

# **Unica Deliver V12.1.1 User's Guide**



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# Chapter 1. Unica Deliver overview

Unica Deliver is a web-based, enterprise scale marketing message solution that you can use to conduct outbound bulk messaging and transactional messaging campaigns. Deliver integrates with Unica Campaign and with secure message composition, transmission, and tracking resources that are hosted by Unica.



**Note:** Deliver supports the following channels along with email. In this guide, the term message applies to all channels.

- SMS
- WhatsApp
- Push

You can use Deliver to create, send, and track personalized email, SMS, Push, and WhatsApp communication. As Deliver installs and operates with Campaign, you can use Campaign flowcharts to precisely select and segment recipient information to customize each message.

You can use Deliver to create personalized web pages to serve as landing pages for links in marketing messages. The landing pages can also serve as online submission forms. Unica hosts the landing pages for you.

## Select your audience

Use Campaign to select message recipients and data about each person that you can use to personalize each message.

With Deliver, you can reach large numbers of recipients quickly and personally. However, you can also configure a mailing to automatically send a single message in response to a transaction.

## **Create a message**

The Deliver Message Editor provides editing tools that you can use to design, preview, and publish personalized message content. You can create messages with content that you upload to the Message Editor or link to external content when Deliver builds and transmits messages. Deliver provides several ways to design messages that display content conditionally, based on personal data for each recipient.

Quick Builder is the user interface for creating smart email communications, wherein you can design the email messages as per your requirements using the enhanced drag and drop tools available.

## **Send the message and track responses**

Depending on your goals, you can schedule a messaging campaign to run as soon as possible or schedule it to run later. Deliver monitors message delivery and tracks recipient responses. The system returns contact and response data to the Deliver system tables that are installed as part of the Campaign database schema. You can access aggregate message transmission performance and response data through standard Deliver reports or by querying the database.

## **How to get started**

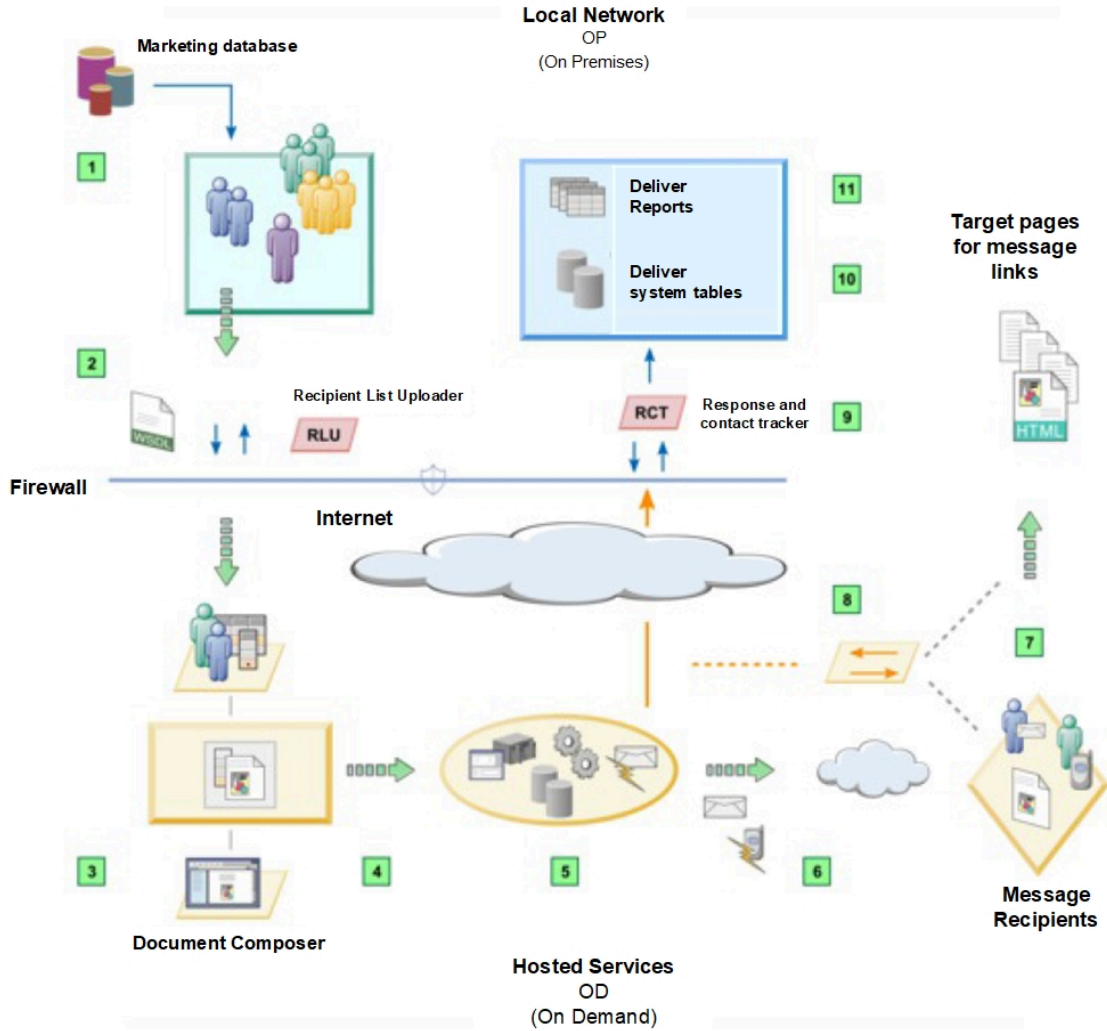
To get started, you must install Campaign and have a hosted messaging account.

System administrators must request a hosted messaging account and work with Unica to configure secure access to the remote messaging and tracking systems. Some messaging features are available only upon request to Unica. For more information about establishing a hosted messaging account and configuring access to Unica hosted messaging, see the [Unica Deliver Startup and Administrator's Guide](#).

# **Components and workflow in Deliver**

Conducting a messaging campaign with Deliver requires components that are installed locally with Unica Campaign and components that are hosted by Unica. The workflow for message design, transmission, and response tracking crosses between the two environments.

The following diagram identifies the major Deliver components and illustrates the overall workflow.



**Table 1. Deliver Overview**

	Description
1	Select data about message recipients. Use data from your marketing databases or transactional data to address and personalize each message.

**Table 1. Deliver Overview (continued)**

	<b>Description</b>
<b>2</b>	<p>Upload the selected recipient data.</p> <p>Deliver maintains a secure connection with the hosted messaging environment.</p>
<b>3</b>	<p>Create a communication.</p> <p>The communication defines the appearance and behavior of the message that the recipient opens.</p>
<b>4</b>	<p>Configure a messaging campaign.</p> <p>Depending on the type of campaign, you configure how to combine recipient-specific data with text, images, hyperlinks, and placeholders for recipient data to enable the system to individually personalize each message.</p>
<b>5</b>	<p>Run the campaign.</p> <p>The system merges recipient data with the document that defines the message. The system transmits the individual messages and records aggregate transmission performance.</p>
<b>6</b>	<p>Messages are delivered to the specified recipients.</p> <p>Deliver tracks message delivery responses from various Internet Service Providers (ISP). The system records various ISP delivery responses, including failed delivery responses, and unsubscribe requests.</p>
<b>7</b>	<p>Recipients respond to your message.</p> <p>The system detects and records message opens and link clicks. Recipients can click links in the message that point to your website or to web pages that Unica hosts for you.</p>
<b>8</b>	<p>Deliver tracks message responses.</p> <p>Unica systems process each link click and records data about the response before the system redirects the link request to the link target.</p>



**Table 1. Deliver Overview (continued)**

	<b>Description</b>
<b>9</b>	<p>Download the contact and response data.</p> <p>The Response and Contact Tracker (RCT) is installed with Campaign behind your corporate firewall. The RCT periodically requests the tracking data that Unica recorded.</p>
<b>10</b>	<p>Contact and response data is stored in the Deliver system tables.</p> <p>The RCT stores the data that it receives in various system tables. The Deliver system tables are part of the Campaign database schema.</p>
<b>11</b>	<p>Standard reports.</p> <p>View standard Deliver reports to analyze message transmission performance, delivery success, and recipient responses.</p>

## Deliver concepts

### Recipient lists

In Deliver, a recipient list provides a connection to selected recipient-specific data in your marketing databases that Deliver uses to address and personalize outbound marketing messages. The data is contained in a database table that is called an Output List Table (OLT). You define and populate an OLT in Unica Campaign to select individuals that receive a personalized message and to provide personal information about each message recipient.



**Note:** An OLT is not required for transactional messages.

You create a recipient list by running a Campaign flowchart that contains a Deliver process. The OLT is the output of the Deliver process. When you configure the OLT, you define personalization fields that you can add to messages.

Each personalization field maps to a field in your marketing database. For example, you can define a personalization field that maps to the first name or account number that you have

on file for each message recipient. When you transmit messages as part of a messaging campaign, Deliver replaces every personalization field in each message with data that is specific to the individual message recipient.

## **Personalization**

Personalization features in Deliver provide various ways for you to tailor each message to address the individual preferences or characteristics of the message recipient. The information that is required to personalize a message comes from records that are stored in your marketing database and uploaded to the Unica hosted messaging environment.

Personalization features in Deliver depend on personalization fields. Each field references a specific field in your marketing database. Personalization fields provide the means to automatically add recipient-specific information from your marketing database to the messages that you send. Personalization fields are also used in advanced scripts for email messaging and in rules that control how conditionalized content displays.

## **Communications**

A communication is an object that you use in the Message Editor or Quick Builder to define the structure and content of personalized messages and landing pages. To create a message or landing page, you must create a new communication or edit an existing communication. The design of the communication determines the appearance and behavior of the message that is delivered to each recipient. A published communication is a required input to every messaging run.

## **Templates**

Some types of communications are based on an HTML template that you create outside of the Message Editor or Quick Builder (for email, SMS, and push notifications communications). The template defines the layout of the message or landing page that is based on the communication. In the Message Editor and Quick Builder, you can add content and personalizations to create a communication. You can also embed various content and personalization elements, including personalization fields, directly into the body of the template.

Templates are stored in the Content Library that is part of the Message Editor or Quick Builder. The marketer must upload the template to the Content Library where it can be used to create a message or landing page communication. The Message Editor provides an editor that marketers can use to modify templates as needed.

In some cases, templates can be created by third-party vendors that provide the template to the marketer.

## **Landing pages**

A landing page is a web page that is served from the Unica hosted messaging environment. Links in personalized messages can point to the hosted landing page. If the landing page includes personalization elements that are defined in the message, Unica renders the page differently to each message recipient that goes to the page.

You design and maintain landing pages in the Message Editor. You can also design a landing page to serve as an online form to gather information or process requests from message recipients.

If you create a version of an email message that can be displayed as a web page, Deliver creates a landing page that duplicates the email message.

## **Messaging**

A Deliver messaging creates the framework for organizing and running an digital marketing campaign. You create and configure Deliver messaging in Unica Campaign. Each mailing represents a separate messaging campaign.

When you enable Unica Deliver, the Campaign interface adds a link that you can use add a messaging to a campaign. Each mailing that you add to a campaign appears as a separate tab in the campaign summary.

Each standard messaging must reference an Output List Table (OLT) that provides a list of email recipients, phone numbers for SMS/WhatsApp, mobile device ids for Push, and an email communication that defines the appearance and behavior of the email message. You send personalized message by conducting a mailing run. During the mailing run, Deliver creates individual messages by merging personalization data from the OLT into individual messages that are based on the communication.

Transactional messages do not rely on an OLT for address data or other personal data. The transactional request provide the required information.

You can also configure a standard mailing to run as an A/B test.

## **Transactional message**

A transactional message is a message that is sent in response to a specific, predetermined transaction that is detected in your business systems. Unica provides the Deliver Transactional Messaging Service (TMS) as a hosted web service to process transactional messages. Unica Journeys and Unica Interact seamlessly integrate with Deliver TMS to deliver targeted messages from these products. For more information, refer documentation of each product. Digital marketers can also integrate their corporate transaction management systems with the Deliver TMS by working with application developers.

By sending a transactional message, you can respond automatically to specific customer or customer-related activities with a personalized message. You can use any event that you can detect in your business systems to prompt a transactional message.

## **Advanced scripts for personalized messaging**

Advanced scripting for personalized messaging is template-based scripting language for creating self-contained scripts that you can insert into templates for HTML or text-only email. It offers a way to create types of personalized content that you cannot easily duplicate in the Message Editor. The script syntax includes several tags and elements that are used exclusively by Deliver.

You can use advanced scripting to design a script that displays a list of recipient-specific information in a data table. You can also create an advanced script that defines multiple levels of conditional content in a single message. This type of conditional content hierarchy is also referred to as nested conditional content.

You can add advanced scripts directly into a message template or HTML snippet that you add to a message. In a script, you can reference personalization fields that are defined in an output list table (OLT). You can also include content reference labels that are defined in the Content Library.

# Getting started with Unica Deliver

Deliver is tightly integrated with Unica Campaign. To access Deliver features, you must log into Campaign through a supported web browser. You can configure the system to display Deliver and Campaign in one of several languages other than English.

For more information about requirements for working with Unica Campaign, see the Unica Campaign User's Guide and other Campaign documentation.

## Browser requirements

Unica Deliver supports Chrome, Edge, Internet Explorer, and Safari. For more details, see the Recommended Software Environments and Minimum System Requirements Guide.

Depending on the version of Internet Explorer that you use to access Campaign, you might need to run the browser in compatibility mode. For details about how to configure compatibility mode, see the following Microsoft™ support page: <http://support.microsoft.com/kb/956197>.



**Important:** For best results when viewing the Message Editor, configure Internet Explorer to check for new versions of the page to "Every time I visit the Webpage". Perform the following steps to configure Internet options.

1. Navigate to **Internet Options->Settings->Website Data Settings**.
2. Under **Check for new versions of the page** list, select **Every time I visit the webpage**.

## Access to Unica Deliver

To access messaging features that are provided by Deliver, you must be able to access Unica Campaign. To access Campaign, you must have a username and password combination that has been created for you in Unica Platform. You must also be authorized to access Campaign.

For more information about access to the system through Unica Campaign, see the Unica Campaign User's Guide for information about how to get started.

For information about how to configure users that can access the system, see the Unica Platform Administrator's Guide.

## Access to Deliver in non-English locales

The Deliver interface and product documentation display in non-English languages if you have configured default region settings in the Platform and Campaign to support the language that you want to use.

For more information about the required region settings for the Unica Platform, see the Unica Platform Administrator's Guide.

For more information about the required region settings for Campaign, see the Unica Campaign Administrator's Guide.

## Access control through user roles and permissions

Access to Deliver and Campaign mailing features and content depends on roles and permissions that are defined for the system user that you use to log in to the system.

The combination of permissions that are associated with the Deliver and Campaign roles determines what you can view and the actions that you can perform.

For best results when you use Deliver and Campaign, you must understand the access requirements for each task that you need to perform. Ensure that the system user that you specify when you log in to the system has the system and content access permissions that you require.

System administrators responsible for configuring the HCL Unica system determine the roles that are assigned to each system user and the permissions that are assigned to each role. If you need to access objects or perform tasks that your permissions do not allow, contact your system administrator.

For more information about how user roles and permissions control access to features and content, see the HCL Unica Deliver Startup and Administrator's Guide.

## Logging in to HCL Unica

Use this procedure to log in to HCL Unica.

You need the following.

- An intranet (network) connection to access your HCL Unica server.
- A supported browser installed on your computer.
- User name and password to sign in to HCL Unica.
- The URL to access HCL Unica on your network.

The URL is:

```
http://host.domain.com:port/unica
```

where

*host* is the machine where Platform is installed.

*domain.com* is the domain in which the host machine resides.

*port* is the port number where the Platform application server is listening.



**Note:** The following procedure assumes that you are logging in with an account that has Admin access to Platform.

Access the HCL Unica URL using your browser.

- If HCL Unica is configured to integrate with Windows™ Active Directory or with a web access control platform, and you are logged in to that system, you see the default dashboard page. Your login is complete.
- If you see the login screen, log in using the default administrator credentials. In a single-partition environment, use `asm_admin` with `password` as the password. In a multi-partition environment, use `platform_admin` with `password` as the password.

A prompt asks you to change the password. You can enter the existing password, but for good security you should choose a new one.

- If HCL Unica is configured to use SSL, you may be prompted to accept a digital security certificate the first time you sign in. Click **Yes** to accept the certificate.

If your login is successful, HCL Unica displays the default dashboard page.

With the default permissions assigned to Platform administrator accounts, you can administer user accounts and security using the options listed under the **Settings** menu. To perform the highest level administration tasks for HCL Unica dashboards, you must log in as **platform\_admin**.

## Setting your start page

The start page is the page that displays when you log in to HCL Unica. The default start page is the default dashboard, but you can easily specify a different start page.

If you do not want a dashboard page to display when you first log in to HCL Unica, you can select a page from one of the installed Unica products as your start page.

To set a page you are viewing as your start page, select **Settings > Set current page as home**. Pages available for selection as a start page are determined by each HCL Unica product and by your permissions in HCL Unica.

On any page you are viewing, if the **Set current page as home** option is enabled, you can set the page as your start page.

## Messaging interfaces

Deliver and Campaign provide various interfaces that you use to complete messaging tasks. Access to the interfaces, and to specific messaging features, is sometimes limited by your user role and access permissions.

You can access some interfaces through the top-level menus in the HCL Unica platform. Other messaging interfaces are available through the Unica Campaign interface.

## Messaging overview

The Messaging Overview page provides a summary view of the messaging campaigns are created and performed throughout your Unica Campaign installation.

The list of email campaigns on **the Messaging Overview** page provides quick access to any of the campaigns. From the list, you can open individual message campaigns to view specific configuration details.



You can sort the list by name, the referenced communication, the referenced recipient list, the messaging channel, or the run date. When the page opens, it sorts by run date, with the most recent messaging run listed first.

As this interface provides status and run times, you can also use this interface to monitor all of the outbound messaging that you perform through Deliver.



**Note:** System administrators have the option to limit access to this page. Your ability to view the list might depend your user permissions.

## Contents of the Messaging Overview

The **Messaging Overview** page lists all of the email messages that are created and performed throughout your Unica Campaign installation. The messages are also referred to as messaging campaigns. You can sort the list according to several categories. When the page opens, it lists messaging campaigns by run date, with the most recent run listed first.

Column	Description
Name	The name of the messaging. The name appears as a hyperlink. You can sort by name.
Campaign	Name of the campaign that contains the messaging.
Communication	Name of the message that is referenced by the messaging. You can sort by communication name.
Channel	Identifies the type of messaging campaign.
Transactional	The messaging is enabled for use in transactional message.
Recipient List	Name of the list of recipients that is referenced by the messaging. The name is defined in the Deliver process that defines the recipient list.

Column	Description
	You can sort by name of the list.
Production Recipients	The number of production recipients that are contained in the recipient list for the messaging.
Run Date	Date and time of the most recent run of the messaging. There is no value in this column before the messaging run starts.  You can sort by the date and time the messaging run completes.
Status	Execution status of the messaging. There is no value in this column before the messaging run starts.

## Viewing the list of all messaging campaigns

Access the **Messaging Overview** page to view the list of all messaging campaigns that exist in your Unica Campaign installation. The list of message campaigns can extend over multiple pages.

Access the **Messaging Overview** from the **Campaign** menu. Select **Campaign > Messaging**.

By default, when the page opens, it sorts by run date, with the most recent messaging run listed first. You can sort the list by name, document name, output list name, and run date.

