

salesforce

Marketing Cloud Journeys and Automations

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JOURNEYS AND AUTOMATIONS IN MARKETING CLOUD ENGAGEMENT

Design and automate Marketing Cloud Engagement campaigns that guide customers through their journey with a brand. Execute simple or multistep marketing and data management activities on an immediate, triggered, or scheduled basis.

[Email Client Privacy and Non-Subscriber Activity in Marketing Cloud Engagement Email and Journeys](#)

Some email client providers are making privacy changes that can impact open metrics and calculations. Trust is the #1 Value at Salesforce. Privacy and security continue to gain importance in our digital lives. Our top priority is to create the solutions that help you respond, act, and succeed in these new environments. Marketers traditionally create automations, campaign engagement strategies, and more based on email opens because email opens can signal whether a customer or prospect is interested in your content. But the privacy options available to customers can make email opens less reliable as engagement signals.

[Automation Studio](#)

Automate your Marketing Cloud Engagement email sends, queries, imports, and more with Automation Studio. Build simple or complex workflows that automate marketing and data management tasks based on criteria that you configure.

[Journeys and Messages](#)

Journey Builder is a campaign planning tool in Marketing Cloud Engagement that enables you to design and automate campaigns that guide customers through their journey with a brand. Its foundation is the journey, which is the communication plan you design. Canvas activities tell Journey Builder how to communicate to and direct contacts in the journey. Contacts enter from an entry source. The journey then continually evaluates contacts to determine when to move them to the next activity.

[Behavioral Triggers](#)

Use Marketing Cloud Engagement to reach customers who abandon unpurchased items or services. Configure the flow of this behavioral data into the data extensions for email sends and journeys. Using behavioral data this way is called Behavioral Triggers.

Email Client Privacy and Non-Subscriber Activity in Marketing Cloud Engagement Email and Journeys

Some email client providers are making privacy changes that can impact open metrics and calculations. Trust is the #1 Value at Salesforce. Privacy and security continue to gain importance in our digital lives. Our top priority is to create the solutions that help you respond, act, and succeed in these new environments. Marketers traditionally create automations, campaign engagement strategies, and more based on email opens because email opens can signal whether a customer or prospect is interested in your content. But the privacy options available to customers can make email opens less reliable as engagement signals.

In the Marketing Cloud Engagement Email and Journey experiences, these changes are to assist you in identifying the most valuable metrics for your campaigns.

Marketing Cloud Engagement App	Details
Journey Builder	<p>Open-related decisions such as Engagement Splits and Path Optimizer winner selection can be less reliable. Open metrics for active journeys can be artificially inflated.</p> <p>Users are reminded on the Journey Analytics dashboard that open-related metrics don't always accurately reflect engagement.</p>

Marketing Cloud Engagement App	Details
Intelligence Reports for Engagements	<p>Email engagement metrics, including Email Unique Opens, Email Open Rate, and Email Click-to-Open Rate, can be artificially inflated.</p> <p>Users are reminded that on Email dashboards, open-related metrics don't always accurately reflect engagement.</p>

SEE ALSO:

[Use Einstein to Improve your Marketing Efforts Clicks and Opens Behavior](#)

Automation Studio

Automate your Marketing Cloud Engagement email sends, queries, imports, and more with Automation Studio. Build simple or complex workflows that automate marketing and data management tasks based on criteria that you configure.

[The Automation Studio Overview Page](#)

When you access Automation Studio in Marketing Cloud, view up to 50 automations in your account, a snapshot of automation activities, run history, and folders. You can also run each automation once from the Overview page.

[Automate Processes in Automation Studio](#)

Use an automation to start a process when specific criteria are met. For example, when a file is uploaded to Marketing Cloud Enhanced FTP, you can automatically run activities, like an import, a file transfer, or an email send.

[Schedule an Automation](#)

In a Marketing Cloud automation that's in draft mode or already running, set the schedule on the Workflow tab.

[Use An Automation's Tabs](#)

Gain a more detailed understanding of how a Marketing Cloud automation's tabs work in Automation Studio.

[Automation Studio Activities](#)

Easily understand and use the Automation Studio Activities tab in the Marketing Cloud.

[Pause an Automation](#)

Temporarily stop an automation's schedule in Automation Studio. If the automation is running when you pause it, it continues to run, but future scheduled runs don't occur. You can see who paused an automation in the automation's summary.

[Skip an Automation](#)

Indicate in Automation Studio that an automation's next run will not occur without stopping the automation's schedule.

[Stop a Running Automation](#)

When an automation is stopped in Automation Studio, activities in the step that is in progress complete, but subsequent steps do not start.

[Copy an Automation](#)

Create an exact copy of an automation to extend or modify it in Automation Studio.

[Delete an Automation](#)

Remove unneeded automations from Overview or the automation page in Automation Studio.

[Automation Studio Errors](#)

Find out what Automation Studio error messages mean and how to resolve them. After applying the suggested action, run the activity or automation again to make sure that the error was addressed.

[Automation Studio Statuses](#)

You can view an automation's status from the Automation Studio interface or a related data view. Use this guide to understand what each status means.

[Get Automation Studio Notifications](#)

Add your email address to get notified when a Marketing Cloud automation run is skipped, encounters an error, or completes. You can also receive alerts through Digital Command Center for Slack or the Event Notification Service (ENS).

[Find Activity Configuration and Error Details](#)

To access configuration details and run history for an Automation Studio activity, view the activity's object detail page. Use this page to locate error information about the activity, too.

[Data Extension Storage Usage](#)

View and manage your marketing data usage by downloading your data extension storage details as a CSV file. Optimize your storage usage, improve performance, and ensure compliance by removing unneeded data and updating retention policies.

[Automation History and Health](#)

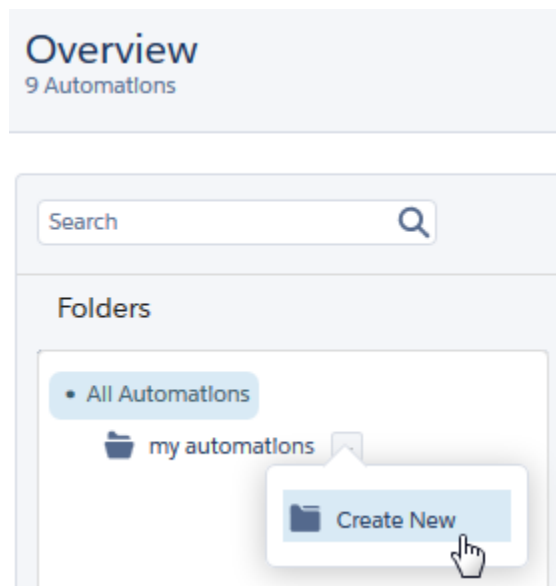
Evaluate your automations over time by downloading your automation history as a CSV file. Improve automation health by reviewing each automation's success rate and identifying automations with high skip or error counts.

The Automation Studio Overview Page

When you access Automation Studio in Marketing Cloud, view up to 50 automations in your account, a snapshot of automation activities, run history, and folders. You can also run each automation once from the Overview page.

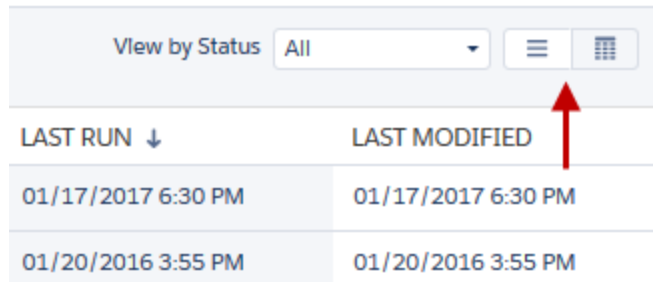
Folders

View folders that you created, and create folders without leaving the page.

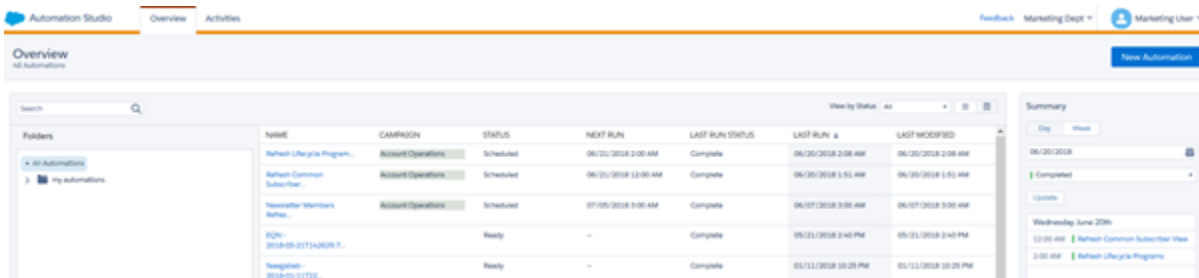


View Options

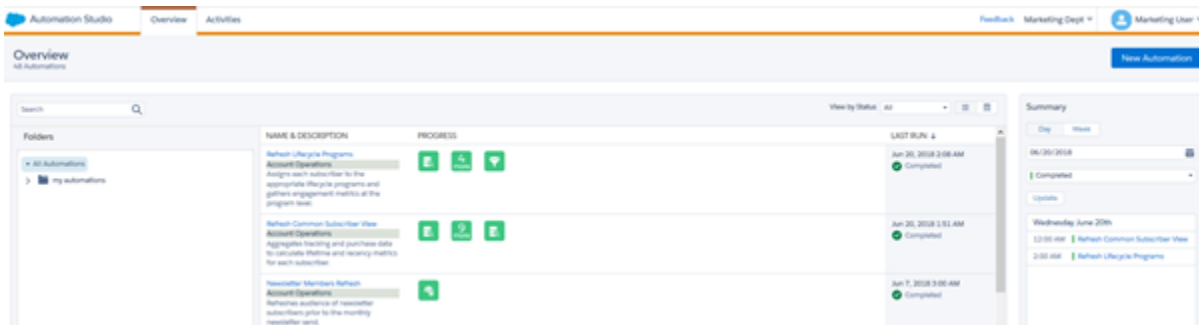
View your automations in List or Detail view.



List view displays more automations on a page without activity-level detail.



Detail view includes an abbreviated view of the automation's design and any errors.



Hover over an activity to view its type, progress, and name. When a single automation step includes multiple activities, you can view the entire automation's setup.

NAME & DESCRIPTION	PROGRESS
Dally SF Send	
Old SF Emall Send PS2	
Send Salesforce Email Old Copy...	
Send Salesforce Email (old) 20...	
SF new activity	<div style="border: 1px solid #ccc; padding: 5px;"> Step 2 - Completed 1 activity 2.1 Send Salesforce Email Complete </div>
Salesforce Emall Send (new) 20...	
dfu - calc counts	

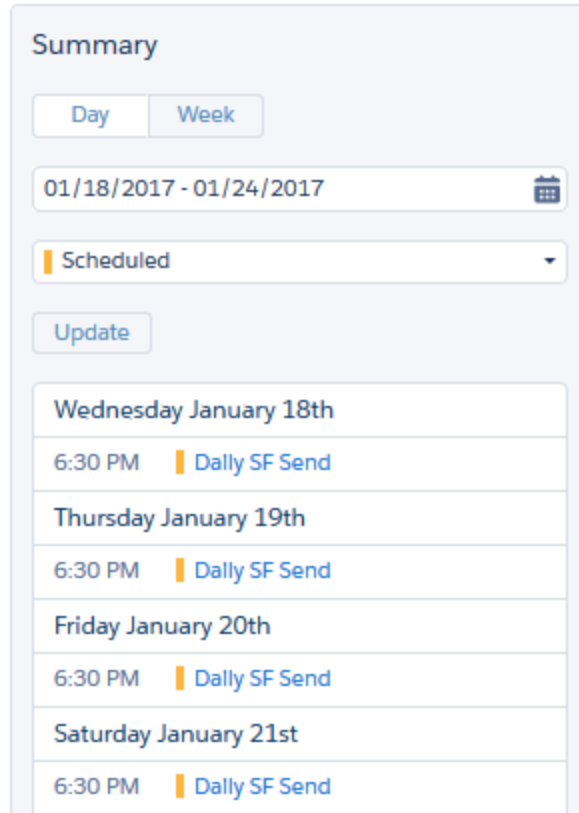
Error Messages

When an activity has an error, you can view activity details or click **Learn More** to get more information. If the automation step includes multiple activities, the timeline shows where the error occurred.

NAME	PROGRESS
	<div style="border: 1px solid #ccc; padding: 5px;"> Step 1 - Error on 1 activity 1.1 File Transfer Move Marketing Data ERROR: File not found matching the pattern s3://MarketingData.csv View Activity Details Learn More </div>

Summary

The Summary displays your automations by day or by week and by status. Filter results by status using the dropdown menu, and then click **Update**.



[Run an Automation from the Overview Page](#)

Start an automation in Marketing Cloud directly from the Automation Studio Overview page with one click.

[Delete an Automation from the Overview Page](#)

Delete unneeded automations in Marketing Cloud without leaving the Automation Studio Overview page.

SEE ALSO:

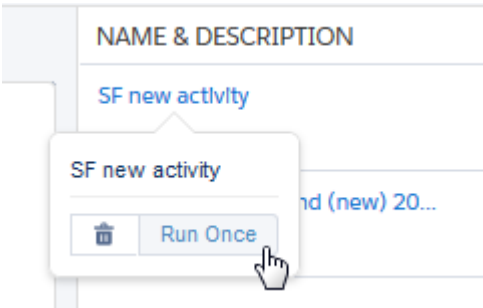
[Automation Studio Statuses](#)

Run an Automation from the Overview Page


Start an automation in Marketing Cloud directly from the Automation Studio Overview page with one click.

You can also start automations on each automation's individual page.

1. Hover over the name of the automation.
2. Click **Run Once**.



3. Click **Run**.

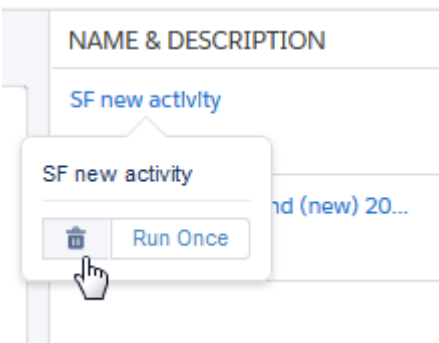
 **Tip:** To run a subset of activities only, use Advanced Run Once.

Delete an Automation from the Overview Page

Delete unneeded automations in Marketing Cloud without leaving the Automation Studio Overview page.

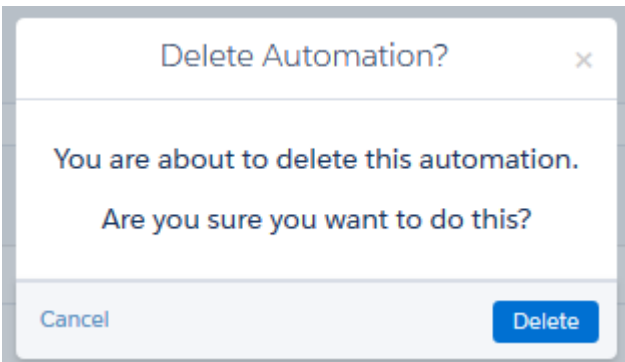
1. Hover over the name of the automation.

2. Click **Delete**.



A confirmation message appears.

3. Click **Delete** to finalize this action.



Automate Processes in Automation Studio

Use an automation to start a process when specific criteria are met. For example, when a file is uploaded to Marketing Cloud Enhanced FTP, you can automatically run activities, like an import, a file transfer, or an email send.

To build an automation, you choose a starting source, which determines how the automation starts. Then you add the activities that occur when the automation runs. These activities can run sequentially or simultaneously.

You can choose from these starting sources.

- The schedule starting source starts an automation at specific intervals.
- The file drop starting source starts an automation when a file is uploaded to the Enhanced FTP.
- The trigger starting source starts an automation when a file is uploaded to an external location, such as AWS, Azure, or Google Cloud, and a Trigger API request fires.

For more information, review these topics.

[Automation Starting Sources](#)

A starting source defines how an automation starts. You can schedule an automation to run at specific intervals or start an automation when a file is uploaded to Marketing Cloud Enhanced FTP. Or, use a trigger to start an automation when a file is uploaded to an external location, such as to Amazon S3, Google Cloud, or Microsoft Azure.

[Advanced Run Once](#)

Automation Studio includes options to schedule an automation, run it automatically when a file is dropped, or run an automation once. Use Advanced Run Once to run only a portion of an automation.

[Run a Subset of Activities](#)

To run only the Marketing Cloud automation activities you select, click **Run Once** in Automation Studio, then select the activities to run.

Automation Starting Sources

A starting source defines how an automation starts. You can schedule an automation to run at specific intervals or start an automation when a file is uploaded to Marketing Cloud Enhanced FTP. Or, use a trigger to start an automation when a file is uploaded to an external location, such as to Amazon S3, Google Cloud, or Microsoft Azure.

This table compares starting sources.

	Scheduled Automations	File Drop Automations	Trigger Automations
Automation Starts	On the schedule you define.	When a file is uploaded to a designated Enhanced FTP folder.	When a file is uploaded to an external location, such as Amazon S3, Google Cloud Storage, or Microsoft Azure Blob Storage.
Notes	You can click Run Once to start a scheduled automation immediately.	If you change a file name without modifying the file content, the automation doesn't start.	Requires a trigger API with relevant file criteria to start the automation.
Typical Use Case	You import and refresh your birthday list daily, and then send	You use other processes that update files in an FTP folder and you want to create an	You use other processes that update files in an external location and you want to create

Scheduled Automations	File Drop Automations	Trigger Automations
an email to all contacts whose birthday is today.	automation that starts when activity occurs in that folder.	an automation that starts when activity occurs in that location.

Scheduled Automations

When you create a scheduled automation, configure the start date, time, and time zone. Then choose the repeat frequency of the automation and when it ends.

Here are other considerations when using scheduled automations.

- You must activate a scheduled automation.
- The automation's duration must be compatible with its schedule. For example, an automation is scheduled to run every 24 hours, but it has a duration of 36 hours. In this case, the running automation stops after 24 hours when the next schedule automation starts. So the automation never reaches completion.

File Drop Automations

When you create a file drop automation, you provide a file name pattern or Enhanced FTP directory that Marketing Cloud monitors. When a file matching the pattern is placed on the FTP or in the directory that you specify, the automation runs.

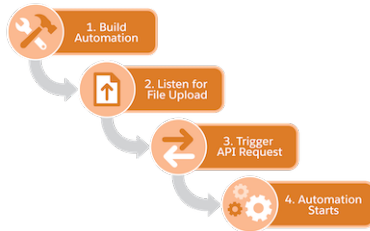
File drop automations are queued by default. When the running automation completes or encounters an error, the next file in the queue starts the next automation. This process continues until the queue is empty. If you turn off queuing, additional files are ignored when an automation is already running.

Here are other considerations when using file drop automations.

- You must configure Enhanced FTP before creating a file drop automation.
- If you use a folder for the file drop, any file placed in the folder triggers the associated automation.
- If you use a folder for file drop, don't use it for other purposes. Each Enhanced FTP folder supports only one file drop automation. This limitation doesn't apply if you use a file name pattern.
- If you use a file name pattern for the file drop, the automation is associated with the pattern and isn't associated with a specific FTP folder. The automation isn't affected if you change the FTP folder for upload, as long as you don't change the file name pattern.
- To make your files easy to audit, use dynamic file names whenever possible. For example, use *example%%year%%month%%day.csv* instead of *example.csv*.
- File drop automations don't read file extensions. Any characters following the final dot (.) in a file name are ignored.
- You can't use these file types to start a file drop automation.
 - .bmp
 - .eml
 - .jpg
 - .jpeg
 - .pdf
 - .png
 - .xml

Trigger Automations

When you create a trigger automation, enter a file name pattern and choose a file location. Create a trigger API that monitors the external file location. Marketing Cloud listens for the trigger API and runs the automation when a file that matches the pattern is placed in that location.



Trigger automations are queued by default. When the running automation completes or encounters an error, the next file in the queue starts the next automation. This process continues until the queue is empty. If you turn off queuing, additional files are ignored when an automation is already running.

Here are other considerations when using trigger automations.

- You must set up a file location for the external location before creating a trigger automation.
- You must use a trigger API to check for files from external locations.
- To make your files easy to audit, use specific file names whenever possible. For example, use *example_YYYY_MM_DD.csv* instead of *example.csv*.
- To easily identify the related file name in downstream file transfer activities and import activities, use the variable `%%FILENAME_FROM_TRIGGER%%`.
- Trigger automations can read file extensions, but are required only if you use the Equals operator or the Ends With operator.

For more information on each starting source, review these topics.

[Configure a Scheduled Automation](#)

Set up an automation that runs on a schedule.

[Configure a File Drop Automation](#)

Set up an automation that starts when a file is uploaded to Marketing Cloud Enhanced FTP.

[Configure a Trigger Automation](#)

Set up an automation that starts when a file is placed in an external location, such as Amazon S3, Google Cloud Storage, Microsoft Azure, or your own SFTP location.

[FTP and File Drop Automation Example](#)

In this use case, learn how to trigger an automation in Marketing Cloud by dropping a file in an FTP location.

[Filename Patterns Reference](#)

Review these guidelines for the design of a file naming pattern in Marketing Cloud's Automation Studio.

Configure a Scheduled Automation

Set up an automation that runs on a schedule.

1. Click **New Automation**.
2. Select **Schedule**.
3. Drag an activity onto the canvas.

4. To view all activities of the selected type, click **Choose**.
All existing configured activities of that type appear.
 - Search by keyword, name, or external key.
 - Sort by columns.
 - To see a summary, click an activity.
5. Select an activity or create one.
6. Add and configure more activities as needed.
7. Save the automation.
8. Schedule the automation, or click **Run Once** to run the automation immediately.

If you later edit the automation or the activities in it, any active runs are stopped. Future runs of the automation are paused until all activities are defined and saved.

Configure a File Drop Automation

Set up an automation that starts when a file is uploaded to Marketing Cloud Enhanced FTP.

1. Click **New Automation**.
2. Select **File Drop**.
3. Click **Configure**.
4. Choose whether to use a file name pattern.
 - If you're using a file name pattern, select an operator and provide text for the pattern. Don't include a file extension.
 - If you select **No Filename Pattern**, assign a directory as a trigger for one automation at a time. If you select **Contains**, Automation Studio reads all files dropped into the FTP folder. It then triggers the automation tied to the first file it parses with a file name meeting the Contains criteria.
5. If you want Automation Studio to ignore new requests that occur when an automation is running, disable queuing.
6. Select the directory for the system to watch. When a file is dropped in this folder, the automation starts.
7. Click **Save**.
8. Drag an activity onto the canvas.
9. To view all activities of the selected type, click **Choose**.
All existing configured activities of that type appear.
 - Search by keyword, name, or external key.
 - Sort by columns.
 - To see a summary, click an activity.
10. Select an activity or create one.
11. Add and configure more activities as needed.
12. Save and activate the automation.
13. To receive notifications about automation success or failure, on the Activity tab, select **Notification Settings** and enter an email address.

If you later edit the automation or the activities in it, any active runs are stopped. Future runs of the automation are paused until all activities are defined and saved.

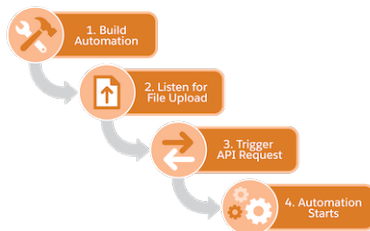
SEE ALSO:

[Filename Patterns Reference](#)

Configure a Trigger Automation

Set up an automation that starts when a file is placed in an external location, such as Amazon S3, Google Cloud Storage, Microsoft Azure, or your own SFTP location.

When you build a trigger automation, enter a file name pattern and choose a file location. Create a trigger API that monitors the external file location. Marketing Cloud listens for the trigger API and runs the automation when a file that matches the pattern is placed in that location.



1. Click **New Automation**.
2. Select **Trigger**.
3. Click **Configure**.
4. Create a file name pattern.
 - a. Select an operator, and provide text for the file name pattern.
 - b. You can include the file extension, but it isn't required unless you use the Equals operator or the Ends With operator.
5. Enter a sample file name, including its file extension, that you expect to trigger the automation. Unlike a file name pattern, the sample file name requires the file extension.

If the file name pattern doesn't match the sample file name, a warning appears when you try to save the automation.
6. If you want Automation Studio to ignore new requests that occur when an automation is running, disable queuing.
7. Click **Done**.
8. Drag an activity onto the canvas.
9. To view all activities of the selected type, click **Choose**.
 - Search by keyword, name, or external key.
 - Sort by columns.
 - To see a summary, click an activity.
10. Select an activity or create one.
11. Add and configure more activities as needed.

Activities in the same step can't share a destination or target data extension.
12. Save and activate the automation.

13. To receive notifications about automation success or failure, on the Activity tab, select **Notification Settings** and enter an email address.
14. At the external file location, configure an application to listen for file upload events and fire a trigger API request with the file's details. When a trigger API request matches an automation's criteria, the automation starts.

You can check the status of the trigger API request using the check trigger status API.

If you later edit the automation or the activities in it, any active runs are stopped. Future runs of the automation are paused until all activities are defined and saved.

SEE ALSO:

- [Create Trigger API Reference](#)
- [Check Trigger API Reference](#)
- [Set Up an Amazon Simple Storage Service File Location](#)
- [Set Up a Google Cloud Storage File Location](#)
- [Set Up a Microsoft Azure Blob Storage File Location](#)

FTP and File Drop Automation Example

In this use case, learn how to trigger an automation in Marketing Cloud by dropping a file in an FTP location.

This high-level overview shows the key steps to set up a file drop automation. For more details on each step, such as how to create a file transfer activity, see the relevant topic links.

1. On your Marketing Cloud FTP site, create a directory inside the Import directory. For this example, the new directory name is *NEWDR*.
2. In Marketing Cloud Setup, create a file location for the new directory.
 - Name the file location and external key. For example, *NEWDR File Location*.
 - Select the **Relative location under FTP Site** type.
 - Enter the path to the new directory. In this example, it's *Import\NEWDR*. Don't use a leading backslash (\).
3. To import encrypted or compressed files, create a file transfer activity in Automation Studio. Otherwise, skip this step.
 - Select the **Manage File** transfer type.
 - Enter the file naming pattern. For example, *%%BASEFILENAME_FROM_TRIGGER%%*.
 - Select the source file location. In this example, it's *NEWDR File Location*.
4. Create an import file activity.
 - Select the new file location. In this example, it's *NEWDR File Location*.
 - Enter the same file naming pattern that's used in the file transfer activity, if applicable. In this example, it's *%%BASEFILENAME_FROM_TRIGGER%%.txt*.
5. Use the new activities to create a file drop automation.
 - Select the new directory as the trigger.
 - Add the file transfer activity to the first step.
 - Add the import activity to the second step.

- Save and activate the automation.

SEE ALSO:

[Set Up a Marketing Cloud Enhanced FTP or Safehouse File Location](#)

[Create a File Transfer Activity in Automation Studio](#)

[Import File Activity](#)

[Configure a File Drop Automation](#)

Filename Patterns Reference

Review these guidelines for the design of a file naming pattern in Marketing Cloud's Automation Studio.

You can use filename patterns to set up a file drop automation. These patterns let you designate a naming convention for files dropped into the Enhanced FTP folder tied to an automation. When you add a file to this folder, Automation Studio reads the filename and runs the corresponding automation.

When you set up a filename pattern, select an operator to dictate how Automation Studio parses the filename. The available operators are **Contains**, **Begins With**, and **Ends With**.



Note: Don't include a file extension in the filename pattern.



Example: Use **Contains** to look for files whose filename includes the filename pattern before the file extension.

For example, if Filename pattern contains AUG14:

- Files named AUG14import.csv, Update_AUG14.txt, and NewContactsAUG14profileupdates.zip start this automation.
- Files named AUG_14data.csv, CustomerFiles.AUG14, and DailyJob-Aug-14.txt don't trigger this automation.



Example: Use **Begins With** to look for files whose filename starts with the filename pattern.

For example, if Filename pattern begins with AUG14:

- Files named AUG14import.csv, aug14files.zip, and Aug14098786.txt trigger this automation.
- Files named 1AUG14data.csv, 120814_AUG14.zip, and _AUG14.txt don't trigger this automation.



Example: Use **Ends With** to look for files whose filename ends with the filename pattern before the file extension.

For example, if Filename pattern ends with AUG14:

- Files named ImportAUG14.csv, aug14_listpull_aug14.zip, and usersAug14.txt trigger this automation.
- Files named datapullAUG14_01.csv, listinfoAUG14.run.txt, and Aug14_zip don't trigger this automation.

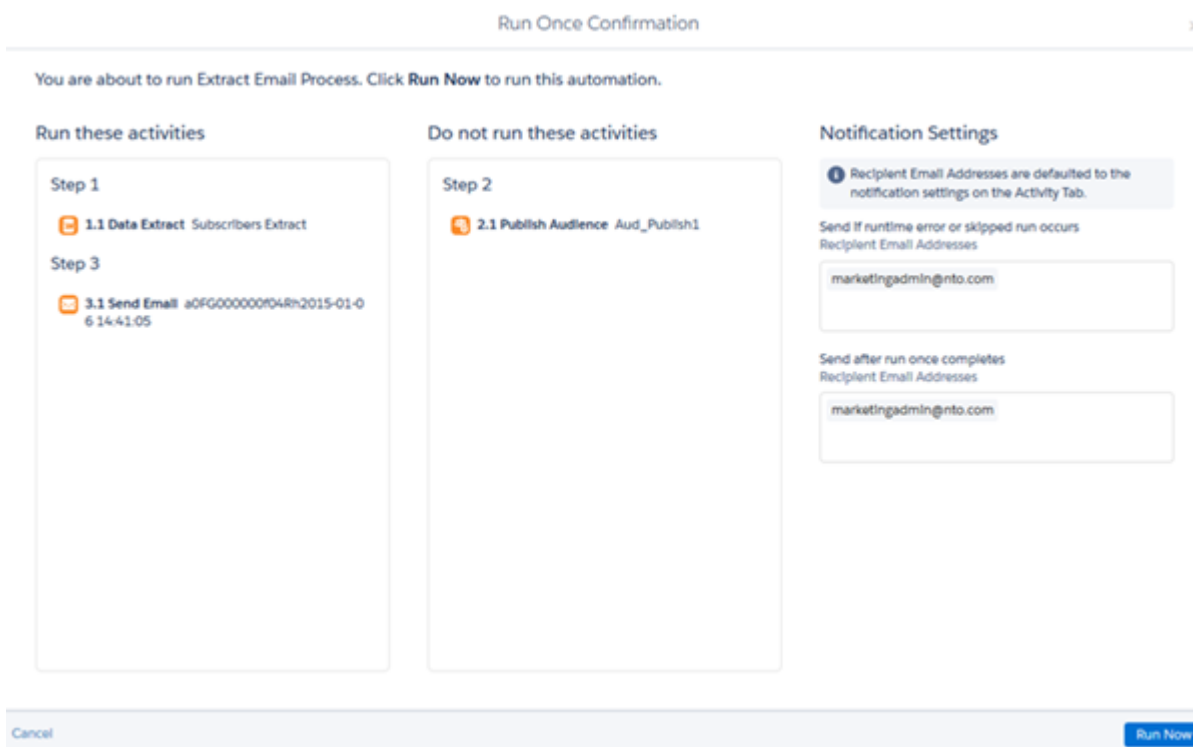
Advanced Run Once


Automation Studio includes options to schedule an automation, run it automatically when a file is dropped, or run an automation once. Use Advanced Run Once to run only a portion of an automation.

Use Advanced Run Once to run only a portion of the automation, or to restart the automation from an activity that follows an errored activity. Or fix a single activity that errors and run that activity only. Select an entire step, individual activities, or any combination of steps and activities. Run a subset of activities you select by clicking **Run Once** in an automation, then selecting the activities to run.

Considerations

- Only scheduled automations support Advanced Run Once.
- The last run's result appears in the right pane. Select the activities to run, then confirm the activities that you want to run before the automation's run begins.
- Users can select an entire step, individual activities, or any combination of steps and activities.
- To run an entire automation once without selecting or deselecting activities, hover over the automation's name on the Automation Overview page and click **Run Once**.
- Notification settings are carried over from the automation-level notification settings.
- Notification Settings are edited on an automation's Activity tab, not in the Run Once Confirmation modal. Notification email addresses appear in the modal for reference only.

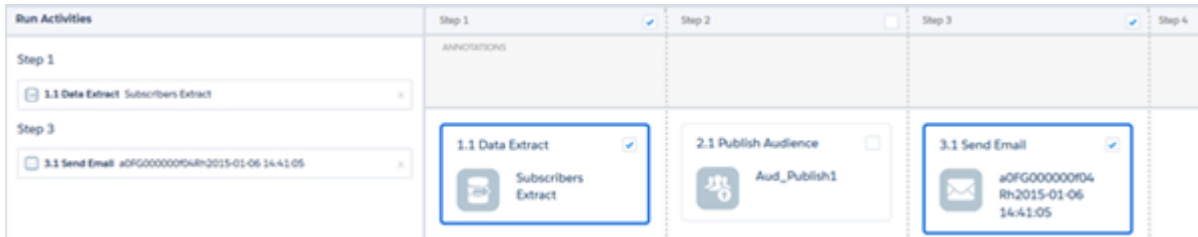


 **Note:** The hierarchy of statuses is important. Not Selected is an option for Run Once automations only. So if a user sees Completed status, that could mean that only the selected activities in the step completed. Activities that were not selected did not complete, or run at all.

Run a Subset of Activities

To run only the Marketing Cloud automation activities you select, click **Run Once** in Automation Studio, then select the activities to run.

1. To run only the automation activities you select, click **Run Once**.



2. Select the activities to run.

 **Tip:** Click **Select All Activities**, then deselect the activities you want to exclude.

Selected activities are shown at left.


3. Click **Run**.
4. Confirm that the activities you selected are slated to run and that the desired email addresses appear in Notification Settings.
5. Click **Run Now**.

Schedule an Automation

In a Marketing Cloud automation that's in draft mode or already running, set the schedule on the Workflow tab.

Setting a schedule is part of defining an automation and is included in new automation setup instructions, too.

1. Open an automation.
2. Click the Workflow tab.
3. If no schedule was set when creating the automation, drag Schedule into the first position on the canvas and click **Configure**.
4. If a schedule was set, click **Edit**.
5. After configuring a schedule, save the automation.

 **Note:** After defining the schedule and saving, the automation is paused until you activate it. Run the automation at any time by clicking **Run Once**.

6. Click **Active**.
7. Click **Activate**.

Automation Duration

When you schedule automations in Automation Studio, make sure that the duration and schedule are aligned to prevent system stability issues.

Automation Duration

When you schedule automations in Automation Studio, make sure that the duration and schedule are aligned to prevent system stability issues.

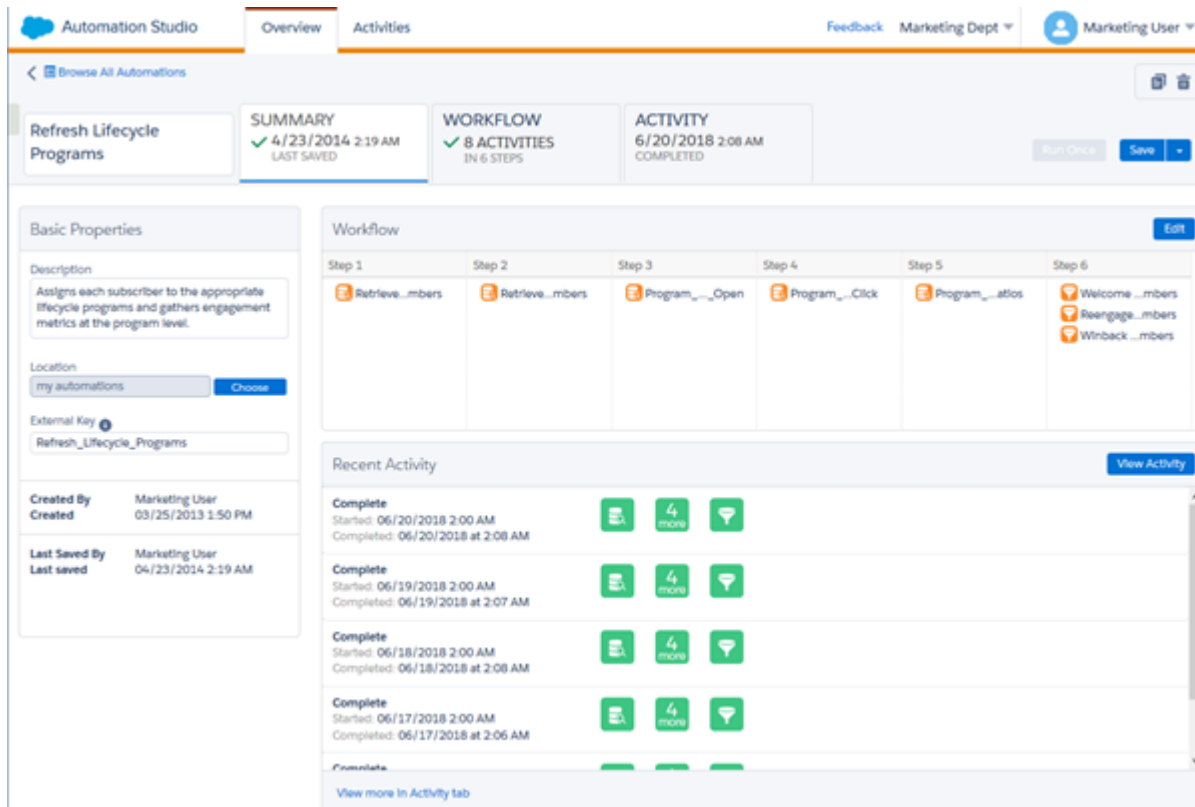
To ensure system stability, automations that run for more than 24 hours automatically stop when the next scheduled occurrence begins. Check the expected duration before you schedule automations that run for more than 24 hours.

 Example:

- You schedule a daily automation to run for 36 hours. When the next instance starts, the previous automation stops and produces no more data.
- You schedule a weekly automation to run for 36 hours. Because it only runs new instances every 2 days, this automation isn't stopped because there's enough time between occurrences.

Use An Automation's Tabs

Gain a more detailed understanding of how a Marketing Cloud automation's tabs work in Automation Studio.



An automation's tabs display when you define or edit a new automation.

- Defining a new automation prompts the Workflow tab to show.
- Editing an existing automation prompts the Summary tab to display.
- Use the Schedule and Activity tabs to plan and monitor your automations.

Gain a more detailed understanding of an automation's tabs.

- **Summary** - This tab shows you quick view of what information appears on the other three tabs. That view includes the automation's scheduled status, if applicable, its activity sequence, and its recent activity. For new automations, click **Go to Workflow** to begin creating your automation.
- **Workflow** - Define your automation in this tab by dragging activities onto the Workflow canvas.
- **Schedule** - Use this tab to schedule your automation and to see your schedule summary.
- **Activity** - This tab shows you all the details of the automation's activity, including the last run date and the progress or status of the activities in each run of the automation. If an error occurs in the automation's run, this tab shows error details and a direct link to the activity details.

Automation Studio Activities


Easily understand and use the Automation Studio Activities tab in the Marketing Cloud.

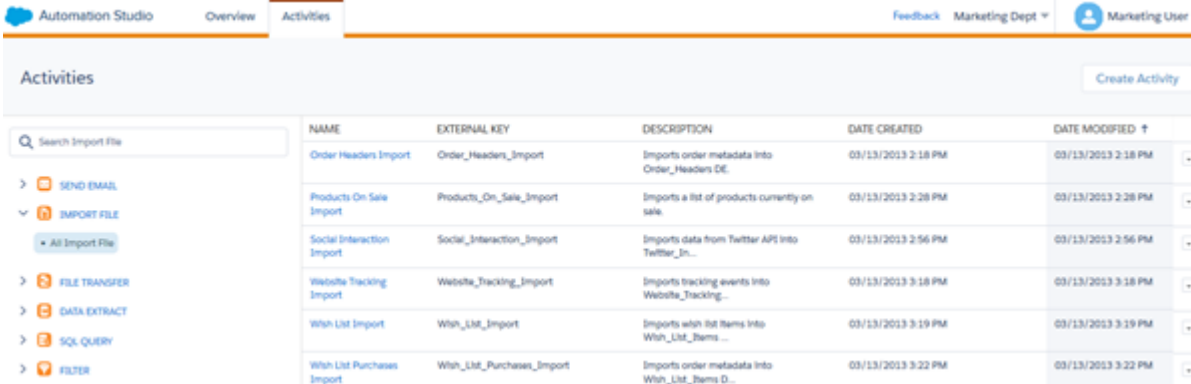
In Automation Studio, activities perform specific actions like transferring or extracting data, or sending an email. Activities are the building blocks of an automation.

Reusability

Activities are reusable. When you define an activity, you provide information that the activity uses each time it runs.

The Activities page shows all configured activities in one place, including activities used in multiple automations and activities that are not included in an automation.

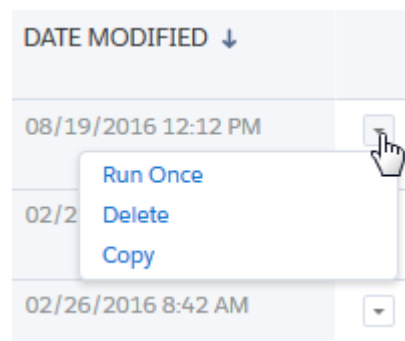
 **Note:** Enclose search terms in single quotation marks (') when the search term includes more than one word. For example, use the search term 'Commercial Seat Data' instead of the search term Commercial Seat Data for best results.



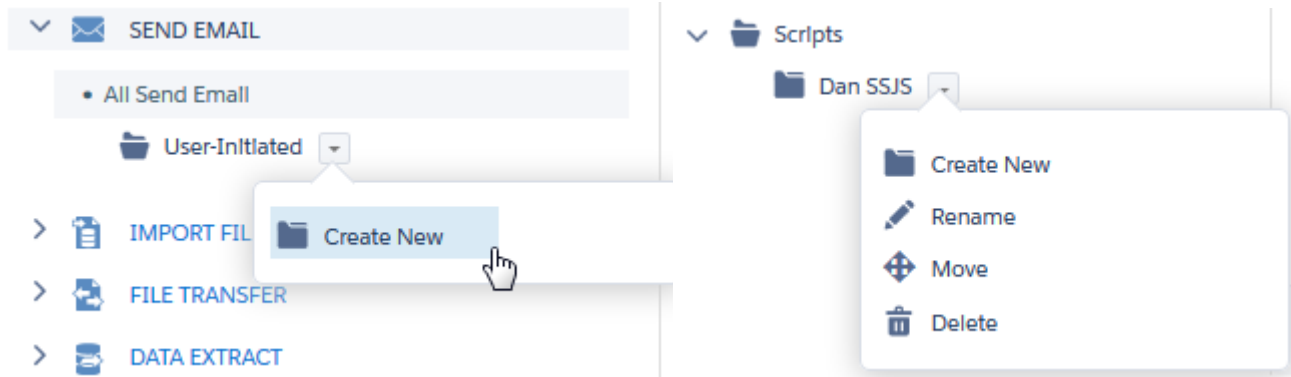
NAME	EXTERNAL KEY	DESCRIPTION	DATE CREATED	DATE MODIFIED ↑
Order Headers Import	Order_Headers_Import	Imports order metadata into Order_Headers DE.	03/13/2013 2:18 PM	03/13/2013 2:18 PM
Products On Sale Import	Products_On_Sale_Import	Imports a list of products currently on sale.	03/13/2013 2:28 PM	03/13/2013 2:28 PM
Social Interaction Import	Social_Interaction_Import	Imports data from Twitter API into Twitter_In...	03/13/2013 2:56 PM	03/13/2013 2:56 PM
Website Tracking Import	Website_Tracking_Import	Imports tracking events into Website_Tracking...	03/13/2013 3:18 PM	03/13/2013 3:18 PM
Wish List Import	Wish_List_Import	Imports wish list items into Wish_List_Items ...	03/13/2013 3:19 PM	03/13/2013 3:19 PM
Wish List Purchases Import	Wish_List_Purchases_Import	Imports order metadata into Wish_List_Items D...	03/13/2013 3:22 PM	03/13/2013 3:22 PM

Options

Each activity includes a set of options in its row. The options available depend on the activity type.



Create folders inline. Child folders include more options.



Clicking an activity name opens an expanded view that includes properties and other details about the activity. Use this option to edit the activity, too.

For example, clicking an SQL Query activity shows the query itself, the activity properties, and the target data extension.



[Start an Automation Studio Activity](#)

Kick off an automation in Automation Studio using the Run Once option in Marketing Cloud.

[Send Email Activity](#)

Choose and configure an email message to be sent on its own or as part of one or more automations. You can put it in sequence with other Automation Studio activities and schedule it for a particular date and time.

[Retrieving and Segmenting Data with a SQL Query Activity](#)

Retrieve and unify data across data extensions and system data views with SQL query activities. For example, you can prepare a subscriber list, view open and send history, or review automation and journey health.

[Import File Activity](#)

Use an outside file to update a subscriber list or data extension in Automation Studio. During the process, you also create an import definition, which establishes import file details and the import activity's behavior while running. The activity uses this import definition each time it runs.

[How to Use the File Transfer Activity in Automation Studio](#)

In Marketing Cloud Automation Studio, you can unzip or decrypt a file found in the Marketing Cloud's Enhanced FTP directory. With the File Transfer Activity, you can securely transfer files from the Marketing Cloud's secure file transfer location, the Safehouse, to a selected FTP location.

[Script Activity](#)

A server-side JavaScript® (SSJS) activity contains SSJS code that is executed when started, either on its own or as part of an automation in Automation Studio. You provide the SSJS code, a name, external key, and description to identify the activity within the application interface and for API calls.

[Filter Activity](#)

Apply the logic of a data filter you select to create a group or data extension in Automation Studio. Filtering subscribers or contacts makes targeting specific subscribers or contacts based on their attributes and other conditions easier.

[Data Extract Activity](#)

The Automation Studio data extract activity creates one or more zipped files for your use outside the Marketing Cloud application. It can also be used to convert an XML file into a comma-delimited, tab-delimited, or pipe-delimited file for import into your account.

[Verification Activity](#)

Avoid unintended outcomes by verifying the data used in an Automation Studio automation.

[Mapping Contacts to Business Unit](#)

Map existing Contacts to selected Business Units to maintain brand and geographical boundaries when you activate segments in Data Cloud.

[Automation Studio Activities Reference](#)

Learn more about the activities that are available in Automation Studio.

[Wait Activity](#)

Wait activities in Automation Studio cause an automation to wait for a specific duration or until a specific time before performing the next step. You can include one or multiple wait activities in a single automation.

[Einstein in Automation Studio](#)

Reach contacts when they're most likely to engage by using Einstein Send Time Optimization in a Send Email activity. Help your contacts avoid message fatigue by selecting the right message for each contact at the right time. Message recommendations are based on saturation levels using Einstein Engagement Frequency in a Send Email activity.

Start an Automation Studio Activity

Kick off an automation in Automation Studio using the Run Once option in Marketing Cloud.

Start or run an activity from the Activities page.



1. In the activity's row, click the arrow to display options.
2. Click **Run Once**.

 **Note:** This action could impact customers if the activity you start is included in a running automation.

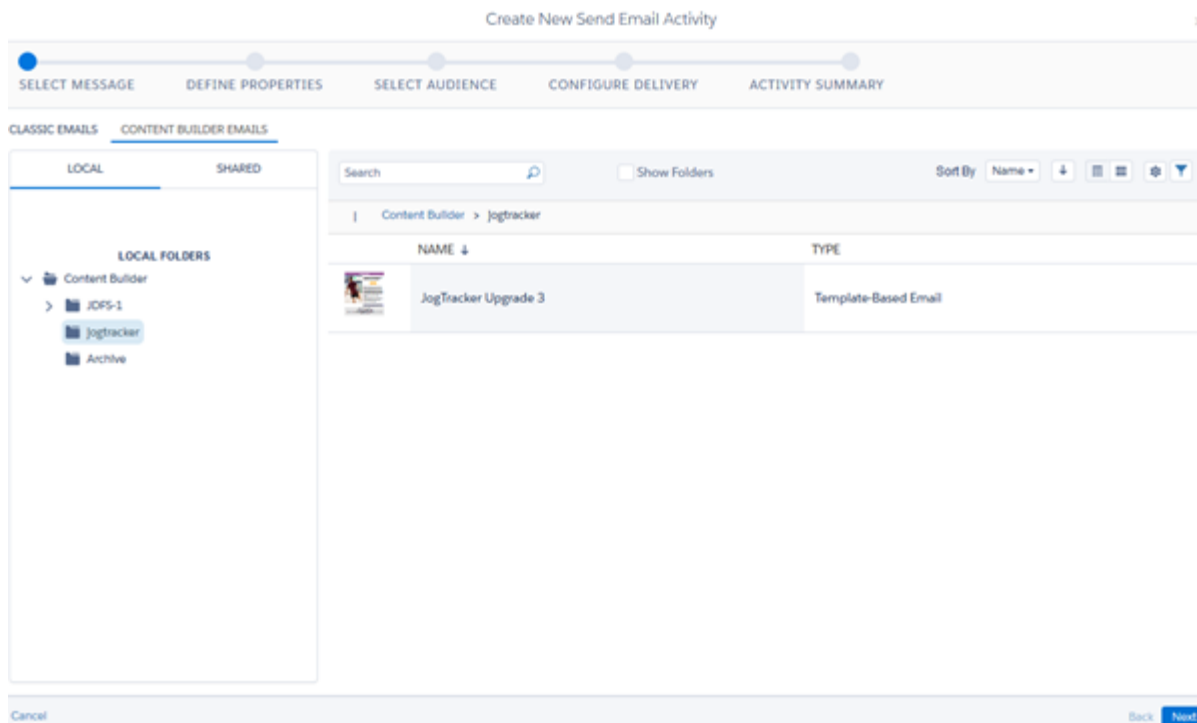
NAME	EXTERNAL KEY	TARGET DATA EXTENSION	UPDATE TYPE	DATE CREATED	DATE MODIFIED
Interval_Subscribers	Interval_Subscribers	All_Subscribers_Sample	Overwrite	04/02/2013 12:43 PM	04/02/2013 12:43 PM
Retrieve_Program_Members	Retrieve_Program_Members	Program_Members	Update	03/26/2013 12:46 PM	03/26/2013 12:46 PM
Retrieve_List_Members	Retrieve_List_Members	List_Members	Overwrite	03/26/2013 12:46 PM	03/26/2013 12:46 PM

Send Email Activity

Choose and configure an email message to be sent on its own or as part of one or more automations. You can put it in sequence with other Automation Studio activities and schedule it for a particular date and time.

-  **Tip:** Configuring the Send Email Activity creates a Send Definition that can be used in one or more automations.
-  **Note:** Send Email activities that were created with classic email editor inside an automation are no longer editable. To edit the activity, you must replace it. The send definition that each Send Email activity uses for sending is still valid.

1. Click **Activities**.
2. Click **Create Activity**.
3. Select **Send Email**.
4. Click **Next**.
5. Select a classic or Content Builder email. Use sorting options to change the order in which emails display.




6. Click **Next**.
7. Complete the define properties section:
 - Activity Name - Enter a name for this email send definition.
 - External Key - This unique key is for the API. If a unique key isn't assigned, the system auto-assigns one.

- Folder - Select a folder in which the send definition resides.
- Description - Enter a brief explanation of the email's content or purpose for your internal use.
- Subject - The subject of the email message sent by this activity. Any changes made to the subject are reflected only in this send.
- Preheader - The text displayed after the subject when an email is previewed.
- From Options:
 - **Saved Send Classification** - Sets a send classification to use for this activity.
 - **Sender Profile** - Determines whether the send uses a different sender profile than indicated in the send classification.
 - **Overwrite Delivery Profile** - Determines whether the send uses a different delivery profile than indicated in the send classification.

8. Click **Next**.


9. Complete the select audience section. Audience folders are displayed in the left pane where the root folders represent different audience types. When you select a folder on the left, individual audience objects appear in the grid. From there, drag your audiences into the Targeted, Excluded, or Suppressed drop areas.

 **Note:** Test audiences for user-initiated emails aren't supported in Automation Studio. Editing a user-initiated email with a test audience in Automation Studio automatically removes the test audience. This removal doesn't affect the content of the email. To perform a test send, navigate to Email Studio.


10. Click **Next**.

11. Complete the configure delivery section.

- To use Send Time Optimization, select **Einstein Send Time Optimization**. If your Einstein Send Time Optimization isn't optimized yet for your business unit or enterprise, you could have to wait up to 72 hours. If you don't see information that the content isn't optimized, you're ready to use Einstein Send Time Optimization.

 **Note:** If your organization uses send throttling, you must choose either send throttling or Einstein Send Time Optimization. You can't use both. If you check the Einstein Send Time Optimization box, send throttling is automatically turned off for this send.

- Delivery Window - Select a range of hours during which you want to send your email. A start and end time are required.
- Hourly Threshold - You can also specify how many emails you want to send per hour during that time.

 **Note:** To mitigate performance issues, take processing time into account when you choose your time frame. Estimate approximately 20 minutes processing time for every million subscribers. For example, if you're sending to 6 million subscribers, allow about 2 hours for Einstein to process the best send time for each subscriber.

- Track Clicks.
- Suppress From Send Report.
- Multipart MME - The system sends both HTML and Text version (including the text version you've created). The version that the subscriber's email client accepts is delivered.

12. Click **Next**.

13. In the Activity Summary section, review configurations from the previous tabs and confirm that the information is correct and ready to send.

14. Click **Finish**.

[Edit an Inline Email Activity](#)

You cannot edit Send Email activities that were created with classic email editor inside an automation, but you can replace them. After replacing the email send definition, you can edit it within an automation.

[Edit Emails in a Running Automation](#)

To edit the subject line or content of a user-initiated email send in a running automation, update or recreate the email send activity.

SEE ALSO:

[Email Messages](#)


[Select Audience](#)

[Configure Delivery](#)

Edit an Inline Email Activity

You cannot edit Send Email activities that were created with classic email editor inside an automation, but you can replace them. After replacing the email send definition, you can edit it within an automation.

Configuring the Send Email activity creates a send definition that can be used in one or more automations. To edit an email send definition that was created with the classic email editor, replace the email send definition.

 **Note:** Email send definitions created with classic Email Studio within an automation continue to send as intended. To edit them, replace them using these steps.

1. Hover over the Send Email activity in an automation.
2. Click **Replace**.
3. Locate the same email by name or external key.

 **Tip:** To locate the email, search for the email by name or use sorting options.

4. Open the Send Email activity and save it. This action updates the email send definition so it is editable.
5. To edit the email after replacing it, hover over the Send Email activity, then click **Edit**.
The activity can be edited within an automation's workflow.

Edit Emails in a Running Automation

To edit the subject line or content of a user-initiated email send in a running automation, update or recreate the email send activity.

Update an Email Send Activity

1. Edit the email in Email Studio, then navigate to Automation Studio.
2. Find and pause the relevant automation.
The automation is paused and the activity opens on the Activity Summary tab.
3. To edit the Send Email Activity, select **Edit/View**.
4. Click **Select Message**.
5. Select a different email and click **Next**.
A message appears asking if you want to replace your current Subject and Preheader with the following Subject and Preheader from your newly selected email.
6. Select **Keep Existing**, and then click **Back** to return to the email list.

7. Select the updated email and click **Next**.
A message appears asking if you want to replace your current Subject and Preheader with the following Subject and Preheader from your newly selected email.
8. Select **Replace** and click **Next** until you reach the Activity Summary tab.
9. Confirm that the information is correct and click **Finish**
10. Save and reactivate the automation.

Recreate an Email Send Activity

1. In Automation Studio, recreate the email send activity with the updated email.
2. Select the relevant email activity in the automatic and click **Replace**.
The automation is paused.
3. Select the new email activity.
4. Save and reactivate the automation.

Retrieving and Segmenting Data with a SQL Query Activity

Retrieve and unify data across data extensions and system data views with SQL query activities. For example, you can prepare a subscriber list, view open and send history, or review automation and journey health.

A query activity is ideal for clean, structured datasets where audiences have already been created. If you want to unify and segment a large dataset, we recommend using your own internal data warehouse or an application such as Salesforce Customer Data Platform.

Planning Your SQL Query Activity

Consider the data that you want to collect and how you plan to use it. Review our query examples for ideas on how to get started.

- [Data Views](#)
- [SQL Query Examples](#)

Building Your SQL Query Activity

In Automation Studio, build a SQL query activity that retrieves the data that you're interested in, and add it to an automation. Then optimize your query so that it doesn't time out and fail.

- [Build a SQL Query Activity](#)
- [Optimizing a SQL Query Activity](#)
- [SQL Reference](#)
- [Trailhead: Query Data with SQL](#)

Monitoring Query Health

Build SQL query activities and automations to review the health of all your automations, including SQL query activities. You can also set up email or Slack notifications for automation errors so that you can react quickly to failures.

- [Data View: Automation Instance](#)
- [Data View: Automation Activity Instance](#)
- [Get Automation Studio Notifications](#)

Fixing Failed Queries

Understand why your query failed and then troubleshoot it. If the query timed out, optimize it.

- [Automation Studio Errors](#)
- [Optimizing a SQL Query Activity](#)
- [Restart a Suspended SQL Query Activity](#)

Resources

There are other ways to retrieve data from Marketing Cloud, such as data extracts and API calls. If you want to unify and segment a large dataset, we recommend checking out Salesforce Customer Data Platform.

- [Knowledge Article: Best Practices for Gathering Data in Marketing Cloud](#)
- [Data Extract Activity](#)
- [Intro to Marketing Cloud APIs](#)
- [Trailhead: Automation Studio Activities](#)
- [Build a Customer Data Platform with Salesforce](#)

[Build a SQL Query Activity](#)

In Automation Studio, build a SQL query activity that retrieves the data that you're interested in, and then add it to an automation.

[Optimizing a SQL Query Activity](#)

SQL query activities time out after 30 minutes. You can prevent timeouts and failures by optimizing your SQL query activities. If your query consistently runs longer than 10 minutes, we recommend using a different tool, such as Salesforce Customer Data Platform, to transform your data.

[Use Intermediate Tables to Optimize a Query](#)

Split large queries into smaller components to use with Automation Studio's query activity.

[Data Views](#)

Query data views using Automation Studio for up to six months of Marketing Cloud subscriber and journey information.

[SQL Query Examples](#)

Learn how to build effective SQL queries in Automation Studio by following use cases.

[SQL Reference](#)

Get SQL query information for Automation Studio's SQL Query activity at a glance.

[Restart a Suspended SQL Query Activity](#)


When a SQL Query activity encounters a system error or fails 24 consecutive times, we suspend it. To find out why your query is suspended, check the action log.

Build a SQL Query Activity

In Automation Studio, build a SQL query activity that retrieves the data that you're interested in, and then add it to an automation.

Before you begin, [create a data extension](#) to store the query results.

1. Click **Activities**.
2. Click **Create Activity**.
3. Select **SQL Query**.
4. Enter query properties, such as name, external key, and description.

5. Click **Next**.
6. Write a SQL query.
 - To see data extensions in your account that you can query, click a folder.
 - To add all columns from a data extension, double-click the data extension or drag it into the query. Remove the extra comma that appears after the final column name.
 - To add a single column, double-click the column name or drag it into the query. Remove the extra comma that appears after the column name.
 - You can't include both a `JOIN` and a `SELECT *` statement. Instead, write a statement that specifies each column name, even when there are multiple columns.
-  **Important:** Don't enter column names manually, because the SQL query activity can't identify the associated data extension. Always double-click or drag columns from the data extension list.
7. To test the query, click **Validate Syntax**.
8. Click **Next**.
9. Choose a target data extension to store the query results. The target can't be a data extension that you used in the query.
10. Select how the query activity writes data to the target data extension.
 - Append—New data is added to the end of the target data extension. Existing data isn't updated.
 - Update—Matching data in the target data extension is updated. New data without a match is added to the end of the target data extension.
 - Overwrite—All existing data is deleted from the target data extension and replaced with new data.
11. Save the activity.
12. Start or run the activity from the Activities page or include it in an automation.

The query's output is stored in the target data extension. You can view the results of each query's run in the activity's action log.

Optimizing a SQL Query Activity

SQL query activities time out after 30 minutes. You can prevent timeouts and failures by optimizing your SQL query activities. If your query consistently runs longer than 10 minutes, we recommend using a different tool, such as Salesforce Customer Data Platform, to transform your data.

Review these guidelines for tips, tricks, and general information that you can use to optimize your SQL queries.

Primary Keys

Use primary keys as unique identifiers for your dataset.

Field Length and Data Type

Consider the field length and the type of data that you're retrieving.

Data Quantity and Retention

To improve performance, limit the quantity of data in your queries and data extensions.

Searchable Arguments (SARGable Queries)

Searchable arguments, also known as SARGable queries, are operators that can use indexes. To make your query run faster, use searchable arguments when possible.

Concurrent Activities

Concurrent activity occurs when multiple processes attempt to access the same data at the same time, which can cause queries to fail or time out. For example, two processes simultaneously attempt to write to the same dataset, or a process is actively writing to a dataset that another process attempts to read.

Data Staging

You can stage your data by dividing a large query with multiple joins into small queries that are more performant. This method is especially effective for long-running queries that could otherwise time out.

Primary Keys

Use primary keys as unique identifiers for your dataset.

- Be strategic when designating a field as a primary key. Having too many primary keys defeats the purpose of a unique identifier and decreases performance.
- Marketing Cloud improves performance by automatically indexing primary keys, sendable relationship fields, and your other most-used fields. But you don't need to designate fields as primary keys to force indexing. Overusing primary keys slows inserts into data extensions from queries, APIs, and other processes.
- To analyze multiple datasets, use the same primary key field in each data extension that you want to link. Then join the data extensions using the primary key field.

Field Length and Data Type

Consider the field length and the type of data that you're retrieving.

- When defining the field length, keep the length to how many characters are needed. For example, if the field is a two-digit state code, limit the column length to 2 characters instead of the default 50.
- Avoid using the data types nvarchar (max) and varchar (max).
- When storing data, less is more. Only store data that's critical to your process and to the specific table.
- We recommend limiting row widths to 4,000 characters or fewer.
- Only join columns of the same data type.
- Use the same data type for columns that match in the source and target data extensions.

Data Quantity and Retention

To improve performance, limit the quantity of data in your queries and data extensions.

- Use a SQL query when working with a clean, structured dataset where audiences have already been created. If you want to unify and segment a large dataset, we recommend using your own internal data warehouse or an application, such as Salesforce Data Cloud.
- Don't use a SQL query for large tasks like copying data between data extensions. Instead, use a data extension extract with an import activity in Automation Studio.
- If you have a data extension with a large quantity of data, divide it into multiple data extensions that are related through foreign keys.
- Only query as much data as you need. For example, if you need only 24 hours of data, don't retrieve 30 days of data.
- Only retrieve data that has changed since the last query. For example, use a Modified Date field to limit your query.
- Store frequently changing data in a separate data extension. When you make requests for this data or update the data extension, avoid running other automations or requests at the same time.

- If you notice performance issues with a data extension in which several columns were previously deleted, rebuild the data extension. To rebuild, create a data extension and use a query activity to transfer data from the old extension to the new extension.
- Use [data retention settings](#) to specify how long your account retains data.
- When building a query, choose the most performant way to write data for your use case.
 - Append is typically best for event logs and other use cases where you need only the most recent data.
 - Overwrite is the most performant option for most other use cases.
 - Update is typically the least performant option and can significantly extend your query time.

Searchable Arguments (SARGable Queries)

Searchable arguments, also known as SARGable queries, are operators that can use indexes. To make your query run faster, use searchable arguments when possible.

- Don't use these non-searchable arguments in a WHERE clause.
 - OR
 - NOT
 - <
 - >
 - NOT EXISTS
 - NOT IN
 - NOT LIKE
 - Intrinsic functions that operate on a column value

Here are some examples of non-searchable intrinsic functions that can be rewritten into searchable arguments.

Non-Searchable Argument	Searchable Argument
<pre>AND datediff(day, convert (DATE, calculated_subscription_start_dtm), GetDate()) = 26</pre>	<pre>AND calculated_subscription_start_dtm >= DATEADD(DAY, -26, CAST(GETDATE() AS DATE)) AND calculated_subscription_start_dtm < DATEADD(DAY, -25, CAST(GETDATE() AS DATE))</pre>
<pre>WHERE convert (DATE, gsl.SendDate) >= convert (DATE, dateadd(dd, - 10, GETUTCDATE ()))</pre>	<pre>WHERE gsl.SendDate >= DATEADD (DAY, -10, CAST (GETUTCDATE () AS DATE)) AND gsl.SendDate < DATEADD (DAY, -9, CAST (GETUTCDATE () AS DATE))</pre>

- Use `SELECT DISTINCT` only when duplicate data exists in multiple data extensions.
- When using `SELECT TOP`, also use `ORDER BY` to avoid unpredictable results.
- Specify columns by name instead of using `SELECT *`. When using `SELECT *`, the query activity parser caches the columns that exist when the query is saved. If you add another column in the future, it isn't automatically included.
- SQL Server isn't case-sensitive, so don't use the `LOWER` function.

Concurrent Activities

Concurrent activity occurs when multiple processes attempt to access the same data at the same time, which can cause queries to fail or time out. For example, two processes simultaneously attempt to write to the same dataset, or a process is actively writing to a dataset that another process attempts to read.

- Prevent timeouts and performance issues by limiting query activities to one query per step of an automation.
- Prevent concurrent activity by staggering your automations and creating dedicated datasets for your processes.
- The majority of automations are scheduled on the hour. Improve performance by scheduling your automations at other times, such as 8:30 instead of 8:00.

Data Staging

You can stage your data by dividing a large query with multiple joins into small queries that are more performant. This method is especially effective for long-running queries that could otherwise time out.


- Use multiple small queries to gather data from different data extensions and write that data to holding tables.
- After all the small queries have run, use a final query to unite the data from the holding tables.

For an example, see [Use Intermediate Tables to Optimize a Query](#).

Use Intermediate Tables to Optimize a Query

Split large queries into smaller components to use with Automation Studio's query activity.

This page demonstrates how a single query can be divided into multiple more efficient queries. In the following example, a query designed to find Opens in the last 30 days based on an EmailID consistently times out.

 **Note:** The following code is an example of a poorly executing query. Do not copy and paste the following code to use in a query activity.

```
Select
j.JobID,
j.EmailName,
j.DeliveredTime as SendTime,
o.EventDate as OpenTime,
s.EmailAddress,
s.SubscriberKey
from [_Job] j
join [_Open] o
on j.JobID = o.JobID
join [_Subscribers] s
on o.SubscriberID = s.SubscriberID
where
o.IsUnique = 1 and
j.EmailID = 123456
```

One likely reason this query times out is that it tries to retrieve data from multiple sources in one query. To ensure that this query consistently returns data in a timely manner, divide it into four smaller queries on separate, consecutive steps of your automation. Use these instructions to set up four data extensions and corresponding queries called Jobs, Opens, Subscriber and a Target Data Extension to unite and store the data retrieved by the preceding queries.

Create a Jobs Table Data Extension

1. Create a data extension.

2. Select standard data extension.

Data Extension Name	JobTable
External Key	JobTable

Fields

Name	Data Type	Length	Primary Key	Nullable	Default Value
JobID	Number				
EmailName	Text	100			
DeliveredTime	Date				

Create a Query Activity to Populate the Job Table

Query Name	JobTable
External Key	JobTable

Query Syntax

```
j.JobID,
j.EmailName,
j.DeliveredTime,
from [_Job] j
where
j.EmailID = 123456
```

Target Data Extension Name	JobTable
Data Action	Overwrite

Create an Opens Data Extension

1. Create a data extension.
2. Select standard data extension.

Data Extension Name	OpenTable
External Key	OpenTable

Fields

Name	Data Type	Length	Primary Key	Nullable	Default Value
JobID	Number				
SubscriberID	Number				
OpenTime	Date				

Create an Opens Query Activity

Query Name	OpenTable
External Key	OpenTable

Query Syntax

```
o.JobID,
o.SubscriberID,
o.EventDate,
from [_Open] o
where
o.IsUnique = 1
and j.EmailID = 123456
```

TargetData Extension	OpenTable
Data Action	Overwrite

Create a Subscriber Data Extension

1. Create a data extension.
2. Select standard data extension.

Target Data Extension Name	SubscriberTable
External Key	SubscriberTable

Fields

Name	Data Type	Length	Primary Key	Nullable	Default Value
SubscriberID	Number				
EmailAddress	EmailAddress	100			
SubscriberKey	Text	100			

Set Up a Subscriber Query Activity

Query Name	SubscriberTable
External Key	SubscriberTable

Query Syntax

```
s.SubscriberID,
s.EmailAddress,
s.SubscriberKey
from [_Subscribers] s
```

Target Data Extension	SubscriberTable
Data Action	Overwrite

Create a Data Extension to Store Opens Data

1. Create a data extension.
2. Select standard data extension.

Target Data Extension	OpensIn30Days
External Key	OpensIn30Days

Fields

Name	Data Type	Length	Primary Key	Nullable	Default Value
JobID	Number				
EmailName	Text	100			
SendTime	Date				
OpenTime	Date				
EmailAddress	EmailAddress	100			
SubscriberKey	Text	100			

Create a Query to Send Opens Data to Target Data Extension

Query Name	OpensIn30Days
External Key	OpensIn30Days

Query Syntax

```




Select
j.JobID,
j.EmailName,
j.DeliveredTime as SendTime,
o.EventDate as OpenTime,
s.EmailAddress,
s.SubscriberKey
from [JobTable] j
join [OpenTable] o
on j.JobID = o.JobID
join [SubscriberTable] s
on o.SubscriberID = s.SubscriberID
    
```

Target Data Extension	OpensIn30Days
Update Type	Overwrite

Data Views

Query data views using Automation Studio for up to six months of Marketing Cloud subscriber and journey information.

When you create an SQL Query activity, you write the SQL statement that defines the query. You can write the query against a data extension or the data views provided in the system. Click and open tracking data displays in Central Standard Time, does not observe Daylight Savings Time, and is rounded to the nearest second.

-  **Note:** When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the `_EnterpriseAttribute` table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.
-  **Note:** If **Add subscribers to this list** is not selected for a triggered send, some data is not available at the enterprise level. Enterprise-level data views don't include sends, opens, clicks, unsubscribes, Forward To A Friend data, and bounces. You can find this data by querying data views in the sender's Marketing Cloud account.
-  **Note:** Some data views allow you to retrieve more than six months' data. However, queries returning large data sets can take longer to process and can impact system performance.

[Data View: Automation Instance](#)

Get a big-picture view of all automations within a tenant, and improve the efficiency and success rate of your automations by reviewing automation health. Query the `_AutomationInstance` data view in Automation Studio to prevent failures by identifying long-running processes and fix failed automations by addressing the cause of failure.

[Data View: Automation Activity Instance](#)

Improve the efficiency and success rate of your automations by reviewing automation activity health. Query the `_AutomationActivityInstance` data view in Automation Studio to prevent failures by identifying activities that often fail or run long.

[Data View: Bounce](#)

To view bounce data for emails from your Marketing Cloud account, query the `_bounce` data view in Automation Studio.

[Data View: BusinessUnitUnsubscribes](#)

To find subscribers in your account and their child business unit unsubscribe data, use the `_BusinessUnitUnsubscribes` data view in Marketing Cloud Automation Studio. You can only run the data view on the parent account only and not on child business units.

[Data View: Click](#)

Query this data view in Automation Studio to view click data for emails from your Marketing Cloud account.

[Data View: Complaint](#)

Query this data view in Automation Studio to view complaints data related to emails from your Marketing Cloud account.

[Data View: Coupon](#)

View data regarding coupons used in your Marketing Cloud account by querying the `_Coupon` data view in Automation Studio.

[Data View: EnterpriseAttribute](#)

Query this data view in Automation Studio to view subscribers in your Enterprise Marketing Cloud account and their profile attributes.

[Data View: FTAF](#)

Query this data view in Automation Studio to view behavioral information related to email messages from your Marketing Cloud account that were forwarded to friends.

[Data View: GroupConnect Contact Subscriptions](#)

To view active LINE followers and users who have blocked your brand, you can query GroupConnect data view in Automation Studio. With Contact Subscriptions, customers can view their current subscribers each day.

[Data View: GroupConnect MobileLineOrphanContactView](#)

If an import has multiple ContactKeys for the same LINE Address ID in GroupConnect Contact Import, the system keeps one ContactKey. The remaining ContactKeys are orphaned. To view orphaned contacts, you can query the MobileLineOrphanContactView data view in Automation Studio.

[Data View: Job](#)

Query this data view in Automation Studio to find data on Marketing Cloud email send jobs.

[Data View: Journey](#)

Find a journey's status, created and last modified date, and other general journey information using this Journey Builder data view.

[Data View: Journey Activity](#)

Use this data view to join to the email tracking system data views. Also use it to identify the Triggered Send Definition associated to an email activity in a Marketing Cloud journey and more.

[Data View: ListSubscribers](#)

Query this data view in Automation Studio to find subscribers on lists in your Marketing Cloud account.

[Data View: Open](#)

Query this data view in Automation Studio to find email opens for your Marketing Cloud account.

[Data View: Sent](#)

Query this data view in Automation Studio to find the subscribers sent emails from your Marketing Cloud account.

[Data View: SMSMessageTracking](#)

Query this data view in Automation Studio to find message tracking information from Marketing Cloud MobileConnect SMS sends. This data view allows customers to view their send and receive history. Information from this query relates to the owner of a private short code or long code. Query information can also relate to a client using a shared short code to which the subscriber has opted in.

[Data View: Social Network Impressions](#)

Query this data view in Automation Studio to find data on content shared from your Marketing Cloud sends via Social Forward.

[Data View: Social Network Tracking](#)

Query this data view in Automation Studio to find tracking data on content shared from your Marketing Cloud sends via Social Forward.

[Data View: Subscribers](#)

Query this data view in Automation Studio to find subscribers in your Marketing Cloud account and their statuses.

[Data View: SMSSubscriptionLog](#)

To find subscription log information from MobileConnect SMS sends, query this data view in Automation Studio. For example, view a history of all mobile numbers subscribed to a keyword.

[Data View: SurveyResponse](#)

Query this data view in Automation Studio to find responses to surveys sent from your Marketing Cloud account.

[Data View: Undeliverable SMS](#)

Query this data view in Automation Studio to find failed message deliveries to Marketing Cloud MobileConnect subscribers.

[Data View: Unsubscribe](#)

Query this data view in Automation Studio to find unsubscribes from email lists in your Marketing Cloud account.

Data View: Automation Instance


Get a big-picture view of all automations within a tenant, and improve the efficiency and success rate of your automations by reviewing automation health. Query the `_AutomationInstance` data view in Automation Studio to prevent failures by identifying long-running processes and fix failed automations by addressing the cause of failure.

What This Data View Shows

- Automations that ran recently
- When an automation ran
- The duration of an automation
- Whether an automation succeeded, skipped, or failed
- The reason an automation failed
- The file that was being processed when a triggered automation failed

What You Need to Know

How to activate the data view	Available by default
When data is available	Data in this view is on a 24-hour delay
How much data is available	Data for automations that ran during the past 1 through 31 days
Data view scope	Single business unit
Time zone	UTC

 **Note:** This data view generates a row for each email address that's receiving notifications about the automation. To prevent duplicate records, use a shared distribution list for notifications.

Questions That You Can Answer

Which Automations Failed Yesterday?

Identify problems with your automations and prevent future failures by reviewing automations that failed yesterday.

```
SELECT automationcustomerkey
FROM   [_automationinstance]
WHERE  automationinstancestatus = 'Error'
       AND automationinstanceendtime_utc >= Dateadd(day, -2, Getutcdate())
```

Which Automations Completed Yesterday?

Confirm that the automations that you expected to run yesterday successfully completed.

```
SELECT automationcustomerkey
FROM   [_automationinstance]
WHERE  automationinstancestatus = 'Complete'
       AND automationinstanceendtime_utc >= Dateadd(day, -2, Getutcdate())
```

Which Automations Skipped Yesterday?

Skipped instances are a warning that an automation could be unhealthy, for example, there isn't enough time between scheduled automations. Or, there were multiple instances of the same file drop automation queued when a running instance was stopped. Use this query to identify automations that were skipped yesterday, and decide whether to take action.

```
SELECT automationcustomerkey
FROM   [_automationinstance]
WHERE  automationinstancestatus = 'Skipped'
       AND automationinstanceendtime_utc >= Dateadd(day, -2, Getutcdate())
```

What Is the Average Duration of Each Automation?

Track the average performance of your automations to find trends and investigate problems before they impact critical processes. If an automation is slowing down over time, you can investigate the root cause and take corrective action. Use this query to determine each automation's average duration over the past 1 through 31 days.

```
SELECT automationcustomerkey,
       Avg(Datediff(minute, automationinstancestarttime_utc,
                   automationinstanceendtime_utc)) AS AvgDuration
FROM   [_automationinstance] automation
GROUP BY automationcustomerkey
```

What Is the Latest End Time and Status of Each Automation?

View details of all automations with at least one run in the last 6 months, including the latest end time and status. Use this information to identify critical failures and automations that haven't run recently.

```
SELECT automationcustomerkey,
       automationinstanceid,
       automationinstancestatus,
       automationinstanceendtime_utc
FROM   (SELECT automationcustomerkey,
              automationinstanceid,
              automationinstancestatus,
              automationinstanceendtime_utc,
              Row_number()
                OVER (
                  partition BY automationcustomerkey
                  ORDER BY automationinstanceendtime_utc DESC) AS run_count
        FROM   [_automationinstance]) AS instances
WHERE  run_count = 1
```


Data View Columns

Name	Description	Data Type	Data Extension Data Type	Nullable
MemberID	The unique ID of the business unit.	BIGINT	Number	
AutomationName	The automation name.	NVARCHAR(400)	Text	
AutomationDescription	The automation description.	NVARCHAR(400)	Text	X
AutomationCustomerKey	The unique ID of the automation.	NVARCHAR(400)	Text	
AutomationType	The automation's starting source. Possible values are Schedule, File Drop, or Trigger.	VARCHAR(9)	Text	
AutomationNotificationRecipient_Complete	The email address where notifications about completed automations are sent.	NVARCHAR(500)	Text	X
AutomationNotificationRecipient_Error	The email address where notifications about automation errors are sent.	NVARCHAR(500)	Text	X
AutomationNotificationRecipient_Skip	The email address where notifications about skipped automations are sent.	NVARCHAR(500)	Text	X
AutomationStepCount	The number of steps in the automation.	INT	Number	
AutomationInstanceID	The unique ID of the automation run.	UNIQUEIDENTIFIER	Text	
AutomationInstanceIsRunOnce	Whether the automation was set to run once. 1 = true, 0 = false.	BIT	Boolean	
FilenameFromTrigger	For file drop and trigger automations, the file that started the automation.	NVARCHAR(4000)	Text	X
AutomationInstanceScheduledTime_UTC	For scheduled automations, the time that the run was scheduled to begin.	DATETIMEOFFSET	Date	X
AutomationInstanceStartTime_UTC	The time that the automation run started. This value is null if the automation was skipped.	DATETIMEOFFSET	Date	X
AutomationInstanceEndTime_UTC	The time that the automation run ended. This value is null if the automation was skipped or is still running.	DATETIMEOFFSET	Date	X
AutomationInstanceStatus	The status of the automation run when the data view is queried. Possible values are QueuedFile, Initialized, Executing, Stopped, Complete, or Error.	NVARCHAR(400)	Text	
AutomationInstanceActivityErrorDetails	The message from the error log, if applicable. If a system or unclassified error occurs, the value is System Error. If multiple errors occur, only the first message is displayed. To get details on	NVARCHAR(4000)	Text	X

Name	Description	DataType	Data Extension Data Type	Nullable
	multiple errors, use the <code>_AutomationActivityInstance</code> view.			

Data View: Automation Activity Instance

Improve the efficiency and success rate of your automations by reviewing automation activity health. Query the `_AutomationActivityInstance` data view in Automation Studio to prevent failures by identifying activities that often fail or run long.

What This Data View Shows

- Activities that ran in an automation
- When an activity ran
- The duration of an activity
- Whether an activity succeeded or failed
- The reason an activity failed

What You Need to Know

How to activate the data view	Available by default
When data is available	Data in this view is on a 24-hour delay
How much data is available	Data for automations that ran in the last 1 through 31 days
Data view scope	Single business unit
Time zone	UTC

Questions That You Can Answer

Which Automations Are Failing and Why?

Identify the cause of automation errors to prevent future failures. An automation error can be categorized as a configuration error or system error.

- A configuration error occurs because an activity or dependency isn't set up correctly. For example, if a file transfer activity is looking for a file named `test.csv` and the file doesn't exist. Modify your automation or its dependencies to solve a configuration error.
- A system error is more general and often temporary. For example, if a server runs out of memory or a connection fails. In many cases, you don't need to change your automation to solve a system error, and you can run the automation again.

Use this query to find activities that failed because of a configuration error. Check the error message to learn how you can address the error.

```
SELECT activitycustomerkey
FROM [_automationactivityinstance]
WHERE activityinstancestatus = 'Error'
      AND activityinstancestatusdetails LIKE 'System Error occurred%'
```

Use this query to find activities that failed because of a system error. Retry the associated automation.

```
SELECT activitycustomerkey
FROM   [_automationactivityinstance]
WHERE  activityinstancestatus = 'Error'
       AND activityinstancestatusdetails NOT LIKE 'System Error occurred%'
```

Which Activities Are at Risk of Timing Out?

Proactively identify long-running activities that are approaching the 30-minute time limit.

Use this query to find query activities with an average duration greater than 20 minutes. Optimize the query activity, or break it up into multiple steps.

```
SELECT activitycustomerkey,
       avgduration
FROM   (SELECT activitycustomerkey,
              Avg(Datediff(minute, activityinstancestarttime_utc,
                          activityinstanceendtime_utc)
                ) AS AvgDuration
        FROM   [_automationactivityinstance] activity
        WHERE  activity.activitytype = 300
        GROUP BY activitycustomerkey) durations
WHERE  avgduration > 20
```

Use this query to find SSJS activities with an average duration greater than 20 minutes. Optimize the SSJS activity, or break it up into multiple steps.

```
SELECT activitycustomerkey,
       avgduration
FROM   (SELECT activitycustomerkey,
              Avg(Datediff(minute, activityinstancestarttime_utc,
                          activityinstanceendtime_utc)
                ) AS AvgDuration
        FROM   [_automationactivityinstance] activity
        WHERE  activity.activitytype = 150
        GROUP BY activitycustomerkey) durations
WHERE  avgduration > 20
```

What is the Average Duration of Each Activity?

Track the average performance of your activities to find trends and investigate problems before they impact critical processes. Use this query to determine each activity's average duration over the past 1 through 31 days.

```
SELECT activitycustomerkey,
       Avg(Datediff(minute, activityinstancestarttime_utc,
                  activityinstanceendtime_utc)
        ) AS AvgDuration
FROM   [_automationactivityinstance] activity
GROUP BY activitycustomerkey
```

Data View Columns

Name	Description	Data Type	Data Extension Data Type	Nullable
MemberID	The unique ID of the business unit.	BIGINT	Number	
AutomationName	The automation name.	NVARCHAR(400)	Text	
AutomationCustomerKey	The unique ID of the automation.	NVARCHAR(400)	Text	
AutomationInstanceID	The unique ID of the automation run.	UNIQUEIDENTIFIER	Text	
ActivityType	The activity type. Possible values are listed in the Activity Type IDs table.	INT	Number	
ActivityName	The activity name.	NVARCHAR(400)	Text	
ActivityDescription	The activity description.	NVARCHAR(400)	Text	X
ActivityCustomerKey	The unique ID of the activity.	NVARCHAR(400)	Text	
ActivityInstanceStep	Where the activity occurs in the automation. For example, 3.2 is step 3, activity 2.	VARCHAR(25)	Text	
ActivityInstanceID	The unique ID of the activity run.	UNIQUEIDENTIFIER	Text	
ActivityInstanceStartTime_UTC	The time that the activity run started. This value is null if the automation was skipped.	DATETIMEOFFSET	Date	X
ActivityInstanceEndTime_UTC	The time that the activity run ended. This value is null if the automation was skipped, is still running, or wasn't selected as part of an Advanced Run Once.	DATETIMEOFFSET	Date	X
ActivityInstanceStatus	The status of the activity run when the data view is queried. Possible values are Initialized, Executing, Complete, Error, or NotSelected.	NVARCHAR(256)	Text	
ActivityInstanceStatusDetails	The message from the error log, if applicable. If a system or unclassified error occurs, the value is System Error.	NVARCHAR(4000)	Text	X

Activity Type IDs

Activity Type ID	Activity Name
33	SMS Activity
42	Send Email


Activity Type ID	Activity Name
43	Import File
45	Refresh Group
53	File Transfer
73	Data Extract
84	Report Definition
300	SQL Query
303	Filter
423	Script
425	Data Factory Utility Activity
426	Refresh Segment Template
427	Publish Audience
467	Wait
724	Refresh Mobile Filtered List
725	Send SMS
726	Import Mobile Contacts
733	Journey Builder Event Activity
736	Send Push
749	Fire Event
771	Salesforce Email Send
772	Mobile Connect Send Salesforce Sync Subscriber
783	Send GroupConnect
952	Journey Builder Event Activity
1000	Verification
1010	Interaction Studio Data
1101	Interactions
1701	Batch Personalization
3700	Contact to Business Unit Mapping


Data View: Bounce


To view bounce data for emails from your Marketing Cloud account, query the `_bounce` data view in Automation Studio.

View bounce data for emails from your account by querying the `_bounce` data view. Records dating back six months from the day the query runs are available.

Dates and times are stored in Central Standard Time. Daylight Savings Time isn't observed. To view time-related data in your time zone, set time zone user preferences.

 **Note:** When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the `_EnterpriseAttribute` table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.

 **Note:** Data returned for some fields exceeds their character limit. When querying `nvarchar` fields, use `left()` function to limit the number of characters to fit the field length in the target data extension.

 **Example:** `left(smtpbouncereason, 4000) left(smtpbouncereason, 4000)`

Columns

Name	Description	Data Type	Data Extension Data Type	Nullable
AccountID	Your account ID number	int	Number	
OYBAccountID	The account ID number for any related On-Your-Behalf accounts. This field applies to enterprise accounts only.	int	Number	X
JobID	The job ID number for the email send	bigint	Number	
ListID	The list ID number for the list used in the send	int	Number	
BatchID	The batch ID number for any batches used in the send	bigint	Number	
SubscriberID	The subscriber ID for the affected subscriber. This number represents the unique ID for each subscriber record.	int	Number	
SubscriberKey	The subscriber key for the affected subscriber. This serves as the primary key.	nvarchar(254)	Text	
EventDate	The date the bounce took place	datetime	Date	
IsUnique	Whether the event is unique or repeated	bit	Boolean	
Domain	The domain at which the bounce occurred	varchar(128)	Text	
BounceCategoryID	The ID number for the bounce category	smallint	Number	
BounceCategory	The category of the bounce	nvarchar(50)	Text	X
BounceSubcategoryID	The ID number for the bounce subcategory	smallint	Number	X

Name	Description	Data Type	Data Extension Data Type	Nullable
BounceSubcategory	The subcategory of the bounce	nvarchar(50)	Text	X
BounceTypeID	The ID number for the bounce type	smallint	Number	
BounceType	The type of bounce that occurred	nvarchar(50)	Text	X
SMTPBounceReason	The reason for the bounce relayed by the mail system	nvarchar(max)	Text	X
SMTPMessage	The message regarding the bounce from the mail system	nvarchar(max)	Text	X
SMTPCode	The error code for the bounce from the mail system	smallint	Number	X
TriggererSendDefinitionObjectID	The object ID for the triggered send definition	varchar(36)	Text	X
TriggeredSendCustomerKey	The customer key for the triggered send	nvarchar(36)	Text	X
IsFalseBounce	Indicates a false bounce	bit	Boolean	X

Data View: BusinessUnitUnsubscribes

To find subscribers in your account and their child business unit unsubscribe data, use the `_BusinessUnitUnsubscribes` data view in Marketing Cloud Automation Studio. You can only run the data view on the parent account only and not on child business units.

Marketing Cloud stores the dates and times in Central Standard Time. Daylight Savings Time isn't observed. To view time-related data in your time zone, set time zone user preferences.

Columns

SubscriberID and SubscriberKey columns are indexed.

Name	Description	Data Type	Data Extension Data Type	Nullable
BusinessUnitID	The Account ID for the Business Unit (BU).	bigint	Number	
SubscriberID	The subscriber ID for the affected subscriber. This number represents the unique ID for each subscriber record.	bigint	Number	
SubscriberKey	A potential alternate identifier for subscribers. Defaults to the value of Email Address.	varchar(254)	Text	
UnsubDateUTC	The date the subscriber unsubscribed from messages sent by BU.	smalldatetime	Date	X


Name	Description	DataType	Data Extension Data Type	Nullable
UnsubReason	The reason listed is a custom value configured by your administrator.	varchar(100)	Text	X

Data View: Click


Query this data view in Automation Studio to view click data for emails from your Marketing Cloud account.

View clicks for links in emails sent from your account by querying the `_Click` data view. Records dating back six months from the day the query runs are available.

Dates and times are stored in Central Standard Time. Daylight Savings Time is not observed. To view time-related data in your time zone, set time zone user preferences.

 **Note:** When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the `_EnterpriseAttribute` table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.

Name	Description	DataType	Data Extension Data Type	Nullable
AccountID	The account ID number of the Marketing Cloud account.	int	Number	
OYBAccountID	The account ID number for any related On-Your-Behalf (OYB) accounts. This field applies to enterprise accounts only.	int	Number	X
JobID	The job ID number for the email send	bigint	Number	
ListID	The list ID number for the list used in the send	int	Number	
BatchID	The batch ID number for any batches used in the send	bigint	Number	
SubscriberID	The subscriber ID for the affected subscriber. This number represents the unique ID for each subscriber record.	int	Number	
SubscriberKey	The subscriber key for the affected subscriber	nvarchar(254)	Text	
EventDate	The date the click took place	datetime	Date	
Domain	The domain at which the click occurred	varchar(128)	Text	
URL	The URL for the link clicked. No AMPscript or variables are populated in this column,	varchar(900)	Text	X

Name	Description	DataType	Data Extension Data Type	Nullable
	for example, www.example.com?%%attribute%%			
LinkName	The link name assigned in the email send	varchar(1024)	Text	X
LinkContent	The link content assigned in the email send. AMPscript and variables are populated in this column, such as www.example.com?12345	varchar(max)	Text	X
IsUnique	Whether the event is unique or repeated  Note: The IsUnique value is true when any link is first clicked in a JobID by a subscriber. Any clicks afterwards are false even if different URLs.			
TriggererSendDefinitionObjectID	The object ID for the triggered send definition	uniqueidentifier	Text	X
TriggeredSendCustomerKey	The customer key for the triggered send	varchar(36)	Text	X

SEE ALSO:


[External Link: Add Subscribers to an On-Your-Behalf Account](#)

Data View: Complaint

Query this data view in Automation Studio to view complaints data related to emails from your Marketing Cloud account.

View data regarding spam complaints from subscribers about email sends from your account by querying the `_Complaint` data view. Records dating back six months from the day the query runs are available.

Dates and times are stored in Central Standard Time. Daylight Savings Time isn't observed. To view time-related data in your time zone, set time zone user preferences.

 **Note:** When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the `_EnterpriseAttribute` table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.


Columns

Name	Description	DataType	Data Extension Data Type	Nullable
AccountID	Your account ID number	int	Number	


Name	Description	Data Type	Data Extension Data Type	Nullable
OYBAccountID	The account ID number for any related On-Your-Behalf (OYB) accounts. This field applies to enterprise accounts only.	int	Number	X
JobID	The job ID number for the email send	bigint	Number	
ListID	The list ID number for the list used in the send	int	Number	
BatchID	The batch ID number for any batches used in the send	bigint	Number	
SubscriberID	The subscriber ID for the affected subscriber. This number represents the unique ID for each subscriber record.	int	Number	
SubscriberKey	The subscriber key for the affected subscriber	nvarchar(254)	Text	
EventDate	The date the complaint took place	datetime	Date	
IsUnique	Whether the event is unique or repeated	bit	Boolean	
Domain	The domain at which the complaint occurred	varchar(128)	Text	

Data View: Coupon

View data regarding coupons used in your Marketing Cloud account by querying the `_Coupon` data view in Automation Studio.

 **Note:** To use this data view, you must use live content in Content Builder Block SDK. Learn more in the Trailhead Module: [Content Builder Block SDK](#).

Dates and times are stored in Central Standard Time. Daylight Savings Time isn't observed. To view time-related data in your time zone, set time zone user preferences.

 **Note:** When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the `_EnterpriseAttribute` table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.


Name	Description	Data Type	Data Extension Data Type	Nullable
Name	Name of your coupon	nvarchar(128)	Text	
ExternalKey	The external key used to refer to your coupon via the API	nvarchar(36)	Text	
Description	Description of your coupon	varchar	Text	
BeginDate	The date the coupon becomes valid	datetime	Date	

Name	Description	DataType	Data Extension Data Type	Nullable
ExpirationDate	The date the coupon becomes invalid	datetime	Date	


Data View: EnterpriseAttribute

Query this data view in Automation Studio to view subscribers in your Enterprise Marketing Cloud account and their profile attributes.

View subscribers in your Enterprise account and their profile attributes by querying the `_EnterpriseAttribute` data view.

 **Note:** This data view is for Enterprise 2.0 clients only. When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the `_EnterpriseAttribute` table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.

 **Note:** This data view is only available in the Parent account and can't be used in a business unit.

 **Note:** Preference attributes, such as HTML Email, aren't available in this data view

Columns

The `_subscriberID` field is an indexed field.


Name	Description	DataType	Data Extension Data Type	Nullable
<code>_SubscriberID</code>	The subscriber ID for the affected subscriber. This number represents the unique ID for each subscriber record stored.	bigint	Number	

Data View: FTAF

Query this data view in Automation Studio to view behavioral information related to email messages from your Marketing Cloud account that were forwarded to friends.

View behavioral information related to email messages from your account that were forwarded to friends (FTAF) by querying the `_FTAF` data view. Records dating back six months from the day the query runs are available.

Dates and times are stored in Central Standard Time. Daylight Savings Time is not observed. To view time-related data in your time zone, set time zone user preferences.

 **Note:** When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the `_EnterpriseAttribute` table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.

Name	Description	DataType	Data Extension Data Type	Nullable
AccountID	Your account ID number	int	Number	
OYBAccountID	The account ID number for any related On-Your-Behalf accounts and applies to enterprise accounts only.	int	Number	X
JobID	The job ID number for the email send	int	Number	
ListID	The list ID number for the list used in the send	int	Number	
BatchID	The batch ID number for any batches used in the send	int	Number	
SubscriberID	The subscriber ID for the affected subscriber. This number represents the unique ID for each subscriber record.	int	Number	
SubscriberKey	The subscriber key for the affected subscriber	nvarchar(254)	Text	
TransactionTime	The date the forward took place	datetime	Date	
Domain	The domain at which the forward occurred	varchar(128)	Text	
IsUnique	Whether the event is unique or repeated	bit	Boolean	
TriggererSendDefinitionObjectID	The object ID for the triggered send definition	uniqueidentifier	Text	X
TriggeredSendCustomerKey	The customer key for the triggered send	varchar(36)	Text	X

Data View: GroupConnect Contact Subscriptions


To view active LINE followers and users who have blocked your brand, you can query GroupConnect data view in Automation Studio. With Contact Subscriptions, customers can view their current subscribers each day.

Prerequisites

Enable the business rule SYSTEM_DATA_VIEWS on your account and set it to 1. Your account is checked upon load of the GroupConnect app, and if it doesn't exist, it's created. To access this view for the first time, a user or admin within the Business Unit must navigate to the GroupConnect channel app. This step triggers the creation of the view.

Follow these steps to view LINE follower information.

1. In Contact Builder, [create a data extension](#) with the fields in the data view and add a column of NowDate with type Date.
2. In Automation Studio, create an automation and [add a SQL query](#).
3. Within the SQL Query activity, query the `_MobileLineAddressContactSubscriptionView` data view and select the target data extension you created in the first step. For example: `Select convert (varchar, getDate(), 20) as NowDate,* from _MobileLineAddressContactSubscriptionView.`

 **Tip:** All times listed are Central Standard Time.

 **Tip:** To track LINE followers who have blocked your channel, compare daily lists to look for users who are no longer listed.

