform license, read [Migrating From Wave Licenses Purchased Before 10/20/2015 to New Wave Platform Licenses](#).

The Analytics Cloud Wave Platform License

Analytics Cloud Wave Platform license purchased before October 20, 2015, enable you to turn on Wave Analytics for your organization. Each previous Wave Platform license is contractually limited to a maximum of 400 users. If you need more than 400 users, you can purchase additional Wave Platform licenses.

Each previous Wave Platform license enables you to:

- Store up to 250,000,000 rows in your final registered datasets.
- Run up to 50 concurrent queries in Wave Analytics.

The Analytics Cloud Permission Set Licenses

Each user needs an Analytics Cloud permission set license to use the product. The permission set license defines what user permissions can be assigned to the user. The administrator assigns permission set licenses to users.

As part of Wave Analytics platform licenses sold before October 20, 2015, Salesforce provides the following permission set licenses:

- Analytics Cloud Builder permission set license enables users to access all Wave Analytics features.
- Analytics Cloud Explorer permission set license enables users to upload external data to Wave Analytics and explore data.

Here are Wave Analytics user permissions included with each permission set license.

User Permission	Included in Explorer or Builder Permission Set License?	What It Enables
"Create and Edit Wave Analytics Dashboards"	Builder only	Creating and editing Wave Analytics dashboards.
"Create Wave Analytics Apps"	Builder only	Creating and sharing Wave Analytics applications.
"Edit Wave Analytics Dataflows"	Builder only	Downloading, uploading, starting, stopping, and rescheduling the dataflow. Viewing dataflow and system jobs in the data monitor.

User Permission	Included in Explorer or Builder Permission Set License?	What It Enables
"Manage Wave Analytics"	Builder only	Accessing all Wave Analytics features. Provides Wave administrator-level capabilities.
"Upload External Data to Wave Analytics"	Builder and Explorer	Uploading external data to Wave Analytics to create a dataset. Viewing dataflow and system jobs in the data monitor.
"Use Wave Analytics"	Builder and Explorer	Using Wave Analytics, and viewing the datasets, lenses, and dashboards that the user has permission to view. Automatically enabled when you select any other Wave permission.



Note: When you create permission sets for Wave users, selecting any of the other Wave Analytics permissions automatically enables the "Wave Analytics" permission.

You can assign previous Wave Analytics permission set licenses along with any of the following Salesforce user licenses:

- Force.com (app subscription)
- Force.com (one app)
- Full CRM
- Salesforce Platform
- Salesforce Platform One

SEE ALSO:

[Migrating From Wave Licenses Purchased Before 10/20/2015 to New Wave Platform Licenses](#)

Migrating From Wave Licenses Purchased Before 10/20/2015 to New Wave Platform Licenses

To complete migration from previous Analytics Cloud Builder and Analytics Cloud Explorer licenses purchased before October 20, 2015, to the new Analytics Cloud - Wave Analytics Platform license, you may need to set up Wave users in your organization with new permission sets.

When Salesforce provisions your organization with the new Analytics Cloud - Wave Analytics Platform license, you may have to set up some users with the new license.

- **Builder license users.** Users who access Wave with the Analytics Cloud Builder permission set license should be able to continue to use the Wave Analytics platform without any additional setup. The Builder license is simply renamed *Analytics Cloud - Wave Analytics Platform*, and you'll see that permission set license in Salesforce Setup.
- **Explorer license users.** During the new license provisioning process, Salesforce may remove the Analytics Cloud Explorer license from your org. If that's the case, you'll see the new Analytics

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Cloud - Wave Platform license instead of the Explorer license and you have to set up users with that license. If the Explorer permission set license is still visible, you do not have to repeat the setup process for Explorer users.

If users in your organization require you to set them up with the new Analytics Cloud - Wave Platform license—even if they used Wave with a previous license—follow the steps in [Wave Platform Setup](#) on page 1. You need to assign them the new permission set license, create one or more new permission sets, and assign the permission sets to users.

Wave Analytics Limits

This section describes Wave Analytics limits.

The following limits apply to all supported editions. Contact salesforce.com to extend the limits.

API Call Limits

Limit	Value
Maximum concurrent Wave Analytics API calls per organization	100
Maximum Wave Analytics API calls per user per hour	5,000

Wave Analytics License Data Storage Limits



Note: The data limits shown in the following table apply *only* to Analytics Cloud - Wave Analytics Platform and Analytics Cloud - Sales Wave Analytics App licenses purchased on or after October 20, 2015.

License	Limit. Wave Analytics license data storage limits are contractual, not technical. Licensee agrees to strictly monitor its total number of data rows.
Analytics Cloud - Wave Analytics Platform	100 million rows
Sales Wave Analytics App	25 million rows when used without Analytics Cloud - Wave Analytics Platform license. Use of Sales Wave app license does not increase data limit for platform license
Analytics Cloud - Additional Data Rows	100 million rows

Dataset Storage Limits

Limit	Value
Maximum number of rows for all registered datasets combined.	250 million per platform license <i>purchased before</i> October 20, 2015. <div> Note: For best performance, we recommend datasets to be in the range of 100M records. Several items, such as the size of the records, and cardinality of measures, can significantly or adversely affect performance. </div>
Maximum number of fields in a dataset	5,000 (including up to 1,000 date fields)

Limit	Value
Maximum value for each numeric field in a dataset	36,028,797,018,963,967
Minimum value for each numeric field in a dataset	-36,028,797,018,963,968

Dataflow Limits

Limit	Value
Maximum number of dataflow runs in a rolling 24-hour period	24



Note: Wave uses the bulk API, which counts towards your Salesforce bulk API limits. The dataflow submits a separate bulk API call to extract data from each Salesforce object. The dataflow uses a batch size of 100K to 250K, depending on whether the dataflow or the bulk API chunks the data. As a result, to extract 1 million rows from an object, the dataflow creates 4-10 batches.