The names of the messaging campaigns display as hyperlinks. Click a link to access a message campaign without having to find and open the campaign in which it was created.

## Viewing an individual messaging campaign

You can view a messaging campaign from within the campaign in which you create the campaign. You can also access an individual messaging campaign from the list of campaigns that is available on the **Message Overview** page.

Each campaign that you create in Unica Campaign contains a separate tab for each messaging campaign that you create within the overall campaign. The tabs appear on the top of the campaign summary page. Click a tab to open the messaging campaign.

On the Messaging Overview page, the names of the messaging campaigns appear as hyperlinks. Click the name of a messaging campaign to open it.

Using either method, the messaging campaign opens in summary mode.

## Deliver process in Campaign flowcharts

When you install Unica Campaign and enable Deliver, the Deliver process becomes available as an option in the Campaign interface when you edit a flowchart. You use the Deliver process in a Campaign flowchart to select recipients and related data.

When you configure a Deliver process box, you define personalization fields. Personalization fields map to fields in your marketing database that contain information about message recipients. Personalization fields are an essential part of personalization features available in Deliver.



**Note:** Do not confuse the Deliver process with the Mail List process in Campaign. The Deliver process is used exclusively to create recipient lists for personalized messaging and is available only when you install and enable Deliver.

## Deliver Message Editor

The Message Editor provides an user interface to create, edit, preview, and publish communications that determine the appearance and behavior of the messages that you send.

The Message Editor interface includes the Communications tab and the Content Library. On the Communications tab, you can create and edit documents that define personalized messages. The Content Library contains images, HTML snippets, and HTML templates that you can use to create communications.

Access the Message Editor from the **Campaign** menu. To access the Message Editor, select **Campaign > Message Editor**.

## Quick Builder

Quick Builder is the user interface for creating smart email communications, SMS messages, and push notifications, wherein you can design the messages as per your requirements using the enhanced tools available.

## Deliver reports and analytics

Deliver provides several standard reports to help you monitor and analyze message transmission and recipient responses. You access these reports on the **Deliver Analytics** page.

Several reports are based on Unica Insights. You must install Unica Insights to run and view the reports.

For more information about installing and configuring Deliver reports, see the Deliver sections of the Unica Insights Reports Installation and Configuration Guide.

## Messaging Settings

The **Messaging Settings** page provides access to various administrative functions. You require administrative privileges to view this page.

To access **Messaging Settings**, select **Settings > Messaging Settings**.

The **Messaging Settings** page provides access to controls for the following messaging configurations.

- Personalization fields
- Policy settings
- Domain settings
- Mobile Push Notification Settings. It is applicable for Push notifications only.

## Unica Deliver mailing tab

When you add a mailing in Unica Campaign, the system creates a new tab in the campaign interface. The name of the tab reflects the name of the mailing. Initially, the configuration

contains only this name and several default configuration settings. You must configure the mailing further before you can use it to send personalized messages.

In Campaign, you can create multiple mailings pushes within a campaign. You can access the mailing by clicking the tab in the campaign where you added it or by clicking a link on the **Messaging Overview** page.

Depending on the state of the messaging campaign and the tasks that you are performing, the tab can be in one of the following states.

- *Summary mode.* In this mode, the messaging tab displays the current configuration settings. You cannot change the configuration. However, you start or schedule a messaging run in this mode. You can also enable a mailing for transactional message in this mode.
- *Edit mode.* When you open the mailing for editing, you can modify certain configuration settings. Some settings are system-controlled and remain read-only. When you add the mailing to a campaign, the messaging tab automatically opens in edit mode the first time. Afterward, you must manually open the tab in edit mode to make configuration changes.



**Note:** You cannot edit a mailing while the mailing is running, scheduled, or enabled for transactional message.

- *Running mode* When you begin a messaging run, the tab opens in running mode to display a console to monitor transmission of the messages.

## Your hosted messaging account

To use Deliver features, you must be able to access the messaging systems that Unica hosts. Access to the hosted messaging systems is provided through a hosted messaging account that Unica establishes for your organization. System administrators configure the connection and required system users.

Changes to your hosted messaging account are managed by Unica Deliver Services.

The messaging features that are available through Campaign and the Message Editor depend on settings that Unica establishes for your hosted messaging account. Several Deliver features are available by request only. Your organization must request that the features be enabled for your hosted messaging account.

For information or questions about your hosted messaging account, contact the Unica Deliver Services team via HCL technical support.

For more information about how to connect to the hosted messaging systems, see the Unica Deliver Startup and Administrator's Guide.

# Chapter 2. Recipient lists for personalized messaging

If you install and enable Unica Deliver within Campaign, then you can create a list that defines the recipients for a personalized messaging campaign. The list contains the recipient information that is used to address and personalize each message. You create a recipient list by configuring a Deliver process in a Campaign flowchart.



**Note:** In Deliver, a recipient list is not required for mailings that are enabled for transactional message.

Creating a recipient list happens in three phases.

## 1. Select recipients.

Configure a Campaign flowchart that selects the individuals who you want to contact through the messaging campaign. Various flowchart cells provide the input to the Deliver process.

## 2. Define the recipient list as an Output List Table (OLT).

The OLT is the output of the Deliver process in a Campaign flowchart. Configure the OLT to map personalization fields to fields in your marketing database that can provide personal information about each recipient. At this point, the OLT is only a table definition and it contains no recipient data.

## 3. Create the list.

Run the flowchart that contains the Deliver process. Running the flowchart creates the OLT in the Deliver system tables and enters values into the appropriate OLT columns. The Deliver system tables are part of the Campaign schema.

## Recipient list overview

You create a recipient list by configuring a Deliver process and completing a production run of the flowchart that contains it. When the flowchart run completes, the system

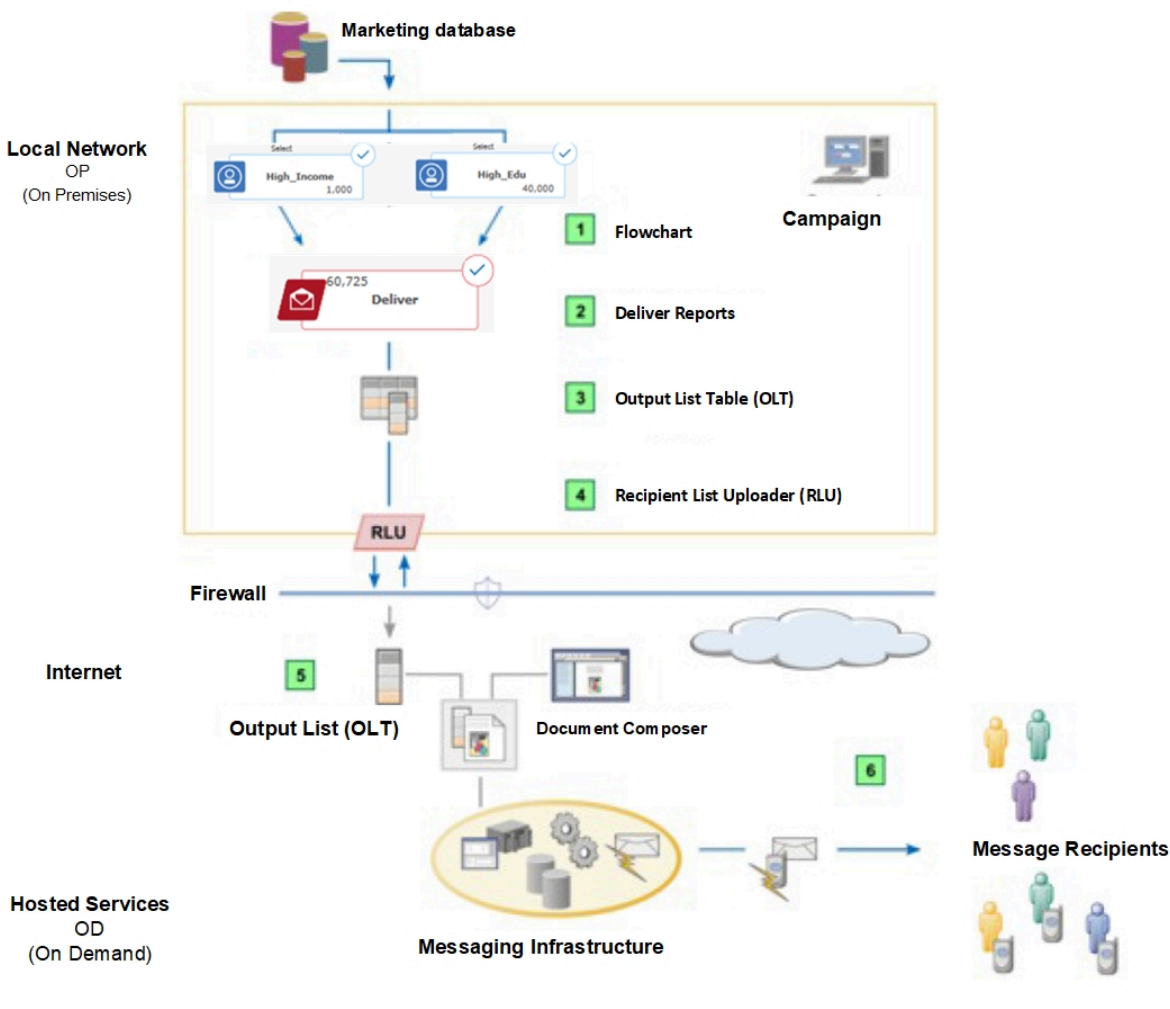
automatically uploads the list to the hosted messaging environment. Reference the list in a mailing configuration to make recipient data available for use in messages.

Creating a recipient list that you can reference in a mailing is a multi-step process that involves the following activities.

- Identify the database tables and fields in your corporate data mart that contain data that you can use to personalize messages.
- Define flowchart cells in Campaign to select the intended recipients of a messaging campaign. The flowchart must contain a Deliver process.
- Map fields in your data mart to personalization fields. Mapping the fields in the data mart to personalization fields defines the Output List Table (OLT). The OLT serves as the recipient list.
- Run the Campaign flowchart that contains the Deliver process. A production run of the flowchart that contains the Deliver process populates the OLT with recipient-specific data and automatically uploads the OLT to the hosted messaging environment.

The diagram illustrates the overall workflow for creating a recipient list and the major components that are involved in the process.





**Table 2. Recipient list workflow**

	Description
1	Flowchart. In Campaign, standard flowchart tools and logic to select the individuals to whom you want to send personalized messages. The flowchart must contain a Deliver process. Flowchart cells that contain information about message recipients become inputs to the Deliver process.
2	Deliver process. Within the flowchart, you configure a Deliver process.

**Table 2. Recipient list workflow (continued)**

	<b>Description</b>
	<p>Use the Source tab to specify one or more flowchart cells that provide recipient data as inputs to the Deliver process.</p> <p>Use the Output tab to define the Output List Table (OLT).</p>
<b>3</b>	<p>Output List Table.</p> <p>Configuring the output of the Deliver process defines the Output List Table (OLT). In the OLT, you define personalization fields that map to fields in the marketing database that provide data that is used to personalize marketing messages.</p> <p>The OLT does not contain data about recipients until you complete a production run of the flowchart that contains the Deliver process. Running the flowchart populates the OLT as per Deliver process box configuration .</p>
<b>4</b>	<p>Recipient List Uploader (RLU).</p> <p>As part of a production run of the flowchart, the RLU automatically uploads the most recent version of the OLT to the hosted messaging environment.</p>
<b>5</b>	<p>Message configuration.</p> <p>The recipient list provides recipient data for standard mailings.</p> <p>Transactional message do not use a recipient list as a source of recipient data.</p>
<b>6</b>	<p>Message delivery.</p> <p>Recipients receive unique messages that are customized according to the personal data that is contained in the recipient list.</p>

## Recipient list planning

A well-designed recipient list is critical to effectively personalizing your marketing messages. The design must consider the information that is available in your marketing database and the design requirements of the message that you plan to use with the list.

When you plan your marketing message campaign, consult with the other individuals or groups that are involved with creating and running the mailing. These discussions can affect how you design flowcharts and configure the Deliver process to extract recipient address and personalization data from your data mart.

Consider the following issues.

- Access to data about potential message recipients in your marketing records

Consult with your corporate database administrators to ensure that you are familiar with the marketing databases that provide information for the list. You must know where the information is available and you must ensure that you have the database access permissions that are required to map database fields.

- Business objectives of the messaging campaign in which the recipient list is used

Understand the goals of the messaging campaign as clearly as possible. Work with other members of the marketing team to determine exactly what recipient characteristics to use to select the appropriate message recipients. Carefully consider how to protect sensitive customer information and still meet the objectives of the campaign.

- Design of the message

Message designers add personalization fields to the message design. The personalization fields must correspond exactly to the personalization fields that are defined in the Output List Table (OLT). Ensure that the OLT contains all of the recipient information that is required by the message.



**Note:** It is acceptable to create an OLT that contains personalization fields that do not appear in the message. However, it is not acceptable for the message to contain personalization fields that are not defined in the



corresponding OLT. The system stops the messaging run when it detects this condition.

- Access to Unica Campaign

Deliver depends on Campaign to generate lists. To design a recipient list for personalized messaging, you must be familiar with how to create and use Campaign flowcharts. You must also have access to a user account that has edit access to your local Campaign installation.

## Naming the Deliver process

The name that you enter on the General tab of the Deliver process identifies the process in the flowchart.

Use the General tab in the Deliver Process Configuration window to assign a name to the Deliver process and provide a description.

1. In the **Name** field, enter a name for the Deliver process.
2. Enter a description in the **Note** field. For example, you can add notes that describe the types of recipients and recipient data that the recipient list contains.

## Recipient selection

To select recipients, you must add a Deliver process to a Campaign flowchart and complete a production run of the flowchart. You can use standard flowchart tools and logic to specify one or more cells as inputs to the Deliver process. You can select production recipients, test recipients, and select addresses for use in seed lists.

To configure the process inputs, you can specify any cell within the flowchart that contains the Deliver process. You can use a Select process, other flowchart logic, or strategic segments to build recipient lists by including or excluding input cells. Each input cell contains the IDs for the recipients.

Use the Source tab on a Deliver process to add groups of individuals to the recipient list, as follows.

- Production recipients.

Production recipients are the customers and prospects that you want to reach as part of your messaging marketing campaign. They receive a personalized message when you execute a production run of a Deliver mailing.

- Test recipients.

Test recipients are sample message recipients that you can use to test message content and delivery before starting a production messaging run. In most cases test recipients are selected members of your organization, or sample recipients that you have created.

- Seed list.

A seed list is a list of sample email addresses distributed throughout a production recipient list. By determining when and if an email message arrives at a seed address, you can estimate how quickly the mailing is reaching your intended recipients, and whether delivery problems might be preventing the messages from arriving.

## Selecting recipients for personalized messages

You select message recipients in Campaign by selecting one or more flowchart cells as input cells to a Deliver process. Doing so identifies members of the cells as message recipients in the output list table (OLT). The OLT serves as the recipient list that you reference in a messaging campaign.

Configure a Campaign flowchart to select information about message recipients in your marketing database. Define cells that identify the recipients that will receive a message as part of a production messaging campaign. The information must include specific address information that is required to deliver the message to the intended recipient.

Add a Deliver process to the flowchart.

The Deliver process consists of three tabs.

- **General** tab. Use this tab to name and describe the Deliver process.
- **Source** tab. Use this tab to select message recipients.
- **Output** tab. Use this tab to map recipient-specific marketing data to personalization fields that you define in the list.

Configure the Source tab to indicate which recipient IDs to include in the list of message recipients. Each recipient ID specifies a row in the output list table (OLT) when you perform a production run of the flowchart.

1. In Campaign, locate the flowchart that contains the Deliver process that you want to configure. Open the flowchart for editing.
2. In the flowchart, do one of the following:
  - Double-click the Deliver process.
  - Right-click the Deliver process and select **Process Configuration** from the context menu.

The Deliver Process Configuration window opens.

3. Click the **Source** tab.
4. Select production or test recipients. Do either or both of the following.
  - In the **Production List** field, select one or more of the available cells as a process input to identify the individuals that will receive a message as part of a production messaging campaign.
  - In the **Test List** field, select one or more of the available cells as a process input to designate the cells as test list cells to create a test list.



**Important:** When creating a test list, be careful that you do not select cells that contain production recipients. Remove any cells that are also specified in the **Production List** field.


5. If you want to create a seed list, from the drop-down list in the **Seed List** field, select the individual cell that contains the list of seed addresses that you want to distribute in the production list. In the Seed List distribution section, select a distribution method, as follows.

- a. **Distribute IDs evenly** to insert seed addresses at equal intervals throughout the entire production recipient list based on the size of the recipient list and the number of seed addresses available.
- b. **Insert entire list for every N IDs in main list** to insert the entire list of available seed addresses at specified intervals throughout the production recipient list. You must specify the interval between insertion points.
- c. Optionally, if you selected **Insert entire list for every N IDs in main list**, enter a value in the **Interval** field to specify the number of recipient addresses between insertion points for the seed list.  
The default interval is 10,000 recipients.

Use the Output tab of the Deliver process to map recipient-specific data to the Output List Table (OLT).

## Selecting multiple input cells

Depending on the design of the flowchart that contains the Deliver process, you might want to specify more than one input cells. The Deliver process provides a control to select multiple cells as input to the Deliver process.

1. Click in the field where you want to specify input cells.
2. Do either of the following:
  - From the drop-down list, select **Multiple Cells** to display a pop-up list of available cells.
  - Click the browse button  next to the field to display a pop-up list of available cells.
3. Select the cells that you want to add. Click **OK**.

## Contents of the Deliver process Source tab

Use the Source tab to select input cells that provide information, including address information, about message recipients.

Field	Description
Production List	Select the flowchart cells that provide recipients and related data for production mailings.
Test List	Select the flowchart cells that provide recipients and related data for test mailings.
Seed List	Select the single cell that provides seed addresses.
Distribute IDs evenly	Select to insert seed addresses at equal intervals throughout the entire production recipient list.
Insert entire list for every N IDs in main list	<p>Select to insert the entire list of available seed addresses at specified intervals throughout the production recipient list.</p> <p>Interval: enter a value to specify the number of recipient addresses between insertion points. The default interval is 10,000 recipients.</p>

## Recipient list definition

You define a recipient list as an Output List Table (OLT) with the Output tab of a Deliver process in a Campaign flowchart. The table stores recipient IDs, email addresses, phone numbers for Push, SMS, and WhatsApp and additional personalization data and metadata that are selected and produced during the flowchart run.

When you define the OLT, you define personalization fields that are used to add data about each recipient to marketing messages. Adding personalization fields to the Output List Table (OLT) maps recipient-specific data in your corporate marketing tables to the OLT. Each one-to-one mapping defines a personalization field. Personalization fields that you define in an Output List Table are called OLT personalization fields. Deliver maintains a list of all of the personalization fields that you create, across multiple recipient lists. You can use the same personalization field in multiple recipient lists.

The personalization fields and other metadata define the columns of the OLT. Rows in the OLT hold recipient IDs taken from the flowchart cells.



There is a one-to-one relationship between the OLT and the Deliver process that you used to create it. A Deliver process can create only a single OLT.

A fully defined OLT includes the following elements.

- Columns for each personalization field that you define for the recipient list
- Operational fields used to process mailings. The system includes these fields as part of the default table design but they are not used in messages.
- A field to provide recipient address information.

Initially, the OLT is empty. You must run the flowchart to populate the table with recipient data.