Columns

Name	Description	DataType	Data Extension Data Type	Nullable
ChannelID	Channel ID of LINE account	nvarchar	Text	
ContactID	Marketing Cloud ContactId (system generated) linked to LINE UID	bigint	Number	
ContactKey	Marketing Cloud contact key (system generated) linked to LINE UID	nvarchar	Text	
AddressID	LINE UID	nvarchar	Text	
IsActive	Active flag: (1 = true, 0 = false)	bit	Number	
CreatedDate	Date and time record created in Central Standard Time. Date the customer started following LINE account.	datetime	Date	
ModifiedDate	Date and time record modified in Central Standard Time	datetime	Date	X

Data View: GroupConnect MobileLineOrphanContactView

If an import has multiple ContactKeys for the same LINE Address ID in GroupConnect Contact Import, the system keeps one ContactKey. The remaining ContactKeys are orphaned. To view orphaned contacts, you can query the MobileLineOrphanContactView data view in Automation Studio.

1. In Contact Builder, [create a data extension](#) with the fields in the data view and add a column of NowDate with type Date.
2. In Automation Studio, create an automation and [add a SQL query](#).
3. Within the SQL Query activity, query the `_MobileLineOrphanContactView` data view and select the target data extension you created in the first step. For example: `Select convert (varchar, getDate(), 20) as NowDate, * from _MobileLineOrphanContactView..`

Columns

Name	Description	DataType	Data Extension Data Type	Nullable
ContactID	Marketing Cloud ContactId (system generated) linked to LINE UID	bigint	Number	


Name	Description	DataType	Data Extension Data Type	Nullable
ContactKey	ContactKey is either system-generated or provided by user during import. Linked to LINE UID	nvarchar	Text	
AddressID	LINE UID	nvarchar	Text	
CreatedDate	Date and time record created (in Central Standard Time). Date the customer started following LINE account.	datetime	Date	


Data View: Job

Query this data view in Automation Studio to find data on Marketing Cloud email send jobs.

View email send jobs from your account by querying the `_Job` data view.

Dates and times are stored in Central Standard Time. Daylight Savings Time isn't observed. To view time-related data in your time zone, set time zone user preferences.

 **Note:** When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the `_EnterpriseAttribute` table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.

 **Note:** The Job data view provides results for all email send jobs in your current business unit. The data view doesn't categorize the results by send method.

JobID is an indexed field.

Name	Description	DataType	Data Extension Data Type	Nullable
JobID	The job ID number for the email send	int	Number	
EmailID	The email ID for the job	int	Number	X
AccountID	The ID number for the account that performed the job	int	Number	X
AccountUserID	The ID number for the account user that performed the job	int	Number	X
FromName	The from name in the email send	nvarchar(130)	Text	X
FromEmail	The from email address in the email send	varchar(100)	Email	X
SchedTime	The time the job was scheduled	smalldatetime	Date	X
PickupTime	The time the Marketing Cloud application started the job	smalldatetime	Date	X

Name	Description	DataType	Data Extension Data Type	Nullable
DeliveredTime	The time the email was delivered	smalldatetime	Date	X
EventID	The ID for the job event	varchar(50)	Text	X
IsMultipart	Whether the job was sent as multipart MIME or not	bit	Boolean	
JobType	The type of job	varchar(50)	Text	X
JobStatus	The status of the job	varchar(50)	Text	X
ModifiedBy	If modified, the user who modified the job	int	Number	X
ModifiedDate	The date the job was modified	datetime	Date	X
EmailName	The name of the email sent by the job	char(100)	Text	X
EmailSubject	The subject of the email send	nchar(200)	Text	X
IsWrapped	Whether the links in the email were wrapped for tracking	bit	Boolean	
TestEmailAddr	The test email address used in the job	varchar(128)	Email	X
Category	The job category	varchar(100)	Text	
BccEmail	Any email address send in the BCC field	varchar(100)	Email	X
OriginalSchedTime	The original scheduled time for the job	smalldatetime	Date	X
CreatedDate	The date the job was created	smalldatetime	Date	
CharacterSet	The character set used in the job	varchar(30)	Text	X
IPAddress	This value is always null.	varchar(50)	Text	X
SalesForceTotalSubscriberCount	The total number of Salesforce subscribers included in the job	int	Number	
SalesForceErrorSubscriberCount	The total number of Salesforce subscribers included in the job that received errors	int	Number	
SendType	The type of send used in the job	varchar(128)	Text	
DynamicEmailSubject	The dynamic email subject included in the job	ntext	Text	X
SuppressTracking	If tracking information for this job was suppressed	bit	Boolean	
SendClassificationType	The send classification type for the job	nvarchar(32)	Text	X
SendClassification	The send classification for the job	nvarchar(36)	Text	X
ResolveLinksWithCurrentData	If the job resolved links with current data	bit	Boolean	


Name	Description	DataType	Data Extension Data Type	Nullable
EmailSendDefinition	The email send definition used in the job	nvarchar(36)	Text	X
DeduplicateByEmail	Whether the email addresses in the job are used to deduplicate subscribers	bit	Boolean	
TriggererSendDefinitionObjectID	The object ID for the triggered send definition	uniqueidentifier	null	X
TriggeredSendCustomerKey	The customer key for the triggered send	varchar(36)	Text	X

Data View: Journey

Find a journey's status, created and last modified date, and other general journey information using this Journey Builder data view.

View data about your Journey Builder journeys using the `_Journey` System Data View.

Dates and times are stored in Central Standard Time. Daylight Savings Time is not observed. To view time-related data in your time zone, set time zone user preferences.

 **Note:** When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the `_EnterpriseAttribute` table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.

Name	Description	DataType	Data Extension Data Type	Nullable
VersionID	The unique identifier for the version of the journey	uniqueidentifier(36)	Text	
JourneyID	The unique identifier for the journey. There are one or more VersionID's associated to a JourneyID.	uniqueidentifier(36)	Text	
JourneyName	The name of the journey	nvarchar(200)	Text	
VersionNumber	The version number of the version of the journey	int	Number	
CreatedDate	The date that the version of the journey was created	datetime	Date	
LastPublishedDate	The date that the version of the journey was last published	datetime	Date	X
ModifiedDate	The date that the version of the journey was last edited	datetime	Date	

Name	Description	DataType	Data Extension Data Type	Nullable
JourneyStatus	The current running mode of the journey. Possible values are Draft, Running, Finishing, and Stopped.	nvarchar(100)	Text	


Data View: Journey Activity

Use this data view to join to the email tracking system data views. Also use it to identify the Triggered Send Definition associated to an email activity in a Marketing Cloud journey and more.

View data about activities included in your Journey Builder journeys using the `_JourneyActivity` data view.

Dates and times are stored in Central Standard Time. Daylight Savings Time is not observed. To view time-related data in your time zone, set time zone user preferences.

 **Note:** JourneyActivityObjectID corresponds to TriggererSendDefinitionObjectID in the `_Sent`, `_Open`, `_Click`, and `_Bounce`, data views.

 **Note:** When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the `_EnterpriseAttribute` table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.


Name	Description	DataType	Data Extension Data Type	Nullable
VersionID	The unique identifier for the version of the journey	uniqueidentifier(36)	Text	
ActivityID	The unique identifier for the activity. There are one or more ActivityID's associated to a VersionID.	uniqueidentifier(36)	Text	
ActivityName	The name of the activity	nvarchar(200)	Text	X
ActivityExternalKey	The external key associated with the activity	nvarchar(200)	Text	
JourneyActivityObjectID	Use this unique identifier to join to email tracking system data views to identify a journey email's Triggered Send Definition.	uniqueidentifier(36)	Text	X
ActivityType	The type of activity	nvarchar(512)	Text	X

Data View: ListSubscribers

Query this data view in Automation Studio to find subscribers on lists in your Marketing Cloud account.

View subscribers on lists in your account by querying the `_ListSubscribers` data view.

Dates and times are stored in Central Standard Time. Daylight Savings Time isn't observed. To view time-related data in your time zone, set time zone user preferences.

 **Note:** When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the `_EnterpriseAttribute` table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.

ListID and SubscriberID are indexed fields.


Name	Description	DataType	Data Extension Data Type	Nullable
AddedBy	The ID of the user who ran the process that added the subscriber	int	Number	
AddMethod	The method by which the subscriber was added, including Unspecified, Webcollect, API, FTAF, Import, Move Copy, Application, Salesforce, Segmentation, Generic Extension, and Custom Object	varchar(17)	Text	
CreatedDate	The date the subscriber was added to the list	smalldatetime	Date	X
DateUnsubscribed	The date the subscriber unsubscribed	smalldatetime	Date	X
EmailAddress	The subscriber's email address	nvarchar(254)	Text	X
ListID	The list ID number for the list used in the send	int	Number	X
ListName	The name of the list containing the subscribers	varchar(50)	Text	X
ListType	Shows whether the type is list or group <ul style="list-style-type: none"> • Publication list • Suppression list • List • Group • FTAF list • Unknown 	varchar(16)	Text	
Status	The status of the subscriber	varchar(12)	Text	X
SubscriberID	The subscriber ID for the affected subscriber. This number represents the unique ID for each subscriber record.	int	Number	X
SubscriberKey	The subscriber key for the affected subscriber	nvarchar(254)	Text	X
SubscriberType	The type of subscriber	varchar(100)	Text	X

Data View: Open

Query this data view in Automation Studio to find email opens for your Marketing Cloud account.

View email opens for your account by querying the `_Open` data view. Records dating back six months from the day the query runs are available.

Dates and times are stored in Central Standard Time. Daylight Savings Time is not observed. To view time-related data in your time zone, set time zone user preferences.

 **Note:** When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the `_EnterpriseAttribute` table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.

Columns


Name	Description	DataType	Data Extension Data Type	Nullable
AccountID	Your account ID number	int	Number	
OYBAccountID	The account ID number for any related On-Your-Behalf accounts. This field applies to enterprise accounts only.	int	Number	X
JobID	The job ID number for the email send	int	Number	
ListID	The list ID number for the list used in the send	int	Number	
BatchID	The batch ID number for any batches used in the send	int	Number	
SubscriberID	The subscriber ID for the affected subscriber. This number represents the unique ID for each subscriber record.	int	Number	
SubscriberKey	The subscriber key for the affected subscriber	nvarchar(254)	Text	
EventDate	The date the open took place	datetime	Date	
Domain	The domain at which the open occurred	varchar(128)	Text	
IsUnique	Whether the event is unique or repeated	bool	Boolean	X
TriggererSendDefinitionObjectID	The object ID for the triggered send definition	varchar(36)	Text	X
TriggeredSendCustomerKey	The customer key for the triggered send	varchar(36)	Text	X

Data View: Sent

Query this data view in Automation Studio to find the subscribers sent emails from your Marketing Cloud account.

View subscribers who were sent emails from your account by querying the `_Sent` data view. Records dating back six months from the day the query runs are available.

Dates and times are stored in Central Standard Time. Daylight Savings Time is not observed.

 **Note:** When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the `_EnterpriseAttribute` table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.

Columns

Name	Description	Data Type	Data Extension Data Type	Nullable
AccountID	Your account ID number	int	Number	
OYBAccountID	The account ID number for any related On-Your-Behalf accounts. This field applies to enterprise accounts only.	int	Number	X
JobID	The job ID number for the email send	int	Number	
ListID	The list ID number for the list used in the send	int	Number	
BatchID	The batch ID number for any batches used in the send	int	Number	
SubscriberID	The subscriber ID for the affected subscriber. This number represents the unique ID for each subscriber record.	int	Number	
SubscriberKey	The subscriber key for the affected subscriber	nvarchar(254)	Text	
EventDate	The date the send took place	datetime	Date	
Domain	The domain at which the send occurred	varchar(128)	Text	
TriggererSendDefinitionObjectID	The object ID for the triggered send definition	varchar(36)	Text	X
TriggeredSendCustomerKey	The customer key for the triggered send	varchar(36)	Text	X


Data View: SMSMessageTracking

Query this data view in Automation Studio to find message tracking information from Marketing Cloud MobileConnect SMS sends. This data view allows customers to view their send and receive history. Information from this query relates to the owner of a private short code or long code. Query information can also relate to a client using a shared short code to which the subscriber has opted in.

View message tracking information about MobileConnect SMS sends in your business unit by querying the `_smsmessagetracking` data view.

Identify the name of the SMS message that you want to check on the MobileConnect Overview page.

1. To retrieve the MessageID, click the message name.
2. On the message Overview page, note the URL.
3. Copy the Base64 encoded text.
4. Use an online Base64 decoder to decode the Base64 encoded text.
5. The result appears in this format: 65:78:0 5. Based on this result, the MessageID for this message is 65.

 **Example:** Sample URL: <https://mc.s10.exacttarget.com/cloud/#app/MobileConnect/Mobile/%23!/message/view/NjU6Nzg6MA>
 Sample Base64 encoded text: NjU6Nzg6MA

Considerations

- Dates and times are stored in Central Standard Time. Daylight Savings Time isn't observed.
- Code and keyword values are currently represented as a static GUID.
- There are some cases where MobileConnect has no subscriber ID. For example, if a net new number texts STOP, a contact isn't created, but a record is logged.
- For shared codes, the delivery statuses shown in this data view only confirms delivery to the aggregator via the status code of 2000. The shared codes delivery receipts are returned to the Marketing Cloud account that owns the code.
- Use the _SMSSubscriptionLog data view for Unsub, OptIn, and OptOut data.
- If you don't name your activity in Journey Builder, your content name serves as your activity name.
- This data view retains data indefinitely. To improve query performance and limit the results, use WHERE conditions when retrieving a large amount of data.

Columns

Name	Description	Data Type	Data Extension Data Type	Nullable
MobileMessageTrackingID	Unique ID for tracking information related to the sent message	bigint	Number	
EID	Enterprise ID number for the sender	bigint	Number	X
MID	Member ID	bigint	Number	X
Mobile	Mobile number for the subscriber	varchar(15)	Phone	
MessageID	Mobile message ID	int	Number	
KeywordID	Unique identifier for the keyword	unique identifier	Text	X
CodeID	Unique identifier for the SMS code	unique identifier	Text	X
ConversationID	Not used (legacy)	unique identifier	Text	X

Name	Description	Data Type	Data Extension Data Type	Nullable
ConversationStateID	Unique identifier that correlates mobile originated (MO) and mobile terminated (MT) messages as a single conversation	unique identifier	Text	X
CampaignID	The SMS campaign tied to the record	int	Number	X
Sent	If the message was sent (1 = true, 0 = false)	tinyint	Boolean	
Delivered	If the message was delivered (1 = true, 0 = false)		Boolean	X
Undelivered	Whether the message was delivered successfully or not (1 = true, 0 = false)	bit	Boolean	X
Outbound	If the message was outgoing (1 = true, 0 = false)	bit	Boolean	X
Inbound	If the message was incoming (1 = true, 0 = false)	bit	Boolean	X
CreateDateTime	The date and time the tracking record was created	smalldatetime	Date and time	
ModifiedDateTime	The date and time (in Central Standard Time) the tracking record was modified	smalldatetime	Date and time	
ActionDateTime	The actual date and time a delivery or non-delivery event was received by the Marketing Cloud. Timestamps for delivery receipts aren't indicative of when a message was received on a handset. The SMS industry doesn't support read receipts, and the data returned in this view are based on when a delivery receipt is returned to our system.	smalldatetime	Date and Time	
MessageText	The text of the message	nvarchar(160)	Text	X
IsTest	If the message was a test message	bit	Boolean	
MobileMessageRecurrenceID	The ID of the recurrence schedule for the message. Can be used for troubleshooting send issues.	bigint	Number	X
ResponseToMobileMessageTrackingID	The tracking ID of the response to the message	bigint	Number	X

Name	Description	Data Type	Data Extension Data Type	Nullable
IsValid	If the message is valid	bit	Boolean	X
InvalidationCode	Invalidation code for the message	smallint	Number	X
SendID	The send ID number for the SMS send	bigint	Number	X
SendSplitID	If the message was split, the ID of the split	bigint	Number	X
SendSegmentID	The ID of the segment tied to the message	bigint	Number	X
SendJobID	The job ID for the SMS send	bigint	Number	X
SendGroupID	The group ID for the SMS send	bigint	Number	X
SendPersonID	The sendperson ID for the SMS send	bigint	Number	X
SubscriberID	The subscriber ID for the affected subscriber. This number represents the unique ID for each subscriber record	bigint	Number	X
SubscriberKey	The subscriber key for the affected subscriber	nvarchar(254)	Text	X
SMSStandardStatusCodeId	SFMC delivery status code	int	Number	X
Description	Detailed description of the status code	nvarchar	Text	X
Name	The name of your message	nvarchar	Text	X
ShortCode	The short code or long code used to send your message The ShortCode column isn't populated for inbound and MT sends. View the associated code in the CodeID column instead.	nvarchar	Text	X
SharedKeyword	The keyword used in your message	nvarchar	Text	X
Ordinal	Represents the parts in a multi-part message. Represented in ascending order starting at 0.	tinyint	Number	X
FromName	From Name that an individual message was deployed with. Maximum length: 11 characters	nvarchar	Text	X

Name	Description	Data Type	Data Extension Data Type	Nullable
JBActivityID	Unique identifier for the journey activity the message was deployed from	unique identifier	Text	X
JBDefinitionID	Unique identifier for the journey a message was deployed from	unique identifier	Text	X
SMSJobID	Unique identifier for each SMS job triggered in MobileConnect	unique identifier	unique identifier	X
SMSBatchID	Identifies a batch associated with an SMS send	bigint	bigint	X

SEE ALSO:

[Review Undelivered Messages](#)

[Data View: SMSSubscriptionLog](#)


[Knowledge Article: Description of the fields in _SMSMessageTracking dataview that return NULL values](#)

Data View: Social Network Impressions

Query this data view in Automation Studio to find data on content shared from your Marketing Cloud sends via Social Forward.

View impression data on content shared from your sends via Social Forward by querying the _SocialNetworkImpressions data view.

Dates and times are stored in Central Standard Time. Daylight Savings Time is not observed. To view time-related data in your time zone, set time zone user preferences.

 **Note:** When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the _EnterpriseAttribute table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.

Columns

Name	Description	Data Type	Data Extension Type	Nullable
JobID	The job ID number for the email send	bigint	Number	
ListID	The list ID number for the list used in the send	int	Number	
RegionTitle	The title of the region shared via Social Forward	varchar	Text	
RegionDescription	The description of the region shared via Social Forward	varchar	Text	X

Name	Description	Data Type	Data Extension Type	Nullable
RegionHTML	The HTML associated with the social forward region	varchar	Text	
ContentRegionID	The ID of the shared content region	int	Number	
SocialSharingSiteID	The ID of the social network involved in the sharing of the content region	int	Number	
SiteName	The name of the social network involved in the sharing of the content region	varchar	Text	
CountryCode	The country code for the social network involved in the sharing of the content region	varchar	Text	
ReferringURL	The referring URL used in the Social Forward activity	varchar	Text	X
IPAddress	The IP address for the URL from which the content region was shared.	varchar(50)	Text	X
TransactionTime	The time at which the content area was shared	datetime	Date	
PublishedSocialContentStatusID	The status ID for the published social content	varchar	Text	
ShortCode	The short code for the published social content status, which is Active, Inactive, or Deleted	varchar	Text	
PublishTime	The time the social content area was published	datetime	Date	

SEE ALSO:


[Social Forward](#)

Data View: Social Network Tracking

Query this data view in Automation Studio to find tracking data on content shared from your Marketing Cloud sends via Social Forward.

View tracking data on content shared from your sends via Social Forward by querying the `_SocialNetworkTracking` view.

Dates and times are stored in Central Standard Time. Daylight Savings Time is not observed. To view time-related data in your time zone, set time zone user preferences.

 **Note:** When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the `_EnterpriseAttribute` table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.

Columns

Name	Description	Data Type	Data Extension Type	Nullable
SubscriberID	The subscriber ID for the affected subscriber. This number represents the unique ID for each subscriber record.	int	Number	
SubscriberKey	The subscriber key for the affected subscriber	nvarchar(254)	Email	
ListID	The list ID number for the list used in the send	int	Number	
BatchID	The batch ID number for any batches used in the send	bigint	Number	
SocialSharingSiteID	The ID of the social network used to share the content region	int	Number	
SiteName	The name of the social network involved in the sharing of the content region	varchar	Text	
CountryCode	The country code for the social network involved in the sharing of the content region	varchar	Text	
PublishedSocialContentID	The ID number for the content area published via Social Forward	varchar	Text	
RegionTitle	The title of the region shared via Social Forward	varchar	Text	
RegionDescription	The description of the region shared via Social Forward	varchar	Text	X

Name	Description	Data Type	Data Extension Type	Nullable
RegionHTML	The HTML associated with the social forward region	varchar	Text	X
ContentRegionID	The ID of the shared content region	varchar	Text	X
OYBMemberID	The ID number for any On-Your-Behalf (OYB) account involved in the sharing of the content area	int	Number	X
TransactionTime	The time at which the content area was shared	datetime	Date	
IsUnique	Whether the event is unique or not	bit	Boolean	
Domain	The domain from which the content was shared	varchar	Text	
PublishedSocialContentStatusID	The status ID for the published social content	varchar	Text	
ShortCode	The short code for the published social content status, which is Active, Inactive, or Deleted	varchar	Text	
PublishTime	The time the social content area was published	datetime	Date	

SEE ALSO:


[Social Forward](#)

Data View: Subscribers

Query this data view in Automation Studio to find subscribers in your Marketing Cloud account and their statuses.

View email subscribers in your account and their statuses by querying the `_Subscribers` data view. Subscriber attributes aren't available. This data view only returns results at the Enterprise level, and not for business units.

Dates and times are stored in Central Standard Time. Daylight Savings Time isn't observed. To view time-related data in your time zone, set time zone user preferences.

 **Note:** When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the `_EnterpriseAttribute` table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.

Columns

The SubscriberID, EmailAddress, and SubscriberKey columns are indexed.

Name	Description	Data Type	Data Extension Data Type	Nullable
SubscriberID	The subscriber ID for the affected subscriber. This number represents the unique ID for each subscriber record.	bigint	Number	
DateUndeliverable	The date an email for the subscriber was returned as undeliverable	smalldatetime	Date	X
DateJoined	The date the subscriber joined your list	smalldatetime	Date	X
DateUnsubscribed	The date the subscriber unsubscribed from your list	smalldatetime	Date	X
Domain	The domain of the subscriber	nvarchar(254)	Text	X
EmailAddress	The subscriber's email address	nvarchar(254)	Email	
BounceCount	The total number of bounces accrued by the subscriber	smallint	Number	
SubscriberKey	A potential alternate identifier for subscribers. Defaults to the value of Email Address.	nvarchar(254)	Text	
SubscriberType	The subscriber type for the affected subscriber <ul style="list-style-type: none"> • 0 = ExactTarget (Marketing Cloud), Salesforce Lead, Salesforce Contact • 3 = Unknown External System (Triggered Send Hidden Manage List) • 4 = MS CRM Contact • 5 = MS CRM Lead • 6 = MS CRM Account 	varchar(100)	Text	
Status	The status of the subscriber: active, held, unsubscribed, or bounced.	varchar(12)	Text	X
Locale	The locale code for the subscriber	int	Locale	X

Data View: SMSSubscriptionLog

To find subscription log information from MobileConnect SMS sends, query this data view in Automation Studio. For example, view a history of all mobile numbers subscribed to a keyword.

View subscription log information about SMS sends in MobileConnect by querying the `_SMSSubscriptionLog` data view. Information from this query relates to the owner of a private short code or long code or a client using a shared short code to which the subscriber has opted in. This data view shows more than 6 months of data.

Considerations

- Dates and times are stored in Central Standard Time. Daylight Savings Time isn't observed. To view time-related data in your time zone, set time zone user preferences.
- When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the `_EnterpriseAttribute` table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.
- Code and keyword values are currently represented as a static GUID.
- There are some cases where MobileConnect doesn't have a subscriber ID. For example, if a net new number texts STOP, a contact isn't created, but a record is logged.
- Only the first subscription event is logged for a given status. For example, if a contact opts out three times, only the first opt-out is logged.

Columns

Name	Description	Data Type	Data Extension Data Type	Nullable
LogDate	The date the subscription is logged	datetime	Date	X
SubscriberKey	The subscriber key for the affected subscriber	nvarchar	Text	
MobileSubscriptionID	The unique ID of the subscription record	bigint	Number	
SubscriptionDefinitionID	The unique keyword ID	unique identifier	Text	
MobileNumber	Mobile number for the subscriber	nvarchar	Phone	
OptOutStatusID	Whether the subscriber has opted out of SMS messages. See key for values.	tinyint	Number	X
OptOutMethodID	Method the subscriber used to opt out of SMS messages. See key for values.	tinyint	Number	X
OptOutDate	Date the subscriber opted out of SMS messages	date	Date	X
OptInStatusID	Whether the subscriber has opted in to an SMS message. See key for values.	tinyint	Number	
OptInMethodID	Method the subscriber used to opt in to SMS messages. See key for values.	bit	Number	X

Name	Description	DataType	Data Extension Data Type	Nullable
OptInDate	Date the subscriber opted in to SMS messages	date	Date	X
Source	The subscription source	tinyint	Number	X
CreatedDate	Date the message was created	date	Date	
ModifiedDate	Date the message was modified	date	Date	

To help with queries, the subscriberkey field for a MobileNumber that’s associated with more than one subscriberkey includes a “Multiple subscriber keys found” value.

The SubscriberKey field is populated if the MobileNumber matches a record in the All Contacts List in Contact Builder.

OptOutStatusID Key

- 0 = NotOptedOut
- 1 = OptedOut
- 10 = DeletingNotOptedOut
- 11 = DeletingOptedOut

OptOutMethodID Key

The OptOutMethod ID tracks 4 (import), 6 (application), 14 (CustomStopKeyword), 15 (suppression), or 18 (GlobalStopKeyword) opt-out methods only, but can track other methods in the future.

When a NULL value is returned, this value indicates that a subscriber texted an opt-out keyword

- 0 = Unspecified
- 1 = WebCollect
- 2 = API
- 3 = FTAF
- 4 = Import
- 5 = MoveCopy
- 6 = Application
- 7 = Salesforce
- 8 = Segmentation
- 9 = GenericExtension
- 10 = CustomObject
- 11 = RMM
- 13 = ServiceFeedback
- 14 = MobileOriginated (CustomStopKeyword)

15 = ContactsSuppression
18 = MobileOriginated (GlobalStopKeyword)

OptInStatusID Key

0 = NotOptedIn
1 = OptInPending
2 = OptedIn
10 = DeletingNotOptedIn
11 = DeletingOptInPending
12 = DeletingOptedIn

OptInMethodID Key

0 = Unspecified
1 = WebCollect
2 = API
3 = FTAF
4 = Import
5 = MoveCopy
6 = Application
7 = Salesforce
8 = Segmentation
9 = GenericExtension
10 = CustomObject
11 = RMM
12 = Mobile Opt-In
13 = DeviceRegistration

Source Key

0 = Unspecified
1 = Webcollect
2 = API
3 = FTAF
4 = Import
5 = MoveCopy
6 = Manual
7 = Salesforce
8 = Segmentation

- 9 = GenericExtension
- 10 = CustomObject
- 11 = FacebookAPI
- 12 = SmartCapture
- 13 = MobileOptIn

SEE ALSO:


[Review Undelivered Messages](#)

Data View: SurveyResponse

Query this data view in Automation Studio to find responses to surveys sent from your Marketing Cloud account.

View responses to surveys sent from your account by querying the `_SurveyResponse` data view. Records dating back six months from the day the query runs are available.

Dates and times are stored in Central Standard Time. Daylight Savings Time is not observed. To view time-related data in your time zone, set time zone user preferences.

 **Note:** When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the `_EnterpriseAttribute` table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.

Columns

Name	Description	DataType	Data Extension Data Type	Nullable
AccountID	Your account ID number	int	Number	
OYBAccountID	The account ID number for any related On-Your-Behalf accounts. This field applies to enterprise accounts only.	int	Number	X
JobID	The job ID number for the email send	int	Number	
ListID	The list ID number for the list used in the send	int	Number	
BatchID	The batch ID number for any batches used in the send	int	Number	
SubscriberID	The subscriber ID for the affected subscriber. This number represents the unique ID for each subscriber record.	int	Number	
SubscriberKey	The subscriber key for the affected subscriber	nvarchar(254)	Text	
EventDate	The date the survey response took place	datetime	Date	


Name	Description	DataType	Data Extension Data Type	Nullable
Domain	The domain at which the survey response occurred	varchar(128)	Text	
SurveyID	The ID of the survey	int	Number	
SurveyName	The name of the survey	varchar(100)	Text	
IsUnique	Whether the response is unique or not	int	Number	
QuestionID	The ID of the survey question	int	Number	
QuestionName	The name of the survey question	varchar(50)	Text	
Question	The survey question	varchar(4000)	Text	
AnswerID	The ID of the answer	int	Number	
AnswerName	The name of the answer	varchar(4000)	Text	X
Answer	The Boolean answer to the survey question	varchar(4000)	Text	X
AnswerData	The text content of the survey answer	nvarchar(max)	Text	X

Data View: Undeliverable SMS

Query this data view in Automation Studio to find failed message deliveries to Marketing Cloud MobileConnect subscribers.

View information about failed message deliveries to MobileConnect subscribers by querying the `_UndeliverableSms` data view. Information from this query relates to the owner of a private short code or long code, or a client using a shared short code to which the subscriber has opted in.

Dates and times are stored in Central Standard Time. Daylight Savings Time isn't observed. To view time-related data in your time zone, set time zone user preferences.

 **Note:** When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the `_EnterpriseAttribute` table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.

Columns

Name	Description	DataType	Data Extension Data Type	Nullable
MobileNumber	Mobile number for the subscriber	varchar(15)	Phone	
Undeliverable	Indicates that the number is Held and that MobileConnect discontinued sending messages to the subscriber	bit	Boolean	

Name	Description	Data Type	Data Extension Data Type	Nullable
BounceCount	Number of bounced SMS messages for subscriber	smallint	Number	
FirstBounceDate	The date when the first bounce occurred	datetime	Date	
HoldDate	The date when MobileConnect discontinued sending messages to the subscriber	datetime	Date	X

SEE ALSO:

[Bounced Messages and Held Numbers](#)

[Review Undelivered Messages](#)

Data View: Unsubscribe

Query this data view in Automation Studio to find unsubscribes from email lists in your Marketing Cloud account.

View unsubscribes related to your email sends in your account by querying the `_Unsubscribe` data view. To view all unsubscribe data, use the [StatusChanges](#) on page 157 extract. Records dating back six months from the day the query runs are available.

Dates and times are stored in Central Standard Time. Daylight Savings Time is not observed. To view time-related data in your time zone, set time zone user preferences.



Note: When profile attributes are created in Enterprise 2.0 accounts, new columns are added to the `_EnterpriseAttribute` table. Data view queries in Enterprise 2.0 accounts can return results from profile attribute columns in addition to the columns listed here.

Columns

Name	Description	Data Type	Data Extension Data Type	Nullable
AccountID	Your account ID number	int	Number	
OYBAccountID	The account ID number for any related On-Your-Behalf accounts. This field applies to enterprise accounts only.	int	Number	x
JobID	The job ID number for the email send	bigint	Number	
ListID	The list ID number for the list used in the send	int	Number	
BatchID	The batch ID number for any batches used in the send	bigint	Number	

Name	Description	Data Type	Data Extension Data Type	Nullable
SubscriberID	The subscriber ID for the affected subscriber. This number represents the unique ID for each subscriber record.	int	Number	
SubscriberKey	The subscriber key for the affected subscriber	nvarchar(254)	Text	
EventDate	The date the unsubscribe took place	datetime	Date	
IsUnique	Whether the event is unique or repeated	bit	Boolean	
Domain	The domain at which the unsubscribe occurred	varchar(128)	Text	

SQL Query Examples

Learn how to build effective SQL queries in Automation Studio by following use cases.



Note:

- To use these examples, you need a working knowledge of SQL.
- These examples aren't comprehensive. Be creative, combine use cases, and check out the Trailhead and Stack Exchange communities for more ideas.
- You can copy and paste the code samples, but you must configure them for your setup.
- Data views are covered in a separate, adjacent section of the documentation.

[Query: Bounce History](#)

Find a history of individual bounce responses, and identify how to resolve them.

[Query: Journey Builder Bounced Email Messages](#)

Create a list of contacts to send direct mailers to, based on bounced email messages from Journey Builder.

[Query: Journey Builder Sends by Email Across Versions](#)

Aggregate all Journey Builder email sends across multiple versions of the same journey. Or, modify this query to find opens, clicks, bounces, complaints, or unsubscribes across versions during a specific time frame.

[Query: Journey Builder Sends in Last 24 Hours](#)

Find subscribers who were sent an email from a journey in Journey Builder within the last 24 hours. Or, modify this query to find opens, clicks, bounces, complaints, or unsubscribes for an email from Journey Builder during a specific time frame.

[Query: Opens in Last 30 Days](#)

Find all unique opens for a specific email over the last 30 days. Or, modify this query to find sends, clicks, bounces, complaints, or unsubscribes for an email during a specific time frame.

[Query: Subscriber Status](#)

Find subscribers on a list and their statuses. Or, find only subscribers with a specific status, such as active or unsubscribed.

[Query: Subscribers by Date or Time Frame](#)

Find subscribers who were added within a specific date or range of dates.

[Query: Subscribers in a Publication or Suppression List](#)

Find subscribers who were placed on a publication or suppression List. Or, find only subscribers on the list with a specific status, such as active or unsubscribed. If you have problems retrieving suppression list data, contact Salesforce Customer Support to activate this feature.

[Query: Subscribers with No Opens or Clicks](#)

Find subscribers who haven't opened or clicked an email. Use this query for jobs with fewer than 500,000 subscribers. For larger jobs, use intermediate tables.

[Query: Top Bounces for a Job](#)

Find the top bounces by percentage for a specific job. Use this query for jobs with fewer than 5,000,000 subscribers.

Query: Bounce History

Find a history of individual bounce responses, and identify how to resolve them.

Before You Begin

To use this example, you need a working knowledge of SQL. You can copy and paste the code samples, but you must configure them for your setup.

Create a Target Data Extension

In Contact Builder or Email Studio, create a standard data extension with these properties and fields. This data extension is the destination for your query's data output.

Target Data Extension	BounceHistory
External Key	BounceHistory
Retention Setting	On
Delete	Individual Records
Retention Period	180 Days

 **Note:** If you create the data extension in Email Studio, the Nullable column replaces the Required column. If a field isn't required, select **Nullable**. If a field is required, don't select Nullable.

Primary Key	Name	Data Type	Required	Length	Default Value
X	SubscriberID	Number	X		
X	JobID	Number	X		
X	ListID	Number	X		
X	BatchID	Number	X		
	EventDate	Date			
	EmailAddress	Email Address			

Primary Key	Name	Data Type	Required	Length	Default Value
	SubscriberKey	Text		254	
	EmailName	Text		100	
	Domain	Text		100	
	BounceCategory	Text		50	
	SMTPBounceReason	Text		4000	
	InsertedDate	Date			Select use the current system date

Create a Query Activity

In Automation Studio, create an SQL query with these properties.

Query Name	BounceHistory
External Key	BounceHistory

Sample Query

Copy and paste this query.

```
SELECT l.listname,
       de.subscriberkey,
       l.[status]
FROM   [MY_DE_NAME] AS de
       INNER JOIN [_listsubscribers] AS l
           ON de.subscriberkey = l.subscriberkey
WHERE  l.listname = 'MY_LIST_NAME'
```

Finalize the Query Activity

Link the query to the target data extension.

Target Data Extension	BounceHistory
Data Action	Update

Save your query activity, and then create and activate an automation that uses the activity. To continuously update your bounce history, run the automation every 24 hours.

Query Variation: Capture Bounces for a Specific Email

To capture bounces for a specific email, add this line to the end of the query and replace *MY_EMAIL_NAME* with the name of the email.

```
AND j.emailname = 'MY_EMAIL_NAME'
```

Query Variation: Capture Bounces for a Specific Job

To capture bounces for a specific job, add this line to the end of the query and replace *MY_JOB_ID* with the job ID.

```
AND j.jobid = 'MY_JOB_ID'
```

SEE ALSO:

- [Create a Data Extension in Contact Builder](#)
- [Create a Data Extension in Email Studio \(Enhanced\)](#)
- [Build a SQL Query Activity](#)
- [Optimizing a SQL Query Activity](#)
- [SQL Reference](#)

Query: Journey Builder Bounced Email Messages

Create a list of contacts to send direct mailers to, based on bounced email messages from Journey Builder.

Before You Begin

To use this example, you need a working knowledge of SQL. You can copy and paste the code samples, but you must configure them for your setup.

Create a Data Extension to Store Contact Data

In Contact Builder or Email Studio, create a standard data extension with these properties and fields.

Target Data Extension	ContactProfileData
External Key	ContactProfileData

 **Note:** If you create the data extension in Email Studio, the Nullable column replaces the Required column. If a field isn't required, select **Nullable**. If a field is required, don't select Nullable.

Primary Key	Name	Data Type	Required	Length	Default Value
X	ContactKey	Text	X	254	
	EmailAddress	EmailAddress	X	254	
	AddressLine1	Text	X	500	
	AddressLine2	Text		500	

Primary Key	Name	Data Type	Required	Length	Default Value
	City	Text	X	100	
	State	Text	X	2	
	Zip	Text	X	10	
	HomePhone	Phone		50	
	MobilePhone	Phone		50	

Create a Target Data Extension for Journey Email Tracking

Create a standard data extension with these properties and fields. This data extension is the destination for your query's data output.

Target Data Extension	EmailBouncesbyJourney
External Key	EmailBouncesbyJourney

Primary Key	Name	Data Type	Required	Length	Default Value
	JourneyName	Text	X	100	
	VersionNumber	Number	X		
	EmailName	Text	X	100	
	SendTime	Date	X		
	BounceTime	Date	X		
	EmailAddress	EmailAddress	X	254	
	ContactKey	Text	X	254	
X	ContactID	Number	X		
X	JobID	Number	X		
X	ListID	Number	X		
X	BatchID	Number	X		
	AddressLine1	Text	X	500	
	AddressLine2	Text		500	
	City	Text	X	100	
	State	Text	X	2	
	Zip	Text	X	10	
	HomePhone	Phone		50	
	MobilePhone	Phone		50	

Create a Query Activity

In Automation Studio, create an SQL query with these properties. To ensure that bounce data is finalized, wait at least 72 hours after the send to run this query.

Query Name	EmailBouncesByJourney
External Key	EmailBouncesByJourney

Sample Query

Copy and paste this query.

```
SELECT j.journeyname,
       j.versionnumber,
       ja.activityname AS 'EmailName',
       s.eventdate     AS 'SendTime',
       b.eventdate     AS 'BounceTime',
       su.emailaddress,
       su.subscriberkey AS 'ContactKey',
       su.subscriberid AS 'ContactID',
       s.jobid,
       s.listid,
       s.batchid,
       cpd.addressline1,
       cpd.addressline2,
       cpd.city,
       cpd.state,
       cpd.zip,
       cpd.homephone,
       cpd.mobilephone
FROM   [_sent] AS s
       INNER JOIN [_journeyactivity] AS ja
              ON s.triggerersenddefinitionobjectid = ja.journeyactivityobjectid
       INNER JOIN [_journey] AS j
              ON ja.versionid = j.versionid
       INNER JOIN [_bounce] AS b
              ON s.jobid = b.jobid
              AND s.listid = b.listid
              AND s.batchid = b.batchid
              AND s.subscriberid = b.subscriberid
       INNER JOIN [_subscribers] AS su
              ON s.subscriberid = su.subscriberid
       INNER JOIN contactprofiledata AS cpd
              ON s.subscriberkey = cpd.contactkey
WHERE  ja.activitytype IN ( 'EMAIL', 'EMAILV2' )
       AND s.eventdate < Dateadd(hour, -72, Getdate())
       AND j.journeyname = 'MY_JOURNEY_NAME'
```

Finalize the Query Activity

Customize the query. Use the line numbers in Automation Studio to identify which lines to modify.

- On the last line, replace MY_JOURNEY_NAME with the name of your journey.

- If you're querying from the child business unit of an Enterprise 2.0 account, modify line 29 to add the `ent.` prefix.
 - Original: `INNER JOIN [_subscribers] AS su`
 - Modified: `INNER JOIN ent.[subscribers] AS su`

Link the query to the target data extension.

Target Data Extension	EmailBouncesByJourney
Data Action	Overwrite

Query Variation: Capture Bounces for All Journeys

To capture bounces for all journeys, remove the last line from the query.

```
AND j.journeyname = 'MY_JOURNEY_NAME'
```

SEE ALSO:

- [Create a Data Extension in Contact Builder](#)
- [Create a Data Extension in Email Studio \(Enhanced\)](#)
- [Build a SQL Query Activity](#)
- [Optimizing a SQL Query Activity](#)
- [SQL Reference](#)

Query: Journey Builder Sends by Email Across Versions

Aggregate all Journey Builder email sends across multiple versions of the same journey. Or, modify this query to find opens, clicks, bounces, complaints, or unsubscribes across versions during a specific time frame.

Before You Begin

To use this example, you need a working knowledge of SQL. You can copy and paste the code samples, but you must configure them for your setup.

Create a Target Data Extension

In Contact Builder or Email Studio, create a standard data extension with these properties and fields. This data extension is the destination for your query's data output.

Target Data Extension	EmailSendsByJourney
External Key	EmailSendsByJourney

 **Note:** If you create the data extension in Email Studio, the Nullable column replaces the Required column. If a field isn't required, select **Nullable**. If a field is required, don't select Nullable.

Primary Key	Name	Data Type	Required	Length	Default Value
	JourneyName	Text	X	100	
	Date	Date	X		
	EmailName	Text	X	100	
	ActivityExternalKey	Text	X	100	
	Sends	Number	X		

Create a Query Activity

In Automation Studio, create an SQL query with these properties.

Query Name	EmailSendsByJourney
External Key	EmailSendsByJourney

Sample Query

Copy and paste this query.

```

SELECT j.journeyname,
       Cast(s.eventdate AS DATE) AS 'Date',
       ja.activityname           AS 'EmailName',
       ja.activityexternalkey,
       Count(*)                  AS 'Sends'
FROM   [_sent] AS s
       INNER JOIN [_journeyactivity] AS ja
              ON s.triggerersenddefinitionobjectid = ja.journeyactivityobjectid
       INNER JOIN [_journey] AS j
              ON ja.versionid = j.versionid
       INNER JOIN [_subscribers] AS su
              ON s.subscriberid = su.subscriberid
WHERE  ja.activitytype IN ( 'EMAIL', 'EMAILV2' )
       AND j.journeyname = 'MY_JOURNEY_NAME'
       AND s.eventdate > Dateadd(day, -7, Getdate())
GROUP BY j.journeyname,
         j.journeyid,
         Cast(s.eventdate AS DATE),
         ja.activityname,
         ja.activityexternalkey
    
```

Finalize the Query Activity

Customize the query. Use the line numbers in Automation Studio to identify which lines to modify.

- On line 14, replace MY_JOURNEY_NAME with the name of your journey.
- If you're querying from the child business unit of an Enterprise 2.0 account, modify line 11 to add the ent. prefix.
 - Original: INNER JOIN [_subscribers] AS su
 - Modified: INNER JOIN ent.[subscribers] AS su

Link the query to the target data extension.

Target Data Extension	EmailSendsByJourney
Data Action	Overwrite

Save your query activity, and then create and activate an automation that uses the activity.

Query Variation: Capture Sends for All Journeys

To capture sends for all journeys, remove line 14 from the query.

```
AND j.journeyname = 'MY_JOURNEY_NAME'
```

Query Variation: Capture a Different Time Frame

To capture data for a different time frame, use any number of days up to 180. For example, we modified line 15 in this query to retrieve 14 days of data.

```
SELECT j.journeyname,
       Cast(s.eventdate AS DATE) AS 'Date',
       ja.activityname          AS 'EmailName',
       ja.activityexternalkey,
       Count(*)                 AS 'Sends'
FROM   [_sent] AS s
       INNER JOIN [_journeyactivity] AS ja
              ON s.triggerersenddefinitionobjectid = ja.journeyactivityobjectid
       INNER JOIN [_journey] AS j
              ON ja.versionid = j.versionid
       INNER JOIN [_subscribers] AS su
              ON s.subscriberid = su.subscriberid
WHERE  ja.activitytype IN ( 'EMAIL', 'EMAILV2' )
       AND j.journeyname = 'MY_JOURNEY_NAME'
       AND s.eventdate > Dateadd(day, -14, Getdate())
GROUP BY j.journeyname,
         j.journeyid,
         Cast(s.eventdate AS DATE),
         ja.activityname,
         ja.activityexternalkey
```

To pull a specific range, such as all activity from yesterday, use this code.

```
SELECT j.journeyname,
       Cast(s.eventdate AS DATE) AS 'Date',
       ja.activityname          AS 'EmailName',
       ja.activityexternalkey,
       Count(*)                 AS 'Sends'
FROM   [_sent] AS s
       INNER JOIN [_journeyactivity] AS ja
              ON s.triggerersenddefinitionobjectid = ja.journeyactivityobjectid
       INNER JOIN [_journey] AS j
              ON ja.versionid = j.versionid
       INNER JOIN [_subscribers] AS su
```

```

                ON s.subscriberid = su.subscriberid
WHERE   ja.activitytype IN ('EMAIL','EMAILV2')
        AND j.journeyname = 'MY_JOURNEY_NAME'
        AND s.eventdate BETWEEN Dateadd(day,-1,Getdate()) AND Getdate()
GROUP  BY j.journeyname,
         j.journeyid,
         Cast(s.eventdate AS DATE),
         ja.activityname,
         ja.activityexternalkey

```

Depending on how much data you're retrieving, a query spanning more than 30 days can time out and fail. If your query times out, try a shorter time frame.

Query Variation: Capture Opens

To capture opens instead of sends, use this code. You must also add fields for *Opens* and *OpenDate* to your target data extension.

```

SELECT j.journeyname,
       Cast(o.eventdate AS DATE) AS 'OpenDate',
       ja.activityname           AS 'EmailName',
       ja.activityexternalkey,
       Count(*)                  AS 'Opens'
FROM   [_open] AS o
       INNER JOIN [_journeyactivity] AS ja
                ON o.triggerersenddefinitionobjectid = ja.journeyactivityobjectid
       INNER JOIN [_journey] AS j
                ON ja.versionid = j.versionid
       INNER JOIN [_subscribers] AS su
                ON o.subscriberid = su.subscriberid
WHERE  ja.activitytype IN ( 'EMAIL', 'EMAILV2' )
        AND j.journeyname = 'MY_JOURNEY_NAME'
        AND o.eventdate BETWEEN Dateadd(day, -1, Getdate()) AND Getdate()
GROUP BY j.journeyname,
         j.journeyid,
         Cast(o.eventdate AS DATE),
         ja.activityname,
         ja.activityexternalkey

```

Query Variation: Capture Clicks

To capture clicks instead of sends, use this code. You must also add fields for *Clicks* and *ClickDate* to your target data extension.

```

SELECT j.journeyname,
       Cast(c.eventdate AS DATE) AS 'ClickDate',
       ja.activityname           AS 'EmailName',
       ja.activityexternalkey,
       Count(*)                  AS 'Clicks'
FROM   [_click] AS c
       INNER JOIN [_journeyactivity] AS ja
                ON c.triggerersenddefinitionobjectid = ja.journeyactivityobjectid
       INNER JOIN [_journey] AS j
                ON ja.versionid = j.versionid
       INNER JOIN [_subscribers] AS su
                ON c.subscriberid = su.subscriberid

```

```

WHERE ja.activitytype IN ( 'EMAIL', 'EMAILV2' )
      AND j.journeyname = 'MY_JOURNEY_NAME'
      AND c.eventdate BETWEEN Dateadd(day, -1, Getdate()) AND Getdate()
GROUP BY j.journeyname,
         j.journeyid,
         Cast(c.eventdate AS DATE),
         ja.activityname,
         ja.activityexternalkey

```

Query Variation: Capture Bounces

To capture bounces instead of sends, use this code. You must also add fields for *Bounces* and *BounceDate* to your target data extension.

```

SELECT j.journeyname,
       Cast(b.eventdate AS DATE) AS 'BounceDate',
       ja.activityname           AS 'EmailName',
       ja.activityexternalkey,
       Count(*)                  AS 'Bounces'
FROM   [_bounce] AS b
       INNER JOIN [_journeyactivity] AS ja
              ON b.triggerersenddefinitionobjectid = ja.journeyactivityobjectid
       INNER JOIN [_journey] AS j
              ON ja.versionid = j.versionid
       INNER JOIN [_subscribers] AS su
              ON b.subscriberid = su.subscriberid
WHERE  ja.activitytype IN ( 'EMAIL', 'EMAILV2' )
      AND j.journeyname = 'MY_JOURNEY_NAME'
      AND b.eventdate BETWEEN Dateadd(day, -1, Getdate()) AND Getdate()
GROUP BY j.journeyname,
         j.journeyid,
         Cast(b.eventdate AS DATE),
         ja.activityname,
         ja.activityexternalkey

```

Query Variation: Capture Complaints

To capture complaints instead of sends, use this code. You must also add fields for *Complaints* and *ComplaintDate* to your target data extension.

```

SELECT j.journeyname,
       Cast(c.eventdate AS DATE) AS 'ComplaintDate',
       ja.activityname           AS 'EmailName',
       ja.activityexternalkey,
       Count(*)                  AS 'Complaints'
FROM   [_complaint] AS c
       JOIN [_sent] AS s
         ON c.jobid = s.jobid
         AND c.listid = s.listid
         AND c.batchid = s.batchid
         AND c.subscriberid = s.subscriberid
       INNER JOIN [_journeyactivity] AS ja
              ON s.triggerersenddefinitionobjectid = ja.journeyactivityobjectid
       INNER JOIN [_journey] AS j

```

```

        ON ja.versionid = j.versionid
    INNER JOIN [_subscribers] AS su
        ON c.subscriberid = su.subscriberid
WHERE  ja.activitytype IN ( 'EMAIL', 'EMAILV2' )
    AND j.journeyname = 'MY_JOURNEY_NAME'
    AND c.eventdate BETWEEN Dateadd(day, -1, Getdate()) AND Getdate()
GROUP BY j.journeyname,
        j.journeyid,
        Cast(c.eventdate AS DATE),
        ja.activityname,
        ja.activityexternalkey

```

Query Variation: Capture Unsubscribes

To capture unsubscribes instead of sends, use this code. You must also add fields for *Unsubscribes* and *UnsubscribeDate* to your target data extension.

```

SELECT j.journeyname,
    Cast(u.eventdate AS DATE) AS 'UnsubscribeDate',
    ja.activityname          AS 'EmailName',
    ja.activityexternalkey,
    Count(*)                AS 'Unsubscribes'
FROM  [_unsubscribe] AS u
    JOIN [_sent] AS s
        ON u.jobid = s.jobid
        AND u.listid = s.listid
        AND u.batchid = s.batchid
        AND u.subscriberid = s.subscriberid
    INNER JOIN [_journeyactivity] AS ja
        ON s.triggerersenddefinitionobjectid = ja.journeyactivityobjectid
    INNER JOIN [_journey] AS j
        ON ja.versionid = j.versionid
    INNER JOIN [_subscribers] AS su
        ON u.subscriberid = su.subscriberid
WHERE  ja.activitytype IN ( 'EMAIL', 'EMAILV2' )
    AND j.journeyname = 'MY_JOURNEY_NAME'
    AND u.eventdate BETWEEN Dateadd(day, -1, Getdate()) AND Getdate()
GROUP BY j.journeyname,
        j.journeyid,
        Cast(u.eventdate AS DATE),
        ja.activityname,
        ja.activityexternalkey

```

SEE ALSO:

- [Create a Data Extension in Contact Builder](#)
- [Create a Data Extension in Email Studio \(Enhanced\)](#)
- [Build a SQL Query Activity](#)
- [Optimizing a SQL Query Activity](#)
- [SQL Reference](#)

Query: Journey Builder Sends in Last 24 Hours

Find subscribers who were sent an email from a journey in Journey Builder within the last 24 hours. Or, modify this query to find opens, clicks, bounces, complaints, or unsubscribes for an email from Journey Builder during a specific time frame.


Before You Begin

To use this example, you need a working knowledge of SQL. You can copy and paste the code samples, but you must configure them for your setup.

Create a Target Data Extension

In Contact Builder or Email Studio, create a standard data extension with these properties and fields. This data extension is the destination for your query's data output.

Target Data Extension	JourneySends24Hours
External Key	JourneySends24Hours

 **Note:** If you create the data extension in Email Studio, the Nullable column replaces the Required column. If a field isn't required, select **Nullable**. If a field is required, don't select Nullable.

Primary Key	Name	Data Type	Required	Length	Default Value
	JourneyName	Text	X	100	
	VersionNumber	Number	X		
	EmailName	Text	X	100	
	SendTime	Date	X		
	EmailAddress	EmailAddress	X	254	
	ContactKey	Text	X	254	
X	ContactID	Number	X		
X	JobID	Number	X		
X	ListID	Number	X		
X	BatchID	Number	X		

Create a Query Activity

In Automation Studio, create an SQL query with these properties.

Query Name	JourneySends24Hours
External Key	JourneySends24Hours

Sample Query

Copy and paste this query.

```
SELECT j.journeyname,
       j.versionnumber,
       ja.activityname AS 'EmailName',
       s.eventdate     AS 'SendTime',
       su.emailaddress,
       su.subscriberkey AS 'ContactKey',
       s.subscriberid  AS 'ContactID',
       s.jobid,
       s.listid,
       s.batchid
FROM   [_sent] AS s
       INNER JOIN [_journeyactivity] AS ja
              ON s.triggerersenddefinitionobjectid = ja.journeyactivityobjectid
       INNER JOIN [_journey] AS j
              ON ja.versionid = j.versionid
       INNER JOIN [_subscribers] AS su
              ON s.subscriberid = su.subscriberid
WHERE  ja.activitytype IN ( 'EMAIL', 'EMAILV2' )
AND    s.eventdate > Dateadd(hour, -24, Getdate())
AND    j.journeyname = 'MY_JOURNEY_NAME'
```

Finalize the Query Activity

Customize the query. Use the line numbers in Automation Studio to identify which lines to modify.

- On the last line, replace MY_JOURNEY_NAME with the name of your journey.
- If you're querying from the child business unit of an Enterprise 2.0 account, modify line 16 to add the ent. prefix.
 - Original: INNER JOIN [_subscribers] AS su
 - Modified: INNER JOIN ent.[subscribers] AS su

Link the query to the target data extension.

Target Data Extension	JourneySends24Hours
Data Action	Overwrite

Save your query activity, and then create and activate an automation that uses the activity.

Query Variation: Capture Sends for All Journeys

To capture sends for all journeys, remove the last line from the query.

```
AND j.journeyname = 'MY_JOURNEY_NAME'
```


Query Variation: Capture a Different Time Frame

To capture data for a different time frame, use any number of hours or days up to 180 days. For example, we modified line 19 in this query to retrieve 7 days of data.

```
SELECT j.journeyname,
       j.versionnumber,
       ja.activityname AS 'EmailName',
       s.eventdate     AS 'SendTime',
       su.emailaddress,
       su.subscriberkey AS 'ContactKey',
       s.subscriberid  AS 'ContactID',
       s.jobid,
       s.listid,
       s.batchid
FROM   [_sent] AS s
       INNER JOIN [_journeyactivity] AS ja
              ON s.triggerersenddefinitionobjectid = ja.journeyactivityobjectid
       INNER JOIN [_journey] AS j
              ON ja.versionid = j.versionid
       INNER JOIN [_subscribers] AS su
              ON s.subscriberid = su.subscriberid
WHERE  ja.activitytype IN ( 'EMAIL', 'EMAILV2' )
       AND s.eventdate > Dateadd(day, -7, Getdate())
       AND j.journeyname = 'MY_JOURNEY_NAME'
```

To pull a specific range, such as all activity from yesterday, use this code.

```
SELECT j.journeyname,
       j.versionnumber,
       ja.activityname AS 'EmailName',
       s.eventdate     AS 'SendTime',
       su.emailaddress,
       su.subscriberkey AS 'ContactKey',
       s.subscriberid  AS 'ContactID',
       s.jobid,
       s.listid,
       s.batchid
FROM   [_sent] AS s
       INNER JOIN [_journeyactivity] AS ja
              ON s.triggerersenddefinitionobjectid = ja.journeyactivityobjectid
       INNER JOIN [_journey] AS j
              ON ja.versionid = j.versionid
       INNER JOIN [_subscribers] AS su
              ON s.subscriberid = su.subscriberid
WHERE  ja.activitytype IN ( 'EMAIL', 'EMAILV2' )
       AND j.journeyname = 'MY_JOURNEY_NAME'
       AND s.eventdate BETWEEN Cast(Dateadd(day, -1, Getdate()) AS DATE) AND
                               Cast(
                                   Getdate() AS DATE)
```

Depending on how much data you're retrieving, a query spanning more than 30 days can time out and fail. If your query times out, try a shorter time frame.

Query Variation: Capture Opens

To capture opens instead of sends, use this code. You must also add a field for *OpenTime* to your target data extension.

```
SELECT j.journeyname,
       j.versionnumber,
       ja.activityname AS 'EmailName',
       o.eventdate     AS 'OpenTime',
       su.emailaddress,
       su.subscriberkey AS 'ContactKey',
       o.subscriberid  AS 'ContactID',
       o.jobid,
       o.listid,
       o.batchid
FROM   [_open] AS o
       INNER JOIN [_journeyactivity] AS ja
                ON o.triggerersenddefinitionobjectid = ja.journeyactivityobjectid
       INNER JOIN [_journey] AS j
                ON ja.versionid = j.versionid
       INNER JOIN [_subscribers] AS su
                ON o.subscriberid = su.subscriberid
WHERE  ja.activitytype IN ( 'EMAIL', 'EMAILV2' )
       AND o.eventdate > Dateadd(hour, -24, Getdate())
       AND j.journeyname = 'MY_JOURNEY_NAME'
```

Query Variation: Capture Clicks

To capture clicks instead of sends, use this code. You must also add a field for *ClickTime* to your target data extension.

```
SELECT j.journeyname,
       j.versionnumber,
       ja.activityname AS 'EmailName',
       c.eventdate     AS 'ClickTime',
       su.emailaddress,
       su.subscriberkey AS 'ContactKey',
       c.subscriberid  AS 'ContactID',
       c.jobid,
       c.listid,
       c.batchid
FROM   [_click] AS c
       INNER JOIN [_journeyactivity] AS ja
                ON c.triggerersenddefinitionobjectid = ja.journeyactivityobjectid
       INNER JOIN [_journey] AS j
                ON ja.versionid = j.versionid
       INNER JOIN [_subscribers] AS su
                ON c.subscriberid = su.subscriberid
WHERE  ja.activitytype IN ( 'EMAIL', 'EMAILV2' )
       AND c.eventdate > Dateadd(hour, -24, Getdate())
       AND j.journeyname = 'MY_JOURNEY_NAME'
```

Query Variation: Capture Bounces

To capture bounces instead of sends, use this code. You must also add a field for *BounceTime* to your target data extension.

```

SELECT j.journeyname,
       j.versionnumber,
       ja.activityname AS 'EmailName',
       b.eventdate     AS 'BounceTime',
       su.emailaddress,
       su.subscriberkey AS 'ContactKey',
       b.subscriberid  AS 'ContactID',
       b.jobid,
       b.listid,
       b.batchid
FROM   [_bounce] AS b
       INNER JOIN [_journeyactivity] AS ja
              ON b.triggerersenddefinitionobjectid = ja.journeyactivityobjectid
       INNER JOIN [_journey] AS j
              ON ja.versionid = j.versionid
       INNER JOIN [_subscribers] AS su
              ON b.subscriberid = su.subscriberid
WHERE  ja.activitytype IN ( 'EMAIL', 'EMAILV2' )
       AND b.eventdate > Dateadd(hour, -24, Getdate())
       AND j.journeyname = 'MY_JOURNEY_NAME'

```

Query Variation: Capture Complaints

To capture complaints instead of sends, use this code. You must also add a field for *ComplaintTime* to your target data extension.

```

SELECT j.journeyname,
       j.versionnumber,
       ja.activityname AS 'EmailName',
       c.eventdate     AS 'ComplaintTime',
       su.emailaddress,
       su.subscriberkey AS 'ContactKey',
       c.subscriberid  AS 'ContactID',
       c.jobid,
       c.listid,
       c.batchid
FROM   [_complaint] AS c
       JOIN [_sent] AS s
         ON c.jobid = s.jobid
         AND c.listid = s.listid
         AND c.batchid = s.batchid
         AND c.subscriberid = s.subscriberid
       INNER JOIN [_journeyactivity] AS ja
              ON s.triggerersenddefinitionobjectid = ja.journeyactivityobjectid
       INNER JOIN [_journey] AS j
              ON ja.versionid = j.versionid
       INNER JOIN [_subscribers] AS su
              ON c.subscriberid = su.subscriberid
WHERE  ja.activitytype IN ( 'EMAIL', 'EMAILV2' )
       AND c.eventdate > Dateadd(hour, -24, Getdate())
       AND j.journeyname = 'MY_JOURNEY_NAME'

```

Query Variation: Capture Unsubscribes

To capture unsubscribes instead of sends, use this code. You must also add a field for *UnsubscribeTime* to your target data extension.

```
SELECT j.journeyname,
       j.versionnumber,
       ja.activityname AS 'EmailName',
       u.eventdate     AS 'UnsubscribeTime',
       su.emailaddress,
       su.subscriberkey AS 'ContactKey',
       u.subscriberid  AS 'ContactID',
       u.jobid,
       u.listid,
       u.batchid
FROM   [_unsubscribe] AS u
       JOIN [_sent] AS s
         ON u.jobid = s.jobid
         AND u.listid = s.listid
         AND u.batchid = s.batchid
         AND u.subscriberid = s.subscriberid
       INNER JOIN [_journeyactivity] AS ja
         ON s.triggerersenddefinitionobjectid = ja.journeyactivityobjectid
       INNER JOIN [_journey] AS j
         ON ja.versionid = j.versionid
       INNER JOIN [_subscribers] AS su
         ON u.subscriberid = su.subscriberid
WHERE  ja.activitytype IN ( 'EMAIL', 'EMAILV2' )
       AND u.eventdate > Dateadd(hour, -24, Getdate())
       AND j.journeyname = 'MY_JOURNEY_NAME'
```

SEE ALSO:

- [Create a Data Extension in Contact Builder](#)
- [Create a Data Extension in Email Studio \(Enhanced\)](#)
- [Build a SQL Query Activity](#)
- [Optimizing a SQL Query Activity](#)
- [SQL Reference](#)

Query: Opens in Last 30 Days

Find all unique opens for a specific email over the last 30 days. Or, modify this query to find sends, clicks, bounces, complaints, or unsubscribes for an email during a specific time frame.

Before You Begin

To use this example, you need a working knowledge of SQL. You can copy and paste the code samples, but you must configure them for your setup.

Create a Target Data Extension

In Contact Builder or Email Studio, create a standard data extension with these properties and fields. This data extension is the destination for your query's data output.

Target Data Extension	OpensIn30Days
External Key	OpensIn30Days

 **Note:** If you create the data extension in Email Studio, the Nullable column replaces the Required column. If a field isn't required, select **Nullable**. If a field is required, don't select Nullable.

Primary Key	Name	Data Type	Required	Length	Default Value
	JobID	Number	X		
	EmailName	Text	X	100	
	SendTime	Date	X		
	OpenTime	Date	X		
	EmailAddress	EmailAddress	X	254	
	SubscriberKey	Text	X	254	

Create a Query Activity

In Automation Studio, create an SQL query with these properties.

Query Name	OpensIn30Days
External Key	OpensIn30Days

Sample Query

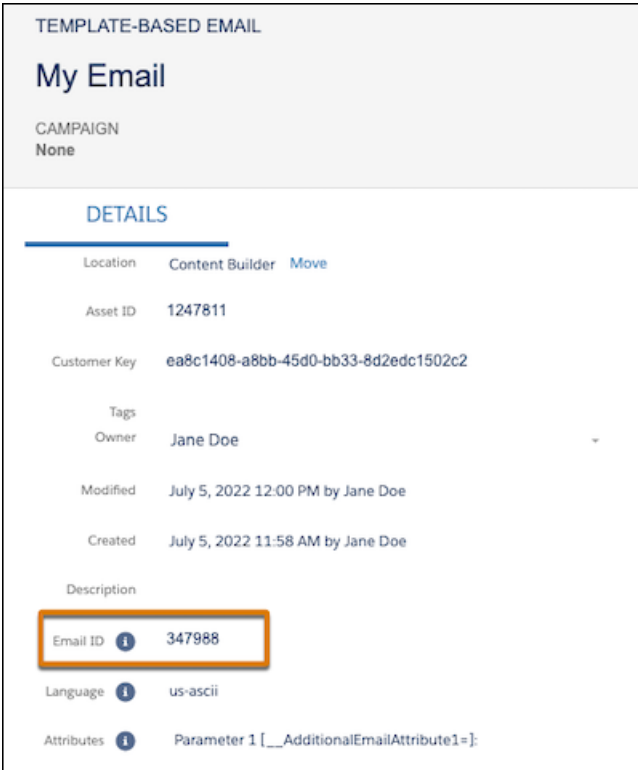
Copy and paste this query.

```
SELECT j.jobid,
       j.emailname,
       j.deliveredtime AS 'SendTime',
       o.eventdate AS 'OpenTime',
       s.emailaddress,
       s.subscriberkey
FROM   [_job] AS j
       INNER JOIN [_open] AS o
           ON j.jobid = o.jobid
       INNER JOIN [_subscribers] AS s
           ON o.subscriberid = s.subscriberid
WHERE  o.isunique = 1
       AND o.eventdate > Dateadd(day, -30, Getdate())
       AND j.emailid = MY_EMAIL_ID
```

Finalize the Query Activity

Customize the query. Use the line numbers in Automation Studio to identify which lines to modify.

- On the last line, replace `MY_EMAIL_ID` with the ID of your email. If you don't know your email ID, go to Content Builder, select the email, and view its details.



- If you're querying from the child business unit of an Enterprise 2.0 account, modify line 10 to add the `ent.` prefix.
 - Original: `INNER JOIN [_subscribers] AS s`
 - Modified: `INNER JOIN ent.[subscribers] AS s`

Link the query to the target data extension.

Target Data Extension	OpensIn30Days
Data Action	Overwrite

Save your query activity, and then create and activate an automation that uses the activity.

Query Variation: Capture a Different Time Frame

To capture data for a different time frame, use any number of days up to 180. For example, we modified line 13 in this query to retrieve 14 days of data.

```
SELECT j.jobid,
       j.emailname,
```

```

        j.deliveredtime AS 'SendTime',
        o.eventdate      AS 'OpenTime',
        s.emailaddress,
        s.subscriberkey
FROM    [_job] AS j
        INNER JOIN [_open] AS o
            ON j.jobid = o.jobid
        INNER JOIN [_subscribers] AS s
            ON o.subscriberid = s.subscriberid
WHERE   o.isunique = 1
        AND o.eventdate > Dateadd(day, -14, Getdate())
        AND j.emailid = MY_EMAIL_ID

```

To pull a specific range, such as 30–60 days ago, use this code.

```

SELECT  j.jobid,
        j.emailname,
        j.deliveredtime AS 'SendTime',
        o.eventdate      AS 'OpenTime',
        s.emailaddress,
        s.subscriberkey
FROM    [_job] AS j
        INNER JOIN [_open] AS o
            ON j.jobid = o.jobid
        INNER JOIN [_subscribers] AS s
            ON o.subscriberid = s.subscriberid
WHERE   o.isunique = 1
        AND o.eventdate BETWEEN Dateadd(day, -60, Getdate()) AND
                                Dateadd(day, -30, Getdate())
        AND j.emailid = MY_EMAIL_ID

```

Depending on how much data you're retrieving, a query spanning more than 30 days can time out and fail. If your query times out, try a shorter time frame.

Query Variation: Capture Sends

To capture sends instead of opens, use this code.

```

SELECT  j.jobid,
        j.emailname,
        se.eventdate AS 'SendTime',
        s.emailaddress,
        s.subscriberkey
FROM    [_job] AS j
        INNER JOIN [_sent] AS se
            ON j.jobid = se.jobid
        INNER JOIN [_subscribers] AS s
            ON s.subscriberid = se.subscriberid
WHERE   se.eventdate > Dateadd(day, -30, Getdate())
        AND j.emailid = MY_EMAIL_ID

```

Query Variation: Capture Clicks

To capture clicks instead of opens, use this code. You must also add a field for *ClickTime* to your target data extension.

```
SELECT j.jobid,
       j.emailname,
       j.deliveredtime AS 'SendTime',
       c.eventdate     AS 'ClickTime',
       s.emailaddress,
       s.subscriberkey
FROM   [_job] AS j
       INNER JOIN [_click] AS c
           ON j.jobid = c.jobid
       INNER JOIN [_subscribers] AS s
           ON c.subscriberid = s.subscriberid
WHERE  c.isunique = 1
       AND c.eventdate > Dateadd(day, -30, Getdate())
       AND j.emailid = MY_EMAIL_ID
```

Query Variation: Capture Bounces

To capture bounces instead of opens, use this code. You must also add a field for *BounceTime* to your target data extension.

```
SELECT j.jobid,
       j.emailname,
       b.eventdate AS 'BounceTime',
       s.emailaddress,
       s.subscriberkey
FROM   [_job] AS j
       INNER JOIN [_bounce] AS b
           ON j.jobid = b.jobid
       INNER JOIN [_subscribers] AS s
           ON s.subscriberid = b.subscriberid
WHERE  b.eventdate > Dateadd(day, -30, Getdate())
       AND j.emailid = MY_EMAIL_ID
```

Query Variation: Capture Complaints

To capture complaints instead of opens, use this code. You must also add a field for *ComplaintTime* to your target data extension.

```
SELECT j.jobid,
       j.emailname,
       c.eventdate AS 'ComplaintTime',
       s.emailaddress,
       s.subscriberkey
FROM   [_job] AS j
       INNER JOIN [_complaint] AS c
           ON j.jobid = c.jobid
       INNER JOIN [_subscribers] AS s
           ON s.subscriberid = c.subscriberid
WHERE  c.eventdate > Dateadd(day, -30, Getdate())
       AND j.emailid = MY_EMAIL_ID
```


Query Variation: Capture Unsubscribes

To capture unsubscribes instead of opens, use this code. You must also add a field for *UnsubscribeTime* to your target data extension.

```
SELECT j.jobid,
       j.emailname,
       u.eventdate AS 'UnsubscribeTime',
       s.emailaddress,
       s.subscriberkey
FROM   [_job] AS j
       INNER JOIN [_unsubscribe] AS u
              ON j.jobid = u.jobid
       INNER JOIN [_subscribers] AS s
              ON s.subscriberid = u.subscriberid
WHERE  u.eventdate > Dateadd(day, -30, Getdate())
       AND j.emailid = MY_EMAIL_ID
```

SEE ALSO:

- [Create a Data Extension in Contact Builder](#)
- [Create a Data Extension in Email Studio \(Enhanced\)](#)
- [Build a SQL Query Activity](#)
- [Optimizing a SQL Query Activity](#)
- [SQL Reference](#)

Query: Subscriber Status

Find subscribers on a list and their statuses. Or, find only subscribers with a specific status, such as active or unsubscribed.

Before You Begin

To use this example, you need a working knowledge of SQL. You can copy and paste the code samples, but you must configure them for your setup.

Create a Target Data Extension

In Contact Builder or Email Studio, create a standard data extension with these properties and fields. This data extension is the destination for your query's data output.

If the source data extension includes duplicate entries, deselect **Primary Key** for the SubscriberKey value.

Target Data Extension	DataExtensionWithStatus
External Key	DataExtensionWithStatus

 **Note:** If you create the data extension in Email Studio, the Nullable column replaces the Required column. If a field isn't required, select **Nullable**. If a field is required, don't select Nullable.

Primary Key	Name	Data Type	Required	Length	Default Value
X	SubscriberKey	Text	X	254	
	Status	Text	X	25	
X	ListName	Text	X	100	

Create a Query Activity

In Automation Studio, create an SQL query with these properties.

Query Name	DataExtensionWithStatus
External Key	DataExtensionWithStatus

Sample Query

Copy and paste this query.

```
SELECT 1.listname,
       de.subscriberkey,
       1.[status]
FROM   [MY_DE_NAME] AS de
       INNER JOIN [_listsubscribers] AS l
           ON de.subscriberkey = l.subscriberkey
WHERE  1.listname = 'MY_LIST_NAME'
```

Finalize the Query Activity

Customize the query. Use the line numbers in Automation Studio to identify which lines to modify.

- On line 4, replace MY_DE_NAME with the name of the source data extension.
- On the last line, replace MY_LIST_NAME with the name of your subscriber list.
- If the source data extension doesn't include a SubscriberKey field, replace de.subscriberkey on lines 2 and 6 with de.yourfield. For example, de.emailaddress or de.customerid.

Link the query to the target data extension.

Target Data Extension	DataExtensionWithStatus
Data Action	Overwrite

Save your query activity, and then create and activate an automation that uses the activity.

Query Variation: Return Other Fields

To return other fields from the source data extension, add those fields to the target data extension and the query.

For example, if your source data extension includes a `PolicyNumber` field, add a field for `PolicyNumber` to the target data extension. Then in the query, insert `de.policynumber` in the select statement.

```
SELECT l.listname,
       de.subscriberkey,
       de.policynumber,
       l.[status]
FROM   [MY_DE_NAME] AS de
       INNER JOIN [_listsubscribers] AS l
           ON de.subscriberkey = l.subscriberkey
WHERE  l.listname = 'MY_LIST_NAME'
```

Query Variation: Return Subscribers with a Specific Status

To return results for subscribers with a specific status, such as `active`, add this line to the end of the query. You can also replace `active` with another status, such as `bounced`, `held`, or `unsubscribed`.

```
AND l.[status] = 'active'
```

SEE ALSO:

- [Create a Data Extension in Contact Builder](#)
- [Create a Data Extension in Email Studio \(Enhanced\)](#)
- [Build a SQL Query Activity](#)
- [Optimizing a SQL Query Activity](#)
- [SQL Reference](#)
- [Subscribers](#)

Query: Subscribers by Date or Time Frame

Find subscribers who were added within a specific date or range of dates.

Before You Begin

To use this example, you need a working knowledge of SQL. You can copy and paste the code samples, but you must configure them for your setup.

Create a Target Data Extension

In Contact Builder or Email Studio, create a standard data extension with these properties and fields. This data extension is the destination for your query's data output.

Target Data Extension	SubscribersByListByDate
External Key	SubscribersByListByDate

 **Note:** If you create the data extension in Email Studio, the `Nullable` column replaces the `Required` column. If a field isn't required, select **Nullable**. If a field is required, don't select `Nullable`.

Primary Key	Name	Data Type	Required	Length	Default Value
X	SubscriberKey	Text	X	254	
	EmailAddress	EmailAddress	X	254	
	ListID	Number	X		
	ListName	Text	X	100	
	DateAdded	Date	X		

Create a Query Activity

In Automation Studio, create an SQL query with these properties.

Query Name	SubscribersByListByDate
External Key	SubscribersByListByDate

Sample Query

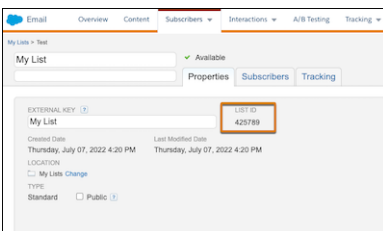
Copy and paste this query.

```
SELECT 1.subscriberkey,
       1.emailaddress,
       1.listid,
       1.listname,
       1.createddate AS DateAdded
FROM   [_listsubscribers] AS 1
WHERE  1.listid = MY_LIST_ID
       AND createddate BETWEEN '2021-11-01' AND '2021-12-01'
```

Finalize the Query Activity

Customize the query. Use the line numbers in Automation Studio to identify which lines to modify.

- On line 7, replace MY_LIST_ID with the ID of your subscriber list. If you don't know your list ID, go to Email Studio, select **Subscribers > Lists > My List**, and view its properties.



- On the last line, replace the date range with your time frame in YYYY-MM-DD format.

Link the query to the target data extension.

Target Data Extension	SubscribersByListByDate
-----------------------	-------------------------

Data Action

Overwrite

Save your query activity, and then create and activate an automation that uses the activity.

Query Variation: Find Subscribers by Date

To find subscribers who were added on a specific date, use this code and update the last line with your date.

```
SELECT l.subscriberkey,
       l.emailaddress,
       l.listid,
       l.listname,
       l.createddate AS DateAdded
FROM   [_listsubscribers] AS l
WHERE  l.listid = MY_LIST_ID
       AND l.createddate BETWEEN '2021-11-01 00:00:00' AND '2021-11-01 23:59:59'
```

SEE ALSO:

- [Create a Data Extension in Contact Builder](#)
- [Create a Data Extension in Email Studio \(Enhanced\)](#)
- [Build a SQL Query Activity](#)
- [Optimizing a SQL Query Activity](#)
- [SQL Reference](#)
- [Subscribers](#)

Query: Subscribers in a Publication or Suppression List

Find subscribers who were placed on a publication or suppression List. Or, find only subscribers on the list with a specific status, such as active or unsubscribed. If you have problems retrieving suppression list data, contact Salesforce Customer Support to activate this feature.

Before You Begin

To use this example, you need a working knowledge of SQL. You can copy and paste the code samples, but you must configure them for your setup.

Create a Target Data Extension

In Contact Builder or Email Studio, create a standard data extension with these properties and fields. This data extension is the destination for your query's data output.

Target Data Extension

PublicationSuppressionList

External Key

PublicationSuppressionList

 **Note:** If you create the data extension in Email Studio, the Nullable column replaces the Required column. If a field isn't required, select **Nullable**. If a field is required, don't select Nullable.

Primary Key	Name	Data Type	Required	Length	Default Value
X	SubscriberKey	Text	X	254	
	EmailAddress	EmailAddress	X	254	
	ListName	Text	X	100	
	ListType	Text		50	
	Status	Text	X	25	
	DateAdded	Date	X		
	AddMethod	Text	X	25	
	DateUnsubscribed	Date			

Create a Query Activity

In Automation Studio, create an SQL query with these properties.

Query Name	PublicationSuppressionList
External Key	PublicationSuppressionList

Sample Query

Copy and paste this query.

```
SELECT 1.subscriberkey,
       1.emailaddress,
       1.listname,
       1.listtype,
       1.[status],
       1.createddate AS DateAdded,
       1.addmethod,
       1.dateunsubscribed
FROM   [_listsubscribers] AS 1
WHERE  1.listname = 'MY_LIST_NAME'
```

Finalize the Query Activity

On the last line, replace MY_LIST_NAME with the name of your publication or suppression list.

Link the query to the target data extension.

Target Data Extension	PublicationSuppressionList
Data Action	Overwrite

Save your query activity, and then create and activate an automation that uses the activity.

Query Variation: Return Subscribers with a Specific Status

To return results for subscribers with a specific status, such as `active`, add this line to the end of the query. You can also replace `active` with another status, such as `bounced`, `held`, or `unsubscribed`.

```
AND 1.[status] = 'active'
```

SEE ALSO:

- [Create a Data Extension in Contact Builder](#)
- [Create a Data Extension in Email Studio \(Enhanced\)](#)
- [Build a SQL Query Activity](#)
- [Optimizing a SQL Query Activity](#)
- [SQL Reference](#)
- [Subscribers](#)

Query: Subscribers with No Opens or Clicks

Find subscribers who haven't opened or clicked an email. Use this query for jobs with fewer than 500,000 subscribers. For larger jobs, use intermediate tables.

Before You Begin

To use this example, you need a working knowledge of SQL. You can copy and paste the code samples, but you must configure them for your setup.

Create a Target Data Extension

In Contact Builder or Email Studio, create a standard data extension with these properties and fields. This data extension is the destination for your query's data output.

Target Data Extension Name	JobNoClickNoOpen
External Key	JobNoClickNoOpen



Note: If you create the data extension in Email Studio, the **Nullable** column replaces the **Required** column. If a field isn't required, select **Nullable**. If a field is required, don't select **Nullable**.

Primary Key	Name	Data Type	Required	Length	Default Value
	SubscriberKey	Text	X	254	
	JobID	Number	X		
	BatchID	Number			
	SendDate	Date			

Create a Query Activity

In Automation Studio, create an SQL query with these properties.

Query Name	JobNoClickNoOpen
External Key	JobNoClickNoOpen

Sample Query

Copy and paste this query.

```
SELECT DISTINCT s.subscriberkey,
                s.jobid,
                s.batchid,
                s.eventdate AS SendDate
FROM    [_sent] AS s
        LEFT JOIN [_open] AS o
            ON s.jobid = o.jobid
            AND s.listid = o.listid
            AND s.batchid = o.batchid
            AND s.subscriberid = o.subscriberid
            AND o.isunique = 1
        LEFT JOIN [_click] c
            ON s.jobid = c.jobid
            AND s.listid = c.listid
            AND s.batchid = c.batchid
            AND s.subscriberid = c.subscriberid
            AND c.isunique = 1
WHERE   ( o.subscriberid IS NULL
        AND c.subscriberid IS NULL )
        AND s.jobid = MY_JOB_ID
```

Finalize the Query Activity

On the last line, replace MY_JOB_ID with the ID of your job.

Link the query to the target data extension.

Target Data Extension	JobClickNoOpen
Data Action	Overwrite

Save your query activity, and then create and activate an automation that uses the activity.

Query Variation: Capture Multiple Jobs

To capture multiple jobs that collectively have fewer than 500,000 subscribers, replace the last line of the query with this code. Then replace the placeholders with the job IDs.

```
AND s.jobid IN (MY_JOB_ID_1,MY_JOB_ID_2)
```


Query Variation: Find Only Subscribers Who Didn't Click

To find only subscribers who didn't click the email, use this code.

```
SELECT DISTINCT s.subscriberkey,
                s.jobid,
                s.batchid,
                s.eventdate AS SendDate
FROM   [_sent] AS s
      LEFT JOIN [_click] c
        ON s.jobid = c.jobid
        AND s.listid = c.listid
        AND s.batchid = c.batchid
        AND s.subscriberid = c.subscriberid
        AND c.isunique = 1
WHERE  c.subscriberid IS NULL
      AND s.jobid = MY_JOB_ID
```

Query Variation: Find Only Subscribers Who Didn't Open

To find only subscribers who didn't open the email, use this code.

```
SELECT DISTINCT s.subscriberkey,
                s.jobid,
                s.batchid,
                s.eventdate AS SendDate
FROM   [_sent] AS s
      LEFT JOIN [_open] o
        ON s.jobid = o.jobid
        AND s.listid = o.listid
        AND s.batchid = o.batchid
        AND s.subscriberid = o.subscriberid
        AND o.isunique = 1
WHERE  o.subscriberid IS NULL
      AND s.jobid = MY_JOB_ID
```

Query Variation: Find All Subscribers

To find all subscribers regardless of opens or clicks, add fields for *OpenDate* and *ClickDate* to the target data extension. Then use this sample code.

```
SELECT DISTINCT s.subscriberkey,
                s.jobid,
                s.batchid,
                o.eventdate AS OpenDate,
                s.eventdate AS SendDate,
                c.eventdate AS ClickDate
FROM   [_sent] AS s
      LEFT JOIN [_open] AS o
        ON s.jobid = o.jobid
        AND s.listid = o.listid
        AND s.batchid = o.batchid
        AND s.subscriberid = o.subscriberid
        AND o.isunique = 1
      LEFT JOIN [_click] AS c
```

```

        ON s.jobid = c.jobid
           AND s.listid = c.listid
           AND s.batchid = c.batchid
           AND s.subscriberid = c.subscriberid
           AND c.isunique = 1
WHERE   s.jobid = MY_JOB_ID
    
```

SEE ALSO:

- [Create a Data Extension in Contact Builder](#)
- [Create a Data Extension in Email Studio \(Enhanced\)](#)
- [Build a SQL Query Activity](#)
- [Optimizing a SQL Query Activity](#)
- [Subscribers](#)

Query: Top Bounces for a Job

Find the top bounces by percentage for a specific job. Use this query for jobs with fewer than 5,000,000 subscribers.

Before You Begin

To use this example, you need a working knowledge of SQL. You can copy and paste the code samples, but you must configure them for your setup.

Create a Data Extension to Store Send Domain Data

In Contact Builder or Email Studio, create a standard data extension with these properties and fields. This data extension and its corresponding query collect raw send data to use later.

Target Data Extension	SendingDomains
External Key	SendingDomains

 **Note:** If you create the data extension in Email Studio, the Nullable column replaces the Required column. If a field isn't required, select **Nullable**. If a field is required, don't select Nullable.

Primary Key	Name	Data Type	Required	Length	Default Value
	JobID	Number	X		
	SendCount	Number			
	Domain	Text	X	100	

Create a Data Extension to Store Bounce Data

Create a standard data extension with these properties and fields. This data extension and its corresponding query collect raw bounce data to use later.

Target Data Extension	BouncingDomains
External Key	BouncingDomains

Table 1: Fields

Primary Key	Name	Data Type	Required	Length	Default Value
	JobID	Number	X		
	SendCount	Number			
	Domain	Text	X	100	

Create a Target Data Extension to Combine Bounce Data

Create a standard data extension with these properties and fields. This data extension and its corresponding query combine the previously collected data to find the top bouncing domains.

Target Data Extension	TopBouncingDomains
External Key	TopBouncingDomains

Table 2: Fields

Primary Key	Name	Data Type	Required	Length	Default Value
	JobID	Number	X		
	Domain	Text	X	100	
	SendCount	Number			
	BounceCount	Number			
	BouncePercent	Text		20	

Create a Query Activity for Send Domain Data

In Automation Studio, create an SQL query activity with these properties to collect raw send data.

Query Name	SendingDomains
External Key	SendingDomains

Sample Query for Collecting Send Domain Data

Copy and paste this query.

```
SELECT s.jobid,
       s.domain,
       Count (*) AS SendCount
```

```
FROM    [_sent] AS s
WHERE   s.jobid = MY_JOB_ID
GROUP  BY s.jobid,
         s.domain
```

On line 5, replace MY_JOB_ID with the ID of your job.

Link the query to the data extension that stores domain data.

Target Data Extension	SendingDomains
Update Type	Overwrite

Create a Query Activity to Collect Bounce Data

Create an SQL query activity with these properties to collect raw bounce data.

Query Name	BouncingDomains
External Key	BouncingDomains

Sample Query for Collecting Bounce Data

Copy and paste this query.

```
SELECT b.jobid,
       b.domain,
       Count(*) AS BounceCount
FROM   [_bounce] b
WHERE  b.jobid = MY_JOB_ID
GROUP BY b.jobid,
         b.domain
```

On line 5, replace MY_JOB_ID with the ID of your job. Use the same JobID from the previous query.

Link the query to the data extension that stores bounce data.

Target Data Extension	BouncingDomains
Data Action	Overwrite

Create a Query Activity to Combine Bounce Data

Create an SQL query activity with these properties. This query combines the previously collected data and finds the top 25 bouncing domains where send count > 100 and bounce count > 2.

Query Name	TopBouncingDomains
External Key	TopBouncingDomains

Sample Query for Combining Bounce Data

Copy and paste this query.

```
SELECT TOP 25 s.jobid,
             s.domain,
             s.sendcount,
             b.bouncecount,
             Cast(Round(( b.bouncecount * 100.0 ) / s.sendcount, 2) AS NUMERIC(
                 5, 2)) AS
             BouncePercent
FROM   [sendingdomains] AS s
      LEFT JOIN [bouncingdomains] AS b
            ON s.jobid = b.jobid
            AND s.domain = b.domain
WHERE  s.sendcount > 100
      AND b.bouncecount > 2
ORDER BY bouncepercent DESC
```

Link the query to the target data extension.

Target Data Extension	TopBouncingDomains
Data Action	Overwrite

Query Variation: Include Domains with Low Send or Bounce Count

In the sample query, only domains where send count > 100 and bounce count > 2 are included. This limitation prevents domains with only one bounce or a low send count from populating the majority of the list.

To remove these send and bounce count restrictions, remove lines 12 and 13.

```
WHERE  s.sendcount > 100
      AND b.bouncecount > 2
```

To keep the bounce restriction and remove only the send restriction, remove `s.sendcount > 100` on line 12.

- Original: `WHERE s.sendcount > 100 AND b.bouncecount > 2`
- Modified: `WHERE b.bouncecount > 2`

To keep the send restriction and remove only the bounce restriction, remove `b.bouncecount > 2` on line 13.

- Original: `WHERE s.sendcount > 100 AND b.bouncecount > 2`
- Modified: `WHERE s.sendcount > 100`

To modify the minimum send count or bounce count, change the corresponding numbers.

SEE ALSO:

- [Create a Data Extension in Contact Builder](#)
- [Create a Data Extension in Email Studio \(Enhanced\)](#)
- [Build a SQL Query Activity](#)
- [Optimizing a SQL Query Activity](#)
- [SQL Reference](#)

SQL Reference

Get SQL query information for Automation Studio's SQL Query activity at a glance.

Considerations

SQL support for the SQL Query Activity is based on, but doesn't precisely correspond to, SQL Server 2016 capabilities.

- To ensure that queries are executed without blocking from other SQL updates, query activities use SET TRANSACTION ISOLATION LEVEL READ UNCOMMITTED. This is equal to WITH (NOLOCK). Using the NOLOCK query hint is unnecessary.
- Only SELECT statements to data extension or data views in an account or in the parent account
 - Nested Queries
 - UNION
 - JOIN
 - GROUP BY
- Conditional Statements
 - IF Constructs
 - CASE Statements
- Functions
 - Most functions, including MIN, MAX, and more are supported
 - CAST and CONVERT
- Unsupported elements
 - Variables
 - Cursors
 - User-Defined Functions
 - Transaction and Locking
 - GOTO
 - PRINT
 - Any `sp_*` stored procedure
 - EXEC
 - Temporary Tables and Common Table Expressions
 - TEXT and IMAGE Functions
 - Open-ended comment designations such as `'--'` to comment out a line

Split data within a column into two rows using the Char function and its ASCII value. Use an ASCII approved character as a delimiter.

To query unicode, it isn't necessary to append an N to the search string.

Performance Considerations

Queries have a 30-minute timeout. If a query is timing out, it's possible to make the query perform faster with indexes applied. Queries that include both a join and a `Select *` statement aren't permitted. Instead, write a statement that specifies each column name, even when there are multiple columns.

Known Issues

- Data Types
 - Decimal: If a data extension contains a decimal field and that field is used in a query, the output isn't a decimal output
- Data Views and Enterprise 2.0 Business Units
 - Only data extensions are accessible for queries written at the Enterprise 2.0 business unit
- Data Extensions
 - Don't set your data extension primary key field for more than 1700 bytes.

Querying Data Extensions

- In an enterprise environment, add the `ENT. ""` prefix to get access to data extension in the enterprise parent account.
- Access a shared data extension in an Enterprise 2.0 account using the `ENT.` prefix.
- Use the data extension Name in SQL queries, not the External Key.


Querying Subscriber Data

Using the `_Subscriber` Data View

```
SELECT *
from _subscribers
```

Using the `_EnterpriseAttribute` Data View

```
SELECT *
from _EnterpriseAttribute
```

-  **Note:** This query can be used in Enterprise 2.0 edition accounts only. Core, Advanced, or Enterprise don't support querying subscriber attributes.

Combining the `_EnterpriseAttribute` Data View and the `_Subscriber` Data View

```
SELECT
b.[first name],
b.[last name],
b.[age],
a.[Status] as 'Subscription Status',
a.[EmailAddress] as 'Email'
FROM
_subscribers a
INNER JOIN
_EnterpriseAttribute b
ON
a.subscriberID = b._subscriberID
```

This example assumes the [first name],[last name], and [age] attributes exist in the account.

Sample Queries

GetaSend List Based on Aggregate Row Count

Use Case: Generating a Sendable list from a detailed data set

```
select visitorid from [cart abandonment segment] group by visitorid having count(visitorid) > 1
```

Random Sample of 33 Percent Exclusion

Use Case: A/B split testing and general segmentation

```
Select top 33 percent  
offerid, score, name, description, url  
  
from Offers  
  
inner join Offer_Ext1 a on a.offerid <> offers.offerid  
order by newid()
```

Random Sample of 33 Percent

Use Case: A/B split testing and general segmentation

```
Select top 33 percent  
offerid, score, name, description, url  
  
from Offers  
order by newid()
```

Random Sample of 100

Use Case: A/B split testing and general segmentation

```
Select top 100  
offerid, score, name, description, url  
  
from Offers  
order by newid()
```

Unique Values for a Data Set

Use Case: Testing

```
Select distinct  
'109406145' as linkage_id,  
'109406145' as ticket_id,  
'28480048' as family_id,  
'73334' as merchant_id,  
'25.32' as Original_Transaction_Amt,
```



```

transaction_type_cd,
Max(TRANSACTION_DATE) as Transaction_Date,
TRANSACTION_STATUS,
MERCHANT_TYPE,
'0' as Group_Points,
'.00' as Group_Comp,
'.00' as Group_Credit,
'.00' as Group_Dues,
'0' as Group_Miles,
'.00' as Group_BonusComp,
'102' as Group_BonusMiles,
'0' as Group_BonusPoints,
'.00' as Group_BonusCrdt,
'.00' as Total_Comp_Earned,
'.00' as Total_Credit_Earned,
'10' as Total_Miles_Earned,
'103' as Total_Points_Earned,
MERCHANT_CATEGORY,
RA_SEQUENCE,
'FFAK' as fam_campaign_cd

FROM Subscriber_Activity

GROUP BY transaction_type_cd, TRANSACTION_STATUS, MERCHANT_TYPE, RA_SEQUENCE,
MERCHANT_CATEGORY

```

Geo-Targeting

Prerequisites: Zip Code Data Extension. Search for current ZIP code data on the web. Use Case: Find all cities or zips, and therefore subscribers, within 15 kilometers of a ZIP code. -- 6378.137 earth circumference

```

SELECT
  city,
  zip,
  ROUND(6378.137 * ACOS(
    CASE
      WHEN (SIN(RADIANS((SELECT latitude FROM [ZipCode] where zip = 46254))) *
SIN(RADIANS(geo.Latitude))) + (COS(RADIANS((SELECT latitude FROM [ZipCode] where zip =
46254))) * COS(RADIANS(geo.Latitude)) * COS(RADIANS(geo.Longitude) - RADIANS((SELECT
longitude FROM [ZipCode] where zip = 46254)))) > 1 THEN 1
      WHEN (SIN(RADIANS((SELECT latitude FROM [ZipCode] where zip = 46254))) *
SIN(RADIANS(geo.Latitude))) + (COS(RADIANS((SELECT latitude FROM [ZipCode] where zip =
46254))) * COS(RADIANS(geo.Latitude)) * COS(RADIANS(geo.Longitude) - RADIANS((SELECT
longitude FROM [ZipCode] where zip = 46254)))) < -1 THEN -1
      ELSE (SIN(RADIANS((SELECT latitude FROM [ZipCode] where zip = 46254))) *
SIN(RADIANS(geo.Latitude))) + (COS(RADIANS((SELECT latitude FROM [ZipCode] where zip =
46254))) * COS(RADIANS(geo.Latitude)) * COS(RADIANS(geo.Longitude) - RADIANS((SELECT
longitude FROM [ZipCode] where zip = 46254))))
    END),0) AS Distance
FROM
  [ZipCode] AS geo
WHERE
  ROUND(6378.137 * ACOS(
    CASE

```

```

        WHEN (SIN(RADIANS((SELECT latitude FROM [ZipCode] where zip = 46254))) *
SIN(RADIANS(geo.Latitude))) + (COS(RADIANS((SELECT latitude FROM [ZipCode] where zip =
46254))) * COS(RADIANS(geo.Latitude)) * COS(RADIANS(geo.Longitude) - RADIANS((SELECT
longitude FROM [ZipCode] where zip = 46254)))) > 1 THEN 1
        WHEN (SIN(RADIANS((SELECT latitude FROM [ZipCode] where zip = 46254))) *
SIN(RADIANS(geo.Latitude))) + (COS(RADIANS((SELECT latitude FROM [ZipCode] where zip =
46254))) * COS(RADIANS(geo.Latitude)) * COS(RADIANS(geo.Longitude) - RADIANS((SELECT
longitude FROM [ZipCode] where zip = 46254)))) < -1 THEN -1
        ELSE (SIN(RADIANS((SELECT latitude FROM [ZipCode] where zip = 46254))) *
SIN(RADIANS(geo.Latitude))) + (COS(RADIANS((SELECT latitude FROM [ZipCode] where zip =
46254))) * COS(RADIANS(geo.Latitude)) * COS(RADIANS(geo.Longitude) - RADIANS((SELECT
longitude FROM [ZipCode] where zip = 46254))))
        END),0) <= 15

```

Pulling Tracking Information for a Triggered Send

Use Case: Viewing available tracking information regarding a triggered send

```

SELECT *
FROM _Open
WHERE TriggeredSendCustomerKey = 'External Key of Triggered Send'

```

SEE ALSO:

[ASCII Characters](#)

Restart a Suspended SQL Query Activity

When a SQL Query activity encounters a system error or fails 24 consecutive times, we suspend it. To find out why your query is suspended, check the action log.