Sales Wave App Limits

Sales Wave limits custom object support to no more than ten custom objects and one dataflow for each org that implements the app. These are contractual, not technical, limits.

External Data Limits

Limit	Value
Maximum file size per external data upload	If you use the External Data API: 40 GB. If you use the user interface: 512 MB.
Maximum file size for all external data uploads in a rolling 24-hour period	50 GB
Maximum number of external data files that can be uploaded in a rolling 24-hour period	50
Maximum number of characters in a field	32,000
Maximum number of fields in a record	5,000 (including up to 1,000 date fields)
Maximum number of characters for all fields in a record	400,000

Query Limits

Limit	Value
Maximum concurrent queries per organization	50 per platform license
Maximum concurrent queries per user	10
Maximum number of rows returned per query	10,000

Limit	Value
10,000 is the default value. To set a different value, use the SAQL <code>limit</code> statement.	
Query timeout	2 minutes

The following limits apply to the Wave-enabled Developer Edition.

Developer Edition Limits

Limit	Value
Maximum number of data rows	250,000
Maximum concurrent queries	5



Note: Wave is built on force.com platform and is subject to the force.com platform limits. For example, the SOQL query limit (20,000 characters) controls the number of fields from which the sfdcDigest transformation can extract data. If you exceed a force.com limit, an error occurs. See [force.com platform limits](#).

Wave Analytics Limitations

Wave Analytics differs from other Salesforce features in some ways.

Releases Aren't Staggered

All customers receive Wave Analytics updates on the same schedule, regardless of instance. Related core updates happen by instance on a staggered schedule.

Localization

Wave Analytics has been localized with the following exceptions.

- We do not support right-to-left languages, such as Arabic and Hebrew.
- A subset of error messages may only be available in English.
- The mobile iOS app includes only English versions of sample datasets and dashboards.

Limited Internationalization Support

Wave Analytics provides internationalization support with the following limitations.

- You must set both locale and language to see translated labels.
- Actual data within datasets is not localized.
- Each dataset may have a single locale specified in the metadata. The metadata locale is not overridden by individual users' locale settings. All users see the same date, time, and number formats, as well as dimension names, regardless of their own locale and language settings.

- Search in filters is both case-sensitive and accent-sensitive. For example, using the filter “Andre” does not return “André” in the results.
- Multicurrency is not supported. When Wave Analytics extracts your organization’s default currency, it uses the currency for monetary values and doesn’t convert to another currency.
- Sorting data within datasets may not work as expected.

Accessibility Features Aren’t Supported

Accessibility features haven’t been incorporated into Wave Analytics.

Packaging and Metadata API Are Not Supported

The use of the Metadata API isn’t supported for Wave Analytics. You can’t package or version Wave Analytics applications. Migrating Wave Analytics data, objects, and applications from sandbox to production orgs requires manual effort. The Default Org Template (DOT) isn’t supported for org duplication.

Limited Field-Level Security

Field-Level security isn’t available for external data that’s uploaded via files. Field-level security that was implemented in the original database or Salesforce object isn’t preserved when the data is loaded into a Wave Analytics dataset. For more information, see the [Wave Analytics Security Implementation Guide](#).

Sales Wave App Support for Salesforce Objects and Fields

Sales Wave supports all Salesforce standard and custom objects and data. However, when you first create the app by default it includes only a predefined set of objects and fields.

Sales Wave creates a dataflow that exposes selected fields from the following standard Salesforce objects:

- Accounts
- Users
- Roles
- Opportunities
- Products (Opportunities line item)
- Tasks
- Events

Sales Wave supports standard and custom fields on standard Salesforce objects. The fields provided are determined by the answers you provide when you create the app using the built-in configuration wizard.



Note: Sales Wave limits custom objects support to no more than ten custom objects for each org that implements Sales Wave. This is a contractual, not a technical, limitation.

To add custom objects or additional fields not included when you first create the app, you need to update the Sales Wave dataflow. For details see [Create Datasets with a Dataflow](#).

Sales Wave App Support for Non-Salesforce Data

Sales Wave does not support external data sources except a CSV file that contains quota data at the user level. Importing other external data requires an additional license. See your Salesforce representative for details.



Note: To include data about quotas in Sales Wave, you need to upload a CSV file with the details. For more information, see [Update the Sales Wave App Quota \(Target\) Dataset](#).

Actions Menu Support for Objects and Actions

The current actions menu implementation provides limited support for Salesforce objects and actions.

You can currently create Wave quick actions menus for custom objects, sObjects, as well as the following standard Salesforce objects:

- Account
- Cases
- Lead
- Opportunity

Actions on Contacts, User, or User Profile page layouts are not supported.

The current implementation of action menus supports Chatter actions (Post, File, Thanks, Link, Poll, and Question), [object-specific actions](#), and [global actions](#). It does not support Salesforce1 actions.

Other objects and actions will be supported in future releases.