## Defining the Output List Table (OLT)

Use the Output tab of the Deliver process to define the Output List Table (OLT).

To add a personalization field to the OLT, you select a field from the list of available fields in your marketing database. You can then map the available field to a personalization field that has already been added to the OLT, or you can create a new personalization field.



**Important:** You must configure a personalization field that provides delivery address information for each message recipient. When you create a personalized marketing message, you specify the personalization field as the delivery address.

1. In the **Recipient List Name** field, enter a name for the list, or accept the default name.
2. In the **Available Fields** table, select a field that you want to map to a personalization field in the OLT.

Optionally, do either of the following.

- Click **Profile** to preview a list of distinct values and how frequently they occur in the selected field.
  - Click **Derived Fields** to create a data source using a derived field.
3. Click **Add** to map the selected available field to a personalization field. Click **Remove** to remove the mapping between the personalization field and the data source.

The name of the field you are adding appears in the Selected as Personalization Fields table when you add the field to the OLT.

4. In the **Display Name** column, enter a name for the personalization field. You can accept the default name or overwrite it.
5. To save your changes, click **OK**.

This procedure simply creates a definition of the OLT. The table has not been created, nor does it contain data. To create and populate the OLT so that it can be used in a mailing, you must run the flowchart that contains the Deliver process.

## Contents of the Deliver process Output tab

Use the Output tab of the Deliver process to define an Output List Table (OLT).

Field	Description
Recipient List Name	Name of the recipient list. This name is the name that you use when you reference the list in a Deliver messaging.
Clear Table Now	Removes the current values from Output List Table.
Physical Table Name	Name of the Output List Table.
Available Fields	<p><b>Field Name:</b> a hierarchical list of data source fields that are configured for the campaign and that are available to map to personalization fields defined in the OLT.</p> <p><b>Type:</b> the personalization field data type. Designated automatically by the system, based on the JDBC datatype of the source database field.</p>
Selected as Personalization Fields	<b>Field Name:</b> personalization field added to the OLT. The name is assigned by default. You cannot change this name.

Field	Description
	<b>Display Name:</b> The name that appears in the list of available personalization fields in the Deliver Message Editor . You can change this name.
Add	Adds a selected available field to Selected as Personalization Fields.
Remove	Moves a field that you select selected in Selected as Personalization Fields to Available Fields.
Up 1	Used to move an available field in the OLT to a specific location in the list of fields that are selected as personalization fields. Click to move up the list.
Down 1	Used to move an available field in the OLT in a specific location in the list of fields that are selected as personalization fields. Click to move down the list.
Profile	Click to profile a selected available field.
Derived field	Click to create a derived field.
More	Click to avoid duplicating entries by skipping records with duplicate IDs in the same input cell.

## Display names for personalization fields

On the Output tab of the Deliver process, the **Selected as personalization fields** section lists the personalization fields in the Output List Table (OLT). The fields are assigned a field name and a display name.

The **Field Name** column presents the personalization field name as it appears in the database. Deliver assigns this name. You cannot change it.

The **Display Name** column displays the personalization field name as it appears in the Message Editor and in the configuration of messaging campaigns. You can change the default display name.

The system uses personalization field display names in the following ways.

- When you create a personalized message in the Deliver Message Editor or Quick Builder, the system uses display names to identify personalization fields in the document.
- The display name appears in the Message Editor or Quick Builder on the list of personalization fields that are available for use in the document.
- If you use advanced scripting for email, you must use the display name to declare the personalization fields that are used in the scripts you write.
- Mailing campaigns list the personalization fields that are in use according to their display name, and do the same in error and warning messages.

When you define a personalization field, Deliver assigns a display name to a personalization field based on the name of the available field in your marketing database. You can overwrite the display name that Deliver assigns. Thereafter, Deliver uses the new display name to identify the personalization field when you use it in other output list tables.

If you use a field in your data mart (one listed as an available field) to create personalization fields in multiple OLTs, Deliver suggests the display name that is most recently associated with the available field. You can change the display name that is used for this personalization field as many times as you require. If you use the same personalization field in other OLTs, changing the display name in the OLT you are currently configuring does not update the other OLT configurations. However, changing the display name does mean that the same personalization field appears in other recipient lists and documents under a different name.

## Personalization field data types in the OLT

When you map a field in your marketing database to an OLT, the JDBC driver for your marketing database communicates the datatype that it has defined for the source database field. The JDBC data type must be one of the data types that Deliver supports.

Deliver includes data type as part of the metadata included in the OLT upload to HCL Unica. The system displays an error if the JDBC driver specifies a data type that Deliver does not support.

OLT personalization fields can be either numeric or text data types. The system automatically defines the OLT personalization field data type based on the JDBC data type of the source database field. The source field and data type designation is indicated in the list of Available Fields on the Output tab of the Deliver process.

If necessary, you can edit the data type defined for an OLT personalization field. For example, when you add an OLT personalization field to a personalization rule, it might be necessary to correct the data type to pass rule validation.

## Available Fields in the Deliver process

On the Output tab of the Deliver Process Configuration page, the Available Fields table displays a hierarchical list of fields in your marketing database that you can map to a personalization field.

The system designates the personalization field data type based on the JDBC datatype of the source field in the marketing database.

The list is based on data tables that are mapped to the campaign that contains the Deliver process. Configuring data sources for the campaign is performed at the campaign level. For more information about configuring data sources for a campaign, see the Unica Campaign User's Guide.

## Avoiding duplicate recipient entries

Depending on the design of the flowchart that you use to select recipients, some individuals may be selected multiple times. The Output tab of the Deliver process provides a control that allows you to skip duplicate recipient IDs.

As you define the recipient list, you can use the **More** button to avoid duplicating entries by skipping records with duplicate IDs. For example, you can select **MaxOf** and **Household\_Income** to specify that when duplicate IDs exist, Deliver selects only the ID with the highest household income.

This option removes only those duplicates within the same input cell. Your list can still contain duplicate IDs if the same ID appears in multiple input cells. If you want to remove all duplicate IDs, you must use a Merge or Segment process upstream of the Deliver process

to purge duplicate IDs or create mutually-exclusive segments. For more information about Merge processes and Segments, see the Unica Campaign Users Guide.

1. On the Output tab, click **More**.

The **More Settings** window displays.

2. Select the **Skip Records with Duplicate IDs** checkbox.
3. In the **Based On** field, choose the criteria that Campaign will use to decide which record to retain if duplicate IDs are returned.
4. To save your choice and close the **More Settings** window, click **OK**.

## Previewing field values from your user data

When you configure a process in a flowchart, you can use the **Profile** feature to preview field values. This feature lets you see actual values from fields in your user data. You can profile any field in a mapped data source. You can also profile derived fields.

You must have the appropriate permissions to profile fields. Ask your system administrator if you have questions about your access to this feature. Also note that your administrator can prevent fields from being profiled. You see a warning if you try to profile a field that is also an audience because profiling an audience can return many records and potentially impact performance.

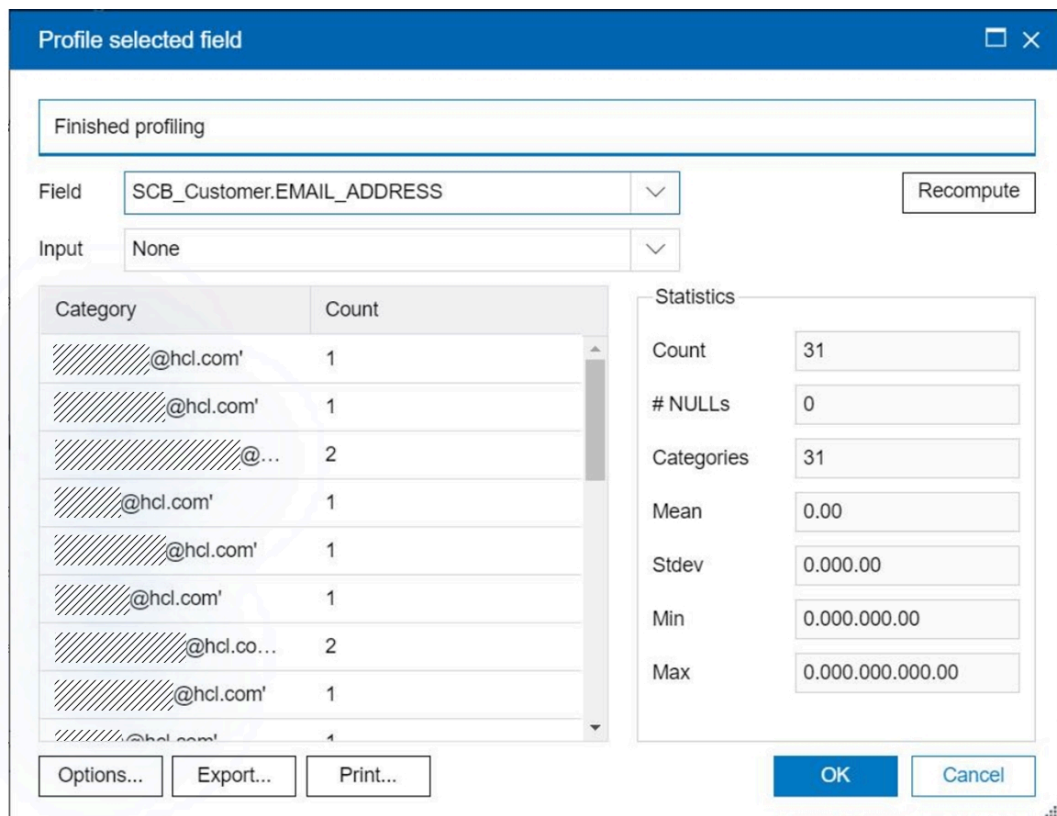
When you profile a field, you can view and select values to use in the current operation, for example to build a query for a Select process.

In addition to listing the values, the **Profile** feature indicates each value's frequency of occurrence in the selected field. You can use this information to ensure that you are targeting the intended contacts. Only records in the current cell are included in the count, unless the counts were pre-computed.

1. Open a flowchart for editing and begin to configure a process.
2. In the configuration dialog of a process that includes the **Profile** button, such as Select, Extract, or Segment, select the field that you want to profile.
3. Click **Profile**.

Campaign profiles the data in the selected field. The Category and frequency Count fields are updated as profiling progresses.

Wait until profiling is complete before using the results, to ensure that all categories are processed and counts are complete.



When profiling is complete, the **Profile selected field** dialog shows the following information:

- The list of values in the selected field, shown in the **Category** column, and the corresponding **Count** of IDs with that value. Campaign organizes values by category, grouping them to create approximately equal-sized segments. The default maximum number of categories (distinct bins of values) for display is 25. You can change the maximum number of categories.

- The **Statistics** pane shows the total count of IDs and other details about the data for that field, including:
  - The number of NULL values found.
  - The total number of categories, or values, for that field.
  - Statistical values for the data including the mean, standard deviation, minimum, and maximum values.



**Note: Mean, Stdev, Min, and Max** are not available for ASCII fields. When you profile text fields, these values appear as all zeros.

## Derived fields mapped to personalization fields

The Deliver process supports using derived fields as personalization fields.

When you map a derived field to a personalization field, you can use only those fields that appear in the Available Fields table. If a derived field that you want to use does not appear there, you must make the table that contains the derived field a data source for the campaign that contains the Deliver process.

For instructions about creating derived fields, see the Unica Campaign User's Guide.

## Recipient list creation

After you define the recipient list as an Output List Table (OLT), you must create the table and add recipient data. To create and populate the recipient list, you must complete a production run of the Campaign flowchart that contains the Deliver process that you used to define the list.

Running the flowchart creates the output list table (OLT) in the Campaign system schema. The flowchart run populates the table with recipient IDs and other recipient-specific data, according to the mappings defined on the Output tab of the Deliver process configuration window.

Before you run the flowchart, confirm that all mappings in the Deliver process between data sources and personalization fields are complete. You must run the entire flowchart that contains the Deliver process, not just the Deliver process alone.



When you run the flowchart, Campaign automatically creates and uploads the OLT over SFTP or passive FTP (FTPES) depending on FTP protocol defined in configuration to data tables in the hosted environment. This is a background process that requires no action by you, but Deliver will not begin a messaging run until the upload of the recipient list is complete. During the upload, Deliver compresses the data to reduce the load on network resources. The OLT must be uploaded to the hosted environment to make the recipient list available for reference in a messaging campaign configuration.

To ensure that the mailing is using the most current recipient list data, run the flowchart before each messaging run. If you modified the flowchart, you might need to manually clear the Output List Table before a flowchart run to clear the table of data from a previous flowchart run.



**Note:** If you attempt to send a messaging after you populate the recipient list with a test run of the flowchart, the system prevents the messaging run and displays a message indicating that the messages do not contain production data.

For detailed information on how to run flowcharts and manage processes within flowcharts, see the Unica Campaign User's Guide.

For more information about the FTP connection established between your local installation and the messaging environment hosted by HCL, see the Unica Deliver Startup and Administrator's Guide.

## Doing a production run of a flowchart

When you do a production run of a flowchart, the data that it generates is saved in system tables. After you run and save the flowchart, you can view the results of the run in reports.


Do a production run after you save, validate, and do a test run. A production run writes to the history tables.


The contact processes, such as Mail list and Call list, write entries into Contact History. Each production run can generate contact history only once. Contact processes that already ran for that production run can be rerun only if the contact history from the current run is


first deleted. To generate multiple contacts from the same list of IDs, snapshot the list of IDs and read from the list for each flowchart run.

Triggers run on completion of a production run.

After initiating a run, users with Administrative privileges can access the **Monitoring** page, which displays all running flowcharts and their status.

1. Save the flowchart before you run it.
2. If you are viewing a flowchart, open the **Run** menu  and select **Run**.

If you are editing a flowchart, open the **Run** menu  and select **Save and run flowchart**.

3. To run a process or branch, right-click a process, open the **Run** menu  and select **Save and run selected process** or **Save and run selected branch**.



**Note:** Running only a process or a branch of a flowchart does not increment the Run ID of a flowchart. When you run only a process or a branch, if contact history records exist, you are prompted to choose run history options before you can proceed. The **Run history options** dialog appears only when you run a branch or process that previously generated contact history for the current Run ID. You can either append information to contact history or replace existing contact history for the Run ID.

4. To run the entire flowchart, open the **Run** menu  in the toolbar and select **Save and run flowchart**.

If the flowchart has already run, you are asked to confirm the run.

The process, branch, or flowchart runs in production mode. Data from the run is saved to the appropriate system tables. Each process that runs successfully displays a green check mark. If there are errors, the process displays a red "X".

5. If you want to pause or stop the run, right-click a process box, open the **Run** menu and select **Pause** or **Stop**.
6. Use one of the **Save** options in the toolbar. If you click **Save and exit** before the flowchart finishes the run, the flowchart continues to run and is saved when it

finishes. If anyone reopens the flowchart while it is still running, any changes made to the flowchart are lost.

You must save the flowchart after it runs to view the results of the run in any reports. After you save the flowchart, results of repeated runs are immediately available.

7. To determine if there were any errors in the run, click the **Analysis** tab and view the **Campaign flowchart status summary** report.

## Recipient lists and transactional messages

An Output List Table is not required to personalize transactional messages. For transactional messages, corporate transaction management systems and a local transactional message client application provide the recipient information instead of an OLT.

You can enable any standard messaging to send transactional messages. In a standard messaging, the Output List Table (OLT) provides the personalization information that is used in the messages. However, to send transactional messages, the system does not use the OLT, even if one is referenced by a messaging that is enabled for transactional message.

Although an OLT is not required to personalize transactional messages, you can use an OLT to test the appearance and behavior of messages that are sent as transactional message. Referencing an OLT in a transactional messaging provides a way to use standard messaging test methods to check personalization elements in the message.

## Recipient list maintenance

After you define, save, and upload a recipient list as an Output List Table (OLT), you can update the list definition, update the data in the list, or delete the list. You can also manually clear data from a list that contains recipient data.

The list maintenance that you can perform depends on whether the list is in use by an active messaging campaign.

Deliver automatically deletes recipient lists that have been uploaded but are not actively used by a messaging campaign.

Deliver cannot automatically remove data in an OLT to allow an update. You must specifically clear the information from the table before replacing the obsolete information with updated information. You can manually clear the data from the OLT for the list, which leaves the list empty until you run the flowchart associated with the list.

## Updating the definition of a recipient list

You can update the definition of a recipient list using the Deliver process that you used to create the list definition.

Updating the configuration of the Deliver process changes the definition of the recipient list but it does not add or change the recipient-specific data that was previously uploaded to the hosted messaging environment. To update the hosted list, you must run the flowchart again to populate the list according to the new definition.

To change the definition of the list you must update and save the configuration of the Deliver process. Running the flowchart again without updating the configuration does not change the definition of the list.

1. In Campaign, locate the Deliver process that you used to create the recipient list and open the Deliver process for configuration.
2. On the Output tab, update the configuration of the Deliver process as required.
3. To save your changes, click **OK**.

After you change the recipient list definition, run the flowchart that contains the Deliver process so that you update data in the output list table (OLT) for the list. If you do not update the data for the list when you update the list definition, the system returns an error if you execute a mailing that references the list.

## Updating data in a recipient list

After running the Deliver process to populate the output list table (OLT), you can update the data for the list by running the flowchart again. This can be useful if the recipient-specific data in the OLT is likely to change.

Deliver does not automatically replace existing data in an OLT. When you update the data in the recipient list, you must manually clear the data from the table before running the flowchart to allow the update to occur.

1. In Campaign, locate the Deliver process that you used to create the recipient list and open the Deliver process for configuration.
2. On the Output tab, click **Clear table now**.

Confirm your action when prompted.

3. Update the recipient list by running the flowchart that contains the Deliver process that was originally used to create and populate the list.

## Methods to delete a recipient list

You delete a recipient list by deleting the Deliver process that is used to create the list.

You can delete the Deliver process in either of the following ways.

- Edit the flowchart to delete the Deliver process only
- Delete the entire flowchart that contains the Deliver process

You perform these actions by opening the flowchart in Campaign. You can access the flowchart through a link on the Deliver Summary Mailing tab or by opening the flowchart tab in the campaign that contains the messaging.

## Inactive messaging and deleted recipient lists

When you delete a recipient list that is referenced by an inactive messaging, the system removes the list immediately. The list is no longer available for reference by any other messaging campaign.

An inactive messaging is a messaging campaign that is not actively processing messages, preparing to process messages, or waiting to process messages. For example, a messaging is considered inactive before you start the messaging run. It is also considered to be inactive after the messaging run completes successfully.

## Active messaging and deleted recipient lists

When you delete a recipient list that is referenced by an active messaging, the system does not delete the list immediately. Instead, the system designates the list as a retired recipient list. When the messaging completes, Deliver deletes the recipient list, including the corresponding OLT and metadata in HCL Unica.

An active messaging is a messaging campaign that is currently processing messages, preparing to process messages, or waiting to process messages. For example, a messaging is considered to be active when it is sending messages, or when you pause the messaging. The messaging is also considered to be in an active state during the time the system is preparing to begin the messaging run.

A retired list remains available to the active messaging until the messaging successfully completes the messaging run. However, only the active messaging can reference the list or use it to create and send personalized message. On the mailing tab of the active messaging, the **Recipients** field changes to indicate that the recipient list is retired.

A recipient list is retired only temporarily. The system deletes the list as soon as active messaging that references the list becomes inactive. When the messaging completes and the system finishes deleting the list, the mailing tab changes again to indicate that no list is selected.