You can't copy a suspended query, add it to an automation, or run it once.

1. When a query is suspended, go to that query's action log and view the error.
2. Resolve the error, if applicable.
 - If the log detail shows the error, "Query activity was terminated," don't modify the query activity. The system error will automatically resolve and re-enable your SQL activity.
 - For all other errors, fix the problem stated in the error message.
 - If you're not sure what caused the error, check the activity's settings for issues or optimize the query using intermediate tables. See [Optimizing a SQL Query Activity](#).
3. Save your work.

After you edit and save the query activity, it's automatically restarted.

Import File Activity

Use an outside file to update a subscriber list or data extension in Automation Studio. During the process, you also create an import definition, which establishes import file details and the import activity's behavior while running. The activity uses this import definition each time it runs.

Considerations

- If the file you’re importing is encrypted or compressed, you can use a file transfer activity to prepare the file for import.
- File import names have a 200-character limit.
- Marketing Cloud Connect users can create an import activity to populate a data extension with object and report data from other clouds via Synchronized Data Sources.
- You can specify the character encoding your imports use by contacting your Salesforce admin. The encoding you enable applies to all imports in an account.
- Marketing Cloud assumes that the FTP server in the selected file transfer location reports time in UTC. UTC assumes no time zone offset. If the remote FTP server isn’t on UTC, adjust limits specified on the Properties page, including System buffer, during activity setup to ensure the activity runs on the intended schedule.
- To access Salesforce Objects and Reports, navigate to Interactions in Email Studio.

[Update a List or Data Extension with an External File](#)

Use an external file with the Automation Studio import activity to update a list or data extension.

Update a List or Data Extension with an External File

Use an external file with the Automation Studio import activity to update a list or data extension.

1. From the Activities page, click **Create Activity**.
2. Select **Import File**.
3. Define the import activity.

Property	Detail
Name	Enter a unique name.
Description	Identify the activity so that others using the account know what it is.
External Key	Enter a value that uniquely identifies the activity when using the API.
Notification Settings	To receive notifications for this activity, enter an email address.

4. Select the file that you want to import and configure the import settings.
To access Salesforce objects and reports, go to Interactions in Email Studio.

Property	Detail
File Location	Choose an existing external public cloud or FTP file location.
File Naming Pattern	Enter the name of the import file. You can use a dynamic file naming pattern based on date and timestamp.
Date Format	Select the import file’s date format.

Property	Detail
Delimiter	Select the import file's delimiter type. If you select Respect double quotes (") as a text delimiter , a quotation mark is interpreted as a delimiter.
Bad Data Behavior	Choose whether to skip bad or invalid data in the import file. If you select this option, a file containing the bad data is sent to the email address that receives notifications for this import activity. If the file is larger than 25 MB, it's added to your FTP folder instead.
Skip import if last import occurred	Select to not import the file if it was imported within the specified time period.
Fail import if file is older	Use when files are frequently added to the file location and you want to always import the most recent file.
System Buffer	Add a buffer of 1 or more hours between activities in an automation.
Blank File Behavior	Choose how to handle empty files. You can skip the file, overwrite it, or end the automation.

5. Select a data extension or a subscriber list as the destination for imported data.
6. Select how the import writes data to the destination. Unless you choose to overwrite on import, your file must have at least one primary key column.

Data Action	Details
Add Only	New data is added to the destination, and existing data isn't updated.
Update Only	Existing data is updated in the destination, and new data is ignored.
Add and Update	New data is added to the destination, and existing data is updated.
Overwrite (Data Extensions Only)	All data in the destination is replaced with data from the import file. You can't recover overwritten data.

7. Select how the data is mapped to your destination.

Mapping Option	Details
Map by Header Row	Each column header in the import file must match the column name in the destination.

Mapping Option	Details
Map by Ordinal	<p>The first column in the destination is updated with the first column in the import file. This pattern continues for each column in the import file until all columns have been parsed.</p> <ul style="list-style-type: none"> • When importing into a subscriber list, column numbers must start at 0. • When importing into a data extension, column numbers must start at 1.
Map Manually	<p>Each column header in the import file is mapped according to a sample file that you provide.</p>

8. Review and save your activity.

SEE ALSO:

[Filename Patterns Reference](#)

How to Use the File Transfer Activity in Automation Studio

In Marketing Cloud Automation Studio, you can unzip or decrypt a file found in the Marketing Cloud's Enhanced FTP directory. With the File Transfer Activity, you can securely transfer files from the Marketing Cloud's secure file transfer location, the Safehouse, to a selected FTP location.

- If you used a Marketing Cloud Public Key to encrypt a file in the Enhanced FTP directory, use **Manage File**, to unzip, or decrypt it. If you used Key Management for encryption, contact your account executive for other options.
- To move a file from the Marketing Cloud's secure file transfer location to a designated FTP location, use **Move a File From Safehouse**, formerly the Upload option.

Considerations

Marketing Cloud assumes that the FTP Server in the selected File Transfer Location is reporting time in **UTC** (no time zone offset). If the remote FTP server is not using UTC, adjust the specified hour limit to account for the variance. If the activity is used in an automation, use system buffer.

Check out these other documentation pages for more information:

[Create a File Transfer Activity in Automation Studio](#)

Use the File Transfer Activity in Automation Studio to move, unzip, encrypt, or decrypt a file.

[Manage a File with the File Transfer Activity in Automation Studio](#)

In Marketing Cloud Automation Studio, unzipped or decrypted files using file transfer are typically named according to a filename pattern. If the file you're unzipping or decrypting resulted from a data extract activity, the file name pattern must match the data extract pattern.

[Move a File with the File Transfer Activity in Automation Studio](#)

In Marketing Cloud Automation Studio, files moved from the safehouse to an FTP location are typically named according to a file name pattern. If your moved file is from a data extract activity, the file name pattern must match the data extract that it was configured to produce.

[Substitution Strings Example](#)

Use substitution strings in a file transfer activity or import activity in Marketing Cloud Automation Studio.

SEE ALSO:

[Filename Patterns Reference](#)

Create a File Transfer Activity in Automation Studio


Use the File Transfer Activity in Automation Studio to move, unzip, encrypt, or decrypt a file.

1. Drag the **File Transfer** activity to the automation canvas.
2. Click **Choose**.
3. Click **Create New File Transfer Activity**.
4. Provide a name, description, and external key for the activity. The external key identifies the activity when using the API.
5. Select a file action: **Manage File** or **Move a File From Safehouse**.

Manage a File with the File Transfer Activity in Automation Studio

In Marketing Cloud Automation Studio, unzipped or decrypted files using file transfer are typically named according to a filename pattern. If the file you're unzipping or decrypting resulted from a data extract activity, the file name pattern must match the data extract pattern.

1. In Automation Studio, complete the fields on the Configuration page.

Checkbox	Information
File Naming Pattern	<p>The name or naming pattern of the file. You can enter a static name or you can include placeholders for the date. Use these personalization strings for file naming.</p> <ul style="list-style-type: none"> • %%Year%% • %%Month%% • %%Day%% • %%Hour%% • %%Minute%% • %%Second%% <p> Important: If you use the %%Second%% and %%Minute%% personalization strings, a File Not Found error can occur. The error is a result of the extended time required to process those strings.</p>
Use local time zone setting	<p>Select if you want the activity to match the date and time personalization strings to the same time zone of the activity creator. The activity compares the values to the current Central Standard Time by default. The timestamp for the resulting file isn't updated, the checkbox only adjusts the time-frame the File Transfer looks for.</p>
Source File Location	<p>The location where the system can find the file.</p>

 **Tip:** Use these file types for each transfer activity:


- Unzip compressed file: .zip .gz .tar
- Decrypt file .pgp .gpg
- Move: No validation for filename extension.

2. Select unzip and decryption actions according to the storage method in the file.

 **Note:** This activity outputs the unzipped, decrypted version of the target file to the import folder.

 **Important:** We don't support Deflate64 as a compression method. Use Zip64 instead.

3. Set qualifications to skip or fail a file.

 **Note:** Automation Studio examines the modified date of the file as reported by the FTP Server in the selected File Transfer Location. If the difference between the modified date and the current system time is greater than the specified hours, the file transfer activity errors.

4. Click **Next**.

Move a File with the File Transfer Activity in Automation Studio

In Marketing Cloud Automation Studio, files moved from the safehouse to an FTP location are typically named according to a file name pattern. If your moved file is from a data extract activity, the file name pattern must match the data extract that it was configured to produce.

1. In Automation Studio, identify the file name pattern that corresponds to the files to transfer and file location.

2. Choose a transfer setting.

- To encrypt a file before it is transferred, select an encryption method.

3. If a public key has been configured in Setup, select it.

- Choose the appropriate key and use it as part of the file encryption process. Whether you encrypt or decrypt a file, use the same public key for the file in each operation.

 **Important:** This file transfer activity doesn't support encrypted files larger than 2 GB. Reduce the file size or use an external FTP site instead.

Substitution Strings Example

Use substitution strings in a file transfer activity or import activity in Marketing Cloud Automation Studio.

Place these substitution strings in the File Naming Pattern field of a file transfer activity or import activity. Use these strings to reuse the trigger file in a subsequent step of a file drop automation.

```
%%FILENAME_FROM_TRIGGER%%
```

This string returns the name of the file placed in the FTP folder. Prefixes, suffixes, and file extensions are not allowed. The automation engine doesn't read file extensions, so any characters that follow the final dot [.] in a file name are excised.

Substitution String	File Dropped	Result
%%FILENAME_FROM_TRIGGER%%	Myfilename.txt.gpg.zip	Myfilename.txt.gpg.zip

Substitution String	File Dropped	Result
%%FILENAME_FROM_TRIGGER%%.zip	Myfilename.txt.gpg.zip	Invalid – no suffix allowed

```
%%FILENAME_FROM_TRIGGER_BASE%%
```

This string returns the name of the file without the final file extension. Prefixes, suffixes, and extension substitutions are allowed.

Substitution String	File Dropped	Result
%%FILENAME_FROM_TRIGGER_BASE%%	Myfile.txt.zip.gpg	Myfile.txt.zip
%%FILENAME_FROM_TRIGGER_BASE%%.gpg	Myfile.txt	Myfile.gpg

```
%%BASEFILENAME_FROM_TRIGGER%%
```

This string returns the name of the file without any file extensions. Prefixes, suffixes, and extension substitutions are allowed.

Substitution String	File Dropped	Result
%%BASEFILENAME_FROM_TRIGGER%%	Myfile.txt	Myfile
%%BASEFILENAME_FROM_TRIGGER%%	Myfile.txt.zip.gpg	Myfile
%%BASEFILENAME_FROM_TRIGGER%%.dat	Myfile.txt	Myfile.dat
%%BASEFILENAME_FROM_TRIGGER%%%%M%%t%%D%%	Myfile.txt	Myfile_02_18.txt
%%M%%t%%D%%%%BASEFILENAME_FROM_TRIGGER%%	Myfile.txt	02_18_Myfile.txt
%%BASEFILENAME_FROM_TRIGGER%%.txt	Myfile.02.08.txt	Myfile.txt

SEE ALSO:


[Filename Patterns Reference](#)

Script Activity

A server-side JavaScript® (SSJS) activity contains SSJS code that is executed when started, either on its own or as part of an automation in Automation Studio. You provide the SSJS code, a name, external key, and description to identify the activity within the application interface and for API calls.

Use server-side JavaScript activities to host and run resources for landing pages. Order these scripts within an automation to run in any sequence. Server-side JavaScript activities time out after 30 minutes.

 **Note:** JavaScript is a registered trademark of Oracle and/or its affiliates.

 **Example:** Use server-side JavaScript to perform these actions inside an automation:

- Create a data extension
- Import information into that data extension
- Filter out those subscribers with a birthday in the next week


- Send an email to those subscribers

[Create a Script Activity](#)

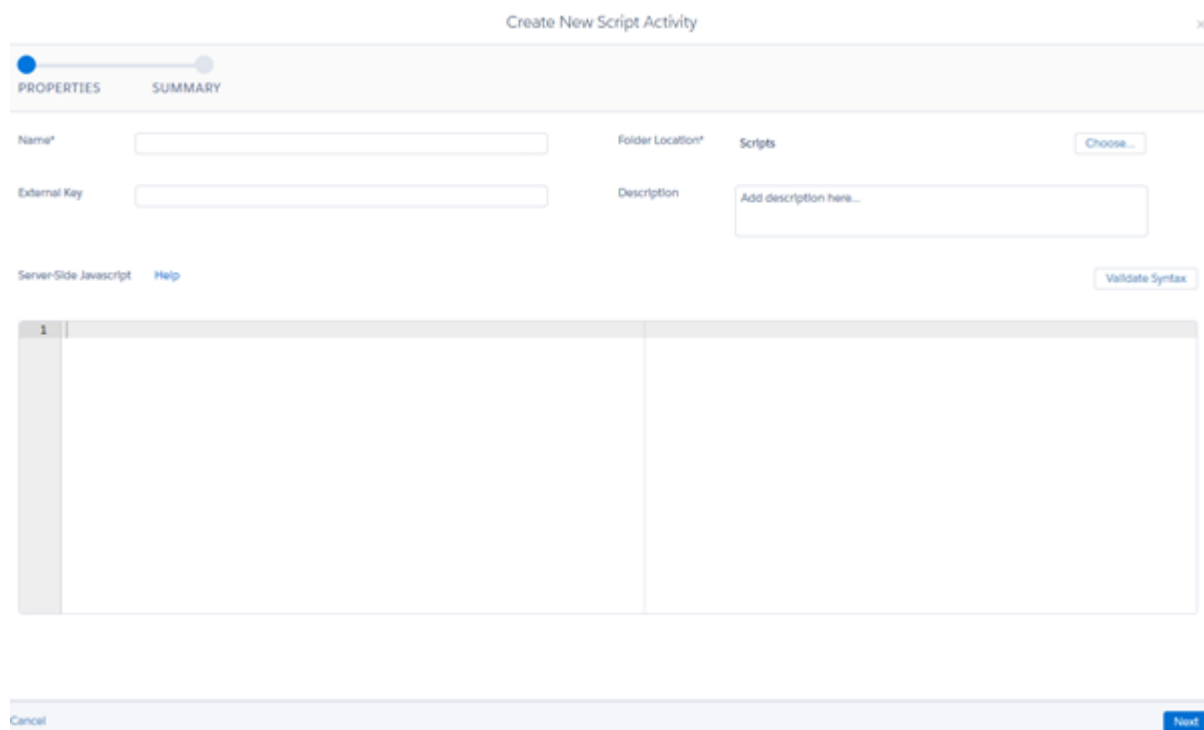
Add your own server-side JavaScript using this Automation Studio activity to accomplish any task for which you would use server-side JavaScript in an email or landing page.

Create a Script Activity

Add your own server-side JavaScript using this Automation Studio activity to accomplish any task for which you would use server-side JavaScript in an email or landing page.

 **Note:** JavaScript is a registered trademark of Oracle and/or its affiliates.

1. Click **Create Activity**.
2. Select **Script**.
3. Add all applicable details.
4. Enter your server-side JavaScript.
5. Click **Validate Syntax** to test your JavaScript. This step does not ensure that the script runs successfully, but it ensures that the server-side JavaScript uses valid syntax.



1

SEE ALSO:

[Server-Side JavaScript Sample Code](#)

Filter Activity

Apply the logic of a data filter you select to create a group or data extension in Automation Studio. Filtering subscribers or contacts makes targeting specific subscribers or contacts based on their attributes and other conditions easier.

 **Note:** The filter activity always overwrites existing rows in the data extension.

Considerations

- Data filters are created in Email Studio. Create the data filter you plan to use in the filter activity before configuring the activity.
- If you select a filter that is based on profile attributes, select the list to segment with the filter. Provide a name for the group that contains the resulting segment.
- If you are filtering a data extension, a new data extension is created as a destination for filtered contact records. Select the data filter and provide a name for the data extension where the resulting segment is added. Selecting a data extension to filter is not necessary; selecting this data extension is required when creating a data filter.

[Create a Filter Activity](#)

Apply a data filter to create a group or data extension containing records that meet a set of criteria. For example, use a filter activity in Automation Studio to sort out subscribers from a larger subscriber list.

SEE ALSO:

[Data Filters without Enhanced Subscriber Features in Marketing Cloud](#)

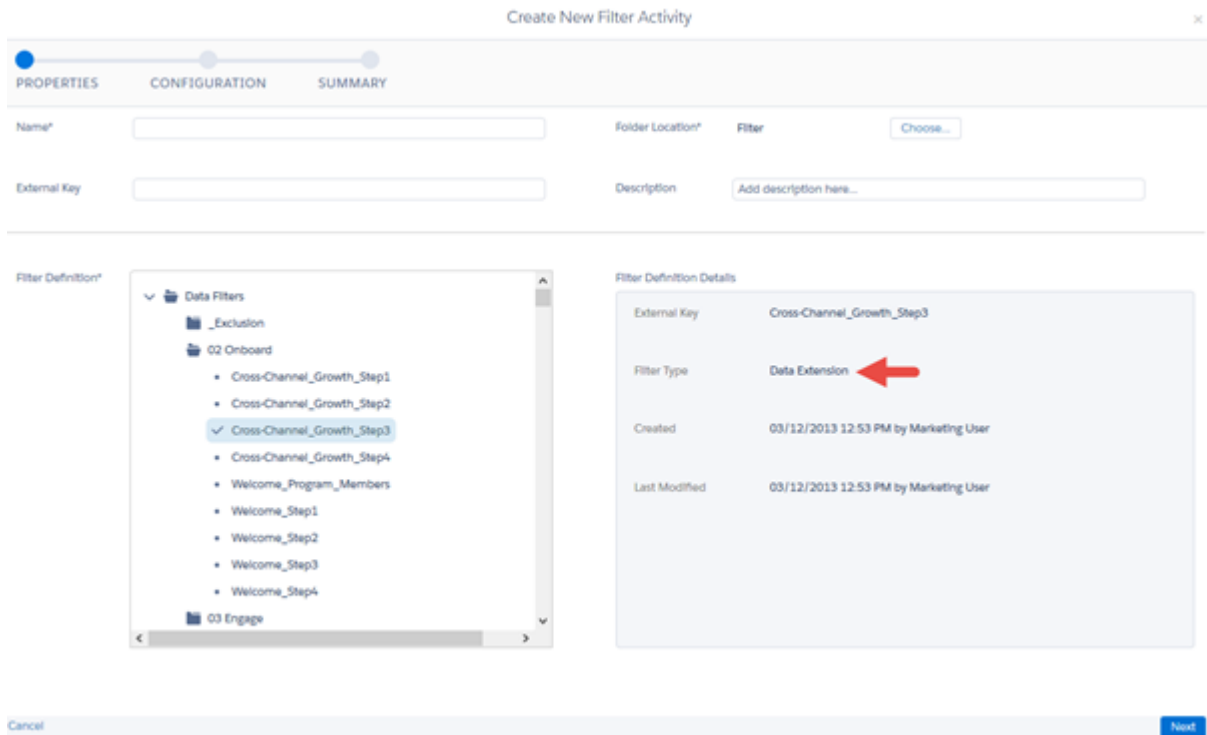
[Data Filters with Enhanced Subscriber Features in Marketing Cloud](#)

Create a Filter Activity


Apply a data filter to create a group or data extension containing records that meet a set of criteria. For example, use a filter activity in Automation Studio to sort out subscribers from a larger subscriber list.

 **Note:** Before using a filter activity, create a data filter in Email Studio.

1. Click **Create Activity**.
2. Select **Filter**.
3. Provide a name, folder location, external key, and description to identify and describe the activity.
4. Choose a filter definition to see its details. Check the Filter Type to confirm that the filter definition applies to the data source, list, or data extension you intend.



5. If your data filter is applied to profile attributes, select a source list created in Email Studio.

 **Note:** If your data filter is applied to a data extension, selecting a source list is not necessary. The data extension selected when configuring the data filter is the source.

6. If your data filter is applied to profile attributes, name the group that is created when this filter activity runs and choose a group folder to store it.

7. If your data filter is applied to a data extension, a new data extension is created as a destination for filtered contact records. Provide a name, external key, and description of this data extension so you can identify it after the activity runs.

Create New Filter Activity ✕

PROPERTIES CONFIGURATION SUMMARY

Configuration for 'Customer List' Profile Attribute
Select the source list and enter the resulting group information

Source List*

- > my lists
- my subscribers
 - All Subscribers
 - Salesforce.com Managed Subscribers
 - Triggerred Send Managed Subscribers

Resulting Group Name*



Resulting Group Folder*

- my groups

Cancel Back Next




Data Extract Activity

The Automation Studio data extract activity creates one or more zipped files for your use outside the Marketing Cloud application. It can also be used to convert an XML file into a comma-delimited, tab-delimited, or pipe-delimited file for import into your account.

-  **Note:** Extract types must be provisioned for your account. Contact your Marketing Cloud representative for more information.
-  **Note:** As of May 25, 2018, email extracts that reference individual subscribers no longer include subscribers who were deleted using the legacy Email Studio delete functionality.

Considerations

- A File Transfer Location must be configured and specified in Account Settings before using the data extract activity.
- Use the file transfer activity to place extracted data in a file location you choose. Data extract files are supplied in .zip format.
- When using the data extract activity in an automation, include the file transfer activity in a separate step. This action prevents the file transfer activity from looking for the data extract file before the data extract is complete.
- The fields included in a data extract file vary according to the Extract Type you choose.
- You set Extract Range, or the period for which to extract tracking data. The Extract Range always ends at the time the data extract activity starts.
- Not all extract types use a date range.
- When selecting the Extract Multiple Data Extension List Data option using the standard tracking extract, run the extract at the Enterprise level.
- When you select the "Include" option for a data extract, one of the compressed files the activity produces contains the data you included.
- Click and open tracking data is rounded to the nearest second.

- To ensure that the file transfer activity can find your data extract file, don't use %%Minute%% or %%Second%% variables in the file name pattern.
-  **Note:** When setting time zone for a tracking extract output file, select **Use Local TZ in Query**. When this option isn't selected, the output file defaults to Central Standard Time and doesn't observe Daylight Savings Time. This option isn't available for data extension extracts.
-  **Example:** If you create an extract that includes "Extract Clicks," then select "Include Unique Clicks," the unique clicks data appears in the Clicks file. The activity doesn't produce a separate file labeled "Unique Clicks."
-  **Example:** If you choose an extract range of seven days, the activity extracts tracking information for the last seven days up to the minute the activity runs.

[Create a Data Extract File](#)

Use the Automation Studio Data Extract activity to create a file that you can use outside of Marketing Cloud Engagement. This activity can also be used to transform an XML file to a comma-delimited, tab-delimited, or pipe-delimited file for import into your account.

[Configure a Tracking Extract](#)

Use tracking extracts to output data related to an email send in Email Studio.

[Extract Types](#)

Refer to the topic that corresponds with the extract type you are using.

[Extract Outputs Reference](#)



This table describes the outputs available for the Tracking Extract extract type.

[Create an Audit Trail Data Extract Activity](#)

Use an extract activity to extract your audit data into a CSV file to prepare it for file transfer.

Create a Data Extract File

Use the Automation Studio Data Extract activity to create a file that you can use outside of Marketing Cloud Engagement. This activity can also be used to transform an XML file to a comma-delimited, tab-delimited, or pipe-delimited file for import into your account.

1. In Automation Studio, click **Create Activity**.
2. Select **Data Extract**.
3. Add a name, external key, and description for the activity.
4. Enter a file naming pattern so that the activity knows what to name the file it creates.
 -  **Note:** Ensure that the file name patterns match in the Data Extract Activity and the File Transfer Activity. To make sure the file names match, don't use %%Minute%% or %%Second%% variables in the file name pattern.
 - a. Use when you've set up a workflow to drop a file whose auto-generated filename matches a pattern into the file location.
 - b. Enter a static name or include placeholders for the date, keeping in mind that they're case-sensitive. If a filename includes personalization strings that are capitalized, capitalize them in the file naming pattern.
 - c. Include a .zip extension for tracking extract or .csv for a data extension extract.
5. To determine the web analytics tools used to interpret the extracted file, select an extract type. The value you select determines the data you can include in the file.
 -  **Note:** Extract types must be provisioned for your account. Contact Salesforce Support for more information.
6. To determine the date range for information to include in the extract file, select an extract range.

7. Select a type of file encoding to use.
8. Configure the extract by choosing the fields that appear in the data extract file.
 - a. Select a field name to include it in the data extract file.
 - b. If the data extract you choose includes the columnDelimiter field, insert the character you wish to use as a delimiter within the data extract. You can use comma (,), tab, or pipe (|) characters as delimiters.

To use a local time zone in your tracking extract output file, select **Use Local TZ in Query** and then select a time zone from the dropdown. If you don't select this option, the output file defaults to Central Standard Time and doesn't observe daylight savings time. This option isn't available for data extension extracts.

Configure a Tracking Extract

Use tracking extracts to output data related to an email send in Email Studio.

Create a data extract activity.

1. In a data extract activity, select the **Tracking Extract** extract type.
2. Specify the range of time to include in the data extension extract.
 - To update the range of dates each time the data extension extract runs, select **Rolling Range** and choose 1, 7, 30, 60, or 90 days.
 - To run the data extension extract on specific dates, select **Specific Range** and enter the start and end dates. You can select up to 30 days.
3. Enter the accounts used to extract tracking information.
 - To extract information from the account running the extract, leave the field blank.
 - To extract information from all accounts and subaccounts in an Enterprise account, enter an asterisk.
 - To extract information from multiple accounts with an Enterprise account, enter a comma-delimited list of account ID numbers, including the parent EID.
4. Enter the accounts for which you want to include the Attributes file if ExtractAttributes is enabled for your account.
 - To return no attributes, leave the field blank.
 - To return specific attributes for the selected accounts, enter a comma-delimited list of attribute names. If the attribute doesn't exist for an account or subaccount, this action returns no attributes.
5. Enter an email send definition external key to filter data from a specific send.
6. Select the outputs to include.
 - Attributes
 - Bounces
 - ClickImpressions
 - Clicks
 - Conversions
 - ListMembershipChanges
 - Lists
 - NotSent
 - Opens
 - SendJobImpressions

- SendJobs
- Sent
- SentImpression
- StatusChanges
- Subscribers
- SurveyResponses
- Unsubs


7. Choose the extract range.

A blank field uses the date range associated with the tracking extract. Previous Month overrides any other information and creates the tracking extract from the previous month's data.

8. Enter the format in which you want the tracking extract to be created.

- CSV returns a comma-delimited file. The tracking extract defaults to this value.
- Tab returns a tab-delimited file.
- XML returns an XML file where supported.

 **Note:** Review Tracking Extract Output to determine if XML is a valid option.

 **Note:** Don't use .txt to indicate a tab-delimited file. Although .txt is the file extension for a tab-delimited file, entering txt as the format can cause errors.

9. Select **IncludeAllListMembers** to include all list members in the tracking extract.

To include only list members with activity during the specified period, don't select **IncludeAllListMembers**.

10. Select **IncludeAllSubscribers** to include all subscribers in the tracking extract's Subscribers file.

To include only subscribers with activity corresponding to the events included in the extract, don't select **IncludeAllSubscribers**.

11. Select **IncludeInferredOpens** to include inferred opens, which are clicks in an email without a recorded open.

To include only opens where the email was clicked and rendered, don't select **IncludeInferredOpens**.

12. Select **Include User Agent Information** to include user agent data related to the open or click, such as operating system, email client, browser, or device.

13. Select **QuoteText** to surround text with double quotation marks.

This process replaces existing double quotes in the tracking extract by two single quotation marks.

14. To filter the tracking extract, enter a comma-delimited list of SendIDs.

If you specify the external key of an email send definition in the extract, the extract includes information from all SendIDs and the email send definition.

15. Enter a character to use as a text qualifier.

The default value is a double quotation mark.

16. To save the extract in UTF-16 format instead of ASCII, select **UnicodeOutput**.

17. Save the activity.

Start the activity.

Extract Types

Refer to the topic that corresponds with the extract type you are using.

[Convert XML](#)

This data extract type converts XML files to delimited files so that you can import them into data extensions. Use this extract for simple XML files only. Files that have subnodes on attributes require a different process. Contact Salesforce Support for additional information.

[Data Extension Extract in Automation Studio](#)

This Marketing Cloud Automation Studio data extract type extracts information from a data extension and places it in a delimited file.

[GlobalUnsubImport](#)

Use this data extract to import data into the global unsubscribe list for an Enterprise 1.0 account. Only Enterprise 1.0 accounts with the GlobalUnsub feature can use this data extract.

[Marketing Cloud for Microsoft Dynamics CRM Tracking Data Extract](#)

This data extract activity provides information on tracking data extracted from accounts using the Marketing Cloud for Microsoft Dynamics CRM integration. This data extract activity functions only with version 4.0 of the Marketing Cloud for Microsoft Dynamics CRM integration.

[Tracking Extract](#)

Tracking extracts provide granular tracking data for import from Email Studio into external systems. Use tracking extracts to export granular data regarding several different aspects of email send jobs, such as clicks, bounces, and survey data, from Marketing Cloud. Then, import that information into an automation or system.

[Contacts Without Channel Addresses](#)

Find and manage your contacts that aren't associated with any channels. Understand the source of your contacts and delete the ones you don't want.

Convert XML

This data extract type converts XML files to delimited files so that you can import them into data extensions. Use this extract for simple XML files only. Files that have subnodes on attributes require a different process. Contact Salesforce Support for additional information.

The Convert XML data extract requires the information described in this table.

Field	Description
Name	The name of the data extract.
External Key	A unique ID that identifies the extract in API requests.
Description	A description of the data extract.
File Naming Pattern	The name of the file created by the extract process. You can include these wildcards: <ul style="list-style-type: none"> • %%Year%% • %%Month%% • %%Day%%

Field	Description
CreateColumnHeaders checkbox	This checkbox indicates whether the XML file used in the conversion contains information used to create column headers. If the XML file does contain this information, you can map the resulting delimited file for import by column heading. If the XML file doesn't contain header information, map the delimited file by ordinal when you import the data.
FileFormat	Indicates the file type for the exported file: <ul style="list-style-type: none"> • csv - indicates a comma-delimited file • tab - indicates a tab-delimited file The default value is tab.
InputFileName	The XML file for the activity to convert. This activity requires files on your FTP server. The activity creates the output file in the same location on the FTP server.
QuoteCharacter	The quote character to use to differentiate attributes in the XML file from the element names.


The last field contains the name of the element for which the converting process creates a row.

 **Example:** This example XML file uses /subscribers/subscriber to indicate when a new record starts:

```
<subscribers>
  <subscriber>
    <first_name>Lee</first_name>
    <last_name>Billings</last_name>
    <email>lbillings@example.com</email>
  </subscriber>
  <subscriber>
    <first_name>Kris</first_name>
    <last_name>Rogers</last_name>
    <email>kris_rogers@example.com</email>
  </subscriber>
</subscribers>
```

Data Extension Extract in Automation Studio

This Marketing Cloud Automation Studio data extract type extracts information from a data extension and places it in a delimited file.

 **Note:** Using a standard data extension extract doesn't guarantee that the extracted rows are in the same order they were inserted. To enforce a specific order, create a custom extract.

The Data Extension extract type requires this information in the fields section:

- The character you want to use to delimit each column. Marketing Cloud defaults to a comma, but you can enter tab for a tab-delimited file or | for a pipe-delimited file.
- The data extension's external key in the DECustomerKey field
- HasColumnHeaders determines whether the extract file includes column headers

- TextQualified determines whether text within the data extension appears within double quotation marks
- UsesLineFeed determines whether a new line is generated based on the field selected in the data extension

Create a file transfer activity and select **Move a File From Safehouse** as the File Action. Add the name of the file from the data extension data extract in the File Naming Pattern field to move the extract to another file location.

 **Note:** Make sure to use the same file naming pattern for the file transfer activity that you use when setting up the data extension extract using the data extract activity.

Save both the data extract and the file transfer activity. Then, create an automation that includes the data extract as the first step with the file transfer activity next. You can run the automation one time or set it to run at scheduled times. Use third-party FTP software to move the file from your chosen file location to your computer.

GlobalUnsubImport

Use this data extract to import data into the global unsubscribe list for an Enterprise 1.0 account. Only Enterprise 1.0 accounts with the GlobalUnsub feature can use this data extract.

Provision the GlobalUnsubImport extract in the Enterprise parent account.

This data extract includes two options:

- GlobalUnsubCategory - Select the name of the global unsub category to use for email addresses added via the import. If the provided category does not exist, the process creates it.
- InputFileName - Provide the name of the file containing the email addresses.

Review the GlobalUnsub table in the customer database to validate the extract added the email addresses to the list.

Marketing Cloud for Microsoft Dynamics CRM Tracking Data Extract

This data extract activity provides information on tracking data extracted from accounts using the Marketing Cloud for Microsoft Dynamics CRM integration. This data extract activity functions only with version 4.0 of the Marketing Cloud for Microsoft Dynamics CRM integration.

Contact your Marketing Cloud account representative to enable this feature.

This tracking data extract retrieves tracking information at a specified, preferably off-peak time, as opposed to real-time tracking data. Moving the retrieval process enhances the performance of large-volume sends while still providing the necessary tracking data. The data extract can consist of up to 6 files, including this information:

JobSubscribers	SendLinks	SendResult	SubscriberLinkDetails	SubscriberSendResult	UnsubEvent
JobID	JobID	ID	JobID	JobID	UnsubEvent
EmailID	Alias	EmailName	SubscriberID	EmailID	EventDate
EmailName	Url	EmailSubject	SubscriberKey	EmailName	PartnerKey
EmailSubject	LastClicked	Subject	Alias	EmailSubject	Client.ID
FromName	TotalClicks	FromName	URL	FromName	
FromEmailAddress	UniqueClicks	SentDate	LastClicked	FromEmailAddress	
DeliveredTime	pkjoburlid	NumberSent	TotalClicks	DeliveredTime	
OpenDate	PartnerKey	Delivered	pkjoburlID	OpenDate	
ClickDate		NumberDelivered	PartnerType	ClickDate	

JobSubscribers	SendLinks	SendResult	SubscriberLinkDetails	SubscriberSendResult	UnsubEvent
UnsubscribeDate		OtherBounces		UnsubscribeDate	
LastOpenDate		SoftBounces		LastOpenDate	
LastClickDate		HardBounces		LastClickDate	
BounceDate		Clicks		BounceDate	
EventDate		UniqueClicks		EventDate	
TotalClicks		UniqueOpens		TotalClicks	
UniqueClicks		Unsubscribes		UniqueClicks	
SubscriberPartnerKey		OpenRate		OtherBounce	
SubscriberID		DeliverabilityRate		SoftBounce	
SubscriberKey		UnsubRate		HardBounce	
PartnerType		ClickThroughRate		SubscriberPartnerKey	
SendPartnerKey		SendDate		SubscriberEmail	
RltdObjectID		Client.ID		SubscriberID	
MemberID		ExistingUndeliverables		SubscriberKey	
PreviewURL		ExistingUnsubscribes		PartnerType	
		Duplicates		SendPartnerKey	
		MissingAddresses		RltdObjectID	
		InvalidAddresses		MemberID	
		PartnerKey		PreviewURL	
		EmailID		LastAction	
		EventDate			
		Status			
		StatusID			
		OrigJobStatusID			
		OrigJobStatus			
		PreviewURL			

[Configure the Marketing Cloud for Microsoft Dynamics CRM Tracking Data Extract](#)

Task information for configuring the Marketing Cloud for Microsoft Dynamics CRM Tracking Data Extract

[Import the Marketing Cloud for Microsoft Dynamics CRM Tracking Data Extract into Your Dynamics CRM Instance](#)

Task information for importing the Marketing Cloud for Microsoft Dynamics CRM Tracking Data Extract into your Dynamics CRM Instance.

Configure the Marketing Cloud for Microsoft Dynamics CRM Tracking Data Extract

Task information for configuring the Marketing Cloud for Microsoft Dynamics CRM Tracking Data Extract

1. Specify the range of time to include in the data extension extract:
 - Rolling Range - Select **Rolling Range** and set the dropdown menu to 1, 7, 30, 60, or 90 days, depending on the time range to include every time you run the data extension extract.
 - Specific Range - Select **Specific Range** and enter the start and end dates in the calendar fields. Select up to 30 days in your range.
2. Select to include aggregate tracking data.
3. Select to include data from child accounts.
4. Select to include individual subscriber responses in your data.
5. Select to include job recipients in your data.
6. Select to include link details in your data.
7. Select to include send links in your data.
8. Create a file transfer activity set to Upload and the name of the file from the data extension data extract in the File Naming Pattern field.

Once you save the data extract and the file transfer activity, create an automation that includes the data extract as the first step and the file transfer activity as the second step. You can run the automation once or set it to run at scheduled times. Use third-party FTP software to move the file from your chosen file location to your computer.

Import the Marketing Cloud for Microsoft Dynamics CRM Tracking Data Extract into Your Dynamics CRM Instance

Task information for importing the Marketing Cloud for Microsoft Dynamics CRM Tracking Data Extract into your Dynamics CRM Instance.

1. On the Dynamics CRM server, click **Start**.
2. Select **All Programs**.
3. Select **ExactTarget**.
4. Select **ExactTarget Configuration Editor**.
5. Click **Data Extract Import**.
6. Select Enabled. Enter the data extract file name in the File Naming Pattern field.
7. Select your chosen schedule for the import.
8. Select **FTP** in the Extract Source field.
9. Enter the location where the file is saved on your server.
10. Enter the FTP server where the data extract file resides.
11. Enter *import/*.
12. Enter your FTP username.
13. Enter your FTP password.
14. Click **Import**.

Tracking Extract

Tracking extracts provide granular tracking data for import from Email Studio into external systems. Use tracking extracts to export granular data regarding several different aspects of email send jobs, such as clicks, bounces, and survey data, from Marketing Cloud. Then, import that information into an automation or system.

Tracking extracts retrieve data before sends execute. The data includes information on any subscriber listed as undeliverable or excluded by List Detective. You can also schedule tracking extracts via an automation. Tracking extracts also include column heading information.

Use a .zip file extension for the output file when creating a data extract. The application returns tracking extract data in a zip file. The size of that file can vary depending on the amount of activity, the accounts involved, and the types of data requested. The output file's suffix must match.

Name	Description
SendID	Marketing Cloud identifier for the associated send. Found in Tracking as JobID.
ClientID	Marketing Cloud account identifier. Datasets contain multiple ClientID values when extracting multiple subaccounts.
SubscriberID	Marketing Cloud internal subscriber identifier
SubscriberKey	Marketing Cloud subscriber identifier, defaults to email address
Email Address	Default unique identifier for a standard account configuration


Primary Key Tables

- Attributes
- Lists
- ListMembership
- SendJobs
 - ClientID
 - SendID
 - SubscriberKey
 - EventDate
 - BatchID
- Sent
- Subscribers
 - SubscriberID
- StatusChange

Event Tables

- Soft Keys
 - ClientID
 - SendID

- SubscriberKey
- EventDate
- BatchID
- Bounces
- Clicks
- Conversions
- Opens
- Surveys
- Unsubs

 **Note:** Event tables sometimes include duplicate rows due to differences in time by seconds or larger.

[Tracking Extract Configuration in Automation Studio](#)

You can create a data extract activity in Marketing Cloud Automation Studio using the Extract Type dropdown. To specify the data you want to include, configure the tracking extract fields. See the example at the end of this section for a categorization of extraction objects. When you've configured it, start your activity to produce results.

[API Data Extract Options](#)

To better organize Email Studio data extracts, use these categories for your SQL database. You can retrieve up to 6 months of data.

[Tracking Extract Output](#)

Tracking extracts output several types of Marketing Cloud data related to an email send.

Tracking Extract Configuration in Automation Studio

You can create a data extract activity in Marketing Cloud Automation Studio using the Extract Type dropdown. To specify the data you want to include, configure the tracking extract fields. See the example at the end of this section for a categorization of extraction objects. When you've configured it, start your activity to produce results.

Note: You must have the Tracking Extract feature provisioned for your account. Contact your Marketing Cloud representative for more information.

Field	Description
Rolling Range or Specific Range	<p>Range of time to include in the tracking extract. All ranges are from 12 AM to 12 AM.</p> <ul style="list-style-type: none"> For a Rolling Range, set the dropdown to 1, 7, 30, 60, or 90 days, to include every time you run the data extension extract. For a Specific Range, enter the start and end dates in the calendar fields under the radio button. Select up to 30 days in your range.
AccountIDs	<p>Accounts used to extract tracking information.</p> <ul style="list-style-type: none"> A blank field extracts information from the account running the extract. An asterisk extracts information from all accounts and subaccounts in an Enterprise account.

Field	Description
	<ul style="list-style-type: none"> • A comma-delimited list of account ID numbers extracts information from only those accounts inside an Enterprise account.
Attributes	<p>Accounts for which you want to include the Attributes file. This section is only available if ExtractAttributes is enabled for your account.</p> <ul style="list-style-type: none"> • A blank field returns no attributes. • A comma-delimited list of attribute names returns attribute files for those accounts. If the attribute doesn't exist for an account or subaccount, this action returns no attributes.
EmailSendDefinitionExternalKey	Email send definition external key to filter data from a specific send.
Output Checkboxes	<p>View one or more tracking extract outputs.</p> <ul style="list-style-type: none"> • Attributes • Bounces • ClickImpressions • Clicks • Conversions • ListMembershipChanges • Lists • NotSent • Opens • SendJobImpressions • SendJobs • Sent • SentImpression • StatusChanges • Subscribers • SurveyResponses • Unsubs
ExtractRange	<p>Date range used to create the tracking extract.</p> <ul style="list-style-type: none"> • A blank field uses the date range associated with the tracking extract. • Previous Month overrides any other information and creates the tracking extract from the previous month's data.
Format	<p>The format in which you want the tracking extract to be created. Don't use txt to indicate a tab-delimited file. Although .txt is the file extension for a tab-delimited file, entering txt as the format causes an error.</p>

Field	Description
	<ul style="list-style-type: none"> csv returns a comma-delimited file. The tracking extract defaults to this value. tab returns a tab-delimited file. xml returns an XML file where supported. To determine if XML is a valid option, review Tracking Extract Output.
IncludeAllListMembers	Includes all list members in the tracking extract. Leave this box unchecked to include only list members with activity during the specified time.
IncludeAllSubscribers	Includes all subscribers in the Subscribers file of the tracking extract. Leave this box unchecked to include only subscribers with activity corresponding to the events you select to include in the extract.
IncludeInferredOpens	Includes all inferred opens, or email clicks without a recorded open. Leave this box unchecked to include only specific opens where the email was clicked and rendered.
Include User Agent Information	Includes user agent data related to the open or click, such as operating system, email client, browser, or device.
QuoteText	Surrounds all text with double quotation marks. This process replaces existing double quotes in the tracking extract by two single quotation marks. To use a text qualifier, select this option and enter the text qualifier.
SendIDs or JobIDs	Enter a comma-delimited list of SendIDs to filter the tracking extract. Specify the external key of an email send definition in the extract as well to include information from all SendIDs and the email send definition. A blank field returns job details for the entire specified range.
TextQualifier	Select Quote Text to enable use of a text qualifier. Enter a character to use as a text qualifier. This value defaults to a double quotation mark.
UnicodeOutput	Saves the extract in UTF-16 format instead of ASCII.

SEE ALSO:

[Create an Audit Trail Data Extract Activity](#)

API Data Extract Options

To better organize Email Studio data extracts, use these categories for your SQL database. You can retrieve up to 6 months of data.

Output File Options

- OutputFileName
- Format

- FileFormat
- QuoteText
- TextQualifier
- ColumnDelimiter
- UnicodeOutput
- CharacterEncoding

Notifications

- NotificationEmail

Date Options

- StartDate
- EndDate
- Timezone
- UseLocalTZinQuerypublic
- IncludeMilliseconds

Qualifiers

- AccountIDs
- Attributes
- SendIDs
- EmailSendDefinitionExternalKey

Subscribers

- ExtractSubscribers
- IncludeAllSubscribers
- ExtractAttributes
- extractStatusChanges

Send Job

- ExtractSendJobs
- ExtractSendJobImpressions

Sent

- ExtractSent
- ExtractNotSent
- ExtractSendData
- ExtractSendImpressions
- IncludeTestSends

- IncludeCampaignID

Opens

- ExtractOpens
- IncludeUniqueOpens
- IncludeInferredOpens
- IncludeGEO
- IncludeUserAgentInformation

Clicks

- ExtractClicks
- ExtractClickImpressions
- IncludeUniqueClicks
- IncludeUniqueForURLClicks

Bounces

- ExtractBounces

Unsubscribes

- ExtractUnsubs
- IncludeUnsubReason
- ExtractSpamComplaints

Lists and Data Extensions

- extractListMembershipChanges
- extractLists
- IncludeAllListMembers
- ExtractMultipleDataExtensionListData

Conversions and Surveys

- ExtractConversions
- ExtractSurveyResponses

Tracking Extract Output

Tracking extracts output several types of Marketing Cloud data related to an email send.

Attributes

The attributes tracking extract output file contains the attributes associated with subscribers in an account.

[Bounces](#)

The bounce event extract file shows all the hard and soft bounces that occurred in a specific date range. The events in this report relate to all subscribers for a particular send.

[ClickImpression](#)

The click event extract file shows all the instances of a clicked link in an email occurring within the specified date range. The file also includes the impression region name associated with the click event. The events in this report can relate to all sends for subscribers on a list or related to a particular send.

[Clicks](#)

The click event extract file shows all instances of a clicked link in an email occurring within the specified date range. The events in this report relate to all sends for subscribers on a list or related to a particular send.

[Conversions](#)

The conversions file contains a row for each conversion event associated with a subscriber related to an email send job.

[ListMembershipChanges](#)

The ListMembershipChanges file includes rows that contain information on the subscriber, list, and status data change for every event.

[Lists](#)

The lists file contains rows including name, description, and other information for a unique list.

[NotSent](#)

This list contains information on send jobs and messages that didn't send. Only the most recent two months of data is available.

[Opens](#)

An Open event extract file shows open instances of an HTML email during the date range. The open events relate to all sends for subscribers on a list or to a particular send.

[SendImpression](#)

The SendImpression event extract file shows instances of an email send occurring during a specified date range. The file also includes the impression region name associated with the click event. The send events relate to all sends for subscribers on a list or to a particular send.

[SendJobImpression](#)

The SendJobImpression file represents all impression tracking information from sends with activity logged against them for the timeframe of the extract. This list reflects only jobs that already processed. Sends scheduled for the future do not appear in this list.

[SendJobs](#)

The SendJobs file represents all sends with activity logged against them for the timeframe of the extract. This list reflects only jobs that already processed. Sends scheduled for the future do not appear in this list.

[Sent](#)

The Sent event extract file shows instances of an email send occurring during a specified date range. The send events relate to all sends for subscribers on a list or to a particular send.

[Spam Complaints](#)

The Extract Spam Complaints extract file shows subscriber, list, and domain data, including sendID and date, for subscribers who received an email and reported it as spam.

[StatusChanges](#)

The StatusChanges file shows instances of change in a subscriber's status.

[Subscribers](#)

The Subscribers file contains subscribers with a tracking event occurring during a specified data range.

[Surveys](#)

The Surveys file contains information on responses to surveys included in email sends.

[Unsubs](#)

The Unsubs file includes information on unsubscriptions that occurred during a specified data range. The unsubscribe events can be related to all sends for subscribers on a list or to a particular send.

Attributes

The attributes tracking extract output file contains the attributes associated with subscribers in an account.

This extract only outputs data for subscribers who received one of these events over the specified time:

- Bounce
- Click
- FTAF
- Open
- Send
- Survey
- Unsubscribe

For Enterprise and Enterprise 2.0 accounts, not all attributes specified in the Attributes extract property exist in a child account. In this case, the attribute value is left blank in the file.

Output Types

- CVS
- TAB

Columns

This file can include more columns depending on the attribute set specified in the Attributes extract property.

Table 3: Attributes

Name	Description	Possible Values	Data Type	Character Length
ClientID	The system account identifier associated with attribute set	-2 ⁶³ (-9,223,372,036,854,775,808) to 2 ⁶³ -1 (9,223,372,036,854,775,807)	Numeric	Maximum length - big integer
SubscriberKey	Customer-specified subscriber unique identifier associated with attribute set. By default, the value is the same as EmailAddress.		String	254
EmailAddress	Subscriber email address identifier associated with attribute set		String	254
SubscriberID	System-generated subscriber unique identifier associated with		Numeric	Maximum length - big integer

Name	Description	Possible Values	Data Type	Character Length
	attribute set. SubscriberID relates to the Subscribers file SubscriberID column.			

Bounces

The bounce event extract file shows all the hard and soft bounces that occurred in a specific date range. The events in this report relate to all subscribers for a particular send.

Output Types

- CSV
- TAB
- XML

Columns

Table 4: Attributes

Name	Description	Possible Values	Data Type	Character Length
ClientID	The system account identifier associated with the attribute set	-2 ⁶³ (-9,223,372,036,854,775,808) to 2 ⁶³ -1 (9,223,372,036,854,775,807)	Numeric	Maximum length - big integer
SendID or JobID	Identifier associated with an email send		Number	Maximum length - big integer
SubscriberKey	Customer-specified subscriber unique identifier associated with attribute set. By default, the value is the same as EmailAddress.		String	254
EmailAddress	Subscriber email address identifier associated with attribute set		String	254
SubscriberID	System-generated subscriber unique identifier associated with attribute set. SubscriberID relates to the Subscribers file SubscriberID column.		Number	Maximum length - big integer
ListID	Identifier of the list ID associated with the subscriber in the send		Number	Maximum length - big integer
EventDate	Date the bounce event occurred		Datetime	

Name	Description	Possible Values	Data Type	Character Length
EventType	Identifies event type	Bounce	String	6
BounceCategory	Identifies bounce type	<ul style="list-style-type: none"> • Block bounce • Hard bounce • Soft bounce • Unknown bounce • Technical or other bounce 	String	50
SMTPCode	SMTP code related to the bounce		Numeric	Small integer
BounceReason	Detailed reason for bounce provided by external ISP or MTA	See Bounce Reason Table	String	8000
BatchID	Identifies batch associated with a triggered email sent event - defaults to 0 for a marketing list send	Sample values: Send Definition ID for the triggered send event	String	100
TriggeredSendExternalKey	External key associated to a triggered send definition if the bounce resulted from a triggered send request		String	100

Bounce Reason

Table 5: Bounce Reason

BounceSubcategoryText	BounceSubcategoryDescription
Authentication	Message lacks required authentication
Bad Address Syntax	Email address in invalid
Complaints	Your email is blocked due to complaints
Content	Message was filtered due to content
Data Format Error	Email is rejected due to formatting or line length errors
Domain Unknown	Recipient domain doesn't exist
High Unknown Address Pct.	Email is blocked due to the high quantity or percentage of unknown or inactive addresses on your list

BounceSubcategoryText	BounceSubcategoryDescription
Inactive Account	Address is temporarily unavailable
Mailbox Full	Recipient's mailbox is full or has exceeded storage allocation
Network Error	Connection lost or timed out during delivery
Other	Failed due to temporary failure or indecipherable bounce message
Other	This address does not accept mail
Other	This email is blocked by recipient
Other	Mailbox temporarily unavailable
Server Too Busy	Receiving email server is temporarily overwhelmed with delivery attempts, from you and other senders
Spamblocked	The remote mail server rejected this message due to characteristics of spam
Temporary Domain Failure	Receiving domain temporarily unavailable
Unknown	Response from email provider that doesn't match a BounceSubcategoryText value. This response can contain non-alphanumeric characters.
URL Block	Emails containing your URLs are blocked
User Unknown	Address is non-existent at the domain

ClickImpression

The click event extract file shows all the instances of a clicked link in an email occurring within the specified date range. The file also includes the impression region name associated with the click event. The events in this report can relate to all sends for subscribers on a list or related to a particular send.

Output Types

- CVS
- TAB
- XML

Columns

Table 6: ClickImpression

Name	Description	Possible Values	Data Type	Character Length
ClientID	The system account identifier associated with attribute set	-2 ⁶³ (-9,223,372,036,854,775,808) to 2 ⁶³ -1 (9,223,372,036,854,775,807)	Numeric	Maximum length - big integer
SendID or JobID	Identifier associated to an email send		Number	Maximum length - big integer

Name	Description	Possible Values	Data Type	Character Length
ImpressionRegionName	Name of impression region associated with the click impression event		String	60

Clicks

The click event extract file shows all instances of a clicked link in an email occurring within the specified date range. The events in this report relate to all sends for subscribers on a list or related to a particular send.

Output Types

- CSV
- TAB
- XML

Columns

Table 7: Clicks

Name	Description	Possible Values	Data Type	Character Length
ClientID	The system account identifier associated with attribute set	-2 ⁶³ (-9,223,372,036,854,775,808) to 2 ⁶³ -1 (9,223,372,036,854,775,807)	Numeric	Maximum length - big integer
SendID or JobID	Identifier associated to an email send		Number	Maximum length - big integer
SubscriberKey	Customer-specified subscriber unique identifier associated with attribute set. By default, the value is the same as EmailAddress.		String	254
EmailAddress	Subscriber email address identifier associated with attribute set		String	254
SubscriberID	System-generated subscriber unique identifier associated with attribute set.SubscriberID relates to the Subscribers fileSubscriberIDcolumn.		Number	Maximum length - big integer
ListID	Identifier for the list the job sent to		Number	Maximum length - big integer
EventDate	Date click event occurred		Datetime	

Name	Description	Possible Values	Data Type	Character Length
EventType	Identifier for the event type	Click	String	6
SendURLID	Unique identifier for individual URL in send		Number	Maximum length - big integer
URLID	Value used by applicable database to identify target URL of the link		Number	Maximum length - big integer
URL	Target URL of the link		String	4000
Alias	Value in Alias attribute of the link		String	500
BatchID	Identifies batch associated with a triggered email sent event - defaults to 0 for a marketing list send	Sample values: SendURLID: 1234567890 SendURLID: 1234567890 SendURLID: 1234567890 SendURLID: 1234567890	Number	Maximum length - big integer
TriggeredSendExternalKey	External key associated to a triggered send definition if the bounce resulted from a triggered send request		String	100
Browser	Browser where click event occurred. This field is included only if you selected Include User Agent Information .		Text	none
EmailClient	Email client the subscriber received the email in. This field is included only if you selected Include User Agent Information .		Text	none
OperatingSystem	Subscriber's operating system. This field is included only if you selected Include User Agent Information .		Text	none
Device	Device where click event occurred. This field is included only if you		Text	none

Name	Description	Possible Values	Data Type	Character Length
	selected Include User Agent Information.			

Conversions

The conversions file contains a row for each conversion event associated with a subscriber related to an email send job.

Output Types

- CSV
- TAB

Columns

Table 8: Conversions

Name	Description	Possible Values	Data Type	Character Length
ClientID	The system account identifier associated with attribute set	-2 ⁶³ (-9,223,372,036,854,775,808) to 2 ⁶³ -1 (9,223,372,036,854,775,807)	Numeric	Maximum length - big integer
SendID or JobID	Identifier associated with an email send		Numeric	Maximum length - big integer
SubscriberKey	Customer-specified subscriber unique identifier associated with attribute set. By default, the value is the same as EmailAddress.		String	254
EmailAddress	Subscriber email address identifier associated with attribute set		String	254
SubscriberID	System-generated subscriber unique identifier associated with attribute set. SubscriberID relates to the Subscribers file SubscriberID column.		Number	Maximum length - big integer
ListID	Identifier of the list ID associated with the subscriber in the send		Number	Maximum length - big integer
EventDate	Date the bounce event occurred		Datetime	
EventType	Identifies event type	Conversion	String	10

Name	Description	Possible Values	Data Type	Character Length
BatchID	Identifies batch associated with a triggered email sent event - defaults to 0 for a marketing list send	Sample values: Send Date, Triggered Batch ID 1234,1/2/2009,,,,,"Coupon",1 1234,1/2/2009,,,,,"Coupon",2 1238,1/10/2009,,,,,"Coupon",1	String	100
TriggeredSendExternalKey	External key associated to a triggered send definition if the bounce resulted from a triggered send request		String	100
ReferringURL	Referring URL used in the Social Forward activity		varchar	
LinkAlias	Value in the Alias attribute of the link		String	500
ConversionData			Text	none
URLID	Value used by the applicable database to identify the target URL of the link		Number	Maximum length - big integer

ListMembershipChanges

The ListMembershipChanges file includes rows that contain information on the subscriber, list, and status data change for every event.

Output Types

- CSV
- TAB

Columns

Table 9: ListMembershipChanges

Name	Description	Possible Values	Data Type	Character Length
ClientID	The system account identifier associated with attribute set	-2^63 (-9,223,372,036,854,775,808) to 2^63-1 (9,223,372,036,854,775,807)	Numeric	Maximum length - big integer
SubscriberKey	Customer-specified subscriber unique identifier associated with attribute set. By default, the value is the same as EmailAddress.		String	254

Name	Description	Possible Values	Data Type	Character Length
EmailAddress	Subscriber email address identifier associated with attribute set		String	254
SubscriberID	System-generated subscriber unique identifier associated with attribute set.SubscriberID relates to the Subscribers fileSubscriberIDcolumn.		Numeric	Maximum length - big integer
ListID	Identifier for the list the job sent to		Numeric	Maximum length - big integer
ListName	Name of list the job sent to		String	60
DateJoined	Date subscriber joined list		Datetime	Small
JoinType	Specifies how subscriber joined the list	<ul style="list-style-type: none"> • API:Joined via the API • Application:Joined via wizard • CustomObject:Joined via a send to a data extension • FTAF:Foward to a Friend • Import:Joined via file-based import • Move/Copy:Result of a move or copy • Salesforce:Joined via Salesforce • Segmentation:Joined by segmenting onto a list • WebCollect:Joined via WebCollect • Unspecified:Unspecified join 	String	20
DateUnsubscribed	Date subscriber moved to unsub status		Datetime	Small
UnsubscribeReason	Reason for unsubscribe		String	100

Lists

The lists file contains rows including name, description, and other information for a unique list.

Output Types

- CSV
- TAB

Columns

Table 10: Lists

Name	Description	Possible Values	Data Type	Character Length
ClientID	The system account identifier associated with attribute set	-2 ⁶³ (-9,223,372,036,854,775,808) to 2 ⁶³ -1 (9,223,372,036,854,775,807)	Numeric	Maximum length - big integer
ListID	Identifier for list the job sent to		Numeric	Maximum length - big integer
Name	Name of list		String	100
Description	Description of list		String	100
DateCreated	Date the application added the list		Datetime	
Status	Status of list	<ul style="list-style-type: none"> • Active: A list available in the account • Deleted: A list available just for tracking and reporting purposes due to deletion 	String	20
ListType	Type of list	<ul style="list-style-type: none"> • Master: All Subscribers list • Private: List that does not display in the default profile center • Public: List that displays in the default profile center • Group: A group based on a list • Other: Triggered Send, Salesforce, or Microsoft Dynamics CRM hidden lists 	String	20

NotSent

This list contains information on send jobs and messages that didn't send. Only the most recent two months of data is available.

Output Types

- CSV
- TAB

Columns

Table 11: NotSent

Name	Description	Possible Values	Data Type	Character Length
ClientID	The system account identifier associated with attribute set	-2 ⁶³ (-9,223,372,036,854,775,808) to 2 ⁶³ -1 (9,223,372,036,854,775,807)	Numeric	Maximum length - large integer
SendID or JobID	Identifier associated with an email send		Number	Maximum length - large integer
SubscriberKey	Customer-specified subscriber unique identifier associated with attribute set. By default, the value is the same as EmailAddress.		String	254
EmailAddress	Subscriber email address identifier associated with the attribute set. If the subscriber opted out, is suppressed, or is excluded by List Detective, this value can be replaced with the SubscriberKey if Email Address is not available.		String	254
SubscriberID	System-generated subscriber unique identifier associated with attribute set.SubscriberID relates to the Subscribers fileSubscriberIDcolumn.		Number	Maximum length - large integer
ListID	Identifier for the list the job sent to		Number	Maximum length - large integer
EventDate	Date event occurred		Datetime	
EventType	Identifier for the event type	NotSent	String	

Name	Description	Possible Values	Data Type	Character Length
BatchID	Identifies batch associated with a triggered email sent event - defaults to 0 for a marketing list send	Sample values: SendID 14208 14209 14210	Number	Maximum length - large integer
TriggeredSendExternalKey	External key associated with a triggered send definition if the bounce resulted from a triggered send request		String	100
Reason	Detailed reason the email wasn't sent		Text	none

Opens

An Open event extract file shows open instances of an HTML email during the date range. The open events relate to all sends for subscribers on a list or to a particular send.

Output Types

- CSV
- TAB
- XML

Columns

Table 12: Opens

Name	Description	Possible Values	Data Type	Character Length
ClientID	System account identifier associated with the attribute set	-2^63 (-9,223,372,036,854,775,808) to 2^63-1 (9,223,372,036,854,775,807)	Numeric	Maximum length - big integer
SendID or JobID	Identifier associated with an email send		Number	Maximum length - big integer
SubscriberKey	Customer-specified subscriber unique identifier associated with attribute set. By default, the value is the same as EmailAddress.		String	254
EmailAddress	Subscriber email address identifier associated with attribute set		String	254

Name	Description	Possible Values	Data Type	Character Length
SubscriberID	System-generated subscriber unique identifier associated with attribute set. SubscriberID relates to the Subscribers file SubscriberID column.		Number	Maximum length - big integer
ListID	Identifier for the list the job sent to		Number	Maximum length - big integer
EventDate	Date event occurred		Datetime	
EventType	Identifier for the event type	Open	String	6
BatchID	Identifies batch associated with a triggered email sent event - defaults to 0 for a marketing list send	Sample values: SendID, ClickID, Address, BatchID 14200, 14200, 14200, 14200 14200, 14200, 14200, 14200 14200, 14200, 14200, 14200	Number	Maximum length - big integer
TriggeredSendExternalKey	External key associated to a triggered send definition if the bounce resulted from a triggered send request		String	100

SendImpression

The SendImpression event extract file shows instances of an email send occurring during a specified date range. The file also includes the impression region name associated with the click event. The send events relate to all sends for subscribers on a list or to a particular send.

Output Types

- CSV
- TAB
- XML

Columns

Table 13: SendImpression

Name	Description	Possible Values	Data Type	Character Length
ClientID	System account identifier associated with the attribute set	-2^63 (-9,223,372,036,854,775,808) to 2^63-1 (9,223,372,036,854,775,807)	Numeric	Maximum length - big integer

Name	Description	Possible Values	Data Type	Character Length
SendID	Identifier associated to an email send		Number	Maximum length - big integer
SubscriberKey	Customer-specified subscriber unique identifier associated with attribute set. By default, the value is the same asEmailAddress.		String	254
EmailAddress	Subscriber email address identifier associated with attribute set		String	254
SubscriberID	System-generated subscriber unique identifier associated with attribute set. SubscriberID relates to the Subscribers file SubscriberID column.		Number	Maximum length - big integer
ListID	Identifier for the list the job sent to		Number	Maximum length - big integer
EventDate	Date click event occurred		Datetime	
EventType	Identifier for the event type	Sent	String	6
BatchID	Identifies batch associated with a triggered email send event - defaults to 0 for a marketing list send	Sample values: 1200 1400 1800 2200	Number	Maximum length - big integer
TriggeredSendExternalKey	External key associated to a triggered send definition if the bounce resulted from a triggered send request		String	100
ImpressionRegionName	Name of impression region associated with the click impression event		String	60

SendJobImpression

The SendJobImpression file represents all impression tracking information from sends with activity logged against them for the timeframe of the extract. This list reflects only jobs that already processed. Sends scheduled for the future do not appear in this list.

Output Types

- CSV
- TAB

Columns

Table 14: SendJobImpression

Name	Description	Possible Values	Data Type	Character Length
ClientID	The system account identifier associated with attribute set	-2 ⁶³ (-9,223,372,036,854,775,808) to 2 ⁶³ -1 (9,223,372,036,854,775,807)	Numeric	Maximum length - big integer
SendID or JobID	Identifier associated to an email send		Numeric	Maximum length - big integer
ImpressionRegionID	ID of impression region associated with the send event		Numeric	Maximum length - big integer
FixedContent	Defines whether content is fixed or now	0 or 1	Boolean	1
ImpressionRegionName	Name of impression region associated with the send event		String	60
EventDate	Date sent event occurred		Datetime	

SendJobs

The SendJobs file represents all sends with activity logged against them for the timeframe of the extract. This list reflects only jobs that already processed. Sends scheduled for the future do not appear in this list.

Once the tracking extract process creates a SendJobs table, the only column value that can change is JobStatus. All other data associated with the job is static. JobStatus only changes if the send processes during the extract and completes at a later date.

Output Types

- CSV
- TAB

Columns

Table 15: SendJobs

Name	Description	Possible Values	Data Type	Character Length
ClientID	The system account identifier associated with attribute set	-2 ⁶³ (-9,223,372,036,854,775,808) to 2 ⁶³ -1 (9,223,372,036,854,775,807)	Numeric	Maximum length - big integer
SendID or JobID	Identifier associated to an email send		Numeric	Maximum length - big integer
FromName	From name associated with the send. For On-Your-Behalf sends, this value contains the ChannelMember personalization strings.		String	130
FromEmail	From email address associated with the send. For On-Your-Behalf sends, this value contains the ChannelMember personalization strings.		String	100
SchedTime	Schedule date and time of the send		Datetime	Small
SentTime	Message delivery date and time to Marketing Cloud		Datetime	Small
Subject	Subject line of email associated with the send		String	200, but can exceed this value depending on selected extract options
EmailName	Name of email associated with the send		String	100
TriggeredSendExternalKey	External key associated to a triggered send definition if send resulted from a triggered send request		String	100
SendDefinitionExternalKey	External key associated to the user-initiated send definition that initiated send, as applicable		String	100
JobStatus	Current job status	<ul style="list-style-type: none"> • Scheduled • Sending • Completed 	String	30

Name	Description	Possible Values	Data Type	Character Length
		<ul style="list-style-type: none"> Stopped Canceled Error Deleted PostSendCallout New 		
PreviewURL	Link to preview of email sent to subscriber. Preview does not incorporate personalization.		String	300
IsMultipart	Specifies if email sent in multipart MIME	<ul style="list-style-type: none"> True False 	Boolean	5
Additional	EventID entered at time of send		String	50

Sent

The Sent event extract file shows instances of an email send occurring during a specified date range. The send events relate to all sends for subscribers on a list or to a particular send.

Output Types

- CSV
- TAB
- XML

Columns

Table 16: Sent

Name	Description	Possible Values	Data Type	Character Length
ClientID	The system account identifier associated with attribute set	-2 ⁶³ (-9,223,372,036,854,775,808) to 2 ⁶³ -1 (9,223,372,036,854,775,807)	Numeric	Maximum length - big integer
SendID	Identifier associated to an email send		Number	Maximum length - big integer
SubscriberKey	Customer-specified subscriber unique identifier associated with attribute set. By default, the value is the same as EmailAddress.		String	254

Name	Description	Possible Values	Data Type	Character Length
EmailAddress	Subscriber email address identifier associated with attribute set		String	254
SubscriberID	System-generated subscriber unique identifier associated with attribute set. SubscriberID relates to the Subscribers file SubscriberID column.		Number	Maximum length - big integer
ListID	Identifier for the list the job sent to		Number	Maximum length - big integer
EventDate	Date sent event occurred		Datetime	
EventType	Identifier for the event type	Sent	String	6
BatchID	Identifies batch associated with a triggered email sent event - defaults to 0 for a marketing list send	Sample values: 0 1 2 3	Number	Maximum length - big integer
TriggeredSendExternalKey	External key associated to a triggered send definition if the bounce resulted from a triggered send request		String	100

Spam Complaints

The Extract Spam Complaints extract file shows subscriber, list, and domain data, including sendID and date, for subscribers who received an email and reported it as spam.

Output Types

- .csv
- .txt
- .xml

Columns

Table 17: Spam Complaints

Name	Description	Possible Values	Data Type	Character Length
ClientID	System account identifier associated with an attribute set	-2 ⁶³ (-9,223,372,036,854,775,808) to 2 ⁶³ -1 (9,223,372,036,854,775,807)	Number	Maximum length - big integer
SendID or JobID	Identifier associated to an email send		Number	Maximum length - big integer
SubscriberKey	Customer-specified unique identifier for a subscriber associated with an attribute set. The default value is the same as EmailAddress.		String	254
EmailAddress	Subscriber email address identifier associated with attribute set		String	254
SubscriberID	System-generated unique identifier for a subscriber associated with an attribute set. SubscriberID relates to the Subscribers file's SubscriberIDcolumn.		Number	Maximum length - big integer
ListID	Identifier for the list the job sent to		Number	Maximum length - big integer
EventDate	Date the spam complaint event occurred		Datetime	
EventType	Identifier for the event type	SpamComplaint	String	6
BatchID	Unique identifier for individual URL in the send		Number	Maximum length - big integer
TriggeredSendExternalKey	External key associated to a triggered send definition if the complaint resulted from a triggered send request		String	100
Domain	Recipient's email address domain		String	100

StatusChanges

The StatusChanges file shows instances of change in a subscriber's status.

Output Types

- CSV
- TAB

Columns

Table 18: StatusChanges

Name	Description	Possible Values	Data Type	Character Length
ClientID	System account identifier associated with the attribute set	-2 ⁶³ (-9,223,372,036,854,775,808) to 2 ⁶³ -1 (9,223,372,036,854,775,807)	Numeric	Maximum length - big integer
SubscriberKey	Customer-specified subscriber unique identifier associated with the attribute set. By default, the value is the same as EmailAddress.		String	254
EmailAddress	Subscriber email address identifier associated with the attribute set		String	254
SubscriberID	System-generated subscriber unique identifier associated with the attribute set. SubscriberID relates to the Subscribers file SubscriberID column.		Number	Maximum length - big integer
OldStatus	Previous subscriber status	<ul style="list-style-type: none"> • Normal • Held • Unsub • Deleted 	String	10
NewStatus	New status of subscriber	<ul style="list-style-type: none"> • Normal • Held • Unsub • Deleted 	String	10
DateChanged	Time and date that subscriber status change occurred		Datetime	

Subscribers

The Subscribers file contains subscribers with a tracking event occurring during a specified data range.

Output Types

- CSV
- TAB

Columns

Table 19: Subscribers

Name	Description	Possible Values	Data Type	Character Length
ClientID	The system account identifier associated with attribute set	-2 ⁶³ (-9,223,372,036,854,775,808) to 2 ⁶³ -1 (9,223,372,036,854,775,807)	Numeric	Maximum length - big integer
SubscriberKey	Customer-specified subscriber unique identifier associated with attribute set. By default, the value is the same as EmailAddress.		String	254
EmailAddress	Subscriber email address identifier associated with attribute set		String	254
SubscriberID	System-generated subscriber unique identifier associated with attribute set. SubscriberID relates to the Subscribers fileSubscriberIDcolumn.		Numeric	Maximum length - big integer
Status	Status of subscriber	<ul style="list-style-type: none"> • Active: Normal • Bounced: Message attempts have bounced but the subscriber does not qualify as held. • Undeliverable: Three or more sequential message attempts have bounced and the first and last sequential bounces were more than 14 days apart. • Unsub: Subscriber has unsubscribed 	String	10

Name	Description	Possible Values	Data Type	Character Length
		from the message send.		
DateHeld	Date subscriber moved to Held status		Datetime	Small
DateCreated	Date application added subscriber		Datetime	Small
DateUnsubscribed	Date subscriber moved to unsubscribed status		Datetime	Small

Surveys

The Surveys file contains information on responses to surveys included in email sends.

Output Types

- CSV
- TAB

Columns

Table 20: Surveys

Name	Description	Possible Values	Data Type	Character Length
ClientID	The system account identifier associated with attribute set	-2 ⁶³ (-9,223,372,036,854,775,808) to 2 ⁶³ -1 (9,223,372,036,854,775,807)	Numeric	Maximum length - big integer
SendID or JobID	Identifier associated to an email send		Numeric	Maximum length - big integer
SubscriberKey	Customer-specified subscriber unique identifier associated with attribute set. By default, the value is the same as EmailAddress.		String	254
EmailAddress	Subscriber email address identifier associated with attribute set		String	254
SubscriberID	System-generated subscriber unique identifier associated with attribute set. SubscriberID relates to the Subscribers fileSubscriberIDcolumn.		Number	Maximum length - big integer

Name	Description	Possible Values	Data Type	Character Length
ListID	Identifier for the list the job sent to		Number	Maximum length - big integer
EventDate	Date click event occurred		Datetime	
EventType	Identifier for the event type		String	6
Question	Question asked in survey			
Answer	Subscriber answer to survey question			
BatchID	Identifies batch associated with a triggered email sent event - defaults to 0 for a marketing list send	Sample values: SendID, JobID, TriggerSendID, BatchID 24209, 24209, 24209, 24209, 24209 24209, 24209, 24209, 24209, 24209 24209, 24209, 24209, 24209, 24209	Number	Maximum length - big integer
TriggeredSendExternalKey	External key associated to a triggered send definition if the bounce resulted from a triggered send request		String	100

Unsubs

The Unsubs file includes information on unsubscriptions that occurred during a specified data range. The unsubscribe events can be related to all sends for subscribers on a list or to a particular send.

Output Types

- CSV
- TAB

Columns

Table 21: Unsubs

Name	Description	Possible Values	Data Type	Character Length
ClientID	The system account identifier associated with attribute set	-2^63 (-9,223,372,036,854,775,808) to 2^63-1 (9,223,372,036,854,775,807)	Numeric	Maximum length - big integer
SendID or JobID	Identifier associated to an email send		Numeric	Maximum length - big integer
SubscriberKey	Customer-specified subscriber unique identifier associated with		String	254


Data extracts with Include options selected provide that data within one of the compressed files produced by the activity. For example, if you create an extract that includes Extract Clicks, then select **Include Unique Clicks**, the unique clicks data appears in the Clicks file produced by the process. The activity does not produce a separate file labeled Unique Clicks.

 **Note:** Each extract output type produces a single file within the zipped file. Each data extract labeled Include appears within an extract file within the zipped file.

Tracking Extract Output	Description
Extract Attributes	Contains the attributes associated with subscribers in an account. The system only outputs data for subscribers who received one of these events over the specified extract range: Bounce, Click, Forward To A Friend, Open, Send, Survey, Unsubscribe.
ExtractBounces	Shows all hard and soft bounces occurring within a specified date range. The events in this report can relate to all sends for subscribers on a list, or to a particular send.
ExtractClickImpressions	Shows all of instances of link clicks in an email occurring within the specified date range. The file also includes the impression region name associated with the click event. The events in this report can relate to all sends for subscribers on a list, or to a particular send.
ExtractClicks	Shows all instances of a link in an email being clicked occurring within the specified date range. The events in this report can relate to all sends for subscribers on a list, or to a particular send.
ExtractConversions	Contains a row for each conversion event associated to a subscriber related to an email send job.
ExtractListMembershipChanges	Includes rows that contain information on the subscriber, list, and status data change for every event.
ExtractLists	Contains rows including name, description, and other information for a unique list.
ExtractNotSent	Contains information on send jobs and messages that were not sent.
ExtractOpens	Shows instances of an HTML email being opened that occurred during the date range. The open events in this report can relate to all sends for subscribers on a list, or to a particular send.
ExtractSendJobImpressions	Shows all impression tracking information from sends with logged activity for the extract timeframe. This list reflects only jobs that have already processed. Sends scheduled for the future do not appear in this list.
Extract SendJobs	Shows all sends that have activity logged against them for the extract timeframe. Only jobs that have already processed are included. Sends scheduled for the future do not appear in this list.

Tracking Extract Output	Description
Extract Sent	Shows instances of an email being sent occurring during a specified date range. The send events in this report can relate to all sends for subscribers on a list, or to a particular send.
Extract SentImpression	Shows instances of an email being sent occurring during a specified date range. The file also includes the impression region name associated with the click event. The send events in this report can relate to all sends for subscribers on a list, or to a particular send.
Extract Spam Complaints	Shows subscriber, list, and domain data, including sendID and date, for subscribers who received an email and report it as spam.
Extract StatusChanges	Shows instances of change in a subscriber's status.
Extract Subscribers	Contains subscribers with a tracking event occurring during a specified data range.
Extract SurveyResponses	Contains information on responses to surveys included in email sends.
Extract Unsubs	Includes information on unsubscriptions during a specified date range. The unsubscribe events in this report can relate to all sends for subscribers on a list, or to a particular send.

These tracking extract options are available in addition to each tracking extract's output. Data extracts with Include options selected provide that data within one of the compressed files produced by the activity.


"Includes" Option	Description
Include All Subscribers	Include all subscribers in the Subscribers file of the tracking extract. If unchecked, the extract only includes subscribers with activity corresponding to the events you select to include in the extract.
Include GEO	Include geolocation data  Note: If you purchased a Sender Authentication Package (SAP) through Salesforce, your Marketing Cloud org doesn't populate geolocation data.
Include Milliseconds	Include timestamps that display time up to the millisecond
Include Unique Clicks	Includes a count of the first time a single subscriber clicks any link in an email. If the same subscriber returns to the email and clicks again, that does not count as a unique click. Include Unique Clicks measures how many people clicked within the email as opposed to how many total clicks occurred.
Include Unique Opens	Includes a count of the first time a single subscriber opens an email, measuring how many unique subscribers opened the email.

"Includes" Option	Description
Include User Agent Information	Include user agent data related to the open or click to see, for example, Operating System, Email Client, Browser, or Device information.
Include All List Members	Include all list members in the tracking extract. If unselected, the extract only includes list members with activity during the specified time.
Include Campaign ID	Include the Campaign ID of the campaign each subscriber is part of.
Include Inferred Opens	Include all inferred opens, or clicks an email without a recorded open. If unselected, the extract only includes specific opens where the email was clicked and rendered.
Include Test Sends	Include test sends in send totals.
Include Unique For URL Clicks	Include a count of the first time each link within an email is clicked. If there are three separate URLs included in the email, a single subscriber could have up to three separate unique clicks.
Include Unsub Reason	Include the user-specified Unsubscribe Reason, including custom Unsubscribe Reasons if applicable.
Quote Text	Surround all text with double quotation marks. This parameter replaces existing double quotes in the tracking extract with two single quotation marks.
Unicode Output	Save the extract in UTF-16 format instead of ASCII.
Use Local TZ in Query	Show timestamps in the output file in the local timezone.

Create an Audit Trail Data Extract Activity

Use an extract activity to extract your audit data into a CSV file to prepare it for file transfer.

1. In Automation Studio, on the Activities tab, click **Create Activity**.
2. On the Create New Activity window, select **Data Extract**, and then click **Next**.
3. Complete the fields in the Properties section. For Extract Type, select **Audit Trail Activity Log** or **Audit Trail Access Log**.
4. Complete the fields in the Configuration section.

 **Important:** The maximum value that you can specify for the date range depends on your edition. Basic Audit Trail provides up to 30 days of data, and Advanced Audit Trail provides up to 60 days.

5. Review the activity summary. When you're done, click **Finish**.

For more information about configuring a data extract activity, see [Data Extract Activity](#).

[Audit Trail Activity Log Fields](#)

Learn about the data that's available in the Audit Trail Activity Log extract in Automation Studio.

[Audit Trail Access Log Fields](#)

View the audit data from the Audit Trail security event extract available in Automation Studio.

SEE ALSO:

[Audit Trail Activity Log Fields](#)

Audit Trail Activity Log Fields

Learn about the data that's available in the Audit Trail Activity Log extract in Automation Studio.

Column	Description
CreatedDate	Date and time of the security action. Date and time values are based on the time zone that was selected when the extract was created.
EID	The Enterprise ID that represents the top-level account or business unit ID.
MID	The Member ID that represents the account or business unit ID.
UserID	The ID of the user performing the security action.
EmployeeID	The ID of the employee performing the security action.
EmployeeName	The name of the employee who performed the action.
ObjectTypeID	The ID of the object.
ObjectTypeName	The name of the object associated with the ObjectTypeID.
OperationID	The ID of the operation being performed against the object.
OperationName	The name of the operation being performed against the object associated with the OperationID.
ObjectID	The specific ID of the object that is the subject of the security action.
ObjectName	The name of the object that is the subject of the security action associated with the ObjectID.
TransactionID	An ID to represent related security actions.

Audit Trail Access Log Fields

View the audit data from the Audit Trail security event extract available in Automation Studio.

Security Event Extract Fields

This table describes the columns and values that are present in the Audit Trail Access Log.

Column	Description
User	
UserName	
AccessDate	

Column	Description
FromIP	
SecurityEventTypeID	See Security Events.
SecurityEventType	
LoginStatusID	See Login Status.
LoginStatusName	
UserAgent	The session ID associated with the access event. This column is only available to Advanced Audit Trail users.
Event Source	The source of the access event. This column is only available to Advanced Audit Trail users.

Security Events

This table lists the possible values for SecurityEventTypeID and SecurityEventType. The value in the ID column corresponds to the value of the SecurityEventTypeID.

ID	SecurityEventType	Description
1	Login Attempted	Duplicate values can be present when users log in from different machines, or when viewed using spreadsheet software that truncates milliseconds from time values.
8	Logout	
2	Security Question Answered	
3	Password Changed	
4	Administrator Access	A member of the Salesforce Support team has impersonated into the account.
5	Administrator Unlock	Logged when Administrator unlocks a user.
6	Redirect	For users provisioned with IMH Redirect flow, the user is redirected to CAS pages and they try to log in from Members.
7	Security Setting Changed Impersonation	
9	Request Authorization Code	
10	Request Token	

Login Status

This table lists the possible values for LoginStatusID and LoginStatusName. The value in the ID column corresponds to the value of the LoginStatusID.

ID	LoginStatusName	Description
4	Successful	

ID	LoginStatusName	Description
20	Logout	
0	AccountDisabled	
1	Failed	
2	MustChangePassword	
3	NotSet	Login status hasn't been set.
5	UserAccountDisabled	
6	InMaintenance	
7	UsernamePasswordLock	
8	SecurityQuestionAnswerLock	
9	BusinessUnitDisabled	
10	SystemDBUnavailable	MC Internal Error regarding DB Connectivity to verify users.
11	AccountLocked	
12	FailedNotOnWhitelist	
13	FailedInvalidActivationLink	Activation Link in user setup email is invalid or expired.
14	FailedDeviceNotActivated	Unable to activate the device using two-factor authentication.
15	FailedDeviceNotActivateNeedMobile	The login failed because the user's device isn't activated as required by the account's security settings, and a mobile number is required for SMS verification.
16	FailedSsoOnlyLogin	
17	SecurityActivationCodeLock	The user has been locked out from using their username or password, security question or answer, and activation code.
18	MustChangePasswordNoIDV	The user must change their password.
19	InvalidCasApplication	
21	AppNotAuthorized	App not authorized as part of OAuth2 Authorize API.

SEE ALSO:

[Audit Trail Activity Log Fields](#)

Verification Activity

Avoid unintended outcomes by verifying the data used in an Automation Studio automation.

Use the Verification activity to avoid unintended automation outcomes. The activity lets you select a target data extension in your automation and evaluate the target data extension for conditions you set.

When the activity detects the conditions you set are met, the activity can stop the automation or send you an email notification or both, depending on the actions you define. If you choose to receive a notification when the conditions are met, you can opt to include a note in the email to provide more context for investigation or troubleshooting.

For

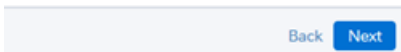
Data Extension Name
New Customers -
2016-09-27T074536265

If

Count is less than
1,000

Then

Trigger Actions
Stop Automation
Send Email Notification
Log Verification Outcome



Hover over the Verification activity icon in the automation's Run Log to view the latest run's results. These results give greater confidence that data used in subsequent activities in the automation is what you intend.

VERIFICATION

TARGET RULES SUMMARY

Target Data Extension				For Data Extension Name New Customers - 2016-09-27T074536265
Data Extension Name New Customers - 2016-09-27T074536265	Current Record Count 6	Field Count 21	Updated 09/27/2016 7:45 AM by Marketing Assistant	
Conditions				If Count is less than 1,000
Count is <input type="text" value=""/> less than <input type="text" value="1000"/>				
Trigger Actions				Then Trigger Actions Stop Automation Send Email Notification Log Verification Outcome
<input checked="" type="checkbox"/> Stop Automation <input checked="" type="checkbox"/> Send Email Notification		Recipient Email Addresses <input type="text" value="marketingmanager@into.com"/> <input type="text" value="marketingassistant@into.com"/>		
Note (Sent in Email) Data extension contains fewer than 1000 rows. Make sure the processes that run before this operated as intended.				
888/1000				

Cancel
Back **Next**

Considerations

- The Verification activity can only be used in an automation and cannot be reused across multiple automations. Configuring the activity outside an automation is not supported.
- You can add multiple Verification activities in a single step. However, Verification activities cannot be placed in the same step as any other type of activity.
- The activity shows target data extensions of activities in the automation first by default, but you can use the activity to find and verify any data extension.

[Verification Activity Example](#)

This example shows how to verify the data your automation uses in Automation Studio.

[Verify Automation Data](#)

Verify the data your automation uses in Automation Studio.

Verification Activity Example

This example shows how to verify the data your automation uses in Automation Studio.

Use the verification activity to avoid unintended outcomes in an automation by monitoring a data extension used in the automation for an unexpected record count.

In this example, a marketer for Northern Trails Outfitters (NTO) has an automation that runs daily. The automation imports a file from NTO's e-commerce system, queries the data imported to produce an audience segment, and then sends a message. Occasionally, the file provided from the e-commerce system is incomplete, resulting in an unexpectedly low audience segment and send count. The marketer uses a verification activity to catch these scenarios and course-correct before the segmentation and send occur.

To achieve this result, the marketer follows these steps.

1. A verification activity is dragged into the workflow between the step with the Import activity and the step with the SQL Query activity.
2. The marketer sets the verification activity to monitor the Import's destination data extension. If the import into the data extension results in a record count that is less than 500, the activity stops the automation and sends the marketer an email notification.
3. When this unexpected scenario occurs, Marketing Cloud stops the automation before the segmentation occurs and prevents the message from sending to the incorrect audience. The marketer can promptly act to correct the file and rerun the automation as intended.


Conditions

Count

Trigger Actions

Stop Automation

Send Email Notification

 Verification outcome is logged to the automation's Activity Run Log.

Recipient Email Addresses

Note (Sent in Email)


965/1000

Verify Automation Data


Verify the data your automation uses in Automation Studio.

To verify that records in a data extension in an automation meet your expectation, set up a verification activity. The activity analyzes target data extensions populated by the automation's activities or another source, then triggers actions based on user-defined conditions.

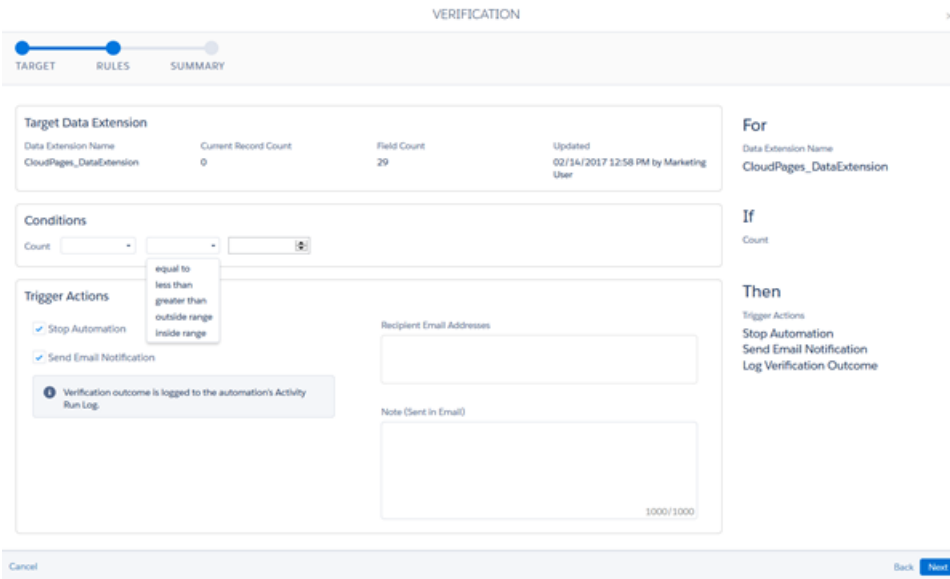
1. Drag the verification activity into an automation step.

 **Note:** You can add more than one verification activity in a single step, but not in the same step as any other type of activity.

2. Click **Configure**.
3. Select the target data extension to verify. Data extensions populated by activities in the automation appear by default.
 - a. To select from a larger set, choose **All**.

 **Tip:** If you do not see the data extension that you expect, save the automation and retry.

4. Click **Next**.
5. Set the conditions that the verification activity monitors.



6. Choose the action the automation takes when the target data extension meets the conditions you set.
 - a. To receive an email when verification conditions are met, specify the email addresses that receive the notification.
 - b. If necessary, add a note to explain the condition that was met, or any other information you want to include in the notification to aid in troubleshooting.
7. Complete activity setup.

The automation's Activity Run Log logs the verification activity's outcome.

Mapping Contacts to Business Unit


Map existing Contacts to selected Business Units to maintain brand and geographical boundaries when you activate segments in Data Cloud.

Prerequisites

- Enterprise 2.0 account
- Enable Contacts to Business Unit at the Enterprise level
- Only Marketing Cloud Engagement users with Administration > Account > Update Account and Security Settings permission assigned are able to enable Contacts to Business Unit mapping for all Business Units

Configure User Permissions

When Contacts to Business Unit mapping is enabled, a new activity in Automation Studio allows you to create automations to define the Contacts to Business Unit mappings. Before changing your mappings, ensure that the Business Unit mapping permission is assigned to the user. Only users that have the right "Contacts > Contact to Business Unit Mapping" permission are able to change your mappings. This permission gives you three operations: View, Add, and Remove mappings.

- **View:** You can view the list of Business Units the Contact has been mapped to in Contact Details.
 - **Add:** You can add a Business Unit Mapping from a Contact.
 - **Remove:** You can remove a Business Unit Mapping from a Contact.
-  **Note:** Without permission to see a Contact you can't add or remove a mapping to or from the Contact.

Configure Business Unit Mappings

Enter the mapping using Contacts to Business Unit mapping in Automation Studio. To maintain brand and geographical boundaries while activating segments, map all existing contacts.

 **Note:** Continue updating the mappings for new contacts after the initial mapping to keep the information updated in Data Cloud.

To configure the activity you need:

- The list of contacts to map, located in your data extension. Map Contacts using the Contact Key. Only your Contact Key and Business Unit columns are used by the activity.
- The target Business Unit to map the contacts. You can't configure the Business Unit in the activity. The Business Unit you're signed into is the Business Unit used.

You can choose to add and remove the activity. Select add to map Contacts to the target Business Unit. In the source data extension, the activity skips Contact Keys that don't match with Contacts in Messaging and Journeys.

Select remove to remove the mapping for a list of Contacts from a Business Unit. When a Contact is mapped to more than one Business Unit, the Contact is removed from the target Business Unit. When you create the activity, schedule it as a one-time or recurring run, depending on how often you ingest new Contacts.

 **Note:** The Contact Key identifies the Contact in the source file. You can only select fields in the source file that are Contact Keys.

Automation Studio Activities Reference

Learn more about the activities that are available in Automation Studio.

These activities are available for use in an automation.


Activity Name	Description
Refresh Group	Reapplies rules in a group definition to create a subset of subscribers in a list. Before you can use a group refresh activity, you must create a group definition in Email Studio.
Send Email	Choose and configure an email message to send on its own or in sequence according to a schedule. Configuring the Send Email Activity creates a Send Definition that you can use in other automations.
SQL Query	Retrieves data extension or data view information according to criteria you set, then includes that data in a data extension. Use SQL to create the query used in this activity. You can run up to 40 filter activities and query activities simultaneously. Activities over this limit are queued.
Import	Updates a subscriber list or data extension using an external file. You provide information to create an import definition, which gives import file details and the import activity's behavior while running. To access Salesforce Objects and Reports, navigate to Interactions in Email Studio.
File Transfer	Unzips or decrypts a file from a configured file location.

Activity Name	Description
Script	Executes your Server-Side JavaScript to accomplish tasks in an email or landing page.
Filter	Applies a data filter to create a group or data extension containing records that meet a set of criteria. You can run up to 40 filter activities and query activities simultaneously. Activities over this limit are queued.
Data Extract	Creates a file to use outside of the application. This activity can also be used to transform an XML file to a comma-delimited, tab-delimited, or pipe-delimited file for import into your account.
Wait	Sets an automation to wait for a specific duration, or until a specific time, before continuing.
Report Definition	Defines the parameters for running a report one time to be used every time the report is run using the activity. To run a standard or custom report, create a report activity.
Refresh Mobile Filtered List	Ensures that your Contact lists are up to date according to the filters used to create the list.
SMS Activity	Initiates an SMS message.
Send GroupConnect	Initiates a GroupConnect message.
Verification	Avoid unintended outcomes by setting conditions for a data extension used in the automation.
Contacts to Business Unit mapping	Maps existing Contacts to selected Business Units to maintain Brand and GEO boundaries while activating segments in Data Cloud.

More Activities

More provisioning is required to access these activities. Contact your account executive for more information.

Activity Name	Description
Fire Event	Signals that new contacts were added to a data extension used as the event source in a journey. The newly added data is then sent into journeys whose entry events are configured to detect changes in this data source.
Journey Entry: Audience	Added to automations that populate audiences in Journey Builder. When a journey uses an audience as its entry source, this activity is added to the automation that updates the audience. Access a direct link to the journey populated by this activity by clicking the activity name.
Send Salesforce Email	Initiates a send from a Sales or Service Cloud account.

 **Note:** Automation Studio audiences are evaluated and processed for entry according to the schedule of the source automation, which is set in Automation Studio. When the Journey Entry: Audience activity is included in an automation, contacts enter the journey according to the schedule set in that automation.

 **Note:** Organizations that use Marketing Cloud Connect can access the Send Salesforce Email Activity.

SEE ALSO:


[Use MobileConnect with Automation Studio](#)

[MobilePush and Automation Studio](#)

[Data Extension Extract in Automation Studio](#)

Wait Activity

Wait activities in Automation Studio cause an automation to wait for a specific duration or until a specific time before performing the next step. You can include one or multiple wait activities in a single automation.


 **Note:** An automation must finish its run completely before subsequent runs begin. When an automation is in the middle of a wait activity at the time when the next scheduled or file drop run occurs, Automation Studio skips that run.

Multiple Wait Activities - Considerations

- There is no limit on the number of wait activities an automation, but the combined wait time in an automation can't exceed one year.
- When you add more wait activities, wait times for previous wait activities are shown in the Wait Activity modal so that you can calculate total wait time in the automation.
- When the duration of the first wait activity is specified, any wait activities occurring later in the automation's workflow begin after this wait time ends.
- When an automation is in the middle of a wait activity when the next scheduled or triggered run occurs, that run is skipped.

Scheduling Considerations

If your schedule creates overlapping times due to wait activities, those scheduled runs are skipped and represented in the Activity tab.

- Scheduled runs that are skipped due to overlap are logged as errors and shown under Health.
- Runs skipped due to running wait activities are shown in the Run Log.
- All wait activities included in an automation are shown to the left in the Wait Activities sidebar under the Schedule Summary.
- To change the duration or time for an activity on the timeline, click .
- To update a wait activity from the Overview page, click **Edit**.

[Add a Wait Activity](#)

Tell an automation how long to pause before proceeding to the next activity in Automation Studio.

Add a Wait Activity

Tell an automation how long to pause before proceeding to the next activity in Automation Studio.

Wait activities cause an automation to wait for a specific duration or until a specific time before performing the next step.

1. From the Overview page, select an automation to edit, or create an automation.
2. Click **Wait** and drag the activity into a drop zone on the canvas.
3. To tell Automation Studio to either wait for a duration of time or until a specific time, click **Choose**.

4. Save the activity's settings.



Tip: You can set an automation to do both—to wait for a specified duration, but to not start before a specified time. Add a wait activity for the duration and save it. Then, in the next column, add a wait activity for the specified time.

Einstein in Automation Studio

Reach contacts when they're most likely to engage by using Einstein Send Time Optimization in a Send Email activity. Help your contacts avoid message fatigue by selecting the right message for each contact at the right time. Message recommendations are based on saturation levels using Einstein Engagement Frequency in a Send Email activity.

[Einstein Send Time Optimization in Automation Studio](#)

Reach contacts when they're most likely to engage by using Einstein Send Time Optimization in a Send Email activity in Automation Studio. Einstein Send Time Optimization uses machine learning and 90 days of engagement data to determine the best time within the next 24 hours to send an email message to each contact.

[Einstein Engagement Frequency in Automation Studio](#)

Use Einstein Engagement Frequency (EEF) in a Send Email activity in a bulk or batch send to maximize engagement rates and reduce unsubscribes. A segment is based on saturation levels to avoid sending contacts too few messages or too many. EEF automatically segments your contacts at send time based on their individual saturation levels.

Einstein Send Time Optimization in Automation Studio


Reach contacts when they're most likely to engage by using Einstein Send Time Optimization in a Send Email activity in Automation Studio. Einstein Send Time Optimization uses machine learning and 90 days of engagement data to determine the best time within the next 24 hours to send an email message to each contact.

Einstein gathers data for about 20 factors. Factors include engagement metrics, such as the number of messages sent to, and opened by a contact and the day of the week that the message is opened. Then, using machine learning, Einstein assigns a weight to each factor according to that factor's influence on predicting future engagement behavior. Einstein analyzes this data and assigns a likelihood score to each of the 168 hours in a week for each contact. Send Time Optimization uses this information to recommend the send times that lead to increased engagement.

You can't use send throttling with Einstein Send Time Optimization. If you select **Einstein Send Time Optimization**, send throttling is automatically turned off for this send.

This feature is available to customers with Marketing Cloud Einstein terms for Corporate, Enterprise, or Pro edition accounts with the Journey Builder add-on. To use this activity, [activate Einstein Send Time Optimization](#) for your business unit. Then use Einstein Send Time Optimization in Automation Studio in a [Send Email Activity](#).

To mitigate performance issues, take processing time into account when you choose your time frame. Estimate approximately 20 minutes processing time for every million subscribers. For example, if you're sending to 6 million subscribers, allow about 2 hours for Einstein to process the best send time for each subscriber.

 **Note:** Before you use the Einstein Send Time Optimization for a Send Email activity for the first time, the information must be optimized. Optimization can take up to 72 hours. You perform this optimization only one time.

Use the [Einstein Send Time Optimization Dashboard](#) to view the optimally predicted send times for your contacts.


1


Einstein Engagement Frequency in Automation Studio

Use Einstein Engagement Frequency (EEF) in a Send Email activity in a bulk or batch send to maximize engagement rates and reduce unsubscribes. A segment is based on saturation levels to avoid sending contacts too few messages or too many. EEF automatically segments your contacts at send time based on their individual saturation levels.

You choose the most meaningful segments for your activities. Choosing all segments prevents EEF from providing effective results. The segment types are saturated, on target, undersaturated, and almost saturated. Almost-saturated subscribers are three messages away from being saturated.

- Engagement frequency metrics are derived from the past 28 days' of data.
- Only commercial emails are analyzed. Transactional and test sends aren't included.
- The audience in your business unit must receive at least five variants of your email messaging over a 28-day period. A variant is defined as an email sending pattern, sending email to subscribers in at least five different intervals.

 **Example:** You're ready to send a promotion inviting customers to browse new seasonal merchandise. You select all saturation levels, except saturated. When you send a bulk email, EEF excludes all saturated contacts so that the right customers receive the email. This exclusion helps prevent the saturated contacts from getting message fatigue and unsubscribing.

 **Example:** You have daily promotions for limited time offers. To maximize engagement, you decide to send emails twice daily. You schedule an email to be sent in the morning to undersaturated, on-target, and almost-saturated contacts. You send a second email in the evening only to undersaturated contacts because they've received less than their optimal number of messages.

2

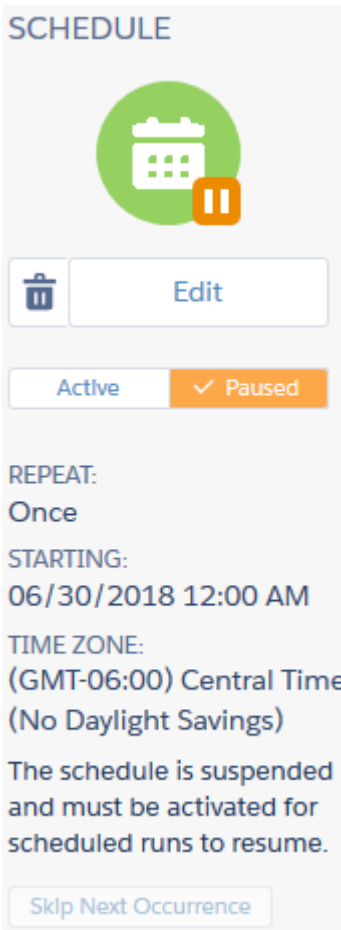
¹ Rights of ALBERT EINSTEIN are used with permission of The Hebrew University of Jerusalem. Represented exclusively by Greenlight.

² Rights of ALBERT EINSTEIN are used with permission of The Hebrew University of Jerusalem. Represented exclusively by Greenlight.

Pause an Automation

Temporarily stop an automation's schedule in Automation Studio. If the automation is running when you pause it, it continues to run, but future scheduled runs don't occur. You can see who paused an automation in the automation's summary.

1. Open the automation record and click **Paused** in the Schedule Summary column.



2. To confirm, click **Pause**.

To resume a paused automation, set it to **Active** on the Schedule tab.


Skip an Automation


Indicate in Automation Studio that an automation's next run will not occur without stopping the automation's schedule.

In an automation's Schedule tab, the Schedule Summary pane appears.

1. To skip an automation's next run without stopping the automation's schedule, click **Skip Next Occurrence**.

SCHEDULE





REPEAT:
 Every 1 month on the first Thursday

DAY(S) OF THE WEEK:
 TH

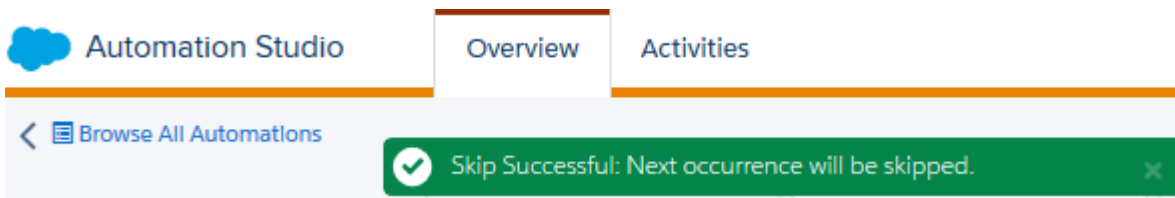
STARTING:
 04/04/2013 5:00 AM

ENDING:
 Never

TIME ZONE:
 (GMT-05:00) Eastern Time (US & Canada) *

NEXT RUN:
 07/05/2018 3:00 AM

2. A confirmation message displays to verify that the automation's next run will not occur.



The screenshot shows the Automation Studio interface. At the top, there are tabs for "Automation Studio", "Overview", and "Activities". Below the tabs is a navigation bar with a back arrow and the text "Browse All Automations". A green notification banner at the bottom of the screen displays a checkmark icon and the text "Skip Successful: Next occurrence will be skipped." with a close button (X) on the right.


Stop a Running Automation

When an automation is stopped in Automation Studio, activities in the step that is in progress complete, but subsequent steps do not start.

Use these instructions to stop a running automation. Cancel email sends in progress in the currently running step from the Tracking tab in Email Studio.

1. Click **Stop** on the Workflow canvas.
A confirmation message appears.

2. To stop sends that could be occurring when the automation stops, click **Go to Tracking to cancel sends in progress**.
3. Select each job currently in progress on the Tracking page.
4. Click **Cancel Send**.

 **Note:** To pause an automation's schedule, click **Pause**.

Copy an Automation

Create an exact copy of an automation to extend or modify it in Automation Studio.

Copying an automation doesn't create activities to be edited. The activities are referenced to the original automation. Editing the activities in the copied automation also edits the activities from the original automation. After the new automation is copied, use the replace option for each activity and include new activity created.

1.



2. Give the copy a unique name, description, and external key.

Copy Automation
×

Name*

Description

External Key

Location

v
my automatlons

- Journey Bullder Automatlons
- New Folder A
- > ■ Test

Cancel
Copy

- a. Choose a different file location for the copy as appropriate.

Delete an Automation

Remove unneeded automations from Overview or the automation page in Automation Studio.

Delete an automation from the individual automation's page.

1.



Click

A message appears to confirm the deletion.

2. Click **Delete**.

Automation Studio Errors

Find out what Automation Studio error messages mean and how to resolve them. After applying the suggested action, run the activity or automation again to make sure that the error was addressed.

SQL Query Activity Errors

Error Text	Meaning	Suggested Action
Query definition doesn't exist.	The query was deleted.	Recreate the SQL Query activity.
Query failed during execution. Error: Violation of PRIMARY KEY constraint. Can't insert duplicate key in object '{{DE name}}'. The duplicate key value is (123456789).	The query source doesn't have a primary key, but the destination does, so the query results in a duplicate record.	Add a primary key field in the source or remove the primary key from the destination.
Query failed: Timeout	The query took too long to run.	<ul style="list-style-type: none"> • If this timeout error doesn't typically occur, retry the activity or automation that it's part of. • If this error recurs, see Salesforce Help: Optimize the Query Activity.
Query failed during execution. Error: Conversion failed when converting the nvarchar value '123ABC' to data type int.	The query source has an alphanumeric field, but the destination has a number field.	Update either the query source or the destination so the data types match.
Query failed during execution. Error: String or binary data would be truncated.	The query source has a longer field length than the destination field.	Increase the destination field length so that it allows the same number of characters.
Query failed during execution. Error: Invalid column name '{{column name}}'.	Either the source or the destination has a field that was renamed or deleted.	Check for columns and fields that were changed or deleted.
Query failed during execution. Error: Invalid object name 'QueryTest_100'. Error has occurred.	Either the source or the destination has been deleted, renamed, or is otherwise unavailable.	Confirm that the source and destination data extensions exist.
Query failed: Query not allowed	Queries aren't available for your account.	Open a support case in Salesforce Help.
Query failed due to system error.	A system error occurred.	Retry the activity or automation. If the error persists, open a support case in Salesforce Help.

Error Text	Meaning	Suggested Action
SQL Query activity cannot be executed at this time.	This error can occur when the database has a high volume of write activity.	Retry the activity or automation. If the error persists, open a support case in Salesforce Help.

File Transfer Activity Errors

Error Text	Meaning	Suggested Action
File not found matching the pattern: {{pattern}}	The source file that the activity expected to find is missing, or no file matching the file naming pattern was found.	<ul style="list-style-type: none"> Verify that the naming pattern of the file matches the pattern configured for the activity. Verify that the file was dropped in the intended location.
Invalid File Age	The timestamp on the file is invalid, or a setting in the activity configuration prevents files of a specified age from being processed.	Ensure that the file isn't older than the defined age limit or modify the age limit setting.
Authentication with the server failed	Server authentication failed.	<ul style="list-style-type: none"> Confirm that your FTP location is valid. Confirm that your external file location credentials are valid and that your session is active.
Invalid username or password reported by server.	Server authentication failed due to an invalid username or password.	<ul style="list-style-type: none"> Confirm that your location is valid. Confirm that your external file location credentials are valid and that your session is active.
Server returned an error: Permission denied	Server authentication failed due to a permission error.	<ul style="list-style-type: none"> Confirm that your location is valid and configured correctly. Confirm that the username provided in the file location definition has permission to the destination folder.
The process can't access the file '{{filename}}' because it's being used by another process.	A file lock error occurred.	<ul style="list-style-type: none"> If this error doesn't typically occur, retry the activity or the automation. If this error continues, ensure that the file isn't being used by another process.
There was an error connecting to the target server.	The connected host failed to respond.	Verify that your FTP host entry is configured correctly.
The remote host forcibly closed an existing connection.	The remote host connection was lost.	Check the destination server settings to reenablen the connection.

Error Text	Meaning	Suggested Action
Idle connection category	The FTP that you're trying to transfer files to is having a connectivity issue.	Check the FTP connection.
We can't decrypt the file because the packet type doesn't follow the correct standard. Encrypt the file following the RFC 4880 standard and try again.	The file contains a packet type that isn't part of the RFC 4880 standard. For example, packet type 20 is a draft and not standardized.	Encrypt the file in compliance with RFC 4880.

Import File Activity Errors

Error Text	Meaning	Suggested Action
Import failed: File {{filename}} not found	The source file that the activity expected to find is missing, or no file matching the file naming pattern was found.	<ul style="list-style-type: none"> Verify that the naming pattern of the file matches the pattern configured for the activity. Verify that the file was dropped in the intended location.
Import failed: Invalid file age	The timestamp on the file is invalid or a setting in the activity configuration prevents files of a specified age from being processed.	Ensure that the file isn't older than the defined age limit or modify the age limit setting.
Import failed: Invalid file source	The file source is invalid.	Enter a valid file source.
Import failed: File location invalid	The file location is invalid.	Enter a valid file location.
Import failed due to system error.	A system error occurred.	Retry the activity or automation. If this error persists, open a support case in Salesforce Help.
We couldn't import your file. Verify that your Salesforce integration is valid and try again.	Salesforce Objects and Reports couldn't be imported because the Salesforce integration connection wasn't established.	Verify that your Salesforce integration is functional in the Email Studio Admin settings.
We couldn't import your file because the last import occurred less than {{MaxFrequencyHours}} ago.	The latest import ran too recently for the import to run again.	Wait at least the MaxFrequencyHours before running the import again or shorten the MaxFrequencyHours.
We couldn't import your file. Verify that the destination is valid and try again.	The file location for the import doesn't exist.	Ensure that the file location for the import still exists. Then add the file location to the import definition again.
We couldn't import your file. Verify that the file {{Filename}} contains data and try again.	The file for import contained no data.	Confirm that the file has data.
We couldn't import your file. Verify that the field mappings are valid and try again.	The import field mapping was invalid. For example, the columns are incorrect or the import fields aren't correctly mapped.	Verify that the file's columns match the import field mapping.

Error Text	Meaning	Suggested Action
We couldn't connect to your external FTP. Check your credentials and try again.	The external file location was unavailable due to an authentication issue, such as an invalid username or password.	Check the credentials for the FTP File Location in Setup and validate your configuration.
We couldn't connect to your external FTP. Try again later.	The external file location was unavailable for connection. For example, if the service was offline.	Confirm that your FTP is online.

Filter Activity Errors

Error Text	Meaning	Suggested Action
We couldn't find an expected field in the source data extension. Make sure that the fields used by the filter definition are configured in the data extension and try again.	A field is used by the filter definition but not included in the source data extension.	Confirm that the data extension includes all data required for the filter definition.
We couldn't find the source data extension. Make sure that the filter definition references the correct data extension and try again.	The source data extension that was originally used in the filter definition no longer exists.	Update the filter definition to use a valid source data extension.
We couldn't find the destination data extension. Make sure that the filter definition references the correct data extension and try again.	The destination data extension that was originally used in the filter definition no longer exists.	Update the filter definition to use a valid destination data extension.

Send Email Activity Errors

Error Text	Meaning	Suggested Action
Stopped because the job is in a terminal status.	A send was canceled via Email Tracking or another method before the STO send was completed.	No action needed. This message is a warning.

[Automatically Deactivated Automations](#)

When an automation fails repeatedly over an extended time period, the automation is deactivated to improve system stability and performance. When an automation is deactivated, you receive an email notification to the email address entered in the automation's Notification Settings > Runtime Error or Skipped Run box. An inactive automation can't run again until it's fixed and reactivated. This feature is turned on for all accounts and can't be turned off.

SEE ALSO:

[Optimizing a SQL Query Activity](#)

[Use Intermediate Tables to Optimize a Query](#)

Automatically Deactivated Automations

When an automation fails repeatedly over an extended time period, the automation is deactivated to improve system stability and performance. When an automation is deactivated, you receive an email notification to the email address entered in the automation's Notification Settings > Runtime Error or Skipped Run box. An inactive automation can't run again until it's fixed and reactivated. This feature is turned on for all accounts and can't be turned off.

An automation is deactivated when it meets both of these criteria.

- Fails at least 30 consecutive times
- Has a 100% failure rate for at least 30 days

Failures caused by system errors don't count toward either of these metrics.

To identify an error's cause, locate the failed automation in the Overview section of Automation Studio. Errors are listed in the Progress column and appear in red. Hover over an error to view the cause.

After you fix the automation, go to the Workflow tab for that automation, and select **Active** to reactivate it.

Automation Studio Statuses

You can view an automation's status from the Automation Studio interface or a related data view. Use this guide to understand what each status means.

Automation Status	Meaning	Suggested Action
Error	An error occurred when the automation ran.	View and address the error, if needed.
BuildingError	The automation was saved with an invalid configuration.	View the automation and resolve any configuration errors.
Building	The automation is being edited and can't run.	The user who is editing the automation must save their changes.
Ready	The automation is ready to run.	—
Running	The automation is running.	—
Paused	The automation was manually paused and won't run again until it's reactivated.	Reactivate the automation.
Stopped	The automation was stopped during its most recent run.	View and address the warnings in the automation log, if needed.
Scheduled	The automation is scheduled to run in the future.	—
AwaitingTrigger	The automation is waiting for a file drop or trigger to start.	—
InactiveTrigger	The automation has a file drop or trigger and won't run again until it's reactivated.	Reactivate the automation.
Skipped	The automation was skipped.	Rerun the automation if needed. Otherwise, it runs the next time it's scheduled.
Initialized	The automation is about to run.	—

Get Automation Studio Notifications

Add your email address to get notified when a Marketing Cloud automation run is skipped, encounters an error, or completes. You can also receive alerts through Digital Command Center for Slack or the Event Notification Service (ENS).

Use these steps to set up email notifications for skipped, failed, and completed automations.

1. Open an automation.
2. Go to the automation's Activity tab.
3. In Notification Settings, enter your email address.
4. (Optional) Add a note to include in the email notification.

Notification Settings

Enter email addresses to be notified upon the failure or success of the run. Separate multiple addresses with a comma.

Runtime Error or Skipped Run

Runtime Error Note

Run Completion

Run Completion Note

To unsubscribe, remove your email address.

If you want to get Slack alerts, use Digital Command Center for Slack to configure monitoring rules for Automation Studio. You can also use the Event Notification Service (ENS) to configure and subscribe to automation alerts.

SEE ALSO:

[Get Started with Digital Command Center for Slack](#)

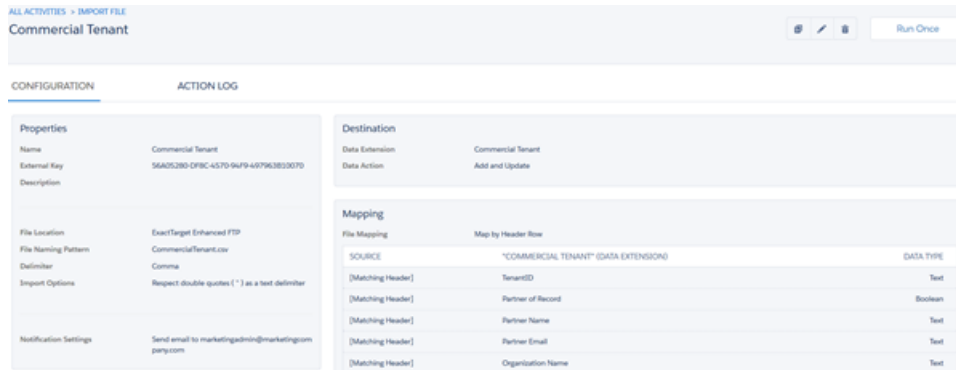
[Event Notification Service](#)

[Event Notification Service API](#)

Find Activity Configuration and Error Details

To access configuration details and run history for an Automation Studio activity, view the activity's object detail page. Use this page to locate error information about the activity, too.

1. On the Activities page, select an activity type from the left menu.
 2. Click the name of the activity whose details you want to see.
- This page also includes options to edit, copy, delete, or run the selected activity. Configuration details are shown on the Configuration tab.



 **Note:** Only Email, Import File, File Transfer, and SQL Query activities have object detail pages currently.

Run history, including error information, is shown on the Action Log tab.



Data Extension Storage Usage

View and manage your marketing data usage by downloading your data extension storage details as a CSV file. Optimize your storage usage, improve performance, and ensure compliance by removing unneeded data and updating retention policies.

The CSV file lists your tenant’s data extensions that contain data that you’ve loaded into Marketing Cloud. These system data extensions are also included in the CSV file:

- Einstein data
- Synchronized data from Sales Cloud and Service Cloud
- Customer 360 segments
- Advertising audiences

Download Data Extension Storage Details

View and manage your marketing data usage by downloading your data extension storage details as a CSV file. Data extension storage details are updated daily.

This report is available to MC Administrator and Administrator roles. To make this report available to another role, grant the Administration | Account | Download Data Extension Storage Details permission in all business units in the enterprise.

Important: You must belong to each business unit you want to report on. To access enterprise-level data, you must belong to all business units in the enterprise.

1. From your top-level Enterprise 2.0 account, go to Setup Home.
2. In the Metrics section, under Data Extensions, click **Download Storage Details**.
A CSV file downloads to your computer.

Data Extension Storage Fields

These fields are included for each data extension in the data extension storage details CSV file.

Field	Description
EID	The tenant’s Enterprise ID.
MID	The Member ID where the data extension is located.
BusinessUnitName	The name of the Member ID where the data extension is located.
DataExtensionName	The name of the data extension.
CustomerKey	The unique identifier for the data extension.
IsSendable	Whether the data extension is sendable.
DataRetentionPolicy	The retention policy of the data extension, if applicable.
RecordCount	The number of records in the data extension.
UsedGB	The size of the data extension in gigabytes (GB). This file size is the compressed file size in the Marketing Cloud database, not the size of the exported or extracted file.
DataExtensionPath	The folder path to the data extension in Contact Builder or Email Studio.
SampleDate	The date that the retrieved data was last updated for the data extension. If the value is Data_Not_Available, storage details for the data extension will be available in a future report.

Optimizing Data Extension Storage

Here are some ways that you can optimize your data extension storage.

Establish specific retention policies for each data extension.

- Find your largest data extensions and apply a shorter retention policy if possible.

- For send log data extensions, set a 30-day retention period or shorter. Copy only the data that you need to another data extension for analysis.
- For triggered send data extensions, set a 7-day retention period.
- If your account uses the Contact Delete API to remove contacts, the API removes applicable data from data extensions where the IsSendable field is `True`. Identify data extensions where the IsSendable field is `False`, and ensure that an appropriate retention policy is applied.

Delete old data extensions.

- Delete data extensions with names containing terms such as "backup," "archive," "test," "copy," or an old date.
- If you have a folder of data extensions that's no longer needed, save time by deleting the folder instead of each individual data extension.

Store only necessary data.

- Don't store large fields, such as HTML blob fields, unless your use case requires it.
- If you're storing engagement opens, clicks, or other data that can be accessed from a Data View, consider using Intelligence Reports for Engagement to analyze your data instead.
- Identify data extensions with an above-average record size using the equation $UsedGB / RecordCount$. Check whether these data extensions contain one or more unusually large fields that you can remove.

Automation History and Health

Evaluate your automations over time by downloading your automation history as a CSV file. Improve automation health by reviewing each automation's success rate and identifying automations with high skip or error counts.

The CSV file lists automations that have run in the past 12 months. Automations that support Einstein, Intelligence Reports, and Data Cloud aren't included. Individually run activities are also not included.

Download Automation History Details

Evaluate your automations over time by downloading your automation history as a CSV file. Automation history details are updated daily.

This report is available to the MC Administrator role. To make this report available to another role, grant the Automation Studio | General | Access permission in all business units in the tenant.

1. From your top-level Enterprise 2.0 account, go to Setup Home.
2. In the Metrics section, under Automations, click **Download Automation History**.
A CSV file downloads to your computer.

Automation History Fields

These fields are included for each automation in the automation history CSV file.

Field	Description
EID	The tenant's EnterpriseID.
MID	The MemberID where the automation is located.
BusinessUnitName	The name of the MemberID where the automation is located.

Field	Description
AutomationName	The name of the automation.
AutomationCustomerKey	The API key for the automation.
Type	The automation type. Custom indicates that a user created the automation. System indicates that the system generated the automation.
30DaySuccessRate	The automation's success rate over the past 30 days, based on this calculation: $\text{CompletionCount} / (\text{CompletionCount} + \text{ErrorCount})$.
30DayCompletionCount	The number of times the automation finished without an error over the past 30 days. Stopped automations are considered completed.
30DayErrorCount	The number of times the automation errored over the past 30 days.
30DaySkipCount	The number of times the automation skipped over the past 30 days. Skipped automations aren't included in the total run count or the success rate calculation.
30DayRunCount	The number of times the automation ran over the past 30 days. This count includes completions and errors but not skips. A value of N/A indicates a system automation.
12MonthRunCount	The number of times the automation ran over the past 12 months. This count includes completions and errors but not skips. A value of N/A indicates a system automation.
FolderPath	The automation's folder path.

Improving Automation Health

Here are some ways that you can improve automation health.

- Identify automations with a low success rate. Investigate and resolve errors that occur in these automations using the `_AutomationInstance` and `_AutomationActivityInstance` data views.
- Identify automations with a high skip count. Consider modifying the automation schedule so that the automation has time to complete before attempting to run again.
- Identify automations with relatively high run counts. Consider combining these automations to improve efficiency.

SEE ALSO:

[Data View: Automation Instance](#)

[Data View: Automation Activity Instance](#)

[Automation Studio Errors](#)

Journeys and Messages

Journey Builder is a campaign planning tool in Marketing Cloud Engagement that enables you to design and automate campaigns that guide customers through their journey with a brand. Its foundation is the journey, which is the communication plan you design. Canvas activities tell Journey Builder how to communicate to and direct contacts in the journey. Contacts enter from an entry source. The journey then continually evaluates contacts to determine when to move them to the next activity.

Journey Builder supports these Marketing Cloud Engagement editions.

Edition	Compatibility	Known Issues	MC Connect Considerations
Core / Advanced	Yes	None	<ul style="list-style-type: none"> Required Version: Marketing Cloud Connect/V5 Multi-org support: N/A
Enterprise 1.0	<ul style="list-style-type: none"> Parent Account: No On Your Behalf (OYB) Accounts: No Lock & Publish Accounts: Yes 	<ul style="list-style-type: none"> Sending from the top level of Enterprise 1.0 isn't supported Sending from OYB account isn't supported 	Journey Builder doesn't support the Salesforce Event as an entry source. If there are several Enterprises 1.0 Lock & Publish accounts connected to a Salesforce org.
Enterprise 2.0	Yes	Can't copy journeys from parent business units to child business units	<ul style="list-style-type: none"> Required Version: Marketing Cloud Connect/V5 Multi-org support: N/A

[Journey Builder Prerequisites](#)

Review these items before using Journey Builder in Marketing Cloud Engagement whether you're a marketer or administrator.

[Permissions for Journey Builder](#)

Marketing Cloud Engagement user permission settings supersede user permissions granted in the Journey Builder app. Review the list of permissions required to access these features in Journey Builder.

[How to Optimize Journey Builder Performance](#)

The Journey Builder processing rate varies based on your data model, filters, configuration, activities, and content complexity. Journeys share processing resources, so stagger the start time for each journey to reduce the demand and increase the processing speed of individual journeys. Use the System Optimization Dashboard to identify and prioritize optimizations that could increase your overall throughput.

[The Journeys Dashboard](#)

The Journeys Dashboard provides an overview of all the journeys you create in Journey Builder. The overview includes journey type, status, and the last date changes were made. You can also see which version of a journey is accepting new contacts. In this dashboard, you can sort by journey, status, performance by entry total and goal attainment, or last modified date. You can also filter the list of journeys, open a journey, and access the journey creation workspace.

[Manage Customer Journeys](#)

Journey Builder's enables you to efficiently create and track Single Send, Transactional Send, and Multi-Step customer journeys in Marketing Cloud Engagement from a unified workspace.

[Journey Settings](#)

Choose the settings that determine when the contact enters a Marketing Cloud Engagement journey and which address Journey Builder uses to message that contact.

[Entry Sources](#)

The entry source on the canvas tells Journey Builder where customers entering this journey come from. Each journey must include an entry source.

[Marketing Cloud Engagement Mobile App Events Overview](#)

Highly relevant and contextually aware interactions are the cornerstone of amazing customer experiences. Now, user behaviors on your mobile app can drive relevant and personalized touchpoints, powered by easy-to-configure listening rules in Journey Builder. Mobile App Events help your brand deliver mobile moments that matter by creating meaningful engagement, increasing brand loyalty, and generating a higher return on investment for your marketing campaigns.

[Use Data in Journey Builder](#)

The essential functions of Journey Builder depend on data. To maximize the reach of your journeys, explore how you can use data for filtering, personalization, and other Journey Builder tasks.

[Goals in Journey Builder](#)

In Journey Builder, a goal is a measurement of customer actions that you want to promote. Measure goals based on a goal target you set by creating a filter on contact data. After you activate a journey, Journey Builder evaluates contact data against the filter set as the goal target. When Journey Builder determines that a contact met the goal, that contact is counted in goal target statistics. Reaching the goal can also prompt the contact to exit, if applicable.

[Activity Types](#)

Learn what each Journey Builder activity does.

[Activity IDs in Journey Builder](#)

Find any activity's unique identifier in a draft, running, paused, or stopped journey after the journey is saved. This feature helps customers and Support agents locate the issue when troubleshooting an activity.

[Message Activities](#)

Messaging activities include email, SMS, LINE message, push notification, inbox message, in-app message, or any other form of content sent to contacts. To provide a mix of information about your brand or your product, vary the message content. Create message content before you build a journey.

[Journey Builder Activities](#)

Canvas activities include messages, decisions, updates, or a combination of these elements dragged onto the Journey Builder canvas. In a Multi-Step journey, the activities you configure affect each contact until they reach a goal or the end of the journey.

[Sales and Service Cloud Activities](#)

Use Sales and Service Cloud canvas activities in Journey Builder to create or update object records for connected Marketing Cloud Engagement contacts. You can grant users access to create or edit Sales and Service Cloud activities, except users with the Marketing Cloud Engagement Administrator role.

[Journey Builder Administration](#)

Journey Builder includes an administrative interface that is accessed by clicking links in the top navigation.

[Analytics and History](#)

Journey Builder includes journey health, history, and dashboards.

Journey Builder Prerequisites

Review these items before using Journey Builder in Marketing Cloud Engagement whether you're a marketer or administrator.

- A Marketing Cloud Engagement Services or Partner Services engagement is recommended for organizations using Journey Builder with integrations and complex use cases.
- Assistance from an IT administrator is often helpful while designing the Contact Builder contacts model and audience segmentation filters for Journey Builder.

Account Provisioning

Before you can create a journey, provision your Engagement account to support Journey Builder. Manage access to view and create Journey Builder journeys using Marketing Cloud Engagement Setup. Customize permissions for roles or individuals to deny access, allow limited access for viewing journeys, or allow complete access to create, edit, and publish journeys.

Contact your Salesforce Marketing Cloud Engagement representative if you have account provisioning questions.

For Marketers

Marketers commonly perform these tasks.

- Data Extensions

One common way to admit contacts into a journey is to fire them into the journey from a sendable data extension. To admit contacts, create a sendable data extension and add or import contacts into it. There are multiple ways to create a data extension.

After contacts are added to a sendable data extension, configure an entry source to detect data extension changes and determine Journey Builder's action.

- Channel Content

Before adding channel activities to a journey, create channel content, like email messages, SMS messages, or push notifications.

For Administrators

IT Administrators commonly perform these tasks.

- Contacts

A contact represents a single instance of a person within Engagement. A contact contains data derived from communications through multiple channels mapped back to a single person.

Contact Builder defines a contact based on whether its ContactID is found in a population or by subscription to channels such as email or SMS.



Note: The term contact describes a data record in Engagement that stores data about a person your organization communicates with. The term customer describes the persons to whom communication is sent, about whom data is collected, and whose decisions affect Journey Builder behavior.

Some entry sources, audiences, and Sales or Service Cloud entry events, create a ContactKey automatically when no ID can be matched. All other entry sources require that an existing contact matches to an existing record, confirming a positive match. Entry sources that don't create a contact automatically must be a channel subscriber or part of a Population to enter a journey.

To avoid rejections when using an entry source that doesn't create contacts, use Contact Builder to create contacts. Provide a ContactKey that Journey Builder uses to identify them.

- Journey Entry Data Source

Identify a data source, often a sendable data extension, as the source that contains contacts to admit to the journey. When you configure an entry source, you can select this data extension as the source of contacts in the journey.

- Set up a data extension entry source to easily select a sendable data extension to start the journey.

SEE ALSO:

- [Modify Marketing Cloud User Settings](#)
- [Journey Builder Roles](#)
- [Contact Builder in Marketing Cloud](#)
- [Content Builder](#)
- [Get Started in Marketing Cloud MobilePush](#)
- [Get Started in MobileConnect](#)
- [Distributed Marketing](#)
- [Marketing Cloud Feature Settings](#)
- [Email Deliverability](#)

Permissions for Journey Builder

Marketing Cloud Engagement user permission settings supersede user permissions granted in the Journey Builder app. Review the list of permissions required to access these features in Journey Builder.

Features	Required Marketing Cloud Engagement Permission
<ul style="list-style-type: none"> • Decision Split • Wait by Attribute 	<ul style="list-style-type: none"> • Email > Subscribers > Data Extension > View • Salesforce Marketing Cloud Engagement > Contacts > Read Contact Data
<ul style="list-style-type: none"> • Update Contact 	<ul style="list-style-type: none"> • Email > Subscribers > Data Extension > View • Email > Subscribers > List > View
Engagement Split	<ul style="list-style-type: none"> • Email > Content > Email > View • Content Builder > Assets > View
Entry Sources <ul style="list-style-type: none"> • Data Extension • API Event • Transactional API Event • Contact Event 	<ul style="list-style-type: none"> • Email > Subscribers > Data Extension > View • Email > Subscribers > List > View • Salesforce Marketing Cloud Engagement > Contacts > Read Contact Data
<ul style="list-style-type: none"> • Goal • Exit Criteria • Default Email • Default Mobile Number 	<ul style="list-style-type: none"> • Email > Subscribers > Data Extension > View • Salesforce Marketing Cloud Engagement > Contacts > Read Contact Data
Test a Journey	Email > Subscribers > Data Extension > View

Features	Required Marketing Cloud Engagement Permission
Create Journey Templates	Content Builder > Asset > Create

For more details about the permissions granted with user roles in Journey Builder, see [Journey Builder Roles](#) and [Marketing Cloud Engagement Roles](#).

How to Optimize Journey Builder Performance

The Journey Builder processing rate varies based on your data model, filters, configuration, activities, and content complexity. Journeys share processing resources, so stagger the start time for each journey to reduce the demand and increase the processing speed of individual journeys. Use the System Optimization Dashboard to identify and prioritize optimizations that could increase your overall throughput.

As a general baseline, you can process up to two million email sends per hour per tenant in Journey Builder. However, you could achieve higher throughput—by two times or more—using the [High-Throughput Sending \(HTS\)](#) for Email option in Journey settings.

Single-tenant deployments on dedicated databases produce a faster and more predictable processing speed than multitenant deployment on shared databases. To improve processing speeds after implementing these recommendations in a multitenant account, contact your account executive about single-tenancy and dedicated database deployment.

Groom Data Before Creating a Journey

How you store and prepare data affects how quickly Journey Builder processes records. Here are some ways to maximize processing.

- Create a pre-filtered, sendable copy of the data extension for each journey instead of using the same data extension for multiple journeys. This step also prevents journeys from competing with other database activities such as imports, send-logging, reports, or extracts.
- Use an ETL tool such as Automation Studio for large-scale segmentation before admitting contacts into Journey Builder instead of filtering contacts within the entry source.
- Don't use a filter in the entry source to filter more than 50% of your contacts when there are more than 500,000 total contacts. Doing this wastes critical computing resources and can lead to the system stopping your journey due to excessive resource usage. Instead, use an ETL tool such as Automation Studio to segment your data before using the data in Journey Builder.
- When data extensions are linked through a one-to-many or many-to-many relationship, a matching attribute value can appear in the journey entry source filters, wait activities, or decision splits multiple times.
- Include all data that you plan to use for decision splits in your entry source data extension. Use journey data for decision splits rather than contact data whenever possible.
- Only use the Update Contact activity to update any contact data except the Contact Key value.
- When you use the Update Contact activity to add a contact to a data extension, include all required field values or the contact isn't added.
- Limit the number of rows per contact to 1000 or less.

Use Efficient Filtering Logic

Journeys share resources for processing. When a journey includes an entry filter, the speed at which contacts are admitted in the journey is lower. Follow these guidelines to maximize hourly processing.

- If your filters use contact data, use the data model to determine the AttributeSets required to link the contact attribute to the contact. When any of these AttributeSets in the path contain a one-to-many relationship, processing speed slows proportionally to the

amount of data associated with the contact. For example, if a decision split is based on LastOrderDate, the number of orders associated with the contact affects performance. Performance is slower for a contact with thousands of orders than for a contact with one order.

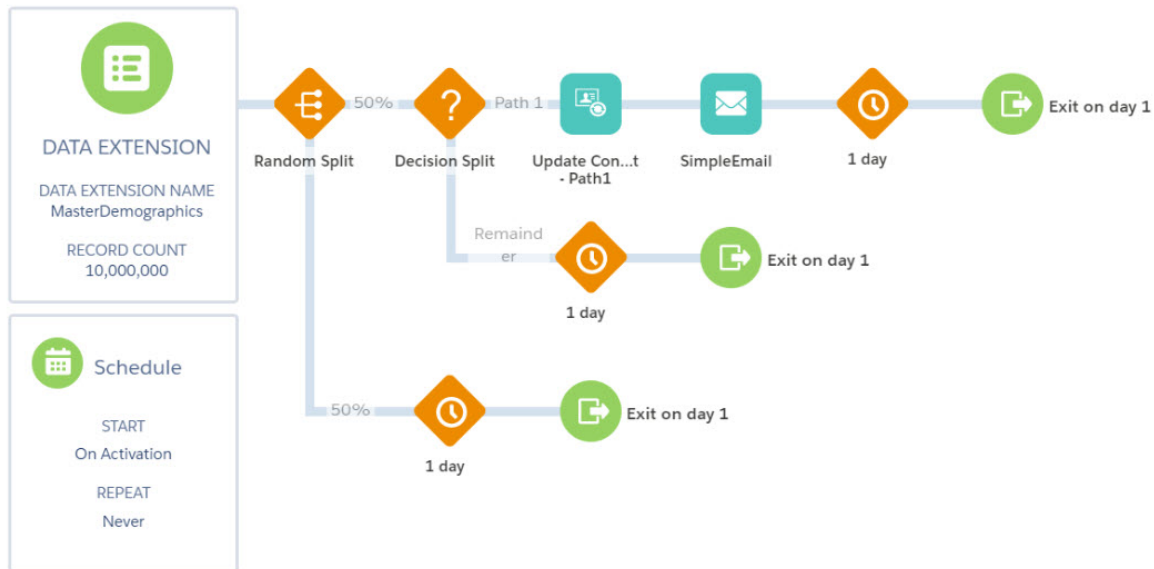
- If you use an entry filter, avoid ends with and contains operators for best filter performance. In data processing, these operators are more expensive than using the equals operator.
- Complicated entry source or decision split filters require more table joins to filter contacts, which slows performance.
- Filter complexity and performance are based on the number of distinct attributes used and the number of links it takes to map to a contact.

Use Journey Activities Wisely

Journey Builder processes contacts in journey segments. A segment is the chain of activities from the journey's start to the first wait, between two waits, or from a wait to the exit. The minimum processing speed of each activity in that segment determines the processing speed of contacts through a segment. Each activity type processes contacts at a different rate. Journey Builder processes contacts from multiple journeys and segments concurrently.

- Use wait activities sparingly. Don't add a wait activity as a journey's first or last step, and avoid using wait activities that are less than 15 minutes.
- To improve Journey Builder performance, a wait activity that is 1 minute or less at the end of a path is ignored. In most scenarios, these required wait activities at the end of a journey can be lowered to 1 minute without impacting the contact's journey. Lowering these final wait activities reduces unnecessary system load and improves the predictable performance of your journeys.
- By default, one Wait by Duration activity is on the canvas and configured to a duration of 1 day.
- To improve overall Journey Builder performance, the last wait of any Journey Builder Path before the exit is ignored in these scenarios.
 - Re-Entry Mode is Re-Entry Anytime OR No Re-Entry
 - AND the journey doesn't have a Goal Activity
- Though you can add as many journey activities as you want, limit the number of activities to 150-200 in a journey to prevent slow load times.
- Avoid using more than 3 decision split activities at the start of the journey. Journey Builder processes contacts in batches, so using a series of Decision Split activities reduces the batch size. Build the decision split path that you expect the highest number of contacts to follow first.
- Avoid back-to-back decision splits.
- To ensure that custom activities don't slow your journey, optimize the endpoints that custom activities use. Custom REST Activities hit external endpoints so their response time depends on each endpoint's response time. For more information, see [Custom Activity Configuration](#).
- If you add retry logic to an API event, the activity takes longer to process. Increasing the retry count increases the response time of the REST service from Journey Builder's perspective.

Example: Consider a single journey running in a single-tenant, dedicated database deployment. Within this journey, there's one segment from the entry to the random split, the decision split, the update contact activity, email activity, and a 1-day wait.



If the processing speed of the random split activity is 10 million contacts per hour, 9 million per hour for the decision split and update contact activity, and 2 million per hour for the email activity, the maximum processing speed for this segment is 2 million contacts per hour. Most journey activities process faster than message activities and usually don't impede messaging activities in the segment.


Consider the Impact of Content Personalization

Journey Builder lets you personalize your messages by using the power of AMPscript. Marketing Cloud Engagement application handles all AMPscript calls at the end of the message-send, which affects the number of messages sent per hour. We observed the following effects on our internal benchmarking, which was performed in a controlled environment on a dedicated database.

Complexity	Content Includes	Email Messages Per Hour
Static	<ul style="list-style-type: none"> Single HTML-based content with static personalization 	100% (baseline)
Simple	<ul style="list-style-type: none"> Single HTML-based content Personalization by substitution with 9 substitutions 	~100% (minimal impact)
Moderate	<ul style="list-style-type: none"> Content block-based HTML with 3 content block references Personalization by substitution with 9 substitutions 12 dynamic substitutions by data extension lookup 	~95%

Complexity	Content Includes	Email Messages Per Hour
Advanced	<ul style="list-style-type: none"> • Content block-based HTML with 5 content block references • Personalization by substitution with 9 substitutions • 24 dynamic substitutions by data extension lookup, and impressions regions 	~75%

Highly personalized message content that has advanced complexity can reduce send throughput by up to 25%. Personalization is a powerful tool to achieve targeted communication with your audience, but make sure to note how it affects your journey’s send throughput.

 **Note:** The relative performance difference shown is only a directional guideline to assess the effects of content personalization. The actual performance difference with the same content in your environment can differ.

[Review Content Used to Benchmark Messaging Performance](#)

Review this detailed information about the content used to benchmark the message-sending performance for email, SMS, and push.

[Monitor Journeys in Slack](#)

Digital Command Center for Slack monitors your journeys so that you can react quickly to campaign problems. For example, you can receive alerts when a journey doesn’t have as many entries as expected, or when it doesn’t meet the threshold for sends, clicks, opens, or bounce rates.

[Journey Builder System Optimization Dashboard](#)

The System Optimization dashboard shows the journeys and configurations that can affect overall system processing speed and identifies changes to improve system performance. The dashboard monitors running journey versions when contacts are actively flowing and identifies inefficiencies and recommendations to improve performance. You can activate a journey without correcting warnings, but we recommend reviewing issues that can impact Journey Builder performance.

[Journey Builder Configuration Recommendations](#)

As part of journey validation functionality, Journey Builder makes recommendations about configurations that can impact system performance. These recommendations don’t prevent you from activating your journey.

SEE ALSO:

https://help.salesforce.com/s/articleView?id=sf.mc_jb_configuration_recommendations.htm&type=5

[Journey Builder Sales and Service Cloud Best Practices](#)

[Linked Data Extensions in Journey Builder](#)

Review Content Used to Benchmark Messaging Performance

Review this detailed information about the content used to benchmark the message-sending performance for email, SMS, and push.

To benchmark email-sending performance, we used four different levels of content complexity: Static, Simple, Moderate, and Advanced. For the email content, we created a recommendations email for Northern Trail Outfitters to resonate with customers based on their attributes. The email is offered as complete HTML and modularized into multiple content sections as content blocks and uses two data extensions for personalization. The four different complexity-levels of content produce the same overall email but with varying degrees of personalization through AMPscript.

- Static: Single HTML-based content with static personalization
- Simple: Single HTML-based content and personalization by substitution with 9 substitutions
- Moderate: Content block-based HTML with 3 content block references, personalization with 9 substitutions, And 12 dynamic substitutions by data extension lookup in a for loop
- Advanced: Content block-based HTML with 5 content block references, personalization with 9 substitutions, 24 dynamic substitutions by data extension lookup in a for loop, and impressions regions

northern trail **outfitters** We found you something! WEB VERSION

we basically just scoured the earth for stuff you would love.

Hey Jeremy,
Check out some items from NTO that we love this week, and we think you might love them just as much as we do.

stuff we love

Recommended Items

MEN'S HYPER-TRACK GUIDE \$120.00	WOMEN'S DOUBLE-TRACK GUIDE \$130.00	MEN'S ETIP FACET GLOVE \$85.00
Buy Now	Buy Now	Buy Now

Find an NTO location near you... wherever you are.
[Locate store](#)

NTO Retail

123 South Pointe
Oakland, CA, 74017, United States.

Contact Us | Store Locator | Update Profile | Unsubscribe

Compiled Emails

Review these files, which include four levels of complexity. They include the source Content Builder code, including the HTML and AMPscript. You can copy and paste the static and simple code snippets into Content Builder. However, to use the moderate and advanced code snippets include the content-blocks referenced in the Static Content Block and AMPscript Content Block sections.

- Static: [Static-Level1-10edc6e0-f56a-4f21-ab81-3913abe6b7a2.html](#) (downloadable file)
- Simple: [Simple-Level2-fe0e3f18-66d4-492c-8c8c-956259477e70.htm](#)(downloadable file)
- Moderate: [Moderate-Level5-d353c4f8-3bfd-405d-8bd3-5dcd0d6bebaa.html](#) (downloadable file)
- Advanced: [Advanced-Level8-31cf51ee-bffd-408e-8e0c-94a55283b1f4.html](#) (downloadable file)

Data Extensions

These data extensions provide the personalization data references used by the source email-code and content-blocks in our testing.

- [Master Demographics Data Extension](#) (downloadable file)
- [Product Recommendations Data Extension](#): (downloadable file)

HTML Content Blocks for Moderate Content

Header

```
<style type="text/css">
  div,
  p,
  a,
  li,
  td {
    -webkit-text-size-adjust: none;
  }

  body {
    margin: 0;
    padding: 0;
  }

  td[class="headercell-phone"] {
    display: none;
  }

  @media screen and (max-width: 480px) {
    table[class="tmp--container"] {
      width: 360px !important;
    }
    table[class="tmp--container-padding"] {
      width: 360px !important;
      padding: 20px !important;
    }
    table[class="tmp--container-padding-top"] {
      width: 360px !important;
      padding: 20px 0 0 0 !important;
    }
    table[class="tmp--container-padding-bottom"] {
      width: 360px !important;
    }
  }
</style>
```

```

        padding: 0 0 20px 0 !important;
    }
    table[class="hero"] {
        width: 100% !important;
    }
    table[class="tmp--full-width"] {
        width: 100% !important;
        float: left !important;
        padding: 0 !important;
    }
    td[class="tmp--full-width"] {
        width: 100% !important;
        float: left !important;
        padding: 0 !important;
    }
    td[class="tmp--full-width-padding-bottom"] {
        width: 100% !important;
        float: left !important;
        padding: 0 0 25px 0 !important;
    }
    td[class="tmp--full-width-center"] {
        width: 100% !important;
        float: left !important;
        padding: 10px 0 10px 0 !important;
        text-align: center !important;
    }
    }
    table[class="wrapper-padding"] {
        padding: 20px !important;
    }
    tr[class="wrapper-padding"] {
        padding: 20px !important;
    }
    td[class="wrapper-padding"] {
        padding: 20px !important;
    }
    td[class="col-padding-bottom"] {
        padding: 0 0 25px 0 !important;
    }
    img[class="photo"] {
        width: 100% !important;
        height: auto !important;
    }
    td[class="row"] {
        width: 100% !important;
    }
    td[class="tmp--hide"] {
        display: none !important;
    }
    }
}
</style>

```

```
<!-- background color -->
```

```

<!-- background color -->
<table bgcolor="#ffffff" width="100%" border="0" cellspacing="0" cellpadding="0">
  <tr>
    <td>
      <!-- logo and preheader -->
      <table style="background-color:#ffffff;" class="tmp--container" width="600"
align="center" border="0" cellspacing="0" cellpadding="0">
        <tr>
          <td class="tmp--full-width-center" style="padding:20px 0px;">
            
          </td>
          <td class="tmp--hide" style="color:#393939;font-family:Gotham,
&quot;Salesforce Sans&quot;;, Arial,
sans-serif;font-size:12px;font-style:normal;font-weight:normal;line-height:16px;padding:20px
0px;vertical-align:middle;" align="right">
            <!-- preheader content area -->
            <table cellpadding="0" cellspacing="0" width="100%"
style="text-align: left; min-width: 100%; " class="stylingblock-content-wrapper"><tr><td
class="stylingblock-content-wrapper camarker-inner" align="left"> <!-- preheader content
area -->
              <table class="tmp--container" width="405" align="center"
border="0" cellspacing="0" cellpadding="0">
                <tr>
                  <td
style="color:#393939;background-color:#ffffff;font-family:Gotham, &quot;Salesforce
Sans&quot;;, Arial, sans-serif;font-size:13px;font-style:normal;font-weight:normal;"
class="full-width-center" width="100%" align="right"> <span style="color:#393939;">We found
you something!</span>
                  <br> <a href="https://salesforce.com" target="_blank"
style="color:#68CCF0; text-decoration:none; line-height:24px;" class="view_link" alias="Web
Version">WEB VERSION</a></td>
                </tr>
              </table>
            <!-- end preheader content area --></td></tr></table>
          <!-- end content area -->
        </td>
      </tr>
    </table>
    <!-- end logo and preheader -->
  </td>
</tr>
<tr>
  <td>
    <table style="background-color:#ffffff;" class="tmp--container" width="600"
align="center" border="0" cellspacing="0" cellpadding="0">
      <tr>
        <td style="color:#393939;font-family:Gotham, &quot;Salesforce
Sans&quot;;, Arial,
sans-serif;font-size:14px;font-style:normal;font-weight:normal;line-height:18px;vertical-align:top;"
width="100%" align="left">
          <!-- content area -->

```

```

                <table cellpadding="0" cellspacing="0" width="100%"
style="text-align: left; min-width: 100%; " class="stylingblock-content-wrapper"><tr><td
class="stylingblock-content-wrapper camarker-inner" align="left"><!-- hero image content
area--><table align="center" border="0" cellpadding="0" cellspacing="0"
class="tmp--container" width="600">

<tr>
  <td align="left" class="full-width" width="100%">
    <a alias="PI Recs Hero" href="http://ntoretail.com/" target="_blank"></a></td></tr></table><!-- end hero image content area
--></td></tr></table><table cellpadding="0" cellspacing="0" width="100%" style="text-align:
left; min-width: 100%; " class="stylingblock-content-wrapper"><tr><td
class="stylingblock-content-wrapper camarker-inner" align="left"><!-- live text paragraph
content area --><table align="center" border="0" cellpadding="0" cellspacing="0"
class="tmp--container" width="600">

<tr>
</tr></table></td></tr></table></td></tr></table></td></tr></table>

```

Message

```

Hey %%FirstName%%,<br>
  <br>
  Check out some items from NTO that we love this week, and we think you might love them
  just as much as we do.<!-- end live text paragraph content area --><table cellpadding="0"
  cellspacing="0" width="100%" style="text-align: left; min-width: 100%; "
  class="stylingblock-content-wrapper"><tr><td class="stylingblock-content-wrapper
  camarker-inner" align="left"><!-- outline button content area --><table align="center"
  border="0" cellpadding="0" cellspacing="0" class="tmp--container"
  style="background-color:#ffffff;" width="600">

  <tr>
    <td align="left" style="color:#4f4f4f;font-family:Gotham, &quot;Salesforce Sans&quot;,
  Arial,
  sans-serif;font-size:16px;font-style:normal;font-weight:normal;line-height:20px;padding:20px
  20px 20px 20px;text-align:center;vertical-align:top;" width="100%">
    <!-- ===== --><!-- CTA BTN --><!-- ===== --><table align="center" class="tmp--full-width" width="100%">

    <tr>
      <td align="center" style="padding:10px 0 10px 0;">
        <a class="high_click" href="http://pages.s4.exacttarget.com/nto_home"
  style="padding:10px 30px;border:1.5px solid
  #6D6E6E;color:#6D6E6E;display:inline-block;font-family:Gotham, &quot;Salesforce Sans&quot;,
  Arial,
  sans-serif;font-size:18px;font-style:normal;font-weight:normal;line-height:24px;text-align:center;text-decoration:none;"
  target="_blank">stuff we love</a></td></tr></table></td></tr></table><!-- end outline
  button content area --></td></tr></table><table cellpadding="0" cellspacing="0" width="100%"
  style="min-width: 100%; " class="stylingblock-content-wrapper"><tr><td
  class="stylingblock-content-wrapper camarker-inner"></td></tr></table>

```

Recommendations

```

<!-- Start Smart Block --><style type="text/css">
.amp {
  font-size:1px;
  color:#fff;
}</style><span class="amp"></span><style type="text/css">
.code_none{
  display:none;
}</style><div align="center" style="padding: 15px; border: 5px dashed #ffffff; color:
#ffffff; font-family: Gotham, Helvetica, Arial, sans-serif; font-size: 18px;
background-color: #6ccdf0;">
Recommended Items</div> <span class="amp"></span> <!-- End Smart Block --> <table
width="100%">

  <tr>
    <td>
      <span class="amp"><a
href="https://nto.recs.igodigital.com/rr/v2/5b02c7d62ccd63779bac61d9/1/1/jragdale@salesforce.com">
</a> </span></td><td>
      <span class="amp"><a
href="https://nto.recs.igodigital.com/rr/v2/5b02c7d62ccd63779bac61d9/1/2/jragdale@salesforce.com">
</a> </span></td><td>
      <span class="amp"><a
href="https://nto.recs.igodigital.com/rr/v2/5b02c7d62ccd63779bac61d9/1/3/jragdale@salesforce.com">
</a> </span></td></tr></table><span class="amp"> </span><center>
</center><table cellpadding="0" cellspacing="0" width="100%" style="min-width: 100%; "
class="stylingblock-content-wrapper"></table><table cellpadding="0" cellspacing="0"
width="100%" style="text-align: left; min-width: 100%; "
class="stylingblock-content-wrapper"><tr><td class="stylingblock-content-wrapper
camarker-inner" align="left"><!-- banner image content area--><table align="center"
border="0" cellpadding="0" cellspacing="0" class="tmp--container" width="600">

</table></td></tr></table>

```

Footer

```

<a alias="New Arrivals Hero" class="high_click"
href="http://pages.s4.exacttarget.com/nto_home" target="_blank"></a><!-- end hero image content
area -->

  <!-- end content area -->

```



```

        <!-- footer -->
        <table style="background-color:#ffffff;" class="tmp--container" width="600"
align="center" border="0" cellspacing="0" cellpadding="0">
            <tr>
                <td class="tmp--full-width-center" width="100%" align="center"
style="padding:25px 20px 0 20px;">
                    

                </td>
            </tr>
        </table>
        <table style="background-color:#ffffff;" class="tmp--container" width="600"
align="center" border="0" cellspacing="0" cellpadding="0">
            <tr>
                </tr></table>
    
```

Image Content



AMPscript Content Blocks for Advanced Content

We recommend pasting this content as code snippet content block types to minimize formatting errors.

IF-THEN UPSERT Example

```

%%[
set @lookupvalue = AttributeValue("CategoryAffinity")
set @affinity = Lookup("ProductRecommendations", "Category", "Category", @lookupvalue)
set @gender = AttributeValue("Gender")
set @subkey = AttributeValue("SubscriberKey")
set @subAffinity = IIF(@affinity == "Shoes", "Yes", "No")
set @output = concat(@subAffinity, @gender)
set @imageID1 =
"https://image.s4.sfmtc-content.com/lib/fe2b11727664047c7d1d78/m/1/544683df-9f8f-4ece-a303-3afb594388f6.jpg"
set @imageID2 =
"https://image.s4.sfmtc-content.com/lib/fe2b11727664047c7d1d78/m/1/137453a1-457e-4d68-ab08-568ab7624c65.jpg"
set @imageID3 =
"https://image.s4.sfmtc-content.com/lib/fe2b11727664047c7d1d78/m/1/ebd833d5-aa81-4b4c-9f21-49cd20a305f0.jpg"
set @updatedAt = Now(1) if (@output == "YesFemale") THEN set @ProductRec = @imageID1
elseif (@output == "NoFemale") THEN set @ProductRec = @imageID2 elseif (@output == "YesMale"
OR @output == "NoMale") THEN set @ProductRec = @imageID3 endif
]%%
%%[UpsertDE("MasterDemographics",1,"SubscriberKey", @subkey, "DefaultImage", @ProductRec,
"UpdatedAt", @updatedAt)]%%
    
```

Randomized Recommendations (2 for loops)

```

<table cellpadding="0" cellspacing="0" width="100%" style="min-width: 100%; "
class="stylingblock-content-wrapper"><tr><td class="stylingblock-content-wrapper
camarker-inner"><!-- Start Smart Block --><style type="text/css">
.amp {
  font-size:1px;
  color:#fff;
}</style><span class="amp"></span><style type="text/css">
.code_none{
  display:none;
}</style><div align="center" style="padding: 15px; border: 5px dashed #ffffff; color:
#ffffff; font-family: Gotham, Helvetica, Arial, sans-serif; font-size: 18px;
background-color: #6ccdf0;">
Recommended Items</div> <span class="amp"></span> <!-- End Smart Block -->
<table style="width: 100%;border-collapse: collapse;" >
<tr>
%%[
set @rows = LookupRows("ProductRecommendations", "Category", "Shoes")
set @rowCount = rowcount(@rows)
set @rowCount2 = random(0,1)
if @rowCount2 > 0 then

  set @num1 = 1
  set @num2 = @rowCount

  /*Change this to retrieve the number of reccos you want to show*/
  for @i = 1 to 3 do
    /*Get a random row*/
    set @random = random(@num1, @num2)
    set @row = row(@rows, @random)
    set @title = field(@row,"Title")
    set @link = field(@row,"Link")
    set @imgURL = field(@row,"ImgURL")
    set @linkURL = field(@row,"LinkURL")

]%%

<td>
  <b>%%=v(@title)=%%</b><br>
  <img style="width:150px;" src='%%=v(@imgURL)=%%'><br>
  <a href='%%=v(@linkURL)=%%'>Buy Here</a></td>

  %%[

  next @i ]%%
</tr></table>
%%[ else ]%%

%%[
set @rows = LookupRows("ProductRecommendations2", "Category", "Shoes")
set @rowCount = rowcount(@rows)
set @num1 = 1
set @num2 = @rowCount

```

```

/*Change this to retrieve the number of reccos you want to show*/
for @i = 1 to 3 do
  /*Get a random row*/
  set @random = random(@num1, @num2)
  set @row = row(@rows, @random)
  set @title = field(@row, "Title")
  set @link = field(@row, "Link")
  set @imgURL = field(@row, "ImgURL")
  set @linkURL = field(@row, "LinkURL")

]%%

<td>
  <b>%%=v(@title)=%%</b><br>
  <img style="width:150px;" src='%%=v(@imgURL)=%%'><br>
  <a href='%%=v(@linkURL)=%%'>Buy Here</a></td>

%%[

next @i ]%%

%%[ endif ]%%

```

ContentBlockBy Key for Footer

```

%%[var @footer set @footer = "8631b69b-2768-4c81-9362-7077803daef3"]%%
%%=ContentBlockByKey(@footer)=%%

```

ContentBlockBy Key for Text and Button

```

%%[var @body set @body = "07b4de4e-681c-47d7-b3af-5c98573c6389"]%%
%%=ContentBlockByKey(@body)=%%

```

ContentBlockBy Key for Text and Button

```

%%[var @header set @header = "65b60d01-27fb-48c1-81f5-0884bd06565f"]%%
%%=ContentBlockByKey(@header)=%%

```

Randomized Recommendations (1 for Loop)

```

<table cellpadding="0" cellspacing="0" width="100%" style="min-width: 100%; "
class="stylingblock-content-wrapper"><tr><td class="stylingblock-content-wrapper
camarker-inner"><!-- Start Smart Block --><style type="text/css">
.amp {
  font-size:1px;
  color:#fff;
}</style><span class="amp"></span><style type="text/css">
.code_none{
  display:none;
}</style><div align="center" style="padding: 15px; border: 5px dashed #ffffff; color:
#ffffff; font-family: Gotham, Helvetica, Arial, sans-serif; font-size: 18px;
background-color: #6ccdf0;">
Recommended Items</div> <span class="amp"></span> <!-- End Smart Block -->
<table style="width: 100%;border-collapse: collapse;" >
<tr>

```

```

%%[

var @random, @num1, @num2
var @rows, @row, @rowCount, @title, @link, @imgsrc, @linkhref

set @rows = LookupRows("ProductRecommendations", "Category", "Shoes")
set @rowCount = rowcount(@rows)

if @rowCount > 0 then

    set @num1 = 1
    set @num2 = @rowCount

    /*Change this to retrieve the number of reccos you want to show*/
    for @i = 1 to 3 do
        /*Get a random row*/
        set @random = random(@num1, @num2)
        set @row = row(@rows, @random)
        set @title = field(@row, "Title")
        set @link = field(@row, "Link")
        set @imgURL = field(@row, "ImgURL")
        set @linkURL = field(@row, "LinkURL")
    ]%%
    <td>
        <b>%%=v(@title)=%%</b><br>
        <img style="width:150px;" src='%%=v(@imgURL)=%%'><br>
        <a href='%%=v(@linkURL)=%%'>%%=v(@title)=%%</a></td>

        %%[

        next @i ]%%
    </tr></table>
    %%[ else ]%%

No rows found

%%[ endif ]%%

```

Dynamic Impression Region Tracking

```

<table cellpadding="0" cellspacing="0" width="100%" style="min-width: 100%; "
class="stylingblock-content-wrapper"><tr><td class="stylingblock-content-wrapper
camarker-inner"><!-- Start Smart Block --><style type="text/css">
.amp {
font-size:1px;
color:#fff;
}</style><span class="amp"></span><style type="text/css">
.code_none{
display:none;
}</style><div align="center" style="padding: 15px; border: 5px dashed #ffffff; color:
#ffffff; font-family: Gotham, Helvetica, Arial, sans-serif; font-size: 18px;
background-color: #6ccdf0;">
More Recommended Items</div> <span class="amp"></span> <!-- End Smart Block -->
<table style="width: 100%;border-collapse: collapse;" >

```

```

<tr>
%%[

set @rows2 = LookupRows("ProductRecommendations2", "Category", "Shoes")
set @rowCount2 = rowcount(@rows2)

if @rowCount2 > 0 then

    set @num3 = 1
    set @num4 = @rowCount2

    /*Change this to retrieve the number of reccos you want to show*/
    for @i = 1 to 3 do
        /*Get a random row*/
        set @random2 = random(@num3, @num4)
        set @row2 = row(@rows2, @random2)
        set @title2 = field(@row2,"Title")
        set @link2 = field(@row2,"Link")
        set @imgURL2 = field(@row2,"ImgURL")
        set @linkURL2 = field(@row2,"LinkURL")
    ]%%
    %%=TreatAsContentArea (@title2,
Concat ('%', '%=BeginImpressionRegion ("', @title2, '" )=%', '%') )=%%
    <td>
        <b>%%=v (@title2) =%%</b><br>
        <img style="width:150px;" src='%%=v (@imgURL2) =%%'><br>
        <a href='%%=v (@linkURL2) =%%'>%%=v (@title2) =%%</a></td>

    %%[

        next @i ]%%
</tr></table>
%%[ else ]%%

No rows found

%%[ endif ]%%

%%=EndImpressionRegion (0) =%%

```

SEE ALSO:

[How to Optimize Journey Builder Performance](#)

Monitor Journeys in Slack

Digital Command Center for Slack monitors your journeys so that you can react quickly to campaign problems. For example, you can receive alerts when a journey doesn't have as many entries as expected, or when it doesn't meet the threshold for sends, clicks, opens, or bounce rates.

Configure Journey Builder rules to identify when to troubleshoot or modify a campaign. For example:

- New Journey Version Validation
- Journey Performance Thresholds

- Abnormally High Journey Entries
- Abnormally Low Journey Entries

To see all use cases and get started, see the Digital Command Center for Slack documentation.

SEE ALSO:

- [Get Started with Digital Command Center for Slack](#)
- [Rule Types and Individual Rule Configuration Options](#)
- [The Daily Digest Report](#)

Journey Builder System Optimization Dashboard

The System Optimization dashboard shows the journeys and configurations that can affect overall system processing speed and identifies changes to improve system performance. The dashboard monitors running journey versions when contacts are actively flowing and identifies inefficiencies and recommendations to improve performance. You can activate a journey without correcting warnings, but we recommend reviewing issues that can impact Journey Builder performance.

The System Optimization Dashboard leads you to the journey canvas where you can view recommendations to improve your journeys or activity configurations. You can activate your journey without correcting these warnings, but we recommend that you review configurations that can impact Journey Builder performance.

- Which impacting journeys or configurations need optimization?
- Why is this journey running slow?
- What can I do to improve the speed of this journey?

What Does the Dashboard Monitor?

The dashboard monitors running journey versions when contacts are actively flowing during the given timeframe.

- Inefficient Journeys: The number of journeys that have at least one inefficient configuration.
- Inefficient Configurations: The number of inefficient activities on the canvas.
- Inefficient Events: The number of non-unique contact instances who went through the inefficient configurations. This number generally represents the relative impact to system performance.

After these inefficiencies are identified, the dashboard displays analytics and recommendations:

- Top Optimization Opportunities: The journeys and configurations that have the highest count of inefficient events that need your attention.
- Total System Inefficiency: The percentage of inefficient interactions the journeys or configurations have compared to the rest of the objects that you've selected in the filter.

By default, the dashboard shows the percentage of inefficient interactions the filtered journeys or configurations have versus your entire business unit.

- Top-Impacting Journeys: The journeys that have the most activity within them—both good and inefficient events. Some journeys can have a high impact to the account due to the size of the audience and the number of activities in them even if they don't have inefficient configurations.
- Recommendations: The recommended changes to make to a given journey or configuration.

Which Journey Version Is the Dashboard Data Based On?

You can see a snapshot of data based on journeys that have a Running status and have contacts running through them during the given time frame. For example, if journey A was running on 1/1/2023 and finishing on 1/2/2023, the dashboard shows data only from 1/1/2023. If journey A was running version 1 on 1/1/2023 but then you ran a new version of journey A on 1/2/2023, the user sees data from both days.

How Current Is the Dashboard Data?

Your dashboard generally shows data within 10 minutes of contacts flowing through the activity or configuration. Update speed is based on the amount of data processed.

If I Act on All the Optimization Recommendations, Do My Sends Go Faster?

Journey Builder system processing should improve. However, it's not a guarantee that send time improves. Other factors, such as AMPscript complexity or multiple sends going out at the same time, can also impact send speeds.

What Other Factors Impact Journey Performance?

- Other business units can be taking up system resources. Ask your marketing operations team to review other business units.
- Too many journeys or large audiences are running at the same time. Stagger the timing of processes to minimize overlap.
- Your journey could have inefficiencies that are impacting performance that the dashboard doesn't monitor, such as AMPscript complexity.
- You could benefit from a dedicated data environment. Ask your account representative for more information.

Do Inactive Journeys Impact Journey Builder System Performance?

A running or finishing journey that has no contacts flowing through it doesn't impact system performance.

I Had Optimization Opportunities Yesterday, but Not Today. Why?

The system identifies an inefficient configuration only if a contact has passed through it. If no contacts flow through an inefficient activity or journey in a given period, no optimization opportunities are shown for that time period.

Can I Prioritize My Journeys?

You can adjust Journey Builder shared system resources within a business unit to change journey speeds relative to one another. Ask your Marketing Cloud Engagement admin to enable the Adjust System Priority permission in Marketing Cloud Engagement Setup.

Journey Builder Configuration Recommendations

As part of journey validation functionality, Journey Builder makes recommendations about configurations that can impact system performance. These recommendations don't prevent you from activating your journey.


Recommendation	Description
Approaching Salesforce Data Entry Limit	You are near the limit of active journeys with a specified entry source. To free up bandwidth, delete the entry source or stop unnecessary running journeys.

Recommendation	Description
Back-to-Back Decision Splits	Delete a decision split or add an activity between the splits.
Decision Split	Use an ETL tool such as Automation Studio for large-scale segmentation before admitting contacts into Journey Builder instead of filtering contacts within the entry source.
First Activity is a Decision Split	Consider doing additional audience segmentation before entering the journey. You can also use an entry filter instead of starting the journey with a decision split.
Journey with no Messaging Activities	Consider another tool for non-messaging use cases, such as a data transfer or segmentation.
Multi-Step Journey with API Event Entry and Single Messaging Activity	To trigger the send of one transactional message, create a transactional journey or a transactional API request .
Reused Event Definition	This event definition is used in 10 or more journeys. To improve journey performance, create another event definition.
Too Many Activities	Limit your journey to 150–200 activities. Consider breaking your journey into multiple smaller journeys or reducing unnecessary waits and decision splits.
Wait By Duration as the First Step of Journey	Consider removing the Wait activity at the beginning of your journey and using the Entry Schedule instead.
Wait by Duration in the Middle of a Journey	Remove any Wait activities in the middle of your journey that are less than 15 minutes.
Wait By Duration with Engagement Split	To give subscribers time to engage with your journey, allow at least 1 hour between the message activity and the engagement split .
Wait Duration Greater than Six Months	Reduce the wait duration to less than 6 months, or exit the members and create a new journey for them.

The Journeys Dashboard

The Journeys Dashboard provides an overview of all the journeys you create in Journey Builder. The overview includes journey type, status, and the last date changes were made. You can also see which version of a journey is accepting new contacts. In this dashboard, you can sort by journey, status, performance by entry total and goal attainment, or last modified date. You can also filter the list of journeys, open a journey, and access the journey creation workspace.

The All Journeys dashboard appears when you navigate to Journey Builder. To view details or edit a journey, click the journey title. To narrow the list of journeys shown, click the corresponding view.

 **Tip:** To return to the dashboard from within the app, click **Journeys Dashboard**.

[All Journeys Dashboard View](#)

This default Journey Builder dashboard shows available journeys in your Marketing Cloud Engagement account.

[Scheduled Single Sends Dashboard View](#)

View the list of scheduled Single Send journeys in the Journeys Dashboard of Journey Builder.

[Recent Single Sends Dashboard View](#)

View metrics for sent Single Send journeys in the Recent Single Sends tab of the Journeys Dashboard in Journey Builder.

[Transactional Send Dashboard View](#)

View metrics for sent Transactional journeys in the Transactional tab of the Journeys Dashboard in Journey Builder.

All Journeys Dashboard View

This default Journey Builder dashboard shows available journeys in your Marketing Cloud Engagement account.

- Journey—The name of the journey.
- Status—Possible journey statuses include:
 - Canceled—A Single Send journey was canceled before the scheduled send date and time.
 - Deleted—The journey was deleted.
 - Draft—The journey is ready for editing.
 - Running—The journey is published and active.
 - Scheduled—The Single Send journey is scheduled to send at the specified date and time.
 - Sent—A Single Send journey started or sent a message on the specified send date and time.
 - Stopped—The journey was stopped.
- Performance—How the journey is performing according to the goals set for that journey.
- Last Modified—The time and date when the journey's most recent update occurred.

Scheduled Single Sends Dashboard View

View the list of scheduled Single Send journeys in the Journeys Dashboard of Journey Builder.



In Journey Builder, go to the Journeys Dashboard and click **Scheduled Single Sends**. The list includes:

- Journey: The name of the journey
- Status: Shows that the journey is scheduled
- Channel: The type of message to send
- Send Date: The date the journey is scheduled to send

Recent Single Sends Dashboard View

View metrics for sent Single Send journeys in the Recent Single Sends tab of the Journeys Dashboard in Journey Builder.

In Journey Builder, go to the Journeys Dashboard, and click **Recent Single Sends**.

-  **Note:** The number under each activity reflects the contacts who entered the journey. To review more detailed analytics, click the activity.
-  **Note:** There's a 1-hour delay for these metrics.
- Journey: The name of the journey
- Status: Shows that the journey is sent
- Channel: The type of message sent

- Sent Date: When the journey was sent

Each channel displays different metrics. Metrics not specified for a channel remain blank.

Email

- Delivery: The number and percentage of messages sent minus the number of bounces
- Opens: The number and percentage of unique opens, excluding duplicate opens for a single contact
- Clicks: The number and percentage of unique clicks, excluding duplicate clicks for a single contact
- Bounces: The number and percentage of messages that bounced
- Unsubscribes: The number and percentage of unsubscribes

Push


- Delivery: Number of messages sent to mobile devices
- Opens: Number of unique opens for the message, excluding duplicate opens for a single mobile device

SMS

- Delivery: Number of messages sent to mobile devices
- Clicks: The number and percentage of unique clicks, excluding duplicate clicks for a single contact


Transactional Send Dashboard View

View metrics for sent Transactional journeys in the Transactional tab of the Journeys Dashboard in Journey Builder.

 **Note:** The values displayed for these metrics are fetched in real time whenever this page view is refreshed. Google Analytics 360 metrics aren't available for transactional send journeys.

In Journey Builder, go to the Journeys Dashboard, and click **Transactional**. The list includes:

- Journey: The name of the journey
- Status: Shows that the journey is scheduled
- Channel: The type of message to send
- Last Modified: When the journey's most recent update occurred
- Completed: Number of sends that completed in the past 24 hours
- Errored: Number of sends that failed to send in the past 24 hours
- Queued: Number of sends in the sending process
- Queue Age: Age of the oldest message in the queue

 **Tip:** To review comprehensive engagement information, such as click activity, contacts, and email performance, click to open the journey, and select the Email Analytics view.

Manage Customer Journeys

Journey Builder's enables you to efficiently create and track Single Send, Transactional Send, and Multi-Step customer journeys in Marketing Cloud Engagement from a unified workspace.

Single Send journeys: Automate a single batch message to a target audience.

Transactional journeys: Send personalized messages in response to a specific action taken by a contact.

Multi-Step journeys: Automate a responsive, customized series of customer interactions.

Follow these recommendations to get the most out of Journey Builder.

- Keep journeys discrete and focused on a single marketing objective, like welcoming new customers or thanking volunteers for signing up.
- Outline your journey and plan your data and content needs before you create the journey in Journey Builder.
- Start small and build on success. Expand from a single triggered email or message into a short series. Use the simple journey to test your approach and gather baseline metrics before you add complexity. For example, start with a welcome series that includes timed waits. Then when you feel comfortable, add Engagement or Decision Splits.
- Consider not just the length of the journey or time between activities, but also the timing of data activities. Time data updates and automations to avoid conflicts and to ensure that you have the right data when you need it.

Single Send Journeys

Single Send journeys enable you to create and manage simple, one-touch customer journeys within the same workspace used for Multi-Step journeys. Define the target audience for the entry source, add existing message content or create a message from scratch, and send or schedule the send for a later date and time. You can also get Einstein's help to send at the right time and monitor message engagement metrics all within Journey Builder.

Multi-Step Journeys

Journey Builder's Multi-Step journeys enable you to create and manage customer journeys through a series of interactions with your brand. These journeys can include multiple channels and customized journey paths based on customer interactions or attributes.

Transactional Send Journeys

Transactional Send journeys enable you to create and manage transactional API messages in the same Journey Builder workspace used to manage Single Send and Multi-Step journeys. This journey type allows non-technical users to configure a Transactional API entry source without assistance from a developer. You can also monitor journey performance, such as error counts and queue depth, from the Journeys Dashboard.

Journey Templates

Journey Templates are pre-defined journeys created by Salesforce or other users. Use a template as-is, or modify it to meet your use case.

Journey Pause

Pause a running journey to temporarily halt processing contacts and sending messages through the journey. Resume a paused journey to restart processing contacts. Use this feature to temporarily halt sending messages for business reasons or to update content included in a journey. You can also pause a journey to allow a higher priority campaign to run instead, and then resume the journey after that campaign ends.

Single Send Journeys

Single Send journeys enable you to create and manage simple, one-touch customer journeys within the same workspace used for Multi-Step journeys. Define the target audience for the entry source, add existing message content or create a message from scratch, and send or schedule the send for a later date and time. You can also get Einstein's help to send at the right time and monitor message engagement metrics all within Journey Builder.

Single Send journeys enable you to automate sending when the customer journey only requires one message without subsequent follow-up. Here are two examples:

Example: Use Case: Retail

Paul manages digital marketing for a national retail company. Each season, the retailer has a flash sale that is open to customers who reached the gold level. He can schedule an email to send them that announces the availability of flash sale prices on the day the sale begins. Or he can include the Einstein STO activity before the message, set the activity's time frame for sending to 24 hours, and begin the journey at least 24 hours before the sale begins.

Example: Use Case: Nonprofit

Jacinda is the engagement officer for a regional nonprofit. There's an urgent need for hands-on volunteers due to a recent natural disaster. She can create and send the email that outlines the need and includes a call to action to volunteers who opted in to receive these messages.

[Create a Single Send Journey](#)

Use the Single Send feature in Journey Builder to create a single-message journey for a batch audience. You can schedule Single Send journeys to send immediately or at a future date and time. And you can use Einstein activities to send at the optimal time and frequency for each contact.

Create a Single Send Journey

Use the Single Send feature in Journey Builder to create a single-message journey for a batch audience. You can schedule Single Send journeys to send immediately or at a future date and time. And you can use Einstein activities to send at the optimal time and frequency for each contact.


1. In Journey Builder, click **Create New Journey**.
2. Navigate to Single Send Journey, and select the type of message to create.
Email, Push, and SMS types don't support Einstein features.
3. To use Einstein STO to send the message to each contact at the best time for them, add the Send Time Optimization activity.
 - a. To remove the Einstein STO activity, click **Delete**.
 - b. When you use both the Einstein STO and the Engagement Frequency activities in the journey, the Engagement Frequency activity always appears before the STO activity.

 **Note:** The Einstein STO and Einstein Engagement Frequency activities don't support sending via the SMS activity.

4. To use Einstein Engagement Frequency to segment each contact by the frequency of messages that they're likely to engage with, add the Engagement Frequency activity.
 - a. The Undersaturated path is added by default, but you can choose a different path.
 - b. To remove the Engagement Frequency activity, click **Delete**.
5. Click **Done**.
6. Click the Entry Source on the canvas. For email sends, select the data extension that contains the target audience. For push sends, select the audience.
7. Click **Summary**.
8. Click **Done**.
9. Click the message activity on the canvas.
10. Click **Select Message** or **New Message**.

Follow the steps to [create an email, push message, or SMS message](#) in Journey Builder.

11. Click **Summary**.
12. Click **Done**.
13. Click the Schedule activity, and select **On Activation** or **At specific date and time**.
 - a. If applicable, enter the date and time.
14. Click **Done**.
15. Click **Save**.
16. Click **Validate** and, if needed, follow the instructions to correct any errors found.
17. Click **Send** or **Schedule**.


 **Note:** If you selected **On Activation**, the send begins immediately after you click **Send**. If you selected **At specific date and time**, after you click **Schedule**, the send begins at the future date and time you configured.

 **Tip:** To cancel a scheduled Single Send journey, open the journey canvas, and click **Cancel**. Then click **Cancel Schedule**.

Multi-Step Journeys

Journey Builder's Multi-Step journeys enable you to create and manage customer journeys through a series of interactions with your brand. These journeys can include multiple channels and customized journey paths based on customer interactions or attributes.

Keep journeys discrete and focused on a single marketing objective, like welcoming new customers or thanking volunteers for signing up. Here are two examples.

 **Tip:** Start small with a single triggered message and build on success by creating a short series. Use the simple journey to test your approach and gather baseline metrics before you add complexity. For example, start with a welcome series that includes timed waits. Then when you feel comfortable, add Engagement or Decision Splits.

Example: Use Case: Financial Services

Michael manages new customer engagement for a financial institution. He creates a journey to tell customers about account features, like the mobile app, fund transfers, and the free bill pay.

Example: Use Case: Retail


Angela is the marketing manager for a large online retailer. She creates a customer journey to re-engage with customers who add items to their cart, but don't make a purchase. This journey includes a reminder, followed two days later by a discount offer for customers who still haven't completed the purchase.

[Create a Multi-Step Journey in Journey Builder](#)

Use the Multi-Step feature in Journey Builder to create automated, customized, multiple-touch customer journeys in Marketing Cloud Engagement.

Create a Multi-Step Journey in Journey Builder

Use the Multi-Step feature in Journey Builder to create automated, customized, multiple-touch customer journeys in Marketing Cloud Engagement.


 **Tip:** Before you start, outline your journey and plan your data and content needs. Consider not just the length of the journey or time between activities, but also the timing of data activities. Time data updates and automations to avoid conflicts and to ensure that you have the right data when you need it.

1. Click **Create New Journey**.

2. To create a Multi-Step journey from scratch, click **Build**.

 **Tip:** To create a journey from a template, click Journey Template in the build panel. See [Create a Journey from a Template](#) for step-by-step instructions.

3. To configure the Journey Settings, click  .

4. To set a Goal, click  .

5. To set the Exit Criteria, click  .

6. Drag an Entry Source onto the canvas and click to configure.

7. Configure the entry source.

For more details, see [Entry Sources](#).





8. Drag an activity onto the canvas and click to configure.

 **Tip:** Don't begin a journey with a Wait activity.

9. Configure the activity.

For more details, see [Journey Builder Activities](#).

10. For each planned activity, repeat steps 8 and 9.

 **Tip:** To copy a journey activity, click  . To edit an activity, click to open it. To delete a journey activity, hover over the activity, click  , and click **Delete**. To rename a journey activity, click  .

11. Click **Save**.

12. Click **Validate**.

13. If applicable, correct any errors that occur.

14. Click **Test**.

15. Click **Activate**.

[Welcome Campaigns](#)

Welcome email campaigns are a good way to greet new customers when they sign up or opt in for marketing communications. You can use Journey Builder to improve the customer experience by expanding from a single email to a series of messages.

[Retail Campaigns](#)

Retailers use marketing campaigns built in Journey Builder to promote a sale, announce a new product, or invite customers to a special event. The goal for these campaigns is to increase conversion and drive sales.

Anniversary Campaigns

Even a simple reminder campaign in Journey Builder can help build a relationship with your clients and increase brand engagement. Typical anniversary campaigns focus on a special date for a customer, like a birthday or sign-up date. These yearly messages can be part of a renewal strategy. You can also celebrate your company’s milestones or send a reminder to customers who haven’t purchased in a while.

Welcome Campaigns

Welcome email campaigns are a good way to greet new customers when they sign up or opt in for marketing communications. You can use Journey Builder to improve the customer experience by expanding from a single email to a series of messages.

A welcome series is your chance to create a great first impression for your new client. A welcome series:

- Keeps you from trying to do too much in a single email.
- Emphasizes different aspects of your company or products in a series of messages.
- Sets expectations about the content, quality, and cadence of communications with your company.
- Customizes the messages and delivery based on customer interactions with your messages, or actions customers take on your website.

Here are examples of when and how to use a welcome series:

- 👁️ **Example:** A customer purchases a device and receives a thank you email with a link to set up alerts and notifications. A second email encourages them to finish filling out their profile. A third email asks them to follow the company’s social media feeds.
- 👁️ **Example:** A customer creates a financial account and receives a welcome email with a link to download a mobile app. A second email asks if they know how to transfer money between accounts and includes a how-to video. A third email informs the customer about the company’s free bill pay service.
- 👁️ **Example:** A teacher downloads a white paper about how to create a fundraising campaign and receives a welcome email to the website. A second email invites the teacher to get started by filling out a user profile. A third email features an example of a fundraising campaign with a link that says “Start your fundraising campaign today!”

Welcome Journey

Use a Data Extension entry source and timed waits to introduce yourself and your brand to a new customer. If you’re new to Journey Builder, you can use this template to get started quickly and establish baseline engagement metrics. This Welcome Series template uses a data extension entry source to start the journey and create a timed sequence of emails to promote features or services.



New Purchase: Beginner Welcome Series Example

A retailer updates new customer data through a daily import to Marketing Cloud Engagement from a web shopping cart. This data is stored in the New Customers data extension, which is used as the entry source for the New Purchase Journey. After the import, new customers in the data extension receive an email that congratulates them on their purchase and prompts them to complete their online profile. After a set amount of time, customers receive a second email that showcases product features or products related to the customer’s purchase. Following another wait, customers receive a third email that promotes extra features or services. When the sequence is complete, the customer exits the New Purchase Journey.

Entry Source

This Welcome Series template uses a Data Extension entry source. Before you create the data extension, confirm that the customer data used for personalization or dynamic content is stored in Engagement. The target audience is selected through the entry source configuration wizard in Journey Builder.

Message Sequence and Content

For the Welcome Series with timed waits, we recommend three emails.

Email 1	Confirm subscription, introduce your brand, and set expectations for future content and cadence.
Email 2	Provide an offer or coupon as a thank you, or showcase a feature or service such as loyalty club membership or social media programs.
Email 3	Follow up on the offer or coupon with a reminder or showcase more features or services.

Welcome Journey with Engagement Splits

Step up your game by incorporating Engagement Splits into your Welcome Series. Using an automation to populate your data extension allows you to place contacts into the journey more frequently. Engagement Splits allow you to customize the journey based on customer engagement (opens, bounces, or clicks) with your emails.



The Intermediate Welcome Series uses a data extension as the entry source to add customers who meet the criteria more frequently. Flow control elements like Engagement Splits and Decision Splits allow you to customize the journey for your customers. For example, you include more emails to re-engage with customers who don't respond to your welcome series. Goals let you track customers' progress toward the journey's objective.

New Purchase: Example

To update New Customer data frequently, use Automation Studio to import customers into the data extension and admit contacts to the Welcome Journey throughout the day. Use splits to identify customers who don't open their emails or download the mobile app. Then, send follow-up emails to those customers to promote the message from the first email.

If a customer engages with the email, send a sequence of messages as outlined in the Basic Welcome Series. You can set a journey goal to measure engagement against your marketing objective. For example, create a goal for the percentage of customers who open emails or download the app.

Message Sequence and Content



For the Welcome Series with timed waits, we recommend three emails. The following suggestions show how messages can vary in content and focus.

Email 1	Confirm subscription, introduce your brand, and set expectations for future content and cadence.
Email 1a	If the customer doesn't engage with your first message, consider personalizing subject lines, offer a discount or coupon, or highlight specific brand offerings.
Email 1b	This email could be your last chance to engage with the customer. Try altering the placement of your call to action or consider emphasizing your brand with logos and pictures instead of text-based content.
Email 2	Provide an offer or coupon as a thank you, or showcase a feature or service such as loyalty club membership or social media programs.
Email 3	Follow up on the offer or coupon with a reminder, or showcase more features or services.

Retail Campaigns

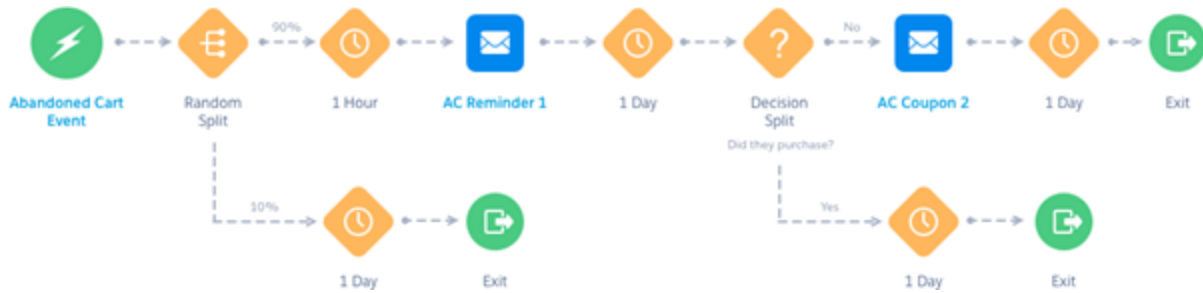
Retailers use marketing campaigns built in Journey Builder to promote a sale, announce a new product, or invite customers to a special event. The goal for these campaigns is to increase conversion and drive sales.

Here are examples of retail marketing campaigns:

-  **Example:** A customer selects several items and places them into their cart but doesn't purchase them. Use a targeted retail campaign to remind the customer of the items and urge them to complete the purchase.
-  **Example:** A customer bought a product two years ago, and a new version of the product is released. Send an email with details about the new features and improvements and a link to purchase the new product.

Abandoned Cart

Re-engage customers who left without a purchase. Abandoned cart campaigns include a sequence of reminder messages.



The difficulty is in deciding the timing and content of the messages, and the availability of real-time data from your website. The data enables you to place customers into the journey in a timely manner or remove them when they make a purchase or clear their cart.

Think about why your customers leave items in their cart. Are they trying to determine the total price for comparison? Are they scared off by the shipping cost or the extra step of creating an account to make the purchase?

If you find customers leaving after they see the shipping cost, consider including a free shipping coupon in your abandoned cart campaign. If the items have a low purchase price, send your first email more quickly. Perhaps the customer needs a reminder to complete the order.

Entry Source

Timing is important for an abandoned cart campaign. You want to remind the customer in a timely manner, generally around an hour after the customer has left the cart. You can break this rule for big-ticket items or items that customers often spend time researching, like computers or mattresses.

Contacts can enter a journey from an API event tied to the shopping cart technology on your website. That way, the timing of the journey is based on customer behavior, and not on their inclusion in an audience segment or population.

If they abandon another cart in the future, contacts can reenter the journey. In other words, if customers add products to a cart, they don't reenter the journey until they complete the campaign sequence.

Message Sequence and Content

You can send two or three emails as part of an abandoned cart campaign, but the first two are the most important and effective. Remind customers of the items in the cart and provide a clear call to action in the first email. Pictures of the products are best, and the call to action can take the customer to their cart.

Incorporate coupons into any email in the sequence. Some retailers hold off sending a coupon until the second or third email as an extra incentive, while others send a coupon immediately. Knowing your customer's buying preferences can help you decide when and how to offer incentives.

Email 1	Remind customers of their abandoned items and provide a clear call to action to return customers to their cart.
Email 2	Provide a coupon or another incentive to lower the total cost and prompt customers to revisit their abandoned cart.

Journey Path

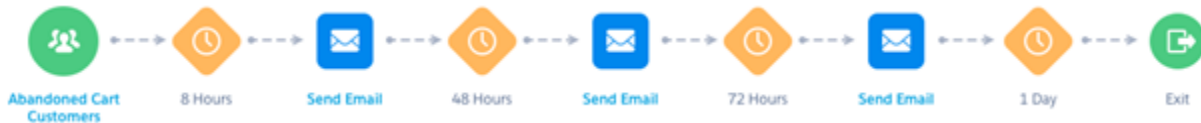
To track the effectiveness of the abandoned cart emails, incorporate a Random Split in the path. To measure overall effectiveness, track and compare conversions between customers who see the reminder emails and customers who don't. Or, to test different creative subject lines, add a branch. If you prefer to have all of your customers complete the journey, simply delete the random split.

Waits are important to time the delivery of messages. In most abandoned cart campaigns, you want to remind customers quickly so they don't lose interest or buy from another site. Typically, the first wait is set between 1 hour and 1 day, depending on your knowledge of your customer's buying behavior. The best practice is to send the first email 1 or 2 hours after the customer abandons the cart.

Set the second wait time to anywhere from 24 to 72 hours. We recommend a 1-day wait before sending a second email. Remember to set a Goal or use a Decision Split to remove customers from the journey if they complete a purchase or clear their cart.

Abandoned Cart for Big Ticket Items

Support customers who left large-ticket items in their cart or who have abandoned a funnel by helping them make an informed choice.



Abandoned cart or funnel campaigns are a sequence of reminder messages, so the journey is fairly simple. The difficulty is in deciding the timing and content of the messages, and the availability of real-time data from your website. The data enables you to place customers into the journey in a timely manner or remove them when they make a purchase or clear their cart.

Think about why your customers don't complete a purchase. If you sell products that customers research extensively before a purchase, such as auto insurance or electronics, you want to help customers make an informed choice. You can give customers more time and provide details, such as ratings or links to more information, to help them decide.

Entry Source

Timing is important for an abandoned cart or funnel campaign. You want to remind the customer in a timely manner without rushing them through a decision about a big-ticket purchase.

Contacts can enter a journey from an API event tied to the shopping cart or purchase funnel on your website. That way, the delivery of the messages is based on customer behavior, not on their inclusion in an audience segment or population.

Configure the journey to allow customers who abandon another cart in the future to reenter. This setting enables customers to add products to a cart or review a saved quote, without reentering the journey until they complete the entire campaign sequence.

Message Sequence and Content

For a longer buying cycle, three emails are often sent to support customers as they go through their decision-making. The first message reminds the customer of what they abandoned and provides a clear call to action to return and complete the purchase.

The second email can incorporate customer ratings, reviews, or more details about the products or services. The third email is generally your last chance and can include a harder sell than the previous messages. If not used previously, you could also include an incentive here.

Email 1	Remind customers of their abandoned products or services and provide a clear call to action to allow customers to complete a purchase.
Email 2	Include more details, such as customer ratings or reviews, to help customers make an informed purchasing decision.
Email 3	Include new incentives or a stronger sales pitch.

Journey Path

Waits are important to time the delivery of messages. In most abandoned cart campaigns, you want to remind customers quickly so they don't lose interest or buy from another site. But if you expect customers to need extra time to research or decide on their purchase, make your wait activities longer.




Set the second wait time to anywhere from 24 to 72 hours. We recommend a 1-day wait before sending a second email. The final wait can also be from 24 to 72 hours from the previous email, depending on what you know about the customer's buying behavior.

If contacts complete a purchase or clear their cart, use Decision Splits and Goals Decision Split to remove them from the journey.

Anniversary Campaigns

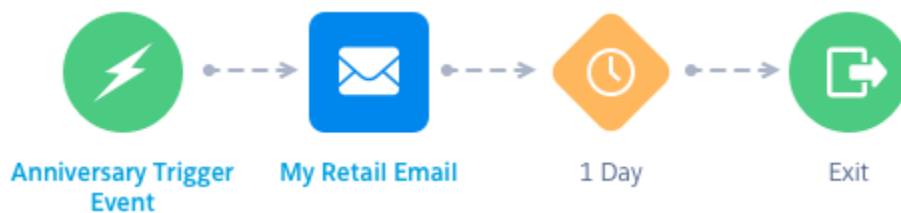
Even a simple reminder campaign in Journey Builder can help build a relationship with your clients and increase brand engagement. Typical anniversary campaigns focus on a special date for a customer, like a birthday or sign-up date. These yearly messages can be part of a renewal strategy. You can also celebrate your company's milestones or send a reminder to customers who haven't purchased in a while.

Here are examples of when to use an anniversary campaign.

-  **Example:** A customer has a yearly subscription to an online fitness website, and they need a renewal reminder before the expiration date.
-  **Example:** A customer entered birthday information as part of signing up for your newsletter to receive a special offer on their birthday.
-  **Example:** Your company, or a company you do business with, has been in business for 5 years and you want to send congratulations to employees.

Simple Anniversary Email

Send a single email to a customer on a specific date on a regular cadence. A simple reminder campaign can help build a relationship with your clients and increase brand engagement.



Typical anniversary campaigns focus on a special date for customers, like their birthday or sign-up date. In this single-message journey, you send a message to your customers triggered by a specific date. The goals of a simple anniversary campaign are:

- Strengthen your relationship with your customers.
- Encourage engagement with your brand.
- Drive renewal or repeat purchases.

Entry Source

Depending on how you set up your anniversary campaign, you can use a date-based event or a data extension entry source. For example, if you want to use a client's birthday or service anniversary, you can use a date-based event. You can create a data extension that includes contacts who haven't purchased anything in the last 60 days or are due for renewal.

If you use a date-based event, make sure that you have the data you need, like a client’s birthday, in your Contact Builder data model. Also, consider timing. You can set the journey start before or after the date. Think about the best time for your clients to get the information: on the specific date, like a birthday message, or a month before the renewal date.

Message Sequence and Content

In this simple campaign, you send a single message.