## Deleted lists messaging by an aborted messaging

If you delete a recipient list that is messaging by an active mailing, and then abort the mailing, Deliver designates the list as a retired recipient list. The aborted messaging campaign becomes inactive and its configuration indicates that the messaging campaign references a retired recipient list.

The list continues to be considered a retired list because the messaging run did not complete. As a result, the list is not fully deleted from the Deliver database tables that are maintained in the HCL Unica environment.

You cannot restart the aborted mailing with a retired recipient list. Use either of the following methods to finish removing the retired recipient list.

- Open the mailing for edit and either save the mailing without changes or select a different recipient list and save the mailing.
- Delete the mailing.

When you save or delete the mailing, the recipient list moves out of its retired state. Deliver can then delete the list and associated metadata from its hosted databases.

## Deleted lists referenced by multiple messaging campaigns

A single recipient list can be referenced by more than one messaging. The effect of deleting the recipient list on the messaging campaigns depends on their current state.

When you delete a recipient list that is referenced by multiple messagings, all of the configurations change to indicate that no recipient list is selected. If one of the messaging campaigns is currently active, Deliver designates the recipient list as retired for the active campaigns only.

No other messagings can use a recipient list after it is retired. When the active messaging that references the retired list completes its messaging run, Deliver finishes removing the recipient list from the system.

## Scheduled messaging and deleted recipient lists

A messaging that is enabled for scheduling is in an inactive state until the scheduled job runs and sends a trigger to start a messaging run. Therefore, when you delete the recipient list that is referenced by a messaging that is enabled for scheduling, the system immediately deletes the Output List Table (OLT) and related metadata that is stored in HCL Unica.

When you delete a recipient list that is referenced by a scheduled messaging, the system disables the messaging for scheduling. The scheduled messaging cannot run because the messaging no longer references a list of recipients.

Deleting the recipient list does not delete the scheduled job that is associated with the messaging. After you delete the recipient list, the job will run as scheduled, but the system will display an error. The type of error that you observe depends on how you removed the Deliver process to delete the recipient list.

If you removed the Deliver process by editing the flowchart in Campaign, the flowchart runs according to schedule, but the messaging fails to start because deleting the list disabled the messaging for scheduling.

If you removed the Deliver process by removing the entire flowchart, the scheduled job displays an error because the flowchart that is specified in the job configuration no longer exists.

## Clearing the OLT

Sometimes, you must manually clear data from the output list table (OLT). For example, before you modify the output list table, you must clear data that is entered by a previous run of the process. You must also clear the OLT manually to remove obsolete data.

1. On the Output tab of the Deliver process, click **Clear table now**.
2. When prompted, confirm the request to clear the table.

## Data retention and automatic removal of inactive recipient lists

Data retention practices observed in HCL Unica automatically remove an uploaded recipient list from HCL Unica when the list is inactive for more than 30 days. Removing the recipient list removes all personal data and metadata that is associated with individuals on the list.

When the list becomes inactive and is deleted, the system dims the list name on the Mailing tab and changes the status of the recipient list to `Expired`. If you run a messaging campaign that references an expired recipient list, the messaging campaign fails. The system returns an error to indicate that the recipient list was deleted as part of scheduled purging.

A recipient list is considered inactive if the following conditions are true.



- The list was not updated in the previous 30 days
- There were no production messaging runs that reference the list in the previous 30 days
- The list is referenced only by an active mailing that is enabled for transactional message. (Transactional mailings do not use the recipient list.)

Removing the list deletes the output list table (OLT) that defines the list, including all recipient data and metadata that is contained in the table. When Deliver deletes inactive lists that are linked to dimension tables used with advanced email scripts, it also deletes the dimension tables.

Deliver does not automatically delete a recipient list if the list is referenced by a scheduled mailing. Deliver permanently exempts a recipient list from scheduled purging if the list was ever locked as part of a scheduled messaging run. Even after the scheduled run, the system does not delete the list automatically.

If you want to re-create a recipient list that Deliver deleted, you must run the flowchart that is used to create the list. Running the flowchart rebuilds the list and uploads it to Deliver system.

# Chapter 3. Personalized messaging

Unica Deliver provides message composition and personalization features that you can use to design graphically rich messages that deliver a marketing message with content that can automatically change to fit the characteristics of the message recipient.

You can send large numbers of personalized messages to a list of recipients as part of an outbound messaging campaign or one personalized message to a single recipient in response to a transaction.

Personalized email messages in Deliver are based on an HTML document that defines the structure and layout of each message. The base document serves as a configurable template. Template designers can include design and personalization elements in the page that allow digital marketers to modify the document by adding personalized content later. Digital marketers can also define rules that change the content that is presented to each message recipient, according to criteria that you specify in the rule. Recipient-specific information and metadata are provided by a recipient list that you create in Unica Campaign. The template can be created with any HTML editor. Typically, the template is created outside of Deliver and Campaign. Digital Marketers use the Deliver Message Editor to add images, HTML snippets, hyperlinks, and personalization fields to the template to create an email communication.

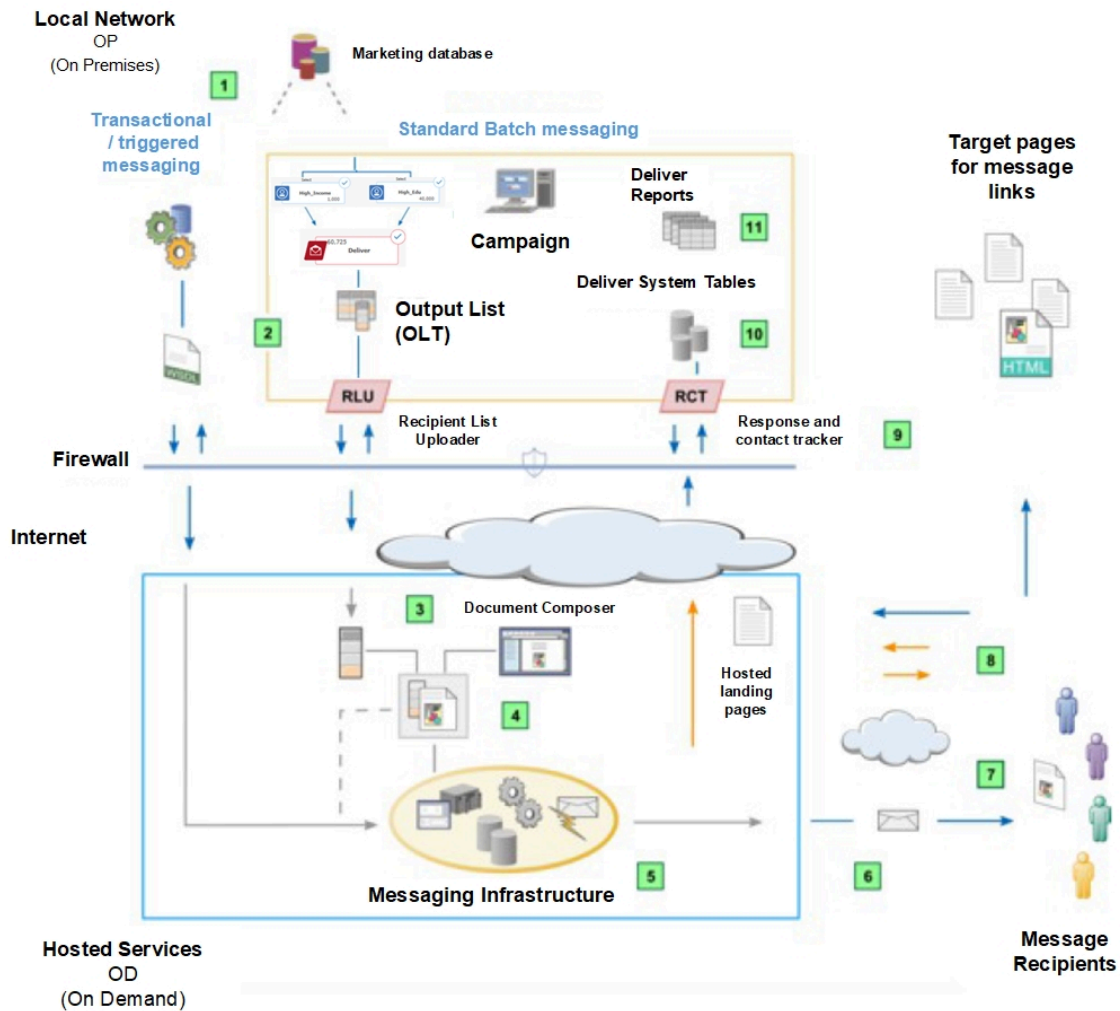
Communication marketers can conduct a campaign by configuring and running a Deliver messaging. A messaging combines recipient data with a communication. When marketers run the messaging, Deliver builds individual messages that are based on the design of the communication and modified according to the personal data that is provided for each message recipient. Depending on the design of the communication and the information that is provided about each recipient, messages that are sent in same messaging can appear as different messages.

## Personalized email messaging

Creating and sending standard personalized email requires that you create a recipient list in Unica Campaign and design an email message in the Message Editor. However, personalized email that is sent as transactional email does not take information from a

recipient list. For transactional email, personalization data must be included in the message request.

The diagram illustrates the overall workflow for sending personalized email messages and the major Deliver components that are involved in the process.



**Table 3. Workflow for personalized email**

	Description
1	Standard and transactional messaging.

**Table 3. Workflow for personalized email (continued)**

	<b>Description</b>
	Deliver supports standard outbound email campaigns that address large numbers of email recipients. Deliver also supports transactional email that addresses a single recipient in response to a transaction. Both types of email can be personalized.
<b>2</b>	<p>Select and upload recipient data to address and personalize email messages.</p> <p>For standard mailings, run a Campaign flowchart to create an Output List Table (OLT). Transactional email receives address and personalization information from your transaction management systems according to instructions contained in a WSDL.</p>
<b>3</b>	<p>Create an email communication in the Message Editor.</p> <p>The communication defines the appearance and behavior of the message that the recipient opens. The communication is based on a template that you create outside of the Message Editor and upload.</p>
<b>4</b>	<p>Configure a mailing.</p> <p>The mailing references an OLT and an HTML document that you create in the Message Editor. For transactional email, personalization data is contained in the transactional email request.</p>
<b>5</b>	<p>Run the mailing.</p> <p>You can run the mailing manually, schedule the mailing to run at a specific date and time, or schedule it to run after a scheduled flowchart run. Deliver generates each message by merging recipient data with the referenced document that defines the message. Each transactional email message is also based on the design of the referenced document.</p>
<b>6</b>	<p>Transmit the messages.</p> <p>Deliver hands the messages off to various Internet Service Providers (ISP) for delivery. Deliver tracks and records ISP delivery responses, including failed</p>

**Table 3. Workflow for personalized email (continued)**

	Description
	delivery responses, and unsubscribe requests. Deliver deliverability tools and rigorous list hygiene can help you to improve message deliverability over time.
7	<p>Recipients open and respond to your email.</p> <p>The system detects and records message opens and link clicks. Recipients can click links in the message that point to your website or to web pages that Unica hosts for you.</p>
8	<p>Deliver tracks link clicks and message responses.</p> <p>When it assembles a message, Deliver rebuilds each link to point to the hosted messaging environment. When the recipient clicks the link, the request goes first for tracking. The request is then redirected to the link target.</p>
9	<p>Download the contact and response data.</p> <p>The Response and Contact Tracker (RCT) is installed with Campaign behind your corporate firewall. The RCT periodically requests the tracking data that Unica recorded.</p>
10	<p>Contact and response data is stored in the Deliver system tables.</p> <p>The RCT stores the data that it receives in various system tables. The Deliver system tables are part of the Campaign database schema.</p>
11	<p>Standard reports.</p> <p>View standard Deliver reports to analyze message transmission performance, delivery success, and recipient responses.</p>

## Personalization methods available for email

Deliver supports several methods to use recipient data to customize email messages.

Deliver supports several methods to use recipient data to customize email messages. You can personalize email messages using any of the following methods. Depending on your

business requirements, you can use any combination of these methods in a personalized email message.

- Personalization fields
- Conditional content
- Advanced scripting for email

## Personalization fields in email

A personalization field is a name-value pair that you can add to email messages, hosted landing pages, and to URL parameters in hyperlinks. Personalization fields that are added to an email communication serve as placeholders that accept data that is provided by the recipient list when you run the mailing.

You define personalization fields in the recipient list that you reference to the mailing. The recipient list is created as an Output List Table (OLT) that maps each personalization field to a corresponding field in a marketing database that provides the recipient-specific information.

In the email communication that is referenced to the mailing, the message designer adds personalization fields to zones defined in the email communication or embeds the fields in the HTML code of the document. The personalization field display name in the communication must exactly match the display name that is defined in the recipient list.

When you run the mailing, the system replaces each personalization field with data from your marketing database. Each email can be unique because the email content is determined by the unique information that your marketing database provides about the email recipient.

The OLT must provide all of the personalization information that is required by the email communication. To establish the required connection between the list and the communication, you must reference the OLT and the communication to the same Deliver mailing. Every standard Deliver mailing must reference an email communication and an OLT.

The name of the personalization field must be unique within your Deliver installation. After you create a personalization field, it becomes available for use within any recipient list. You can use the same personalization field in multiple recipient lists and in multiple documents.

To enable the system to properly evaluate personalization fields and provide accurate previews, you must reference the OLT and the email communication to the mailing as early as possible in the mailing configuration process.

## Personalization with conditional content

You can define rules to conditionalize images and HTML snippets that appear in personalized email messages.

In email messages and hosted landing pages that contain conditional content, the message recipient or the person that views the page sees content according to conditions and criteria that you specify in personalization rules. Each personalization rule incorporates at least one personalization field and a comparison operator.

To create conditional content in Deliver, you add multiple content elements to the same configurable zone in the document template. You then define personalization rules that the email recipient or landing page visitor must satisfy to display the content elements. For example, you can present one image to male recipients of an email and a different image to women that open the message.

When you run a mailing, Deliver identifies the email recipient and displays conditional content according to the personalization rules that you defined.

## Advanced scripting for email

In messages where you want to provide more personalized information than a single personalization field can provide, Unica Deliver offers an advanced scripting language for email. You can use the advanced scripts to create and display lists of recipient-specific information in an email instead of a single value.

Using advanced scripting for email, you can create data tables that contain multiple values that all relate directly to the individual email recipient. For example, you might create data tables to present a customer with any of the following sets of related information.

- List of available flight departures in response to a customer inquiry
- Store locations and hours within a specified radius of where the recipient resides
- Selection of promotional discounts and products, according to the purchase history of the recipient

With advanced scripting, you can define nested conditional content display rules as a way to achieve sophisticated email personalizations. Use nested conditional content to complement the conditional content rules that you can define in individual zones that are contained in an email message.



**Note:** Advanced scripting is not available for use with hosted landing pages.

## Personalization field data types in communications

When you add a personalization field to a communication, a personalization rule, or an advanced script, the field name and data type must exactly match the name and data type that is defined for the field in the OLT. The OLT and the communication must be referenced to the same mailing to enable the system to complete the required validation.

You can experience various errors and warnings when you preview and publish the email or landing page if the name and data type of the personalization fields that are defined in the OLT do not exactly match those added to the communication.

Each personalization field definition specifies the type of data that Deliver substitutes for the personalization field when you run the mailing. Data types for personalization fields are defined as either numeric or string.

The data type for system defined personalization fields (Built-in and Constant fields) is set automatically to string and cannot be changed.

The data type for OLT personalization fields can be either numeric or string. Deliver automatically designates the data type for OLT personalization fields according to the data type of the field in the marketing database that provides the recipient information. However, you can edit the data type designation for OLT personalization fields if necessary.



## Templates for personalized email

In Unica Deliver, personalized email is based on a template. The template is an HTML document that defines areas of fixed content and customizable areas where you can add other content (including images, text, and HTML snippets) that displays according to characteristics of the email recipient.

When you run a mailing, Deliver uses the template as the framework for all of the email messages that are sent as part of the same mailing. When an email recipient opens a hosted landing page or online form that is linked to the email, Deliver uses a landing page template as the basis for rendering the page or form.

In the Deliver Message Editor, you add content and modify templates without ever having to access the underlying HTML code. The resulting combination of template and content is referred to as a Deliver communication. A communication is a required component in every Deliver mailing and must be referenced in the mailing configuration.

## Creating an HTML email communication

To create email that is delivered to the recipient in HTML format, you must create an HTML communication that you can reference to a mailing. The email communication is based on an HTML template that provides the framework for the email message. You then use the Message Editor to modify the template by adding various content elements.

You create the HTML template outside of Deliver and upload it to the Content Library in the Message Editor. Ensure that the template required to create the email is available in the Content Library or on a shared server that you can access from your Deliver installation.

To create an HTML email, you create an email communication in the Deliver Message Editor. You must add a template to the email communication before you can save it.

Deliver supports standard HTML tags so that your email displays in HTML email clients. However, to create personalized email, Deliver also supports several custom HTML tags recognized only by the Message Editor.

Before you can use an HTML email communication with a Deliver mailing, you must configure the email header. You can also add content elements to the email according to

your marketing requirements and the design of the template that you select for the email. Deliver supports adding HTML snippets, images, hyperlinks, and personalization fields to HTML email messages.

1. In the Message Editor, create a new communication with either of the following methods.

- On the bottom of the Communications tab, click **Create New Communication**



- On the top of the page, click **New**.

Select **Create new email**

A default communication displays in the editing pane.

2. Assign a name to the communication. Use either of the following methods.

- Double-click the communication tab to enter a name in the tab.
- Right-click the tab and select **Rename**. In the **Properties** window, assign a name to the communication. When you use this method to name the communication, you can also specify the folder where you want to save the email communication.

3. In the **Content Type** field, confirm that **HTML** is selected. HTML is selected by default.

4. Attach a template to the communication. Use either of the following methods.

- Select a template in the Content Library and drag it into the communication.
- Click the **click to select a template** link and navigate in the Content Library to the HTML file that you want to use as a template.

In the **Select Template** window, click a folder to display the folder contents.

Click a file to display a preview of the template. Click **Insert** to add the template to the communication.

If the Content Library does not contain the template that you want, upload the template to the Content Library from a local directory or shared server.

The editing pane displays the email that is defined by the template that you select.

5. To save the communication before you proceed to configure the email, click **Save**

**Changes** .

When you save your changes, the system presents an option to publish the email. Publishing the email makes it available for use in a mailing. However, you must configure the email address and subject before you can publish and use the email. If you do not fully configure the email address and subject, Deliver displays an error if you attempt to publish the email.

When prompted to publish the email, click **Cancel** to save the email but not publish it. You can publish the communication after you configure the email address and subject.

After you create the email communication, do the following to use it in a mailing.

- Configure the email address and subject line.
- Reference the communication to a mailing.
- Add content. If the template contains configurable zones, you can add images, hyperlinks, personalization fields, and text (HTML snippets). The HTML snippets can contain advanced scripts for email that you can use to display data tables and nested conditional content.
- Define personalization rules for zones that contain multiple content elements that are displayed conditionally.
- Preview the email.
- Publish the email. To be able to use the email communication in a mailing, you must publish the communication.

## Creating a web page version of an HTML email communication



You can provide email recipients with an option to view HTML or text-only email as a web page by saving the email as a personalized landing page hosted by Unica.


After you create the landing page version of the email, you create a link to the landing page in the original email message. Because Unica hosts the page, the landing page version of the email can replicate much of the personalization that you added to the HTML version.



**Note:** Hosted landing pages do not support personalization features that you create with Deliver advanced scripts for email.

Another way to provide this option is to add a View as Web Page link to a zone in the email.

1. Open the email communication for editing.
2. In the toolbar, click **Save Changes As** .
3. Select a folder location and enter a name for the landing page.
4. In the **Channel** field, select **Landing page**.
5. Click **OK**. When prompted, publish the communication and all referenced landing pages.
6. In the original email message, add a link in a zone. On the Link tab of the hyperlink widget, select **Landing page** and direct the link to the landing page version of the email.
7. Click **Save Changes** .

To examine the new landing page version of the email, click **Preview**  in the email communication. In Preview, click the link to the landing page version of the email.

The landing page version opens as a separate tab. You can confirm that the landing page version of the email accurately replicates the HTML version. For example, change sample data for personalization fields to confirm that the expected content changes occur in both the HTML and the landing page versions of the email.



**Note:** In the landing page, the link to the web page version of the email is visible, but disabled.

## Personalization field data types in communications

When you add a personalization field to a communication, a personalization rule, or an advanced script, the field name and data type must exactly match the name and data type

that is defined for the field in the OLT. The OLT and the communication must be referenced to the same mailing to enable the system to complete the required validation.

You can experience various errors and warnings when you preview and publish the email or landing page if the name and data type of the personalization fields that are defined in the OLT do not exactly match those added to the communication.

Each personalization field definition specifies the type of data that Deliver substitutes for the personalization field when you run the mailing. Data types for personalization fields are defined as either numeric or string.

The data type for system defined personalization fields (Built-in and Constant fields) is set automatically to string and cannot be changed.

The data type for OLT personalization fields can be either numeric or string. Deliver automatically designates the data type for OLT personalization fields according to the data type of the field in the marketing database that provides the recipient information. However, you can edit the data type designation for OLT personalization fields if necessary.

## View As Web Page link in email communications

Give email recipients the ability to view your message in a browser by adding a view as web page option to HTML and text-only email. As an alternative, you can also save the email communication as a hosted landing page and then link to the hosted page in the original email.

Some email recipients prefer to view incoming email in a web browser instead of in an email client. For example, recipients who turn off image display in their email clients can view email as a web page to selectively view images in their email. To accommodate such a preference, you can add a view as web page option as a link to a zone in an email communication.

You can configure any hyperlink to act as a view as a web page link. However, the widget toolbar also contains a separate widget that you can use to add a view as web page link. You can configure the view as web page link to display in the message as text or as an image.

In the Message Editor, you can add a View As Web Page link to HTML email or text-only email communications. When you publish the communication, the system automatically creates a copy of the email as a hosted landing page.

For HTML email, the landing page version of the email is identical to the original message, except that the View as Web Page link is omitted. For text-only email, the view as web version replicates the HTML version of the email communication. If you add a View As Web Page link to a text-only version of an email communication, you must also configure the HTML version of the communication.

Because Unica hosts the landing page, the View As Web Page version of the email can replicate much of the personalization that you added to the email. However, the landing page version does not support all types of personalization available in the email version. For example, hosted landing pages do not support personalization features that you create with Deliver advanced scripts for email.



**Note:** A view as web page link displays according to the personalization rules, if any, that you configured for the zone.



When the email recipient clicks the link, the hosted landing page displays in a web browser. For tracking purposes, the system considers an email message that opens as a web page as being the same as a hosted landing page open. Data for email messages that are viewed as a web page displays in the landing page section of Deliver link tracking reports.

By default, format settings for the email template determine how the link displays in the email. However, you can override the template formatting to specify custom HTML attributes for the view as web page link.

## Adding a view as web page option


You add an option to view an email as a web page by adding a view as web page link to a zone. You cannot add a view as web page hyperlink in the HTML code for an email template. The view as web page option is available for email communications only.

1. Open the email communication for editing and locate the zone where you want to add the link.
2. Add a link to the zone with any of the following methods.

- Drag a Hyperlink widget  into the zone.
- Right-click in the zone and select **Add content > Hyperlink**.
- Drag the View As Web Page widget  into the zone.

3. On the Body tab, format how the link displays in the email. Use one of the following options.

By default, the link displays according to the format defined in the HTML tag that defines the zone. You can override the template formatting and define various standard HTML attributes.


- Select **Text** and enter text to display as the link. You can include a personalization field in the text.
  - Select **Image URL** and specify a remote image by entering the URL for the image. The image must be hosted on a publicly available server.
  - Select **Image Content** and click  to select an image from the Content Library.
4. Optionally, you can override formatting that is defined in the template by specifying different HTML attributes for the link. Open the Formatting Options section of the Body tab.

If **Use formatting from template** is selected, clear it and define custom HTML attributes for the link.

5. If you added the link with the Hyperlink widget or the right-click option, click the **Link** tab and select **View as Web Page**.

**View as Web Page** is automatically selected if you used the View As Web Page widget.

6. Click **OK**.
7. Save and publish the communication.

To examine the new landing page version of the email, click **Preview**  in the email communication. In Preview, click the link to the landing page version of the email.

The landing page version opens as a separate tab. You can confirm that the landing page version of the email accurately replicates the HTML version. For example, change sample data to confirm that the expected content changes occur in both the HTML and the landing page versions of the email.



**Note:** In the landing page version of the email, the View as Web Page link is not visible.

## Creating a text-only email communication

You can use Deliver to create email messages that are formatted only as text. To create email that is delivered to the recipient in text format, you must work with a text-only template.

Before you begin, ensure that the template required to create the email is available in the Content Library of the Deliver Message Editor or on a shared server that you can access from your Deliver installation.

To create a text email, you specify **Text** as the content type and you add a text-only template. You must add a template to the email communication before you can save it.

You can use the drag-and-drop features available in the Message Editor to create and modify text-only email because Deliver supports defining configurable zones in text-only templates. You can add various content elements, including personalization fields, to text-only email. You can also embed personalization fields directly in a text-only template. However, you cannot use zones to add images to a text-only email.

Before you can use the text-only email communication with an Deliver mailing, you must configure the email header. You can also add content elements (except images) to the email according to your marketing requirements and the design of the template that you select for the email.

1. On the bottom of the Communications tab, click **Create New Communication**





and select **Create new email**.

A default communication displays in the editing pane.

2. Right-click the tab of the default communication and select **Rename**. In the **Properties** window, assign a name to the communication.

In the **Properties** window, you can specify a folder on the Communications tab where you want to save the email communication, or you can specify a folder later, when you save the communication.

3. In the **Content Type** field, select **Text**.
4. Click the **click to select a template** link. In the **Select Template** window, navigate to the text file that you want to use as a template.

In the **Select Template** window, click a folder to display the folder contents. Click a file to display a preview of the template. Click **Insert** to add the template to the communication.

The communication editor displays the email that is defined by the template that you select.

5. Click **Save Changes** .

When you save your changes, the system presents an option to publish the email. Publishing the email makes it available for use in a mailing. However, you must configure the email address and subject before you can publish and use the email. If you do not fully configure the email address and subject, Deliver displays an error if you attempt to publish the email.

When prompted to publish the email, click **Cancel** to save the email but not publish it. You can publish the communication after you configure the email address and subject.

After you create the text-only email communication, do the following to use it in a mailing.

- Configure the email header. Specifying a personalization field for email address is a minimum requirement.
- Reference the communication to a mailing.

- Edit the email message. If the template contains configurable zones, you can add hyperlinks, personalization fields, and text. You cannot add images or HTML snippets. However, text blocks can contain advanced scripts for email that you can use to display data tables and nested conditional content.
- Define content display rules for zones that contain multiple content elements that are displayed conditionally.
- Preview the email.
- Publish the email. To be able to use the email in a mailing, you must publish it.

## Auto-generating a text version of an HTML email communication

In Unica Deliver, you can use an HTML email to generate a text-only mail. The text-only version of the email is based on the HTML template that defines the HTML email layout. This method is called auto-generating the text email. By auto-generating a text email, you can take advantage of the design effort that is already invested in creating the HTML version.

After you generate the text-only version, you edit the HTML and text versions independently. For example, if the HTML version contains an image of a tropical vacation destination, the auto-generated text version contains a zone that displays the alt text that is defined for the image. In the text version, you can replace the alt text with a text block that provides a detailed verbal description of the vacation destination. The HTML version continues to display the image. Saving and publishing the email communication saves and publishes both versions of the email.



**Important:** If you previously created a text version of the HTML email, auto-generating again removes any changes that you made to the text email. The auto-generated version replaces the current text content with a text version based on the HTML template that is used by the email.

1. Open an HTML email for editing in the Message Editor.
2. In the **Content Type** field, select **Text**.
3. Click **Auto-generate from the HTML template**.

The editor displays a text version of the content that is defined on the HTML tab for the email.

4. Click **Save Changes** .

When you save your changes, the system presents an option to publish the email. Publishing the email makes it available for use in a mailing. However, you must configure the email address and subject before you can publish and use the email. If you do not fully configure the email address and subject, Deliver displays an error if you attempt to publish the email.

When prompted to publish the email, click **Cancel** to save the email but not publish it. You can publish the communication after you configure the email address and subject.

After you auto-generate the text-only email, do the following to use it in a mailing.

- Configure the email header. Specifying a personalization field for email address is a minimum requirement.
- Reference the communication to a mailing.
- Edit the email message. If the template contains configurable zones, you can add hyperlinks, personalization fields, and text. You cannot add images or HTML snippets. However, text blocks can contain advanced scripts for email that you can use to display data tables and nested conditional content.
- Define content display rules for zones that contain multiple content elements that are displayed conditionally.
- Preview the email.
- Publish the email. To be able to use the email in a mailing, you must publish it.


## Email address and subject line

Email communications contain a header section in which you enter email address information. The header contains fields to identify the sender, specify the message recipient, and enter an email subject line. You can use personalization fields in any of the header fields to customize the email address and subject. Some header fields are populated by default, but you can change the default values.

The header in an email communication contains the following address lines.

- From (required)
- Reply To
- To (required)
- Bcc

The header also contains a field to enter the subject line for the email. You can enter a single subject line or enter multiple subject lines that display according to personalization rules. An engaging subject line in the header can help email recipients to quickly recognize your marketing message and encourage them to open the email.

The From, To, and Subject fields display by default. To display the Reply To and Bcc fields, click **Email Options** .

Each address line in the header provides address fields and display fields. Address fields provide the local part of the sender and recipient email addresses. The From address also includes a field to specify the email domain from which you are sending the email message.

To deliver email messages, email processing systems require complete email addresses for sender and recipient. The combination of the email domain and the local part create a complete email address. For example, in the email address `admin@example.com`, the local part of the address is `admin` and `example.com` is the email domain.




**Note:** The system uses the email domain that you select to construct the link URLs that email recipients see when they hover over links in the email. Such links are called branded URLs.

Each address line in the header includes a display field. Display fields typically contain a simple name or title that is easily read by the email recipient. Names that you enter in the display fields are sometimes referred to as friendly names. Entering information in display fields is optional.

## Using personalization fields in the email header

You can include personalization fields in the email header to create a dynamic email address. Select an OLT personalization field to provide information that is specific to each email recipient. For example, select a personalization field to provide the destination mailbox of the recipient.

To provide address information through a personalization field, the mailing that references the email communication must also reference the Output List Table (OLT) that defines the personalization field.

To enter a personalization field in a header field, click  **Insert Personalization Field**, or place the cursor in the field and press **Ctrl+space**.

## Static information in address fields

If you enter simple text into the address lines in the email header, you create a static address. Using a static email address in the To field is typically reserved for testing purposes only.



**Note:** Use extreme care when you specify static email addresses! The manner in which you specify an address can have serious performance consequences.

When you use a personalization field in an address line, the Output List table (OLT) that is referenced to the mailing provides unique address information for each individual that is included in the OLT. Each individual is represented by a row in the OLT. When you run the mailing, the system sends a single email message for each row in the OLT.

However, if you specify a static email address, each row specifies the same email address. Because the system sends a separate email message for each row in the OLT, the mailbox that you specify as a static address receives one message for each row in the OLT. If the mailing references an OLT that contains a million email addresses, then 1,000,000 email messages are delivered to the mailbox.

## Entering the sender address

The sender address appears in the header as the From address line. You must provide a sender address. A mailing that references the email communication will fail to run if you do not provide a sender address.

The From address consists of two fields, the local part and the email domain. The local part identifies the sending mailbox. The combination creates the sending email address in the form `<local part>@<domain>`.

The email domain is populated by default with an email domain that you establish with HCL. If you maintain more than one email domain with Unica, select the domain that you want to use. The list displays only the email domains that are registered with Unica for your hosted messaging account.

You can also enter a display name, but doing so is optional. Enter a name or select a personalization field that provides a name to display as the sender of the email.

Depending on the system configuration, the display name and local part of the email address might be populated. The defaults for each domain can be different. You can change the default values. For more information about how to specify default values for the sender address, see information in the Unica Deliver Startup and Administrators Guide regarding how to specify the domains that are available for email.

1. In the **From** line of the email header, select an email domain from the drop down list.
2. Enter the local part of the email address. Enter a single word. Do not include spaces.  
You can also enter a personalization field.
3. Optionally, enter a display name that can appear as the friendly name for the sender address.

You must also enter a recipient email address in the **To** address line.

## Email domain selection

When you create an email message, you must specify the email domain from which the messages are sent. Select the email domain in the From: address line of the email header.

Depending on the configuration of your hosted messaging account, you might have multiple domains from which to choose.

If you establish multiple email domains with Unica, the system provides a list of available email domains that are registered with Unica for your hosted email account. Administrators can define default values for display name and the local address that are associated with each domain. You can change the default values when you create or edit an email communication.

Unica Deliver system administrators can restrict the list of email domains that are available for use in email communications.

You can request that Unica add or delete email domains established for your email account. After Unica completes the change you request, the system updates the list of available email domains. The change is reflected in the list of email domains the next time you create or edit an email communication.



**Note:** Email domain changes for your account do not update email documents that you created before the change request. To change the email domain for a communication created earlier, you must reopen the email communication and update the email domain selection.

## Entering the recipient address

The recipient address is the complete email address that appears as the To: address for each email that you send. You can also configure a display name that displays as a friendly name for the recipient email address.

The best practice for entering a recipient email address is to specify a single personalization field that provides recipient email address. The personalization field must be defined in the Output List Table (OLT) that is referenced by the same mailing that references the email communication. The OLT must define a personalization field that provides a unique email address for each individual that is represented in the OLT. When you run the mailing, the system sends a single email message for each row in the OLT.

You cannot specify multiple personalization fields for the recipient email address.

You can also enter a recipient address as a static value. For example, you can enter a specific email address. However, use caution when doing so. The mailbox that you enter as a static address receives one message for every row in the OLT associated with the mailing. Typically, a static address is used only with very small recipient lists for testing.

1. In the **To:** line of the email header, click  **Insert Personalization Field**, or place the cursor in the field and press **Ctrl+space**.

If you enter a name instead of a personalization field, the same name displays on every message.



**Note:** The system does not compare a static address that you enter in the **To:** line to the global email suppression list.

2. Optionally, enter a display name that can appear as the friendly name for the recipient address.

You must also enter a sender email address in the **From:** address line.

## Entering a Reply To address

You can enter a mailbox or select a personalization field that provides a mailbox that serves as the mailbox for email replies. Specifying a Reply To mailbox is optional. Depending on the sender email domain that you select for the email, the system can forward recipient replies to the Deliver system tables in your local HCL Unica installation.


The system displays an automatically generated email address if you leave this field empty, or if you enter an address that uses the same email domain as you selected for the From: address. The generated address takes the following format.

```
mailbox<mailing identifier>x<message identifier>@<email domain>
```

The system tracks replies to this mailbox and enters the response data in the Deliver system tables.



However, if you enter an email address that uses an email domain that is different from the domain in the From: address, the system only displays the email address that you enter as the Reply To: address. In this case, the system cannot track replies to the mailbox.

1. In the toolbar, click **Email Options**  to display the Reply To: address line in the header.
2. In the Reply To: address line of the email header, enter the email address for email replies.

The system uses this address to generate a Reply To address.

If you insert a personalization field to create a Reply To address, the OLT associated with the email communication must specify the Reply To mailbox address.

3. Optionally, enter a display name that can appear as the friendly name for the recipient address.

## Precautions for the Bcc address

Some business situations might require that you send a private copy of an email to other mailboxes in addition to the one in the To: line. To send a copy of the email without notifying the addressee, add an email address in the Bcc: line of the email header.

For example, you might configure a Deliver document as a transactional email message that is sent to customers to confirm shipment of their order. To simultaneously notify other individuals (such as a regional support team or local distributor) that the merchandise is on its way, you can put the email address of the support team or distributor in the Bcc: line. If the email address might vary according to region or other characteristic, you can use a personalization field to provide the email address.

The system does not compare the email addresses that you enter in the Bcc: line to the global email suppression list, including addresses provided by personalization fields. When you add an email address to the Bcc: line, you risk sending email to addresses that are known to be invalid or that belong to individuals that have unsubscribed from your mailing list.

You can damage your email reputation if you send email to invalid addresses or to individuals that have unsubscribed. Make certain that any email address that you add to the

Bcc: line is a valid email address and that the recipient has not unsubscribed or opted-out of your mailing lists.



**Important:** You must be extremely careful when adding an email address to the Bcc: line. This caution is especially true of bulk mailings. If you specify a static email address, the mailbox that you specify can receive very large volumes of inbound messages.

If you specify a static email address, the Bcc mailbox receives a copy of every message sent as part of the mailing. If your mailing contains a million email addresses, then one million email messages are delivered to the Bcc mailbox. However, if you specify an email address by using a personalization field, the system sends the Bcc mailbox a copy of every email where the metadata associated with the recipient includes a value for the personalization field.

For example, to provide a business partner with a blind copy of email sent to a portion of a million recipient mailing list, do the following.

- Define a personalization field that maps to partner email address information in your marketing datamart.
- Confirm that the OLT includes the personalization field for partner email.
- Enter the personalization field in the Bcc: line of the email header.
- Run the mailing.

If only 5000 of the one million records in the mailing list contain the partner's email address as the value for the personalization field for partner email (the one that you entered in the Bcc: line), the partner's mailbox receives 5000 email messages. Had you entered the partner's email as a static email address, the partner's mailbox would receive one million emails.

## Email subject line

The email subject line identifies your message and is the first part of your message that the recipient sees. A descriptive and compelling subject line often makes it more likely that the

recipient will open your message. You can create a single subject line for all messages, or create highly personalized subject lines for each message that you send.

Deliver provides two ways to create a subject line for personalized email.

- Enter a single email subject in the email header.


You can include personalization fields in the subject line to create a personalized email subject.

- Create multiple conditional subject lines.

For more sophisticated personalization, you can create multiple email subject lines and display them conditionally, based on personalization rules that you define in the Rule Editor or the Rules Spreadsheet.

## Entering a single email subject line in the email header

To create a single email subject line, enter or paste the subject text in the **Subject** field of the email header. You cannot add image or HTML content to the subject field.

To create a personalized email subject, you can include personalization fields in the subject line. If you want to create a personalized subject line, position the cursor where you want the personalized content to appear and click **Insert Personalization Field** . During the mailing run, the value of the personalization field appears in the email subject.


## Creating multiple email subject lines in the Message Editor

In the Deliver Message Editor, you can create multiple conditionalized subject lines for your email. You can define up to 10 different subject lines according to criteria that you specify in personalization rules.


1. In the Message Editor, click **Configure email options**  and select **Manage multiple subject lines**.

The Subject line variations window opens.