Email 1	Communicate the message clearly and succinctly (birthday or renewal). Provide necessary details and calls to action, like a link to your website or timing of renewal.
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Journey Path

The nice thing about this simple journey is that you can build on it later by copying or versioning the journey and adding more messages or splits. By starting with a simple journey, you learn the steps for setting up an automated campaign and get some baseline engagement statistics. When you’re comfortable, you can add complexity to your campaigns.

For example, you can add engagement splits to send reminders based on opens or clicks. Or, add timed waits and explain the benefits of renewal through a series of messages.

Birthday Journey

Make your customers feel special with a birthday coupon. Celebrating birthdays is a great way to engage with your customers and let them know how much you appreciate their business.



The journey is personalized, using the information you know about the contact, and can remind them of your brand and products or services on a regular cadence. A birthday journey can:

- Delight your customers by wishing them a Happy Birthday.
- Send them a coupon or redeemable discount to drive conversions.
- Link them to your website, reminding them of your product and services.
- Provide a gift guide and the ability to make a shopping list for family and friends.

Entry Source

Use a date-based event to place contacts into a journey based on data stored in Contact Builder. For birthday journey campaigns, we recommend that you send the first message a few days before the birth date. This plan allows time for them to redeem the coupon.

Select the attribute in the Contact model where the birthday is stored. If contact demographic data is stored in multiple places, be sure to select the attribute from the correct data location. Set the re-entry to Yearly.

Message Sequence and Content

The first email in an anniversary campaign series sends your happy thoughts about the customer's important day and reestablishes your brand. For coupon redemption, provide the coupon or link to the website and any details that are important, like expiration and limitations.

Ensure that you have a way to capture coupon redemption so you can send reminder emails only if necessary. Personalize subject lines and provide a clear call to action within the email.

Email 1	Send well wishes for the customer's happy day and any offer or celebration coupon, including any information about expiration or limitations.
Email 1a	If the customer hasn't redeemed their coupon, remind them about the coupon and emphasize their special day.
Email 1b	If after the customer receives the first reminder, they still haven't redeemed their coupon, send them a second reminder and emphasize the expiration date.
Email 2	Re-emphasize your customer's special day and thank them for their continued engagement with your brand.

Journey Path

To increase the odds of coupon redemption, you can use decision splits to provide timely reminders. Using a decision split, you can check to see if a customer redeemed their coupon before sending a reminder, eliminating unnecessary customer contact.

You must be able to import customer data from your point of sale into Marketing Cloud Engagement and Contact Builder in a timely manner. That way, the decision split uses the most recent data.

Waits are important to time the delivery of messages. Send the birthday message and coupon to your customers anywhere from a few days to a week or two before their birthday. You want to give them enough time to redeem the coupon before the first decision split and send the reminders before the offer or coupon expires.

To set up the waits and decision splits, start with the contact's birthday or coupon expiration date, and work backward to figure out your timing. Don't forget to schedule the data import or update to Contact Builder as part of this planning.

Transactional Send Journeys

Transactional Send journeys enable you to create and manage transactional API messages in the same Journey Builder workspace used to manage Single Send and Multi-Step journeys. This journey type allows non-technical users to configure a Transactional API entry source without assistance from a developer. You can also monitor journey performance, such as error counts and queue depth, from the Journeys Dashboard.

Use a Transactional Send journey to trigger a single message to contacts when they take a specific action. Here are two examples. For more information, see [Get Started with Transactional Messaging API](#).

 **Example: Use Case: Services**

Renee is the membership renewal manager for a curated beauty products subscription box. She creates a Journey for password resets collaborating with the login development team.

 **Example: Use Case: Retail**

Chris is the customer service manager for a large online retailer. They create a journey that sends a confirmation of a purchase when a customer places an order. Because they have Event Notification Service enabled, they receive a notification if a message bounces.

[Create a Transactional Send Journey](#)

Use the Transactional Send feature in Journey Builder to create messages triggered by the Transactional Send API

[Clear a Transactional Send Journey Queue](#)

You can clear a Transactional Send Journey queue when messages in a paused or errored journey are outdated and no longer eligible for delivery.

[Update an Email Activity in a Transactional Send Journey](#)

Follow these steps to update an email message in a Transactional Send Journey.

SEE ALSO:

[Event Notification Service](#)

Create a Transactional Send Journey

Use the Transactional Send feature in Journey Builder to create messages triggered by the Transactional Send API

1. In Journey Builder, click **Create New Journey**.
2. Navigate to Transactional Send Journey, and click **Email**.
3. Enter a journey name. The name can't be changed after the journey is activated.
If you don't enter a name, the system generates one.
4. Click the **Transactional API Event** on the canvas.


 **Important:** To send messages, use the `messaging/v1/{channel}/messages` API

5. Enter an Event Definition Key.
6. Click **Select a Data Extension**.
7. Select the data extension to use.
8. Click **Done**.
9. Click the message activity on the canvas.
10. Click **Select Message** or **New Message**.
Follow the steps to [create an email in Journey Builder](#).
11. Click **Delivery Options**.
12. Choose the subscribers to include and click **Select**.
13. Select to track clicks, if desired.

14. Click **Advanced Options** and add carbon copy and blind copy addresses, if desired.
15. Click **Summary**.
16. Click **Done**.
17. Click **Save**.
18. Click **Activate**.
19. Review the validation results and, if necessary, correct errors.

Clear a Transactional Send Journey Queue

You can clear a Transactional Send Journey queue when messages in a paused or errored journey are outdated and no longer eligible for delivery.

1. If the journey is Active, select **Pause**.
2. Click , and select **Clear Message Queue**.
3. Click **Clear Queue**.
Any queued messages are terminated and set to a Not Sent.
4. To confirm deletion, click the message activity, and review the Not Sent records or the Errored count in the Transactional view on the Journey Dashboard.

Update an Email Activity in a Transactional Send Journey

Follow these steps to update an email message in a Transactional Send Journey.


1. In a running journey, click the email activity to edit.
2. Select **Activity Summary**.
3. Click **Edit** and make your changes.
4. Click **Done**.
Changes are applied immediately.

Journey Templates

Journey Templates are pre-defined journeys created by Salesforce or other users. Use a template as-is, or modify it to meet your use case.

Find a template in Journey Builder via one of these methods.

- Select a template from the gallery on the homepage after you log in to Marketing Cloud Engagement.
- In Journey Builder, click the **Templates** tab.
- In Journey Builder, click **Create New Journey**, and then click **journey template**.

 **Note:** To see templates that don't appear on the first page of results, click **View More Templates**.

Salesforce Templates

Each pre-designed Salesforce Template includes best practice guidance. Click outside the guide on the canvas, or click **X** to turn off best practice guidance.

 **Note:** To disable template guidance for all journeys in your account, including journeys created from a different template, close


the guidance three times using the **X**. To manually disable or re-enable best practice guidance, click .

Choose a template from these available options.

- Abandoned Cart - Everyday Purchase
- Abandoned Cart - Significant Purchase
- Anniversary Send
- Birthday Journey with Coupon
- Event Follow-up
- Welcome Journey
- Welcome Journey with Engagement
- Behavioral Targeting with Audience Studio
- Re-engagement

Shared Templates

Shared templates help you efficiently replicate journeys that address common use cases across your business unit. Users with the Journey Builder Create/Edit permission for the business unit where the template was created can edit and delete shared templates.

 **Note:** To enable users to share templates at the enterprise level, select **Enable Enterprise Level Sharing** in the Marketing Cloud Engagement Setup app.

[Create a Journey from a Template](#)


To create a journey using a journey template, select a template from the Marketing Cloud Engagement home page or in Journey Builder. Alternately, select a template from the template gallery, which includes both Salesforce and shared templates. Users with the Journey Builder Create/Edit permission in the business unit where the template was created can edit and delete shared templates.

[Create a Shared Template](#)

Create a shared template from a journey that you created in Marketing Cloud Engagement Journey Builder.

Create a Journey from a Template

To create a journey using a journey template, select a template from the Marketing Cloud Engagement home page or in Journey Builder. Alternately, select a template from the template gallery, which includes both Salesforce and shared templates. Users with the Journey Builder Create/Edit permission in the business unit where the template was created can edit and delete shared templates.


 **Note:** Configure the schedule each time you create a journey from a shared template.


1. Select a template

 **Tip:** Access journey templates from the Engagement home page or the Journey Builder Templates gallery.

2. Click **Get Started**.

3.

To configure the journey settings, click .


4. To set a goal, click .

5. To set an exit criteria, click .

6. Configure the entry source.

When you access a shared template, the entry source isn't configured, but it matches the entry source type used in the template. You can copy the data extension in a template to use it as the entry source or you can choose a different data extension. When you choose to copy the data extension, you must rename it. If a data extension is deleted after it's included in a template, template users must choose a different data extension.

7. If applicable, configure each canvas activity.

 **Note:** In a shared template, random split, decision split, and wait activities maintain the configuration that the template's creator set. However, you must reconfigure any other activities for the new journey. Decision splits in a journey created from a template that originated in a different business unit maintain only the number of paths and path names. Decision splits in a journey created from a template in the same business unit that contains only Contact Data attributes maintain an identical configuration.

8. Click **Save**.

9. Click **Validate**.


10. Click **Test**.

11. Click **Activate**.

Create a Shared Template

Create a shared template from a journey that you created in Marketing Cloud Engagement Journey Builder.

This feature isn't supported in Single-Send journeys.

 **Tip:** When you share a template, wait and random split activities are configured when the template user opens the template. Entry sources and some activities aren't configured when others use this template.

To allow sharing, ask your admin to enable the Across Enterprise Sharing admin setting for your business unit.

1. Open the journey in edit mode and click .

2. Click **Save as Template**.

3. Click **Define Template Info**.

4. Enter a name and description. You can include instructions for other users.

5. To share the template with all business units in your enterprise, click and enable **Sharing**.

6. Click **Summary**.

7. Click **Create Template**.

[Share a Template](#)

Users with Create/Edit permission in Journey Builder can share the template when they create or edit it.

[Edit a Shared Template](#)

Users with Create/Edit permission in Journey Builder can edit a shared template. Existing journeys created from the template are not affected.

[Delete a Shared Template](#)

Users with Create/Edit permission in Journey Builder can delete shared templates from a business unit. When you delete a shared template, it is no longer available to any business unit. Existing journeys created from the template are not affected.

Share a Template


Users with Create/Edit permission in Journey Builder can share the template when they create or edit it.

When you turn off sharing for a template, others in your org can no longer access it in the My Templates gallery. Existing journeys created from the template aren't affected.



Tip: To share a template as you create it, turn on **Share Across Business Units**.

Share an existing template.


1. Click .
2. In the Sharing section, click **Edit**.
3. Turn on **Share Across Business Units**.

Edit a Shared Template



Users with Create/Edit permission in Journey Builder can edit a shared template. Existing journeys created from the template are not affected.



Note: Salesforce templates are not editable.


1. Click **Templates**.
2. Click **My Templates**.
3. Click .
4. Click **Edit** in a template section or click **Edit Workflow**.
5. Make your changes then click **Save Template**.






Note: Clicking the template card anywhere but  opens the template in journey mode. If you accidentally open the template in journey mode, click **Change Template**, then click .

Delete a Shared Template

Users with Create/Edit permission in Journey Builder can delete shared templates from a business unit. When you delete a shared template, it is no longer available to any business unit. Existing journeys created from the template are not affected.

1. Click **Templates**.
2. Click **My Templates**.
3. Click .

 **Note:** Clicking the template card anywhere but  opens the template in journey mode. If you accidentally open the template in journey mode, click **Change Template**, then click .

4. Click **Get Started**.

5. .
Click .

6. Click **Delete Template**.

7. Click **Delete**.

Journey Pause

Pause a running journey to temporarily halt processing contacts and sending messages through the journey. Resume a paused journey to restart processing contacts. Use this feature to temporarily halt sending messages for business reasons or to update content included in a journey. You can also pause a journey to allow a higher priority campaign to run instead, and then resume the journey after that campaign ends.

Paused Journey Behavior

You can pause a particular version or all versions of a journey to halt processing contacts. After a journey is paused, Journey Builder doesn't create new sends. Contacts processed by Journey Builder and queued for sending aren't paused.

Journeys can be paused for up to 14 days in 1-day increments. Each day is a 24-hour period starting from when the journey is paused. While pausing a journey, you can configure it to resume or stop at the end of the pause duration. You can manually resume a paused journey anytime during the pause duration.

You can extend or not extend the wait time of all Wait by Duration activities on that journey by the duration of the journey's pause. If you don't extend the wait time and the wait expires during a pause, the contact is processed after the journey resumes. Your selection for this option applies to all Wait by Duration activities on the paused journey (or all versions of the journey). This configuration option is only available for Wait by Duration activities. The wait time for Wait by Attribute and Wait for Date isn't extended by default.

The system processes Wait Until activities, but the contact doesn't go to the next activity until the journey resumes.

While pausing a journey, you can queue any contacts entering a paused journey and process them after the journey resumes. You can also drop the contacts trying to enter a paused journey. This configuration option isn't available if Evaluate All Records is selected with the Data Extension Entry source. In that scenario, contacts entering a paused journey aren't queued and dropped by default.

 **Note:** If an In-App Message is sent but not yet displayed, pausing the journey doesn't cancel the message display.

Resume a Paused Journey

When a paused journey resumes, all contacts with expired wait periods are evaluated against any goal criteria. If the option for contacts to exit upon meeting the goal is selected, then all contacts with expired wait periods are evaluated against goal criteria. Contacts that meet the criteria are processed for exiting the journey.

Some contacts use a send time determined by the Einstein Send Time Optimization (STO) activity. If that time arrives when the journey is paused, then those contacts are processed for sending only after the journey resumes.

The Path Optimizer activity performs a test to calculate a winning path. The test continues after a journey is paused. Because no contacts are processed for sending messages when a journey is paused, the pause can hinder the activity's ability to determine the winning path.

Automations tied to paused journeys continue to run when the journeys are paused. The paused journey doesn't affect Other journeys that use the same automation as a paused journey.

[Pause and Resume a Multi-Step Journey](#)

Follow these steps to pause a Multi-Step journey in Journey Builder.

[Pause and Resume a Transactional Send Journey](#)

Pause and resume a Transactional Send journey in Journey Builder.

Pause and Resume a Multi-Step Journey

Follow these steps to pause a Multi-Step journey in Journey Builder.



Note: Enable the Activate/Stop/Pause/Resume/Send/Schedule permission to the user's Journey Builder Role to use this feature.

For more details about the permissions granted with user roles in Journey Builder, see [Journey Builder Roles](#) and [Marketing Cloud Engagement Roles](#).

1. Navigate to and click the running journey.
2. Click **Pause**.
3. Choose whether to pause the current version of the journey or all running versions.
4. Select whether to extend the duration of any Wait By Duration activities by the amount of time you pause the journey.
5. Select the number of days for the pause.
6. Select the action that occurs when the pause expires.
7. Select whether the journey queues contacts at the entry source for processing after the pause expires.

If you don't queue the contacts, contacts that enter a paused journey are ignored and not processed. This option is available if you select **Evaluate New Records Only** for the Data Extension entry source. By default, this option doesn't queue contacts. You can't change this setting while the journey is paused.

Pause and Resume a Transactional Send Journey

Pause and resume a Transactional Send journey in Journey Builder.



Note: Enable the Activate/Stop/Pause/Resume/Send/Schedule permission to the user's Journey Builder Role to use this feature.

For more details about the permissions granted with user roles in Journey Builder, see [Journey Builder Roles](#) and [Marketing Cloud Engagement Roles](#).

1. Navigate to and click the running journey.
2. Click **Pause**, then click **Pause** again.



Tip: To view the age of the oldest message in the queue, hover over the number in the queue in the Transactional dashboard.

3. Fix or update the message content or activity settings
4. Click **Resume**.

To confirm that the journey has resumed, return to the Journeys Dashboard, locate the journey, and check the queue.




Note: Messages queued longer than three days aren't delivered after the journey resumes. Contacts queued longer than three days are set to Not Sent.

Journey Settings

Choose the settings that determine when the contact enters a Marketing Cloud Engagement journey and which address Journey Builder uses to message that contact.

Use Journey Settings to select the contact entry mode for a journey and designate a primary email address for contacts entering the

journey. Contact entry mode dictates when a contact is eligible to enter a journey. To access the settings, click , then **Journey Settings**.

Journey Builder High-Throughput Sending (HTS)

When you [apply HTS](#) to your email activities, you could increase sending throughput by two times or more.

Contact Entry

Contact entry mode dictates when the contact is eligible to enter a journey. Journey Builder offers three entry options to define when contacts can enter a journey. To learn more, see [Choose a Contact Entry Mode](#) on page 236.

- Select **No re-entry** if contacts can't enter the journey again after a previous entry. For example, in a Welcome Journey, set your entry to **No re-entry** because you want your customers to be introduced to your brand only one time. This setting applies across all versions of a journey. After you activate the journey, you can't change this option.



Note: Test Mode doesn't support this setting. When testing a journey, use **Re-entry at any time** or **Re-entry only after exiting**. Then, select **No re-entry** after testing if necessary.

- Select **Re-entry at any time** if contacts can enter the journey multiple times before exiting. This setting admits the contact into the journey each time that contact meets filter criteria. For example, if you use a journey for a post-purchase engagement, you can allow contacts to enter the journey whenever they make a purchase. After you select this option and activate the journey, you can change the option to **Re-entry only after exiting** after creating another version
- Select **Re-entry only after exiting** if a contact must exit the journey before reentering it. This setting admits the contact into the journey when that contact meets filter criteria, if applicable. But the system doesn't readmit that contact into the journey until after that contact exits the journey. After a contact exits the journey, the contact can enter again after meeting the filter criteria. For example, contacts can go through a journey multiple times but not concurrently, such as for a seasonal promotion or a yearly membership renewal. After you select this option and activate the journey, you can change the setting to **Re-entry at any time** by creating another version.

The system applies the Contact Entry setting at the journey level for each version of a journey.



Note: The contact entry setting isn't configurable for Single Send journeys.

Consider timing and how you want customers to enter the journey. Choose the best cadence for putting users into the journey, and consider re-entry criteria. For example, in a Welcome Journey, set your entry to **No re-entry** because you want your customers to be introduced to your brand only one time. Sometimes, contacts can go through a journey multiple times but not concurrently such as a seasonal promotion or a yearly membership renewal. In this case, use **Re-entry only after exiting**. **Re-entry anytime** allows the contact to enter the journey multiple times simultaneously. For example, if you use a journey for a post-purchase engagement, you can allow contacts to enter the journey whenever they make a purchase.

Default Email Address and Mobile Number

Define a default email address and mobile number for each contact before sending messages in a journey. Often, Marketing Cloud Engagement stores more than one email address or mobile number for a single contact. Use this feature to designate which address or number receives the message.

Before you set a default email address, configure the journey's entry source. Setting up the entry source populates the entry source email attribute option.

Do you want your journey to always send to the email address associated with each contact, or can that email address change during the journey? If the email address can change, choose to identify and use an email attribute from Contacts. The same principles apply to the mobile number you select as default.

- Select **Use email attribute from Contacts**. If the email address can change, as in a journey with a long duration, choose to use the email attribute associated with Contacts.
- Select **Use email attribute from Entry Source**. If a contact's email address is unlikely to change or a journey doesn't allow re-entry, use the email for the contact at entry.

Considerations


- Many entry source data extensions include a single column with the EmailAddress data type. In this case, that column is identified as containing each contact's default primary email address. You can change this setting.
- If more than one entry source data extension column has EmailAddress as its data type, Journey Builder prompts you to select one.
- When journey data from the entry source includes the email address that is used as default, set that email address as default by selecting **Use email attribute from Entry Source**.
- The email fields displayed when you choose **Use email attribute from Contacts** include only the fields present in a data extension marked as a Population or Synchronized Data Extension.
- If a default email address exists for contacts entering the journey, select **Use email attribute from Contacts**.
- To set the default mobile number to the priority 1 number stored in the contact record, select **Use mobile attribute from Contacts**.

 **Note:** The default address set here overrides the current default email address setting for each contact.

 **Note:** Fields configured with the EmailAddress data type are available only after an entry source is fully configured.

Transaction Key


To identify a contact entering a journey as unique, create a transaction key.

 **Note:** Transaction Key is available with Custom Events only. Add the Transaction Key setting to the config.json file for the journey's entry event to make it available in Journey Settings.

Transaction keys combine an ID value that Journey Builder generates with a unique contact attribute value to create a wholly unique identifier. All contact filters in the journey observe this unique identifier, including filters in the entry event and decision split activities. This identifier prevents contacts from following the unintended path when their ContactID still matches current entry or decision split criteria due to a previous transaction. The contact attributes available for creating a transaction key are ContactID and ContactKey. Transaction keys are commonly used when a journey's entry event is initiated via the API.

Google Analytics Integration

The Google Analytics 360 or Google Analytics Free integration tracks links in your journey emails and can track links by domain. If enabled for your account, Google Analytics tracking is available by default in all journeys.

 **Note:** To narrow results, add specific domains to track. By including one or more domains, you see only links pointing to these domains in journey metrics.

[Choose a Contact Entry Mode](#)

Journey Builder observes Contact Entry mode at the journey level, and it persists for each version of a journey in Marketing Cloud Engagement. Contact entry mode dictates when a contact is eligible to enter a journey. Journey Builder offers three entry options to define when contacts can enter a journey.

[Enable or Disable Google Analytics](#)

The Google Analytics Free integration allows marketers with Journey Builder to apply automated tracking on email and SMS messages. Google Analytics users can also see reporting in Journey Builder that provides insights into how their customers are engaging with their messaging and web-based marketing. Marketing Cloud Engagement customers with the GA360 integration can also act on these insights by creating audiences in Google Analytics, then sending them to Engagement to use for remarketing.

[Journey Builder High-Throughput Sending Considerations](#)

You can enable HTS for an individual journey in Journey Settings. After you activate HTS in a journey, it can't be deactivated for that specific journey.

SEE ALSO:

[Transaction Key](#)

Choose a Contact Entry Mode

Journey Builder observes Contact Entry mode at the journey level, and it persists for each version of a journey in Marketing Cloud Engagement. Contact entry mode dictates when a contact is eligible to enter a journey. Journey Builder offers three entry options to define when contacts can enter a journey.

- No re-entry: Contact enters journey one time. Even if the contact completes a journey, the contact isn't entered again.
- Re-entry at any time: Contact can enter the journey multiple times, even if they're already in the journey. There's no maximum number of instances of the contact in a journey.
- Re-entry only after exiting: Contact can enter the journey only if they're not currently in the journey. There's a maximum of one instance of the contact in a journey.

1. Create a journey.

2. Click .

3. Select **No re-entry**, **Re-entry at any time**, or **Re-entry only after exiting**.

 **Note:** Journey Builder verifies that a contact is unique by checking its contact key.



4. Click **Done**.

Enable or Disable Google Analytics

The Google Analytics Free integration allows marketers with Journey Builder to apply automated tracking on email and SMS messages. Google Analytics users can also see reporting in Journey Builder that provides insights into how their customers are engaging with their messaging and web-based marketing. Marketing Cloud Engagement customers with the GA360 integration can also act on these insights by creating audiences in Google Analytics, then sending them to Engagement to use for remarketing.

To access Google Analytics in Journey Settings, enable the Google Analytics integration.

The Google Analytics integration tracks links in your journey emails and can track links by domain. Enable this integration to make it available in all journeys

1.  Click  .
2. To disable tracking for the journey, deselect **Track links for all emails in this journey**.
3. To disable one or more domains, click **X** next to each domain. If you don't deselect **Track links for all emails in this journey**, links in journey emails that point to any domain are tracked.

SEE ALSO:

- [Configure the Google Analytics Integration for Marketing Cloud](#)
- [Create and manage goals](#)
- [Conversions reports](#)

Journey Builder High-Throughput Sending Considerations

You can enable HTS for an individual journey in Journey Settings. After you activate HTS in a journey, it can't be deactivated for that specific journey.

HTS doesn't impact some commonly used features, including Data Views, Email Activity Delivery Window, and SendLog.



If you don't see the HTS setting in your account, contact your account representative.

Using HTS can impact some tracking and sending features in Journey Builder, including but not limited to:

Feature	HTS Impact
Analytics Reports for Journey Builder	The Journey Builder Email Send Summary and Journey Builder Email Send Summary By Day reports don't track emails sent with HTS, but the metrics are available in Journey Builder Analytics and Marketing Cloud Intelligence.
Email Activity Error Handling	When a subscriber errors or is suppressed from an email activity, they remain in the journey but don't receive an email.
Email Activity Send Error Troubleshooting	HTS email errors aren't listed in Journey History. To review HTS email errors, open the journey canvas and click the relevant email activity. Click View Details , and go to the Not Sent tab. You can also see which subscribers weren't sent HTS emails by using the Not Sent Extract.
Email Studio Tracking Folders for Journeys	These folders aren't created when HTS is enabled, but the metrics are available in Journey Builder Analytics and Marketing Cloud Intelligence.
Field-Level Encryption	You can't use HTS if field-level encryption is enabled.
Message Priority	When HTS is enabled, message priority isn't recognized.
Triggered Send Subscriber Error Thresholds	HTS doesn't recognize configured subscriber error thresholds.

Entry Sources

The entry source on the canvas tells Journey Builder where customers entering this journey come from. Each journey must include an entry source.

-  **Important:** Don't modify a data extension that is used as the entry source in an active journey. When activated, the journey uses a snapshot of the entry source data extension. The running journey doesn't detect those fields added after activation. If you must add a field to the entry source data extension, create a version of the journey to include the updated data extension. For example, you can add a field to allow you to use personalization in messages within the journey.
-  **Note:** In an upcoming release, Contact Data Events aren't supported. Events and journeys created before this change continue to run without interruption. Use the Data Extension entry source to admit contacts instead.

[Entry Source Administration](#)

An entry event is the action that prompts one or more contacts to enter a journey. Entry events are recorded in a data source, which Journey Builder monitors on a schedule you set. Entry events can be journey-specific or reusable.

[Edit an Entry Source](#)

After you configure an entry source, you can edit it or review its configuration before activation. After activation, you can review the entry source configuration, but you can't edit it. To edit an active entry source, create another version of the journey and edit it there.

[Configure a Mobile App Event Entry Source](#)

Use the Mobile App Event entry source in Journey Builder to listen for user behavior and admit contacts who take specific actions in your mobile app, such as installing the app or making a purchase. You can set a filter using App Event data attributes to ensure that only intended customers enter the journey. Mobile App Events aren't stored in a data extension, but you can use Mobile App Event metadata as journey data.

[Configure a MobilePush Message Engagement Entry Source](#)

Easily retarget users by entering them into a journey when they open a push notification.

[Configure an In-App Engagement Entry Source](#)

Easily retarget users by entering them into a journey when they dismiss, display, or click a button in an In-App message.

[Data Extension Entry Source](#)

The data extension entry source lets you choose a sendable data extension, then admit contacts in that data extension into a journey in a batch. You can configure a filter to control which contacts enter or admit all contacts in the data extension. You can also use Automation Studio to create and refresh the data extension, or you can use an SMS list created in MobileConnect.

[The Audience Entry Source](#)

Use an audience to admit a list of contacts into a journey. Select from the push, SMS, and published Audience Builder audiences available in your account. To create or edit audiences, use Contact Builder.

[Inbound Chat Message](#)

You can use the Inbound Chat entry source in Journey Builder to admit contacts who send one of the keywords that you selected to your app channel.

[The Contact Event Entry Source](#)

An entry event uses data about customer behavior to put contacts into a journey. Entry events generally require a change in data about the customer that triggers an evaluation of that contact for admission in the journey. The records Journey Builder evaluates for events are stored in a data source, which Journey Builder monitors on a schedule that you set.

[Admit Contacts Via an API](#)

The API event in Journey Builder connects the journey canvas to an API used to admit contacts into a journey. When the API fires an event, the contacts entering the journey are stored in your chosen Marketing Cloud Engagement data extension. You can set a filter using Marketing Cloud Engagement data attributes to ensure that only intended customers enter the journey.

[Audience Studio](#)

Admit audiences from your Audience Studio account into Marketing Cloud Engagement. The Audience Studio entry source in Journey Builder lets you choose an audience from your Audience Studio account, then admit contacts from that audience into a journey in a batch. Configure the filter to control which contacts enter, or admit all contacts in the audience.

[Add Legacy Google Analytics 360 Contacts to a Journey](#)

Use the Google Analytics 360 entry source to admit legacy accounts into your journeys. Create a filter to control which contacts enter the journey or admit all contacts in the audience.

[The Salesforce Data Event](#)

A Salesforce Data Event is an action in Sales Cloud or Service Cloud, such as creating or updating an object record, that injects a contact into a journey. When the primary object meets rule criteria and reference object filtering criteria, Flow Builder initiates a Journey Builder event.

[Use CloudPages to Admit Contacts into Journey Builder](#)

Use a CloudPages Smart Capture form and Journey Builder to admit Marketing Cloud Engagement contacts into a journey using the CloudPages Form Submit Event.

SEE ALSO:

[Marketing Cloud Connect](#)

[Journey Builder API](#)

Entry Source Administration

An entry event is the action that prompts one or more contacts to enter a journey. Entry events are recorded in a data source, which Journey Builder monitors on a schedule you set. Entry events can be journey-specific or reusable.


To find existing reusable events, use the Search field or sort by clicking column headers.

The Reusable Entry Sources page displays this information.

Name and Description	The name of the event and a summary of its purpose Click an event's name to edit.
Last Modified timestamp	The most recent date and time the event configuration was changed
Usage	The number of journeys that currently use the event
Availability	The status of an event for inclusion in a journey Administrators can enable or disable event availability or place an event in Test Mode.
Event Performance	The results of testing the event
Actions	Administrator options include copy or delete



Note: You can't delete events that are used by at least one journey.

 **Note:** Salesforce entry sources, including the Salesforce Data, Campaign, and Experience entry sources, are only editable when no other journey or version uses them. You can't edit the object a Salesforce entry source uses to decide who enters the journey. To choose a different object in a Salesforce entry source, delete and recreate the entry source.

You can configure Journey Builder to begin a journey based on any event configured in Marketing Cloud Engagement.

Event Availability

The dropdown menu at the top of the page lets you view events according to their availability. To make events on this page unavailable to other marketers in a journey, click the link in the Availability column.


SEE ALSO:

[Email Studio](#)


[Create a Data Extension in Contact Builder](#)

Edit an Entry Source

After you configure an entry source, you can edit it or review its configuration before activation. After activation, you can review the entry source configuration, but you can't edit it. To edit an active entry source, create another version of the journey and edit it there.

 **Important:** Don't modify a data extension that is used as the entry source in an active journey. When activated, the journey uses a snapshot of the entry source data extension. Fields added after activation aren't detected by the running journey. If you must add a new field to the entry source data extension, create a new version of the journey to include the updated data extension. For example, you can add a field to allow you to use personalization in messages within the journey.

If a Journey Builder Audience (Email Studio, Automation Studio, or MobileConnect) was created before January 2018, it now appears on the canvas as a data extension entry source. Click the entry source icon in a running journey to view its previous configuration. Its icon matches its previous configuration, so journeys with Email Audiences appear with the same icon, but their label reads **Data Extension**.

 **Note:** You can't edit the object a Salesforce entry source uses to decide who enters the journey. To choose a different object in a Salesforce Data, Campaign, or Experience entry source, delete, and recreate the entry source.

1. In a draft journey, hover over the entry source or its schedule.
2. Click the entry source or schedule.
3. To reach the step you want to edit or view, click **Back**.
4. Save the edited entry source and journey, if necessary.

Configure a Mobile App Event Entry Source

Use the Mobile App Event entry source in Journey Builder to listen for user behavior and admit contacts who take specific actions in your mobile app, such as installing the app or making a purchase. You can set a filter using App Event data attributes to ensure that only intended customers enter the journey. Mobile App Events aren't stored in a data extension, but you can use Mobile App Event metadata as journey data.

For Journey Builder to react to App Events, the Name of the event and the attributes defined within Marketing Cloud Engagement must exactly match the name tracked by the MobilePush SDK. Pending your app and desired use cases, you can capture some events or attributes that are more descriptive than others. For example, purchase versus first purchase.

 **Important:** To use this entry source, first [define your Mobile App Events](#) in the Mobile App Event Management screen, and then implement tracking within the MobilePush SDK.

When selecting App Events, ensure that your app is collecting events that are in line with Journey Builder best practices for API Entry events. Note the volume of the App Events that you use for Entry.

 **Note:** Unlike other Entry sources, Mobile App Events aren't saved into data extensions.

Follow these steps to configure the Mobile App Event source in Journey Builder:

1. Drag the **Mobile App Event** Entry Source onto the journey canvas.



Note: If you want to add a Mobile App Event Exit source, click  and then **Mobile Events Exit Criteria**.


2. Click **Select Event**.
3. Select one event from the list.
4. Set the filter event criteria.
5. To review your configuration, click **Summary**.
6. Click **Done**.
7. Configure the rest of your journey, and then click **Activate**.

 **Note:** Exit or entry source can listen for up to 10 events.

Configure a MobilePush Message Engagement Entry Source

Easily retarget users by entering them into a journey when they open a push notification.


1. Drag the **MobilePush Engagement** Entry Source onto the journey canvas.
2. Select up to 10 push message definitions to listen for push notification opens.
3. Click **Summary** and review Setup details.
4. Click **Done**.
5. Configure the rest of your journey.

 **Note:** After it's activated, Journey Builder enters the users who open sent messages from that point forward. Previous open behavior isn't evaluated.

Configure an In-App Engagement Entry Source

Easily retarget users by entering them into a journey when they dismiss, display, or click a button in an In-App message.

1. Drag the **In-App Message Engagement** Entry Source onto the journey canvas.
2. Select up to 10 In-App Message definitions to listen for.
3. Select one of these engagement types to listen for.
 - Display
 - Dismiss
 - Button Click
4. To review your configuration, click **Summary**.
5. Click **Done**.
6. Configure the rest of your journey, and then click **Activate**.

 **Note:** After it's activated, Journey Builder enters the users who open sent messages from that point forward. Previous open behavior isn't evaluated.

Data Extension Entry Source

The data extension entry source lets you choose a sendable data extension, then admit contacts in that data extension into a journey in a batch. You can configure a filter to control which contacts enter or admit all contacts in the data extension. You can also use Automation Studio to create and refresh the data extension, or you can use an SMS list created in MobileConnect.


After a data extension entry source is configured, you can set a schedule to determine when Journey Builder admits contacts from the data extension. The schedule also controls whether the data extension is used one time or reevaluated to admit more contacts. Scheduling options include Run Once, Recurring, and Automation.

The Record Count on the Data Extension entry source tile represents the number of records currently present in the data extension. If the number of records in the data extension changes after the journey is scheduled, this count doesn't equal the number of records evaluated for injection. To view the number of records that were evaluated and entered the Journey in the last 30 days, click **View Event Results**.

 **Note:** Automation is available when the automation built-in Automation Studio modifies the selected data extension.

- Use **Run Once** to admit contacts to the journey one time. Contacts are admitted when you activate the journey or on the date and time you specify.
- Use **Recurring** to admit contacts as often as you specify. Choose whether to evaluate all records in the data extension each time the schedule recurs, or to evaluate only new records. Evaluating only new records generally results in better performance.
- Use **Automation** to admit contacts based on the schedule of the automation in Automation Studio. The automation must contain an import, filter, or query activity that directly modifies the data extension used for entry. Contacts are evaluated for entry according to the automation's schedule. Choose whether to evaluate all records in the data extension each time the schedule recurs or only new records. Evaluating only new records generally results in better performance.

Use the Audience entry source to admit MobileConnect lists. Create an Audience entry source to modify the entry filter or schedule for a MobileConnect Audience.

 **Note:** The subscriber relationship in a data extension is tied to the Subscriber ID or it can be set by you. When the contact enters a journey, the system creates a contact with the Subscriber ID as the Contact Key.

[Data Extension Entry Source Use Cases](#)

Read about how Northern Trail Outfitters (NTO) used the data extension entry source to hold a raffle, sell winter accessories, and support disaster relief.

[Selecting a Data Extension for Entry](#)

Consider these recommendations when you select a sendable data extension as an entry source.

[Configure the Data Extension Entry Source](#)

To admit Marketing Cloud Engagement contacts from a sendable data extension in Journey Builder, use the data extension entry source.

[Schedule a Data Extension Entry Source](#)

To define how often Marketing Cloud Engagement Journey Builder admits contacts from a data extension entry source, set a schedule. You can schedule how often you want to check the data extension for updates, from hourly to yearly. You can also choose how long you want the entry source schedule to run for some entry events. After you configure a data extension entry source, a schedule tile appears.

[Choose How to Process Entry Source Data](#)

Configure your Journey Builder entry source so that it promotes efficient processing. When an entry source includes a repeating schedule, choosing a processing option is necessary. Processing options tell Journey Builder how to evaluate contacts in a data extension or list.

[Configure the Data Extension Entry Source with Data Cloud](#)

For new Journeys, use Data Extensions in the new activation folders.

Data Extension Entry Source Use Cases

Read about how Northern Trail Outfitters (NTO) used the data extension entry source to hold a raffle, sell winter accessories, and support disaster relief.

Monthly Customer Raffle

NTO collects purchase information about customers who buy its outdoor lifestyle goods in a data extension called NTO Customer Raffle. On the first Monday of each month, NTO holds a customer appreciation contest. As part of the contest, an email is sent to customers who purchased something the previous month. A gift card is awarded to one customer who opens the email.

A marketer at NTO creates a journey to facilitate the contest by clicking **Create Journey from Scratch**. The marketer drags the data extension entry source onto the canvas and clicks the entry source to configure it. Then, NTO selects the Customers data extension, which is linked 1: many to the NTO Customer Raffle data extension in Contact Builder.

The marketer then creates a filter to admit customers whose most recent purchase happened within the past month. The marketer drags the PurchaseDate attribute into the filter and sets the PurchaseDate to on or before today and PurchaseDate is after Today Minus 30 days.

The marketer then sets the journey's schedule by clicking **Schedule** and selecting **Recurring**. The marketer sets the recurrence to happen once on the first Monday of every month. Because customers can make purchases at any time during the month to be eligible for the contest, the marketer selects **Evaluate all records**.

Winter Accessories Journey

NTO's marketer creates a journey to market winter hats and gloves to North American customers. To reach only customers in cold-weather climates, the marketer drags the data extension into the journey and chooses the Customers data extension. The marketer then configures a filter that includes only customers in colder areas, for example, Region equals Northeast or Region equals Midwest or Country equals Canada.

To set the journey's schedule, the marketer clicks **Schedule**. To end the journey before warm weather arrives, the marketer chooses **Recurring** with an end date in April. The marketer then sets the schedule to repeat every Monday.

Because new contacts are continually added to the Customers data extension, the marketer selects **Evaluate new records only**.

Disaster Relief Campaign

After a natural disaster hits a western U.S. state, NTO creates a journey to solicit disaster relief donations from its most active and loyal customers. To automate this work, NTO's marketer creates a journey that runs only once on activation.

To set up the journey, the marketer configures the data extension entry source to admit contacts from the Loyalty_Members data extension. NTO wants to solicit donations only from customers in the same country where the disaster occurred, so the filter is set to Country equals United States.

After configuring the entry source, the marketer sets the journey schedule. The intent of this journey is to send a single series of messages related to the disaster relief effort, the marketer selects **Run Once** as the schedule type.

Selecting a Data Extension for Entry

Consider these recommendations when you select a sendable data extension as an entry source.

- Include fields needed for personalization or dynamic content in the data extension.
- If the data for the journey is stored in multiple data extensions, create a single entry source data extension using a query. Create queries in Automation Studio using the SQL Query Activity.
- If possible, filter your audience data extension to speed processing.

Data Source	Notes
Contact Builder	Sendable data extensions created or managed in Contact Builder are the recommended data source for journeys that use Marketing Cloud Engagement data.
Salesforce Data Extensions	<p>Salesforce data extensions are no longer selectable as entry sources within Journey Builder. To use a Salesforce data extension as an entry source, use an automation to move its data into a supported format for entry.</p> <ul style="list-style-type: none"> • Create a data extension that you can populate with data from a Salesforce data extension. • To populate the new data extension with data from a Salesforce data extension, create an automation with a query activity.
Synchronized Data Sources	<p>Use synchronized data extensions to populate an entry source data extension in journeys that use Sales Cloud or Service Cloud data and Engagement data. You can also use synchronized data extensions to allow contacts from Google Analytics 4 audiences to enter your journeys.</p> <p>To use a synchronized data source’s data to populate an entry source data extension, follow these steps.</p> <ul style="list-style-type: none"> • Use a query activity or another process to target specific data in the data extension that results from your synchronized data source. • Then segment the data into a sendable data extension that you can use as an entry source.

SEE ALSO:

[Contact Builder in Marketing Cloud](#)

[Synchronized Data Sources](#)


Configure the Data Extension Entry Source

To admit Marketing Cloud Engagement contacts from a sendable data extension in Journey Builder, use the data extension entry source.

1. Drag **Data Extension** onto the canvas.
2. Click **Data Extension**.

3. Select a sendable data extension.
4. To refine your audience, click **Filter Contacts** and configure a filter.
5. Click **Summary**, and review setup details.
6. Click **Done**.


Set a schedule for admitting contacts from the data extension into the journey.


 **Tip:** To use an automation's schedule to control when the journey admits contacts, select a data extension that an automation updates or modifies. Or set up an automation to modify the data extension you selected before setting the journey schedule.

Schedule a Data Extension Entry Source


To define how often Marketing Cloud Engagement Journey Builder admits contacts from a data extension entry source, set a schedule. You can schedule how often you want to check the data extension for updates, from hourly to yearly. You can also choose how long you want the entry source schedule to run for some entry events. After you configure a data extension entry source, a schedule tile appears.

If the automation regularly modifies or updates the data extension that you selected, you can use the Automation schedule type. The journey admits eligible contacts when the automation runs.

 **Note:** The Recurring and Automation options aren't supported in Single Send journeys.


 **Note:** Schedule dates must fall between 1/1/1900 12:00:00 AM and 6/6/2079 11:59:59 PM.

1. Click **Schedule**.
2. To determine when and how often the journey admits contacts, select a schedule type.
3. Click **Select**.
4. Choose when contacts from the data extension enter the journey.
 - When you select **Run Once**, Journey Builder evaluates contacts on activation or at the specified date and time.
 - When you select **Recurring**, enter a start date when contacts enter the journey, how frequently contacts are evaluated for admission, and how many times they're evaluated.
 - When you select **Automation**, the journey evaluates contact records when your chosen automation completes.

 **Note:** When a file drop automation updates the source data extension, all records in the source data extension are evaluated each time.

5. If the contacts enter on a repeating basis, choose the recordset that Journey Builder evaluates each time the schedule repeats.
6. Click **Summary**.
7. Click **Done**.

Activate the journey to start the schedule.

 **Note:** If contact records are being evaluated when the next run is scheduled to begin, the run is skipped. Records are processed in the next run.

Choose How to Process Entry Source Data

Configure your Journey Builder entry source so that it promotes efficient processing. When an entry source includes a repeating schedule, choosing a processing option is necessary. Processing options tell Journey Builder how to evaluate contacts in a data extension or list.

Choosing how Journey Builder evaluates an entry source to determine which contacts enter the journey also ensures that records are processed efficiently. You can set up the entry of contacts into a journey in two ways.

- Enter the journey one time when it's activated.
- If the entry source data is continually updated, set a schedule to occur one time or continually.

When you set a schedule that repeats, you select a processing option.

- To evaluate only new contacts added since the previous run for journey entry, select **Evaluate new records only**. For the journey's first scheduled run, choose whether to evaluate all data extension records on only the first run or records added after activation. This evaluation option is typically used when a process exists to add new rows to the source data extension without deleting or overwriting existing rows. For example, the automation with an import activity appends records to a data extension. Using this option typically results in faster, more efficient processing.

 **Note:** When you refresh a filtered data extension, all records are overwritten. We don't recommend using a filtered data extension with **Evaluate new records only** option.

- To evaluate all records in a data extension each time according to the entry source's schedule, select **Evaluate all records**. Use this option only when records in the data extension are continually updated. Using this option typically results in slower processing.

To improve performance and ensure that all eligible contacts in the entry source enter the journey without slowing the admission process, select the applicable processing option.

SEE ALSO:

[Data Extensions and Data Relationships without Enhanced Subscriber Features in Marketing Cloud](#)

Configure the Data Extension Entry Source with Data Cloud

For new Journeys, use Data Extensions in the new activation folders.


- Select **Data Extension** as the entry source for the Journey.
- Configure the data extension source by selecting the data extension from the ones available in each Activation folder.

 **Note:** Journeys created before BU awareness was enabled in Data Cloud must be updated to use the new activations.

To update your Journeys and Activation folders, follow these steps:

1. Create an activation in Data Cloud configured to an Activation target with only one BU.
2. Select the journey that you want to update and create a Journey.
3. Edit the new version to point to the new Data Extension.
4. Remove the existing data entry to remove the existing Data Extension, add a Data Extension entry source and point to the new DE created by the new activation.


The updated version of the Journey is ready to be activated.

 **Note:** A journey can have multiple versions running at the same time if the user is continuously updating it. Delete the previous Activation folders to avoid using stale shared data extensions.

The Audience Entry Source

Use an audience to admit a list of contacts into a journey. Select from the push, SMS, and published Audience Builder audiences available in your account. To create or edit audiences, use Contact Builder.

 **Note:** Audiences are available in accounts provisioned for both Journey Builder and Contact Builder.

 **Note:** The Audiences entry source features new functionality. Audiences created before the January 2018 release continue to function, but cannot be edited. Use the data extension entry source to access functionality previously found in Journey Builder Audiences.

[Create an Audience from Contacts](#)

To admit contacts in Journey Builder, create and schedule an audience.

[Schedule an Audience](#)

To determine how often Journey Builder admits contacts from an audience, set a schedule. To prompt the schedule tile to appear, configure an entry source.

[Use Data Cloud in Journey Builder](#)

Data Cloud is optimized for messaging using Journey Builder. You can also use Data Cloud to select an audience in Email Studio and MobileConnect. Audiences can include enriched unified individual records and new records. It's important to consider consent management when sending.

Create an Audience from Contacts

To admit contacts in Journey Builder, create and schedule an audience.

Audiences are available in accounts provisioned for Journey Builder and Contact Builder.

1. Create an audience in Contact Builder.
2. Drag **Audience** onto the canvas.
3. Click **Audience**.
4. Select a filtered list.

Schedule an Audience

To determine how often Journey Builder admits contacts from an audience, set a schedule. To prompt the schedule tile to appear, configure an entry source.

The schedule doesn't start until the journey is activated. If contact records are being evaluated when the next scheduled run begins, that run is skipped. Remaining records are processed in the next run.

1. Click **Schedule**.
2. To determine when and how often the journey admits contacts, select a schedule type.
3. Choose when MobileConnect contacts enter the journey.
 - a. When you select **Run Once**, choose to evaluate contacts one time at activation or at a specific date and time.
 - b. When you select **Recurring**, specify a start date when contacts enter the journey, how frequently contacts are evaluated for admission, and how many times they're evaluated.


Use Data Cloud in Journey Builder

Data Cloud is optimized for messaging using Journey Builder. You can also use Data Cloud to select an audience in Email Studio and MobileConnect. Audiences can include enriched unified individual records and new records. It's important to consider consent management when sending.

When you create a journey, you select your audience in the Data Extension Entry Source in Journey Builder. To choose Data Cloud audience, choose your audience from the Data Cloud Segments folder in the Shared Data Extensions folder.

Managing Consent

We recommend that you employ the following practices to help manage consent when you use unified Data Cloud audiences in Journey Builder.

- Consider applying Filter Contacts criteria to limit who is included in the audience when you create the Entry Source. If it filters out many audience members, [performance can be degraded](#) on page 195
 -  **Note:** if the SMS Activity appears later in the journey, you can use a Decision Split instead of filtering criteria for consent to Data Cloud for entry source configuration.
- When you configure an email activity to use a Data Cloud audience, consider assigning a Publication or Suppression list for more consent management options

Email Activities

You can configure email activities in Journey Builder that use Data Cloud audiences as either multi-step or single send journeys.

SMS Activities

When you configure an SMS activity in Journey Builder to use a Data Cloud audience, select **Send only to contacts who are subscribed currently** in the Delivery Options configuration step. This selection helps prevent sending to individuals who didn't opt in to receive the communication.

Push Messaging Activities

For push messaging using Data Cloud audiences, use a multi-step journey. You can configure either a Push Notification, Inbox, or In-App Message activity to activate a MobilePush send. Consent for push messaging is managed in the MobilePush SDK.

Data Extensions

Check out Related Attributes in Activation on our [Data Cloud and Customer 360 Solution](#) page.

Inbound Chat Message

You can use the Inbound Chat entry source in Journey Builder to admit contacts who send one of the keywords that you selected to your app channel.

 **Important:** To use this entry source, create a chat integration business account through the chat messaging setup app.

You can use the same keyword as an entry source and a valid chat response. If a contact sends the keyword while they are in a Wait Until Chat Response activity, the contact advances to the next activity in that journey. The keyword is ignored by any other journey listening for that keyword as a source of entry.

[Configure the Inbound Chat Entry Source](#)

Follow these steps to configure the Inbound Chat entry source in Journey Builder.

Configure the Inbound Chat Entry Source

Follow these steps to configure the Inbound Chat entry source in Journey Builder.

1. Drag the **Inbound Chat** activity onto the canvas and click to open.

2. To configure the app channel, click **Edit**.
3. Select the app channel to use from the dropdown.
4. Click the Keywords tab.
5. Create up to 10 keywords. You can use the same keyword in multiple Wait Until Chat Response activities and entry sources.
6. Click **Summary**, and review setup details.
7. Click **Done**.

The Contact Event Entry Source


An entry event uses data about customer behavior to put contacts into a journey. Entry events generally require a change in data about the customer that triggers an evaluation of that contact for admission in the journey. The records Journey Builder evaluates for events are stored in a data source, which Journey Builder monitors on a schedule that you set.

For a Welcome Series journey, for example, the action or behavior is typically a customer opting into a marketing campaign. For an Abandoned Cart journey, a contact enters a journey when they leave items in their web shopping cart. Other events include:

- The contact purchases a product.
- A contact signs up for a conference.
- A customer publishes a restaurant review.
- Marketing Cloud Engagement customers using CloudPages or Mobile Studio create profile centers or use the email subscription template to opt users into mobile or email communications.
- A user changes to an object's data stored in Sales or Service Cloud to place a contact into a journey.
- Using a point of sale system in a retail store or on a website, a customer elects to sign up for promotional emails and coupons.

Date-based events use data stored in Contact Builder. Use a date-based event if you want to send a promotion to your customers to celebrate their birthday or a reminder for an appointment.

If you use a date-based event, make sure that you have the data you need, such as a client's birthday, in your Contact Builder data model. Consider timing in your journey. You can set the journey start either before or after the date, so think about the best time for your clients to get the information: on the specific date, like for a birthday message? Or a month before a renewal date?

 **Note:** In an upcoming release, Contact Data Events aren't supported. Events and journeys created before this change continues to run without interruption. Use Data Extension or Audiences to admit contacts instead. Some examples of ways entry events place contacts into a journey are:

- Events can be journey-specific or shared between journeys.
- Configure journey-specific events within a journey for use only in that journey.
- Create shared events in Entry Source Administration for use in multiple journeys.

[Select a Reusable Entry Source](#)

Select a reusable entry source in Journey Builder when the event you want to use was already created in another Marketing Cloud Engagement journey or on the Entry Sources page.

[Create a Journey-Specific Event](#)

A journey-specific event in Marketing Cloud Engagement Journey Builder is configured within a single journey. Only that journey can use the event.

[Create a Date-Based Event Entry](#)

Use Date-Based Events in Journey Builder to use a date-based attribute from Contact Builder to determine when contacts enter the journey. Common use cases include birthday and anniversary campaigns. Other typical cases are journeys based on subscription dates or the last time a contact opened or used an app. If a contact doesn't have a contact record in Marketing Cloud Engagement, they aren't admitted into the journey.

[Create a Shared Entry Event](#)

An Entry Event is an action that prompts one or more contacts to enter a journey in Journey Builder. This topic contains information for IT administrators to set up shared entry events for marketer use.

[Events and Data Extensions](#)

When a journey's entry source is configured in Journey Builder, the data source from which contacts are admitted is usually a data extension.

[Entry Results](#)

Use this page to understand and gauge the flow of contacts into a journey in Journey Builder. This page also shows the journeys that use this entry source under Journey Usage. View a list of contacts that weren't accepted and an explanation by clicking View Rejected Contacts.

[Test an Entry Event](#)

Test your entry event in Journey Builder to ensure that it admits contacts as intended without contacts entering a live journey and receiving messages.

[Prioritization Example: Update Entry Event](#)

In this decision split prioritization example, Journey Builder updates the entry events for a post-purchase confirmation and follow-up journey.

[View Rejected Contacts](#)

Follow these steps in Journey Builder to view a list of contacts that weren't accepted into a journey.

[Fire an Event](#)

Entry events prompt Journey Builder to evaluate Marketing Cloud Engagement contacts for journey entry. An entry event occurs when records in a journey's entry event data source, often a data extension, are added, updated, or overwritten. Firing an event lets you kick off a journey using an API or an automation created in Automation Studio.

SEE ALSO:

[Linked Data Extensions in Journey Builder](#)

Select a Reusable Entry Source

Select a reusable entry source in Journey Builder when the event you want to use was already created in another Marketing Cloud Engagement journey or on the Entry Sources page.

 **Note:** In an upcoming release, Contact Data Events aren't supported. Events and journeys created before this change continue to run without interruption. Use Data Extension or Audiences to admit contacts instead.

1. In a new journey, drag **Event** onto the canvas.
2. Click **Event**.
3. Select an event from Existing Entry Sources.
4. If the event is unconfigured, create a filter on the next page of the wizard.

Create a Journey-Specific Event

A journey-specific event in Marketing Cloud Engagement Journey Builder is configured within a single journey. Only that journey can use the event.

1. Drag **Event** onto the canvas and click it.
2. Choose an entry source from New Entry Sources.
3. Choose a data source whose contacts enter the journey. Journey Builder evaluates the records in this data extension or file when the journey is activated.


If no contact record exists in Marketing Cloud Engagement for a person entering this journey, the journey doesn't admit that person.

4. Optionally, set a filter against contact or journey data attributes to add criteria for entering the journey.
5. Set a schedule to dictate when Journey Builder fires this event or evaluates new rows in the data extension to find contacts that meet entry criteria. The Repeat setting defaults to None, which means the event runs only on the scheduled date and time. This schedule dictates when Journey Builder checks the event source for new records.

When contacts enter a journey via an API call, use the API Event to connect the API to the Journey Builder canvas.

Create a Date-Based Event Entry

Use Date-Based Events in Journey Builder to use a date-based attribute from Contact Builder to determine when contacts enter the journey. Common use cases include birthday and anniversary campaigns. Other typical cases are journeys based on subscription dates or the last time a contact opened or used an app. If a contact doesn't have a contact record in Marketing Cloud Engagement, they aren't admitted into the journey.

 **Important:** Journey data is not available for messaging personalization or decision split criteria when you use the Date-Based Event entry.

Only sendable data extensions are available to use.

1. Drag **Event** onto the canvas.
2. Click **Event**.
3. Click **Date Based Event**.
4. Click **Next**.
5. Configure these settings.
 - Choose a Date type attribute. Data type is set in Contact Builder when adding attributes.
 - Choose how often this event fires for all contacts found in the data model in Contact Builder.
 - Yearly: Allows the event to fire a maximum of one time per year for each contact. This setting is used in birthday and anniversary scenarios.
 - Monthly: Allows the event to fire at most one time each month for each contact. This setting works well for monthly notices based on a billing date, for example.
 - None (run one time): This event fires one time for each contact. This setting is used for subscription reminders.

Contacts are reevaluated for inclusion each time they're added to the event source data extension.
 - Determine the number of days, weeks, or months before or after the date of the event.
 - To configure the event by entering a number and using the menu, click **Custom**.
 - Set the time of day of the event and time zone.

6. Complete the configuration and click **Next**.

SEE ALSO:

[Get Started with Contact Builder](#)

Create a Shared Entry Event

An Entry Event is an action that prompts one or more contacts to enter a journey in Journey Builder. This topic contains information for IT administrators to set up shared entry events for marketer use.

Entry events are recorded in a data source, which Journey Builder monitors on a schedule you set. Entry events can be journey-specific or shared by more than one journey. Set event availability to give marketers in your organization access to entry events.

1. Click New Event.
2. Choose an event type. Usually, marketers choose a Contact Data event.



Note: Event types don't dictate the data source that contacts enter a journey from. Choose the data source in a subsequent step.

3. Add a name, description, event definition key, and icon. The event definition key is used when calling an event via API. If you don't have one, Journey Builder provides it automatically.
4. Select a sendable data extension, the data source where customer actions and data is recorded, and tell Journey Builder when and how often to check it. When Journey Builder finds new customer records, it automatically tries to enter them into the journey. If they meet the filter criteria set on the next step, Journey Builder admits them.

Journeys that include the email activity must use an event source data extension that includes these fields:

Name	Data Type
EmailAddress	Email Address
SubscriberKey	Text

If one or both fields aren't in this format, Journey Builder creates them and appends them to the event source data extension.



Note: To prevent errors, ensure that no other fields in the data extension contain the following:

- A field named SubscriberKey, with a data type other than Text
- A field named EmailAddress, with a data type other than Email Address

When the event source is modified, added to, or overwritten, this action constitutes an entry event. A single entry event can be used to kick off multiple journeys.

5. If necessary, create a filter using contact attributes so the journey only admits contact records that meet the filter criteria set on this step.
An entry event's configuration details appear on the journey canvas. Determine when and how often Journey Builder checks the event source for new records to enter the journey.
6. If contacts enter the journey via API or using Automation Studio, select **Not Applicable**. Setting an entry schedule here isn't necessary.
7. To have contacts enter the journey according to a schedule, select **Run using the following schedule**.
8. Set the date, time zone, and repetition schedule. The default repeat setting is None, which means the entry event runs only on the scheduled date and time.

The schedule dictates when Journey Builder checks the event source for new records. The schedule set here doesn't admit contacts into the journey unless the journey is activated. In cases where the schedule set begins before journey activation, Journey Builder only admits contacts that are added to the event source following activation.

SEE ALSO:

[Data Extensions in Contact Builder](#)

[Create a Data Extension in Contact Builder](#)

Events and Data Extensions

When a journey's entry source is configured in Journey Builder, the data source from which contacts are admitted is usually a data extension.

When an event fires, Journey Builder admits the contacts stored in the entry source data extension that meet entry criteria. Specifically, Journey Builder evaluates the data extension from its first row and continues until all existing rows are evaluated.

The next time the event fires, the entry source begins evaluating rows from the point where it stopped. This factor prevents contacts that are already in the journey from entering the same journey again if their contact record is unchanged.

Single Event Source for Multiple Events

Multiple entry sources can use the same data extension.

Three methods exist for admitting contacts into a journey.

- API
- Automation Studio's Fire Event activity
- The Schedule feature found within Journey Builder's event setup process

Ensure that the desired contacts enter each journey as intended. Use one of these three methods to admit contacts from an event source data extension.

Journey Builder now evaluates the event source data extension separately for each individual event.

Events and Shared Data Extensions

A shared data extension can be used as the entry source data extension in more than one business unit. Journey Builder separates the processing of the data extension for each business unit. Events that run against a data extension in Business Unit A evaluate records starting at the last row that was evaluated previously. But when an entry source uses this data extension in Business Unit B for the first time, it begins at the first row.

SEE ALSO:

[Create a Data Extension in Contact Builder](#)

[Business Units in Marketing Cloud](#)

Entry Results


Use this page to understand and gauge the flow of contacts into a journey in Journey Builder. This page also shows the journeys that use this entry source under Journey Usage. View a list of contacts that weren't accepted and an explanation by clicking View Rejected Contacts.

After a journey is activated, click **View Event Results** to access the journey's entry results over the previous 30 days. You can view these results on the page:

Subheading	Description	
Entry Source Evaluation	Pending Evaluation	<p>These contact records are waiting to enter the queue for evaluation against the entry source filter (if the entry source includes a filter).</p> <p>This section is only visible when contacts are pending.</p>
Entry Results for the last 30 days	Contacts Evaluated	Total number of contacts evaluated for journey entry, which includes both accepted and rejected contacts.
	Contacts Accepted	The number of contacts that met entry criteria and were admitted to the journey.

Test an Entry Event

Test your entry event in Journey Builder to ensure that it admits contacts as intended without contacts entering a live journey and receiving messages.

 **Important:** Test Mode doesn't support the Salesforce Data and Campaign events. Date-Based Events aren't compatible with Test Mode. Events and journeys created before this change continue to run without interruption. Use Audiences to admit contacts instead.

 **Note:** Only entry events that weren't used in a journey are testable. We recommend that you test an event immediately after you create it.

1. Create or find the entry event on the Entry Sources page.
2. In the Availability column, click the link in your Event's row.
3. Select **Test Mode**.
4. Save your changes.
5. Fire an event using Automation Studio or the API.
6. Return to the Entry Sources page.
7. Click **View Results**.

Total Contacts shows how many contacts were evaluated from the data source and matches the total number of contacts in the event source data extension.

Accepted Contacts shows how many contacts met applicable filter criteria applied and entered the journey.

Journey usage lists journeys that include this entry event. To view a journey, click the journey's name.

8. To see how the event handled each accepted contact, click **Contacts Accepted**.

9. To see how the event handled rejected contact, click **Contacts Rejected**.

SEE ALSO:

[Fire an Event via API](#)

Prioritization Example: Update Entry Event

In this decision split prioritization example, Journey Builder updates the entry events for a post-purchase confirmation and follow-up journey.


The marketing manager at Northern Trail Outfitters follows these steps to configure a prioritized entry event for a post-purchase confirmation and follow-up journey.

1. In Journey Builder, open the journey named Post Purchase Confirmation and Follow-Up.
2. In the running version, click **New Draft**.
3. Click **Event**.
4. Click **Back**.
5. Under Data Extensions, select **Journey Builder Prioritization**, then click **Next**.
6. In the Attributes pane, navigate to Journey Builder Prioritization.
7. Find the PostPurchase attribute.
8. Confirm that the expression reads PostPurchase is True, then click **Next**.
9. Schedule the event, then click **Next**.
10. Review the configuration settings and click **Done**.
11. Save your changes.
12. Click **Activate**.

View Rejected Contacts

Follow these steps in Journey Builder to view a list of contacts that weren't accepted into a journey.

1. In a running or stopped journey, click **View Event Results** in the entry source column.
2. On the entry results page, click **View Rejected Contacts**.

 **Note:** The View Rejected Contacts link doesn't appear when all contacts are accepted into the journey.

On the Journey History page, view the list of contacts that didn't enter the journey, including the reasons they didn't enter.

Fire an Event

Entry events prompt Journey Builder to evaluate Marketing Cloud Engagement contacts for journey entry. An entry event occurs when records in a journey's entry event data source, often a data extension, are added, updated, or overwritten. Firing an event lets you kick off a journey using an API or an automation created in Automation Studio.

1. [Create a Journey](#)
Use a Contact Data entry event to fire events in Journey Builder using a Marketing Cloud Engagement automation or an API entry event.

2. [Define the Automation](#)

Define a Marketing Cloud Engagement automation using the Fire Event activity to fire an event prompting Journey Builder to detect updates. When you set up the Fire Event activity, select the same data extension used in the entry event you set up in your journey. Automations used for journeys can be set up in advance using Scheduled or File Drop Automations.

3. [Run the Automation](#)

Prompt Journey Builder to filter contacts into journeys configured to use this entry event.

4. [Confirm Journey Entry](#)

Check Journey Builder Analytics.

SEE ALSO:

[Fire an Event via API](#)

Create a Journey

Use a Contact Data entry event to fire events in Journey Builder using a Marketing Cloud Engagement automation or an API entry event. Firing an event affects all journeys with an entry event that uses this event source data extension.


1. Drag **Event** onto the canvas and click it.
2. Select the Contact Data Event Type.
3. Click **Next**.
4. Click **Choose Data Extension** and select a sendable data extension. Use the same sendable data extension in the automation you define to fire the event.
5. Configure the entry event as needed.
6. Save the entry event.

Define an Automation.

Define the Automation

Define a Marketing Cloud Engagement automation using the Fire Event activity to fire an event prompting Journey Builder to detect updates. When you set up the Fire Event activity, select the same data extension used in the entry event you set up in your journey. Automations used for journeys can be set up in advance using Scheduled or File Drop Automations.

Create a journey.

 **Note:** In an upcoming release, Contact Data Events aren't supported. Events and journeys created before this change continues to run without interruption. Use Audiences to admit contacts instead.

The only activity the automation must include is the Fire Event activity. Run the automation whenever new data is added to the data extension, or schedule it to run on a repeating basis.

1. Drag the Fire Event activity into a step of the automation.
2. To select the data extension you chose in the entry event you created, click **Choose...**
3. Click **Save**.

Configure your API.


SEE ALSO:

[Automate Processes in Automation Studio](#)

Run the Automation

Prompt Journey Builder to filter contacts into journeys configured to use this entry event.

Complete the steps to Confirm Journey Entry

 **Important:** In an upcoming release, Contact Data Events aren't supported. Events and journeys created before this change continues to run without interruption. Use Audiences to admit contacts instead. [Learn More.](#)

After setting up your journey, return to your automation to run it. If you're using a Triggered Automation, this process works only when a new file has been dropped in the specified file location.

1. To start the Fire Event activity, prompting Journey Builder to evaluate contacts for entry, click **Run Once**. After the automation runs the first time, only new contact records are admitted on subsequent runs, depending on Journey Settings.
2. Click **Run Once** again to fire an event each time new data is added to the data extension.

Complete the steps to Define the Automation.


SEE ALSO:

[Run an Automation from the Overview Page](#)

Confirm Journey Entry

Check Journey Builder Analytics.

Complete the steps to Run the Automation.

 **Important:** In an upcoming release, Contact Data Events aren't supported. Events and journeys created before this change continues to run without interruption. Use Audiences to admit contacts instead. [Learn More.](#)

1. Navigate to Journey Builder after running your automation.

When contacts are admitted, the counts on the Entry Results page increase.

To track individual contacts through a journey, see [View a Contact's History In a Journey](#) to track individual contacts through a journey

SEE ALSO:

[Entry Results](#)

[View a Contact's Journey History in a Journey](#)

[View Rejected Contacts](#)

Admit Contacts Via an API

The API event in Journey Builder connects the journey canvas to an API used to admit contacts into a journey. When the API fires an event, the contacts entering the journey are stored in your chosen Marketing Cloud Engagement data extension. You can set a filter using Marketing Cloud Engagement data attributes to ensure that only intended customers enter the journey.

This event type requires some development work to configure an API. If needed, seek technical help to set up and use an API to put customers into journeys. Here are some items to consider as you work with an IT resource.

- Note where you capture opt-ins and customer data.
- Review the information about your customers, such as demographic data, web browsing data, purchase data, and where it's stored.

- Determine the data needs, such as customer data used to target or personalize messages or customer interactions that drive your marketing program.
- Determine which customer behaviors you want to act on and how. Consider timing and targeting.


Create a data extension to store contacts fired via an API if you don't want to use an existing data extension for this purpose.

1. Drag **API Event** onto the canvas. Use the Event Definition Key to connect this journey to your API.

 **Warning:** Don't include a period in the Event Definition Key.


2. Click **API Event**.

3. Choose an API event, or click create an event.

 **Tip:** Events shown in the API Event Summary were created on the Entry Sources page.

4. If you create an API event, choose the data extension to populate.

5. Click **Filter Contacts** and create a filter, if necessary.

 **Tip:** Use the final step to find the Event Definition Key.

6. If contacts meet filter and entry mode criteria, the journey admits the contacts in response to an API request.

For reference, find the Event Definition Key on the Summary tile on the canvas.

[API Event Entry Source Use Case](#)

A marketer at Northern Trails Outfitters (NTO) works with a developer to set up an API that admits customers into a Marketing Cloud Engagement journey every day. In this example, the marketer and developer work to set up the API Event and API request, and then test sending a single contact into a journey. The API is intended to send a single contact at a time. It admits contacts when they're ready to enter the journey rather than queuing or batching them.

SEE ALSO:

[Journey Builder API](#)

[Get Started with Contact Builder](#)

API Event Entry Source Use Case

A marketer at Northern Trails Outfitters (NTO) works with a developer to set up an API that admits customers into a Marketing Cloud Engagement journey every day. In this example, the marketer and developer work to set up the API Event and API request, and then test sending a single contact into a journey. The API is intended to send a single contact at a time. It admits contacts when they're ready to enter the journey rather than queuing or batching them.

1. Create a journey from scratch.
2. Add the API Event onto the journey canvas as the journey's entry source.
3. Click to open the entry source.
4. Copy the Event Definition Key and provide it to the developer.
5. Configure the journey activities. Then save and activate the journey.
6. With the Event Definition Key in hand, the developer uses the instructions [here](#) to create the API request to fire the entry event.

7. The developer gets a sample ContactKey that is linked to All Contacts in Contact Builder to put into the API request. This key corresponds to the contact that enters the journey when the request is fired. The developer then uses an API client to send the test request.

The request includes the Event Definition Key generated when the marketer sets up the API Event entry source. When the API request is sent, the contact whose ContactKey is included in the request enters the journey.

SEE ALSO:

[Fire an Entry Event](#)

Audience Studio

Admit audiences from your Audience Studio account into Marketing Cloud Engagement. The Audience Studio entry source in Journey Builder lets you choose an audience from your Audience Studio account, then admit contacts from that audience into a journey in a batch. Configure the filter to control which contacts enter, or admit all contacts in the audience.

1. Drag the Audience Studio entry source tile onto the canvas.
2. Click the tile.
3. Click **Select an Audience**.
4. Click **Select** next to the audience to admit.
5. To further refine your audience, configure any necessary filters and complete the setup.
6. Click **Summary**.
7. Click **Done**.
8. Complete the rest of your journey, then validate and activate it.



Note: Even after filtering, the entry source displays the total number of contacts within the audience.

[Audience Studio Use Case](#)

An NTO marketer wants to promote a new line of fitness apparel. The goal is to send highly targeted, cross-channel messaging that's optimized through data-driven insights using email, advertising, and NTO's ecommerce site. The marketer creates a journey in Marketing Cloud Engagement Journey Builder using data from Salesforce Audience Studio.

SEE ALSO:

[Audience Studio](#)

Audience Studio Use Case

An NTO marketer wants to promote a new line of fitness apparel. The goal is to send highly targeted, cross-channel messaging that's optimized through data-driven insights using email, advertising, and NTO's ecommerce site. The marketer creates a journey in Marketing Cloud Engagement Journey Builder using data from Salesforce Audience Studio.

NTO's marketing team uses Salesforce Audience Studio to aggregate consumer data across its website, mobile apps, email interactions, and offline transaction data. These insights help NTO create a segment of users who interacted with campaign awareness display and search ads or opened the initial campaign email. NTO plans to exclude customers who made a purchase within the last 30 days.

The segment is saved as NTO Promotional Campaign. NTO activates the segment across various demand-side platforms for search and display activity. NTO activates the segment to Marketing Cloud Engagement for direct communications that reinforce the indirect advertising experience.

NTO's marketer then creates a journey for the campaign and drags the Salesforce Audience Studio entry source onto the canvas. After clicking the activity, the marketer clicks **Select an Audience** and chooses the NTO Promotional Campaign audience.

The marketer finishes configuring the entry source. When the journey is activated, members of the NTO Promotional Campaign audience who meet filter criteria are admitted to the journey.

Add Legacy Google Analytics 360 Contacts to a Journey

Use the Google Analytics 360 entry source to admit legacy accounts into your journeys. Create a filter to control which contacts enter the journey or admit all contacts in the audience.

To make audiences available, configure Google Audiences in your Google Analytics account. You can't configure or manage Google Audiences in Marketing Cloud Engagement.

 **Important:** This entry source applies only to Universal Analytics (UA). Google is deprecating UA audiences for paid Google Analytics accounts on July 1, 2024. Audiences for free UA accounts were disabled on July 1, 2023. To continue using Google Analytics audiences, upgrade them to Google Analytics 4. See [Google Analytics Integration for Marketing Cloud Engagement](#).

If you already use Google Analytics 4 audiences, [add audiences to your journeys by using a data extension](#).

1. In Journey Builder, drag the Google Analytics 360 entry source tile onto the canvas.
2. Click the tile.
3. Click **Select an Audience**.
4. Next to the audience to admit, click **Select**.
5. To refine your audience, use filters.
6. Complete the setup process.
7. Click **Summary**.
Even after filtering, the entry source displays the total number of contacts within the audience.
8. Click **Done**.
9. Complete the rest of your journey, and then validate and activate it.

[Honor Opt-Out Requests for Personalized Ads](#)

Google Analytics supports a consumer opt-out for personalized ads. Observe your customers' requests to opt out of personalized online ads as recorded in Google Analytics. Place a decision split after the Google Analytics 360 entry source in Salesforce Marketing Cloud Engagement. Use a field in the Google Analytics audience data extension to prevent your audiences' contacts from receiving personalized ads.

[GA360 Use Case](#)

An NTO marketer wants to compel past purchasers to review the item or service they purchased. The marketer uses Journey Builder to create a journey in Marketing Cloud Engagement, which uses data from their company's Google Analytics 360 account.

SEE ALSO:

[Google Analytics Integration for Marketing Cloud](#)


[Create a Google Analytics Audience](#)

Honor Opt-Out Requests for Personalized Ads

Google Analytics supports a consumer opt-out for personalized ads. Observe your customers' requests to opt out of personalized online ads as recorded in Google Analytics. Place a decision split after the Google Analytics 360 entry source in Salesforce Marketing Cloud Engagement. Use a field in the Google Analytics audience data extension to prevent your audiences' contacts from receiving personalized ads.

Google integration partners can display personalized ads to your customers. If you use Google Analytics to manage your customers' requests to opt out of personalized ad targeting, use these steps to observe those requests in Engagement. First, add the Google Analytics 360 entry source, and select your audience. Then, add a decision split to send customers who opted out on a separate path.

1. In a journey, drag the Google Analytics 360 entry source tile onto the canvas.
2. Click the tile.
3. Click **Select an Audience**.
4. Click **Select** next to the GA360 audience to admit.
5. Click **Summary**.
6. Click **Done**.
7. Drag a decision split activity onto the canvas.
8. Click the activity.
9. To configure the first path contacts can follow, click **Edit**.
10. In Journey Data, locate the audience you selected when configuring the Google Analytics 360 entry source.
11. Drag *AllowPersonalizedAds* into the filter, and select **False**.

 **Note:** Salesforce customers are responsible for ensuring the accuracy of any consumer consent settings managed by external platforms such as Google Analytics. See Marketing Cloud Engagement Data Protection and Privacy Tools for more information on the privacy compliance tools available in Engagement.

GA360 Use Case

An NTO marketer wants to compel past purchasers to review the item or service they purchased. The marketer uses Journey Builder to create a journey in Marketing Cloud Engagement, which uses data from their company's Google Analytics 360 account.

NTO Creates a Potential Reviewers Journey

To encourage reviews, an NTO marketer creates a journey that admits customers from the GA360 audience and creates a segment of customers who made a purchase without leaving a review. The marketer names this segment Potential Reviewers. To admit customers to this journey, the marketer sets up the GA360 entry source to admit members of the Potential Reviewers audience.

In Journey Builder, the marketer drags the Google Analytics 360 entry source tile into the journey. After clicking the activity to access the configuration, the marketer clicks **Select an Audience** and chooses the Potential Reviewers audience.

NTO wants to exclude customers who left a review after being added to the Potential Reviewers audience, but before journey activation. So after choosing the Potential Reviewers audience, the marketer creates a filter using an attribute called Reviews. The marketer configures the filter so that audience members enter the journey when the attribute value is null. The marketer adds another line, drags the Reviews and ReviewDate attributes into it, and configures the filter so that Reviews is null and ReviewDate is less than today.

The marketer finishes configuring the entry source. When the journey is activated, members of the Potential Reviewers audience that meet filter criteria are admitted to the journey.


The Salesforce Data Event

A Salesforce Data Event is an action in Sales Cloud or Service Cloud, such as creating or updating an object record, that injects a contact into a journey. When the primary object meets rule criteria and reference object filtering criteria, Flow Builder initiates a Journey Builder event.

 **Note:** You can grant users access to create or edit Salesforce events, except users with the Marketing Cloud Engagement Administrator role.

Consider these items when you configure the event:

- Use the Sales Cloud or Service Cloud object as the source of the entry event
- Who enters the journey, such as users, leads, or contacts
- When the user, lead, or contact enters the journey, such as when a record is created or updated
- Select attributes from object data to filter who enters the journey
- Select fields from related objects and the entry object to use for journey data


 **Note:** Limit selection to 250 fields or less. Limit journeys per object to 80 or less.

Each record includes the ID for the user, lead, or contact entering the journey, their email address, and the email opt-out flag status.

After the entry source is configured, you can't edit the object it uses or who enters the journey. To choose a different object, delete and recreate the entry source. You can edit the entry criteria, filters, and event data for a configured entry source before it's published. You can copy journeys that contain Salesforce entry sources and entry sources are reusable.

 **Note:** Salesforce entry sources are only editable when no other running journey or version uses them.

After you save the entry source, Engagement creates a data extension that uses event data as columns and the contact ID as the Subscriber ID. Records that meet the entry source criteria are imported into this data extension when the journey is published. A row is created in the data extension every time a record meets the criteria, but existing rows aren't updated. You can have the same record in the data extension multiple times when it enters the journey more than one time. For more details, see [Journey Settings](#).

 **Note:** The Test Mode feature in Journey Builder doesn't support Salesforce Entry Sources.

The integration between Engagement and Sales Cloud uses [Flows](#), [Process Builder](#), [Apex](#), [Platform Events](#), and [SOAP APIs](#). Therefore, Salesforce Data Events are subject to all APEX Governor Limits. Adding Journey Builder events or your own processes or flows into the save order of an object can expose or exceed limits within your org. When an integrated journey is activated, the Sales Cloud [Flow Metadata API](#) launches the flow for the object with the conditions specified in the entry configuration. These tools allow your business to run behind the scenes. Here's an example that illustrates how the objects are used and how they work from end to end.

APEX Governor Limits

Salesforce Data Events are subject to all APEX limits, or governors, and process limits within the platform. Introducing Journey Builder Events or Process Builder and Flows into the save order of an object can expose or exceed limits within your org.

- 50 Future invocations: Before the 5.496 Marketing Cloud Connect package, Journey Builder made direct callouts using the `future` annotation. This action causes an error on any transaction exceeding 50 records, meeting the Journey Builder Event criteria. To avoid this error, use Marketing Cloud Connect package 5.496 or above.
- Transactions with more than 2,000 records: A save transaction is limited to less than 2,000 flow invocations. This limit allows up to 2,000 records to enter a flow within a transaction. If multiple flows are triggered or your org has custom logic generating transactions with more than 2,000 records, the flow invocation fails. To interact with a smaller number of objects, modify transactions.
- Maximum CPU Time: The event adds steps to the target objects save order transaction, which uses a small portion of the allocated CPU for a transaction. To avoid exceeding this limit, monitor the addition of processes.

- 50 System.enqueueJob limit: Each Journey Builder callout is queued as an invocable method. Each transaction can enqueue up to 50 invocable methods and can process up to 200 records. If objects meet the criteria for multiple events, this limit can be reached with 50 unique events on a single object. This limit is shared with non-Journey Builder triggers and flows.

Associated Sales or Service Org Changes

If the Sales or Service Cloud org connected to the Engagement account changes, delete all associated journeys and events. Journeys can reference objects or fields that don't exist in the new org and cause publishing to fail. Create journeys and events to reference the new org.

Known Issues

- [Platform Events Apex Job runs before update transaction is complete](#)
- [Journey Builder Salesforce Integration Events will not always fire if another Process Builder finishes later in the same transaction](#)
- If one contact in the batched API call to the Engagement fails, the entire batch fails to inject.

[Configure the Salesforce Data Event](#)

Using this Journey Builder event, contacts enter the journey when a Sales Cloud record is created or updated.

[Create a Salesforce Campaign Event](#)

The Salesforce Campaign event in Journey Builder adds contacts to a Marketing Cloud Engagement journey when they're added to a Sales Cloud campaign. You can also use this event to send Salesforce object data into the data extension created upon entry.

[Salesforce Experience Cloud](#)

The Salesforce Experience Cloud entry source in Journey Builder starts activities in a journey when new members are added to your Experience Cloud site. Use the Salesforce Data Event for activities that aren't related to adding new members.


[Person Accounts and Salesforce Data Events](#)

A person account is a type of account that stores information about individual consumers. By default, Salesforce accounts are business accounts, but administrators can choose to set up person accounts. Person accounts facilitate business-to-consumer functionality within Sales and Service Clouds. Use the Salesforce Data Event to tell Journey Builder to perform one of these actions:


Configure the Salesforce Data Event

Using this Journey Builder event, contacts enter the journey when a Sales Cloud record is created or updated.


1. Drag **Salesforce Data** onto the canvas.
2. Click **Salesforce Data**.
3. Choose **Salesforce Data Event**.
4. Select a primary object as the event source.
5. Choose to detect records that are created, updated, or both to send contacts into the journey.
6. Choose who enters the journey.

 **Note:** When configuring the event, select who enters a journey, such as leads, contacts, person accounts, or users.

7. Create a filter for the primary object.
8. Add more filtering criteria based on any reference objects, which includes any object cross-referenced from the primary object.


 **Note:** Polymorphic fields aren't supported in secondary filter criteria.

9. Choose journey data based on primary or reference objects. The event sends data from the selected fields to Journey Builder. Each record automatically includes the ID related to the person entering the journey, that person's email address, and the email opt-out flag status as applicable.
10. Configure the remainder of the journey by adding and configuring activities.
11. When journey setup is complete, click **Activate** to start the journey. This action creates a Flow in the Sales Cloud.

 **Note:** Salesforce entry sources, including the Salesforce Data, Campaign, and Community entry sources, are only editable when no other journey or version uses them. You can't edit the object a Salesforce entry source uses to decide who enters the journey. To choose a different object in a Salesforce entry source, delete and recreate the entry source.

Create a Salesforce Campaign Event

The Salesforce Campaign event in Journey Builder adds contacts to a Marketing Cloud Engagement journey when they're added to a Sales Cloud campaign. You can also use this event to send Salesforce object data into the data extension created upon entry.

 **Note:** New users must be explicitly granted access to create or edit Salesforce events, except users with the Marketing Cloud Engagement Administrator role.

The Salesforce Campaign event adds contacts to a journey when they're added to a Sales Cloud campaign.


1. Drag **Salesforce Data** onto the canvas.
2. Click **Salesforce Data**.
3. Select **Salesforce Campaign Event**.
4. Select one or more campaigns whose members are added to the journey when they're added to the campaign.
5. Select whether the Contact or Lead record enters when campaign members enter the journey.
6. On the next page, select **Salesforce object data** to include in the journey for use in decision splits, and other activities.
7. To select an object field, click it.


 **Note:** If no contact record exists in Engagement for a person entering this journey, Journey Builder creates one.

 **Note:** Salesforce Campaign events aren't editable.

Salesforce Experience Cloud

The Salesforce Experience Cloud entry source in Journey Builder starts activities in a journey when new members are added to your Experience Cloud site. Use the Salesforce Data Event for activities that aren't related to adding new members.

 **Note:** New users must be explicitly granted access to create or edit Salesforce events, except users with the Marketing Cloud Engagement Administrator role.

 **Note:** Salesforce entry sources are only editable when no other journey or version uses them. You can't edit the object a Salesforce entry source uses to decide who enters the journey. To choose a different object in a Salesforce entry source, delete and recreate the entry source.

1. Drag **Salesforce Data** onto the canvas.
2. Click **Salesforce Data**.
3. Select **Salesforce Community**.
4. Select a community from your list of connected, active communities and click **Next**.

5. Select fields for use in the journey decision splits and other activities.
6. Click **Next**.
7. Review the entry source definition summary and click **Done**.

Person Accounts and Salesforce Data Events

A person account is a type of account that stores information about individual consumers. By default, Salesforce accounts are business accounts, but administrators can choose to set up person accounts. Person accounts facilitate business-to-consumer functionality within Sales and Service Clouds. Use the Salesforce Data Event to tell Journey Builder to perform one of these actions:

- Create a Person Account, not a Business Account, for each Marketing Cloud Engagement contact who enters the journey.
- Fire the event when an object associated with a business account is created or updated.
- Fire the event when an object associated with a person account is created or updated.

[Configure Events for Person Accounts](#)

Create a person account for each Marketing Cloud Engagement contact who enters the journey. When a person account is created, an identical contact record is created in Sales or Service Cloud.

[Configure Events for Business Accounts](#)

Follow these steps in Journey Builder to configure the event to fire when an object associated with a business account is created or updated.

[Configure Events for Person Account Related Objects](#)

Follow these steps to fire the Journey Builder event when an object related to a Person Account is created or updated.

Configure Events for Person Accounts

Create a person account for each Marketing Cloud Engagement contact who enters the journey. When a person account is created, an identical contact record is created in Sales or Service Cloud.

The event processes only Person Account records. Journey Builder doesn't process Business Accounts.

1. Drag **Salesforce Data** onto the canvas.
2. Click **Salesforce Data**.
3. Select a primary object to be the event source.
4. Select the account object to be the source of this entry event.
5. Select to fire the event when records are created, updated, or both.
6. Select **Person Contact ID (Contact)** under **Who do you want to inject?**
7. Create a filter for the account object. Under **Attributes**, drag primary object fields into the filter pane.
8. Add more filter criteria using the primary object's related objects if necessary.
9. Select journey data by expanding account fields. This data enters the journey with each contact.
10. To update the Person Account record during your journey, make sure that the field Account ID from the account object is added to Journey Data.
11. Select data from related objects listed below account if necessary.
12. These fields are added to journey data automatically.
 - The Person Contact ID found in the account record. Use this field to link the data extension to an attribute group. For example, link Contact Key to Account: PersonContactID.

- The Contact record email address, which is added automatically to Default Channel Addresses
- The Contact record email opt-out flag

Configure Events for Business Accounts

Follow these steps in Journey Builder to configure the event to fire when an object associated with a business account is created or updated.

1. Drag **Salesforce Data** onto the canvas.

2. Click **Salesforce Data**.


3. Choose **Salesforce Data Event**.

4. Select the account object to be the source of this entry event.


5. Select an ID under **Select who to inject into the journey**.

 **Note:** For business accounts, select only list items followed by the label (User).

6. Select to trigger the entry when a record **Is Created, Is Updated** or both.

 **Note:** If **Is Updated** is selected, you must define what triggers entry based upon the specific criteria you configure. If **Is Created** is selected, you don't have to define criteria, which trigger entry upon any creation to the object, or you can define specific criteria.

7. Create a filter for the account object. Under Attributes, drag primary object fields into the filter pane.

 **Note:** Don't use Person Account fields. Use the IsPersonAccount field to define event rules to admit only Business Accounts or Person Accounts. To admit only Business Accounts, set the filter criteria so that IsPersonAccount = false. To admit only Person Accounts, set the filter criteria so that IsPersonAccount = true.

8. Select journey data by expanding account fields. These fields bring data into the journey for each contact who enters. The data can be used later in the journey.

These fields are added to journey data automatically:

- The email address of the record for the person entering the journey. This information is added automatically to Default Channel Addresses.
- The email opt-out flag for the person entering the journey.

Configure Events for Person Account Related Objects

Follow these steps to fire the Journey Builder event when an object related to a Person Account is created or updated.

1. Drag **Salesforce Data** onto the canvas.

2. Click **Salesforce Data**.

3. Select **Salesforce Data Event**.

4. Select an object that is related to a Person Account as the source of this entry event.

5. Select to fire the event when records are created, updated, or when either action occurs.

6. Select an ID under **Who do you want to inject?**

a. To admit the Person account, select **Account ID (PersonAccount)**.

b. To admit a different type of user, select a different ID such as **Contact ID, Lead ID, or Owner ID**.

7. Create a filter for the object. Under Attributes, drag primary object fields into the filter pane.
8. Select data from related objects listed below the account, if necessary.
9. Expand the account fields to bring data into the journey for the contact that enters or for related objects.



Note: When a Person Account is created, an identical Contact record is created in the Sales and Service Cloud.

These fields are added to journey data automatically:

- The ID of the person entering the journey - if it's a Person Account, the Person Contact ID of the Account record is added. This ID must be used to link the data extension to an attribute group.
- The contact record email address, which is added automatically to Default Channel Addresses
- The contact record email opt-out flag

Use CloudPages to Admit Contacts into Journey Builder

Use a CloudPages Smart Capture form and Journey Builder to admit Marketing Cloud Engagement contacts into a journey using the CloudPages Form Submit Event.

Create at least one Smart Capture form in CloudPages before you use this entry source.

1. Drag **CloudPages** onto the canvas.
2. Click **CloudPages**.

3. Choose a Smart Capture form and click **Next**.

When a customer submits the Smart Capture form, that customer is automatically added to a data extension and queued to enter this journey.

4. Build the rest of the journey, and click **Activate** to begin admitting contacts who submit the designated Smart Capture form.

SEE ALSO:

[CloudPages](#)

[Use a Smart Capture Form as a Journey Builder Entry Event](#)

Marketing Cloud Engagement Mobile App Events Overview

Highly relevant and contextually aware interactions are the cornerstone of amazing customer experiences. Now, user behaviors on your mobile app can drive relevant and personalized touchpoints, powered by easy-to-configure listening rules in Journey Builder. Mobile App Events help your brand deliver mobile moments that matter by creating meaningful engagement, increasing brand loyalty, and generating a higher return on investment for your marketing campaigns.

What Is an App Event?

A Mobile App Event is a direct action taken by the user within your mobile app. Mobile App Events are tracked by the MobilePush SDK and then submitted to Journey Builder for actioning.

Use Cases

You can use Mobile App Events to enter a user into a journey, trigger the display of an in-app message, and connect with your customers in several ways

Some examples include:

- Request permission to send push notifications.
- Ask to take a survey.
- Prompt to sign up or complete an account profile.
- Cross-sell products.
- Highlight a refer-a-friend program.
- Nudge to try a new feature.
- Ask to rate the app.
- Contact customer service.

[Get Started with Mobile App Events](#)

Before events can be used to trigger the display of in-app messages, they must first be defined in Marketing Cloud Engagement and then implemented in the MobilePush SDK.

[Define Your Mobile App Event Schema](#)

An app event requires a name and can optionally contain many attributes. Depending on your app and desired use cases, you can capture events or attributes that are more descriptive than others.

[Upload Mobile App Events in Journey Builder](#)

Before you can use events within Marketing Cloud Engagement, you must define the event schema for your applications. When you complete your .csv template, you can upload your file into Journey Builder.

[Update Existing Mobile App Event Schemas](#)

Use care when updating events that are being used in running journeys. Changing the names or data types of app events can cause errors if newly defined event doesn't match the inbound data coming from the MobilePush SDK.

[Use Mobile App Events in Journey Builder](#)


After you upload your .csv file, you can use Journey Builder to start sending.

Get Started with Mobile App Events

Before events can be used to trigger the display of in-app messages, they must first be defined in Marketing Cloud Engagement and then implemented in the MobilePush SDK.

Prerequisites

Complete the following prerequisites before you begin to use mobile app events.

- As a marketing team, define the campaigns in which you plan to use mobile app events.
- Work with your mobile app development team to define the app events that are required to power these campaigns.
- Upload your CSV schema file for the mobile app events that you want to use within Journey Builder. Journey Builder isn't intended to act as a dedicated analytics or segmentation platform. Prioritize the events that you plan to use directly within a campaign. Marketing Cloud Engagement allows a maximum of 20 defined event names per MobilePush app.
- Have your mobile development team track events with the MobilePush SDK. Use version 8.0.8 or later of the SDK.
-  **Important:** The name of both the event and the attributes defined within Marketing Cloud Engagement must exactly match the name tracked by the MobilePush SDK. This naming allows Journey Builder to react to app events.
- Use your mobile app events in your Mobile App Event Entry Source and in-app messages.

Template Events


Template Events are mobile app events predefined by Salesforce. These events use a standardized naming convention understood by other Salesforce products, such as Data Cloud. The names used for Template Events and their Attributes can't be changed. But you can extend the predefined events by adding attributes to them. Template Events are predefined in the MobilePush SDK, but they still require implementation.

SEE ALSO:

- [MobilePush and Journey Builder for Apps SDKs](#)
- [In-App Messages](#)
- [In-App Messaging FAQs](#)
- [Configure an Existing Content Builder In-App Message in Journey Builder](#)
- [Campaign Planning for Mobile App Events](#)

Define Your Mobile App Event Schema

An app event requires a name and can optionally contain many attributes. Depending on your app and desired use cases, you can capture events or attributes that are more descriptive than others.

 **Important:** The name of both the event and the attributes defined within Marketing Cloud Engagement must exactly match the name tracked by the MobilePush SDK. This naming allows Journey Builder to react to app events.

Event and Attribute Naming Conventions

- Use only alphanumeric characters and underscores and spaces.
 - Acceptable: Added_to_Cart or Added To Cart
 - Acceptable: product_ID or product ID
 - Unacceptable: Added-to-Cart or Added to [emoji]
- Unicode and double-byte characters, such as emoji and kanji, aren't supported.
- Leading and trailing whitespaces in names are automatically trimmed.
- Names aren't case-sensitive.
 - MyEvent is equal to myevent
 - ViewScreen is equal to viewscreen
 - View Screen ! isn't equal to ViewScreen

Event and Attribute Naming Conventions

Ensure that your organization uses a consistent event and attribute naming convention across your app. This action keeps your account's data clean while avoiding the confusion that can result in triggering the wrong campaign based on a misunderstood event. We recommend starting by brainstorming the most important high-level actions that users perform in your app.


Mobile App Events track user actions and aren't objects. As a result, we recommend applying a verb-first naming convention for your events.


 **Example:** User made a purchase: Purchase

 **Example:** User registered for an account: Registered

For events with more than two words, we recommend using spaces or underscores.

 **Example:** User viewed a specific screen: Viewed Screen

 **Example:** User added a product to a cart: Added_to_cart

 **Example:** User used a new feature: Used [X] feature

When considering your event names, make them generic instead of specific. Then use attributes to capture the specific details or metadata about the event.

Sometimes, more detailed event names are required. For example, specific campaigns, such as onboarding or first-time user action.

 **Example:** First Order Completed

 **Example:** First App Open

 **Example:** First used [X] feature

Example .csv File

Use the example template to collaborate with your development team and define the event schema that you want to track with the MobilePush SDK and use throughout Journey Builder. Then create a .csv and upload the file through the App Event Management screen in Journey Builder.

Important Notes:

- Values must be text, number, or boolean.
- Template fields are mapped by ordinal.
- Values aren't case-sensitive.
- Event Description is needed only one time.

 **Note:** Event Description limit is 250 characters.

- The description is pulled from the first row where the event name occurs.
- Attribute Data Type is a required field for every Attribute Name.
- If not defined, Attribute Required is an optional field that defaults to FALSE.
- Assigned Data Type is required: text, number, or boolean.
- The value length is either blank or a number.

 **Note:** If you don't specify a maximum length, the default is 50. The maximum allowed value is 100 characters.

- Marketing Cloud Engagement currently allows a maximum of 20 unique Event Names to be defined per MobilePush app and up to 10 Event Attributes per Event.