2. Enter subject line text.

Enter or paste text in the entry field. Click  to insert a personalization field at the current cursor position. You can add text only. You cannot add HTML content or images.

3. Add rows for additional subject lines.

Click **Add row** . You can add up to 10 rows. Each row is a separate email subject line. Enter subject text in each row.

You can delete a subject line by deleting its row. Deleting all the subject line rows clears the Subject field in the email header.

4. If you have more than one subject line, apply personalization rules to subject lines.

For each subject line that you want to conditionalize, click in the entry field and click **Edit rule** or **click to add a rule** to open the Rule Editor. In the Rule Editor, define a personalization rule to specify the conditions that must be true to display the text as the email subject.

5. Specify the evaluation order.

Deliver evaluates subject lines and associated personalization rules from top to bottom. To change the evaluation order, drag subject lines up and down to reorder the list. When you send this email message as part of a mailing, the system displays the subject line for the first rule that is true.

Blank rules are always true. To create an email subject line that displays when none of the conditions are true, enter a subject line without a personalization rule.



**Note:** Subject lines listed after a blank rule never display.

After you define more than one subject line, the **Multiple** link displays next to the Subject field. To update the multiple subject lines, you can click the link to open the Subject lines variation window, where you can view and make changes.


## Creating multiple email subject lines in the Rules Spreadsheet

The Rules Spreadsheet defines specific subject rows where you can add, conditionalize, and manage multiple subject lines. Use the spreadsheet to manage conditional subject lines and conditional content in zones from a single interface.

1. Open the Rules Spreadsheet in View by Zone mode.

The spreadsheet opens with at least one subject row available for editing.

2. Enter subject line text.

Right click in the Content field and select **Edit Content** to display a text editor. Enter or paste text to create each subject line. Click  to insert a personalization field at the current cursor position. You can add text only. You cannot add HTML content or images.



**Note:** You cannot paste content from a non-subject row into a subject row.

3. Add subject rows.

Copy an existing subject row, right-click, and select either **Paste** or **Insert Copied Cells (above)** to create another row. You can add up to a total of 10 subject rows. Each row is a separate email subject line. Enter or modify subject text in each row.

You can delete a subject line by deleting its row. Deleting all the subject line rows clears the Subject field in the email header.

4. Apply personalization rules to subject lines.

For each subject line that you want to conditionalize, right-click in the Rule field to access the Rule Editor or the Inline Rule Editor. Define a personalization rule to specify the conditions that must be true to display the text as the email subject.

5. Specify the evaluation order.

Deliver evaluates subject lines and associated personalization rules from top to bottom. To specify the evaluation order, move rows up and down in the spreadsheet. When you send this email message as part of a mailing, the system displays the subject line linked to the first rule that is true.

Blank rules are always true. To create an email subject line that displays when none of the conditions are true, enter one subject line without a personalization rule.

6. Validate changes.

When you use the Rules Spreadsheet to add or update a subject line, it must pass rule validation, even if you do not define a rule. Click **Validate**.

7. Click **OK** to save.

After you define more than one subject line, the **Multiple** link displays next to the Subject field. To update the multiple subject lines, you can click the link to open the Subject lines variation window, where you can view and make changes.

## Guidelines for writing email subject lines

When you enter text for email subject lines, consider the possible effects on email deliverability and the reaction of the email recipient.

Remember the following email subject guidelines.

- Always include a subject line for an email message. Internet service providers (ISPs) and email clients often classify email without a subject line as SPAM.
- Write a strong headline with 5 to 8 words, or approximately 40 characters including spaces. (Avoid exceeding 65 characters.)
- State a specific benefit in a straightforward way.
- Create a sense of urgency, but without using any words that might increase the SPAM score of the message.
- Include your brand in the subject if it does not appear in the **From** line.
- Check for errors. Use a spell checker.
- Avoid obvious SPAM language such as words in all capital letters, exclamation points, "important!" or "free!". (For examples of obvious SPAM language, check the subject lines of the email in your own junk mail folder.)
- To avoid possible email rendering issues, avoid non-ASCII characters, such as "em" dashes, curly quotation marks, and apostrophes. Do not copy and paste these characters from text editors that support them.

## Email unsubscribe or opt-out options

To comply with the CAN-SPAM Act and other similar regulations of email practices, you must enable your email recipients to unsubscribe, or opt-out, of email messages that advertise or promote a commercial product or service.

Providing an unsubscribe option in your messages also gives uninterested recipients an alternative to labeling your message as SPAM. Avoiding being reported as SPAM is critical to preserving your email reputation among ISPs and ultimately helps to preserve your ability to consistently reach your intended email recipients.

Consider the following ways to avoid sending unwanted email.

- Support List Unsubscribe.
- Provide an unsubscribe page.
- Remove addresses that are on the Global Suppression List.

For more details about CAN-SPAM, see the official Federal Trade Commission (FTC) web site, specifically, the page [The CAN-SPAM Act: A Compliance Guide for Business](#).

## Support for List-Unsubscribe

Email clients that support the List-Unsubscribe feature described in RFC 2369 automatically provide some means - typically a link - to let email recipients request removal from the mailing list of the sender. The email client determines how to present the unsubscribe option to the email recipient. Deliver supports List-Unsubscribe.

Email messages sent through HCL Unica include List-Unsubscribe headers that comply with [RFC2369](#). This standard describes a way for email clients to automatically provide message recipients with a way to request removal from mailing lists. This avoids forcing the recipient to report your message as SPAM, which can damage your email reputation.

When the message recipient clicks the link (or whatever unsubscribe method the email client presents), the email client sends a request to be removed from your mailing list to HCL Unica. Unica forwards the request to you so that you can remove the recipient from your mailing lists.

## Guidelines for providing an unsubscribe landing page

Deliver does not provide a pre-configured landing page to process email unsubscribe requests. You must configure a web page to handle unsubscribe requests from email recipients. You have the option to process such requests by creating a landing page hosted by Unica, or you can create an unsubscribe page on your corporate web site.

Consider the following guidelines for providing an unsubscribe option in your personalized email and a hosted opt-out landing page.

- Include a standard statement in email templates about unsubscribing or opting out in the email templates. The statement should be designed to include a droppable area where you can configure a hyperlink to a landing page.
- Create a landing page to submit the opt-out request to HCL Unica. You must also create a second landing page to display a message confirming that the message recipient will no longer receive promotional mailings in the future.
- Use the Deliver Message Editor to configure the unsubscribe link to the opt-out landing page.

### **Deliver stores landing page responses until your local installation requests them**

When an email recipient completes the online unsubscribe form that you have provided, Deliver stores the request information until your local Deliver installation retrieves it. Deliver never pushes information to your network. A component called the Response and Contact Tracker (RCT) is part of your local Deliver installation. The RCT is configured to request email response data, including unsubscribe requests, on a regular basis. By default, the RCT makes such a request every 5 minutes.

For more information about the RCT and its operation, see the Unica Deliver Startup and Administrator's Guide.

### **Landing page responses are stored in your local Deliver tables**

Deliver records landing page responses in the local Deliver system tables, in the `UCC_Response` table.



Information submitted through Unica-hosted landing pages is recorded in the `UCC_ResponseAttr` table, with the response type 14. This response type is used to identify all landing pages responses, not only unsubscribe responses. The exact data returned depends on how you have configured your opt-out landing page. The `UCC_ResponseAttr` table allows you to record a variety of response attributes.

For more information about the local Deliver system tables see the Unica Deliver System Tables.

## **Use your internal systems to process responses and update your mailing lists**

When you create an unsubscribe landing page to allow email recipients to opt-out, you must use your own internal systems to process the requests and remove the individuals from your mailing lists. You can use flowcharts in Campaign to extract information collected through the opt-out landing page form that you create. Depending on how you configure the unsubscribe form, you can associate various attributes with an opt-out request. Attribute data for landing pages is stored in the `UCC_ResponseAttr` table.

## Automatic recognition of unsubscribe requests

During processing of inbound email responses, Unica Deliver scans the subject line and the first few lines of the incoming email to look for words typically found in requests to unsubscribe from mailing lists. When an incoming message that contains certain keywords is received, the system adds the sending address to the global email suppression list. In subsequent mailings, the system does not send email to the suppressed address.

During processing of email responses, Deliver scans the email subject line and the first five lines of the email for the following words.

- unsubscribe
- unsub
- stop
- end
- quit
- cancel

In the subject line of the incoming email, the keywords must be separate from other characters. For example, Deliver recognizes the following subject lines as a probable unsubscribe requests.

- Please stop sending email.
- Quit mailing me!
- I want to cancel my subscription.
- I want to stop hearing from you.

The system does not recognize a subject line that might look like the following.

- I want my subscription canceled.

The system does not recognize the keyword due to the additional characters.

However, the system evaluates the word `unsubscribe` in subject lines differently from other keywords. In subject lines, Deliver recognizes the word `unsubscribe` even when combined with other characters. For example, the system recognizes all of the following subject lines as probable unsubscribe requests.

- Please unsubscribe me from your mailing list.
- I want to be unsubscribed.
- I am unsubscribing from your newsletter.

This treatment of the word `unsubscribe` applies to email subject lines only. Deliver applies unsubscribe rules differently when evaluating the body of the message.

In the body of the email, these words must be on a line by themselves and separate from other characters in the sentence. For example, the system recognizes the following sentences as part of a probable unsubscribe request.

- Unsubscribe
- Stop
- quit

However, it does not recognize the following.

- I want to unsubscribe!
- Please stop sending email to me.
- I want to be unsubscribed.

In the body of the message, the system does not recognize keywords, including unsubscribe, when they are combined with other characters or when they are not on a separate line.

## Global email suppression

Preventing email messages from being sent to people who do not want them, or to mailboxes that do not exist, helps to maintain your email reputation. HCL Unica provides a method to prevent email messages from being sent to recipients that have opted-out, regardless of the mailing list to which recipient belongs. This practice is called global email suppression.

Global email suppression is intended to serve as a supplement to your own email list hygiene practices. Deliver sends a record of each email it suppresses to the Deliver system tables maintained in your local environment. You can use these records to keep your mailing lists up to date.

For more information about where responses are stored in the Deliver system tables, see the Deliver System Tables and Data Dictionary.

An email address is added to a global email suppression list maintained by HCL Unica under the following conditions.

- HCL Unica receives notification from an ISP that an email recipient marked your email as spam.
- The recipient clicks the unsubscribe link in an email client that supports [Support for List-Unsubscribe \(on page 75\)](#).
- HCL Unica receives an email from the recipient that contains the word *unsubscribe* in the subject line.
- HCL Unica determines that the email address is not an actual email address; for example, if the email domain is obviously misspelled (such as `htmail.com` instead of `hotmail.com`)

Each time you run a mailing, Deliver automatically compares the mailing list referenced by the mailing configuration to the global email suppression list. The system prevents email transmission to any address in the mailing list that is also included on the global email suppression list.



**Note:** Deliver does not check the global suppressions list when it processes transactional email requests.

Deliver does not apply global suppression based on replies to unsubscribe landing page hosted by Unica or corporate unsubscribe web pages that you create. If you create an unsubscribe landing page to allow email recipients to opt-out, you must use your own internal systems to process the requests and remove the individuals from your mailing lists.

## Option to share marketing messages on social networks

You can expand the reach of your marketing message by encouraging email recipients to share your email on social networks. When you include social network links, email recipients need only one click to share your content with a broader audience. Deliver provides a widget to create and format links to the most popular social networks.

Use the Share widget to create and format links to social networks in email communications. From the Message Editor toolbar, use the widget to make the following configurations.

- Add links for up to 5 social networks.
- Provide descriptions, thumbnail images, and metadata that social networks use to display your content and make it easier to find.
- Format how the social sharing links appear in the email.

You can add social sharing links to any zone in an email, but you can add only one set of links in the same email. You cannot add social sharing links by reference. You must add social sharing links to a zone.

If you have received short links from Unica, you can specify the links in the social share link. The system tracks the short links that message recipients share on social networks.

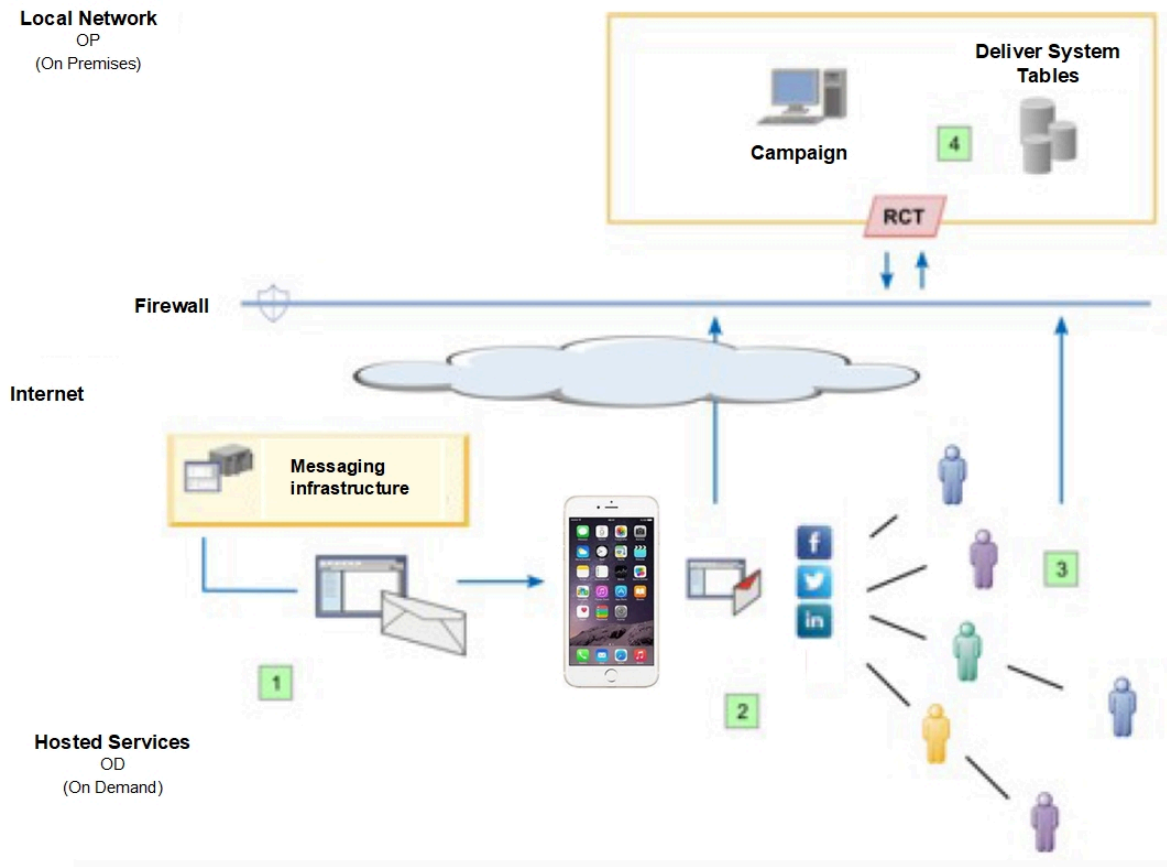
## Overview of social sharing links in marketing messages

Social sharing can expand the reach of a mailing because each recipient can connect to other people that are not part of the original recipient list. Adding social sharing links to email makes it easier for each recipient to repeat your marketing message. The system tracks each time the recipient shares the email and also tracks when others view the content on social networks.

You can add social sharing links when you create communications in the Message Editor. Use the Share widget to add and format up to five links to the most popular social networks. You can customize how the links appear in each communication.

The system stores the tracking data in the Deliver system tables. The system can determine which recipients shared the message and which social networks each recipient selected. Link clicks that the system records for views on the social network are attributed to the individual that originally shared the content. The Deliver link tracking reports clearly identify social links.

The following diagram illustrates how email recipients can share your message.



### Overview social sharing

	Action	Description
1	A personalized email is sent to the recipient.	The email contains social sharing links. The system generates a hosted landing page that duplicates the email.
2	The recipient clicks one or more social share links to share the message.	A link to the hosted landing page version of the message is added on each social network selected by the message recipient. The link contains the title and description information that you entered. The link might be highlighted by a custom image, if you selected one and if the social network supports custom images.

	<b>Action</b>	<b>Description</b>
		Deliver records when the recipient shares the link to the message.
3	Individuals with whom the link was shared click the shared link. Some individuals might share the link with their own social network, which further expands the distribution of your message.	<p>The system directs the clicks for the shared link to the hosted landing page version of the message. The system records the secondary link clicks and attributes them to the original message recipient.</p> <p>The system cannot record when individuals share the link after the original share. However, all clicks on the shared link are directed to the hosted landing page and are attributed as link clicks for the original message recipient.</p>
4	Components in your local HCL Unica installation request the link click data and store the results in the Deliver system tables.	Link clicks generated by social sharing are included in standard Deliver link tracking reports. Link clicks that are associated with social network sharing are identified in the reports. You can query the system tables for additional information.


## Forward to a Friend link in an email communication

A Forward to a Friend link provides email recipients with a convenient way to forward a copy of your marketing email to people that they know. Because Unica tracks the forwarding requests, you can measure your ability to use this method to encourage your customers to promote your message and brand.

You must request that Unica enable this feature for your hosted messaging account.

Each email recipient can forward a copy of the message to up to 5 email addresses. The forwarded email duplicates the personalization and content of the original message.

When this feature is enabled, you can add a Forward to a Friend link by using either of the following methods.

- In the Message Editor, drop the link into a zone with the Forward to a Friend widget 
- Embed the link in an HTML template or snippet with the custom `<UAEf2f>` tag.

You can add one or more Forward to a Friend links to an email communication. You can configure each link to appear as text or as an image. Each Forward to a Friend link appears as a trackable link in HTML email and in the web page version of the email. Forward to a Friend links are not supported in the text-only version of an email message.

When you publish a message that contains a Forward to a Friend link, Unica creates a hosted landing page form that the email recipient uses to submit email forwarding addresses. You can modify the hosted address submission form, and a corresponding confirmation page, to support your brand.

Unica tracks which recipients forward the message and how many friends open the forwarded messages. The system tracks message opens and link clicks in the forwarded messages and adds the response data to the Deliver system tables. The response data from the forwarded messages, including message bounce data, also appears in standard link tracking reports. Responses to the forwarded messages are attributed to the original mailing.

Forward to a Friend links are not supported in the following cases.

- Email messages that are sent as transactional email
- Advanced scripts for email
- Email messages that include offers from Unica Campaign.

Because the forwarded messages duplicate the original message, the forwarded messages also contain Forward to a Friend links. However, the links in the forwarded messages are not active. Only the initial email recipient can forward a message.

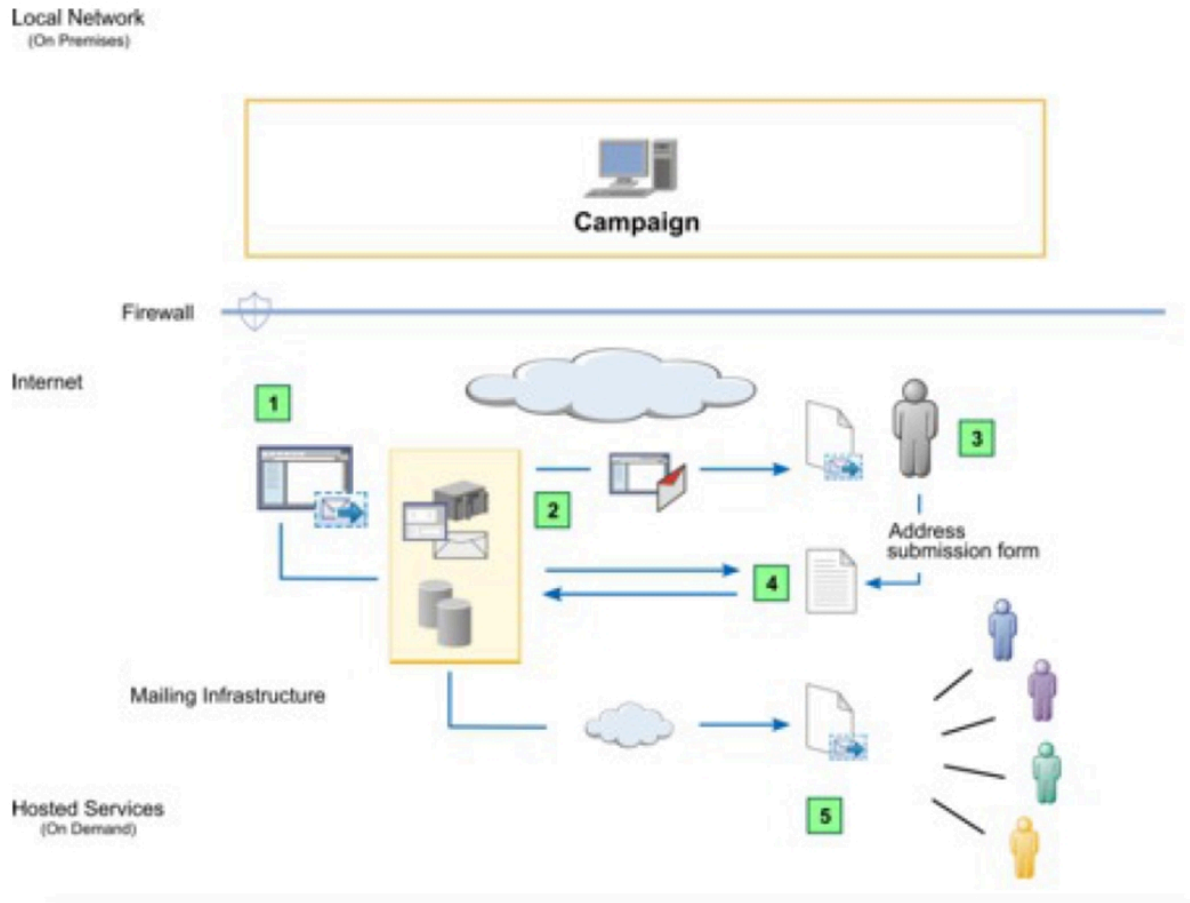
## Forward to a Friend overview

When you add a Forward to a friend link in an email communication, each email recipient sees a Forward to a Friend link in the personalized email that they receive. When the



recipient clicks the link, Unica displays hosted landing pages to provide address submission and confirmation forms. You can modify the hosted pages to suit your brand.

The following diagram illustrates the Forward to a Friend sequence of actions.



<b>1</b>	Add the Forward to a Friend link to an email communication. Optionally, customize the submission and confirmation pages.
<b>2</b>	Send personalized email as part of a mailing.
<b>3</b>	The recipient opens the email and clicks the Forward to a Friend link.
<b>4</b>	Unica displays the hosted submission page to the recipient. The recipient can enter up to 5 email addresses.

	The system displays a confirmation page to the original recipient to acknowledge receipt of the forwarded messages.
5	Unica sends copies of the original message, including the original personalized elements, to the various forwarding addresses.

The system creates a separate record in the Deliver system tables for each forwarded message. The records appear in the UCC\_Envelope table and are identified with a value of 2 in the `ContactType` field. Each new record references the `ContactEmail` and `AudienceId` that was recorded for the original email recipient. The system does not record the email forwarding addresses.

The system tracks message opens and link clicks in the forwarded messages and attributes the responses to the original email recipient and original mailing. The response data from the forwarded messages, including message bounce data, also appears in standard link tracking reports.

## Email Response codes

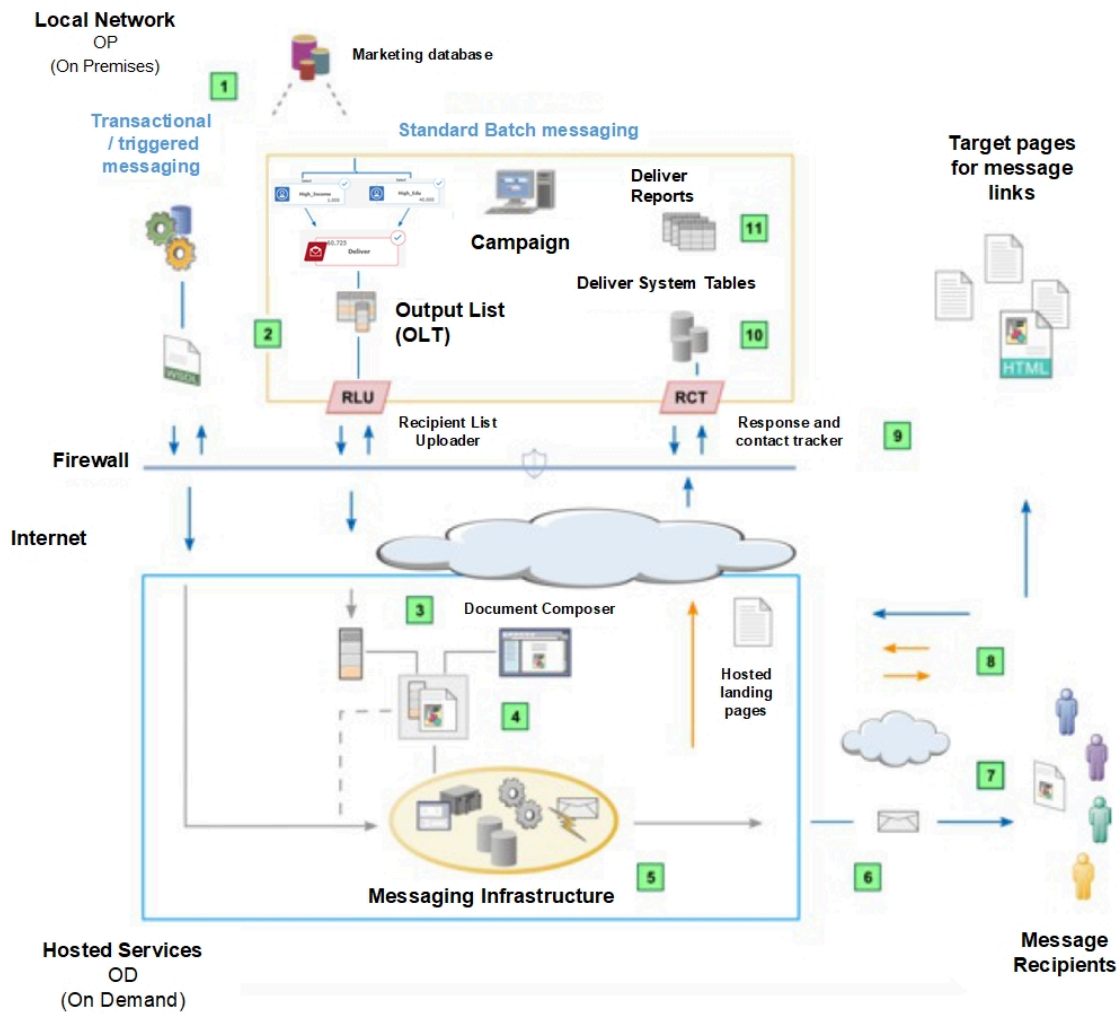
To analyse the notification responses, consider these response codes.

- 0: UNKNOWN
- 1: LINK CLICK
- 2: MAIL OPEN
- 3: SEND FAILURE
- 4: MAIL DEPRECATED
- 5: INBOUND EMAIL (currently not used)
- 6: HARD BOUNCE
- 7: SOFT BOUNCE
- 8: ISP FEEDBACK
- 9: OUT OF OFFICE
- 10: UNSUBSCRIBE
- 11: TECHNICAL ISSUE
- 12: CHALLENGERESPONSE

- 13: ADDRESS CHANGE
- 14: LANDING PAGE

## Personalized SMS messaging

Creating and sending standard personalized SMS requires that you create a recipient list in Unica Campaign and design a SMS message in the Message Editor. However, personalized SMS that is sent as transactional SMS does not take information from a recipient list. For transactional SMS, personalization data must be included in the message request. The diagram illustrates the overall workflow for sending personalized SMS messages and the major Deliver components that are involved in the process.



**Table 4. Workflow for personalized sms**

	Description
1	<p>Standard and transactional messaging.</p> <p>Deliver supports standard outbound sms campaigns that address large numbers of sms recipients. Deliver also supports transactional sms that addresses a single recipient in response to a transaction. Both types of sms can be personalized.</p>
2	<p>Select and upload recipient data to include mobile number and other personalized information.</p> <p>For standard mailings, run a Campaign flowchart to create an Output List Table (OLT). Transactional sms receives address and personalization information from your transaction management systems according to instructions contained in a WSDL.</p>
3	<p>Create a SMS communication in the Message Editor.</p> <p>Users can add personalized information (Name, address, etc.) and the actual text of the SMS under the "message body".</p>
4	<p>Configure a mailing with channel as SMS.</p> <p>Navigate to your campaign created and click Add messages under the Summary section. This mailing references an OLT and SMS text that you keep in messaging editor. For transactional SMS, personalization data is contained in the transactional SMS request.</p>
5	<p>Run the mailing.</p> <p>You can run the mailing manually, schedule the mailing to run at a specific date and time, or schedule it to run after a scheduled flowchart run. Deliver generates each message by merging recipient data with the referenced SMS text that defines the message. Each transactional SMS message is also based on the design of the referenced document.</p>

**Table 4. Workflow for personalized sms (continued)**

	<b>Description</b>
<b>6</b>	<p>Transmit the messages.</p> <p>Deliver hands off the messages off to various Service Providers (ISP) for delivery. Deliver tracks and records the ISP delivery responses, including success and failed delivery responses.</p>
<b>7</b>	<p>Deliver tracks link clicks.</p> <p>When it assembles a message, Deliver rebuilds each link to point to the hosted messaging environment. When the recipient clicks the link, the request goes first for tracking. The request is then redirected to the link target</p>
<b>8</b>	<p>Download the contact and response data.</p> <p>The Response and Contact Tracker (RCT) is installed with Campaign behind your corporate firewall. The RCT periodically requests the tracking data that Unica recorded.</p>
<b>9</b>	<p>Contact and response data is stored in the Deliver system tables.</p> <p>Contact and response data is stored in the Deliver system tables. The RCT stores the data that it receives in various system tables. The Deliver system tables are part of the Campaign database schema.</p>
<b>10</b>	<p>Standard reports.</p> <p>View standard Deliver reports to analyze message transmission performance and delivery success.</p>

## Personalization methods available for SMS

Deliver supports several methods to use recipient data to customize SMS messages. You can personalize SMS messages using personalization fields.

## Personalization fields in SMS

A personalization field is a name-value pair that you can add to SMS messages, Personalization fields that are added to an SMS communication serve as placeholders that accept data that is provided by the recipient list when you run the mailing.

In the SMS communication that is referenced to the mailing, the Message Designer adds personalization fields in the SMS communication. The personalization field displays name in the communication which must exactly match the display name that is defined in the recipient list.

When you run the mailing, the system replaces each personalization field with data from your marketing database. Each SMS can be unique because the SMS content is determined by the unique information that your marketing database provides about the recipient.

The OLT must provide all of the personalization information that is required by the SMS communication. To establish the required connection between the list and the communication, you must reference the OLT and the communication to the same Deliver mailing. Every standard Deliver mailing must reference a SMS communication and an OLT.

## Personalization field data types in SMS communication

Each personalization field definition specifies the type of data that Deliver substitutes for the personalization field when you run the mailing. Data types for personalization fields are defined as either numeric or string.

The data type for system defined personalization fields (Built-in and Constant fields) is set automatically to string and cannot be changed.

The data type for OLT personalization fields can be either numeric or string. Deliver automatically designates the data type for OLT personalization fields according to the data type of the field in the marketing database that provides the recipient information. However, you can edit the data type designation for OLT personalization fields if required.

## Sending an SMS

To send an SMS through Deliver, you must have customer phone numbers, which are verified with the SMS provider. To Send SMS and Whatsapp message through Deliver or Journey, the mobile number must be mentioned in the format "+(country code)(number)"

when populating OLT via Deliver process box in flowchart execution. In the OLT created using Campaign Flowchart, it must include phone number starting with country code. To send an SMS in Quick Builder, perform the steps provided in the [Create an SMS \(on page 457\)](#) topic.

## SMS Response codes

To analyse the notification responses, consider these response codes.

- 15: SMS Aggregator Rejected
- 16: SMS Carrier Failed to Deliver
- 17: SMS Delivered (carrier accepted)
- 18: SMS Reply Message

## SMS reply - the two way conversational channel

The replies to SMS are processed as responses with response type id = 18 and gets stored in Deliver or Campaign system table - UCC\_SMSREPLYMESSAGE. The SMS reply also gets saved in UCC\_Response table as a response with responsetype = 18. If SMS is sent from more than one SMS mailing to same contacts and you want to process those responses separately, then ensure that you configure different senderid (Contact Deliver devops through HCL support for same) and use them in SMS communication for respective mailing. If this is not done and you receive messages from different campaigns, the SMS replies will be processed against the last container id from which SMS is sent.

## Personalized mobile app push notifications

You can use Deliver to conduct targeted and trackable campaigns to reach mobile users that download and install your mobile app on various mobile devices. Send personalized notifications to specific audiences that you define in Unica Campaign.



**Note:** To send personalized mobile app push notifications, you must install Campaign 12.1.0.4 fix pack or higher.

## Mobile app push notifications overview

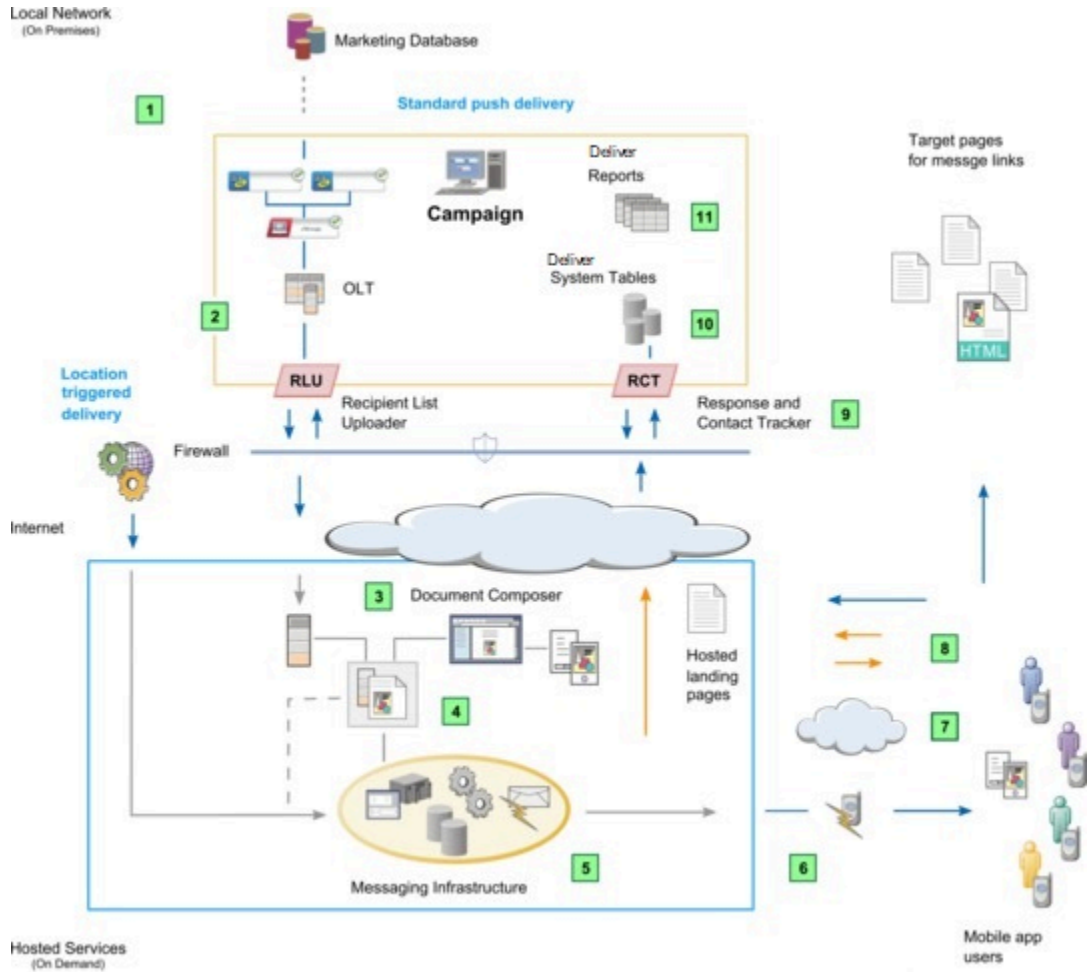
You can use Deliver to send simple push notifications to a recipient's mobile device lock screens.

Simple push uses Android or iOS to render a push notification on a mobile phone's lock screen.

You can target specific mobile app users by running a flowchart in Unica Campaign to create an Output List Table (OLT). The OLT provides the recipient information that is required to personalize the message and identify each mobile device that is supposed to receive the notification.

The diagram illustrates the overall workflow for sending personalized notifications and the major Deliver components that are involved in the process. You must also modify your mobile app to integrate with Deliver.





**Table 5. Workflow for personalized push**

	Description
1	Standard triggered notifications. For standard notifications, Deliver supports sending personalized push notifications to a list of mobile app users that you create in Unica Campaign.
2	Select and upload recipient data. For standard push delivery, run a Campaign flowchart to create an Output List Table (OLT).
3	Create a push communication.

**Table 5. Workflow for personalized push (continued)**

	<b>Description</b>
	The communication defines the appearance and behavior of the notification that the recipient opens.
4	Configure a notification push. .
5	Run the push. You can run the notification push manually or schedule it to run at a specific date and time.
6	Transmit the notifications. If the push is configured for standard delivery, Deliver sends notifications to all registered app users that are included in the OLT.
7	Users receive the notifications.
8	Download the contact and response data. The Response and Contact Tracker (RCT) is installed with Campaign behind your corporate firewall. The RCT periodically requests the tracking data that Unica records.
9	Contact and response data is stored in the Deliver system tables. The RCT stores the data that it receives in various system tables. The Deliver system tables are part of the Campaign database schema.

## Prerequisites for sending personalized push notifications

Sending push notifications to mobile device lock screens through Deliver requires that system administrators complete various preparations. The preparations include changes to your hosted messaging account, changes to the Deliver configuration, and changes to your mobile apps.

System administrators must complete the following preparations before marketers can send push notifications.

- Request that HCL enable mobile messaging for your hosted messaging account.
- Integrate your mobile apps with Deliver. App developers use the Kumulos Push Notifications SDK to modify mobile apps to operate through Deliver.

For more information about preparing the local and hosted messaging environments for push notifications, see the Unica Deliver Startup and Administration Guide.

## Workflow for sending push notifications with Deliver

You must complete multiple steps to design and send personalized simple push notifications. The exact steps depend on the mobile operating system on which the app is running, the type of notification, and the method that you use to send the notification. Some of the required preparations must be performed by administrators with access to the Deliver configuration.