Table 22: Example .csv

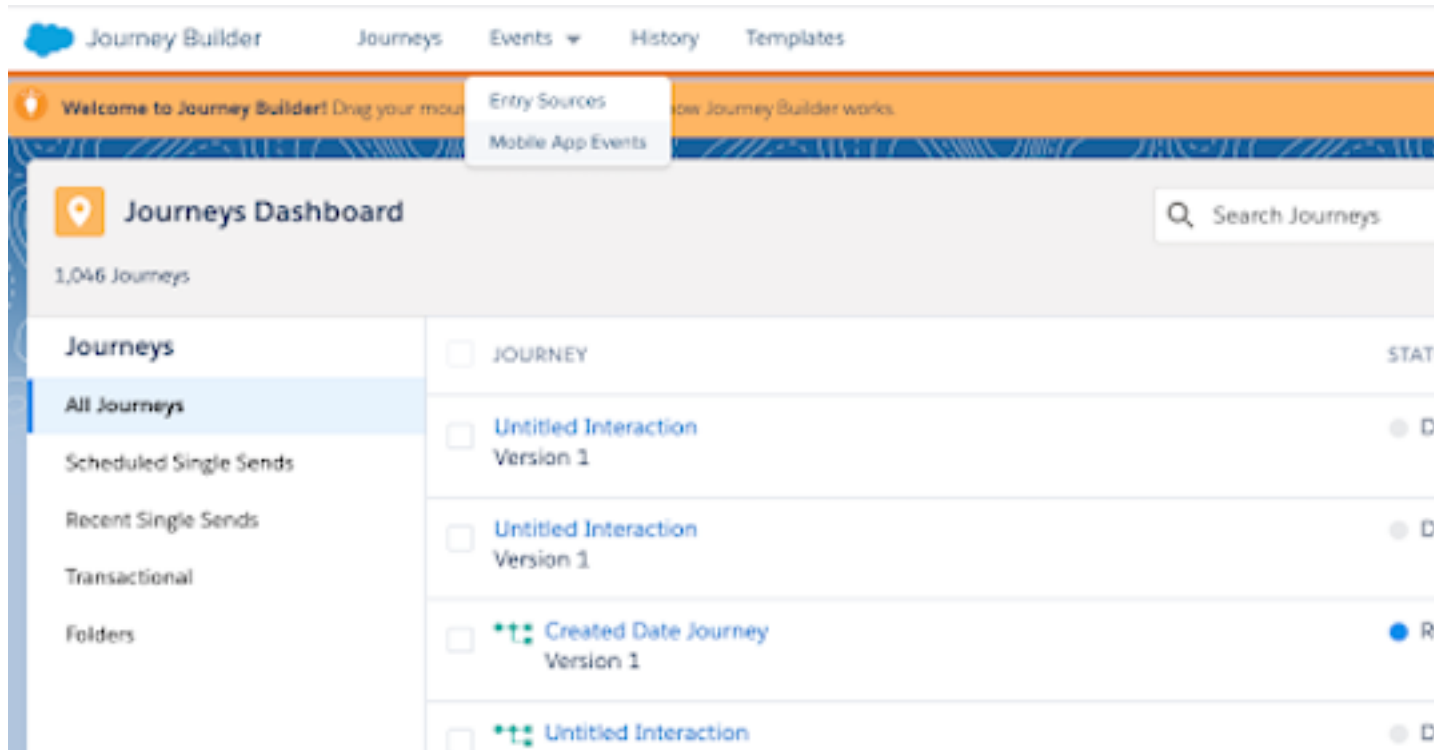
Event Name	Event Description	Attribute Name	Attribute Data Type	Attribute Required	Attribute Value Length
Installed App	User installs the app				
Viewed Screen	User views a specific screen in the app	Screen Name	Text	TRUE	50

Event Name	Event Description	Attribute Name	Attribute Data Type	Attribute Required	Attribute Value Length
Signed Up	User registers for an account	Username	Text		100
Favorited	User adds item to their list of favorites	Item Name	Text		100
Favorited	User adds an item from a specific category to their list of favorites	Item Category	Text		100
Started Checkout	User began the checkout process	Order ID	Text	TRUE	
Started Checkout		Order Total	Number	TRUE	
Started Checkout		Currency Type	Text	TRUE	
Completed Checkout	User completes an order	Order ID	Text	TRUE	
Completed Checkout	User completes an order	Order Total	Text	TRUE	
Completed Checkout	User completes the checkout with a coupon	Used Coupon	Boolean	TRUE	

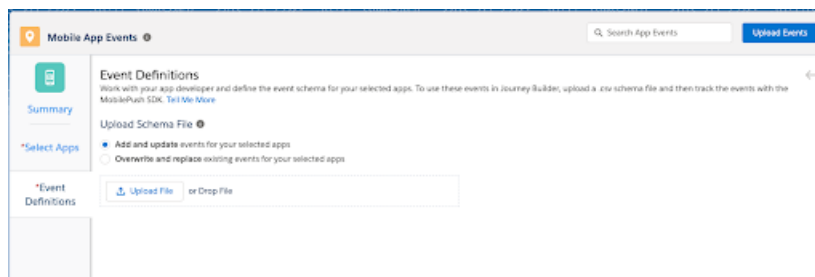
Upload Mobile App Events in Journey Builder

Before you can use events within Marketing Cloud Engagement, you must define the event schema for your applications. When you complete your .csv template, you can upload your file into Journey Builder.

1. In the Journey Builder dashboard, click **Events**.
2. From the dropdown, select **Mobile App Events**.




3. Click **Upload Events**.
4. To select the apps that you want to use, click **Edit**.
5. Select your apps, and click **Summary**.
6. To upload your event definitions, click **Edit**.
7. Select whether you want to add and update to your app event schema or overwrite and replace your app's event schema.



Note: Take caution when updating events that are being used in running journeys. If the newly defined event doesn't match the inbound data coming from the MobilePush SDK, changing the names or data types of these events can result in errors.

8. Click **Upload File**, or drag your .csv file.
9. Click **Upload Events**.
10. If your file contains errors, correct them, and then upload the file again.
11. Click **Summary**.

 **Note:** If you want to edit existing events, upload an updated .csv file, and then select the option to **Add and update events for your selected apps**. If you want to delete existing events, upload an updated .csv file with the removed event, and then select the option to **Overwrite and Replace existing schema for your selected apps**.


SEE ALSO:

[Campaign Planning for Mobile App Events](#)

[Campaign Planning for Mobile App Events](#)


Update Existing Mobile App Event Schemas

Use care when updating events that are being used in running journeys. Changing the names or data types of app events can cause errors if newly defined event doesn't match the inbound data coming from the MobilePush SDK.

 **Note:** To edit existing events, upload an updated .csv file, and then select the option **Add and update events for your selected apps**. To delete existing events, upload an updated .csv file with the removed event, and then select the option **Overwrite and Replace existing schema for your selected apps**.

Constructive Schema Changes

Extending an event: If you add attributes to an existing event, this action doesn't change your active running journeys that are using that event.

 **Example:** A Purchase event exists with a Price attribute. You later upload a new schema with the same Price definition, but add a Currency attribute. Since the Price attribute hasn't changed, journeys using that event aren't disrupted.

Destructive Schema Changes

Deleting an Event or Attribute: If you Overwrite and Replace your existing event schema with a new schema that doesn't include the same event names or attributes, the event definitions and attributes are deleted from your account. As a result, all journeys using those definitions and attributes are affected.

 **Example:** You have a Purchase event that's referenced by many journeys. You later upload a new schema file that doesn't contain any information about this Purchase event. You select **Overwrite and Replace the existing schema for your selected apps**. As a result, Journey Builder is unable to listen for Purchase events because the Purchase event schema is deleted from your account.

Use Mobile App Events in Journey Builder

After you upload your .csv file, you can use Journey Builder to start sending.

1. Click **Create New Journey**.
2. Under Multi-Step Journey, click **Build**.
3. Drag the Mobile App Event entry source onto the canvas.
4. Click **Select Event**.
5. Click **Summary**.
6. Drag the [In-App Message](#) activity onto the canvas.
7. To configure your message, click it.
8. Add an activity name and description.

9. Click **Select Message**.
10. Click **Summary**.
11. Next to Message Configuration, click **Edit**.
12. From the dropdown, select the app channel that you want to use.
13. Click **Display Trigger**, and configure the event criteria to display messages.
14. Click **Summary**.
15. Click **Done**.
16. Configure the rest of your journey, and click **Activate**.

Use Data in Journey Builder

The essential functions of Journey Builder depend on data. To maximize the reach of your journeys, explore how you can use data for filtering, personalization, and other Journey Builder tasks.

[View Your Contact and Journey Data](#)

Access your contact data and see your Journey and Contact Data attributes in the Journey History dashboard. Journey Data is data from the data extension of your configured entry source, which is only visible after you configured your entry source. Contact Data consists of attributes linked to your contact model in Contact Builder.

[Create a Filter](#)

Create a filter to ensure that the intended Marketing Cloud Engagement contact enters your journey, follows a split activity path, or reaches the goal. Use contact data and journey data attributes in a filter as needed.

[Journey and Contact Data](#)

Journey data preserves the state of a contact's data at the moment an entry event fires, facilitating the use of that data throughout a journey. Contact data captures the data values in the event source data extension at the time when Journey Builder evaluates it. Both are uniquely useful in journey creation.

[Linked Data Extensions in Journey Builder](#)

Your data setup affects how Marketing Cloud Engagement evaluates the contact attributes used in journey entry source filters, wait activities, or decision splits. Review what happens when a data extension is linked to one or more other data extensions.

[Specify an Explicit Attribute Path](#)

Where multiple paths to an attribute exist, some filters have an ambiguous path in the filter expression. For instance, the filter could use an attribute other than the one you intended to determine which path a contact takes. If your filter's configuration resulted in an ambiguous path, use these instructions to make the path explicit.

[Attribute to Attribute Comparison](#)

Compare an attribute value to another attribute in entry events and decision splits in Journey Builder.

[Personalization in the Journey Builder Email Activity](#)

Personalize email content sent by Journey Builder using the Marketing Cloud Engagement email personalization features.

[Email Personalization Use Case](#)

In Journey Builder, email personalization replaces the personalization string in the email with the matching attribute value found in journey data. This feature means that each personalization string is replaced with the specified attribute value as it exists when the contact enters the journey. Using journey data to substitute personalization strings for data values ensures that emails aren't sent with blank or unintended data values.

[Journey and Contact Data in Decision Splits](#)

Use journey and contact data in Journey Builder decision splits to direct contacts down a path based on changes to an attribute value during a journey. This step is useful when you want to promote to a specific event, even if that event happened before the contact is admitted to the journey.

[Resolve Excess Salesforce Data Events in Journey Builder](#)

Actions in Sales and Service Cloud, such as creating or updating an object record that injects a contact into a journey, count toward your total Salesforce data event limits.

View Your Contact and Journey Data

Access your contact data and see your Journey and Contact Data attributes in the Journey History dashboard. Journey Data is data from the data extension of your configured entry source, which is only visible after you configured your entry source. Contact Data consists of attributes linked to your contact model in Contact Builder.


1. Reference attributes to eliminate the need to switch from Journey Builder to Contact Builder when configuring email personalization or other activities.
2. Verify the data extension that you selected includes the attributes you want.
3. Verify that attribute data types are correct to allow filter comparisons to work as intended.

Create a Filter

Create a filter to ensure that the intended Marketing Cloud Engagement contact enters your journey, follows a split activity path, or reaches the goal. Use contact data and journey data attributes in a filter as needed.

In entry sources, decision split activities, and other Journey Builder components, marketers can create a filter to admit contacts based on attribute values. Contacts that meet filter conditions are admitted. Filters consist of an expression, an attribute, an operator like **equals** or **begins with**, and a default or restricted value you choose. Create multiple expressions, and tell Journey Builder how they work together. Alternately, a filter can include attribute-to-attribute comparison. Compare contact and journey data attributes as needed.

1. To find attributes to use in the filter, click **Contact Data**.

 **Note:** Because journey data attributes are based on a snapshot of contact data, the attribute sets that appear after clicking **Contact Data** or **Journey Data**. Because journey data occurs after a journey is activated, you can't use it to filter an entry source filter.

- Click **Journey Data** for attributes in the state they were in when the contact entered the journey.
- Click **Contact Data** for attributes in the state they're in when evaluation occurs after the event occurs.

2. Find the attribute group that you want, and then the data extension and attribute.

You can't use encrypted fields and attributes that allow null values in an attribute-to-attribute comparison.

3. Drag the attribute into the filter expression.

- When comparing attributes, drag another attribute to the right of the first attribute.
- If you're using multiple attributes in the filter expression, drag another attribute under the first attribute.

4. Select an operator.

5. Add a default text value or choose from a list of preconfigured values.

- When using more than one attribute, group filter statements using **And** and **Or** operators.

- If using more than two attributes in the filter, create subgroups by clicking between the attribute and the **And** and **Or** operators.

SEE ALSO:

[Profile and Preference Attributes in Marketing Cloud](#)

[Use Restricted Values](#)

Journey and Contact Data

Journey data preserves the state of a contact's data at the moment an entry event fires, facilitating the use of that data throughout a journey. Contact data captures the data values in the event source data extension at the time when Journey Builder evaluates it. Both are uniquely useful in journey creation.

Journey Data	Contact Data
Initial data value about a customer.	Current data value about a customer.
Provides attributes in the state they were in when the contact entered the journey.	Provides attributes in the state they are in when evaluation occurs after the entry event has fired.
Comprised of event data and activity data.	
Use when a contact is likely to exist in a journey more than once simultaneously.	
Use for comparison when a data value is expected to change.	

For some customer journeys, it's useful to filter against the initial data about a customer. That data value often qualifies the customer to enter the journey, even if it later changes. For example, the journey data about a customer shows that the first purchase was decaffeinated coffee. Even if the customer doesn't purchase that coffee again, you can use that data as a filter in a journey to market a new coffee.

For other journeys, it's necessary to filter against the most recent customer data. For example, the contact data about a customer shows a purchase of a new regular coffee flavor. This information is useful to filter against in a journey to market a sale on that flavor.

Journey data is the information about a contact that is brought in when the contact enters a journey. It's like a snapshot of the contact's attribute data at the moment the contact is added to the journey. Contact data is updated as the journey goes on, but journey data is not. Use the different types of data to present before- and after-data points in personalization strings or to detect changes in an attribute. You can use both journey data and contact data when filtering in entry events as well as decision splits and message personalization. Events can either be journey-specific or shared. Create a shared event in Entry Source Administration and use it in one or more journeys. The journey-specific event must be used in the journey within which it's configured.

SEE ALSO:

[Link Data Extensions in Contact Builder](#)


[Attribute Group Creation in Contact Builder](#)

Linked Data Extensions in Journey Builder

Your data setup affects how Marketing Cloud Engagement evaluates the contact attributes used in journey entry source filters, wait activities, or decision splits. Review what happens when a data extension is linked to one or more other data extensions.

In Contact Builder, Data Designer permits linking data extensions to the contact record or to other data extensions. When you create the relationships between data extensions, you can specify the cardinality for the relationship:


- One-to-one relationship
- Population
- One-to-many relationship
- Many-to-many relationship


 **Tip:** Limit the number of rows per contact to 1000 or less. Any contact beyond the 1000th row isn't used for evaluation.


Cardinality refers to how the data extensions relate to each other based on the attribute links between the two data extensions.

When a filter is used, Marketing Cloud Engagement evaluates contact attributes in activities, entry sources, goals, and exit criteria, so cardinality of the data extensions is important. If a data extension includes a one-to-many or many-to-many relationship to other data extensions, a matching attribute value can appear more than one time.

To ensure that your intended attributes are evaluated, use attribute-to-attribute comparison in decision splits and event entry sources. This feature allows you to compare two attribute values. You can compare an attribute value from journey data to an attribute value in a linked contact data extension to identify the specific record to evaluate. These examples demonstrate how data extension linking can affect journeys when a filter is used.


 **Note:** We don't recommend using data extensions with many-to-many relationships in journey entry sources and activities. When you must use a data extension with a many-to-many relationship, use an intermediate data extension.

 **Example:** A marketer links a data extension called Customers, which has information about customers, to a data extension called Purchases, which has purchase records. The data extensions are linked on the Contact Key attribute. The Customers data extension has only one record per customer. The Contact key is a primary key in Customers. The Purchases data extension allows more than one record per contact key because a customer can purchase items more than one time. So the marketer links the Customers data extension to the Purchases data extension in a one-to-many relationship. This approach means that a contact key can appear in the Customers data extension one time, but can appear in the Purchases data extension many times.

 **Example: Decision Split** A marketer creates a journey to follow up with survey respondents. The journey sends a follow-up email based on whether the response indicates positive or negative sentiment as tracked in a Survey Respondents data extension. Because customers can respond to multiple surveys, customers can be represented in the data extension more than one time. So the marketer adds a decision split and uses attribute-to-attribute comparison to ensure that the journey evaluates a response sentiment that's specific to each response. The marketer configures the first decision split path as follows:

Sentiment (from Survey Respondents data extension linked in Contact Builder) = Positive AND


SurveyID (from Journey Data) = SurveyID (from Survey Respondents data extension)

 **Example: Event Entry Source** A marketer sets up a journey to follow up with customers who leave their website with unpurchased items in their cart. The marketer configures the Event entry source to admit a contact 1 hour after customers abandon their cart when the cart value is greater than \$50. The marketer sets up the filter using the CartValue attribute from contact data. The filter is configured as follows:


CartValue is greater than or equal to \$50 AND

CartID (contact data) = CartID (journey data)

This filter ensures that the journey doesn't admit a contact who abandoned a \$10 cart, but does admit a contact who abandoned a \$200 cart.

 **Example: Goals** A marketer creates a journey to encourage customers to make purchases that are greater than \$100. Customer purchases are tracked in the Purchases data extension, which is linked to the Customers data extension in a one-to-many relationship. Customers can make multiple purchases. The marketer sets a journey goal that each customer makes a purchase over \$100 in

total. The journey counts a contact as meeting a goal when they make any purchase over \$100. To set up the goal, the marketer configures the goal filter as PurchaseAmount is greater than 100. Marketing Cloud Engagement evaluates the first matching value it finds, even if there are multiple matching values in the data extension. Contact data attributes can't be compared to journey data attributes in goals.

 **Example: Wait by Attribute** A marketer sets up a journey that emails customers after a purchase. The marketer uses the wait by attribute activity and selects the PurchaseDate attribute from the Purchases data extension. The Purchases data extension is linked to the Customers data extension in a one-to-many relationship. Because of this relationship, a contact can have more than one record matching its contact key in the Purchases data extension. When Marketing Cloud Engagement evaluates the Purchases data extension, it uses the first value that matches the contact key. The wait by attribute activity doesn't compare attributes, so Marketing Cloud Engagement evaluates the first matching value it finds.

SEE ALSO:

[Attribute to Attribute Comparison](#)

[Data Designer in Contact Builder](#)

[Link Data Extensions in Contact Builder](#)

Specify an Explicit Attribute Path


Where multiple paths to an attribute exist, some filters have an ambiguous path in the filter expression. For instance, the filter could use an attribute other than the one you intended to determine which path a contact takes. If your filter's configuration resulted in an ambiguous path, use these instructions to make the path explicit.

These activities don't support setting explicit paths.

- Wait By Attribute Activities
- Sales Cloud Activities
- Attribute to Attribute Comparison Activities using Contact Builder attributes on the right side of the comparison
- Custom Activities and Update Contact Activities based on Contact Builder attributes

These activities default to using the shortest path to an attribute, even if that path isn't the path you selected when configuring the activity. We recommend that you create a single data extension with the necessary attributes for your journey that ensures the shortest path to your data.

1. Open a journey that includes a decision split activity with a filter. Activities that contain an ambiguous path argument display a warning symbol in the upper right of the activity icon on the canvas.
2. Create a draft of the journey.
3. Click each of the affected activities, then click the warning symbol next to the ambiguous argument.
4. From the Path dropdown at the top of the filter expression, select the desired attribute path.
5. Click **Done**
6. Save the journey.
7. Activate the new version of the journey. Stop previously running versions of the journey if necessary.


 **Note:** If your filter's configuration resulted in an ambiguous path, the existing filter still works. Following the August 2017 release, you can edit or confirm the filter path to ensure that they work as intended.

 **Example:** This example shows two paths to the Products attribute set within the same attribute group. The Product SKU is linked to a SKU in both the Abandoned_Cart and the Order_Details attribute sets. Both of those sets link back to All Contacts via the Contact Key.

Attribute to Attribute Comparison

Compare an attribute value to another attribute in entry events and decision splits in Journey Builder.

Use filters to ensure that the intended contacts enter their journeys, follow the intended branch after a decision split, or reach the journey's goal. Many journeys use a simple filter to admit any contact with the specified value in a data field on its contact record. Use attribute to attribute comparison to compare the contact's values in two data fields to determine whether to admit the contact.

 **Note:** Attribute to Attribute Comparison can only be applied to the WhoID or the Primary Object ID from the Salesforce Data Entry Event.

Attribute to attribute comparison is useful when a single contact can enter a journey more than once. Or, you can compare a journey data attribute to a contact data attribute to determine if a change occurred between time of entry and current time. To perform the comparison, drag the contact data attribute into the filter.

For example, in a Multiple Entry journey, customers enter the journey each time they make a purchase. The journey includes multiple paths that are each setup for purchasers of a different product. Each customer has a fixed contactID and is assigned a unique purchaseID for each purchase. The same contactID exists in the journey multiple times, each time with a unique purchaseID.

To confirm that the customer sees messaging for the right purchase, set the purchaseID from Contact Data to equal the purchaseID from Journey Data. This expression confirms that journey sends messaging for the correct purchase by confirming that the purchaseID values are the same.

Considerations

- Compare only attributes of the same data type.
- Attributes that allow null values cannot be used in attribute-to-attribute comparison.
- Encrypted fields are not supported.

Personalization in the Journey Builder Email Activity

Personalize email content sent by Journey Builder using the Marketing Cloud Engagement email personalization features.

Considerations

- In Journey Builder, email personalization replaces the personalization string in the email with the matching attribute value found in journey data. Each personalization string is replaced with the specified attribute value as it exists when the contact enters the journey.
- Dynamic content also uses journey data, similar to personalization.
- If you use Send Logging with custom Send Log attributes and expect contact attributes to be updated during the journey, your Send Log records could be incorrect. To resolve this issue, open a support case through Salesforce Help.

How Personalization Works

To personalize an email, include personalization strings in your email content. Personalization strings are made up of percent signs combined with an attribute's column name, such as %%FirstName%%. When the email is sent, it's validated and each personalization string is rendered, showing the intended attribute value by calling it from journey data. Journey data differs from contact data because it preserves the state of a contact's data at the moment an entry event fires. The journey uses that initial data throughout a journey.

If you're more experienced, use AMPscript for personalization. Use the %%=Lookup()=%% function to personalize an email with data not found in journey data, or contact data that has changed since the journey started.

Personalization strings operate on a hierarchy for matching field names:

- If the field name exists in the entry data, Journey Builder uses the associated value.

- If the field’s value is null in the entry source, but there’s a field with the same name in Profile Attributes for the All Subscribers list, Journey Builder uses the Profile Attributes field for personalization.
- If the value isn’t found in Profile Attributes, Journey Builder doesn’t insert a value.

When you use a date-based event, there’s no entry source data extension related to the journey. There’s no entry data to check. If there’s a match Profile Attributes, Journey Builder uses that value. If there isn’t an attribute matching Profile Attribute for an email sent from a journey that is configured with a date-based entry event, the email doesn’t pass validation and the journey doesn’t activate. To use a value from any data extension when using a journey in this scenario, use AMPscript.

Example: A Northern Trail Outfitters (NTO) marketer creates a journey that sends different versions of emails to NTO customers. The marketer stores contact data about NTO’s customers. Contact data includes data that isn’t likely to change, such as FirstName, LastName, and DateOfBirth, and data that is expected to change often. One contact data attribute that changes often is VersionCode, which determines the email version customers receive.

The email activity calls journey data to render personalization strings. Since journey data doesn’t change throughout the journey, use simple personalization strings to reference attributes that aren’t expected to change. The NTO marketer uses %%FirstName%%, %%LastName%%, and %%DateOfBirth%% strings in the email.

However, the marketer knows the VersionCode attribute to change after contacts enter the journey because the journey includes an Update Contact activity. This activity is configured to update the VersionCode attribute from ‘Version_1’ to ‘Version_2’ between the first and second email activities. The second email uses ‘Version_2’ email content. Since the email activity only calls journey data, which has ‘Version_1’ as the VersionCode value, the marketer must reference contact data directly. Referencing contact data ensures that ‘Version_2’ is correctly used in the second activity. So the marketer uses the AMPscript Lookup() function to call the VersionCode attribute.



Consider learning and using AMPscript to personalize emails using contact data attributes to capture the up-to-date attribute value.

Note: To reference the `_CustomObjectKey` field on a data extension, which is hidden by default, use an AMPscript lookup, as you would with contact data personalization.

SEE ALSO:

- [Personalization Strings in Marketing Cloud](#)
- [Introduction to Programmatic Marketing Content Format](#)

Email Personalization Use Case

In Journey Builder, email personalization replaces the personalization string in the email with the matching attribute value found in journey data. This feature means that each personalization string is replaced with the specified attribute value as it exists when the contact enters the journey. Using journey data to substitute personalization strings for data values ensures that emails aren’t sent with blank or unintended data values.

For example, a credit monitoring service, Cirrus, launches an email campaign to engage customers whose scores fall below 500 points. This campaign sends emails encouraging customers to increase their credit scores. Also, emails sent by the service include the low credit score as an incentive and a reminder.

Assuming Cirrus continually updates a data extension with updated customer credit scores, the service follows this procedure to set up its journey:

- Cirrus creates a journey called Low Credit Score Email Series.
- Cirrus creates an entry event using Contact Data as the Event Type.
- Cirrus selects the Credit Scores data extension as the event source.
- Using contact data, Cirrus drags the Score attribute into the filter expression.
- To admit all customers whose credit score is below 500, Cirrus uses the is less than operator and types "500" to create its filter.
- To create its first email send, Cirrus drags an email activity onto the journey canvas.
- Cirrus selects an email with messaging that informs recipients their credit score is below 500. The email includes a personalization string that looks at the journey data Score attribute to locate each customer's low credit score.
- Cirrus adds a 30-day wait period following this email.
- Cirrus drags a decision split onto the canvas, configuring its first path to include contacts whose credit score is now greater than 500. The marketer configures the second path to include contacts whose credit score is lower than 500.
- In each path following the decision split, the marketer drags an email activity.
- In the first path, the marketer selects an email to congratulate customers who have raised their credit score. The marketer uses a personalization string to find each customer's previous credit score in journey data, and AMPscript to find their current score in contact data. The email includes both scores.
- In the second path, the marketer selects an email to encourage customers who haven't yet raised their credit score. The marketer uses a personalization string to find each customer's previous credit score in journey data, and AMPscript to find their current score in contact data. The email includes both scores.

SEE ALSO:

[Personalization in the Journey Builder Email Activity](#)


Journey and Contact Data in Decision Splits

Use journey and contact data in Journey Builder decision splits to direct contacts down a path based on changes to an attribute value during a journey. This step is useful when you want to promote to a specific event, even if that event happened before the contact is admitted to the journey.

For example, Northern Trail Outfitters sets up a journey to send messaging to customers who buy shoes from their company. Every time a customer purchases a pair of shoes from NTO, NTO's Purchases data extension is updated. NTO wants to send messaging that reaches 1) all shoe buyers, and 2) buyers of particular styles of shoe, like hiking boots or sandals. NTO configures the journey's entry event to admit all customers who purchase shoes.

NTO imports customer purchase data into the Purchases data extension, so they create an entry event that uses Purchases as its Event Source.

- NTO names the new journey Shoe Sales Email Series.
- NTO creates an event using Contact Data as the Event Type.
- NTO uses the Purchases data extension as the event source.
- To set up a filter using at-the-moment data, NTO uses contact attributes. They access contact attributes by clicking **Contact Data**.

- NTO drags the PurchaseDate contact attribute into the filter expression, uses the equals operator, and selects Today, then finishes creating the event.
-  **Note:** If you use a scheduled automation to update the entry source data extension, use the operator: `is on or before`.
- NTO drags the email activity onto the canvas to configure a Welcome email to all shoe purchasers.
- NTO configures a waiting period of 3 days.
- NTO wants to begin a campaign tailored to customers according to the type of shoes they purchase. NTO drags a decision split onto the canvas.
- NTO clicks **Create Filter Expression** to configure the first path to include customers who purchased hiking boots, even if they purchased a different kind of shoe more recently. NTO uses the journey data PurchaseItem attribute.
- NTO configures the decision path by setting the filter as follows:
 - PurchaseItem equals hiking boots
- NTO follows the same procedure to configure the three more decision split paths:
 - PurchaseItem equals casual shoes
 - PurchaseItem equals running shoes
 - PurchaseItem equals sandals
- In the next decision split path, NTO sets a filter to segment customers who bought hiking boots, casual shoes, running shoes, or sandals during the journey. This filter enables them to target messaging to customers even when they didn't enter the journey because they bought a specific style of shoe.

NTO clicks contact data to use contact attributes when configuring these paths:

 - PurchaseItem equals hiking boots
 - PurchaseItem equals casual shoes
 - PurchaseItem equals running shoes
 - PurchaseItem equals sandals
- NTO leaves the remainder path unconfigured. Contacts who don't follow any of the configured paths follow the remainder path. These contacts receive different targeted messaging.

NTO now adds an email with specialized content to each path knowing that each customer is receiving email targeted to the purchase.

Resolve Excess Salesforce Data Events in Journey Builder

Actions in Sales and Service Cloud, such as creating or updating an object record that injects a contact into a journey, count toward your total Salesforce data event limits.

Salesforce data event uses [Flows](#), [Process Builder](#), [Apex](#), [Platform Events](#), and [SOAP APIs](#). Therefore, Salesforce Data Events are subject to all [Apex Governor Limits](#). Adding Journey Builder events or your own processes or flows into the save order of an object can expose or exceed limits within your org.

A warning appears when your total enterprise count is 50 or more events, even if a single business unit's count is less than 50. Ignoring this warning can impact other business units and fail to inject contacts into journeys. Work with your Sales or Service Cloud admins to review [Core Debug Logs](#).

Sales and Service Cloud admin steps:

1. Go to **Setup | Process Automation | Flows**.
2. Click the flow label for the object that needs attention.

3. Under Toolbox, click **Manager** and click **Apex Action** to view more details.

The count displayed includes journeys in your business unit. However, the limit count and warnings displayed include your entire Marketing Cloud Engagement organization.

4. To view more details, scroll down to **Apex Action** and click it.
 - The EventDefinitionKey is tied to the entry event.
 - The OwnerMID is the business unit that the event belongs to.

The count displayed includes journeys in your business unit. However, the limit count and warnings displayed include your entire Marketing Cloud Engagement organization.

How Can I, as a Marketer, Act in Marketing Cloud Engagement to Prevent or Resolve Issues?

Review all active running journeys for each business unit, and stop unnecessary journeys.

1. On the Journey dashboard, click the object filter in the left pane.
2. Click the FILTER icon.
3. Select the **Active/Running** status.
4. Open the journey.
5. From the dropdown, select either **Stop This Version** or **Stop All Versions**.

Goals in Journey Builder

In Journey Builder, a goal is a measurement of customer actions that you want to promote. Measure goals based on a goal target you set by creating a filter on contact data. After you activate a journey, Journey Builder evaluates contact data against the filter set as the goal target. When Journey Builder determines that a contact met the goal, that contact is counted in goal target statistics. Reaching the goal can also prompt the contact to exit, if applicable.

Goals are optional, but goal target statistics show you how each journey performs. You can set a target for the total number of people or as a percentage of people reaching the marketing objective. When the option is selected for contacts to exit upon meeting the goal, Journey Builder evaluates each contact against the goal target at the end of each wait activity. If **Exit Option** isn't selected, the goal isn't evaluated while the contact is in the wait. The contact doesn't exit the wait queue early, and they aren't ejected from the journey when they meet the goal. Contacts are evaluated every 24 hours.

 **Note:** This feature isn't supported for Single Send journeys.

Goals as Exit Criteria

Goals can act as exit criteria, but aren't required. You can configure a goal to prompt contacts to exit before the end of a journey when they meet the criteria you set. If **Exit Option** is selected and the contact met the goal, the contact exits the wait queue early. Then the contact is evaluated against the goal again. If the contact didn't meet the goal, the contact continues through the journey. If the contact met the goal, the contact is ejected from the journey. For example, if you set coupon redemption as a journey's goal, the customer exits the journey after they redeem the coupon. They don't receive subsequent messages in the journey.

You can use exit criteria to remove a contact from a journey before completing the full journey path. Goals and exit criteria can be configured using data attributes, and each can remove a contact. Exit criteria simply removes the contact. If a contact exits using the goal functionality, the contact is tracked and measured against goal performance.

[Set a Goal in Journey Builder](#)

Follow these steps to define a journey's goal in Journey Builder. Goal attainment is measured by whether a contact meets the goal criteria you set.

[Exit Criteria](#)


Create a simple or complex contact filter in Journey Builder to remove contacts from a journey.

[Define Exit Criteria](#)

Set exit criteria in Journey Builder to remove Marketing Cloud Engagement contacts that the journey is no longer relevant to.

Set a Goal in Journey Builder

Follow these steps to define a journey's goal in Journey Builder. Goal attainment is measured by whether a contact meets the goal criteria you set.

1. Click  .
2. To set goal criteria, create a filter. Set a complex filter if desired, but only one goal can be created per journey.
3. Set a goal target by entering a number, then electing whether the goal target is measured as a percentage or a total.
4. Select **Exit Option** if each contact that reaches the goal leaves the journey.

SEE ALSO:

[Goals in Journey Builder](#)

Exit Criteria

Create a simple or complex contact filter in Journey Builder to remove contacts from a journey.

Exit criteria can remove customers who no longer fit the journey's purpose or for whom the journey's content is no longer relevant. The goal is your journey's destination. Marketers use goals to define the journey's purpose and measure how many customers meet the milestone. Marketers use exit criteria to remove customers who don't fit the journey's purpose anymore. In this way, using goals with exit criteria makes all statistics more meaningful. Use goals to track achievement metrics rather than to remove contacts from a journey, and use exit criteria to remove contacts.

Exit Scenarios

Here are three ways you can configure a welcome series with three messages and a call to action to encourage customers to download your mobile app.

- Set a Goal that removes a contact after they download the mobile app regardless of where they are in the journey. These contacts are counted as achieving the goal.
- Contacts can receive all the messages and complete the journey but never download the mobile app. They would exit the journey in the time allotted with the Exit activity on the journey canvas and wouldn't be counted as achieving the goal.
- Exit Criteria could use subscription data to remove a contact from the journey when they unsubscribe from your email marketing program.

For an abandoned cart campaign with a single email and 72-hour wait after the message, you could configure exits in this way.

- The goal would track if customers bought an item out of their cart and exit them from the journey.
- If customers don't buy an item within the 72-hour window, they exit the journey and aren't counted as part of goal achievement.




- Exit criteria could be used to exit customers from the journey when they remove the items from their cart.

Considerations

- Contacts that are removed via exit criteria are logged, and the count of contacts removed from the current version is visible. All contacts removed from a journey are visible in the Health Stats panel on a running journey.
- Exit criteria can be defined differently for each version of a journey.
- Journey Builder evaluates exit criteria for each contact in the journey when their time in each wait activity expires.
- If you have both Goals and Exit Criteria configured, Goals are processed before Exit Criteria.
- When choosing 1:M, evaluation can't be completed and the termination condition can't be used.

Define Exit Criteria

Set exit criteria in Journey Builder to remove Marketing Cloud Engagement contacts that the journey is no longer relevant to.

1. Click .
 2. Name and, if necessary, describe the exit criteria.
 3. To define which contacts exit the journey, apply a filter on contact data attributes.
 -  **Tip:** Use fewer than 20 filter criteria for optimal journey performance.
 4. To view your filter criteria in a text string form for simple validation, click **Filter Text**.
 5. Finish and save the exit criteria.
 - a. To remove currently defined exit criteria, click **Remove this Exit Criteria** when the journey is in Draft mode.
6. Activate your journey.
 -  **Note:** Contacts are removed based on the first filter criteria matched, even if they meet multiple filters.

When a contact meets any of the exit filter criteria upon leaving a wait activity, the contact is removed from the journey.

Activity Types

Learn what each Journey Builder activity does.

Messages

Activity Name	Description
Email	Sends any email created in Email Studio or Journey Builder to contacts that reach this activity.
SMS	Sends SMS messages configured in MobileConnect to contacts that reach this activity.
Push Notification	Sends push notifications to contacts that reach this activity.

Activity Name	Description
Inbox	Sends a message to the app inbox of contacts that reach this activity.
In-App Message	Sends a full-page, window, or banner message to contacts that reach this activity.
LINE Carousel Message	Sends a LINE carousel or multi-content message to contacts that reach this activity.

Advertising

Activity Name	Description
Advertising Audiences	Creates an Advertising Audience from available social networks.
Advertising Campaign	Creates an Advertising Audience and a simple Facebook advertising campaign.

Flow Control

Activity Name	Description
Decision Split	Divides contacts based on a change in data associated with a contact. When you add a Decision Split activity, the journey evaluates contact data to decide the path to send each contact on.
Random Split	Divides the group of contacts in the journey into random groups in a configurable number of branches.
Engagement Split	Divides contacts based on a customer behavior. You configure the customer action that Journey Builder evaluates to determine which path to send contacts down.
Join	Directs contacts from one branch into another branch. Marketers split contacts into two or more branches and then reunite the contacts on the same branch so that they flow toward the same endpoint.
Wait By Duration	Keeps contacts from reaching the next activity for the time period set by a marketer.
Wait By Attribute	Keeps contacts from reaching the next activity until the day and time stored in a date-based attribute for that contact.
Wait Until Date	Keeps contacts from reaching the next activity until the specified end day and time.

Activity Name	Description
Custom Split	Enables a marketer to customize a split activity to meet company-specific needs.

Customer Updates

Activity Name	Description
Update Contact	<p>Automatically updates a contact’s data in a data extension. Marketers select a data extension where the activity updates data and choose the Attribute or Value that the activity is to update. Updating an Attribute or Value overwrites a value in an existing row. The existing value doesn’t increase incrementally and new rows aren’t added.</p> <p>If no rows for the associated ContactKey exist, the system adds a row. If there are one or more existing rows for the associated Contact Key, the system updates existing rows and doesn’t add new rows.</p>

Sales and Service Cloud

Activity Name	Description
Object Activity	Creates or updates a Sales and Service Cloud record in an object when a contact in the journey reaches it. Use this activity when a journey creates or updates a custom object.
Contact	Creates or updates a contact in the Sales and Service Cloud for each Marketing Cloud Engagement contact that reaches this activity.
Opportunity	Creates an opportunity record in the Sales and Service Cloud. You can use Marketing Cloud Engagement contact attributes to populate fields on the opportunity record.
Convert Lead	Converts qualified leads from Sales and Service Cloud
Task	Creates or updates a task in Sales and Service Cloud for each Marketing Cloud Engagement contact that reaches this activity.
Update Campaign Member	Updates a Campaign record in the Sales and Service Cloud.
Add Member to Campaign	Looks up Campaigns in Sales and Service Cloud, and adds Marketing Cloud Engagement contacts to them
Account	Creates or updates an account in Sales and Service Cloud for each contact that reaches this activity

Activity Name	Description
Choose Object	Creates or updates any type of object record in Sales and Service Cloud. Select the object to update, and then select the fields to update with Marketing Cloud Engagement attribute data.
Lead	Creates or updates a lead record in the Sales and Service Cloud for each contact that reaches the activity.
Case	Creates a case and associates it to a Sales and Service Cloud contact that matches the Marketing Cloud Engagement contact's ID.

Custom

Activity Name	Description
{Custom}	An activity fully configured by the marketer

SEE ALSO:

[MobileConnect and Journey Builder](#)

[MobilePush and Journey Builder](#)

[Create Custom Activities](#)

Activity IDs in Journey Builder

Find any activity's unique identifier in a draft, running, paused, or stopped journey after the journey is saved. This feature helps customers and Support agents locate the issue when troubleshooting an activity.

You can also use the ActivityID in SQL query activities using the Journey Activity Data View.

 **Note:** ActivityIDs can change when you create a journey version.

1. Open the journey canvas.
2. Press *Shift + Alt* and click the activity.
3. Click **Copy**.

SEE ALSO:

[Data View: Journey Activity](#)

Message Activities

Messaging activities include email, SMS, LINE message, push notification, inbox message, in-app message, or any other form of content sent to contacts. To provide a mix of information about your brand or your product, vary the message content. Create message content before you build a journey.

You can use any data stored in Marketing Cloud Engagement, including journey data, for personalization strings. Make sure that the attribute names used in personalization strings and dynamic content match the attribute names in the data extension exactly. Define a default value for every attribute so that the personalization string is never blank. If you insert a personalization string and the subscriber

attribute isn't populated, the string is blank in the email. For example, set the First Name field default to **Customer** so that Dear Customer appears in the message if that field is blank in the data extension.

- **Tip:** Make sure to map attributes for personalization or dynamic content to the appropriate data source. If you use journey data and contact data, the values in the journey data are static, while contact data can change.

[Email Activity in Journey Builder](#)

The Journey Builder email activity uses the power of Email Studio to send to Marketing Cloud Engagement contacts in a journey. Configure and review statistics without leaving Journey Builder.

[Mobile Activities in Journey Builder](#)

Journey Builder includes the SMS, LINE Message, Push Notification, In-App Message, and Inbox activities for sending to mobile devices from a journey. Add MobilePush inbox messages without leaving the journey. Configure SMS, LINE Message, In-App Message, and Push Notification Journey Builder activities to use messages created in Mobile Studio and Content Builder.

Email Activity in Journey Builder

The Journey Builder email activity uses the power of Email Studio to send to Marketing Cloud Engagement contacts in a journey. Configure and review statistics without leaving Journey Builder.

Considerations

- Each journey version has its own triggered send for each email activity. A new triggered send is created when a new journey version is activated.
- Triggered send validation compares the email's personalization strings to event data from the journey entry source. Entry source event data contains the field names and corresponding data types in the journey's entry source data extension.
- Update email properties, such as Send Classifications or Publication Lists, by editing the email activity.
- Update images, content, and other Email Studio-related components by pausing, publishing changes, and restarting the triggered send.
 - Dynamic subject rules
 - Send classifications
 - Sender profiles
 - Delivery profiles

Journey Builder email activities that use the email don't automatically receive these updates. Implement changes to emails by updating each email activity while in draft mode, then reactivating the journey. Alternately, update the send on the classic Journey Builder Sends page.

- When validation errors occur, make sure the email's personalization strings are calling data values included in the entry source data extension. If the email personalization includes a field that isn't in the entry source data extension, email validation can fail.
- Emails using AMPscript can use the Data Extension Lookup() function to interact with data extensions in your account.
- Emails using AMPscript for personalization aren't required to call data values found in the event source data extension.

[Configure the Email Activity](#)

Use an email activity to power Journey Builder email sends to Marketing Cloud Engagement contacts in a journey.

[Managing Contacts in a Journey Builder Email Activity](#)

To manage contacts in a Journey Builder email activity, use Marketing Cloud Engagement advanced sending options.

[Update an Email Activity in a Journey](#)

Edit an email in a running journey.

[Things to Know About Journey Builder Triggered Send](#)

When you create a Journey Builder email, a triggered send is created automatically. Activating the journey creates the triggered send definition that the journey's email activity uses.

[Email Activity Tracking in Journey Builder](#)

In Marketing Cloud Engagement, find tracking information for each running journey's canvas. More Journey Builder email tracking is available in Email Studio.

[View Email Activity Statistics](#)

In Marketing Cloud Engagement, see the results of each email activity send on the Journey Builder canvas.

[View Google Analytics 360 Email Activity Metrics](#)

Email activity-level metrics measure the impact of your journey email message activities on your customers' behavior. You can track each email activity's performance in your journeys against the Analytics 360 goals you define. Revenue and transaction tracking is included, too.

SEE ALSO:

[Send Classifications for Marketing Cloud Email](#)

[Send Logging in Email Studio](#)

[Triggered Emails in Email Studio](#)

[Marketing Cloud Connect](#)

Configure the Email Activity

Use an email activity to power Journey Builder email sends to Marketing Cloud Engagement contacts in a journey.

1. Drag the **Email** activity onto the canvas.
2. Click the activity.
3. Enter a name and description.



Note: The email's name becomes the title of the activity unless you provide a custom title. If you don't provide a description, the system-generated description is provided.

4. Click **Select Message**.




Tip: For details on creating an email, see [Create a Content Builder Email](#).

5. Click **Message Configuration** and complete the configurations.
 - **Saved Send Classification:** Sets a send classification to use for this activity.
 - **Sender Profile:** Determines whether the send uses a different sender profile than indicated in the send classification.
 - **Delivery Profile:** Determines whether the send uses a different delivery profile than indicated in the send classification.
 - **Subject Line:** Subject line of the email message sent by this activity. To send a dynamic subject email, select the Insert Dynamic Content icon next to the subject line. To add personalization to the subject line, select the Insert Personalization icon.



Important: When you edit the subject line, you must save the draft again to apply the change to this send.

- Preheader: Text displayed after the subject line when you preview an email. To send a dynamic subject email, select the Insert Dynamic Content icon next to the subject line.


 **Important:** When you edit the preheader, you must save the draft again to apply the change to this send.

6. Click **Delivery Options**, and complete the options.


- Publication List: Adds subscribers to the send. The email activity checks this list for each contact to determine whether to send the email.
- Suppression List: Select a list of subscribers to suppression from the send. By selecting a suppression list that you want the system excludes any email addresses on the list from the send.

 **Note:** Contacts often don't proceed in the journey when they're excluded from a send. Journey Builder excludes contacts from a send due to factors such as domain exclusion, List Detective, presence on a suppression list, or opt-out list exclusion.

- Domain Exclusions: Select a data extension that contains a list of email domains to exclude from the send. By selecting your domain exclusion list, the system excludes any email addresses that use that domain.
- Exclusion Script: To exclude subscribers from the send, enter the AMPscript logic. Use the exclusion AMPscript function.
- Send Throttling: To set a maximum quantity of emails that can be sent each hour, select and set a delivery window and an hourly threshold. This setting requires both values to perform correctly when the journey is activated.
 - Delivery Window: Determine the time during which emails are sent. Remaining contacts in the current activity receive emails during the Delivery Window on subsequent days.
 - Hourly Threshold: Determine the maximum number of emails sent per hour within the specified Delivery Window. If you aren't using a Delivery Window, emails are sent every hour. If you don't specify an Hourly Threshold, no email sending limit is applied.

 **Note:** Contacts that remain in the queue longer than 72 hours exceed the Triggered Send Expiration Policy and don't receive the message.

- Track Clicks: Determines whether the system collects tracking information on the links in an email.
- Suppress From Send Report—Determines whether sends with this activity are included in reports. If selected, sends from this journey are excluded from reports.
- Retain Send Log Data: Determines if send data is saved to the SendLog data extension.
- Send Tracking Results to Sales Cloud: Automatically send tracking results to the Sales Cloud. Accounts that use Marketing Cloud Connect see this option. To send tracking data to Sales Cloud, the contact ID must be related to All Subscribers on Subscriber Key in the event source data extension. The Contact ID must be the 18-digit Contact ID value created by Sales Cloud and Service Cloud. The 15-digit version isn't supported.

 **Note:** This condition is automatically met when using the Salesforce Data Event to admit contacts. Send Tracking Results to Sales Cloud isn't available for Transactional Send journeys.

- Campaign Association: Associate a message with a campaign.
 - a. Click **Add...**
 - b. Select a campaign.
 - c. Click **Save & Continue**.

7. Complete the advanced options section.

 **Note:** To enable any of these features, contact your Marketing Cloud Engagement account executive for more information.

- **Triggered Send Name:** When you create a Journey Builder email, a triggered send is created. Activating the journey creates the triggered send definition that the journey's email activity uses. Triggered Send Name is a system-generated value and can't be modified.
- **Message Priority:** Enables your account to choose the priority of triggered sends. For information about configuring your account to observe priority, see the Triggered Emails Guide.
- **Add a Keyword:** A piece of text metadata that is passed through with the email for use in Analytics and tracking.
- **Multipart MIME:** Determines whether the system sends the message using multi-part MIME. Multi-part MIME provides an HTML version of the message content to inboxes that can display it and a text-only version to inboxes that can't render HTML.
- **Disable API calls after the error threshold is reached:** An error threshold is a configurable limit that stops a send job when a designated number of errors occur. This option helps prevent a single error from stopping the entire job. For more information, contact your Marketing Cloud Engagement account executive.
- **CC:** Sends a copy of the email to the email addresses entered in this field. Email addresses in this field are visible to all recipients of the email.
- **BCC:** Sends a copy of the email to the email addresses entered in this field. Email addresses in this field aren't visible to recipients of the email.

8. Click **Summary**, and complete the configuration.

Configure and validate each activity on the canvas before journey activation.


SEE ALSO:

[Managing Contacts in a Journey Builder Email Activity](#)


Managing Contacts in a Journey Builder Email Activity

To manage contacts in a Journey Builder email activity, use Marketing Cloud Engagement advanced sending options.

Publication lists allow email contacts to opt into and out of a single communication, without opting out of all communications at once. Before sending an email, Journey Builder checks publication lists associated with the email to see if a contact is subscribed. If subscribed, Journey Builder sends the message to that contact. If the contact is unsubscribed or received emails that bounced too many times, Journey Builder doesn't send the email.


 **Note:** Publication list is a required field. If no publication list is selected, the email activity uses the All Subscribers list. When the message's CAN-SPAM classification is transactional, Journey Builder sends an email regardless of subscription status.

Domain exclusions exclude a single domain's email addresses from a Journey Builder send. For example, use domain exclusions when a list Journey Builder sends to include employee email addresses from a competitor's company. By adding the domain in this field, all email addresses with this domain are excluded from the send, ensuring competitors don't receive the email.

 **Note:** If your account has subscriber key enabled, the system excludes recipients using the subscriber key value. If your account doesn't have a subscriber key enabled, the system excludes recipients using email address.

Update an Email Activity in a Journey


Edit an email in a running journey.

 **Note:** To update AMPscript in an email that is part of a running journey, pause and republish its associated triggered send.

1. Open the journey canvas.
2. Click the email activity.
3. Select **Activity Summary** from the Email Analytics dropdown menu.

4. Select **Edit Message** from the Preview & Test dropdown menu.

You can click **Edit** in the corresponding sections to change message configuration, delivery options, or advanced options.

 **Important:** When you edit the subject line, you must save the draft again to apply the change to this send.

5. Make your changes, and click **Save and Exit** from the Save dropdown menu.

If you edit the message configuration, delivery options, or advanced options, click **Summary** when you're done.

6. Click **Done**.

SEE ALSO:

[Things to Know About Journey Builder Triggered Send](#)

Things to Know About Journey Builder Triggered Send

When you create a Journey Builder email, a triggered send is created automatically. Activating the journey creates the triggered send definition that the journey's email activity uses.


When you create a journey version, the previous triggered send continues to run. Activating a new version defines a new triggered send. Also, you can stop the triggered send that is associated with a Journey Builder email activity. You can modify the email's content, then restart the triggered send to re-enable sending within the journey. The triggered send name is a system-generated value and can't be modified. If an external key isn't provided at the time of creation, the system adds a key.

SEE ALSO:

[Update an Email Activity in a Journey](#)

Email Activity Tracking in Journey Builder

In Marketing Cloud Engagement, find tracking information for each running journey's canvas. More Journey Builder email tracking is available in Email Studio.

 **Note:** Users with standard Marketing Cloud Engagement roles can access expanded email activity metrics by default. Users with custom roles or permission granted at the user level sometimes don't have access. To gain access, enable the View permission for Reporting in the Analytics application for your account. Contact your Engagement administrator for more information. [Tell me more](#)

In a Sent, Running, or Stopped journey, access an email message's performance metrics by clicking the email activity in the journey. To access the Email Performance tile, click **View Details**.

Click the Contacts tab to review contact-level data for the send, including opens, clicks, bounces, and unsubscribes. Identify individual contacts by their Contact Key value.

SEE ALSO:

[Tracking in Email Studio](#)

[Clicks and Opens Behavior](#)


[Tracking in Email Studio](#)

[Single Send Journeys](#)

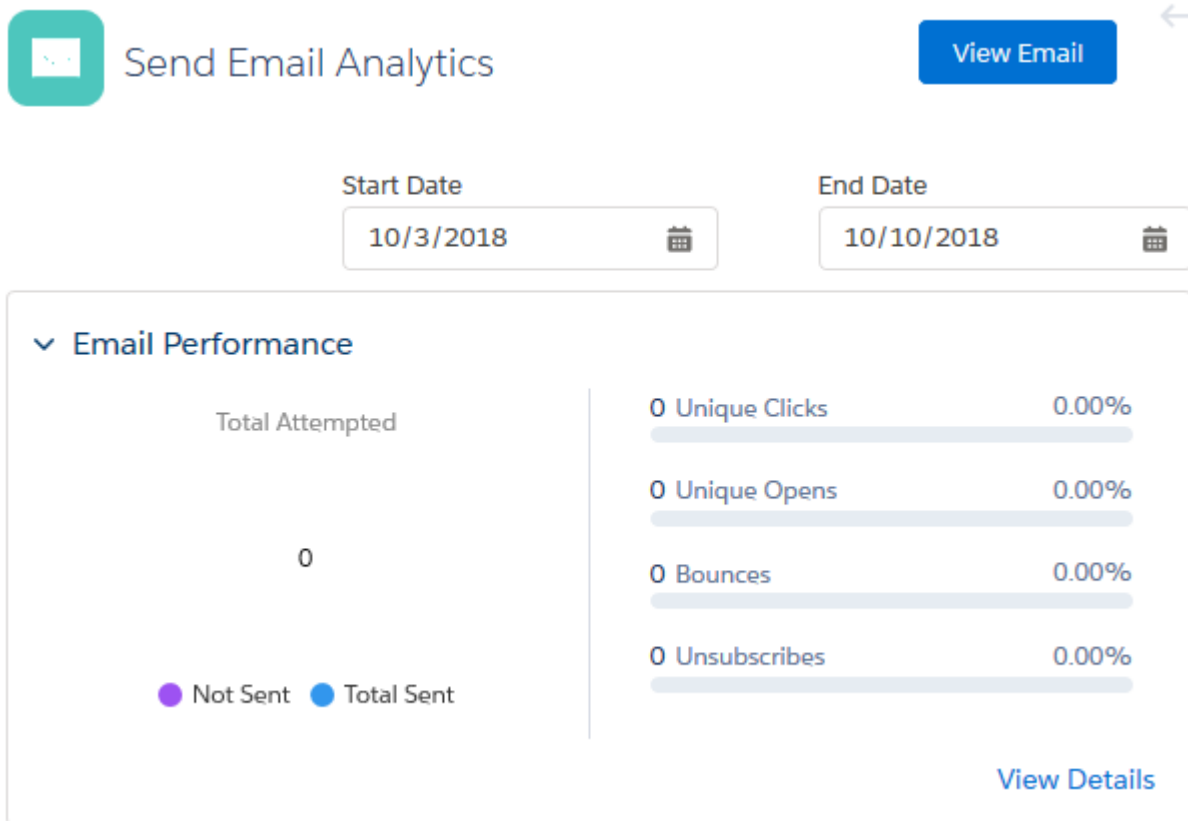
[Multi-Step Journeys](#)

View Email Activity Statistics


In Marketing Cloud Engagement, see the results of each email activity send on the Journey Builder canvas.

 **Note:** Users with standard Engagement roles can access expanded email activity metrics by default. Users with custom roles or permissions don't have access. To gain access, enable the View permission for Reporting in the Analytics application for your account. Contact your Marketing Cloud Engagement administrator for more information. [Tell me more](#)

1. Click an email activity in a running or stopped journey.



The Send Email Analytics pane displays the Email Performance tile. Detailed email performance analytics appear, including a configurable date range.

 **Note:** When selecting a date range, the returned tracking data is based on the subscriber batch sent to during the defined date range.

2. For a breakdown of email activity statistics, click **View Details**.

SEE ALSO:

[Tracking in Email Studio](#)

View Google Analytics 360 Email Activity Metrics

Email activity-level metrics measure the impact of your journey email message activities on your customers' behavior. You can track each email activity's performance in your journeys against the Analytics 360 goals you define. Revenue and transaction tracking is included, too.

1. In Journey Builder, open an active journey, and click an email activity.
The Email Analytics drawer opens.
2. To access more analytics, click **View Details**.

Mobile Activities in Journey Builder

Journey Builder includes the SMS, LINE Message, Push Notification, In-App Message, and Inbox activities for sending to mobile devices from a journey. Add MobilePush inbox messages without leaving the journey. Configure SMS, LINE Message, In-App Message, and Push Notification Journey Builder activities to use messages created in Mobile Studio and Content Builder.

[Create the Carousel LINE Activity in Journey Builder](#)

Use a carousel message in a LINE Message activity to power Journey Builder sends to Marketing Cloud Engagement contacts in a journey. A carousel message is a LINE message that can include 10 different messages within one carousel. To create LINE messages, your account must have LINE channels enabled. To learn more about how to get LINE access and channels, contact your Marketing Cloud Engagement account representative.

[Configure an Existing Content Builder Carousel Message in Journey Builder](#)

Use a carousel message in a LINE Message activity to power Journey Builder sends to Marketing Cloud Engagement contacts in a journey. A carousel message is a LINE message that can include 10 different messages within one carousel. To create LINE messages, your account must have LINE channels enabled. To learn more about how to get LINE access and channels, contact your Marketing Cloud Engagement account representative. You can add carousel messages that you created in Content Builder to a Journey Builder LINE activity.

[Create an In-App Message Activity in Journey Builder](#)

Use the in-app message activity to power Journey Builder sends to Marketing Cloud Engagement contacts in a journey. An in-app message is a full-page, window, or banner message that's sent to users of your mobile app. The message appears when the user opens the app. Use in-app messages to announce offers, invite users to take a survey, or encourage them to turn on push notifications or location settings for your app.

[Configure an Existing Content Builder In-App Message in Journey Builder](#)

Use the in-app message activity to power Journey Builder sends to Marketing Cloud Engagement contacts in a journey. An in-app message is a full-page, window, or banner message that is sent to users of your mobile app. The message is displayed when the user opens the app. You can use in-app messages to announce new content in your app, invite users to take a survey, or encourage users to enable features in your app. You can add in-app messages that you created in Content Builder to a Journey Builder Push activity.

[Configure an Inbox Activity in Journey Builder](#)

Use the Inbox activity to power Journey Builder MobilePush Inbox message sends to Marketing Cloud Engagement contacts in a journey.

[Create a Multi-Content Message LINE Activity in Journey Builder](#)

Use a multi-content message in a LINE Message activity to power Journey Builder sends to Marketing Cloud Engagement contacts in a journey. A multi-content message can include a single video, image, audio, or text message or up to five of these elements in one message.

[Configure an Existing Content Builder Multi-Content Message in Journey Builder](#)

Use a multi-content message in a LINE Message activity to power Journey Builder sends to Marketing Cloud Engagement contacts in a journey. A multi-content message can include a single video, image, audio, or text message or up to five of these elements in one message. You can add multi-content messages that you created in Content Builder to a Journey Builder LINE activity.

[Create a Push Notification Activity in Journey Builder](#)

Use the push notification activity to power Journey Builder push notification sends to Marketing Cloud Engagement contacts in a journey.

[Configure an Existing Content Builder Push Notification in Journey Builder](#)

Use the push notification activity to power Journey Builder push notification sends to Marketing Cloud Engagement contacts in a journey. You can add push notifications that you created in Content Builder to a Journey Builder Push activity.

[Create an SMS Activity in Journey Builder](#)

Use the SMS activity to power Journey Builder SMS sends to Marketing Cloud Engagement contacts in a journey.

[Configure an Existing Content Builder SMS in Journey Builder](#)

Use the SMS activity to power Journey Builder SMS sends to Marketing Cloud Engagement contacts in a journey. You can add SMS messages that you created in Content Builder to a Journey Builder SMS activity.

[Marketing Cloud Engagement WhatsApp Messaging](#)

Use Marketing Cloud Engagement WhatsApp Chat Messaging and WhatsApp-First Business Messaging to expand your Omni-Channel engagement. Use Contact Builder to manage your audience. Use Content Builder for content generation, preview, and personalization. Use Journey Builder to send your customers messages as part of a customer journey. Sinch and Meta are official Salesforce Marketing Cloud Engagement partners.

[View SMS Analytics in Journey Builder](#)

SMS activity-level metrics measure the impact of Journey Builder SMS message activities on your customers' behavior. You can track each SMS activity's performance in your journeys against the Analytics 360 goals you define. SMS activity-level metrics aggregate usage data for all versions of a journey.

[View Google Analytics 360 SMS Activity Metrics](#)


SMS activity-level metrics measure the impact of your journey SMS message activities on your customers' behavior. You can track each SMS activity's performance in your journeys against the Analytics 360 goals you define.

[Mobile Activity Tracking](#)


Find tracking information for each mobile message activity on your running journey's canvas. Click a mobile message activity to access statistics. Select a timeframe for your analytics from the date field. Access more Journey Builder mobile message tracking in Mobile Studio.

Create the Carousel LINE Activity in Journey Builder

Use a carousel message in a LINE Message activity to power Journey Builder sends to Marketing Cloud Engagement contacts in a journey. A carousel message is a LINE message that can include 10 different messages within one carousel. To create LINE messages, your account must have LINE channels enabled. To learn more about how to get LINE access and channels, contact your Marketing Cloud Engagement account representative.

 **Important:** To create journeys with LINE, select a data extension that has a contact key as the primary key and relate the contact key to the subscriber key. Ensure that the selected contact key has a LINE address ID associated with it. To add Email or SMS activities to your journey, check that your data extension has email and mobile attributes. Journeys with LINE plus Push or Inbox activities aren't supported.

1. In Journey Builder, drag the **LINE Message** activity to the canvas.
2. Click the **LINE Message** activity, and add a name and description.

3. Click **New Message**.
4. Click the **Carousel** template and click **Select**.
 -  **Important:** You can add up to 10 messages within one carousel, but all messages in a carousel must have the same number of images, buttons, and fields.
5. To add an image, click **Browse** or add a URL.

Use a JPEG or PNG image with a maximum 1024-px width. The image URL maximum is 1,000 characters.
6. Add a title to your message. The maximum character count for the title is 40.
7. Enter your message, up to 60 characters.

You can use AMPscript in all message fields, which doesn't count toward the character limit.

If you exceed the height limit, the lower part of the text display area is cut off. For this reason, depending on the character width, the message text might not fully display even when it is within the character limit.
8. Add buttons to your message. Buttons can take users to a specified URL. Each message must have one button and can have a maximum of three buttons.
 - a. Add labels for each button. Button label maximum is 20 characters.
 - b. Add a behavior for each button.
 - c. In the Button Action field, add the URL you want the button to take users to when they click. The Button Action URL maximum is 1,000 characters.
9. To select your background color for each message, click the **Design** tab and choose your color from the dropdown. You can also enter a hex code.
10. Click the **Message Configuration** tab.
11. Select the LINE channel you want to use from the dropdown.
12. Click **Save Message and Return**.
13. Click **Summary**.
14. For a subscriber-level preview of your message, click **Subscriber Preview**.
15. Repeat these steps for each message in your carousel. Click **+** if you want to add more than 3 messages.
16. Click **Save Message and Return**.

SEE ALSO:

[Preview Mobile Subscriber Details](#)

[Create LINE Carousel Messages in Content Builder](#)

Configure an Existing Content Builder Carousel Message in Journey Builder

Use a carousel message in a LINE Message activity to power Journey Builder sends to Marketing Cloud Engagement contacts in a journey. A carousel message is a LINE message that can include 10 different messages within one carousel. To create LINE messages, your account must have LINE channels enabled. To learn more about how to get LINE access and channels, contact your Marketing Cloud Engagement account representative. You can add carousel messages that you created in Content Builder to a Journey Builder LINE activity.

-  **Important:** To create journeys with LINE, select a data extension that has a contact key as the primary key, and relate the contact key to the subscriber key. Ensure that the selected contact key has a LINE address ID associated with it. To add Email or SMS activities

to your journey, check that your data extension has email and mobile attributes. Journeys with LINE plus Push or Inbox activities aren't supported.

1. In Journey Builder, drag the **LINE Message** activity to the canvas.
2. Click the **LINE Message** activity, and add a name and description.
3. To access an existing message, click **Select Message**, and select your message from Content Builder Messages.
4. Click **Summary**.
5. Next to Message Configuration, click **Edit**.
6. Select your LINE channel from the dropdown.
7. Click **Save Message and Return**.
8. Click **Summary**.
9. To view a detailed version of your message, click **Detail View**.
10. To get a subscriber-level preview for your message, click **Subscriber Preview**.
11. Click **Done**.

Create an In-App Message Activity in Journey Builder

Use the in-app message activity to power Journey Builder sends to Marketing Cloud Engagement contacts in a journey. An in-app message is a full-page, window, or banner message that's sent to users of your mobile app. The message appears when the user opens the app. Use in-app messages to announce offers, invite users to take a survey, or encourage them to turn on push notifications or location settings for your app.

By default, only one in-app message is shown per app session. You can update this setting in MobilePush Administration. To see another in-app message, the user has to background or close the app.

1. In Journey Builder, drag the **In-App Message** activity to the canvas.
2. Click the **In-App Message** activity, and add a name and description.
If applicable, name your activity. Otherwise, your content name serves as your activity name and is visible in all reports.
3. Click **New Message**.
4. Follow the directions to [configure your in-app message](#).
5. Next to Message Configuration, click **Edit**.
6. Select the app that you want to send to.
7. Select the Active Message Timeframe.

To send the message whenever the contact reaches the activity, select **Always Active**.

To send the message only when the contact reaches the activity during a specified timeframe, select **Custom Timeframe**. Then select the start and end dates, times, and time zone.

To send and display the message when the user reaches the activity, select **Dynamic Timeframe**. Then define how long to wait before a message appears.

8. To [configure the criteria to display your message](#), click **Display Trigger**.
9. To [set the priority](#) and message delay for the message, click **Delivery Options**.
10. To preview your message, click **Summary**. Use the device and view dropdowns to see how your message renders.
11. Click **Summary**.

12. For a subscriber-level preview for your message, click **Subscriber Preview**.
13. Click **Done**.

SEE ALSO:

- [iOS SDK for In-App Messaging](#)
- [Android SDK for In-App Messaging](#)
- [Configure an Existing Content Builder In-App Message in Journey Builder](#)


Configure an Existing Content Builder In-App Message in Journey Builder

Use the in-app message activity to power Journey Builder sends to Marketing Cloud Engagement contacts in a journey. An in-app message is a full-page, window, or banner message that is sent to users of your mobile app. The message is displayed when the user opens the app. You can use in-app messages to announce new content in your app, invite users to take a survey, or encourage users to enable features in your app. You can add in-app messages that you created in Content Builder to a Journey Builder Push activity.

1. In Journey Builder, drag the **In-App Message** activity to the canvas.
2. Click the **In-App Message** activity, and add a name and description.
If applicable, name your activity. Otherwise, your content name serves as your activity name and is visible in all reports.
3. Click **New Message**.
4. Follow the directions to [configure your in-app message](#).
5. Next to Message Configuration, click **Edit**.
6. Select the app that you want to send to.
7. Select the Active Message Timeframe.
 - To send the message whenever the contact reaches the activity, select **Always Active**.
 - To send the message only when the contact reaches the activity during a specified timeframe, select **Custom Timeframe**. Then select the start and end dates, times, and time zone.
 - To send and display the message when the user reaches the activity, select **Dynamic Timeframe**. Then define how long to wait before a message appears.
8. To [configure the criteria to display your message](#), click **Display Trigger**.
9. To [set the priority](#) and message delay for the message, click **Delivery Options**.
10. To preview your message, click **Summary**. Use the device and view dropdowns to see how your message renders.
11. Click **Summary**.
12. For a subscriber-level preview for your message, click **Subscriber Preview**.
13. Click **Done**.

Configure an Inbox Activity in Journey Builder

Use the Inbox activity to power Journey Builder MobilePush Inbox message sends to Marketing Cloud Engagement contacts in a journey. When you use a data extension as an entry source in Journey Builder, you can add personalization strings in the subject line or CloudPages.


 **Warning:** If you copy an existing Inbox message, be sure to update the end date to reflect your desired message parameters.

1. Create your inbox message in [MobilePush](#).

2. Navigate to Journey Builder.
3. Drag the **Inbox** activity onto the canvas.
4. Click the **Inbox** activity.
5. Select your inbox message from the list.
6. Click **Done**.

Create a Multi-Content Message LINE Activity in Journey Builder

Use a multi-content message in a LINE Message activity to power Journey Builder sends to Marketing Cloud Engagement contacts in a journey. A multi-content message can include a single video, image, audio, or text message or up to five of these elements in one message.

 **Important:** To create journeys with LINE, select a data extension that has a contact key as the primary key and relate the contact key to the subscriber key. Ensure that the selected contact key has a LINE address ID associated with it. To add Email or SMS activities to your journey, check that your data extension has email and mobile attributes. Journeys with LINE plus Push or Inbox activities aren't supported.

To create LINE messages, your account must have LINE channels enabled. To learn more about how to get LINE access and channels, contact your Marketing Cloud Engagement account representative.

1. In Journey Builder, drag the **LINE Message** activity to the canvas.
2. Click the **LINE Message** activity, and add a name and description.
3. Click **New Message**.
4. Click the **Multi-Content Message** template and click **Select**.
5. Click **Add Content** and choose the element you want to add. You can add up to five of these elements to your message.

If you use AMPscript in media URL fields, verify in Subscriber Preview that it renders a URL.

- To add a text message, click **Text** and insert your message, up to 2,000 characters.
- To add an image, click **Browse** or add a URL up to 1,000 characters, and enter alt text for your image.
Use a JPEG image up to 1024 px wide.
- To add a video, click **Browse** or add a URL. Do the same for the Preview field.
In some environments, a wide or tall video can be cropped when played. Keep your video files under 1 minute or 10 megabytes, and use a URL if the file is over 3 megabytes.
- To add an audio file, click **Browse** or add a URL, and enter the required duration of your audio file.
Keep your audio files under 1 minute or 10 megabytes, and use a URL if the file is over 3 megabytes.
- To add an Image map, select a layout and add a URL and behavior for each section of your layout.
The image must be 1040 x 1040 px.
- To add a sticker, select from sticker packages in the top row, and then select the individual sticker.

6. Click **Save Message**.
7. Click the **Message Configuration** tab.
8. Select the LINE channel you want to use from the dropdown.
9. Click **Summary**.
10. For a subscriber-level preview for your message, click **Subscriber Preview**.

11. Click **Summary**.


12. Click **Done**.

SEE ALSO:

[Preview Mobile Subscriber Details](#)

Configure an Existing Content Builder Multi-Content Message in Journey Builder

Use a multi-content message in a LINE Message activity to power Journey Builder sends to Marketing Cloud Engagement contacts in a journey. A multi-content message can include a single video, image, audio, or text message or up to five of these elements in one message. You can add multi-content messages that you created in Content Builder to a Journey Builder LINE activity.

 **Important:** To create journeys with LINE, select a data extension that has a contact key as the primary key, and relate the contact key to the subscriber key. Ensure that the selected contact key has a LINE address ID associated with it. To add Email or SMS activities to your journey, check that your data extension has email and mobile attributes. Journeys with LINE plus Push or Inbox activities aren't supported.

To create LINE messages, your account must have LINE channels enabled. To learn more about how to get LINE access and channels, contact your Marketing Cloud Engagement account representative.

1. In Journey Builder, drag the **LINE Message** activity to the canvas.
2. Click the **LINE Message** activity, and add a name and description.
3. To access an existing message, click **Select Message**, and select your message from Content Builder Messages.
4. Click **Summary**.
5. Next to Message Configuration, click **Edit**.
6. Select your LINE channel from the dropdown.
7. Click **Summary**.
8. To view a detailed version of your message, click **Detail View**.
9. To get a subscriber-level preview for your message, click **Subscriber Preview**.
10. Click **Done**.

Create a Push Notification Activity in Journey Builder

Use the push notification activity to power Journey Builder push notification sends to Marketing Cloud Engagement contacts in a journey.


 **Important:** If Custom Key functionality is enabled for the MobilePush, navigate to the Advanced Options section to input Custom Key values.

1. In Journey Builder, drag the **Push Notification** activity to the canvas.
2. Click the **Push Notification** activity, and add a name and description.




Note: If applicable, name your activity. Otherwise, your content name serves as your activity name and is visible in all reports.

3. Click **New Message**.
4. Add a title and subtitle to your message, if applicable. Use the personalization and emoji dropdowns as needed.
5. Choose whether to show or hide the title and subtitle in the message preview.
6. Enter the message.

 **Note:** If you insert personalization strings or AMPscript, the number of bytes used isn't available.

7. To personalize the content of your message, click inside the Message field, and select contact attributes from the personalization dropdown menu.
8. Optionally, add media to your message.
 - Insert a URL or AMPscript, or select media from the Content Builder library.

 **Note:** If you use AMPscript in this field, verify in Subscriber Preview that it renders a URL.
 - Choose whether to show or hide the media.
 - Enter alternate text.
 - Select whether to use different media for Android, if applicable.
9. Select an open behavior.
 - Open the App: Opens the app when the user taps the message.
 - Go to App URL: Insert a URL in the field that goes to a specific page in your app.
 - Go to Web URL: Insert a URL in the field that goes to a web page.
 - Go to CloudPage: Takes the user to a CloudPage.
10. Preview your message. Use the device and view dropdowns to see how your message renders.
11. Click **Save**.
12. Next to Message Configuration, click **Edit**.
13. Select the app you want to use.
14. Click **Delivery Options**.
 - If you enabled Custom Sound for your app, select which sound to play when a push message arrives.
 - Select whether to update the number of unread messages displayed on the iOS icon for this app when you send the message.
 - To associate this message with a campaign, click **Add Campaign Association** and select the campaign.
15. Click **Summary**.
16. For a subscriber-level preview for your message, click **Subscriber Preview**.
17. Click **Done**.

SEE ALSO:

[Create a Push Notification in Content Builder](#)

[Preview Mobile Subscriber Details](#)

Configure an Existing Content Builder Push Notification in Journey Builder

Use the push notification activity to power Journey Builder push notification sends to Marketing Cloud Engagement contacts in a journey. You can add push notifications that you created in Content Builder to a Journey Builder Push activity.

1. In Journey Builder, drag the **Push Notification** activity to the canvas.
2. Click the **Push Notification** activity, and add a name and description.
3. Click **Select Message**, and select the type of message: Content Builder or MobilePush Messages.

MobilePush Messages are the legacy messages of Journey Builder push notifications that were created in the MobilePush app. Push notifications are now created in Content Builder and can be selected from the Content Builder tab in the push notification activity in Journey Builder.



4. Select the message to send.
5. Click **Message Configuration**.
6. Select the app you want to use.
7. Click **Summary**.
8. For a subscriber-level preview for your message, click **Subscriber Preview**.
9. Click **Done**.

Referencing other Content Builder content in blocks returns table and HTML wrappers instead of text. To reference this content, use code snippets. See [ContentBlockbyID](#).

Create an SMS Activity in Journey Builder


Use the SMS activity to power Journey Builder SMS sends to Marketing Cloud Engagement contacts in a journey.

To send an SMS from a journey, the normalized phone number (country code + phone number with no dashes or parentheses) is required in your data extension. The Locale field isn't required to send an SMS from Journey Builder. The field type must be Phone.


1. In Journey Builder, drag the SMS activity to the canvas.
2. Click the SMS activity.
3. Click **New Message**.
4. Enter the message.
 - To find hidden non-GSM characters like unicode straight quotes that can be included when pasting text from another source, select **Highlight Non-GSM**.
 - To combine messages beyond 160 characters into one, check **Concatenate Message**.
 -  **Note:** Message concatenation isn't available in all markets, including the United States. The concatenate option only displays when you select a short or long code for a location that allows concatenation. [Click here](#) for more information about message concatenation.
 - To shorten a URL, click **Shorten URL**, paste your URL, and click **Apply**. If you use Google UTM parameters to track links, UTM parameters are applied when you shorten a URL.
5. Preview the code type, if applicable.
6. Click **Save**.
7. If applicable, name your activity. Otherwise, your content name serves as your Activity Name and is visible in all reports.
8. Click **Message Configuration**.
9. Select the code you're sending the message from.
10. Select a From Name, if applicable.
 -  **Note:** A From Name sends the message to a customer's mobile device as if your business is one of the customer's contacts. Recipients can't directly respond to a message from a From Name.
11. Click **Delivery Options**.

 **Note:** If a contact doesn't have a valid mobile number, MobileConnect attempts to deploy the send to the priority one number stored on a given contact record.

12. To acknowledge that you allow your customers to opt out, read and agree to the Opt-Out Availability Policy.
13. If you choose to subscribe all contacts to a keyword, confirm subscriber opt-in. If users are already unsubscribed from a keyword, this action doesn't resubscribe them.
14. Set a [send blockout window](#), if applicable.
15. To associate this message with a campaign, click **Add Campaign**.

 **Note:** If you don't set a campaign name in Delivery Options, campaign names aren't included in tracking.

16. Click **Advanced Options** to review your Next Keyword, if applicable.
17. Click **Summary**.
18. For a subscriber-level preview for your message, click **Subscriber Preview**.
19. Click **Done**.

 **Note:** If you use Google Analytics 360, the UTM parameters you applied are appended when you activate the journey. Tracking results include any last-minute changes you make.

SEE ALSO:

[Preview Mobile Subscriber Details](#)

[Create an SMS Message in Content Builder](#)

Configure an Existing Content Builder SMS in Journey Builder

Use the SMS activity to power Journey Builder SMS sends to Marketing Cloud Engagement contacts in a journey. You can add SMS messages that you created in Content Builder to a Journey Builder SMS activity.

To send an SMS from a journey, the normalized phone number (country code + phone number with no dashes or parentheses) is required in your data extension. The Locale field isn't required to send an SMS from Journey Builder.

1. In Journey Builder, drag the **SMS** activity to the canvas.
2. Click the **SMS** activity, and add a name and description.
3. To access an existing message, click **Select Message**, and select the type of message: Content Builder or SMS Messages.
4. Select the message to send and click **Edit Selected Message**.
5. Configure the SMS activity.
6. Click **Save Message and Return**.
7. For a subscriber-level preview for your message, click **Subscriber Preview**.
8. Click **Done**.

Referencing other Content Builder content in blocks returns table and HTML wrappers instead of text. To reference this content, use code snippets. See [ContentBlockbyID](#).

Marketing Cloud Engagement WhatsApp Messaging

Use Marketing Cloud Engagement WhatsApp Chat Messaging and WhatsApp-First Business Messaging to expand your Omni-Channel engagement. Use Contact Builder to manage your audience. Use Content Builder for content generation, preview, and personalization. Use Journey Builder to send your customers messages as part of a customer journey. Sinch and Meta are official Salesforce Marketing Cloud Engagement partners.

For help with using WhatsApp with Service Cloud, see [Create a WhatsApp Channel in Service Cloud](#).

WhatsApp-First Business Messaging (Meta)

Meta's WhatsApp Business Platform helps you reach a global audience with rich, high-quality, and highly engaging messaging experiences. Use the WhatsApp Business API to create a WhatsApp Business account, connect with consumers through WhatsApp channels, and approve template messages for transactional purposes.

We recommend getting familiar with WhatsApp and the WhatsApp Business Platform policies and other requirements.

- [WhatsApp Commerce Policy](#)
- [WhatsApp Opt-In Policies](#)
- [API Capacity and Rate Limits](#)

WhatsApp Chat Messaging (Sinch)

WhatsApp encourages its customers to work with an official solution provider to use the WhatsApp Business API. Engagement partners with Sinch, an official WhatsApp partner, to help you with WhatsApp account and channel creation and template message approvals. Sinch's Chat Messaging Setup app is integrated into Marketing Cloud Engagement AppExchange.

We recommend getting familiar with Sinch's policies and other requirements.

- [WhatsApp Opt-in Policies](#)
- [API Capacity and Rate Limits](#)

Prerequisites and Important Information for WhatsApp Users

WhatsApp requires that your brand has explicit opt-in from customers to send template messages. And to send WhatsApp messages to opted-in users, you must store and manage customers' opt-in information.

If a customer thinks that they didn't opt in to receive messages, they can block or report a business. User feedback signals like these are inputs into a business's quality score. WhatsApp limits the business when its quality score remains low for a sustained period. To flag policy violations, WhatsApp can also reactively evaluate a business's opt-in flows, including user feedback.

[WhatsApp Message Types and Use Cases for Marketing Cloud Engagement](#)

You can send two types of WhatsApp messages: template and session.

[Get Started with WhatsApp Messaging in Marketing Cloud Engagement](#)

Start chatting with your customers by setting up WhatsApp in Marketing Cloud Engagement.

[Set Up Your WhatsApp Account in Marketing Cloud Engagement](#)

To send WhatsApp messages, you need a WhatsApp Business account. In Journey Builder, your WhatsApp display name and phone number are referred to as a channel. When you send a message from your business channel, customers see the display name and number.

[Create Your WhatsApp Audiences in Marketing Cloud Engagement](#)

Build your audience for WhatsApp Chat Messages in Contact Builder.

[Create a WhatsApp Template Message for Approval in Marketing Cloud Engagement](#)

Create templates for your transactional messages. Before you start sending, WhatsApp must approve your template message. While waiting for approval, you can send session messages.

[WhatsApp Template Message Elements](#)

You can include these elements in your template message.

[WhatsApp Template Message Approval](#)

After you create a template, submit it for approval. Approval decisions can take up to 24 hours. When a decision is made, a notification appears in your WhatsApp Manager, and your Business Manager admins receive an email.

[Personalize Your WhatsApp Template Messages in Marketing Cloud Engagement](#)

After your template message is approved, you can personalize your messages using Content Builder.

[Send WhatsApp Template Messages in Journey Builder](#)

After you personalize your template messages, use Journey Builder to start sending.

[Edit a WhatsApp Template Message](#)

After you edit a template message, resubmit it for approval. It can take up to 24 hours to receive a response.

[Create Default WhatsApp Session Messages in Marketing Cloud Engagement](#)

Create a default Session message to respond to your users. As a best practice, send users messages with support contact details.

[Personalize Your WhatsApp Session Messages in Marketing Cloud Engagement](#)

Use Content Builder to create session messages to respond to user-initiated conversations. When a user sends a message to your WhatsApp channel, you can respond without using a template. Session messages are free-form messages and don't need approval.

[Send WhatsApp Session Messages in Journey Builder](#)

After you personalize your session messages, use Journey Builder to start sending.

[WhatsApp Session Transfer Activity](#)

You can transfer a WhatsApp conversation from a Marketing Cloud Engagement interaction to a Service Cloud interaction. Place the WhatsApp Session Transfer activity after a Wait Until Chat Response or an Inbound Chat activity. The information passed as part of the transfer includes conversation history, journey data, the recipient's WhatsApp number, and the cross-cloud WhatsApp phone number.

[WhatsApp Media Attachments in Marketing Cloud Engagement](#)

To send a media message with WhatsApp, attach a media file in the message header. The recipient can open and save the attachment independently of the WhatsApp message. For all message types, you can include an image, document, or video file. You can include an audio file only with a session message.

[Locales for WhatsApp Data Extension Sends in Marketing Cloud Engagement](#)

You can send a WhatsApp message only to a data extension with a mobile number that includes a valid locale. Include a locale with each mobile number as part of the Phone field in your source file when you import contacts to your data extension. Check this list to make sure that you're using the correct two-character locale. You can enter either uppercase or lowercase letters. Imported locales are converted to uppercase.

[WhatsApp Chat Message Analytics in Marketing Cloud Engagement](#)

After you activate your journey, you can view your WhatsApp Chat Message performance.

[WhatsApp Analytics and Reporting](#)

For WhatsApp-First Business Messaging (Meta), analyze the aggregate deliverability and performance of your WhatsApp messages with Marketing Cloud Intelligence reports. View customer engagement at the subscriber level with Chat Messaging Data Extracts.

[Create a Chat Messaging Data Extract in Marketing Cloud Engagement](#)

Use Automation Studio and Contact Builder to create Chat Messaging Data Extracts and learn more about your message metrics.

[Add a Phone Number to an Existing WhatsApp Business Account in Marketing Cloud Engagement](#)

Connect a new phone number to your existing WhatsApp Business account. The phone number can't be associated with another personal or business WhatsApp account.

[Delete a Phone Number from Your WhatsApp Business Account in Marketing Cloud Engagement](#)

After you remove a connected or pending phone number from your WhatsApp Business account, WhatsApp messages aren't sent for journeys configured with the deleted number.

[Transfer a WhatsApp Phone Number Between Business Units in Marketing Cloud Engagement \(Meta\)](#)

If you're using WhatsApp-First Business Messaging, you can move a WhatsApp phone number from a Marketing Cloud Engagement business unit to another business unit. If you're using Sinch, you can't transfer a phone number to a WhatsApp-First business unit. Before you can transfer a phone number, you must delete the phone number from the business unit. After you complete transferring the phone number, all active journeys for the business unit originally using the phone number fail.

[WhatsApp Status Errors in Marketing Cloud Engagement](#)

Review WhatsApp status errors. These status errors are generated by WhatsApp and are subject to change.

[WhatsApp-First Business Account Statuses for Marketing Cloud Engagement](#)

The status of your WhatsApp Business account or channel tells you what you can do with your account and helps you figure out your next steps. An account or channel is marked as active, pending, error, or disabled.

[Using WhatsApp Data in Data Cloud](#)

Ingest WhatsApp contact and tracking data from Marketing Cloud Engagement and create personalized interactions with customers in Data Cloud.

WhatsApp Message Types and Use Cases for Marketing Cloud Engagement

You can send two types of WhatsApp messages: template and session.



Note: Meta assigns a conversation category to each WhatsApp message: authentication, marketing, service, or utility. See Meta's [Updates to conversation-based pricing: Effective June 1, 2023](#) for category definitions.

Template Messages

A template message is related to a business transaction. Types of template messages include:


- Transactional messages—Share important information with customers, and include sending account updates, order updates, alerts, and so on.
- Marketing messages—Increase awareness of and engagement with products or services, and include sending promotional offers, product announcements, and so on.
- One-time password messages—Give customers access to their accounts, and include verification codes, security codes, authorization codes, and so on.

Every template message requires WhatsApp approval. The WhatsApp Template message creation and approval flow is managed in Chat Messaging Setup. Approved templates appear in Content Builder.

Examples of approved templates:

- Welcome { { 1 } }. What company do you work for?
- Your { { 1 } } appointment is coming up on { { 2 } }.
- Your { { 1 } } appointment is coming up on { { 2 } }. Reply with { { 3 } } or { { 4 } }.
- Unfortunately your pending booking didn't go through. No charges were made to your bank account. You can try to rebook the hotel again. We sincerely apologize for the inconvenience.

Examples of rejected templates and how to improve them:

- (Rejected) Reminder: {{1}}.
 - (Rejected) {{1}} was added {{1}}, {{2}}!
 - (Rejected) Ready! Thank you for your purchase of {{1}}. You can find your receipt at {{3}}. Download the App and get a \$10 credit {{4}}.
 - (Revised and approved) Thank you for your purchase of {{1}}. You can find your receipt at {{2}}.
 - (Rejected) Hi {{1}}! Not sure how to activate your prepaid card? It's quick and easy! Get your new prepaid card in your pocket and start to enjoy all the advantages! Access at {{2}}.
 - (Revised and approved) Hi {{1}}! Our records show that your new prepaid card is delivered. Reply "ACTIVATE" to activate your card now.
 - (Rejected) "...trying to touch base with you over text as I couldn't connect with you either by phone or email..."
 - (Rejected) Thank you for your booking. Now refer your friends and earn credits. Ask your friends to book with the code {{1}}.
-  **Note:** {{1}}, {{2}}, {{3}}, and {{4}} are personalization fields. WhatsApp checks only the remaining content. After the template is approved, you can edit these fields with personalization strings in Content Builder.


Session Messages

A session message is a response to a user-initiated conversation. When a user sends a message to your WhatsApp channel, you can respond without using a template. A session message is a free-form message and doesn't need approval. Session messages have many different uses. Brands can auto-reply to users with welcome messages, ask them their preferences to capture personalization details, navigate them to a product, or send questions about a product.

Get Started with WhatsApp Messaging in Marketing Cloud Engagement

Start chatting with your customers by setting up WhatsApp in Marketing Cloud Engagement.

For help with using WhatsApp with Service Cloud, see [Create a WhatsApp Channel in Service Cloud](#).

 **Important:** After you purchase the WhatsApp-First Business Messaging SKU, all outbound messages and existing journeys and templates on the Sinch app stop working. To use WhatsApp-First Business Messaging, you must create a WhatsApp business account, register a new phone number, and create templates, journeys, and audiences.

[Get Started with WhatsApp-First Business Messaging \(Meta\)](#)

Set up WhatsApp-First Business Messaging.

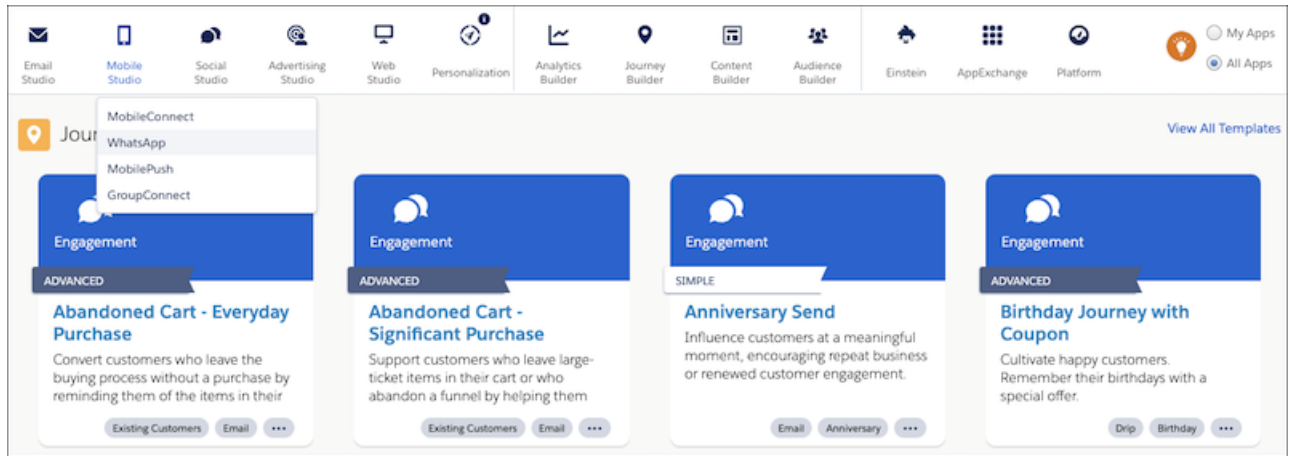
[Get Started with WhatsApp Chat Messaging \(Sinch\)](#)

Set up WhatsApp Chat Messaging.

Get Started with WhatsApp-First Business Messaging (Meta)

Set up WhatsApp-First Business Messaging.

1. From the app switcher, in the Mobile Studio dropdown list, select **WhatsApp**.

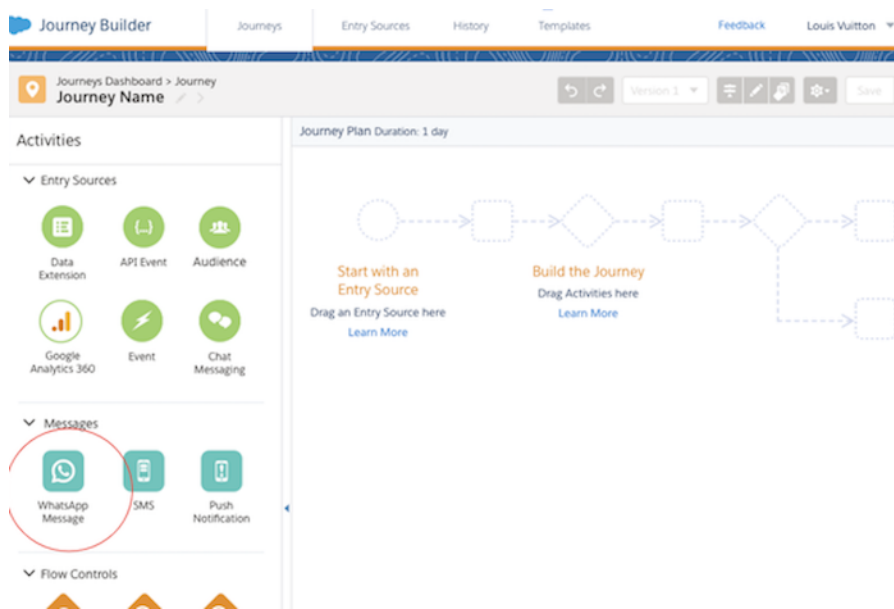


If you don't see WhatsApp in the dropdown list, contact your Marketing Cloud Engagement Account Executive to ensure that you've purchased the WhatsApp First Conversation SKU.

Get Started with WhatsApp Chat Messaging (Sinch)

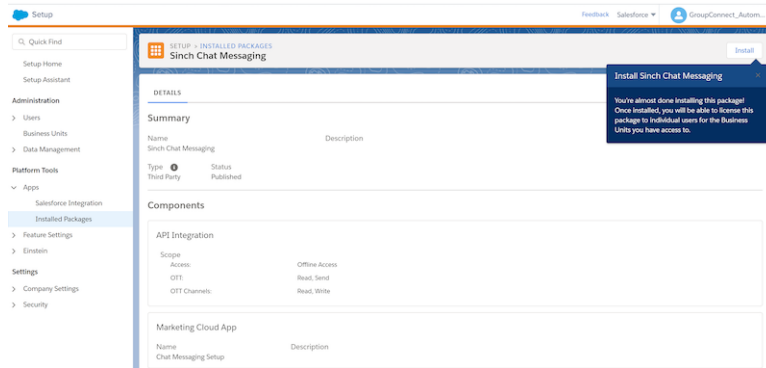
Set up WhatsApp Chat Messaging.

In Journey Builder, check for a WhatsApp Message activity in the list. If you don't see this activity, contact your Marketing Cloud Engagement Account Executive.

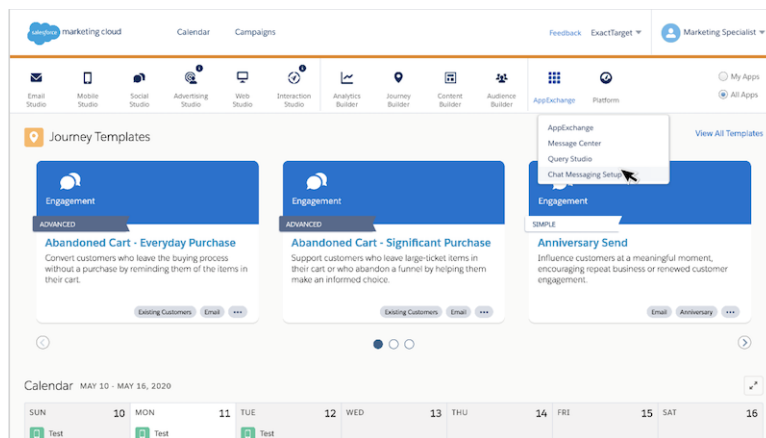


1. Drag the **WhatsApp Message** activity onto the canvas.
2. To purchase the SKUs, click the **WhatsApp Message** activity.
3. Download the package from [Salesforce AppExchange](#).
4. Log in to the Marketing Cloud Engagement account where you want to install this package.
If you're already logged in to your Engagement account, log out, and then log back in to see the updates.

- After you authenticate your account, your screen looks like this.



- Click **Install**.
- Agree to the Salesforce Terms & Conditions.
- In the Access tab, select the user for this package.
- Log out of your Engagement account, and then log back in.
- Ensure that you see Chat Messaging Setup in the AppExchange dropdown.



Next, [create your WhatsApp Business Account](#).

Set Up Your WhatsApp Account in Marketing Cloud Engagement

To send WhatsApp messages, you need a WhatsApp Business account. In Journey Builder, your WhatsApp display name and phone number are referred to as a channel. When you send a message from your business channel, customers see the display name and number.

Note: WhatsApp channels in Marketing Cloud Engagement and WhatsApp channels in Service Cloud require separate WhatsApp business accounts (WABA). For help with setting up a Service Cloud WhatsApp channel, see [Create a WhatsApp Channel in Service Cloud](#).

[Create a WhatsApp Business Account and Channels \(Meta\)](#)

WhatsApp-First Business Messaging uses Meta’s embedded sign-up to add accounts.

[Create Your WhatsApp Business Account \(Sinch\)](#)


WhatsApp Chat Messaging uses Facebook Business Manager to verify your account.

[Create Your WhatsApp Channels \(Sinch\)](#)

After your WhatsApp Business account is approved, you see your account in the Onboarded Accounts section. Now, you're ready to create your WhatsApp channels.

Create a WhatsApp Business Account and Channels (Meta)

WhatsApp-First Business Messaging uses Meta's embedded sign-up to add accounts.

 **Important:** The phone number used to send WhatsApp messages can't be associated with an existing personal or business WhatsApp account.

To set up your WhatsApp Business account and channel requires access to the Facebook account associated with your business. Before adding an account, make sure that your Marketing Cloud Engagement session is active.

1. In the app switcher, from the Mobile Studio dropdown list, select **WhatsApp**.
2. Click **Add Account**.
3. In the Facebook window, log in to the Facebook account associated with your business.
4. Allow your Salesforce WhatsApp Business account to access your Facebook account information by clicking **Continue**.
5. To register and connect your WhatsApp Business account to Salesforce.com, click **Get Started**.
6. To share account and billing permissions, click **Continue**.
7. Create a Meta Business account, or select an existing one.

Your Meta Business account must align with your channel name. For example, if you have a Meta Business account named NTO Taiwan, you can't create a channel named NTO HK or NTO Singapore. Use a more generic name, such as NTO, and then you can create all types of channel names with that ID.

- a. To create an account, select **Create new Meta Business Account**, and click **Continue**.
- b. Enter your legal business name, phone number, website URL, and email address.

Your business phone number can differ from the number that you use to send WhatsApp messages from.

8. Click **Continue**.
9. Select **Create new WhatsApp Business Account**.
Each business unit requires a new WhatsApp Business Account. Business units can't share a WhatsApp Business Account.
10. Enter a name for your WhatsApp Business account, and select a time zone.
The time zone is used for billing and analytics.
11. Click **Continue**. Your information is verified, and your account is set up.
12. Click **Continue to Step 2**.
13. Enter the WhatsApp display name for your business, and click **Continue**.
When choosing a display name, follow Meta's [About WhatsApp Business display name guidelines](#).
14. Choose a category for your business. Optionally, provide a business description.
15. Click **Continue to Step 3**.
16. Enter the phone number to use to send WhatsApp messages.

The phone number can't be associated with an existing personal or business WhatsApp account.

17. Choose a verification method, and click **Send Code**.
18. Within 10 minutes, enter the verification code, and click **Verify**.
19. To complete registration, click **OK**.
After setup, your WhatsApp Business account appears in the list of connected accounts as pending. It can take up to 48 hours for Meta to approve an account.

Create Your WhatsApp Business Account (Sinch)

WhatsApp Chat Messaging uses Facebook Business Manager to verify your account.

1. From the AppExchange dropdown, select **Chat Messaging Setup**.
2. In the left navigation, click **Accounts**.

This screen lists your provisioned and pending accounts. This screen is empty the first time you see it.

3. Click **New Account**.

4. Enter your account name.
5. Enter the legal name of your company.
6. Enter your Facebook Business Manager ID.

Your Facebook Business Manager ID must align with your channel names. For example, if you have a Facebook Business Manager named NTO Taiwan, you can't create channels named NTO HK or NTO Singapore. Using a more generic name, such as NTO, lets you use all types of channel names with that ID.

7. Click **Submit**.
8. The system sends a verification notification to Facebook Business Manager. To validate your account, click this message in **Facebook Business Settings > Requests**.
9. Verify your account in Facebook Business Manager.

A [Facebook Business Manager ID](#) is required. If you have a Business Manager account, in the Facebook Business Manager Console, go to **Business Settings > Business Info** to locate your ID.

- a. Click **Business Settings > Security Center > Start Verification**.

If you haven't properly validated your account, the Start Verification button is disabled.

Next, [create your WhatsApp channels](#).

Create Your WhatsApp Channels (Sinch)

After your WhatsApp Business account is approved, you see your account in the Onboarded Accounts section. Now, you're ready to create your WhatsApp channels.

1. From the AppExchange dropdown, select **Chat Messaging Setup**.
2. In the left navigation, click **Channels**.

This screen lists your provisioned and pending accounts. This screen is empty the first time you see it.

3. Click **New Channel**.

4. Add details for your channel.
 - a. Name: Maximum of 64 characters

If you want to change your channel name after initial creation, contact support@sinch.com to request a change.

- b. Logo: Maximum of 5 MB, 640x640 pixels PNG or JPG
- c. Description: Maximum of 256 characters
- d. Phone number associated with your WhatsApp business account

You can use your own phone number for the channel if it's not associated with another WhatsApp account. Or, you can have Sinch supply a phone number. Sinch number provisioning varies by country and is subject to change. See the table in this topic for details.

- e. Address: Maximum of 256 characters
- f. About: Maximum of 256 characters
- g. Email: Maximum of 128 characters
- h. Vertical: Maximum of 128 characters
- i. Website: Maximum of two websites, 256 characters each

5. Within 10 minutes, enter the two-factor authentication that you received via text or call.

6. Click **Submit Request**.

If your country isn't listed, contact your account executive.

Table 23: Sinch Phone Number Provisioning

Country	Sinch Number Provisioning
Australia	Yes
Brazil	Yes
Canada	Yes
Colombia	No
France	Yes
Hong Kong	Yes
India	No
Indonesia	No
Israel	Yes
Italy	Yes
Lithuania	Yes
Malaysia	No
Mexico	Yes
Peru	Yes
Philippines	No
Poland	Yes

Country	Sinch Number Provisioning
Portugal	Yes
Russia	Yes
Singapore	Yes
Spain	Yes
Sweden	Yes
Taiwan	No
Thailand	Yes
United Kingdom	Yes
United States	Yes

After your channel is approved, you can create [template](#) or [session](#) messages.

Create Your WhatsApp Audiences in Marketing Cloud Engagement

Build your audience for WhatsApp Chat Messages in Contact Builder.

When opting-in customers, consider these best practices.

- If you skip importing contacts, your messages don't send.
- Flag opted-out contacts so that Journey Builder doesn't send messages to them.
- Use Journey Builder to send emails or SMS messages to ask customers to opt in, and then collect the subscribers in a data extension.
- Customers have to opt in only to your WhatsApp channel and not every template message that you use.

1. In Contact Builder, [create a contacts import definition](#).

2. [Create an audience for WhatsApp](#).

Now that your audience is available for use in Journey Builder, personalize your [template](#) and [session](#) messages to start sending.

Create a WhatsApp Template Message for Approval in Marketing Cloud Engagement

Create templates for your transactional messages. Before you start sending, WhatsApp must approve your template message. While waiting for approval, you can send session messages.

[Create a WhatsApp Template Message \(Meta\)](#)


Create templates for your transactional messages to use with your active WhatsApp Business accounts. Marketing Cloud Engagement supports text, image, and button message types.

[Create a WhatsApp Template Message \(Sinch\)](#)

After your channel is approved, you can start creating templates for WhatsApp transactional messages.

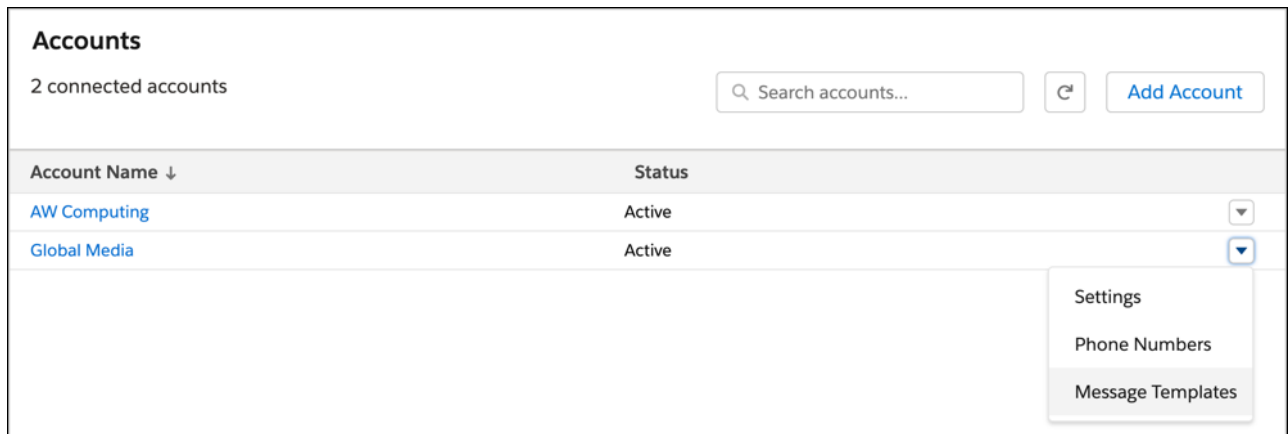
Create a WhatsApp Template Message (Meta)

Create templates for your transactional messages to use with your active WhatsApp Business accounts. Marketing Cloud Engagement supports text, image, and button message types.

 **Note:** You must get opt-in consent from your intended recipients before you send a template message. For opt-in best practices, see [Get Opt-In for WhatsApp](#) (Meta).

After a template is approved, you can edit it one time every 24 hours.


1. From the dropdown list for your active WhatsApp Business account, select **Message Templates**.



- a. If prompted, log in to the Facebook account associated with your business.
2. Select **Create Template**.
 3. Choose a template category, and name your template.
 4. Select a language, and click **Continue**.
 5. Enter the message body.
If you include a URL in your template message, ensure that the URL has a valid landing page and belongs to your business. A template with an invalid URL is rejected.
 6. (Optional) Add a header, footer, and buttons.
 - a. To add a media file to the header, select **Media** from the dropdown.
 - b. Click **Add Sample**, and upload a JPG, PNG, PDF, or MP4 file from your computer.
You can add only images, videos, and documents to a template message. Audio files aren't supported.
 - c. Click **Done**.
 7. Submit your template request, and confirm your selected language.
You can view the status of your submitted template on the Message Templates.

Create a WhatsApp Template Message (Sinch)

After your channel is approved, you can start creating templates for WhatsApp transactional messages.

 **Note:** After a template is approved, you can't edit it. Instead, submit a new template message for approval. You can share an approved template across WhatsApp channels but not across business units.

1. From the AppExchange dropdown, select **Chat Messaging Setup**.
2. In the left navigation, click **Message Templates**.
3. Click **New Template**.

4. Select a registered account.
5. Name your template.
6. Select a template category from the dropdown.
7. Select the language from the dropdown.
8. Complete the Message Content section.

If you include a URL in your template message, ensure that your URL has a valid landing page and belongs to your business. Templates with invalid URLs are rejected.

- a. Add an optional header.
 - b. Complete the Message Body section.
 - c. Add an optional footer.
 - d. Add optional buttons.
9. Click **Submit Request**.

You can view the status of your submitted template in the Message Templates screen.

WhatsApp Template Message Elements

You can include these elements in your template message.

Header

The header appears at the top of your message. Make your content stand out by placing it in the header section. In addition to text, you can include an image, document, or video file in the header.

See [WhatsApp Media Attachments in Marketing Cloud Engagement](#) on page 321.

Body

The body is the main section of your message. In addition to text, you can include variables and emoji to personalize your message. You can also add data available in Engagement Data Extension to individualize your conversation.

When including variables, personalization fields `{{1}}`, `{{2}}`, `{{3}}`, and `{{4}}` are automatically added to the body of your message. These fields use AMPscript strings and personalization tags and map to Data Extension columns after your template is approved.

Footer

The footer appears after the message body. Include copy that complements your main template message, such as an opt-out message. An opt-out message ensures that your customers have a way to leave your channel whenever they want. It also discourages users from blocking or reporting your business when they don't want to receive more messages from you, which ensures a higher-quality rating for your business.

Buttons

Include buttons in your message to increase engagement with your campaigns. Marketing Cloud Engagement supports two button types: Call to Action and Quick Reply. A template message can include only one button type.

A Call to Action button invites a customer to perform an action outside of WhatsApp, such as calling a phone number or visiting a website. You can have one Call Phone Number button and one Visit Website button per template message. The Visit Website button can be static or dynamic.

A Quick Reply button encourages a customer to reply to your message. For example, if you send a template message asking your customer if they want to learn more about a special offer, you can include Yes and No buttons. You can have up to three Quick Reply buttons per template message.

WhatsApp Template Message Approval

After you create a template, submit it for approval. Approval decisions can take up to 24 hours. When a decision is made, a notification appears in your WhatsApp Manager, and your Business Manager admins receive an email.

If the template is rejected, you can [edit and resubmit it for approval](#) or [appeal the decision](#). Appeals must include a [sample](#). For more information, see [Meta's Message Templates guidelines](#).

Considerations

- A template's status can change based on a review decision, appeal outcome, or updated [quality rating](#).
- Only message templates with an active status are imported into Content Builder for personalization, sent to customers, and available for journeys.
- If an active template's status is changed to In Review or Rejected, all active journeys using the template fail to send the message.
- If an approved template's status changes to Disabled, edit and resubmit it for approval.
- You must resubmit an edited template for approval. When resubmitted, its status is set to In Review.

Personalize Your WhatsApp Template Messages in Marketing Cloud Engagement

After your template message is approved, you can personalize your messages using Content Builder.

1. In Content Builder, click **Create**.
2. In the dropdown, select **Chat Messaging**, and then select **WhatsApp Template Message**.
3. To see your approved templates, click **Browse**.
4. Click the template you want to use, and click **Select**.
5. Select the language you want to use, and click **Next**.
6. Select the variables to use in your message.

After approval, you can add only variables to the templates. You can't edit the rest of the message.

- a. Complete the header using personalization tags or AMPscript.
- b. Complete the message body using personalization tags or AMPscript.

Although templates and headers are approved through WhatsApp, ensure that any personalization or variables don't exceed the 60-character limit for headers and the 1,024-character limit for messages. Facebook rejects messages that exceed limits.

- c. Add button text up to 20 characters.
7. Save your changes.

Now your template messages are ready to [send in Journey Builder](#).

Send WhatsApp Template Messages in Journey Builder

After you personalize your template messages, use Journey Builder to start sending.

 **Note:** You can't use Journey Builder Engagement Splits and Campaigns with WhatsApp messages.

1. Click **Create New Journey**.
2. Click **Build** under **Multi-Step Journey**.
3. Drag your entry source onto the canvas. You can use **Data Extension** or **API Event**.
4. To [configure your entry source](#), click it.
5. Click **Summary**.
6. Click **Done**.
7. Drag the **WhatsApp Message** activity onto the canvas.
8. To configure your message, click it.
9. Add an activity name and description.
10. Click **Select Message**.
11. In the Content Builder Messages screen, select the template message you want to use.
12. Click **Summary**.
13. Next to Message Configuration, click **Edit**.
14. Select the App Channel that you want to use from the dropdown.
15. Click **Summary**.
16. Click **Done**.
17. Configure the rest of your journey, and click **Activate**.

Edit a WhatsApp Template Message

After you edit a template message, resubmit it for approval. It can take up to 24 hours to receive a response.

1. In Marketing Cloud Engagement, from the dropdown list for your active WhatsApp Business account, select **Message Templates**.
2. In WhatsApp Business Manager, select the message template that you want to edit.
3. Edit the template's content.
4. To add a sample variable value or image, select the media type and upload your sample.
The sample appears only in the template preview. To add the file to your template message, go to Content Builder and follow the steps for adding a header in [Create a WhatsApp Template Message for Approval in Marketing Cloud Engagement](#) on page 314.
5. Click **Submit**.

If your template approval is pending for more than 48 hours, contact Salesforce Support.

Create Default WhatsApp Session Messages in Marketing Cloud Engagement

Create a default Session message to respond to your users. As a best practice, send users messages with support contact details.

[Create a Default WhatsApp Session Message \(Meta\)](#)

Add a default message in the WhatsApp Default Responses tab of the app switcher. This message is sent to users when an inbound message doesn't include keywords from an active journey.

[Create a Default WhatsApp Session Message \(Sinch\)](#)

Add a default message in the WhatsApp tab of the app switcher. This message is sent to users when an inbound message doesn't include keywords from an active journey.

Create a Default WhatsApp Session Message (Meta)

Add a default message in the WhatsApp Default Responses tab of the app switcher. This message is sent to users when an inbound message doesn't include keywords from an active journey.

1. In the app switcher, hover over your name, and then click **Setup**.
2. In the Quick Find box, enter *WhatsApp*, and then select **WhatsApp Default Responses**.
3. Next to the default message, click **Edit**.
4. Enter the message body.
5. Save your changes.

When you create a journey with [Inbound Chat](#) keywords, the system checks whether the user message includes one of the keywords. If not, the default message is sent.

Create a Default WhatsApp Session Message (Sinch)

Add a default message in the WhatsApp tab of the app switcher. This message is sent to users when an inbound message doesn't include keywords from an active journey.

1. In the app switcher, hover over your name, and click **Setup**.
2. Search for *WhatsApp*.
3. Next to the default message, click **Edit**.
4. Complete the message body.

The session message can be up to 4,096 characters, including personalization and emoji. Facebook rejects messages that exceed this limit.

5. To include an image, upload a JPEG or PNG file that's 100 MB or less.
6. Save your changes.

When you create a journey with [Inbound Chat](#) keywords, the system checks to see if the user message has one of those keywords. If not, the default message is sent.

Personalize Your WhatsApp Session Messages in Marketing Cloud Engagement

Use Content Builder to create session messages to respond to user-initiated conversations. When a user sends a message to your WhatsApp channel, you can respond without using a template. Session messages are free-form messages and don't need approval.

1. In Content Builder, click **Create**.
2. In the dropdown, select **Chat Messaging**, and then select **WhatsApp Session Message**.
3. Select the message type from the dropdown.
4. Complete the message body using personalization tags.

A session message can be up to 4,096 characters, including personalization and emoji. Facebook rejects messages that exceed these limits.

 **Note:** If you're using an AMPscript string, define it within the personalization fields.


5. To add media, upload a JPG, PNG, PDF, or MP4 file.

You can attach media as a file or public website. For size restrictions, see [WhatsApp Media Attachments in Marketing Cloud Engagement](#).


6. Save your changes.

Send WhatsApp Session Messages in Journey Builder

After you personalize your session messages, use Journey Builder to start sending.

 **Note:** You can't use Journey Builder Engagement Splits and Campaigns with WhatsApp messages.

1. Click **Create New Journey**.
2. Click **Build** under **Multi-Step Journey**.
3. Drag the **Inbound Chat** entry source onto the canvas.
4. Configure your **Inbound Chat** entry source.
 - a. Click the entry source, and then click **Edit** next to App Channel.
 - b. Select the App Channel that you want to use from the dropdown.
 - c. To configure your Keywords, click **Keywords**.
5. Click **Summary**.
6. Click **Done**.
7. Drag the **WhatsApp Message** activity onto the canvas.
8. Add an activity name and description.
9. Click **Select Message**.
10. In the Content Builder Messages screen, select the session message you want to use.
11. Click **Summary**.
12. Next to Message Configuration, click **Edit**.
13. Select the App Channel channel you want to use from the dropdown.
14. Click **Summary**.
15. Click **Done**.
16. Configure the rest of your journey, and click **Activate**.

 **Note:** If you create a draft version of this journey while the previous version is still running, the Inbound Chat entry source is in a read-only state. To edit the entry source, stop the first journey. Alternatively, you can delete the Inbound Chat entry source in the draft version and replace it with a new Inbound Chat Entry Source.

WhatsApp Session Transfer Activity

You can transfer a WhatsApp conversation from a Marketing Cloud Engagement interaction to a Service Cloud interaction. Place the WhatsApp Session Transfer activity after a Wait Until Chat Response or an Inbound Chat activity. The information passed as part of the transfer includes conversation history, journey data, the recipient's WhatsApp number, and the cross-cloud WhatsApp phone number.

[Create a WhatsApp Session Transfer Activity](#)

Transfer a WhatsApp conversation initiated in a Marketing Cloud Engagement interaction to a Service Cloud interaction. The information passed as part of the transfer includes conversation history, journey data, the recipient's WhatsApp number, and the cross-cloud WhatsApp phone number.

Create a WhatsApp Session Transfer Activity

Transfer a WhatsApp conversation initiated in a Marketing Cloud Engagement interaction to a Service Cloud interaction. The information passed as part of the transfer includes conversation history, journey data, the recipient’s WhatsApp number, and the cross-cloud WhatsApp phone number.

1. In Journey Builder, drag the activity to the canvas after a Wait Until Chat Response or an Inbound Chat activity.
2. Click **Edit**.
3. Select the WhatsApp Business Account to use.
4. Click **Done**.

WhatsApp Media Attachments in Marketing Cloud Engagement

To send a media message with WhatsApp, attach a media file in the message header. The recipient can open and save the attachment independently of the WhatsApp message. For all message types, you can include an image, document, or video file. You can include an audio file only with a session message.

Where to Store Your Media Files

You can attach files to your template and session messages from these locations.

- A publicly accessible URL
- Content Builder in your Marketing Cloud Engagement account (see [Upload Files](#))

To attach a file from a separate website, include the full URL of the website. The website must be publicly accessible. To upload a file from Content Builder, review [Upload Files](#). If the files aren’t available at send time, you receive an error.

File Size Limits

Depending on from where you attach your media files, different file formats and sizes are supported. Files larger than the maximum size aren’t sent.

Media Type	File Format Supported	URL Maximum File Size	Content Builder Maximum File Size
Image	JPG or PNG	5 MB	5 MB
Document	PDF	100 MB	5 MB
Video	MP4	16 MB	5 MB
Audio (available only for session messages)	MP4	16 MB	5 MB

 **Important:** Audio files must be in the Opus audio codec format.

If you use a public media URL for audio, make sure that you meet these requirements.

- The link was created using a file transfer protocol (FTP) or secure file transfer protocol (SFTP).
- The media file has audio multipurpose internet mail extensions (MIME) types.

File Security

The WhatsApp server can only access publicly accessible URLs. Therefore, when using a media type that could contain a subscriber's personal information, send only password-protected PDF links.

Files attached from your FTP site or an external URL aren't scanned for viruses, so make sure that the file has no security issues.

SEE ALSO:

[External site: Meta Media](#)

[Upload Files](#)

Locales for WhatsApp Data Extension Sends in Marketing Cloud Engagement

You can send a WhatsApp message only to a data extension with a mobile number that includes a valid locale. Include a locale with each mobile number as part of the Phone field in your source file when you import contacts to your data extension. Check this list to make sure that you're using the correct two-character locale. You can enter either uppercase or lowercase letters. Imported locales are converted to uppercase.

- ae (United Arab Emirates)
- af (Afghanistan)
- al (Albania)
- am (Armenia)
- ar (Argentina)
- at (Austria)
- au (Australia)
- ba (Bosnia and Herzegovina)
- bd (Bangladesh)
- be (Belgium)
- bg (Bulgaria)
- bh (Bahrain)
- bn (Brunei)
- bo (Bolivia)
- br (Brazil)
- by (Belarus)
- bz (Belize)
- ca (Canada)
- ch (Switzerland)
- cl (Chile)
- cn (China)
- co (Colombia)
- cr (Costa Rica)
- cz (Czechia)
- de (Germany)
- dk (Denmark)

- do (Dominican Republic)
- dz (Algeria)
- ec (Ecuador)
- ee (Estonia)
- eg (Egypt)
- es (Spain)
- et (Ethiopia)
- fi (Finland)
- fo (Faroe Islands)
- fr (France)
- gb (United Kingdom)
- ge (Georgia)
- gl (Greenland)
- gr (Greece)
- gt (Guatemala)
- hk (Hong Kong)
- hn (Honduras)
- hr (Croatia)
- hu (Hungary)
- id (Indonesia)
- ie (Ireland)
- il (Israel)
- in (India)
- iq (Iraq)
- ir (Iran)
- is (Iceland)
- it (Italy)
- jm (Jamaica)
- jo (Jordan)
- jp (Japan)
- ke (Kenya)
- kg (Kyrgyzstan)
- kh (Cambodia)
- kr (South Korea)
- kw (Kuwait)
- kz (Kazakhstan)
- la (Lao People's Democratic Republic)
- lb (Lebanon)
- li (Liechtenstein)
- lk (Sri Lanka)

- It (Lithuania)
- lu (Luxembourg)
- lv (Latvia)
- ly (Libya)
- ma (Morocco)
- mc (Monaco)
- mk (North Macedonia)
- mn (Mongolia)
- mo (Macao)
- mt (Malta)
- mv (Maldives)
- mx (Mexico)
- my (Malaysia)
- ng (Nigeria)
- ni (Nicaragua)
- nl (Netherlands)
- no (Norway)
- np (Nepal)
- nz (New Zealand)
- om (Oman)
- pa (Panama)
- pe (Peru)
- ph (The Philippines)
- pk (Pakistan)
- pl (Poland)
- pr (Puerto Rico)
- pt (Portugal)
- py (Paraguay)
- qa (Qatar)
- ro (Romania)
- ru (Russian Federation)
- rw (Rwanda)
- sa (Saudi Arabia)
- se (Sweden)
- sg (Singapore)
- si (Slovenia)
- sk (Slovakia)
- sn (Senegal)
- sv (El Salvador)
- sy (Syrian Arab Republic)

- th (Thailand)
- tm (Turkmenistan)
- tn (Tunisia)
- tr (Turkey)
- tt (Trinidad and Tobago)
- tw (Taiwan)
- ua (Ukraine)
- us (United States of America)
- uy (Uruguay)
- ve (Venezuela)
- vn (Viet Nam)
- ye (Yemen)
- za (South Africa)
- zw (Zimbabwe)

WhatsApp Chat Message Analytics in Marketing Cloud Engagement

After you activate your journey, you can view your WhatsApp Chat Message performance.

WhatsApp doesn't give opt-out information back to brands. Brands can discern opt-out rates by evaluating their message bounces. This analysis also shows users who are offline and bounced messages.

Sends, deliveries, read, and failed statuses are aggregated and reported via the Salesforce platform.

1. In the Journeys Dashboard, click the journey you want to view.
2. Click the **WhatsApp Activity**.
3. Select the timeframe that you want analytics for.
4. View the message delivery and open rates.

To view more detailed message data, you can [create a data extract](#) on page 325.

WhatsApp Analytics and Reporting

For WhatsApp-First Business Messaging (Meta), analyze the aggregate deliverability and performance of your WhatsApp messages with Marketing Cloud Intelligence reports. View customer engagement at the subscriber level with Chat Messaging Data Extracts.

To learn more about analyzing your message metrics, see [Create a Chat Messaging Data Extract in Marketing Cloud Engagement](#) on page 325.


To learn more about the fields in dashboards, pivot tables, and reports, see [Dimensions and Measurements](#).

Create a Chat Messaging Data Extract in Marketing Cloud Engagement

Use Automation Studio and Contact Builder to create Chat Messaging Data Extracts and learn more about your message metrics.

1. In Automation Studio, click **New Automation**.
2. Drag the Data Extract activity to the Automation canvas.
3. Click **Choose**.
4. Click **Create New Data Extract**. Follow the directions [here](#).

a. Select **ChatMessagingDetailExtract**.

 **Note:** If you're using wildcards in your file name, only use trailing ones. For example, `test_mo_log_%%Year%%Month%%Day%%.zip`.

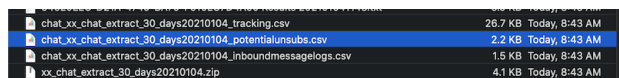
- b. Channel ID: The phone number for your WhatsApp channel. Use the country code and phone number with no symbols.
- c. Channel Type: WHATSAPP.
- d. Include Molog: Provides a raw data file with inbound messages from customers.
- e. Include Tracking Detail: Provides detail disposition for Sends and the corresponding Inbound Tracking. If you choose to not include tracking details, some delivery receipts aren't included if they're near the end of the set sending time period. If you use a rolling range, you get a complete dataset.
- f. Include Potential Bounces: WhatsApp doesn't provide unsubscribe information. If a user hasn't received a message three times in the last 30 days, they're counted as bounced users. It's possible bounced users opted out and blocked the brand's WhatsApp channel.

5. [Create a File Transfer activity.](#)

- a. When you run the data extract, the file is stored in a Salesforce Safehouse. The file transfer activity moves the file to a configure file location.

 **Note:** Use the same file-naming pattern as the Data Extract activity.

6. [Retrieve your files from the FTP.](#)



- Tracking file name: `chat_{filename}_tracking.csv`.
- Inbound messages file name: `chat_{filename}_inboundmessagelogs.csv`
- Potential unsubs file name: `chat_{filename}_potentialunsubs.csv`
- If you wanted to add a date to any of the logs, an example would be:
`chat_test_mo_log%%Year%%Month%%Day%%_tracking.csv`

7. Import your information into a data extract.

- a. In Contact Builder, [create a data extension](#).
- b. In Contact Builder, [create an import definition](#).

Table 24: Track File Details

Name	Description	Data Type
TrackingType	Send disposition in Marketing Cloud Engagement. Is either DeliveryReport or SEND	string
SendType	How the send was initiated: through Journey Builder or Transactional API or as a default response.	string
MID	Member ID for the sender	bigint

Name	Description	Data Type
EID	Enterprise ID number for the sender	bigint
ContactKey	Contact key of the receiver	string
MobileNumber	Phone number of receiver	string
EventDateUTC	UTC date and time of the event	datetime
AppID	Application ID of the provider	string
ChannelID	Phone number of the registered channel	string
ChannelType	Channel platform (WhatsApp)	string
ActivityName	Name of message activity related to the send for the journey (WhatsApp)	string
ChannelName	Name of channel used	string
Status	Send status provided by sender or Marketing Cloud Engagement	string
Reason	If Status is negative, this field provides further details	string
JBDefinitionID	Unique identifier for the journey a message was deployed from	unique identifier
SendIdentifier	Internal Engagement identifier for a send. This identifier associates a unique SEND"with the corresponding "DeliveryReport" information. Order or date can't be verified when sending to the same contact many times. This field is your source of truth for data association of send and delivery reports.	unique identifier
AssetID	Asset ID associated with the Send. Available on Send type only.	bigint
MessageTypeID	Internal send type ID	int

Table 25: Inbound Message Details

Name	Description	Data Type
ChatMessagingMOLogID	Unique database identifier in sequential order	bigint
ChannelID	Phone number of the registered channel	string
ChannelType	Channel platform (WhatsApp)	string
MobileNumber	Phone number of contact who responded to the channel	string

Name	Description	Data Type
MessageData	JSON-formatted data from our partner. The Text field displays inbound text.	string
DateCreatedUTC	UTC date and time the inbound message was received in Engagement	datetime

Table 26: Potential Unsubscribe Details

Name	Description	Data Type
MID	Member ID for the sender	bigint
EID	Enterprise ID number for the sender	bigint
ContactKey	Contact key of the receiver	string
MobileNumber	Phone number of receiver	string
ChannelID	Phone number of the registered channel	string
ChannelType	Channel platform (WhatsApp)	string
ChannelName	Name of channel provided by customer	string
FirstDateUTC	UTC date and time of first send without delivery tracking	datetime
LastDateUTC	UTC date and time of last send without delivery tracking	datetime

A user is marked as a potential unsubscribe if:

- At least three messages have failed to send to the user
- There are no successful sends to the user during the report's selected time window

A message is defined as failed to send if it has a Failed status or a Not Sent status with Reason 100.

Add a Phone Number to an Existing WhatsApp Business Account in Marketing Cloud Engagement

Connect a new phone number to your existing WhatsApp Business account. The phone number can't be associated with another personal or business WhatsApp account.

1. In the app switcher, from the Mobile Studio dropdown list, select **WhatsApp**.
2. Click **Add Account**.
3. In the Facebook window, log in to the business Facebook account, and click **Continue** to give Salesforce access.
4. Click **Get Started** to register your account.
5. Click **Continue** to share account and billing permissions.
6. Select the existing Meta Business account that you want to add the phone number to, and click **Next**.
7. Select the existing WhatsApp Business account that you want to add the phone number to.
8. Select the existing WhatsApp Business profile that you want to add the phone number to, or create one.

To create a WhatsApp Business profile, click **Next** and enter the WhatsApp Business profile display name for this phone number. Choose a category for your business. Optionally, provide a business description and website URL.

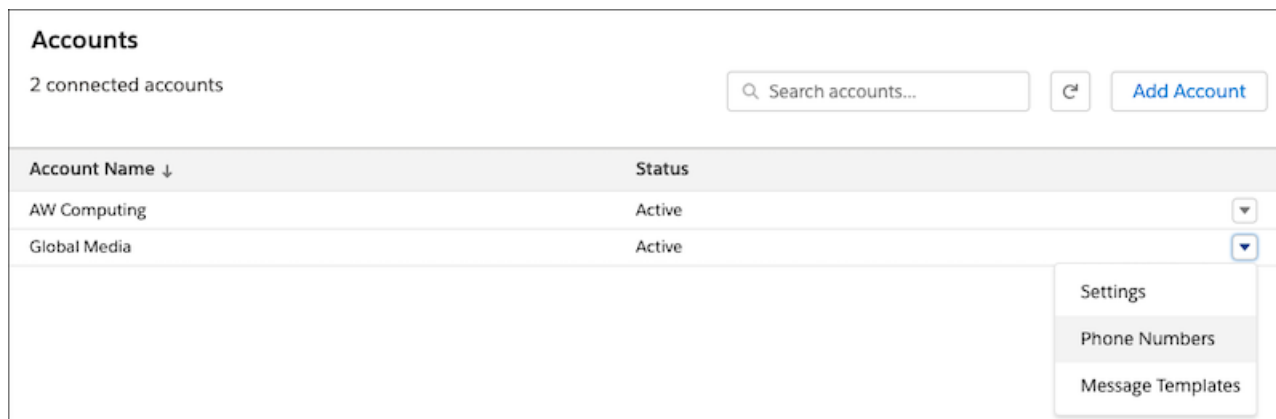
When choosing a display name, follow the [Meta guidelines for WhatsApp Business display names](#) to ensure that the phone number is usable.

9. Click **Next**.
10. Enter the phone number to use to send WhatsApp messages.
The phone number can't be associated with an existing personal or business WhatsApp account.
11. Choose a verification method, and click **Next**.
12. Within 10 minutes, enter the verification code, and click **Verify**.
13. Complete the registration.
After setup, your phone number appears in the list of connected phone numbers first as pending and then as connected.

Delete a Phone Number from Your WhatsApp Business Account in Marketing Cloud Engagement

After you remove a connected or pending phone number from your WhatsApp Business account, WhatsApp messages aren't sent for journeys configured with the deleted number.

1. In the app switcher, from the Mobile Studio dropdown list, select **WhatsApp**.
2. From the dropdown list for your active WhatsApp Business account, select **Phone Numbers**.




If prompted, log in to the Facebook account associated with your business.

3. In WhatsApp Business Manager, select the phone number that you want to delete, and click **Delete**.
4. Confirm that you want to delete the number.
If prompted, enter the password for the Facebook account connected to your WhatsApp Business account.

Transfer a WhatsApp Phone Number Between Business Units in Marketing Cloud Engagement (Meta)

If you're using WhatsApp-First Business Messaging, you can move a WhatsApp phone number from a Marketing Cloud Engagement business unit to another business unit. If you're using Sinch, you can't transfer a phone number to a WhatsApp-First business unit. Before you can transfer a phone number, you must delete the phone number from the business unit. After you complete transferring the phone number, all active journeys for the business unit originally using the phone number fail.

1. Delete the WhatsApp phone number from the original business unit.
 - a. Log in to the business unit associated with the WhatsApp phone number.
 - b. In the app switcher, from the Mobile Studio dropdown list, select **WhatsApp**.
 - c. In the business account's dropdown list, select **Phone numbers**.
 - d. If prompted, log in to the Facebook account associated with your business.
 - e. In WhatsApp Business Manager, under Phone Numbers, click the  icon for the phone number that you're transferring. You must delete the phone number from this business unit before you can use it in another business unit.
 - f. Refresh the page, and log out of the business unit.

After refreshing the page, all active journeys using the phone number in the first business unit fail.

2. Set up your new WhatsApp business account.

You can't use an existing WhatsApp business account.

 - a. Log in to the business unit that you want to add the WhatsApp phone number to.
 - b. In the app switcher, from the Mobile Studio dropdown list, select **WhatsApp** and then click **Add Account**.
 - c. In the Facebook window, log in to the Facebook account associated with your business.
 - d. Let your Salesforce WhatsApp business account access your Facebook account information by clicking **Continue**.
 - e. To register and connect your WhatsApp business account to Salesforce.com, click **Get Started**.
 - f. To share account and billing permissions, click **Continue**.
 - g. Select the Meta business account that you want to transfer the phone number to, and click **Continue**.
 - h. Select **Create new WhatsApp Business Account**.
 - i. Enter a name for your WhatsApp Business account, and select a time zone.

The time zone is used for billing and analytics.
 - j. Click **Continue**.

Your information is verified, and your account is set up.

3. Add the WhatsApp phone number to another business unit.
 - a. Click **Continue to Step 2**.
 - b. Enter the WhatsApp display name for your business, and click **Continue**.
 - c. Choose a category for your business. Optionally, provide a business description.
 - d. Click **Continue to Step 3**.
 - e. Enter the phone number that you're transferring.
 - f. Choose a verification method, and click **Send Code**.
 - g. Enter the verification code, and click **Verify**.
 - h. To complete the registration, click **OK**.
 - i. To remove the old WhatsApp business account and phone number from the Engagement records for the original business unit, contact Salesforce Support.

WhatsApp Status Errors in Marketing Cloud Engagement

Review WhatsApp status errors. These status errors are generated by WhatsApp and are subject to change.

Error	Description
MEDIA_TOO_LARGE	The media used in the message is above the 5-MB limit specified by WhatsApp.
MEDIA_TYPE_UNSUPPORTED	The media used in your message is an unsupported type. Upload a JPEG or PNG.
BAD_REQUEST	One of these descriptions: <ul style="list-style-type: none"> • Message length exceeds 4,096 characters. • A required parameter is missing. • The value entered for a parameter is of the wrong type or other problem. • Message contains a parameter that isn't required. • The request isn't valid. • Parameter length is too long. • Translated text is too long. • Whitespace policy is violated. • Format character policy is violated. • The template media format used isn't supported. • A required component in the template is missing. • URL in the button component is invalid. • Phone number in button component is invalid. • Parameter format doesn't match the format in the created template.
MEDIA_NOT_REACHABLE	Failed to download the media from the sender.
CHANNEL_BAD_CONFIGURATION	Channel rejected the given channel credentials.
DELIVERY_TIMED_OUT	One of these descriptions: <ul style="list-style-type: none"> • Message failed to send because it was pending for too long. Resend the message. • Message failed to send during its Time To Live (TTL) duration.
DELIVERY_REJECTED_DUE_TO_POLICY	Message failed to send because there are restrictions on how many messages can be sent from this phone number. This failure can occur if too many messages were blocked or flagged as spam.
RECIPIENT_INVALID_CHANNEL_IDENTITY	One of these descriptions: <ul style="list-style-type: none"> • Failed to send the message because this user's phone number is part of an experiment. Skip sending messages to this user. • Message failed to send since the user with this phone number has potentially changed.

Error	Description
	<ul style="list-style-type: none"> User isn't valid. You can't send messages to yourself.
TEMPLATE_INSUFFICIENT_PARAMETERS	Number of parameters provided doesn't match the expected number of parameters.
RECIPIENT_NOT_REACHABLE	Given channel identity isn't reachable on this WhatsApp channel.

WhatsApp-First Business Account Statuses for Marketing Cloud Engagement

The status of your WhatsApp Business account or channel tells you what you can do with your account and helps you figure out your next steps. An account or channel is marked as active, pending, error, or disabled.

Active

An active account or channel is successfully registered and ready to use within Journey Builder.

Pending

An account is marked as pending for one of two reasons.

- The account and phone number are successfully registered, but Meta hasn't approved the account yet. It can take up to 48 hours for Meta to approve an account.
Resolution—Wait a few moments, and then refresh the accounts list. If the account is approved, the status changes to active.
- The account setup is incomplete.
Resolution—To restore your setup, click **Add Account** and use the same account details that you provided during the initial sign-up. To complete the sign-up flow, register and authenticate your business phone number. Wait for Meta to approve the account.

Error

An error status indicates that the account and phone number aren't properly registered.

Resolution—Determine why registration has failed, and then follow the appropriate steps.

- If you closed the embedded sign-up window before completing the setup process, click **Add Account** to restore your setup. Use the same account details that you provided during the initial sign-up.
- If your phone number isn't verified, make sure that it's active and follows the WhatsApp guidelines. Only active phone numbers can receive the code required for two-factor authentication, which confirms that you own the number. A business phone number must follow international formatting and be reachable internationally. Also, it must be new to the WhatsApp Business API. Your phone number can't be a short code or toll-free number and can't use interactive voice response (IVR).
- If your phone number is registered in the Android, iPhone, or Business Application versions of WhatsApp, delete the WhatsApp account associated with that phone number. A phone number can't be associated with more than one WhatsApp account at a time.

Disabled

You can't use a disabled account or channel in WhatsApp. An account can be disabled in these cases.

- Your account repeatedly violates high-risk policy categories listed in the [WhatsApp's Commerce Policy](#).

Examples of prohibited use include adult content, alcohol or tobacco sales, or messages related to drugs, gambling, or unsafe ingestible supplements.

- Your business violates the [WhatsApp Terms of Service](#).
- Multiple users block or report the number in a short period after receiving messages from your business.
- Your business repeatedly goes over its messaging limits, which is the number of notification messages that you can send from a single phone number in 24 hours.

To check your messaging limits, from the dropdown list for your active WhatsApp Business account, select **Phone Numbers**.

Resolution—To find out why your account has been disabled and file an appeal, click the account's **Disabled** status and review the alerts in your overview page.

Using WhatsApp Data in Data Cloud

Ingest WhatsApp contact and tracking data from Marketing Cloud Engagement and create personalized interactions with customers in Data Cloud.

For more information about the WhatsApp starter data bundle, see [Marketing Cloud Engagement Starter Data Bundles in Data Cloud](#) and [Marketing Cloud Engagement Data Bundle Information](#).

View SMS Analytics in Journey Builder

SMS activity-level metrics measure the impact of Journey Builder SMS message activities on your customers' behavior. You can track each SMS activity's performance in your journeys against the Analytics 360 goals you define. SMS activity-level metrics aggregate usage data for all versions of a journey.

The Journey Analytics dashboard appears when you click an SMS activity in a running journey.

1. In Journey Builder, open an active journey and click an SMS activity.
The SMS Performance drawer opens.
2. To open the analytics tile, click **SMS Performance**.

SEE ALSO:

[Review Undelivered Messages](#)

View Google Analytics 360 SMS Activity Metrics

SMS activity-level metrics measure the impact of your journey SMS message activities on your customers' behavior. You can track each SMS activity's performance in your journeys against the Analytics 360 goals you define.


The Journey Analytics dashboard appears when you click an SMS activity in a running journey.

 **Important:** Campaign Source, Campaign Medium, Campaign Name, sfmc_activityID, and Campaign ID parameters are tracked for SMS activities. Campaign Term, Campaign Content, and Subscriber ID are not tracked.

1. In Journey Builder, open an active journey, and click an SMS activity.
The SMS Activity drawer opens.
2. To open the analytics tile, click **Analytics 360 Goals Summary**.
3. Click **View Details**.


Mobile Activity Tracking

Find tracking information for each mobile message activity on your running journey's canvas. Click a mobile message activity to access statistics. Select a timeframe for your analytics from the date field. Access more Journey Builder mobile message tracking in Mobile Studio.

 **Note:** Analytics aren't available for Inbox activities.

To access mobile message performance metrics in a running journey, click a configured mobile activity.

To view configuration details, click a mobile activity in a running journey and select **Summary** from the dropdown.

 **Note:** Mobile activities in a running journey can't be edited. To edit a mobile activity in a running journey, create another version of the journey.

Tracking for SMS, LINE message, in-app message, and push notification activities is also available on the MobileConnect, GroupConnect, and MobilePush Overview screens.

SEE ALSO:

[Review Specific Message Activity](#)

[Journey Versions](#)

[Account, App, and List Statistics](#)

Journey Builder Activities

Canvas activities include messages, decisions, updates, or a combination of these elements dragged onto the Journey Builder canvas. In a Multi-Step journey, the activities you configure affect each contact until they reach a goal or the end of the journey.

Activities appear in the builder panel according to their headings: Messages, Advertising, Flow Control, Customer Updates, Sales & Service Cloud, and Custom.

Single Send journey activities are auto-populated on the canvas. The builder panel isn't shown.

Split Activities

Split activities divide contacts into separate cohorts that follow different paths. The split allows each cohort to receive a different set of subsequent activities. For example, you want to separate the contacts in a journey into two groups by age: contacts who are older than 35 and contacts who are younger than 35. Place a decision split after the entry event, or any activity in a journey, to prompt Journey Builder to evaluate each contact's data. In this example, Journey Builder sorts contacts by age. It funnels contacts who are older than 35 into one branch of the split and contacts who are younger into the other branch.

Custom split activities that use a data decision can allow a True or False (Boolean) decision, or a multiple-answer decision. Multiple-answer decisions send contacts down more than two decision branches. In other words, a custom activity can segment the audience into two or more paths based on the purpose of the activity.

Customer Update Activities

Customer update activities prompt Marketing Cloud Engagement to update a contact's data in a data extension. You select a data extension where the activity updates existing data and choose the attribute or value that the activity is to update. Updating an attribute or value overwrites the value in an existing row; the existing value doesn't increase and new rows aren't added.

If no rows for the associated contact key exist, a new row is added. If the associated contact key has one or more existing rows, the existing rows are updated. New rows aren't added.

Only sendable data extensions can be used with this activity.

Sales and Service Cloud Activities

Use Sales and Service Cloud activities to interact with Sales and Service Cloud. These activities are available in accounts with the Marketing Cloud Connector installed.

Custom Activities

The marketer or the marketer's organization fully configures custom activities. Examples of custom activities include custom messaging through uncommon channels or custom data update activities such as an evaluation of only specified data fields on contact records. For more details about developing custom activities, see [Journey Builder API](#).

Find Out More

Find specific information about Journey Builder activities on each activity's help page.

[Activity Type Reference](#)

This table identifies and explains Activity Type messages displayed on the Contacts page in Journey Builder.

[Undo or Redo a Canvas Action](#)

Before you save or activate a journey, you can undo or redo up to 50 consecutive actions, one at a time, in Journey Builder.

[Reuse a Journey Builder Activity](#)

Make building a Marketing Cloud Engagement journey faster and easier by copying activities or groups of activities. Copied activities, with a few exceptions, don't have to be configured again after you paste them on the Journey Builder canvas.

[Path Optimizer Test Activity in Journey Builder](#)

The Path Optimizer activity enables you to test up to 10 variations of a journey path to determine which path performs best. Use a sample from your contacts to test multiple versions of messages, wait times, channels, and message frequencies during an active journey. You can let Journey Builder pick the winner automatically based on email metrics such as opens, clicks, or unsubscribes. Or you can manually choose a winner at any time based on metrics tracked inside or outside Marketing Cloud Engagement. The remaining contacts take the winning journey path.

[Wait Activities in Journey Builder](#)

To manage the timing of messages in Journey Builder, add wait activities. A wait activity holds customers between activities for a specified amount of time before they move to the next activity. During wait activities, Journey Builder evaluates customers to see if they met a goal, reached criteria for a decision split, or engaged with a message.

[Journey Builder Split and Join Activities](#)

Journey Builder's split activities allow you to customize a contact's path through a journey. The join activity allows you to bring contacts from two or more paths into a single path.

[Use the Ad Audience Activity](#)

Use the Ad Audience activity to build an audience in Journey Builder. To use this activity, set up Facebook Twitter, Google Adwords, or LinkedIn as destinations in Marketing Cloud Engagement Advertising Audiences Administration. This activity is available only in accounts provisioned to use Advertising Audiences.

[Advertising Campaign Activity](#)

Create an Advertising Audience and a simple Facebook advertising campaign without leaving Journey Builder. The Advertising Campaign activity creates an advertising campaign and posts your advertising content on social media. As the journey continues, customers populate the advertising campaign and see your advertisement.

[Update a Contact](#)

Update or modify a Marketing Cloud Engagement contact record in Journey Builder using the update contact activity.

[Configure the Sitecore Connect for SFMC Activity](#)

Use the Sitecore Connect for SFMC activity to send contact status from Marketing Cloud Engagement to Sitecore as a contact moves through a journey.

SEE ALSO:

[MobileConnect and Journey Builder](#)


[MobilePush and Journey Builder](#)

[Marketing Cloud Connect](#)

Activity Type Reference

This table identifies and explains Activity Type messages displayed on the Contacts page in Journey Builder.

Use Activity Type with the value shown in the Status column to understand exactly where a contact is at a given moment.

 **Note:** The Join activity isn't shown as an Activity Type. Instead, when a Join activity sends a contact from one path to another, the next activity in that path is shown. Check the journey to see a contact's path after a Join activity and confirm the contact's route.

Activity Type	Meaning
EMAIL	<p>The contact reached an Email activity.</p> <p>The contact receives an email unless goal criteria was met at this step.</p>
WaitActivity	<p>The contact is in or has left a wait period.</p> <p>The value shown in the Status column indicates whether the contact is in a wait period, or has recently left a wait period.</p> <ul style="list-style-type: none"> • When the Status value is Waiting, the contact is in a wait period. • When the Status value is Complete, the wait period expired. The contact continued to the next activity.
CONTACTDECISION	<p>The contact reaches a decision split and is sent down one of two or more paths depending on the activity's settings.</p> <p>Look for the next activity this contact reaches to find out which path the contact took.</p>
StartInteractionActivity	<p>The journey detected the event and started.</p>
Trigger	<p>The journey is evaluating contacts to see whether they meet filter criteria.</p>
undefined	<p>This type isn't an activity. This message shows when the contact isn't in the journey yet.</p>

Activity Type	Meaning
	The value shown in the Status column shows the state of the journey.
StopInteractionActivity	The contact exited the journey. Check the status column to see if this contact met goal criteria before reaching the exit.
RANDOMSPLIT	The contact was sent down one of two or more paths at random based on this activity's specific configuration.
REST	This type is an activity that was built via REST API. The person who created this activity added the Activity Name.
Other	This type is for behind the scenes validation or compliance activities-such as contact status checks, contact exit checks, and entry mode settings. These activities determine if the contact continues through the journey.
DATAEXTENSIONUPDATE	The contact reached an Update Contact activity. Check the activity's specific configuration to determine how this contact's data was modified.
GoalCriteriaActivity	The journey is evaluating the contact against the journey's goal criteria. Journey Builder checks goal criteria for every contact before sending them to the subsequent activity. When a contact meets goal criteria, and goal criteria has been set as exit criteria, the contact exits the journey. Check the Status column for specific information.

Undo or Redo a Canvas Action

Before you save or activate a journey, you can undo or redo up to 50 consecutive actions, one at a time, in Journey Builder.

When you activate or navigate away from the journey, the journey action history is erased.

 **Note:** This feature isn't supported in Single Send journeys.

1.


Navigate to the journey menu and click  to undo or  to redo.


2. If needed, repeat step 1 to undo or redo up to the last 50 actions you took to configure the journey.

Reuse a Journey Builder Activity

Make building a Marketing Cloud Engagement journey faster and easier by copying activities or groups of activities. Copied activities, with a few exceptions, don't have to be configured again after you paste them on the Journey Builder canvas.

 **Tip:** To copy a group of activities, select activities that adjoin one another on the canvas.

1. To select one or more activities to copy, click  .
2. Click one or more adjoining activities to copy.
3. Click **Copy Selection**.
4. Drag the copied activity or group of activities from the Copied Activities Clipboard onto the canvas.

 **Note:** Some activities require reconfiguration after pasting.

 **Note:** The Copied Activities Clipboard isn't saved when you navigate away from the journey.

Path Optimizer Test Activity in Journey Builder

The Path Optimizer activity enables you to test up to 10 variations of a journey path to determine which path performs best. Use a sample from your contacts to test multiple versions of messages, wait times, channels, and message frequencies during an active journey. You can let Journey Builder pick the winner automatically based on email metrics such as opens, clicks, or unsubscribes. Or you can manually choose a winner at any time based on metrics tracked inside or outside Marketing Cloud Engagement. The remaining contacts take the winning journey path.

 **Example:** Nonprofit Organization

A museum has an existing journey used to drive engagement and membership renewals. The museum's membership relationship manager decides to test three aspects of the journey. In the first Path Optimizer test, they set up a two-path test for its first email to determine which email subject line drives the highest numbers of clicks on the member benefits link. For the second email, they include another Path Optimizer test that breaks the audience into three paths. They use this test to test which cadence and message content result in the highest open rate. The final Path Optimizer test divides the journey into two paths, with one path adding in an SMS message reminder to Renew Membership Now. They manually select the winner based on which path results in the most renewals.

[Configure a Path Optimizer Test Activity](#)

Follow these steps to configure the Path Optimizer Test activity in Journey Builder.

Configure a Path Optimizer Test Activity

Follow these steps to configure the Path Optimizer Test activity in Journey Builder.

1. Drag the Path Optimizer activity onto the canvas.
2. Add activities to the paths between the start and finish points of the Path Optimizer.
The activity defaults to two paths, but you can add up to 10 paths for testing.
3. Click the Path Optimizer activity.
4. Click **Configure Winner Evaluation**.

To pick a winner automatically based on email metrics, click **Email Engagement**. Then choose the metric and evaluation period. The evaluation period is how long the system waits after contacts pass through the longest path before picking the winner. You can configure the evaluation period in hours or days with a minimum of 1 hour and a maximum of 99 days.


To review your data and manually pick a winner, select **Manual Engagement**. If you don't select a winner within 7 days of activation, the test expires and contacts are held back as if they're now part of a Random Split.

5. Click **Split**.


6. Select the percentage of contacts to send on each path.

To include more paths in your testing, click **Add Path**.

7. Click **Holdback**.

 **Important:** The Holdback feature is only available when you use a Data Extension entry source set to Run Once.

8. Select the percentage of contacts to include in the test. The rest of the contacts wait in the Holdback group until a winner is selected, then enter the journey on the winning path.

 **Tip:** To allow the system time to track engagement for all preceding messages, add a wait activity after the last message included in the test.


9. Click **Done**.

10. Activate your journey.

11. Click the **Path Optimizer** activity.

12. Review **Test Summary**.


13. For Email Engagement tests, review the results of your running test. These results include all email metrics, which path is in the lead, and elapsed time of the test. To end the test early, click **Select Winning Path**. Select the winning path, and click **Select Winner**.

 **Note:** The test duration is the sum of the evaluation period you select and the length of the longest path including wait activities.

14. For Manual Engagement tests, click **Select Winning Path**. Select the winning path, and click **Select Winner**.

15. Click the Analytics dropdown, and select **Summary** to view the activity configuration.

After the test completes, the activity shows Test Summary metrics that are snapshots of test stats at the time the winner was selected. Also, Post-Test Performance stats show elapsed time, how many contacts passed through, and engagement metrics after the winner was selected. This information allows you to compare performance for ongoing optimization of your journey.

-  **Note:** If you copy a journey with a Path Optimizer activity and you select a winning path, only that winning path remains in the copied journey. If you didn't select a winner, all potential paths copy into the new journey.

SEE ALSO:

[Data Extension Entry Source](#)

Wait Activities in Journey Builder

To manage the timing of messages in Journey Builder, add wait activities. A wait activity holds customers between activities for a specified amount of time before they move to the next activity. During wait activities, Journey Builder evaluates customers to see if they met a goal, reached criteria for a decision split, or engaged with a message.

Here are some things to keep in mind when you use wait activities.

- Plan the timing of waits based on your content and the message cadence expectations that you want to set.
- Determine the best time of day to reach your customers and an optimal wait duration.
- Avoid waits that are shorter than an hour, except when testing a journey.
- Avoid unnecessary waits, especially at the beginning of a journey.
- You can't place two wait activities side by side on the canvas.
- The asterisk next to timezones in the picklist indicate that the timezone observes Daylights Savings Time (DST).

Wait by Duration

Use the Wait by Duration activity to provide a consistent experience for all contacts processing through a journey. A wait ends after a specified amount of time elapses with the default duration of 1 day. To customize duration, you can add an expiration time and a time zone. When a contact reaches the activity, the expiration date and time of the wait duration begins at the time they entered. A contact who reaches this activity after the specified end time remains in the activity until the following day at the configured end time.

Wait Until Date

Use the Wait Until Date activity to hold contacts until the day and time that you configure. After the wait expires, the contact immediately proceeds to the next activity. If the contact reaches the activity after the date, the contact immediately proceeds to the next activity.

Wait by Attribute

Use the Wait by Attribute activity to hold contacts until the day and time value stored in a contact's date-based attribute that you select. If the specified day and time passes before the contact reaches the wait activity, or if the attribute value is missing, the contact immediately proceeds to the next activity.

Wait Until Chat Response

Use the Wait Until Chat Response activity to hold contacts until they respond to an outbound message or the maximum wait time you configure expires. If contacts don't respond with a keyword before the maximum wait time expires, they exit the wait activity and continue along the no response journey path.

Wait Until API Event

Use the Wait Until API Event activity to allow an external event to trigger an action mid-journey. Configure the activity to hold contacts until an event, such as a purchase, occurs before moving to the next activity in a journey. You can also create customized experiences for contacts who don't take the specified action within a defined timeframe.

Evaluate Goal and Exit Criteria during Wait Activities

If you configure a goal for the journey, Journey Builder evaluates each contact daily while they're held by the wait activity. If the contact meets the goal while in the wait, and the exit option is selected for the goal, the contact exits the journey. If the goal's exit option isn't selected, the contact proceeds to the next activity when the wait expires. When you configure a goal and exit criteria, contacts are evaluated against both criteria when the wait expires. If a contact meets the goal and the exit criteria, the goal is evaluated first. This order of operations ensures that if the contact met the goal during the wait, the journey records goal statistics accurately.

[Configure a Wait by Duration Activity](#)

Follow these steps to configure a Wait by Duration Activity in Journey Builder.

[Configure a Wait Until Date Activity](#)

Follow these steps to configure a Wait Until Date activity in Journey Builder.

[Configure a Wait by Attribute Activity](#)

Follow these steps to configure a Wait by Attribute activity in Journey Builder.

[Configure a Wait Until Chat Response Activity](#)

Follow these steps to configure a Wait Until Chat Response activity in Journey Builder.

[Configure a Wait Until API Event Activity](#)

Follow these steps to configure a Wait Until API Event activity in Journey Builder. This feature uses the same API events configured for journey entry events.

[Configure a Wait Until Push Event Activity](#)

Orchestrate a journey and react in real time based on whether the contact opens a push notification within a certain period. If the engagement doesn't occur within the predefined time, you can send the contact on an alternate path.


[Configure a Wait Until In-App Engagement Activity](#)

Orchestrate a journey and react in real time based on whether the contact interacts with an in-app message within a certain period. If the engagement doesn't occur within the predefined time, you can send the contact on an alternate path.

Configure a Wait by Duration Activity

Follow these steps to configure a Wait by Duration Activity in Journey Builder.


- To improve overall Journey Builder performance, the last wait of any Journey Builder Path before the Exit is ignored in the following scenarios.
 - Re-Entry Mode is Re-Entry Anytime OR No Re-Entry
 - AND the journey doesn't have a Goal Activity

 **Note:** By default, one Wait by Duration activity is on the canvas and configured to a duration of 1 day.

1. If necessary, drag the Wait by Duration activity onto the canvas.
2. Click the activity.
3. Set the duration.

 **Note:** The maximum duration is 5 years.

4. To specify an end time, select **Extend wait duration until specific time**. Then choose the time and time zone.
5. Click **Done**.

 **Example:** Northern Trail Outfitters (NTO) previously set up a journey to send messages to customers who buy shoes from their company. Every time a customer purchases a pair of shoes online, NTO sends them a confirmation message. Then NTO sends another message to follow up on the order and ask the customer to complete a review 3 days later. In the journey's second version, NTO wants to ensure that the product review message is sent after 9:00 AM.

After creating another version of the Shoe Sales Email Series journey, the marketer edits the Wait By Duration activity that follows the Purchase Confirmation email. Then the marketer adds an end time of 9:00 AM and sets the time zone to (GMT-05:00) Eastern Time (US and Canada). Then the marketer configures the rest of the journey and clicks **Activate**.

- In scenario one, a customer enters the Wait By Duration activity on Monday at 8:00 AM. The wait duration is observed, which equates to Thursday at 8:00 AM. The wait then ends on the next instance of 9:00 AM, which is Thursday at 9:00 AM, at which point the contact proceeds to the next activity.

- In scenario two, a customer enters the Wait By Duration activity on Monday at 9:30 AM. The wait duration is observed, which equates to Thursday at 9:30 AM. The wait then ends on the next instance of 9:00 AM, which is Friday at 9:00 AM, at which point the contact proceeds to the next activity.

SEE ALSO:

[Configure a Wait Until Date Activity](#)

[Configure a Wait by Attribute Activity](#)

Configure a Wait Until Date Activity

Follow these steps to configure a Wait Until Date activity in Journey Builder.

1. Drag the Wait Until Date activity onto the canvas.
2. Click the activity.
3. To select a date for the wait to end, click the calendar.



Note: You can't select the current date. To set a wait time for the current date, use the Wait by Duration activity.

4. Select the time from the dropdown.
5. Select a time zone from the dropdown.
6. Click **Done**.

SEE ALSO:

[Configure a Wait by Duration Activity](#)

Configure a Wait by Attribute Activity


Follow these steps to configure a Wait by Attribute activity in Journey Builder.



Note: If the attribute is part of contact data, it can be continually updated and appended. Depending on the journey's entry settings, contacts sometimes continue in the journey when new data is added to the data extension. When new data is added, the wait activity's duration doesn't change based on the new data. The wait time is determined at the moment the contact reaches the wait activity. To allow contacts to proceed based only on the attribute's value when the contact entered the journey, use the attribute in journey data.

1. Drag the Wait By Attribute activity onto the canvas.
2. Click the activity.
3. Click **Select Attribute**.
4. To select the attribute, use the search box, or manually navigate to it in the attribute library.
5. Click **Summary**.
6. To set the wait interval, click **Edit**.
7. Set the duration and time zone.
8. To specify an end time, select **Extend wait duration until specific time**. Then choose the time and time zone. The time zone set in User Preferences for the user configuring the activity becomes the default time zone.
9. Click **Summary**.

10. Click Done.

 **Example:** Northern Trail Outfitters is hosting in-store fishing seminars for new anglers. The seminars happen three times per week. A customer can sign up for a seminar up to 5 days in advance. NTO wants to send a confirmation message at the time of registration, then wait until 3 days before the event to send a reminder.

NTO's marketer adds a Wait By Attribute activity to the journey. To select the attribute from the contact as they're admitted into the journey, the marketer goes to Journey Data | Entry: Fishing Seminars and selects SeminarDate. In Wait Interval, the marketer configures the wait to 3 days before. To ensure that messages are sent at a specific time, the marketer sets the end time to 9:00 AM and the time zone to (GMT-05:00) Eastern Time (US & Canada).

SEE ALSO:

[Configure a Wait by Duration Activity](#)

[Configure a Wait Until Date Activity](#)

Configure a Wait Until Chat Response Activity


Follow these steps to configure a Wait Until Chat Response activity in Journey Builder.

 **Note:** A chat message activity must appear in the journey immediately before this wait activity.

1. Drag the Wait Until Date activity onto the canvas.
2. Click the activity.
3. Click **Select**.
4. Choose the channel to use from the dropdown.

 **Important:** Use the same channel used in the chat message activity.

5. Click the Keywords tab.
6. Choose up to 10 keywords.

 **Note:** You can use the same keyword in multiple Wait Until Chat Response activities. A contact can be in multiple Wait Until Chat Response activities that are listening for the same keyword. In this case, if the contact responds with the keyword, the contact moves into the next activity following the wait most recently entered. The contact takes the No Response path for any other Wait Until Chat Response activity.

7. Click the Maximum Duration tab.
8. Set the maximum wait length in the number of days, weeks, or months.
9. Click **Summary**.
10. Click **Done**.

SEE ALSO:


[Wait Activities in Journey Builder](#)

[Marketing Cloud Engagement WhatsApp Messaging](#)

Configure a Wait Until API Event Activity

Follow these steps to configure a Wait Until API Event activity in Journey Builder. This feature uses the same API events configured for journey entry events.

When a journey version containing a Wait Until Event activity goes into a Finishing status, events are ignored. Contacts are held in the Wait Until Event activity and exited at the configured Maximum Wait Duration time.

 **Important:** If you copy an existing journey and change the copied Wait Until API event, this action impacts other journeys or versions.

Each Wait Until activity can't exceed 10 events across all journeys.

1. Drag the Wait Until API Event activity onto the canvas.

The system adds a no-event path to the canvas for contacts who don't respond.

2. Click the wait activity.
3. Select an API event or create one.
4. On the Filter Criteria tab, select the filter criteria.

You can use contact data or journey event data for the filter. Journey event data is related to the API event that you chose rather than the journey's entry source.

5. Click **Done**.
6. On the Maximum Wait Duration tab, specify the maximum time that contacts are held in this activity before taking the no-event path.

The minimum wait time is one day.

7. Click **Summary** and review your settings.

8. Click **Done**.

Configure the no-event path to reengage customers or have them exit the journey.

SEE ALSO:

[Create a Filter](#)

[Journey and Contact Data](#)


[Admit Contacts Via an API](#)

[API Event Entry Source Use Case](#)

Configure a Wait Until Push Event Activity

Orchestrate a journey and react in real time based on whether the contact opens a push notification within a certain period. If the engagement doesn't occur within the predefined time, you can send the contact on an alternate path.

1. Create a push notification in Journey Builder, or configure an existing Content Builder push notification.
2. Drag the **Wait Until Push Event** activity onto the journey canvas immediately after your configured Push Notification activity.
3. Click the **Wait Until Push Event** activity.
4. Click **Edit** in the Maximum Wait Duration tab.
5. Select your duration.


 **Note:** Select a wait duration of up to 7 days or 168 hours. If the engagement event doesn't occur within this period, the contact follows the No Event path.

6. To review your configuration, click **Summary**.
7. Click **Done**.
8. Configure the rest of your journey, and then click **Activate**.

Configure a Wait Until In-App Engagement Activity

Orchestrate a journey and react in real time based on whether the contact interacts with an in-app message within a certain period. If the engagement doesn't occur within the predefined time, you can send the contact on an alternate path.

1. Create a push notification in Journey Builder, or configure an existing Content Builder In-App Message.
2. Drag the **Wait Until In-App Engagement** activity onto the journey canvas immediately after your configured In-App Message activity.
3. Click the **Wait Until In-App Message Engagement** activity.
4. Select one of these engagement types to listen for.
 - Display
 - Dismiss
 - Button Click
5. Click **Edit** in the Maximum Wait Duration tab.
6. Select your duration.


 **Note:** Select a wait duration of up to 7 days or 168 hours. If the engagement event doesn't occur within this period, the contact follows the No Event path.

7. To review your configuration, click **Summary**.
8. Click **Done**.
9. Configure the rest of your journey, and then click **Activate**.


Journey Builder Split and Join Activities

Journey Builder's split activities allow you to customize a contact's path through a journey. The join activity allows you to bring contacts from two or more paths into a single path.

Engagement Split: Determines a contact's journey path based on their interaction with your message, such as opens or clicks.

 **Example:** A marketer at Northern Trust Outfitters (NTO) wants to send a holiday coupon offer message to NTO customers. The marketer intends to send an email message when customers enter the journey and measure engagement. Then the marketer wants to send another email to customers who don't open the first one. To ensure that all customers in the journey get the message, the marketer uses an engagement split activity.

Decision Split: Determines a contact's journey path based on their data attributes. For instance, to customize the experience for silver, gold, and platinum-level customers, you can use a decision split.

 **Example:** A marketer for a healthcare provider prepares a journey for its patients in three different US states. The healthcare provider sends different messages to patients depending on their state of residence. The healthcare provider uses a data extension that contains user information for all users in the tri-state area as its entry source. The marketer creates a separate data extension called StateOfResidence that includes only the contact ID and state of residence for each contact.

Random Split: Selects the journey path for each contact randomly. You determine the percentage of contacts assigned to each path.



Example: A regional grocer wants to encourage more customers to subscribe to their emails advertising their weekly specials. As an incentive, their marketer creates a campaign to send \$10 off certificates to 20% of new subscribers during the month of June. They create two versions of their subscription confirmation message; one with the certificate and one without. Then they create a journey that includes a random split. They configure the split so that 80% of contacts receive the confirmation messages without a certificate and 20% receive the certificate.

Einstein Scoring Split: Customize the contact's journey based on specific engagement levels or personas. For more information, see the Einstein Engagement Scoring Personas help page.

Einstein Frequency Split: Segments contacts automatically, then sends each contact on a split path based on the engagement frequency that's individualized for them.

Join Activity: Merge contacts from two or more paths into a single path.

[Configure an Engagement Split](#)

The Journey Builder Engagement Split activity sends contacts down a Yes or No path based on whether they open the email or click a link or if the email bounces.

[Configure a Decision Split](#)

The Decision Split activity in Journey Builder evaluates contact journey data, then sends each contact down a path based on the filter criteria you set. The paths in a decision split are evaluated in succession from top to bottom. Contacts who meet more than one set of criteria for a path follow the path they qualify for first. Contacts that don't meet conditions to follow one of the paths you configure follow the Remainder path.

[Configure a Random Split](#)

Journey Builder's Random Split activity divides contacts in the journey into random groups. Contacts are grouped in up to 10 configurable paths that you create. As each contact reaches the activity, the contact is assigned a path at random based on the distribution that you select.

[Configure Einstein Scoring Splits](#)

Use the Einstein Scoring Split activity in Journey Builder to segment customers into logical split paths according to prebuilt Einstein personas. Each persona is built on engagement score segments.

[Configure a Join Activity](#)

Use a Journey Builder Join activity to bring contacts from two or more paths into a single path.

[Configure a Frequency Split](#)

Journey Builder's Frequency Split activity sends each contact down a path based on their individual engagement frequency. Real-time engagement analysis enables Einstein to automatically segment contacts, even in a running journey.

SEE ALSO:


[Einstein Engagement Scoring Personas](#)

Configure an Engagement Split

The Journey Builder Engagement Split activity sends contacts down a Yes or No path based on whether they open the email or click a link or if the email bounces.

To use an Engagement Split, enable the tracking feature for your email message. At least one message activity must occur before an Engagement Split. To allow the system time to track engagement for all preceding messages, a wait activity must occur between the last message and the Engagement Split. Add at least a 1-hour wait between the message activity and the Engagement Split to allow enough time for your subscribers to engage with the message.

The term “open” refers to when a subscriber clicks a link in an email. If a subscriber has images disabled in their inbox, opens related to that image aren’t recorded. If the subscriber clicks a link in the same message, it’s counted as an open.

1. Drag the engagement split activity onto the canvas.
At least one email activity must precede the split.
2. Click the activity.
3. To configure the engagement split, select an email message to monitor.
Journey Builder lists all applicable messages in activities that come before the engagement split in the journey.
4. Click **Message Metrics**.
5. To send contacts down the Yes branch, choose the criteria.
The criteria are used to track opens and clicks for the email.
6. If you select **Links**, select or enter the URLs that you want the Engagement Split to monitor. A URL is listed one time, even if you add it multiple times. You can’t use Mailto URLs, URLs with query parameters, and URLs with fragments (using the # character). Enter the full URL including https. You can monitor links that include unsubscribe or update profile links.
7. Click **Summary**.
8. Click **Done**.
9. To view Yes and No paths, hover over the path beneath the configured activity.
 **Tip:** After configuration, you can hover over the activity to view details.

SEE ALSO:




[Get Started with Content Builder](#)


Configure a Decision Split


The Decision Split activity in Journey Builder evaluates contact journey data, then sends each contact down a path based on the filter criteria you set. The paths in a decision split are evaluated in succession from top to bottom. Contacts who meet more than one set of criteria for a path follow the path they qualify for first. Contacts that don’t meet conditions to follow one of the paths you configure follow the Remainder path.

You can use either a sendable or non-sendable data extension in a Decision Split activity. For more information, see [Connect the Data Extension for a Decision Split](#).


 **Tip:** To help you decide where and how to store data to use in decision splits, see [Journey and Contact Data](#).

1. Drag the Decision Split activity onto the canvas.
2. To enter a name, click .
 **Tip:** We recommend that you use a name that describes its purpose.
3. Click the activity.
4. To configure the first path, click **Edit**.
5. Select **Contact Data** or **Journey Data**.
6. To configure a filter, click  to narrow the attribute selection.

7. Drag the attributes to use into the filter.
8. To set the filter criteria, click  next to an attribute.
9. Click **Done**.
10. After you set all filter criteria, click **Summary**.
11. To configure more paths, click **Add Path**, and repeat steps 4 through 10.

 **Note:** You can create up to 20 paths.

12. Click **Done**.
13. Configure the remaining activities for each path.

 **Example:** A marketer sets up a decision split to divide Active Subscribers, Lapsed Subscribers, and Subscribers with an Abandoned Cart Transaction. The goal of the split is to separate customers and subscribers who are actively engaged with the brand from the customers who aren't. Apart from these two cohorts, the marketer wants to send messages to any customer with an Abandoned Cart transaction. This setup evaluates each contact for active subscribers first, lapsed subscribers second, and then for any subscriber who abandoned a purchase.

[Connect a Data Extension for Decision Splits](#)

To use data that isn't in the entry source or that changes in a Decision Split in Journey Builder, follow these steps to link a data extension in Contact Builder.

[Use Restricted Values](#)

To control the values available to select in the filter expression, an admin can use restricted values. Users who build the filter expression can choose from designated values only, not a default or blank value. In practice, restricted values are created in Contact Builder. Then when a user creates a journey, the dropdown menu used to set the attribute value displays a list of preselected values only.

[Copy a Decision Split Path](#)

To save time, you can copy decision split paths in Journey Builder. After you make a copy, edit the attribute values to make it distinct from other paths. You can't activate a journey when two decision split paths are configured identically.

[Reorder Decision Split Paths](#)

Journey Builder evaluates contacts that reach a Decision Split activity against the split's filter criteria in succession from top to bottom on the canvas. You can change the order of the paths.

SEE ALSO:

[Linked Data Extensions in Journey Builder](#)

[Journey and Contact Data](#)

[Connect a Data Extension for Decision Splits](#)

Connect a Data Extension for Decision Splits

To use data that isn't in the entry source or that changes in a Decision Split in Journey Builder, follow these steps to link a data extension in Contact Builder.

To learn more about how and when to use contact or journey data in a Decision Split, see [Journey and Contact Data in Decision Splits](#).

1. Navigate to Contact Builder.
2. On the Data Designer tab, click **Create Attribute Group**.
3. Name the group *Prioritization*.

4. Click **Link Data Extensions**.
5. Select the data extension you want to link.
6. Set the data extension to match your data requirements. For example, link Contact Key from "Customer Data" to "Subscriberkey" from your data extension.
7. Click **Journey Builder Contacts**.
8. Set the data relationship to match your data requirements.
For more information, see [Use Linked Data Extensions in Journey Builder](#).
9. Save your changes.
10. Click the link tab next to the new attribute set.
11. In the Select Data Extension section, navigate to Journey Builder Prioritization.
12. Click **Journey Builder Prioritization**.
13. In the Journey Builder Contacts section, click **SubscriberKey**.
14. In the Journey Builder Prioritization section, click **SubscriberKey**.
15. Save your work.

[Prioritization Example: Update Entry Event](#)

In this decision split prioritization example, Journey Builder updates the entry events for a post-purchase confirmation and follow-up journey.

[Prioritization Example: Update the Abandoned Cart Journey](#)

In this decision split prioritization example, Journey Builder updates the entry events for an abandoned cart journey.

[Prioritization Example: Update the Re-engagement Journey](#)

In this decision split prioritization example, Journey Builder updates the entry events for a re-engagement journey.

SEE ALSO:

[Journey and Contact Data](#)

[Configure a Decision Split](#)

Prioritization Example: Update Entry Event

In this decision split prioritization example, Journey Builder updates the entry events for a post-purchase confirmation and follow-up journey.

The marketing manager at Northern Trail Outfitters follows these steps to configure a prioritized entry event for a post-purchase confirmation and follow-up journey.

1. In Journey Builder, open the journey named Post Purchase Confirmation and Follow-Up.
2. In the running version, click **New Draft**.
3. Click **Event**.
4. Click **Back**.
5. Under Data Extensions, select **Journey Builder Prioritization**, then click **Next**.
6. In the Attributes pane, navigate to Journey Builder Prioritization.
7. Find the PostPurchase attribute.

8. Confirm that the expression reads PostPurchase is True, then click **Next**.
9. Schedule the event, then click **Next**.
10. Review the configuration settings and click **Done**.
11. Save your changes.
12. Click **Activate**.

Prioritization Example: Update the Abandoned Cart Journey

In this decision split prioritization example, Journey Builder updates the entry events for an abandoned cart journey.

The marketing manager at Northern Trail Outfitters follows these steps to configure a prioritized entry event for an abandoned cart journey.

1. In Journey Builder, open the journey named Abandoned Cart.
2. In the running version, click **New Draft**.
3. Hover over the entry event.
4. Click **Remove Entry**.
5. Click **Delete**.
6. Click **Configure Event**.
7. Click **New Event**.
8. Select **Contact Event** then click **Next**.
9. Under Data Extensions, select Journey Builder Prioritization, then click **Next**.
10. In the Attributes pane, navigate to Journey Builder Prioritization.
11. Find the AbandonedCart attribute.
12. Confirm that the expression reads AbandonedCart is True and click **Next**.
13. Schedule the event, then click **Next**.
14. Review the configuration settings.
15. Click **Done**, then Save your changes.
16. Click **Activate**.

Prioritization Example: Update the Re-engagement Journey

In this decision split prioritization example, Journey Builder updates the entry events for a re-engagement journey.


The marketing manager at Northern Trails Outfitters follows these steps to configure a prioritized entry event for a re-engagement journey.

1. In Journey Builder, open the journey named Re-Engagement.
2. In the running version, click **New Draft**.
3. Hover over the entry event.
4. Click **Remove Entry**.
5. Click **Delete**.
6. Click **Configure Event**.
7. Click **Event**.

8. Select **Contact Event**, then click **Next**.
9. Under Data Extensions, select Journey Builder Prioritization, then click **Next**.
10. In the Attributes pane, navigate to Journey Builder Prioritization.
11. Find the Re-engagement attribute.
12. Configure the expression to read Re-engagement is True, then click **Next**.
13. Schedule the event as desired, then click **Next**.
14. Review the configuration settings, then click **Done**.
15. Save your changes.
16. Click **Activate**.

Use Restricted Values

To control the values available to select in the filter expression, an admin can use restricted values. Users who build the filter expression can choose from designated values only, not a default or blank value. In practice, restricted values are created in Contact Builder. Then when a user creates a journey, the dropdown menu used to set the attribute value displays a list of preselected values only.

 **Note:** Contact Builder doesn't limit the data that is accepted into data extensions according to data type. Not all records in a data extension meet a data value condition set when setting restricted values. Contacts that don't meet restricted values conditions are sent down the Remainder path.

SEE ALSO:


- [Get Started with Contact Builder](#)
- [Data Designer in Contact Builder](#)
- [Create an Attribute](#)

Copy a Decision Split Path

To save time, you can copy decision split paths in Journey Builder. After you make a copy, edit the attribute values to make it distinct from other paths. You can't activate a journey when two decision split paths are configured identically.

1. Click the activity on the canvas.
2. Click **Edit**.
3. To copy a path, click **Copy**.
4. To make it distinct from other paths, change the configuration of the path's activities.
5. Click **Done**.


 **Note:** The Done button is disabled until all paths in the split are unique.


 **Example:** A marketer wants to send targeted communications to military service members based on their branch affiliation. The marketer uses a data extension that includes a contact attribute that contains each branch of the military. When configuring the split, the marketer drags the Military Branches attribute into the filter expression. In this example, the marketer standardized the list of values available in the dropdown menu by configuring restricted values. So the marketer selects Army and configures the rest of the path. After configuring the first path, the marketer follows the steps to make a copy and configure it for the Navy. Then the marketer repeats the process to configure paths for the other branches of the military.

Reorder Decision Split Paths

Journey Builder evaluates contacts that reach a Decision Split activity against the split's filter criteria in succession from top to bottom on the canvas. You can change the order of the paths.

1. Click the split activity.
2. Click **Edit**.
3. To change the order of a Decision Split's paths, click a path, and drag it into the desired position in the succession.

 **Note:** If the path you moved was named, it keeps its name. If the path you moved wasn't named, it takes the name of the path it replaced.


 **Example:** After configuring a Decision Split, a marketer realizes that subscribers who abandoned a purchase could also meet the criteria for Active Subscribers or Lapsed Subscribers. The current configuration would separate these subscribers regardless of whether they meet the criteria for Abandoned Cart. The marketer decides to move the Abandoned Cart path to the first position in the split. The marketer follows these steps to reorganize the split. As a result, contacts are evaluated according to the value in the Abandoned Cart attribute first, then for Active Subscriber and Lapsed Subscriber attribute values. This evaluation lets the marketer send targeted communication to subscribers who abandoned a purchase regardless of the subscribers' status.

Configure a Random Split

Journey Builder's Random Split activity divides contacts in the journey into random groups. Contacts are grouped in up to 10 configurable paths that you create. As each contact reaches the activity, the contact is assigned a path at random based on the distribution that you select.

Each path is populated randomly, so its distribution of contacts often doesn't match the configured percentage exactly. As contacts proceed through the activity, each path's population gradually comes closer to its configured distribution percentage.

1. Drag the random split activity onto the journey canvas.
2. Add up to 10 paths.
By default, the activity shows two paths.
3. Use the slider to set the contact distribution percentage for each path.
To ensure that the sum of all paths equals 100, Journey Builder adjusts the values that you enter.
4. Click **Done**.

 **Example:** To test new creative content in Northern Trail Outfitters' (NTO) email messaging, a marketer adds a random split activity with three paths to a journey. The marketer sets up two paths to use as test groups and sets distribution for the first path at 20%. This path includes an email activity with the new creative content. The remaining 80% of contacts follow the second path, which includes an email activity with existing content.

When a contact reaches the random split activity, that contact has a 20% chance of being assigned to one of the 10% paths. The same contact has an 80% chance of following the remainder path. After numerous contacts enter the journey, the marketer uses journey analytics to understand which path contains creative content that drives greater sales.

Configure Einstein Scoring Splits

Use the Einstein Scoring Split activity in Journey Builder to segment customers into logical split paths according to prebuilt Einstein personas. Each persona is built on engagement score segments.

When you choose not to add all paths, Journey Builder adds a remainder path for contacts that don't belong in the split paths you add. Rename the activity and change the path types as desired.


1. Drag the Scoring Split activity onto the canvas.
2. Click the activity.
3. Select a channel according to the type of message activity that you plan to use.
4. Select a split option.
5. Click **Next**.
6. Click **Add Path** for each segment you want to include as a path in the journey. To remove a path that you added, click **Delete**.


3

Configure a Join Activity

Use a Journey Builder Join activity to bring contacts from two or more paths into a single path.

1. Drag the activity endpoint to the point on the destination path where contacts join it.
To indicate where path contacts come from and which path they're joining, the join activity is represented by its original path and destination path.

 **Note:** Multiple join activity endpoints can be dragged to the same point on a destination path. Or drag the join activity endpoint to a different point on this or another destination path according to the journey's purpose.

2. To name the activity, hover over it, and enter a name.
3. To remove a single join activity from a destination path, hover over the activity on its original path, and click .
4. Hover over the point on the destination path where multiple join activities meet to remove multiple joins.
5. Select the paths you want to disconnect and confirm.
6. Hover over the point on the destination path where multiple joins meet. Then click **Delete**.

Configure a Frequency Split

Journey Builder's Frequency Split activity sends each contact down a path based on their individual engagement frequency. Real-time engagement analysis enables Einstein to automatically segment contacts, even in a running journey.

When a contact lacks enough engagement history for Einstein's model, the contact follows the On Target path.

A remainder path is included if you don't add all paths. When you add the On Target, Undersaturated, and Saturated paths, there's no remainder path. When you add all paths, there's no remainder path.

1. Drag the Frequency Split activity to a place on the canvas where you want Einstein to segment your audience.
2. Click the activity.
3. Select the channel you're sending from.
 - a. When you select a mobile channel, select the app that you're sending from.
4. To configure the split, click **Add Path** next to each of the segment paths to include.
 - a. When you add the Almost Saturated path, select the appropriate saturation limit that indicates which contacts on this path reached saturation.
5. Click **Done**.

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To view your configured paths, hover over the split activity or any path. To update the activity's configuration, stop the journey, then add or remove a path. When you remove a path, all activities on the path are removed, too.

[View Frequency Split Analytics](#)

Einstein Engagement Frequency's activity-level analytics in Journey Builder show how many contacts were evaluated after reaching the activity, and which paths those contacts took in the journey.

SEE ALSO:

[Einstein Engagement Frequency](#)

[The Einstein Engagement Frequency Dashboard](#)

View Frequency Split Analytics

Einstein Engagement Frequency's activity-level analytics in Journey Builder show how many contacts were evaluated after reaching the activity, and which paths those contacts took in the journey.

When one or more contacts have insufficient data for Einstein to assign a frequency score, Einstein assigns the score according to global model data. When a contact is assigned a score according to global model data, a No appears in the Personalized column. In this case, activity-level analytics sometimes don't match analytics on the Einstein Engagement Frequency dashboard.

When the Frequency Split is used in a Single Send Journey, only two paths appear.

1. In Journey Builder, open an active journey, and click a Frequency Split activity. The analytics drawer opens.
2. To see a list of all contacts that reached the activity, when, and which contacts were assigned a personalized path, click **View Details**.
3. To access a summary view, select **Activity Summary**.

SEE ALSO:

[The Einstein Engagement Frequency Dashboard](#)

Einstein Send Time Optimization for Journey Builder

Einstein Send Time Optimization (STO) uses machine learning and 90 days of email or push notification engagement data to determine the best time within the next 24 hours to send a message to each contact. Include the Einstein STO activity in a journey immediately before an email or push notification activity to reach contacts when they're most likely to engage. Or preview Einstein's optimal send times for a data extension before you send. To use this activity, activate Einstein Send Time Optimization for your business unit.

Einstein Send Time Optimization helps marketers increase engagement with email or mobile messages. The Einstein STO Journey Builder activity can send email or push notifications to each contact at the time when that contact is most likely to engage with the message.

EDITIONS

Available to customers with Marketing Cloud Engagement Einstein terms for **Corporate, Enterprise, or Pro-edition** accounts with the Journey Builder add-on.

How Send Time Optimization Works

Einstein gathers data for approximately 20 factors. Factors include engagement metrics such as the number of messages sent to and opened by a contact and the day of the week the message is opened. Then, using machine learning, Einstein assigns a weight to each factor according to that factor's influence on predicting future engagement behavior. Einstein analyzes this data and assigns a likelihood

score to each of the 168 hours in a week for each contact. Send Time Optimization uses this information to recommend the send times that lead to increased engagement.

With Einstein Send Time Optimization you can preview the best send times for a data extension that you plan to use for sending. Einstein analyzes a sample of the total number of contacts to identify the best send times for those contacts. To preview send times for a data extension navigate to the Einstein Overview.

SEE ALSO:

[Activate Einstein Send Time Optimization](#)

[Einstein Send Time Optimization Dashboard](#)

Einstein Send Time Optimization Use Cases

Focus on increasing overall engagement, measure the impact of send time optimization, and optimize send times when there's a wait activity between messages.

Optimize the Send Time of Each Message in a Journey

To increase overall engagement for a journey, add the Einstein Send Time Optimization (STO) activity before each email and push notification activity. The STO activity assigns the best hour to send based on individualized analysis. Each message is sent to each contact in the journey at the hour within the next 24 hours that when the contact is most likely to engage with it.

For example, a marketer named Alex sets up a journey with one email message containing a coupon offer for new customers. When customers make an online purchase and opt in to receive offers from Alex's company, completing the transaction enters each customer in Alex's journey.

The first customer enters the journey Monday evening at 8:34 PM after purchasing and opting in. Einstein Send Time Optimization's analysis determines that the customer is most likely to engage with email messages from 4:00–4:59 PM. So, the journey sends this customer Alex's coupon offer email at 4:00 PM on Tuesday, the day after the customer opted in.

A second customer enters the journey at 10:07 PM on Monday night. Einstein STO determines that the customer is most likely to engage with email messages from 10:00–10:59 PM. Because the customer reached the activity during the same hour Einstein identifies as best for sending, Einstein chooses the next best hour to send to this customer. STO analysis shows the next best hour as 7:00 AM. Thus, the journey sends the coupon to this customer at 7:00 AM on Tuesday morning.

A third customer enters the journey at 10:12 PM on Monday night. Einstein STO analysis shows that this customer is most likely to engage with push notifications from 11:00–11:59 PM. So, the journey sends the coupon offer to this customer via push message at 11:00 PM the same night. Einstein doesn't send the message at 11:12 PM--exactly one hour after the contact entered the journey-- because Einstein STO sends always occur at the beginning of the best scoring hour for each customer.

Add a Random Split Activity to Measure Impact

To measure the impact of send time optimization, add the Einstein Send Time Optimization (STO) activity after a random split activity in a journey. Send more contacts down the Einstein-optimized path in your next journey, or in a subsequent version of this journey. For example, the split in a marketer's journey directs half the contacts in the journey to a path where a wait activity precedes an email activity. The split directs the other half to a branch where the Einstein STO activity precedes an email activity. The marketer later checks the engagement rate for each email activity and compares them.

Combine with a Wait Activity

To optimize send times when there's a minimum one-day wait between email messages in a customer journey, combine a wait activity and the Einstein STO activity.

Northern Trails Outfitters (NTO) marketing manager, Lisa, wants to optimize customer engagement for a welcome campaign. After customers subscribe to the NTO newsletter, they receive a series of three emails that set expectations and highlight the benefits of subscribing. Before the second and third messages, Lisa has included a wait activity that instructs the system to wait two days before sending the next message. To ensure that an email is sent to each subscriber when that subscriber is most likely to engage with it, Lisa adds the Einstein STO activity between the wait activity and email activity for the second and third messages.


A customer named Alice and a customer named Bjorn both subscribe to the newsletter on a Tuesday. They each receive the initial welcome message within a few minutes. Remember, the journey doesn't include an Einstein STO activity before this message. So the message sends when Alice and Bjorn reach the first email activity in the journey. The second message is scheduled to send on Thursday. Based on Alice's individual subscriber engagement behavior over the past 90 days, the journey sends the second message to Alice at 11:00 AM. Based on Bjorn's engagement history, the journey sends the message to Bjorn at 7:00 PM.

Use the Einstein Send Time Optimization Activity

Add the Einstein Send Time Optimization (STO) activity immediately before an email or push notification activity in a customer journey to maximize the chance that recipients engage with your message. When a contact reaches the activity, Einstein finds the best upcoming hour to send, starting at the beginning of the next hour.

 **Tip:** Add an Einstein Send Time Optimization activity before each email or push notification activity.

1. Drag the Einstein STO activity to a position immediately before the email or push notification activity you want to optimize.
2. Click the activity.
3. Select the period that Einstein optimizes send times for.
 - a. To use a custom time frame, first click **Next 12 hours**, **Next 24 hours**, **Next 48 hours**, **Next 72 hours**, or **Next 7 days**.
 - b. Click **Custom**.
 - c. Drag the slider to set the custom time frame, which is shown on the right end of the slider.

 **Note:** When a contact reaches the activity, the contact is eligible to be sent your message beginning in the first minute of the next full hour. Messages are sent only at the beginning of the best hour to send, even if a contact reaches the **Einstein Send Time Optimization** activity later during the hour.

4. To include a control path to test your send time optimization against, use the Random Send Option.
5. Click **Done**.

Create a Control Path with Random Send

Find out how Einstein Send Time Optimization (STO) performs when you compare the engagement rates of random sends to optimized sends. Use the Random Send option to send to some contacts at randomized times. To use Random Send, enable Einstein STO first.

1. Drag the Einstein STO activity to a position directly before the message activity you want to optimize.

 **Note:** The Einstein STO activity doesn't support the SMS activity.

2. Click the activity.
3. After configuring the sending time frame, select **Randomize send times for contacts on this path**.

View Einstein STO Activity Analytics

Get deeper insight into which Marketing Cloud Engagement contacts have exited and which contacts are waiting to exit, including their send time personalization status. Einstein Send Time Optimization (STO) activity-level analytics show how many contacts have entered, are waiting in, or have exited the activity in close to real time.

1. In Journey Builder, open an active journey, and click an Einstein STO activity.
The analytics drawer opens.
2. To see a list of all contacts who have entered, are waiting in, or have exited that you can filter, click **View Details**.
3. To access a summary view you can filter, select **Activity Summary**.

SEE ALSO:

[Einstein Send Time Optimization Dashboard](#)

[Einstein Send Time Optimization Dashboard](#)

Use the Ad Audience Activity

Use the Ad Audience activity to build an audience in Journey Builder. To use this activity, set up Facebook Twitter, Google Adwords, or LinkedIn as destinations in Marketing Cloud Engagement Advertising Audiences Administration. This activity is available only in accounts provisioned to use Advertising Audiences.

Journeys that use the Ad Audience activity must include email addresses as the attribute in the Entry Event. Contacts in a journey that don't include an email address can't populate an Advertising Audience. Refresh Rate determines how often the ad audience pulls in data from Journey Builder. Refresh Rate is set to refresh as soon as possible according to how your account is provisioned.

1. Drag the Ad Audience activity onto the canvas.
2. Enter a name and description.
3. Select an advertising network and account to target.



Tip: Use this advertising account only with the advertising network that you select here.

SEE ALSO:

[Get Started with Advertising Audiences](#)

[Add Audience Activity to Journeys](#)

Advertising Campaign Activity

Create an Advertising Audience and a simple Facebook advertising campaign without leaving Journey Builder. The Advertising Campaign activity creates an advertising campaign and posts your advertising content on social media. As the journey continues, customers populate the advertising campaign and see your advertisement.

The activity includes a setup assistant to help you link Marketing Cloud Advertising to Journey Builder. You can also set a retention period for campaign members to prevent oversaturating social media feeds with your advertisement.

The Advertising Campaigns activity supports only Facebook. The Advertising Audience activity supports multiple social networks.

Considerations

- To access this activity, enable Marketing Cloud Advertising and Journey Builder in your Marketing Cloud Engagement account. Contact your account executive if your account doesn't include access to this feature.
- How often your advertisement displays on social media sites depends on many factors, such as your campaign budget and the size of your audience.
- Campaigns built using this activity optimize toward daily unique reach.
- Edit the activity at any time before journey activation. The campaign doesn't begin until the journey is active.
- To edit the activity while a journey is in progress, create a journey version. You can adjust settings such as campaign name and budget, but you can't modify campaign creative in Journey Builder.
- To increase reach for smaller audiences, a larger advertising spend can be necessary. When there are more people in an audience, there's a greater chance that the advertisement is delivered to audience members in their newsfeed.

SEE ALSO:


[Create a Journey Builder Advertising Campaign](#)

[Add Audience Activity to Journeys](#)


Update a Contact

Update or modify a Marketing Cloud Engagement contact record in Journey Builder using the update contact activity.

Use the update contact activity to modify a contact attribute value when a contact reaches this activity in a journey. You choose a sendable data extension and set a static value that overwrites this value for each contact that reaches the activity. Date attributes provide the option to use the current time in Central Standard Time.

 **Note:** If no rows for the associated Contact Key exist, a new row is added. If there are one or more existing rows for the associated Contact Key, existing rows are updated and no new rows are added.

1. Drag the activity onto the canvas.
2. Click the activity.
3. Click **Select Data Extension**.


 **Note:** Selecting the same data extension that the journey's entry source uses isn't recommended.

4. Select the data extension that contains the attribute that the journey modifies.
5. Click **Attribute Value**.
6. Select the attribute to modify.

The data extension's attributes are prepopulated in the dropdown menu.

 **Note:** When a data extension has only a single field that is used as the primary key, you can't modify it.

7. Add the static value or select the date if the attribute is date-based.
 - a. To apply a timestamp at the time each contact reaches the activity, select **Use current time** for date-based attributes.

 **Note:** This activity doesn't observe Daylight Savings Time. Selecting **Use current time** adds the current time in Central Standard Time.

8. Add up to five attributes to update.

9. Click **Summary**.

10. Click **Done**.

[Update Contact Activity Use Cases](#)

Review two common use cases for the Update Contact activity in Journey Builder.

SEE ALSO:

[Contact Builder in Marketing Cloud](#)

Update Contact Activity Use Cases

Review two common use cases for the Update Contact activity in Journey Builder.

NTO Loyalty Level Updates

NTO wants to reward customers who stick with them through the years. To set up a rewards program, NTO gives each customer a loyalty level: bronze, silver, or gold. After each customer's first purchase, their loyalty level attribute is empty. Customers who remain in NTO's rewards program for one year without opting out are automatically upgraded to bronze status using the update contact activity.

To update each customer's loyalty program level, NTO configures their customer journey by placing an update contact activity after a Wait Until Attribute activity. NTO sets the Wait Until Attribute activity to use a Date-Based Attribute and selects the JoinDate attribute. NTO then sets the wait interval as 12 months after each contact's join date.

After setting up the Wait Until Attribute activity, NTO selects the CustomerLoyalty data extension in the update contact activity. NTO selects the Loyalty attribute from the CustomerLoyalty data extension and types in Bronze as the value to add. The Loyalty attribute is thus updated one year after a customer makes a purchase.

Vaccination Status Updates

A healthcare provider tracks each patient's vaccine status for each year. Patients enter a new care journey each year, which kicks off when their first appointment ends. When a patient has their first appointment of the year, the provider typically vaccinates the patient.

As the healthcare provider's marketer builds the annual journey, they choose a data extension that includes information about each patient as their entry source. This data extension is linked to an Appointments data extension that includes a LastAppointment attribute and a VaccinationDate attribute. Patients are admitted to the journey each year. The healthcare provider wants to update the Appointments data extension with vaccination status when each patient's LastAppointment attribute value equals today's date.

To ensure that each patient's vaccination status is kept up to date, the marketer places an update contact activity first in the journey. In the activity, the marketer selects the entry source data extension, then chooses the VaccinationDate attribute. The marketer then sets the value by selecting **Use current time**. As configured, this journey keeps each patient's vaccination status up to date.

Configure the Sitecore Connect for SFMC Activity

Use the Sitecore Connect for SFMC activity to send contact status from Marketing Cloud Engagement to Sitecore as a contact moves through a journey.

1. In the Messages section of a journey sidebar, drag the Sitecore activity onto the canvas.
2. Click the activity.
3. In the Contact State field, enter a state name.
4. If the state is an exit state, select **Contact is exiting the journey**.

5. Click **Save**.
6. To activate the journey, click **Activate**.

Sales and Service Cloud Activities

Use Sales and Service Cloud canvas activities in Journey Builder to create or update object records for connected Marketing Cloud Engagement contacts. You can grant users access to create or edit Sales and Service Cloud activities, except users with the Marketing Cloud Engagement Administrator role.

Sales Cloud activities use Salesforce SOAP API to create, lookup, and update. There are three options when you configure an activity: Create, Simple Update, and Find and Update. A successful create or update stores the generated record ID as output data for the activity that you can access through Journey Data.

Activities are asynchronous. It's possible that an update to Sales Cloud isn't instantaneous depending on the number of updates that you're making. Allow up to 24 hours to process the update. Only failures with UNABLE_TO_LOCK_ROW errors are retried up to 10 times.

Activities use the same version of Salesforce SOAP API as the Marketing Cloud Connector.

When you copy a Sales or Service Cloud activity, you must configure the activity again.

Use activities to perform these actions.

- Create a lead when an Engagement contact enters a journey.
- Update a lead based on engagement within a journey.
- Create a CRM contact record when an Engagement contact reaches the activity.
- Update a CRM contact record with Engagement contact data.
- Update a custom object based on engagement within a journey.
- In some configurations, you can select to email the user who has been assigned to the object.
- Create a task when another object, such as a lead or contact, enters a journey.
- Associate a case or task to an account.
- Update a task based on a contact or lead's response in a journey.
- Update a person or business account.

Sales and Service Cloud Activity Types

Object activity	Creates or updates a standard Salesforce object record, such as a lead, task, or custom object, when a contact in the journey reaches this activity. Use this activity to create or update a standard Salesforce object record, such as a lead or task, or a custom object record.
Campaign Member activity	Creates a connection between campaigns, contacts, and leads, which helps define a relationship to the status within a campaign. Use this activity to track important moments of engagement throughout the journey.
Convert Lead activity	Converts qualified leads from the Sales and Service Cloud into a contact or account. This activity schedules important actions, such as assigning a lead owner, creating an opportunity or task, and changing the lead's conversion status.

Task activity	Creates a task in Sales and Service Cloud for each Engagement contact that reaches this activity. For more information, see Marketing Cloud Connect .
Account activity	Creates or updates an account in Sales and Service Cloud for each contact that reaches this activity. If you have a Person Account, you can create or update both Business and Person Account activities. To learn more about how to configure activities with Person Accounts, see Use Person Accounts with Sales and Service Cloud Activities .
Contact activity	Creates or updates a contact from Sales or Service Cloud using Sales or Service Cloud data brought into a journey or Engagement contact data.
Case activity	Creates a case and associates it to the Sales and Service Cloud contact that matches the Engagement contact's ID. Or create a Sales and Service Cloud contact to relate to the case.
Lead activity	Creates or updates a lead from Sales or Service Cloud using Sales or Service Cloud data brought into a journey or Engagement contact data.
Opportunity activity	Creates an opportunity record in the Sales and Service Cloud. Use Engagement contact attributes to populate the fields in the opportunity record, or populate each record with fixed values you choose.
Legacy activities	These Sales and Service Cloud canvas activities appear in old journeys but are no longer available to use in new journeys.

[Account Activity in Journey Builder](#)

To create or update an account in Sales or Service Cloud based on attribute relationships, use the Account activity in the Marketing Cloud Engagement Journey Builder app. Populate Sales or Service Cloud account fields with Marketing Cloud Engagement attributes, other values from the journey, or with fixed values you designate.

[Campaign Member Activity in Journey Builder](#)

The Campaign Member activity in Journey Builder provides a connection between campaigns, contacts, and leads. This connection helps define a relationship between the contact or lead and the status within a campaign. Use the Campaign Member activity to track important moments of engagement throughout the journey.

[Contact Activity in Journey Builder](#)

Use the Contact Activity in Journey Builder to create or update a Sales and Service Cloud contact based on attribute relationships. Or populate Sales and Service Cloud contacts with values from Marketing Cloud Engagement attributes.

[Convert Lead Activity](#)

Use the Convert Lead activity in Journey Builder to convert qualified leads from Sales and Service Cloud into a contact or an account. Assign a lead owner and notify that person via email. Create an opportunity and task.

[Object Activity in Journey Builder](#)

Use the Object activity in Journey Builder to create or update a Sales or Service Cloud record in an object. You can also use this activity to create or update a custom object.

[Task Activity](#)

Use the Task activity to create a Sales or Service Cloud task with pre-populated field values. Connect Journey Builder and contacts, leads, and tasks. Create or update a Sales or Service Cloud task for a contact or lead that reaches this journey activity. The activity assigns tasks to the contact or lead owner, Salesforce System user, or a custom-defined user.

[Sales and Service Cloud Legacy Activities in Journey Builder](#)

These Sales and Service Cloud canvas activities appear in old journeys but are no longer available as options for new journey activities.

[Best Practices for Integration Activity Fields](#)

Sales and Service Cloud activities follow a similar configuration workflow. Consider these tips during configuration.

[Sales and Service Cloud Activity Field Validation and Error Handling](#)

Review the requirements for Sales and Service Cloud activity field values. Incorrect field values can cause activity errors in Journey Builder.

[Journey Builder Sales and Service Cloud Best Practices](#)

Review these best practices to prevent a Sales or Service Cloud activity from negatively impacting your account. Adhering to these practices can lessen impact on other journeys in your enterprise and improve processing times.

SEE ALSO:

[Journey Builder Sales and Service Cloud Best Practices](#)

[Marketing Cloud Connect](#)

Account Activity in Journey Builder

To create or update an account in Sales or Service Cloud based on attribute relationships, use the Account activity in the Marketing Cloud Engagement Journey Builder app. Populate Sales or Service Cloud account fields with Marketing Cloud Engagement attributes, other values from the journey, or with fixed values you designate.

[Create an Account Activity in Journey Builder](#)

Create a Sales or Service Cloud account activity in Marketing Cloud Engagement.

[Update an Account Activity in Journey Builder](#)

You can update a Sales or Service Cloud account through a Journey Builder activity in Marketing Cloud Engagement.

Create an Account Activity in Journey Builder

Create a Sales or Service Cloud account activity in Marketing Cloud Engagement.

1. In Journey Builder, drag the Object activity onto the canvas and click **Configure**.
2. Select **Create New**.
3. Select fields from the Account object and assign them values.
Use static values, Marketing Cloud Engagement attributes, or fields from other Sales or Service Cloud objects.
4. Enter a name, and save your changes.

Update an Account Activity in Journey Builder

You can update a Sales or Service Cloud account through a Journey Builder activity in Marketing Cloud Engagement.

1. Select the object to update.

2. If the journey data includes the object record that you're updating, click **Simple Update**, or click **Find and Update**.
Find and Update requires that you have an Account ID in your journey or a Marketing Cloud attribute. You can also choose what happens when multiple matching records or no records are found. Use the Simple Update option when there already is an Account object in the journey.
3. Map fields using a static value, Marketing Cloud Engagement attributes, or fields from other Sales or Service Cloud objects in the journey.
4. (Optional) Enter an optional name.
5. Save your work.

Campaign Member Activity in Journey Builder

The Campaign Member activity in Journey Builder provides a connection between campaigns, contacts, and leads. This connection helps define a relationship between the contact or lead and the status within a campaign. Use the Campaign Member activity to track important moments of engagement throughout the journey.

For example, a welcome campaign for a new customer uses the Campaign Member activity to update status on the contact record based on engagement splits. These splits include whether the contact clicked certain links or made a purchase.

[Create a Campaign Member Activity in Journey Builder](#)

Configure a campaign member activity in the Marketing Cloud Engagement Journey Builder app.

Create a Campaign Member Activity in Journey Builder

Configure a campaign member activity in the Marketing Cloud Engagement Journey Builder app.

To create a record using the Campaign Member activity, a Campaign ID and either a Contact ID or a Lead ID are required.

1. Drag the Campaign Member activity onto the canvas.
2. Click **Create New**.
3. Select and configure the Marketing Cloud Engagement attributes or Sales or Service Cloud fields to update.
4. Enter a name and save.

When mapping fields, you can't edit the optional Status field until you select a Campaign ID because different campaigns can have different statuses.

Contact Activity in Journey Builder

Use the Contact Activity in Journey Builder to create or update a Sales and Service Cloud contact based on attribute relationships. Or populate Sales and Service Cloud contacts with values from Marketing Cloud Engagement attributes.

[Create a Contact Activity in Journey Builder](#)

Create a Sales or Service Cloud contact through the Contact Activity in Journey Builder.

[Update a Contact Activity in Journey Builder](#)

Modify a Sales and Service Cloud Contact activity in Journey Builder.

Create a Contact Activity in Journey Builder

Create a Sales or Service Cloud contact through the Contact Activity in Journey Builder.

1. Drag the Contact activity onto the canvas, and click **Configure**.
2. Click **Create New**.
3. Map the contact object fields using a static value, Marketing Cloud Engagement attributes, or fields from other Sales or Service Cloud objects in the journey.
Some fields are required.
4. Optionally, enter a name, and then save.

Update a Contact Activity in Journey Builder

Modify a Sales and Service Cloud Contact activity in Journey Builder.

Make contact information available to Marketing Cloud Engagement or the current journey so you can update it. You can then use that information in the Account Activity to find the correct object and make updates to it.

1. Open the journey and select the contact.
2. Click **Find and Update**, or click **Simple Update** when journey data includes the object record to update.
Find and Update requires that you have an Account ID in your journey or a Marketing Cloud Engagement attribute. You can also choose what happens when multiple matching records are found or when no records are found. You can use the Simple Update option when there's already an Account object in the journey.
3. Map the object fields using a static value, Marketing Cloud Engagement attributes, or fields from other Sales and Service Cloud objects in the journey.
4. Optionally, enter a name, and then save.

Convert Lead Activity

Use the Convert Lead activity in Journey Builder to convert qualified leads from Sales and Service Cloud into a contact or an account. Assign a lead owner and notify that person via email. Create an opportunity and task.

Use this activity to convert only qualified leads. Journey Builder doesn't verify that leads are qualified before conversion.

[Create a Convert Lead Activity](#)

Configure a Convert Lead activity in Journey Builder.

SEE ALSO:


[Lead Conversion Field Mapping](#)

[Considerations for Converting Leads](#)

Create a Convert Lead Activity

Configure a Convert Lead activity in Journey Builder.

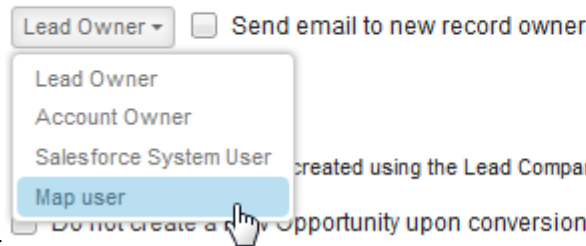
1. Drag the Convert Lead activity onto the canvas.
2. .
Hover over the activity and click **Configure**.

 **Note:** When a Marketing Cloud Engagement contact enters the journey, Journey Builder searches the Sales and Service Cloud to find a matching lead ID. If no lead ID is found, the lead doesn't convert.

3. Select the owner of this lead record. To tell Journey Builder where to find the record owner, select **Map user**. Use the mapper to

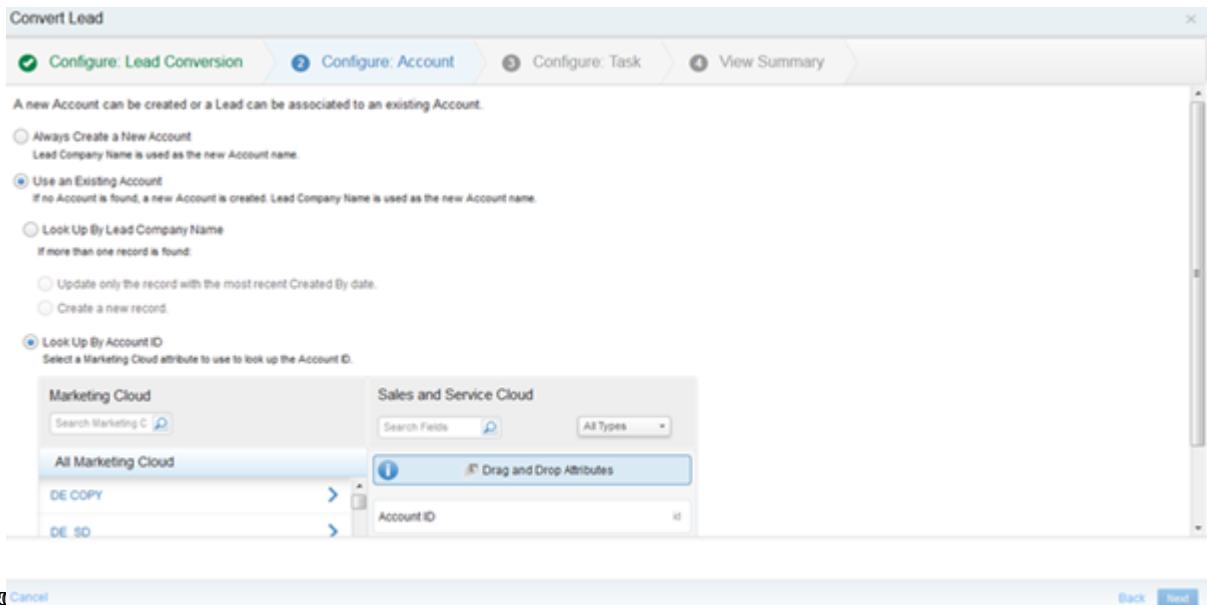
RECORD OWNER

Select the record owner



locate the user.

4. Enter an opportunity name.
5. Set the convert status of each lead record that Journey Builder converts.
Use this activity to convert only qualified leads. Journey Builder doesn't verify that leads are qualified before conversion.
6. To create an account for each converted lead, select **Always Create a New Account**. The Lead Company Name becomes the new account name.
7. To associate the lead to an existing account, select **Use an Existing Account**
 - When selecting Look Up By Lead Company Name, choose how Journey Builder handles multiple Lead records with the same Lead Company Name. If no record with the same Lead Company Name is found, Journey Builder creates an account.
 - If you select Look Up By Account ID, drag a Marketing Cloud attribute onto the Sales and Service Cloud field with a matching value in an account record field. This mapping is used to identify the correct



8. Click **Next**.

- When you set up a task, populate only the fields that contain the same data value for each task

created Cancel Back Next


- When populating the Subject field, use variables to create the subject dynamically. Click the Subject field to access

- Click **Next** and complete the configuration.

Object Activity in Journey Builder

Use the Object activity in Journey Builder to create or update a Sales or Service Cloud record in an object. You can also use this activity to create or update a custom object.

For example, use the Object activity to create and update a custom policy record indicating that a customer has received the email confirmation.

 **Note:** Make sure that custom objects are workflow-enabled so you can create or modify them with Object activity.

Considerations for Mapping Fields

- Some objects include options based on the type of field selected. For example, fields that support a user or a group include an icon that allows you to choose one of these options.
- To update the record of the person who entered the journey, choose Assign to the Person in the Journey. For example, this activity is useful when the object record type changes after journey activation, such as leads converting to contacts after entering.
- To use the output of event objects or objects created automatically, select an ID from the journey data to select from a list of these objects.

- To update the record with a Marketing Cloud Engagement attribute value, search for the attribute or locate the attribute field containing that value.
- To map a Sales Cloud Number field to a Marketing Cloud Engagement field, set up and save the Number field as a Decimal field. Or set the data type of both fields to Text.
- If you use Assignment Rules to define conditions for processing Sales or Service Cloud cases, map the Owner ID when you configure a Case Activity.

[Create an Object Record](#)

Use the Object activity in Journey Builder to create Sales and Service Cloud object records during a journey.

[Update an Object Activity](#)

Use the Object activity in Journey Builder to update Sales and Service Cloud object records that are created or updated by the journey or included in journey data.

SEE ALSO:

[Set Up Assignment Rules](#)

Create an Object Record


Use the Object activity in Journey Builder to create Sales and Service Cloud object records during a journey.

1. Drag the Object activity onto the canvas and click **Configure**.
2. Click **Create New**.
3. Select an object record field.
4. Map each object field using a Sales and Service Cloud field or Marketing Cloud Engagement attribute.
Object field options vary by type.
5. Save the value for each object field.
6. Optionally, enter a name.

Update an Object Activity

Use the Object activity in Journey Builder to update Sales and Service Cloud object records that are created or updated by the journey or included in journey data.

1. Drag the Object activity onto the canvas and click **Configure**.
2. Select an object to update a record for in the journey.
3. Click **Find and Update**, or click **Simple Update** when journey data includes the object record you're updating.
4. Choose the lookup field used to find the specified object.

 **Tip:** Use lookup fields only when journey data doesn't include the object you want to update or if the journey's entry event creates or updates the object. The lookup field must correspond to a Marketing Cloud Engagement attribute value. If you use Simple Update, select the ID from Journey Event Data to identify the object record field.

5. Select an option for when multiple records are found or no records are identified.
6. Select an object record field to update with Engagement data.

7. Configure fields by selecting a Sales and Service Cloud field or Marketing Cloud Engagement attribute. Enter at least three letters to see a list of objects to select from or an 18-character ID to map the value manually. Some objects include options based on the type of field selected.
8. Save the value and repeat for each object field you want to populate.
9. If you don't want to use the default activity name, enter a new name.

Task Activity

Use the Task activity to create a Sales or Service Cloud task with pre-populated field values. Connect Journey Builder and contacts, leads, and tasks. Create or update a Sales or Service Cloud task for a contact or lead that reaches this journey activity. The activity assigns tasks to the contact or lead owner, Salesforce System user, or a custom-defined user.

[Create a Task Activity in Journey Builder](#)

Configure a Sales and Service Cloud activity in Journey Builder.

Create a Task Activity in Journey Builder

Configure a Sales and Service Cloud activity in Journey Builder.

1. Click **Create New** or select a record to update during the journey.
2. Map the object fields using Marketing Cloud Engagement attributes and Sales and Service Cloud fields.

Table 27: Special Fields for Mapping

Field	Required, Recommended, or Optional	Description
Priority	Required	This Task field must be assigned when creating a record.
Status	Required	This Task field must be assigned when creating a record.
Assigned to ID	Recommended	This field designates who to assign the task to. Selecting System User assigns the task to the Salesforce System user that is set up during the Marketing Cloud Connect integration. To map to the owner of a specific task, use the Owner ID from the event. If this field isn't mapped, it defaults to the System User.
Name ID	Recommended	This field associates a task with a contact or lead. Map to the Lead ID or Contact ID to select the correct record. Map to Person in the Journey for a quick configuration.
Related to ID	Optional	This field associates a task with numerous object records such as case, account, order, or campaign.
Subject	Recommended	This field describes the task.

3. Optionally, enter a name, and then save.

Sales and Service Cloud Legacy Activities in Journey Builder

These Sales and Service Cloud canvas activities appear in old journeys but are no longer available as options for new journey activities.

[Create a Choose Object Activity](#)

Use the Choose Object activity to create or update any type of object record in the Sales and Service Cloud.

[Add Contacts to a Campaign](#)

Use the Add to Campaign activity to add Marketing Cloud Engagement contacts to a Sales and Service Cloud campaign.

[Update the Campaign Member Activity in Journey Builder](#)

Use the Update Campaign activity to update a Campaign record in the Sales and Service Cloud. Also populate campaign member record fields using the campaign activity with Marketing Cloud Engagement contact attributes. You can't use this legacy activity for new journey activities. Use the Object activity, Campaign activity, or Convert Lead activity when creating journeys.

[Contact Activity](#)

Use the Contact activity to create or update a contact in the Sales and Service Cloud for each Marketing Cloud Engagement contact that reaches this activity.

[Lead](#)

Use the Lead activity to create or update a lead record in the Sales and Service Cloud for each contact that reaches the activity.

[Create a Case](#)

Create a case and associate it to the Sales or Service Cloud contact that matches the Marketing Cloud Engagement contact ID. Or create a Sales and Service Cloud contact to associate the case to.

[Task](#)

Use the Task activity to create a task in the Sales and Service Cloud for each Marketing Cloud Engagement contact that reaches this activity. See Marketing Cloud Connect for information about using the Sales and Service Cloud.

[Opportunity](#)

Use the Opportunity activity to create an opportunity record in the Sales and Service Cloud. Marketing Cloud Engagement contact attributes can be used to populate fields on the opportunity record. Or populate each record with fixed values you choose.

[Create or Update an Account](#)

Although the deprecated Account activity can appear in old journeys, it's no longer an option for new journey activities. Instead, use the Object, Campaign, or Convert Lead activity when creating journeys. The Account activity creates an account for each Marketing Cloud Engagement contact or updates an existing account using its account ID or a Marketing Cloud Engagement attribute corresponding to that field.

[Use Person Accounts with Sales and Service Cloud Activities](#)

This legacy activity can appear in old journeys but is no longer available as an option for new journey activities. Use the Object activity, Campaign activity, or Convert Lead activity when creating journeys.

Create a Choose Object Activity

Use the Choose Object activity to create or update any type of object record in the Sales and Service Cloud.

This legacy activity can appear in old journeys but is no longer available as an option for new journey activities. Use the Object activity, Campaign activity, or Convert Lead activity when creating journeys.


Use this activity to do the following:

- Create a Sales and Service Cloud object of any type

- Update an existing Sales and Service Cloud object
 - Populate fields on the new or updated object using values from Marketing Cloud Engagement attributes
 - Choose when to update Sales and Service Cloud field values
1. Drag the Choose Object activity from the canvas activities pane onto the canvas.
 2. Hover over the Choose Object activity icon on the canvas.
 3. To rename the activity, click **Choose Object**.
 4. Click **Configure**.
 5. Select an object from the dropdown. This selection is the type of object the activity creates.
 - a. Use **Create or Update** to create a Sales and Service Cloud object if no existing Sales and Service Cloud object can be identified using Marketing Cloud Engagement attributes.

When a Sales and Service Cloud object is identified using the Marketing Cloud Engagement attribute that you designate, that Sales and Service Cloud object record is updated.
 6. Use **Create Only** to create a Sales and Service Cloud object record for each Marketing Cloud Engagement object that reaches the activity.
 7. When choosing **Create or Update**, select the Marketing Cloud Engagement attribute that is used to identify a Sales and Service Cloud object so the object's record is updated.

If a Sales and Service Cloud object record isn't found, a new record is created.
 8. To find the Marketing Cloud Engagement attribute to use to identify the desired Sales and Service Cloud object to update, type a value in the Search field if necessary.
 9. Alternately, scroll through the attribute groups shown if necessary. Click the attribute group that contains the desired value, then scroll down to locate the value.
 10. Drag the Marketing Cloud Engagement attribute whose value matches a value on your existing Sales and Service Cloud object record field and can be used to identify the correct record. Only one Marketing Cloud Engagement attribute can be mapped to a Sales and Service Cloud object record field.
 11. To select the type of object record field desired, use the dropdown menu next to the Sales and Service Cloud search field.
 12. Scroll down to designate what happens if more than one matching object record is found.
 13. Click **Next**.
 14. To locate a specific attribute, click an attribute group in the Marketing Cloud column.
 15. To view the path, hover over the name of the data extension.
 16. Drag a Marketing Cloud attribute to the Sales and Service Cloud account value it populates.
 17. To select the account record field type, use the dropdown menu next to the Sales and Service Cloud search field if necessary.
 18. Use **Hide Defined Fields** to show only fields that haven't been matched to a Marketing Cloud attribute if necessary.
 19. Use **Set Fixed Values** when the same value is to be added to each Sales and Service Cloud account record when an object this activity creates.

 **Tip:** This mapping is visible when mapped fields are displayed-- by clicking **Map Fields**-- as well.
 20. Choose how to update the fields mapped on the previous step.
 - a. Make a selection for each mapped field.
 21. Click **Next**.
 22. Click **Done**.

Add Contacts to a Campaign

Use the Add to Campaign activity to add Marketing Cloud Engagement contacts to a Sales and Service Cloud campaign.

Add to a Campaign is a legacy activity included in some old journeys but is no longer available as an option for new journey activities. Use the Object activity, Campaign activity, or Convert Lead activity when creating journeys.

1. Drag the Add to Campaign activity onto the canvas.
2. Hover over the Add to Campaign activity icon on the canvas.
3. To rename the activity, click **Add to Campaign**.
4. Click **Configure**.
5. Select a campaign.
 - a. If the campaign isn't shown, leave the campaign field blank and identify it using Campaign ID on Step 2.
6. To determine each new member's status, choose a value from the Campaign Member Status dropdown menu.
7. If Journey Builder can't match a contact entering the journey to a Salesforce contact, identify where a lead or contact ID is stored.

Use the first option to search within Marketing Cloud Engagement with an ID value you already know. Enter this value in the search field, or navigate through attribute groups.


Use the second option if you know which Marketing Cloud Engagement attribute contains a key value that matches a value in Sales Cloud. Use the key value to match the contact added to the campaign with a data record in Sales Cloud. To make this association, drag an attribute from the Marketing Cloud Engagement pane onto the Sales Cloud lookup field.

Use both options to look up an ID. Then provide an attribute field where that ID value is found when looking it up is unsuccessful.
8. Select an option under **If more than one record is found**.
9. Click **Next**.
10. To locate a specific attribute, click an attribute group in the Marketing Cloud column.
11. To view its path, hover over the name of the data extension.
12. Drag a Marketing Cloud Engagement attribute that identifies the campaign to the corresponding Sales and Service Cloud campaign value.
13. Use **Set Fixed Values** when the same value is used to identify the campaign each time.
14. Click **Next**.
15. Click **Done**.

Update the Campaign Member Activity in Journey Builder

Use the Update Campaign activity to update a Campaign record in the Sales and Service Cloud. Also populate campaign member record fields using the campaign activity with Marketing Cloud Engagement contact attributes. You can't use this legacy activity for new journey activities. Use the Object activity, Campaign activity, or Convert Lead activity when creating journeys.

1. Drag the Update Campaign activity onto the canvas.
2. Hover over the Update Campaign activity.
3. To rename the activity, click **Update Campaign** and click **Configure**.
4. If the campaign is found in the Sales and Service Cloud, select **Look Up Campaign member**.
 - a. Select a campaign.
 - b. To determine each new campaign member's status, choose a value from the Campaign Member Status dropdown menu.

- c. Click **Next**.
5. If the campaign isn't found here, select **Look Up Campaign member**.
6. Map a Marketing Cloud Engagement field that contains an ID value to the Campaign ID field in the Sales and Service Cloud then click **Next**.
7. If the campaign member is found in Engagement, select **Use Campaign Member**.
 - a. Select the attribute group that contains the desired value, then scroll down to locate the value.
 - b. Click the Marketing Cloud Engagement attribute whose value matches a value on your existing Sales and Service Cloud contact record field then click **Next**.
8. Drag a Marketing Cloud Engagement attribute to the Sales and Service Cloud campaign member record value it populates.
9. To select the type of campaign member record field, use the All Types dropdown menu.
10. To show only fields not matched to a Marketing Cloud Engagement attribute, use **Hide Defined Fields**.
11. Use **Set Fixed Values** when the same value is added to each Sales and Service Cloud campaign member record.
 -  **Tip:** This mapping is visible when mapped fields are displayed-- by clicking Map Fields-- as well.
12. Click **Next** and click **Done**.

Contact Activity

Use the Contact activity to create or update a contact in the Sales and Service Cloud for each Marketing Cloud Engagement contact that reaches this activity.

This legacy activity can appear in old journeys but is no longer available as an option for new journey activities. Use the Object activity, Campaign activity, or Convert Lead activity when creating journeys.

Use this activity to do the following:

- Update existing Sales and Service Cloud contacts based on Marketing Cloud attribute relationships
 - Create a Sales and Service Cloud contact for Marketing Cloud Engagement contacts that reach this activity.
 - Populate Sales and Service Cloud contacts with Marketing Cloud Engagement attributes
1. Drag the Contact activity from the canvas activities pane onto the canvas.
 2. Hover over the Contact activity icon on the canvas.
 3. To rename the activity, click **Contact**.
 4. Click **Configure**.
 5. Identify and update a Sales and Service Cloud contact or create a one.
 - a. To create a Sales and Service Cloud contact if no existing Sales and Service Cloud contact is found using Marketing Cloud Engagement attributes, use **Create or Update**. When a Sales and Service Cloud contact is identified using the Marketing Cloud Engagement attribute you designate, that Sales and Service Cloud contact record is updated.
 - b. Use **Create Only** to create a Sales and Service Cloud contact record for each Marketing Cloud Engagement contact that reaches the activity.
 - c. Use **Update Only** to update the Sales and Service Cloud contact record that is identified.
 6. When choosing Update or Create or Update, the mapper works as follows. If this Marketing Cloud Engagement contact is linked to a Sales and Service Cloud contact, Journey Builder associates the opportunity to that contact. If not, Journey Builder searches the Sales and Service Cloud using the key defined here. The opportunity is related to the contact that is found. If a Sales and Service

Cloud contact record isn't found, a record is created. Choose the Marketing Cloud Engagement attributes that are used to identify a Sales and Service Cloud contact.

- a. To find the Marketing Cloud Engagement attribute to use to identify a Sales and Service Cloud contact to update, type a value in the Search field.
 - b. Alternately, scroll through the attribute groups shown. Click the attribute group that contains an identifying value, then scroll down to locate the value.
 - c. Drag the Marketing Cloud Engagement attribute whose value identifies an existing Sales and Service Cloud contact record to the field it populates.
 - d. Only one Marketing Cloud Engagement attribute can be mapped to a Sales and Service Cloud contact record field.
 - e. To select the type of contact record field desired, use the dropdown menu next to the Sales and Service Cloud search field.
7. Scroll down to designate what happens if more than one contact match is found.

If more than one Sales and Service Cloud record that matches the Marketing Cloud Engagement key is found, the selection made here dictates whether Journey Builder creates a Sales and Service Cloud record.

8. Click **Next**.
9. To map Marketing Cloud attributes to an existing Sales and Service Cloud field when this record is updated, click **Map Fields**. Or click **Set Fixed Values** to select or enter values to an existing Sales and Service Cloud field that is created when this record is updated.
10. Use **Map Fields** to map the Marketing Cloud attribute fields that are used to update the Sales and Service Cloud contact record with the values they contain.

A Marketing Cloud Engagement attribute must be mapped to the Sales and Service Cloud record fields in the Required section.

- a. To locate a specific attribute, click an attribute group in the Marketing Cloud column.
 - b. Hover over the name of the data extension to view the path.
 - c. Drag a Marketing Cloud attribute to the Sales and Service Cloud contact value it populates.
11. To select the type of field desired, use the dropdown menu next to the Sales and Service Cloud search field.
12. Use **Hide Defined Fields** to show only fields not matched to a Marketing Cloud attribute.
13. Use **Set Fixed Values** if an identical fixed value is added to each Sales and Service Cloud contact record when this activity updates or creates a contact. This mapping is visible when mapped fields are displayed by clicking Map Fields. Set identical values on each contact record

14. Click **Next**.
15. Use the Set Update Options screen to choose how to update the fields mapped on the previous step.
- a. Make a selection for each mapped field.

16. Click **Next**.

17. Click **Done**.

Lead

Use the Lead activity to create or update a lead record in the Sales and Service Cloud for each contact that reaches the activity.


This legacy activity appears in old journeys but is no longer available as an option for new journey activities. Use the Object activity, Campaign activity, or Convert Lead activity when creating journeys.


Use this activity to do the following:

- Create a lead record
 - Update an existing lead record
 - Update fields on a lead record with Marketing Cloud Engagement attribute values
 - Choose when to update a lead record
1. Drag the lead activity from the canvas activities pane onto the canvas.
 2. Hover over the lead activity icon on the canvas.
 3. To rename the activity, click **Lead**.
 4. Click **Configure**.
 5. Choose **Create or Update**, **Create Only**, or **Update Only**.

Create or Update directs Journey Builder to search the Sales and Service Cloud for an existing lead ID that matches the contact ID for the Engagement contact. If no match is found, Journey Builder searches based on the value you supply using the mapper on this page.

 - a. Map the Engagement attribute field that contains an ID that can identify existing leads in the Sales and Service Cloud. If a Sales and Service Cloud account record isn't found, a new record is created.
 6. When choosing **Create Only**, set Assignment Rules to dictate who the lead is assigned to.
 7. **Update Only** directs Journey Builder to search the Sales and Service Cloud for an existing lead ID that matches the contact ID for the contact. If no match is found, Journey Builder searches based on the value you supply using the mapper on this page.
 - a. Map the Engagement attribute field that contains an ID that can identify existing leads in the Sales and Service Cloud. If a match still isn't found, no lead is created or updated.
 8. When choosing **Create or Update** or **Update Only**, scroll down to select an option for when more than one record matches the contact ID or key provided.

 **Note:** **Create a new record** isn't available when using **Update Only**.
 9. With each option, set Assignment Rules to dictate whom the lead is assigned to.
 10. Click **Next**.
 11. To locate a specific attribute, click an attribute group.
 - a. To view its path, hover over the name of the data extension.
 12. Drag an Engagement attribute to the Sales and Service Cloud lead value it populates.
 13. Select the type of lead field desired.
 14. Use **Hide Defined Fields** to show only fields that haven't been matched to an Engagement attribute.
 15. Use **Set Fixed Values** when the same value is added to each Sales and Service Cloud lead record when this activity creates a lead.

 **Tip:** This mapping is visible when mapped fields are displayed-- by clicking **Map Fields**-- as well.
 16. Click **Next**.
 17. Select all fields or, to set update options individually, select individual fields.
 - a. Choose how to update the fields mapped on the previous step.
 - b. Make a selection for each mapped field.
 18. Click **Next**.

19. Click **Done**.

Create a Case

Create a case and associate it to the Sales or Service Cloud contact that matches the Marketing Cloud Engagement contact ID. Or create a Sales and Service Cloud contact to associate the case to.

This legacy activity can appear in old journeys but is no longer available as an option for new journey activities. Use the Object activity, Campaign activity, or Convert Lead activity when creating journeys.

Use the Case activity to do the following:

- Create a case and associate it to the Sales and Service Cloud contact that matches the Marketing Cloud Engagement contact ID.
 - Create a Sales and Service Cloud contact to associate the case to.
 - Create a case without associating it to a contact.
 - Update case fields with Marketing Cloud Engagement attribute values.
 - Assign new or updated cases using assignment rules.
1. Use **Create Only** to create or identify a contact to associate with the case this activity creates. Alternately, use **Update Only** to locate cases to update.
 2. Choose when contacts are created, updated, or related to a case.
 3. When updating, provide a key for Journey Builder to use to identify cases to update.
 4. Select Assignment Rules.



Note: Assignment Rules determine how cases are assigned to users or put into queues as they're created.

5. Click **Next**.
6. Use **Map Fields** to map Marketing Cloud Engagement attribute fields that update the Sales and Service Cloud case record with their values.
7. To map attribute values to the case record, click **Case** in the left pane.
8. To map Marketing Cloud Engagement attribute fields whose values populate the Sales and Service Cloud contact, click **Contacts** if necessary.
 - a. To map fields, click an attribute group in the Marketing Cloud column to locate a specific attribute.
 - b. To view its path, hover over the name of the data extension.
 - c. Drag a Marketing Cloud Engagement attribute to the Sales and Service Cloud case value it populates.
 - d. To select the desired field type, use the dropdown menu next to the Sales and Service Cloud search field.
 - e. To show fields not matched to a Marketing Cloud Engagement attribute, select **Hide Defined Fields**.
9. Use **Set Fixed Values** when the same value is added to each Sales and Service Cloud case record when this activity creates a case.
10. To display mapped fields, click **Map Fields**.
11. Click **Next**.
12. Click **Done**.

Task

Use the Task activity to create a task in the Sales and Service Cloud for each Marketing Cloud Engagement contact that reaches this activity. See Marketing Cloud Connect for information about using the Sales and Service Cloud.

This legacy activity can appear in old journeys but is no longer available as an option for new journey activities. Use the Object activity, Campaign activity, or Convert Lead activity when creating journeys.

Use this activity to do the following:

- Create a Sales and Service Cloud task with pre-populated field values you designate
- Associate the new task to a Sales and Service Cloud Contact or Lead
- Associate related objects, like an account or a campaign, to the new Task
- Automatically assign new tasks to the Contact/Lead owner, Salesforce System User, or a custom-defined user

 **Note:** To update an existing task, use the Choose Object activity in the journey and select **Task**.

1. Drag the Task activity from the canvas activities pane onto the canvas.
2. Hover over the Task activity icon on the canvas.
3. To rename the activity, click **Task**.
4. Click **Configure**.
5. On the Configure Task page, populate fields that contain the same value for each new task, like Subject and Reminder Day/Time. Populate only those fields that contain the same data value for each task created.
 - a. When populating the Subject field, use variables to create the subject dynamically. Click the Subject field to access variables.
6. Scroll down to designate whether new tasks are related to the Engagement contact who reaches this activity, such as a Contact or a Lead within the Sales and Service Cloud, or no one.

When selecting the first option, Journey Builder searches for a Sales and Service Cloud contact or lead that matches the Engagement contact in the Interaction. If no matching Sales and Service Cloud contact or lead is found, the task isn't related to a contact or lead. To associate the task to a Contact or a Lead within the Sales and Service Cloud, use the mapper. Drag a Marketing Cloud Engagement attribute onto the Sales and Service Cloud field that contains a value that matches a value in a Sales and Service Cloud Contact or Lead record field. This mapping is used to identify the correct record. Use the search field to locate a field whose name you know. To select the type of Contact or Lead field desired, use the dropdown menu next to the Sales and Service Cloud search field.


7. Scroll down to designate who to assign the task to: the owner of the associated Contact or Lead, the Salesforce System User, or a user you map to on a subsequent step.
8. Select an option.
9. Click **Next**.
10. Select a mapping option: Additional Fields or Related Objects.
 - a. To map Marketing Cloud Engagement attributes to task record fields, select **Additional Fields**.
 - b. To map a Marketing Cloud Engagement attribute that identifies a Sales and Service Cloud object that is related to the task record, select **Related Objects**.

 **Note:** Only one related Sales and Service Cloud object can be related to a task using this activity.

11. When mapping Additional fields, click an attribute group in the Marketing Cloud Engagement column to locate a specific attribute.
12. Map the Marketing Cloud Engagement attribute fields whose values are mapped from Engagement to the new task record. Use this step to configure fixed values that are identical on each task record.
13. Hover over the name of the data extension to view the path.
14. To map Marketing Cloud Engagement attributes to an existing Sales and Service Cloud field when this record is created, click **Map Fields**.
15. To map values to an existing Sales and Service Cloud field, click **Set Fixed Values**.

16. Click **Next**.

17. Click **Done**.

 **Example:** A marketer intends to associate a case to a task using this activity. The marketer clicks **Related Objects**. The marketer then clicks an attribute group called Sales and Service Cloud Objects. The marketer clicks through the attribute group to reach the Cases data extension. The marketer locates a data attribute called CaseNumber. Dragging this attribute into the Sales and Service Cloud column of the mapper, the marketer associates the case in the Cases data extension whose ID matches a case in the Sales and Service Cloud. When a new task is created, this case is related to it.

Opportunity

Use the Opportunity activity to create an opportunity record in the Sales and Service Cloud. Marketing Cloud Engagement contact attributes can be used to populate fields on the opportunity record. Or populate each record with fixed values you choose.

This legacy activity can appear in old journeys but is no longer available as an option for new journey activities. Use the Object activity, Campaign activity, or Convert Lead activity when creating journeys.

Use this activity for the following:

- Create an opportunity
- Tell Journey Builder who is in the opportunity contact role
- Associate the opportunity to a contact or lead Identify the campaign that is the source of the opportunity

1. Drag the Opportunity activity from the canvas activities pane onto the canvas.

2. Hover over the Opportunity activity icon on the canvas.


3. To rename the activity, click **Opportunity**.

4. Click **Configure**.

5. Use the Add Details page to populate fields that contains identical values on each record. The fields shown correspond to fields in a Sales and Service Cloud opportunity record.

Use this step to add details each opportunity has in common. Each option populates a field on the opportunity record in the Sales and Service Cloud. Additionally, choose whether an Opportunity Contact Role is created for the Engagement contacts that reach this activity on this step.

For example, if the Opportunity created for each Engagement contact that reaches this activity is in the Prospecting stage, set that value using the Stage dropdown menu.

 **Note:** Variables based on Engagement attributes can be used in the Opportunity Name. The attribute value is then filled in when the opportunity is created.

6. To add Engagement attributes in the Opportunity Name, click **Format Text**.

7. Click **Done**.

If no fields in the new opportunity record are populated with these values—or if all values on each record are distinct, or mapped on the next step—skip the previous steps.

8. Select **Create an Opportunity Contact Role** if the Engagement contact reaching this activity becomes the Opportunity Contact. If no match is found in the Sales and Service Cloud for the contact ID, the Opportunity Contact Role isn't populated.

9. Use the campaign mapper to search for and select the campaign that is the source of the opportunity.

10. Select a mapping option: Additional Fields or Opportunity Contact Role.

a. To map Engagement attributes to populate opportunity record fields, select Additional Fields.

- b.** To find the Engagement attribute field that contains a value that can be used to populate fields in this role, select Opportunity Contact Role. Alternately, click Set Fixed Values to set a value that is the same in each opportunity record created.
For example, if each Opportunity Contact is placed in the Influencer role, click Set Fixed Values and select Influencer in the Role field.

- c.** Click **Apply**.

- 11.** When mapping Additional fields, click an attribute group in the Marketing Cloud Engagement column to locate a specific attribute. Hover over the name of the data extension to view the path.
- 12.** After locating the attribute, drag it onto the Sales and Service Cloud field it populates. Sales and Service Cloud fields are populated by the options selected on Step 1 and are shown on Step 2.
- 13.** Alternately, click Set Fixed Values to apply the same attribute values to each new opportunity record that is created. To type in a value, click a field shown on this page.
- 14.** Click **Next**.
- 15.** Click **Done**.

Create or Update an Account

Although the deprecated Account activity can appear in old journeys, it's no longer an option for new journey activities. Instead, use the Object, Campaign, or Convert Lead activity when creating journeys. The Account activity creates an account for each Marketing Cloud Engagement contact or updates an existing account using its account ID or a Marketing Cloud Engagement attribute corresponding to that field.

- 1.** Drag the account activity from the canvas activities pane onto the canvas.
- 2.** Hover over the account activity icon on the canvas.
- 3.** To rename the activity, click **Account**.
- 4.** Click **Configure**.

Use Create or Update to choose to create a Sales or Service Cloud account if no existing account can be identified using Marketing Cloud Engagement attributes. When a Sales or Service Cloud account is identified using the Marketing Cloud Engagement attribute that you designate, the account record is updated.

Use Create Only to create a Sales or Service Cloud account record for each Marketing Cloud Engagement contact that reaches the activity.

- 5.** In the Account Management section, follow these instructions.
 - a.** To find the Marketing Cloud attribute that's used to identify the desired Sales and Service Cloud account to update, type a value in the Search field.
 - b.** Alternately, scroll through the attribute groups shown. Click the attribute group that contains the desired value, then scroll down to locate the value.
 - c.** Drag the Marketing Cloud attribute whose value matches a value on your existing Sales and Service Cloud account record field and can be used to identify the correct record.
 - d.** Only one Marketing Cloud attribute can be mapped to a Sales and Service Cloud account record field.
 - e.** To select the type of account record field desired, use the dropdown menu next to the Sales and Service Cloud search field.
- 6.** Scroll down to designate what happens if more than one account match is found.
- 7.** Select Assignment Rules if the active assignment rule must be observed.
- 8.** Click **Next**.

9. To locate a specific attribute, click an attribute group in the Marketing Cloud column. Hover over the name of the data extension to view its path.
10. Drag a Marketing Cloud Engagement attribute to the Sales or Service Cloud account value it populates.
11. To select the type of account record field desired, use the dropdown menu next to the Sales and Service Cloud search field.
12. Use **Hide Defined Fields** to show only fields that haven't been matched to a Marketing Cloud Engagement attribute.
13. Use the Set Fixed Values option when the same value must be added to each Sales or Service Cloud account record when an account is created by this activity. To display mapped fields, click **Map Fields**.
14. Click **Next**.
15. Use the Set Update Options screen to choose how to update the fields mapped on the previous step. The update options available are Always Overwrite, Overwrite (Existing Value Present), and Overwrite (Existing Value Not Present). Make a selection for each mapped field.
16. Click **Next**.
17. To amend the selections made on Steps 1–3, click **Back**.
18. Click **Done**.

Use Person Accounts with Sales and Service Cloud Activities

This legacy activity can appear in old journeys but is no longer available as an option for new journey activities. Use the Object activity, Campaign activity, or Convert Lead activity when creating journeys.

Use the Account, Task, and Case activities to update Person Accounts.

[Update Person Accounts](#)

Journey Builder updates person accounts using the Account activity.

[Update Business Accounts](#)


Journey Builder updates business accounts using the Account activity.

[Associate Cases and Tasks to Person Accounts](#)

Journey Builder associates cases and tasks to person accounts using the corresponding activities.

Update Person Accounts

Journey Builder updates person accounts using the Account activity.

-  **Note:** This legacy activity can appear in old journeys but is no longer available as an option for new journey activities. Use the Object activity, Campaign activity, or Convert Lead activity when creating journeys.
1. Drag the Account activity onto the Journey Builder canvas.
 2. Click **Configure**.
 3. Using the Create or Update option, follow steps 1–3 at Account. Journey Builder attempts to retrieve the Person Contact ID of the Account record and uses the mapper under Account Management to look up the field if it isn't found in Marketing Cloud Engagement.
 4. Select an option to designate what happens if more than one account match is found.
Multiple matching accounts can be found when the Account record's external ID isn't unique.
 5. To observe the active assignment rule, select Assignment Rules.
 6. Click **Next**.

To complete activity configuration, follow the remaining steps at Account.

Update Business Accounts

Journey Builder updates business accounts using the Account activity.

1. Drag the Account activity onto the Journey Builder canvas.
2. Click **Configure**.
3. Using the Create or Update option, follow steps 1–3 at Account. Journey Builder attempts to retrieve the Sales and Service Cloud Account ID of the Account record. It then uses the mapper under Account Management to look up the field if it isn't found in Marketing Cloud Engagement.
4. Select an option to designate what happens if more than one account match is found. Multiple matches can occur when the external ID used on the Account record isn't unique.
5. Select Assignment Rules if the journey observes the active assignment rule.
6. Click **Next**.

Follow the remaining steps at Account to complete the activity configuration.


Associate Cases and Tasks to Person Accounts

Journey Builder associates cases and tasks to person accounts using the corresponding activities.

1. Drag a Case or Task activity onto the Journey Builder canvas.
2. Click **Configure**.
3. Follow the steps listed.
 - For Tasks, under How do you want to associate a Contact or Lead, select **Associate the task to the Marketing Cloud Engagement contact in this journey**.
 - For Cases, under How do you want to associate a Contact or Lead, select **Associate the task to a mapped contact or lead**. Map the case to a Marketing Cloud Engagement contact ID.

Best Practices for Integration Activity Fields

Sales and Service Cloud activities follow a similar configuration workflow. Consider these tips during configuration.

- Some objects include more options based on the type of field selected. For example, fields that support a user or a group include an icon that allows you to choose one of these options.
 - To use the output of event objects or records created in the journey, select an ID from journey data. Then, select from a list of these objects.
 - To update the field with a Marketing Cloud Engagement attribute value, search for the attribute or locate the Marketing Cloud Engagement attribute field containing that value.
 - You can use Engagement Contact or Journey Data attribute values, including the object record ID, to update any field. For text fields, you can combine static text and dynamic content.
-  **Example:** For example, to create a task to follow up with a customer, use a static instruction with a dynamic field, like Full Name. When you map the field, the subject line reads `{{Contact_Attribute."Event Data"."Full Name"}}` for a customer who is interested in services.
- You can use Assignment Rules to define conditions for how Sales or Service Cloud cases are processed. If you do, map the Owner ID when configuring a Case Activity to ensure that the journey observes assignment rules.

Field	Description
Assign to Person in the Journey	Select this field to update the record of the person who entered the journey. This option is useful when the record type changes after journey activation, such as when leads convert to contacts after entering the journey.
Dates	When mapping an object activity in a journey to update or create a Sales or Service Cloud object record, select a specific date. Or select Date Contact Enters Activity and enter a date adjustment. For example, set a task due date for three days after an activity in the journey.
IDs	<p>ID fields associate a user with the activity, such as Assigned to ID, Name ID, or Related To ID. When mapping any ID field, enter digits or letters to find a field or enter %%% for a list of options. Some activities include assignment options:</p> <ul style="list-style-type: none"> • Assign to the system user. • When mapping Contact ID, use an extra option to assign to the person in the journey. This option helps when a record originates as an Engagement Subscriber Key and a corresponding Sales Cloud record is created. If you use synchronized data extensions, this process detects if a lead is converted to a contact. It then ensures that the task is related to the correct record. • Select an ID from journey data. This ID is assigned to the user who created or last modified the campaign member. <p>Some ID fields have a dropdown to select Contact or Lead and enter the name to select the Contact or Lead field.</p>
Picklist	Select from a list of fields or map Marketing Cloud Engagement attributes. This list can contain up to 100 values. After the list exceeds 100 values, enter your value into a text field.

SEE ALSO:

[Journey Builder Sales and Service Cloud Best Practices](#)

Sales and Service Cloud Activity Field Validation and Error Handling

Review the requirements for Sales and Service Cloud activity field values. Incorrect field values can cause activity errors in Journey Builder.

Field Validation

Text fields don't have a specific format, but picklist and boolean fields only allow you to choose from a list. Other field types require a specific format. Here are the field types with built-in validation requirements that prevent configuration of the activity until they're resolved.

Email

The email field value must follow the common format, name@domain.com.

Date

The date field is based on your account's time zone. There are four valid date formats.

Format	Example
YYYY-MM-DD	2019-05-31
YYYY-MM-DD hh:mm:ss	2019-05-31 15:00:00
YYYY-MM-DDThh:mm:ssZ	2019-05-31T15:00:00Z
YYYY-MM-DDThh:mm:ss.sssZ	2019-05-31T15:00:00.123Z

DateTime

The DateTime is based on your account's time zone. There are three valid formats.

Format	Example
YYYY-MM-DD hh:mm:ss	2019-05-31 15:00:00
YYYY-MM-DDThh:mm:ssZ	2019-05-31T15:00:00Z
YYYY-MM-DDThh:mm:ss.sssZ	2019-05-31T15:00:00.123Z

Currency

The currency field accepts numbers only and a maximum of one decimal point. A maximum of two digits can follow the decimal point. Don't include any digit group separators.

Example Valid Value	Example Invalid Value
200	\$200
1520.99	1520.990
14000.1	14,000

Integer

The integer accepts only numbers. Don't include decimal points or digit group separators.

Example Valid Value	Example Invalid Value
1	1.0
1523810	1,523,810

Double

The double field accepts only numbers and a maximum of one decimal point. Don't include digit group separators.

Example Valid Value	Example Invalid Value
1340.15	1,340.15
56320.00	56,320

Errors

Review the common errors that occur for Sales and Service Cloud activities.

Design-Time Errors

Here are some of the common errors that can result from incorrect activity configuration.

- An invalid or broken integration: Cross-cloud activities require complete and functioning integration with the Sales and Service Clouds. [Some common integration issues can be found here.](#)
- Incorrect permissions: There are permissions in place that allow a user to create integration activities. If those permissions aren't set correctly, the user can't configure a new activity.


Runtime Errors

Runtime errors occur when a contact enters an activity in a running journey. In some situations, these contacts aren't processed correctly. It's difficult to detect these errors because Sales and Service Cloud activities in Journey Builder use soft errors. A soft error doesn't stop the contact from continuing through the journey. Here are some common runtime errors.

- Missing or deleted objects: When an object referenced in the activity is no longer available after the journey is activated, the activity can't complete its function.
- [Row-locking](#): Some objects, especially CampaignMember, can time out when a contact record locks and the operation stalls.
- Failed Lookups: Sales and Service Cloud activities include options for how to proceed when a lookup fails to find a contact record. However, it's possible that the lookup request can fail during processing. When the request fails, the activity errors, but the contact continues in the journey.
- Required Fields: If the selected attribute for a required field is empty, the activity errors.

Journey Builder Sales and Service Cloud Best Practices

Review these best practices to prevent a Sales or Service Cloud activity from negatively impacting your account. Adhering to these practices can lessen impact on other journeys in your enterprise and improve processing times.

- Don't use Journey Builder as a substitute for the [Data Import Wizard](#) or [Data Loader](#) for bulk updates.
 -  **Note:** A Sendable Data Extension is required when configuring a Journey Builder Entry event. The Sendable Relationship of the Data Extension dictates what value is used for "ContactKey". Contacts are created in your All Contacts using the Sendable Relationship Field when injected into Journey Builder even if there are no messaging activities. Using a Sales or Service Cloud activity can create unwanted contacts in your Marketing Cloud Engagement Account.
- Limit the number of fields being updated on the selected Objects.
- Avoid high volume updates to Objects with many related records, such as CampaignMember or Opportunity.
- Journey processing in one business unit can negatively impact processing in another business unit. Distribute activity throughout your enterprise accordingly.

Journey Builder Administration

Journey Builder includes an administrative interface that is accessed by clicking links in the top navigation.

- Use Entry Sources to view performance and analytics data for entry sources and to create and configure Shared Entry Events.
- Use Contacts to track individual contacts by their ContactKey, Journey, Event, and more.

 **Note:** Permissions are required to access to the Entry Sources and Contacts links.

[Journey Testing](#)

Use Journey Builder's test feature to confirm that a Marketing Cloud Engagement journey behaves as expected. When you use a data extension as the entry source, you can configure a test to simulate a journey with real contacts. But the classic test mode is available with any entry source.

[Organize Your Journeys](#)

Organize your journeys in folders so they're easy to access. You can add a journey to a folder when you create and save it. Or drag one or more journeys from the dashboard into a folder.

[Copy a Marketing Cloud Engagement Journey](#)

Use the Journey Builder copy feature to duplicate a journey. A copy is created in draft mode and doesn't include statistics from the original journey version, but it does include the original entry source, goal, and activity flow.

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Remove drafts and journeys you no longer need from Journey Builder. If a journey is running or finishing, stop it before you delete it.

[Journey Tags](#)

Use journey tags to organize your journeys in Journey Builder and make them easily searchable.

[Show and Hide Journey Builder Tips](#)

You can show or hide Journey Builder's in-app user tips in Marketing Cloud Engagement. Tips are available for new and returning users and are on by default.

[Validate a Journey in Journey Builder](#)

When you create or edit a journey, use validation to fine-tune the journey. Validation confirms that the journey's components are configured correctly and work as planned.

[Journey Versions](#)

Manage multiple versions of customer journeys in Journey Builder. Configure a new journey version to change journey activities without affecting contacts in the current journey version.

Journey Testing

Use Journey Builder's test feature to confirm that a Marketing Cloud Engagement journey behaves as expected. When you use a data extension as the entry source, you can configure a test to simulate a journey with real contacts. But the classic test mode is available with any entry source.

Journey Builder requires you to validate and save the journey before you test it. Validation ensures that all elements of the journey's design are complete and ready to test. Journey Testing isn't available for Single Send journeys.

Journey Testing with a Data Extension

If your entry source is a data extension, you can configure a journey test using real Engagement contacts. This test mode allows you to view their simulated paths through the journey without sending messages to them or affecting tracking or reporting. Test mode simulates random and decision split activities, but ignores wait times and contact entry settings. You get an accurate view of how a journey works without the wait.

After the test is completed, the journey canvas shows each contact's expected path. To confirm that the contact progresses through the journey as intended, click through each contact's path. Edit the journey as needed. If you edit the entry source or any of the canvas activities after testing, be sure to save, validate, and test the journey again.

Link Wrapping

When testing journeys with email messages, link wrapping only works in Version 2 and later.

Classic Test Mode

Classic test mode simulates random and decision split activities without sending messages but ignores wait times and contact entry settings. When you use classic test mode, you must fire the entry event. When the test is completed, the results appear in the workspace. To begin, click **Test**. Then fire a contact via API, use the Fire Event activity in Automation Studio, or use another method based on the journey's entry source.

When the test is completed, the results appear in the workspace. From there, you can edit the journey if needed.


[Configure a Journey Test with a Data Extension](#)

Follow these steps to configure a test that simulates the journey of real contacts in your Marketing Cloud Engagement data extension.


Configure a Journey Test with a Data Extension

Follow these steps to configure a test that simulates the journey of real contacts in your Marketing Cloud Engagement data extension. Journey Testing isn't available for Single Send journeys. Before you configure a test, save and validate the draft journey.

1. Click **Test**.
2. Click **Choose Contacts**.
3. Select up to 10 contacts from your data extension.
4. Click the **Send Type** tab.
5. To send a test message, click **Send Only Test Messages** and enter an email address.

 **Note:** The test is set to **Do Not Send Messages** by default.

6. To review the test settings, click **Summary**.


 **Tip:** You can also review your test settings on the **Test Behavior** tab.

7. Click **Start Test**.

Organize Your Journeys


Organize your journeys in folders so they're easy to access. You can add a journey to a folder when you create and save it. Or drag one or more journeys from the dashboard into a folder.

You can create and rename folders from the Folders pane. An icon appears when you hover over the root folder, which is called My Journeys. Click the icon to create, rename, move, and delete folders.

1. After saving a journey, click **Organize**.
 - a. To access folder options, click  next to a folder.

If the journey is already in a folder, a warning appears that identifies that folder.

- From the Journeys dashboard, select one or more journeys.

 **Note:** You can drag your journeys into a subfolder. Selected folders open to show their subfolders when you drag the journeys near the folder.


- Drag the selected journeys into a folder.

[Manage Journey Folders](#)

Use journey folders to organize your journeys in Journey Builder. You can create, rename, move, or delete folders as needed.


Manage Journey Folders

Use journey folders to organize your journeys in Journey Builder. You can create, rename, move, or delete folders as needed.

 **Important:** Stop all running journeys in the journey folder before you delete it. Any running journeys are automatically moved to the My Journeys folder.

- Click the Journeys tab.

- Click **Folders**.

- Locate the folder and click .

- Click **Create New**, **Rename**, **Move**, or **Delete**.


To create a new or rename an existing folder, enter a name in the field and click away. To move a folder, select the new location and click **Move**. To delete a folder, click **Delete** to confirm.


Copy a Marketing Cloud Engagement Journey

Use the Journey Builder copy feature to duplicate a journey. A copy is created in draft mode and doesn't include statistics from the original journey version, but it does include the original entry source, goal, and activity flow.

You can't copy a journey from another business unit. Copying a journey creates an entry source for the copied journey. This action breaks existing relationships in journey activities with Journey Data. If you reference Journey Data in activities for your copied journey, those activities appear unconfigured on the canvas. Open each activity that references Journey Data and reselect the appropriate attributes from Journey Data, then save your changes.

Salesforce entry sources in copied journeys are only editable if no other journey or version uses them. To choose a different object, delete and recreate the entry source.

 **Important:** If the journey includes an automated schedule, create a draft, remove the schedule, and save the journey before you make a copy. Also, if the journey includes a Path Optimizer activity where a winner is selected, only that winning path is copied.

- Open the journey, and click .

- Click **Copy Journey**.

- Enter a name and description.

- Click **Copy**.

Delete a Marketing Cloud Engagement Journey

Remove drafts and journeys you no longer need from Journey Builder. If a journey is running or finishing, stop it before you delete it.




Note: To use this feature, enable the Delete permission in the user's Journey Builder role.

For more details about the permissions granted with user roles in Journey Builder, see [Journey Builder Roles](#) and [Marketing Cloud Engagement Roles](#).



Important: You can't recover a deleted journey.

1.

To delete a journey, open the journey, and click .

2. Click **Delete this Version** or **Delete Journey**.

3. Click **Delete**.

Journey Tags

Use journey tags to organize your journeys in Journey Builder and make them easily searchable.

Journey tags allow you to:

- Search and filter by tag. Filter by one tag at a time.
- Associate multiple tags to a single journey and multiple journeys to a single tag.
- Select up to 100 journeys and relate them to up to 100 tags at a time. Relate as many journeys to as many tags as desired.



Note: To edit or delete tags, you need admin permission. Request access from your Marketing Cloud Engagement administrator.

1. [Create a Tag](#)

Create a tag from the journeys dashboard in Journey Builder.

2. [Tag a Journey](#)

Apply tags to journeys in Journey Builder so they're easy to filter.

SEE ALSO:

[Tags](#)

Create a Tag

Create a tag from the journeys dashboard in Journey Builder.

To edit or delete a tag, you need admin permission. Request access from your Marketing Cloud Engagement administrator.

1. Select one or more journeys to tag.

2.

Click .

3. Click **+ New**.

4. Enter the tag name.

5. Click **Create**. The new tag is selected by default.

- To apply the tag to the selected journeys, click **Apply**.

- To continue without tagging a journey, deselect the tag and close the dialog box.


Tag a Journey

Apply tags to journeys in Journey Builder so they're easy to filter.

 **Note:** To edit or delete tags, you need admin permission. Request access from your Marketing Cloud Engagement admin.

1. Select journeys to tag.

2. Click .

 **Note:** When you select multiple journeys and at least one is already tagged, but not all selected journeys share this tag, the tag shows a multi-state indicator.

- To apply the tag to all selected journeys, click the multi-state indicator.
- Click again to deselect the tag and remove it from all selected journeys.
- Click one more time to return to the multi-state indicator and apply it to the originally tagged journeys.

3. Select the tag to apply.

4. Click **Apply**.

Show and Hide Journey Builder Tips

You can show or hide Journey Builder's in-app user tips in Marketing Cloud Engagement. Tips are available for new and returning users and are on by default.

1. In Marketing Cloud Engagement, hover over your name.
2. To show tips, click **Show Tips** in the dropdown menu.
3. Or, to hide tips, click **Hide Tips** in the dropdown menu or click **Remove Tips**.

Validate a Journey in Journey Builder

When you create or edit a journey, use validation to fine-tune the journey. Validation confirms that the journey's components are configured correctly and work as planned.

Journey Builder checks for errors or configuration issues in these activities when you validate or activate the journey.

- Entry Source
- Entry Schedule
- Decision Splits
- Wait Activities
- Update Contact Activities
- Email Engagement Splits
- Journey Settings
- Journey Goals and Exit Criteria

If the email activity's personalization strings don't match the entry source attributes, include inline validation of those personalization strings. To activate the journey, you must resolve the personalization errors. A journey must include at least one messaging activity. For data transfer, segmentation, or other non-messaging use cases, consider another tool.

1. After you design a journey, click **Validate**.

To validate a Transactional Send journey, configure the activities and then click **Activate**.

- Errors and configuration issues appear in the results drawer.
- Multiple errors for the same activity appear in the same error tile.
- Activities that require attention are highlighted on the canvas.

2. To fix an error, click **Edit**.

If the activity doesn't have an Edit button, click the activity.

3. After you correct the error, click **Done**.

4. After fixing the configuration errors, click **Revalidate**.

After you validate a journey and resolve the issues, the **Test** button is available. To simulate a journey's flow, test it before you activate it.

Journey Versions

Manage multiple versions of customer journeys in Journey Builder. Configure a new journey version to change journey activities without affecting contacts in the current journey version.

 **Note:** This feature isn't supported in Single Send journeys.

Only one draft version of a journey can exist at a time. You aren't required to activate new draft versions immediately. Unfinished drafts are saved in the versions pane. To edit a draft, click an unfinished draft in the versions pane. After a version is activated, it becomes the current version. New contacts aren't admitted into previous versions. Upon activation, this version begins detecting the journey's entry event and admitting contacts who qualify. A journey's Contact Entry and Journey settings persist across all versions.

The previous version of the journey continues to process contacts until all contacts present when the new version was activated have exited. Then the previous version becomes inactive. You can create drafts from inactive versions, but you can't relaunch an inactive version.

You can't reactivate a stopped version. To activate a new version based on a stopped version, navigate to the stopped version, click **New Draft**, then click **Activate**. Contacts that previously exited the journey aren't admitted into the new version.

[Create a Journey Version](#)

To add, remove, reconfigure, or change the order of activities on the Journey Builder canvas, create a draft version of a Marketing Cloud Engagement journey. To prompt contacts to enter the new version, activate the draft.

[Stop a Journey](#)

Stop a customer journey in Journey Builder.

[Bulk Actions in Journey Builder](#)

Manage your journeys more easily from the Journey dashboard. You can modify up to 10 journeys at one time, and choose to do so for the current version or for all versions. Long or complex journeys may take longer to complete the request. You can modify up to 50 journey versions. If your request has more than 50 versions, only the first 50 are requested. The Journey and Version dashboards show which journeys have successfully completed.

[Delete Drafts and Inactive Journeys](#)

You can delete draft and inactive Marketing Cloud Engagement journeys in Journey Builder. When you delete an inactive version, all of that journey's goal and performance data are permanently removed. The journey's cumulative totals still include the goal and performance data tied to it.

SEE ALSO:

[Update an Email Activity in a Journey](#)

Create a Journey Version

To add, remove, reconfigure, or change the order of activities on the Journey Builder canvas, create a draft version of a Marketing Cloud Engagement journey. To prompt contacts to enter the new version, activate the draft.

A journey's Contact Entry settings persist across all versions. If the previous version is set to readmit a contact only after they exit the journey, contacts in the journey are switched to the new journey. After they exit the previous version, they're eligible for the new version. If you configure a previous journey version to not readmit contacts, contacts aren't admitted to the new version.

1. Open the journey and click **New Version**.
An editable view of the current journey appears on the canvas.
2. Make your changes to the journey activities.
3. Save your changes.
4. Click **Activate**.



Important: When a draft is activated, that draft becomes the current version. The version that was current becomes a previous version.

Stop a Journey

Stop a customer journey in Journey Builder.

When you stop a journey the flow of activities ends and ejects all contacts. Ejected contacts can't be readmitted into the journey at the point where the journey stopped. Add ejected contacts to the Event Source data extension again to enter a new version.



Note: If an In-App Message is sent but not yet displayed, stopping the journey isn't guaranteed to cancel the message display. On the next app open, Marketing Cloud Engagement syncs with the MobilePush SDK and tells it to forget the message. If the message is set to display immediately upon app open, the user sees the message if the sync hasn't completed.

1. Open the journey.
2. Click **Stop**.

Bulk Actions in Journey Builder

Manage your journeys more easily from the Journey dashboard. You can modify up to 10 journeys at one time, and choose to do so for the current version or for all versions. Long or complex journeys may take longer to complete the request. You can modify up to 50 journey versions. If your request has more than 50 versions, only the first 50 are requested. The Journey and Version dashboards show which journeys have successfully completed.

Stop Multiple Journeys at One Time

- You can't bulk stop single-send journeys, transactional journeys, or journeys that include Salesforce Data Entry journeys, indicated by the Salesforce icon on the dashboard.

- Journeys must be in a Running or Finishing state.
- When you stop journeys, the status changes to Stopping and updates to Stopped when complete.


Pause and Resume Multiple Journeys at One Time

Some advanced pausing options aren't available in this Dashboard view. You can still access the journeys individually from the journey canvas.

- You can pause and resume Salesforce Data Entry journeys.
- Journeys must be in a Running state to pause and in a Paused state to resume.
- When you pause journeys, the status changes to Pausing and updates to Paused when complete.
- When you resume journeys, the status changes to Resuming and updates to Running when complete.

Delete Drafts and Inactive Journeys

You can delete draft and inactive Marketing Cloud Engagement journeys in Journey Builder. When you delete an inactive version, all of that journey's goal and performance data are permanently removed. The journey's cumulative totals still include the goal and performance data tied to it.

 **Important:** You can't recover deleted drafts.

1. Open the draft or inactive journey version to delete.

2.



3. Click **Delete this Version** or **Delete Journey**.

4. Click **Delete**.

Analytics and History

Journey Builder includes journey health, history, and dashboards.

[Journey Analytics Dashboard](#)

Access unified cross-channel performance data in Journey Builder, and easily track your marketing campaign's effectiveness. Journey Analytics, powered by Google Analytics, unites Marketing Cloud Engagement SMS, push messaging, and email capabilities with Analytics behavioral data in a single dashboard. You can compare how goals configured in Google Analytics perform over time, and you can see ecommerce, messaging performance, and site usage data.

[Use the Journey Analytics Dashboard](#)

To see robust data on Journey Builder emails, push messages, and SMS messages, access the Journey Analytics dashboard in your Google Analytics-enabled Marketing Cloud Engagement account. When the Analytics integration is enabled, any user in your account can access the dashboard in a journey.

[Journey Health](#)

The Health panel in Journey Builder shows goal and journey population data for a running or stopped multi-step journey. The statistics in the Health panel are shown for the version of the journey you are in currently.

[View Journey Health Data](#)

Use the Journey Health panel in Journey Builder to view goal and journey population data for a running or stopped journey.

[The Versions Dashboard](#)

The Versions page in Journey Builder provides an overview of all journeys and their performance. Use this page to view all versions of a journey. You can also copy a version or create a version of the journey.

[Journey History](#)

Use The Journey Builder Journey History feature to view information about a specific contact, journey, or journey version. You can also view the activity and status history of a contact, journey, or journey version. This view displays the last 30 days of activity. It includes the total number of contacts across all journeys in your account.

Journey Analytics Dashboard

Access unified cross-channel performance data in Journey Builder, and easily track your marketing campaign's effectiveness. Journey Analytics, powered by Google Analytics, unites Marketing Cloud Engagement SMS, push messaging, and email capabilities with Analytics behavioral data in a single dashboard. You can compare how goals configured in Google Analytics perform over time, and you can see ecommerce, messaging performance, and site usage data.

Track your marketing campaign's effectiveness across views in your account for the date range you select. View and compare how goals configured in Google Analytics perform, and compare data over different periods.

To use Google Analytics in a journey, link your Salesforce and Google Analytics accounts, and follow Google's login process.

Considerations

- Any user in your account can access the Journey Analytics dashboard in a journey.
- When Google Analytics is enabled for your account, tracking is available by default in all journeys.
- When you create another version of a journey, it includes tracking even if Google Analytics was disabled when the journey was created.
- The Journey Analytics data shown on the dashboard pertains to all versions of the journey and isn't separated by journey version.
- The delivery rate is calculated by subtracting bounces from the number of total sends, and then dividing the total sends by that number. When there are no bounces, the delivery rate is 100%.

The Goals component in Journey Analytics isn't linked or related to Journey Builder goals or exit criteria. For more information on goals, see Google Analytics help.

SEE ALSO:

[Configure Default Google Analytics Tracking Parameters](#)

[Configure the Google Analytics Integration for Marketing Cloud](#)


[Enable or Disable Google Analytics](#)


[Google Analytics Help Center](#)


Use the Journey Analytics Dashboard


To see robust data on Journey Builder emails, push messages, and SMS messages, access the Journey Analytics dashboard in your Google Analytics-enabled Marketing Cloud Engagement account. When the Analytics integration is enabled, any user in your account can access the dashboard in a journey.

To use Analytics in a journey, link your Salesforce and Analytics accounts, and follow Google's login process. Then enable Analytics Tracking in Journey Settings, and add the domains whose UTM parameters you want to track. If you don't add a domain, Analytics tracks all domains that the journey's links point to.

 **Note:** The Goals component in Journey Analytics isn't linked or related to Journey Builder goals or exit criteria.


1. To open the Journey Analytics dashboard, open a journey, and click .
2. Select the view to use.
3. To select a range of up to 30 days, click the date range. The date range must begin on or after the first day the journey is active. You can also select another date range to compare to. The date ranges can't overlap. The date range must begin on or after the first day the journey is active. The maximum date range is 30 days. However, you can query the data for three years. When you select a date range and compare it with a different date range, the rate of change appears in each dashboard tile.

4. Click .
5. To add or remove a view, click **View**.
6. To select up to five goals, click **Goals**.
7. To select accounts and properties, click **GA4 Property**.
8. Click **Done**.
9. To select data streams, click **Data Streams**.
10. Click **Done**.

 **Note:** Changes made to components and their display order persist after you leave the journey.

11. To select email or mobile message metrics, click **Filters**.
12. Choose whether to show channel performance in aggregate or segregated by channel.

To change the components' display order, drag each component to the desired position.

 **Tip:** When SMS activities generate Google Analytics metrics, reporting doesn't appear in the Content section. SMS messages don't include content assets or blocks.

SEE ALSO:

- [Google Analytics Solutions](#)
- [Google Analytics Help Center](#)
- [Create and manage goals](#)
- [Conversions reports](#)

Journey Health

The Health panel in Journey Builder shows goal and journey population data for a running or stopped multi-step journey. The statistics in the Health panel are shown for the version of the journey you are in currently.

Contact Path

Use the contact key to search for a contact and view their path through the journey during the last 30 days. From here you can remove a contact from the journey or gain insight into why a contact exited a journey prematurely.

Goal

The Goal section states the goal in plain language. It also shows the percentage or number of contacts in the journey that reached the goal under Goal Attainment.

Journey Builder measures goal attainment by comparing the number of contacts who reached the journey goal to the goal target set during goal configuration.

 **Note:** If you didn't set a goal target, goal attainment is shown as null (--).

Journey Counts

Under Current Population, view the number of contacts that are currently in the journey. This number represents contacts in a wait activity at the current time.

Alerts

This section shows the total number of contacts in a wait activity at least 60 minutes past its scheduled expiration. This total is the number of contacts who haven't resumed their progress through the journey workflow.

When a wait activity is configured, you choose its duration. To determine when a contact leaves a wait activity, the system adds the duration you set to the date and time the contact enters the wait activity. After a contact reaches their scheduled end date, they continue through the workflow of the journey.

Under some conditions, delays occur when Journey Builder processes a contact continuing from a wait activity into the rest of the journey. The Contacts Past Due in Wait alert displays the number of contacts remaining in a wait activity 60 minutes without continuing in the journey. This wait alert indicates that processing capability has slowed.

 **Note:** Due to system limitations, the Alerts section refreshes every 60 minutes. This threshold isn't editable.

 **Tip:** To see entry results and goal data for all versions of a journey, click the version label in the canvas header.

SEE ALSO:

[View a Contact Path in a Journey](#)

View Journey Health Data

Use the Journey Health panel in Journey Builder to view goal and journey population data for a running or stopped journey.

1. Navigate to the Journeys Dashboard, and locate the journey to view.

2. Click the journey.

3.

To access the journey health panel, click



4.

Review the health of the journey, then click



to collapse the panel.

SEE ALSO:


[Set a Goal in Journey Builder](#)


[Entry Results](#)

The Versions Dashboard

The Versions page in Journey Builder provides an overview of all journeys and their performance. Use this page to view all versions of a journey. You can also copy a version or create a version of the journey.

Access the Versions page by clicking a journey from the Journeys page.

 **Tip:** Journey Builder measures goal attainment by comparing the number of contacts who reached the goal in a journey to the goal target set during goal configuration.

 **Note:** If no goal target is set, goal attainment is shown as null (--).

Journey History

Use The Journey Builder Journey History feature to view information about a specific contact, journey, or journey version. You can also view the activity and status history of a contact, journey, or journey version. This view displays the last 30 days of activity. It includes the total number of contacts across all journeys in your account.

To narrow the journeys included in the history view, set filters for date range, activity, status, and journey. The filter options you select persist after the filter pane closes. To remove filters, click **Clear**.

You can add or remove columns from the table and download the results to a CSV.

 **Note:** Deleted journeys and journeys in draft mode aren't included in this historical view.

Journey History

Value	Description
Contact Key	The ID associated with a contact record. This field is set in the contacts data model using the Contact Builder tool.
Journey	The name of the journey that the contact entered.
Activity ID	Identifies an activity, and helps you distinguish between multiple activities of the same type.
Activity Type	The type of activity that the contact reached.
Activity Name	The Journey Builder activities that the contact reached. Activity names come from the activity's Name field on the Journey Builder canvas. Activity names are editable. If a name isn't provided, the name of the triggered send that's created when an email message is sent shows instead. For Wait activities, the wait duration length is shown in this field.
Status	The result of the activity type. For activities related to journey entry, the status is the reason that the contact entered or didn't enter the journey or why another action occurred. A failed status includes what caused the failure.
Status Detail	The description, if applicable, of what caused the record's status.

Value	Description
Time	The timestamp identifying when the activity occurred. Information is shown for the last 30 days only. Your computer's time zone setting determines the time zone that the timestamp uses.
Success Rate	The percentage of successes out of all the table records from the selected journeys.
Successes	The number of records from the selected journeys that have a status of Complete.
Hard Errors	The number of records from the selected journeys that have a status of Failed.
Soft Errors	The number of records from the selected journeys that have warnings.
Contacts Entered	The percentage of records that have exited out of all the entered contacts.
Entered	The number of records from the selected journeys that have an activity type of StartInteractionActivity.
Exited	The number of records from the selected journeys that have an activity type of StopInteractionActivity.
History Events	The time series graph displaying the number of records occurring over time.

[Status Key Reference](#)

Understand the status messages shown on the Contacts page in Journey Builder.

[View a Contact Path in a Journey](#)

Use this feature to locate a contact in a running or stopped journey and view the path they took within the last 30 days. From here, you can determine where a contact is in a journey and if they exited a journey early or finished a journey. You can also remove the contact from any point in the journey.

[View a Contact Path on the Journey History Dashboard](#)

Use this feature to locate a contact in a running or stopped journey and view the path they took within the last 30 days. From here, you can determine where a contact is in a journey and if they exited a journey early or finished a journey. You can also remove the contact from any point in the journey.

[View a Contact's Journey History in a Journey](#)

You can view a contact's journey history on the journey canvas. Results are shown for the previous 30 days by default.

[View a Contact's History on the Journey History Dashboard](#)

You can view a contact's journey history on the Journey History dashboard. Results are shown for the previous 30 days by default.

[View Recent Contacts by Activity](#)

View up to 30 days of contacts processed in any non-wait activity in any active, stopped, or paused journey in Journey Builder. Expand for a detailed view to identify trends in contact success and error rates to troubleshoot and resolve issues more quickly.

[Error Message Troubleshooting](#)

Review possible solutions to common contact journey errors in Journey Builder. These errors can cause a contact to exit a journey earlier than expected.

SEE ALSO:

[Get Started with Contact Builder](#)

Status Key Reference

Understand the status messages shown on the Contacts page in Journey Builder.

Typical Journey Status Messages

These statuses are part of a contact's typical path into and through a journey.

Use the Status value with the Activity Type value to understand where a contact is in a journey and the path that contact took.

The schedule for when a contact is evaluated differs depending upon whether a goal is set to remove them from the journey. Journey Builder evaluates each contact against a journey's goal criteria at these times:

- Each time a wait period expires
- If the exit option is set on the goal, the goal is evaluated every day at midnight, US Central Standard time

Status	Meaning
Complete	The activity shown in the Activity Name column finished.
Waiting	The contact entered the journey and is in a Wait Period. Journeys typically include multiple wait periods.
MetCriteria	The contact met filter criteria. This status doesn't refer to goal criteria. Unless the contact met the goal before entering the journey, the contact proceeds into the journey.
GoalCriteriaNotMet	The contact didn't meet goal criteria before this activity or any previous activity in the journey.
GoalCriteriaMet	The contact met the goal criteria for this journey on this step. If the goal criteria are also exit criteria, the journey ejects the contact. This result is reflected in the next status update shown for the contact.
GoalCriteriaAlreadyMet	The contact met the journey's goal criteria before reaching this activity. To find the activity where the contact met goal criteria, review the journey by sorting by Interaction Name. The status GoalCriteriaMet is shown on the step where the goal criteria were met.
DidNotMeetEntryCriteria	The contact didn't meet contact filter criteria for journey entry. Marketers typically create contact filters, though not in every case.
ContactAttempted	An event was detected, but not yet processed. If an active journey uses the event, Journey Builder queues the contacts to enter the

Status	Meaning
	journey. If no active journey uses the event, this terminal status shows for this instance of the event.
InteractionEventHandled	An Event fired and Journey Builder detected it. This status is typically followed by the EventQueuedForProcessing status. If the status is shown and a contact fails to enter a journey, report this status message in any cases you open on Salesforce Help.
EventQueuedForProcessing	An Event fired and is waiting to be handled. System traffic effects processing speed, but usually processing begins immediately. You can verify that there's a delay occurring when there have been no additional entries on the Contact Administration page for 30 minutes or more.
GoalCriteriaMetInWait	Journey Builder admitted this contact. The contact then met the journey's goal criteria while in a wait period. If goal criteria are also exit criteria, the contact is no longer in the journey.
CurrentlyWaitingInSameInteraction	The contact already entered this journey and is in a wait period. The Contact Entry setting doesn't allow a single contact to exist within the journey more than one time.
ContactAlreadyInteraction	The contact already entered the journey, but hasn't yet exited. The Contact Entry setting doesn't allow a single contact to exist within the journey more than one time.
Running	A journey that is either actively processing Contacts within the journey or is still able to process or inject new Contacts into the journey.

Special Journey Status Messages

These status messages aren't part of a contact's typical path through a journey. Use these descriptions to diagnose issues with a contact or journey.

Include your status messages in any cases you open on Salesforce Help.


Status	Meaning
ErrorProcessingWaitActivity	An error occurred while this contact was in a wait period. Open the journey to view specific error information.
ErrorValidatingContact	An error occurred while validating this contact against the entry event contact filter. Fire the event again to inject this contact. Include only this contact in the event if necessary. Report this status message and ContactKey in any cases you open on Salesforce Help.
InvalidInteractionId	The journey was deleted from the system. If the deletion is unintended, report this status message in any cases you open on Salesforce Help.

Status	Meaning
InteractionNotPublished	The journey hasn't been activated. Activate this journey, then fire the entry event again to inject this contact.
ContactNotFound	ContactKey isn't found when fetching data from contacts. Go to Contact Builder to ensure that a contact with this ContactKey exists.
ContactObjectNull	No contact exists for this ContactKey. Go to Contact Builder to ensure that a contact with this ContactKey exists.
NotEvaluatingEntryCriteria	The journey's entry event or filter isn't working properly. Modify the entry event and its contact filter in the journey, then create a version. Or, in a shared entry event, modify the event in Event Administration. To admit contacts, fire the event again after modifying the filter.
ErrorDeterminingInitialActivity	An error occurred in the first activity in this journey. Open the journey's first activity to view specific error information.
Deactivated	The journey has been deactivated and no longer detects events. Activate this journey, then fire the event again to admit contacts.




View a Contact Path in a Journey

Use this feature to locate a contact in a running or stopped journey and view the path they took within the last 30 days. From here, you can determine where a contact is in a journey and if they exited a journey early or finished a journey. You can also remove the contact from any point in the journey.

Use Contact Builder to find the contact's Contact Key value.

 **Tip:** To remove the contact from a journey, click **Remove from journey**. To allow the user to remove a contact add the Activate/Stop/Pause/Resume/Send/Schedule permission to the user's Journey Builder Role.

From the Journey canvas:

1. Locate the running or stopped journey, and click it.
2.  Click 
3. Enter the contact's Contact Key value in the search box, and click  .

 **Note:** This field doesn't accept special characters.

4. If the contact entered the journey multiple times within the last 30 days, click to select the instance to view. The contact's path, last known location, and status in the journey is highlighted on the journey canvas.

View a Contact Path on the Journey History Dashboard

Use this feature to locate a contact in a running or stopped journey and view the path they took within the last 30 days. From here, you can determine where a contact is in a journey and if they exited a journey early or finished a journey. You can also remove the contact from any point in the journey.

From the Journey History dashboard:

1. Click the **History** tab.
2. On the right side of the record, click the arrow of the contact path that you want to see.
3. Select **Open in Journey Health** from the dropdown.


A Journey Health tab opens. You can view the contact's path, last known location, and status.

View a Contact's Journey History in a Journey

You can view a contact's journey history on the journey canvas. Results are shown for the previous 30 days by default.

Use Contact Builder to find the contact's Contact Key value.

From the journey canvas:

1. Click the **History** tab in Journey Builder.
2. Enter the contact's Contact Key value in the search box, and click  .



Tip: To narrow search results, add a filter to select by journey name, activity, status, or date range. Click to expand the filter criteria, then select the filter value to use.

View a Contact's History on the Journey History Dashboard

You can view a contact's journey history on the Journey History dashboard. Results are shown for the previous 30 days by default.

From the Journey History dashboard:

1. Click the **History** tab.
2. On the right side of the record, click the arrow of the contact path that you want to see.
3. Select **Filter by contact key** from the dropdown.

The Contact Key is displayed in the Filters panel. The history page is refreshed and shows Contact Key records.

View Recent Contacts by Activity

View up to 30 days of contacts processed in any non-wait activity in any active, stopped, or paused journey in Journey Builder. Expand for a detailed view to identify trends in contact success and error rates to troubleshoot and resolve issues more quickly.

1. To view a summary of contacts processed in a non-wait activity, click the contact count below the activity.
2. To open the detail view drawer, click **View Contact Details**.
3. To see the list of individual contacts, click **View Details**.

SEE ALSO:

[View a Contact's Journey History in a Journey](#)

[Error Message Troubleshooting](#)

Error Message Troubleshooting

Review possible solutions to common contact journey errors in Journey Builder. These errors can cause a contact to exit a journey earlier than expected.

Error Message	Issue or Possible Solution
Email Activities	
This contact opted out of all Marketing Cloud Engagement emails.	--
This contact is missing a required attribute.	Update the record to include the required attribute value.
We can't find this contact in the All Subscribers list.	--
We can't find a matching subscriber key for this contact.	--
This contact is on an exclusion list.	--
List Detective removed this contact.	--
This contact is on a suppression list.	--
This contact opted out.	--
This contact was permanently deleted.	--
This contact has an invalid email address.	Confirm and update the email address in the data extension.
Data Binding	
Required email address not found.	Add a valid email address to the contact record in the data extension.
Unexpected Error	
Something went wrong.	--
Sales Cloud Activity	
Duplicate field values found.	Delete the duplicate value.
Specify a required field.	Choose a required field.
Doesn't meet the validation criteria.	Confirm each required field has a value provided and matches the specified data type.
Maximum string value exceeded.	Confirm that each field provided doesn't exceed the max length.
Invalid ID string value found.	Confirm and update the ID value in the data extension.
Invalid relationship field value type.	Confirm the ID is valid for the field being modified.
Duplicate records found.	Delete the duplicate contact record.
Can't update a converted lead.	The Lead record was converted to a Contact. After it's converted, the Lead record can't be updated
Can't reference a deleted object.	--
Can't combine a person account record type change with any other field update.	--
Org storage limit exceeded.	Contact Salesforce Support to increase your data storage, or delete unneeded data.

Error Message	Issue or Possible Solution
Invalid value found for a restricted picklist.	Confirm if the value provided matches a valid restricted picklist value.
Custom Activity	
The REST response doesn't contain a required outArgument ({argumentName}).	Verify the response being returned from the executed endpoint contains the required outArgument.
Increase request time or add activity retries.	Increase request time or add activity retries. See Custom Activity Configuration for details.
Request failed due to: (issue)	Add activity retry if applicable.
Can't complete the REST API call. Confirm the configuration for Execute is valid JSON and conforms to Journey Builder workflow document.	Confirm the configuration for Execute is valid JSON and conforms to Journey Builder workflow document.
Can't parse the returned data required for the REST activity.	Verify the response being returned from the executed endpoint is valid JSON.
Can't parse the payload. Confirm JSON conforms to Journey Builder workflow document.	Confirm config.json is valid JSON and conforms to the Journey Builder workflow document.
Validation failed for (URI). Use https:// for POST	Verify that the executed endpoint uses https and has a valid SSL certificate.
REST response outArgument doesn't match the specified data type (argumentName).	Verify the outArgument provided in the response body matches the data type specified in the config.json.
Update Contact	
Missing required fields.	Add the required data to the activity configuration.
Target data extension was deleted.	Reconfigure activity to use an active data extension.
Primary Key violated on insert.	Contact Data exists for the specified data extension for contact.
Activity timed out.	--

Behavioral Triggers

Use Marketing Cloud Engagement to reach customers who abandon unpurchased items or services. Configure the flow of this behavioral data into the data extensions for email sends and journeys. Using behavioral data this way is called Behavioral Triggers.

Salesforce Services isn't required for basic abandoned cart, browse, and wishlist use cases. Your customers and their partners can set them up. Behavioral Triggers is free for Pro, Corporate, and Enterprise Editions and uses Amazon Web Services. Behavioral data extensions store the data for 30 days. To configure the Journeys or Automations, contact Marketing Cloud Engagement support. The level of support varies on each customer's data model.

If you already paid for an Abandoned Cart audience file, you can still use audience files until a customer requests that they're turned off. Customers can't use both legacy audience files and Behavioral Triggers for the same use case. A customer using an abandoned cart audience file can't enable an abandoned card trigger in Behavioral Triggers.

To get started, select **Behavioral Triggers** from the Journey Builder nav menu.

[Behavioral Triggers Prerequisites](#)

To implement Behavioral Triggers, first install Collect Tracking Code and upload a product catalog.

[Create a Behavioral Trigger](#)

Set up a behavioral trigger to map data to a target data extension when a user takes a particular action, such as abandoning a cart or browser session. The target data extension name displays on the Behavioral Triggers dashboard after you create the trigger.

[Edit a Behavioral Trigger](#)

Update a behavioral trigger to include a different suppression period or suppression rule time frame.

[Pause a Behavioral Trigger](#)

To stop a behavioral trigger from directing engagement data to your target data extension, pause the trigger.

[Resume a Behavioral Trigger](#)

To restart a behavioral trigger so it begins directing engagement data to your target data extension, resume a paused trigger.

[Set Behavioral Trigger Session Timeout Limit](#)

Configure the Behavioral Triggers app to observe a session timeout limit that you set. This timeout limit dictates how long a customer's session lasts before it's considered abandoned.

[Create a Behavior Trigger Email](#)

After you create a Behavioral Trigger in Content Builder, you can create an email based on that trigger.

[Behavioral Triggers Optional Features](#)

Use Behavioral Triggers to reach customers who abandon unpurchased items or services in their cart in Marketing Cloud Engagement (Einstein).

SEE ALSO:

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

Behavioral Triggers Prerequisites

To implement Behavioral Triggers, first install Collect Tracking Code and upload a product catalog.

Behavioral Triggers Requirements

- A catalog of assets used to sync with user behavioral data and determine which recommendations to show.
- Collect Tracking Code used to monitor key variables and events on your website at the user level.

You can import one file for each catalog type.

 **Tip:** Your web admin can help you to configure and install Collect Tracking Code and required data feeds.

SEE ALSO:

[Catalog](#)

[Collect Tracking Code](#)

[Solution Kits for Retail and B2C](#)

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


Create a Behavioral Trigger

Set up a behavioral trigger to map data to a target data extension when a user takes a particular action, such as abandoning a cart or browser session. The target data extension name displays on the Behavioral Triggers dashboard after you create the trigger.

1. In the Behavioral Triggers app, click **New Trigger**.
2. Choose the customer action that is logged in the target data extension when the action occurs.
3. Click **Next**.
4. Set the suppression period and suppression rule.
5. Click **Next**.
6. Review and save your settings.
The trigger appears on the Behavioral Triggers dashboard. Note the data extension name so you can select it to power a journey or email send.


Edit a Behavioral Trigger

Update a behavioral trigger to include a different suppression period or suppression rule time frame.

1. In the Behavioral Triggers app, click  next to a trigger.
2. Click **Edit**.
3. Update the suppression period or suppression rule time frame.
4. Click **Save**.


Pause a Behavioral Trigger

To stop a behavioral trigger from directing engagement data to your target data extension, pause the trigger.

1. In the Behavioral Triggers app, click  next to a trigger.
2. Click **Pause**.
The trigger's status updates.


Resume a Behavioral Trigger


To restart a behavioral trigger so it begins directing engagement data to your target data extension, resume a paused trigger.

1. In the Behavioral Triggers app, click  next to a paused trigger.
2. Click **Resume**.
The trigger's status updates.

Set Behavioral Trigger Session Timeout Limit

Configure the Behavioral Triggers app to observe a session timeout limit that you set. This timeout limit dictates how long a customer's session lasts before it's considered abandoned.

 **Note:** Custom session timeout limits aren't supported.

1. In the Behavioral Triggers app, click .
2. Select a timeout limit.
3. Click **Save**.

Create a Behavior Trigger Email

After you create a Behavioral Trigger in Content Builder, you can create an email based on that trigger.

Incorporate the data from the Behavioral Trigger data extension (DE) for the Behavioral Trigger Content Block to work. Using other audiences generates an error.

1. Create the email.
2. To dynamically add abandoned items into the body of the email, drag the items over the Behavioral Trigger Content Block. Email recipients get a personalized message. Two schedules factor in: the session timeout and the automation schedule. Session timeout is the period of inactivity that means a session is abandoned. Marketers can configure this period in the Behavioral Triggers application, and it can be as short as 15 minutes.

After the session times out, a Behavioral Trigger writes the event to a data extension in near real time. Then, the next time your Behavioral Trigger Journey or automation runs, the Behavioral Trigger processes this record. For example, with a session timeout of 30 minutes and an hourly automation schedule, a subscriber gets their Behavioral Trigger message 31–91 minutes after their last click.


3. To include items in the email, set the maximum number of items. The default is 10.

 **Tip:**

If the customer browsed 50 things, don't show all 50 in the email.

4. For the marketer to select the most relevant items to show, select the DE column. The Max columns increment dynamically and collapse.
5. To show items in the email such as image name or price, choose the fields. On the Styling tab, when a field is added, the Behavioral Trigger dynamically adds a class in the Styling tab for the sales price. Marketers can add standard CSS to change that.

The HTML tab shows a sample markup that the user can't edit because the data is added dynamically. Behavioral Triggers shows the HTML so that the user can see how to style the email.

 **Note:** Don't modify the BT DE schema. You can add extra fields, but they must be nullable.

Behavioral Triggers Optional Features

Use Behavioral Triggers to reach customers who abandon unpurchased items or services in their cart in Marketing Cloud Engagement (Einstein).

EDITIONS

Available in Marketing Cloud Engagement Messaging and Journeys Pro, Corporate, and Enterprise editions.

Horizontal vs Vertical Layout

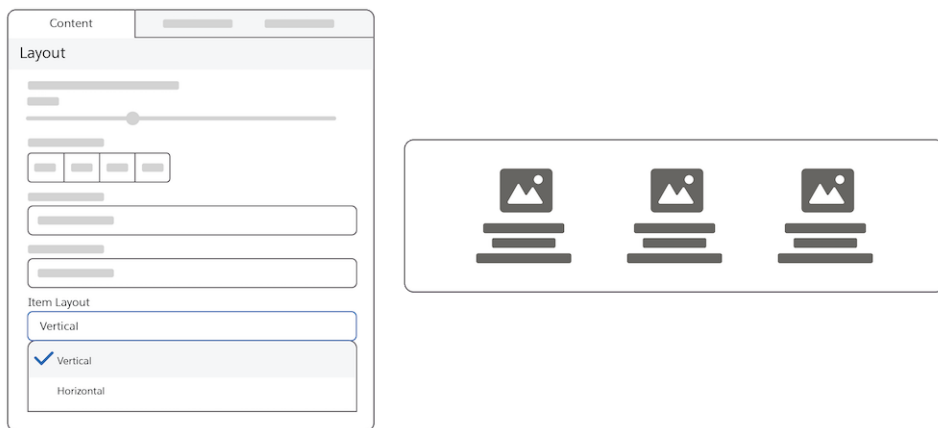
To display product information to your customers, you can use either a horizontal or a vertical view.

Horizontal:



In a horizontal layout, images and text are side by side. The picture of the selected item is on the left, and the text describing the item is on the right.

Vertical:



In a vertical layout, images are above the text.

Use Current Cart Feature

This feature reflects the cart at the time the message is sent. If the user edits the cart, the message remains in its original state and isn't updated.

If the check box isn't selected, the message reflects the items that were originally abandoned.

Rating Stars Feature

Select the rating field in the catalog so that your customers can use the rating stars feature. Customers can rate products on a scale of four to ten. And they can view the products sorted by their ratings from lowest to highest or highest to lowest. Marketers can show a product's average rating. The product catalog must contain this information. To build the rating visualization, indicate the maximum rating value.

Styling Tab

- Customers can change the color of the actual stars from the specified class.

How to Use Reference Data

AMPscript variables contain data about items in the original cart initialized for example `item_<field_name>_<index>`

If the user has an updated cart, the updated cart is stored in the field, for example `@cart_<field_name>_<index>`

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