The table presents the sequence of actions that are required to prepare and send push notifications with Deliver. The specific actions that you take depend on the type of notifications and the method that you use to send them.

Activity		Information
Prepare	<ul style="list-style-type: none"> <li>• Integrate the mobile app with Deliver</li> <li>•</li> </ul>	See the Unica Deliver Deliver Startup and Administrator's Guide.
	Determine how to identify and contact notification recipients	<a href="#">Requirements for selecting push notification recipients (on page 97)</a>
	Design notification communications	<a href="#">Create a push notification (on page 459)</a>
Configure	Reference a communication	<a href="#">Configuring push notifications (on page 98)</a>
	Set delivery parameters	

Activity		Information
	Define constant personalization fields	
Transmit	Send a push to a list	<a href="#">Sending a push to a list of mobile app users now (on page 103)</a>
	Schedule a push	<a href="#">Scheduling a push for a specific time (on page 103)</a>
	Enable Transactional delivery	<a href="#">Enable transactional delivery (on page 104)</a>
Analyze	Analyze notifications	<a href="#">Push Response codes (on page 105)</a>

## Push notification delivery methods

### Delivery of push notifications to a list

In Unica Campaign, you can use a flowchart to identify and select groups of mobile app users that share various characteristics. You can send a notification to each user by referencing the list to a notification push that you configure in Deliver. Depending on the flowchart design, you might select many individuals or just a few.

In the flowchart that you use to generate the list, you use an Deliver process to create the notification recipient list as an Output List Table (OLT). In the OLT, you define personalization fields that capture details about each individual in the list. The nature of the information that you store in your marketing database determines the personalization fields that you can define.

In the Quick Builder, a message designer incorporates the personalization fields as placeholders in the design of the message.

When you create an OLT for use with a notification push, you must define a personalization field that provides the mobile app user ID. This value is also known as the Install ID.

The mobile app user ID identifies the specific combination of mobile device and mobile operating system on which your mobile app is running. The mobile app user ID serves as the delivery address for the app push notifications that you send.

When you send notifications to a list, you can schedule the notifications to be sent at a specific time or after the completion of a scheduled run of the flowchart. Sending notifications after a scheduled flowchart run helps to ensure that you have the most current recipient data possible.

## Requirements for selecting push notification recipients

You can send push notifications either to a list of recipients.

To send to a list of recipients, run a flowchart in Unica Campaign to create a list of recipients as an Output List Table (OLT). The design of the flowchart specifies the characteristics that determine which individual to include in the list.

## Requirements for sending notifications to a list of recipients

In Unica Campaign, run a flowchart that contains an Deliver process to create an Output List Table (OLT). The OLT contains data about each recipient. Depending on your marketing objective, you can send a push notification to those who have opted to receive push communications, or to a selected group of individuals that satisfy particular criteria. Sending push notifications to a list has specific requirements.

- You must create a flowchart in Unica Campaign that includes an Deliver process. Conduct a production run of the flowchart to create an Output List Table (OLT).
- In the configuration of the Deliver process, define personalization fields that provide data about each recipient in the list. By using personalization fields in the push notification, you can engage uniquely with each app user, even though you are sending notifications in bulk to a list.
- You must define one personalization field that provides the mobile app user ID. This value is also referred to as the Install ID. It serves as the address to which you send the push notification.
- Shortly before you send the notification push to a list, conduct a production run of the flowchart to refresh the data in the OLT.

## Requirement for including the mobile app user ID (Install ID) in a list

When you send push notifications to a list of recipients, the list must define a personalization field that provides the mobile app user ID for each recipient on the list. System administrators can define a default personalization field for this purpose, but the field must be included in the OLT that is referenced by the notification push.

When a person installs your mobile app on a mobile device, the device registers itself with and also identifies the app that is running on the device. Unica messaging systems create a unique mobile app user ID to identify the specific combination of mobile device and mobile app. The mobile app user ID is also called the Install ID.

The mobile app user ID must be available in the marketing database so that you can select it with an Unica Campaign flowchart.

The mobile app user ID is mapped to the specific device and app that are owned by your customer. The mobile app user ID serves as the address to which Deliver sends push notifications. You must define a personalization field in Unica Campaign that maps to the mobile app user ID that is stored in the marketing database.

## Configuring push notifications

To use Deliver to send notifications to mobile apps, you must configure a notification push. Create the push as part of the campaign that you use to select recipients of the push. To specify the content and behavior of the notifications, reference a push communication that is created in advance with the Quick Builder. To specify who receives the notifications, you can reference a list of recipients.

Configuring a push requires components and configurations that are prepared in advance. Confirm that the following messaging tasks are complete.

- Your hosted messaging account is enabled for mobile messaging.
- System administrators have registered the mobile app with Deliver and generated an app key.
- App developers have integrated the Unica Push Notification SDK into your mobile app for each operating system to which you plan to send notifications.

- The push communication that you plan to reference is complete and published.
- If you are sending notifications to a list, complete a production run of the flowchart that generates the OLT to ensure that the table contains the most recent recipient data.
- 
- If you plan to use constant personalization fields, confirm that they are defined in the Deliver configuration and that you are sending notifications to a list.

Sending the push to a list sends a personalized notification to each individual on the list. Typically, a production list includes many app users and each notification can be unique, depending on how the notifications are personalized. The recipient list is created as an Output List Table (OLT) in Campaign. The OLT contains values for personalization fields that are defined in the communication that the push references. It also contains values to identify the mobile device for each individual on the list.

Each push sends notifications to a specific type of mobile device. To send notifications to an app that runs on multiple operating systems, you must send multiple pushes.

1. In Unica Campaign, open a campaign. If you are sending notifications to a list, open the campaign that you used to generate the list.
2. In the Summary Tab toolbar, click **Add Messages**.
3. On the **New Message** page, perform the following substeps.
  - a. Enter a name for the push.
  - b. Pick a channel. Select **Push**.
  - c. Click **Save and edit**.  
The push edit page opens.
4. Edit the general properties for the push in the **Properties** section.

Field	Action
Name	Displays the default name or name that you entered previously. You can change the name.

Field	Action
Communication	Select a push communication to reference for the push. Click <b>Select a Communication</b> to display a list of Simple push communications that are available in your HCL Unica installation.
Mobile App	Select from the mobile apps that are integrated with Deliver for your hosted messaging account.
Recipient List	Select a recipient list (OLT) to reference for the push. Do not select an OLT if you plan to enable location triggered delivery.
Source for mobile app user ID (Install ID) (displays only if you select a recipient list)	<p>Accept the default personalization field or select another field.</p> <p>System administrators define a default personalization field to provide the mobile app user ID. If the selected OLT contains the default personalization field, the default field displays.</p> <p>If the OLT does not contain the default field, the <b>Source for mobile app user ID</b> field displays the first personalization field that is defined in the OLT. You must select the field in the OLT that maps to the mobile user ID.</p>

5. Specify values for constant personalization fields.

If the communication that you reference contains constant personalization fields, enter a value to be used for each field.


6. Save changes.

The Summary push tab displays.

## Updating the configuration of a push

You can change the configuration of a push after you save it for the first time. The Summary push tab provides a link to open the Edit push tab.



1. On the Summary push tab, click **Edit** . The Edit push tab opens.
2. Edit the general properties for the push in the **Properties** section.

Field	Action
Name	Change the name of the push.
Communication	Select a push communication to reference for the push. Click <b>Select a Communication</b> to display a list of push communications that are available in your HCL Unica installation.
Push Type (displays after you select a communication and save the configuration)	Read only. This field is populated according to the type of push communication that you select.
Mobile App	Select from the mobile apps that are integrated with Deliver for your hosted messaging account.
Source for mobile app user ID (Install ID) (displays only if you select a recipient list)	Accept the default personalization field or select another field.  System administrators define a default personalization field to provide the mobile app user ID. If the selected OLT contains the default personalization field, the default field displays.  If the OLT does not contain the default field, the <b>Source for mobile app user ID</b> field displays the first personalization field that is defined in the OLT. You must select the field in the OLT that maps to the mobile user ID.

3. Edit **Delivery Parameters**.

Field	Action
Push code	You can enter a different value.
How long until links, URLs, and in-box notifications expire	Enter the number of days. The default is 2 days.

4. If the push defines constant personalization fields, you can edit the values. The new values display in notifications the next time that you run the push.
5. Save changes.

The Summary push tab displays.

## Sending push notifications

In Deliver, you can push notifications to a list of selected mobile app users immediately or schedule the push. You can schedule notification delivery to a list of mobile app users at a specified time or after a scheduled flowchart run finishes.

You must complete specific preparations before you begin a push.

- Preview the communication that is referenced by the push. Confirm that it displays and behaves as expected.
- Review the recipient list that is referenced by the push. Confirm that the list includes a personalization field that provides the mobile app user ID (Install ID) for each recipient in the list.
- Confirm the configuration of the delivery parameters for the push.

When you start a notification push, Deliver displays a checklist to confirm that you completed the required preparations. Controls on the Deliver mailing tab that is used to start a production mailing are disabled until you validate that you completed these preparations.

## Sending a push to a list of mobile app users now

You can send notifications to a list of mobile app users as soon as you complete the push configuration. The push must reference a recipient list (OLT).

1. In a campaign, open the summary push tab of the push that you want to send.
2. Click **Send This Push Now**.  
A confirmation page displays.
3. Select each option to confirm that you completed the required preparations.  
The option to send the push is disabled until you mark each requirement as completed.
4. Click **Send**.

## Scheduling a push for a specific time

You can send notifications to a list of mobile app users at a specified time. Scheduling an app notification push can be useful when the message contains time-sensitive information.

When you schedule a mailing run only, the mailing uses recipient data in the most recently uploaded recipient list. Before you begin, confirm that all required changes to the recipient list referenced by the mailing are uploaded to HCL Unica Hosted Services by the time the mailing starts. You must also confirm that changes to the document referenced by the mailing are complete and that the latest version is published.

You schedule mailing run times according to the time kept on the server where you installed the Unica Platform. The scheduling wizard displays the current server time. This time might be different from your local time.

1. In a campaign, open the summary push tab of the push that you want to schedule.  
Click **Schedule This Push**. A wizard opens to create the schedule.
2. On the **Schedule** page, enter a name for the schedule. Optionally, enter a brief description of the schedule.
3. In the Schedule Run section, select **Start** on this date and time.  
  
Use the calendar to set the date of the mailing run. Use the drop-down fields to select a server time for the mailing run, to the nearest minute.



**Note:** Server time refers to time kept on the server that hosts the Unica Platform. Refresh the screen to update the server time.

4. On the **Scheduling Options** page, you can select from the following options.
  - Lock the recipient list (OLT). This option is selected by default to prevent changes to the recipient list referenced by the push. Clear this option to allow changes.
  - Lock the communication. This option is selected by default to prevent changes to the communication that is referenced by the push. Clear this option to allow changes.
5. On the **Confirm Scheduling** page, select each option to confirm that you completed the required preparations. The option to schedule the push is disabled until you mark each requirement as completed.
6. Click **Schedule**.

When you finish, the mailing tab displays the date and time the mailing is scheduled to run.

## Enable transactional delivery

Push mailing can be enabled for transactional delivery.

1. In a campaign, open the Push Mailing summary tab that you want to enable for transactional delivery.
2. Click **Enable Transactional delivery**.  
A confirmation page displays.
3. Select each option to confirm that you completed the required preparations.  
  
The option to Enable Transactional mailing is disabled until you mark each requirement as completed.
4. Click **Enable Transactional Mailing**. Once enabled, you can call it using the TMS client in a similar way as in email and SMS. After the TMS utility is executed, the users would get notification through the same mailing.

## Push Response codes

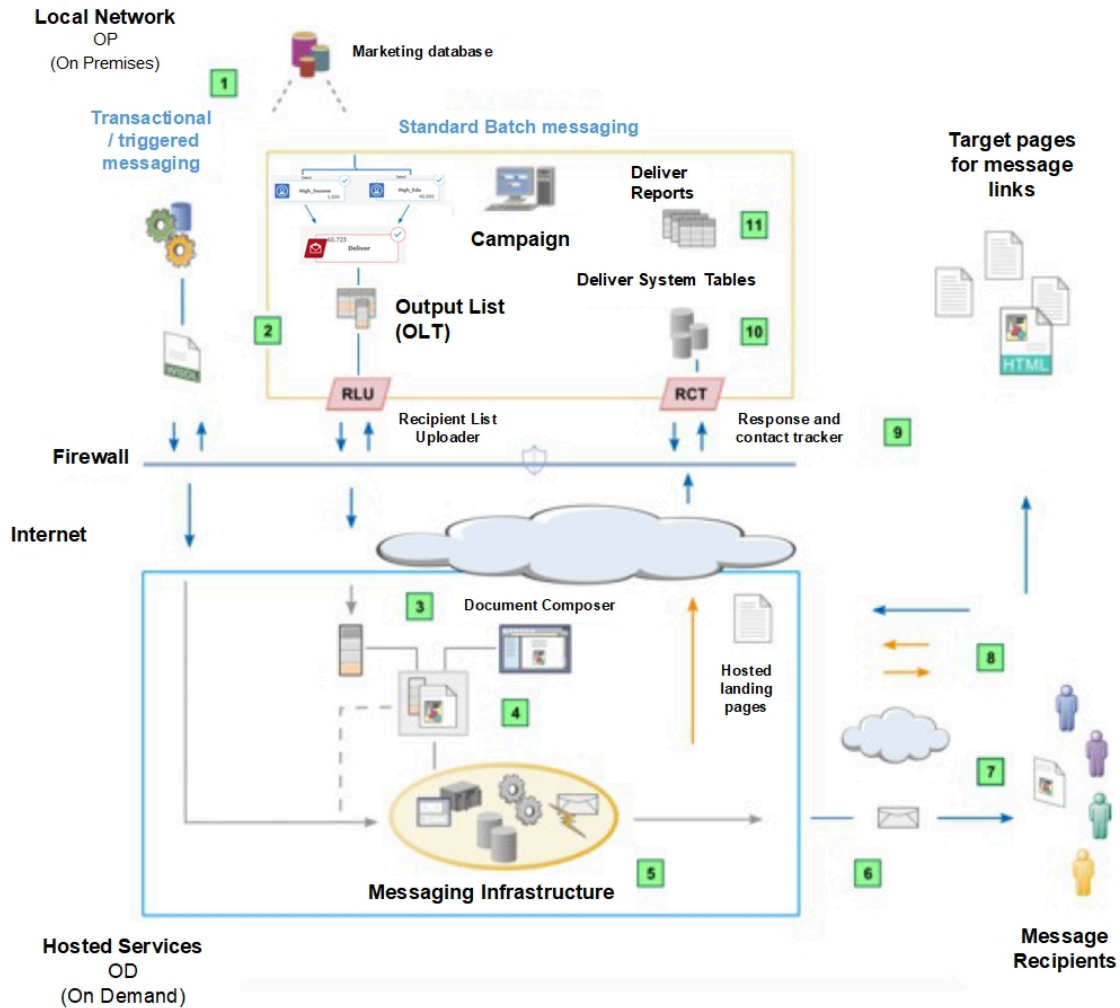
To analyse the notification responses, consider these response codes.

- 28: SENT
- 29: FAILED
- 30: DELIVERED
- 31: OPENED
- 32: DISMISSED
- 33: ENABLED
- 34: DISABLED
- 35: INSTALLED
- 36: UNINSTALLED

## Personalized WhatsApp messaging

Creating and sending standard personalized WhatsApp requires you to create a template in the Message Editor using WhatsApp templates approved by WhatsApp service provider. Only pre-approved WhatsApp templates can be used to send personalized messages. You are required to create a recipient list in Unica Campaign and design a WhatsApp message in the Message Editor. However, personalized WhatsApp which is sent as transactional WhatsApp does not take information from a recipient list. For a transactional WhatsApp message, personalization data must be included in the message request.

The diagram illustrates the overall workflow for sending personalized WhatsApp messages and the major Deliver components that are involved in the process.



**Table 6. Workflow for personalized WhatsApp**

	Description
<b>1</b>	Standard and transactional messaging.  Deliver supports standard outbound WhatsApp campaigns that address large numbers of WhatsApp recipients. Deliver also supports transactional WhatsApp that addresses a single recipient in response to a transaction. Both types of WhatsApp can be personalized.
<b>2</b>	Select and upload recipient data to include WhatsApp number and other personalized information.

**Table 6. Workflow for personalized WhatsApp (continued)**

	<b>Description</b>
	For standard mailings, run a Campaign flowchart to create an Output List Table (OLT). Transactional WhatsApp receives address and personalization information from your transaction management systems according to instructions contained in a WSDL.
<b>3</b>	Create a WhatsApp communication in the Message Editor.  Users can add personalized information (Name, address, etc.) and the actual text of the WhatsApp under the "message body".
<b>4</b>	Configure a messaging with channel as WhatsApp.  Navigate to your campaign created and click Add messages under the Summary section. This messaging references an OLT and WhatsApp text that you keep in messaging editor. For transactional WhatsApp, personalization data is contained in the transactional WhatsApp request.
<b>5</b>	Run the messaging.  You can run the messaging manually, schedule the messaging to run at a specific date and time, or schedule it to run after a scheduled flowchart run. Deliver generates each message by merging recipient data with the referenced WhatsApp text that defines the message. Each transactional WhatsApp message is also based on the design of the referenced document.
<b>6</b>	Transmit the messages.  Deliver transmits WhatsApp messages to WhatsApp Service Provider.
<b>8</b>	Download the contact and response data.  The Response and Contact Tracker (RCT) is installed with Campaign behind your corporate firewall. The RCT periodically requests the tracking data that Unica recorded.
<b>9</b>	Contact and response data is stored in the Deliver system tables.

**Table 6. Workflow for personalized WhatsApp (continued)**

	<b>Description</b>
	Contact and response data is stored in the Deliver system tables. The RCT stores the data that it receives in various system tables. The Deliver system tables are part of the Campaign database schema.

## Personalization methods available for WhatsApp

Deliver supports several methods to use recipient data to customize WhatsApp messages. You can personalize WhatsApp messages using personalization fields.

### Personalization fields in WhatsApp

You can add personalization fields to WhatsApp messages and these are transmitted as name:value pairs to WhatsApp Service provider.

In the WhatsApp communication that is referenced to the messaging, the Message Designer adds personalization fields in the WhatsApp communication. The personalization field displays name in the communication which must exactly match the display name that is defined in the recipient list (OLT or Web Service Call).

When you run the messaging, the system replaces each personalization field with data from your marketing database. Each WhatsApp message can be unique because the WhatsApp content is determined by the unique information that your marketing database provides about the recipient.

The OLT or transactional web service call must provide all of the personalization information that is required by the WhatsApp communication. To establish the required connection between the list and the communication, you must reference the OLT and the communication to the same Deliver messaging. Every standard Deliver messaging must reference a WhatsApp communication and an OLT.

### Personalization field data types in WhatsApp communication



Each personalization field definition specifies the type of data that Deliver substitutes for the personalization field when you run the mailing. Data types for personalization fields are defined as either numeric or string.

The data type for system defined personalization fields (Built-in and Constant fields) is set automatically to string and cannot be changed.


The data type for OLT personalization fields can be either numeric or string. Deliver automatically designates the data type for OLT personalization fields according to the data type of the field in the marketing database that provides the recipient information. However, you can edit the data type designation for OLT personalization fields if required.

## Sending a WhatsApp message

Creating and sending standard personalized WhatsApp messages require you to create a template in the Message Editor using WhatsApp templates approved by WhatsApp service provider. You must create a WhatsApp communication in the Message Editor using templates approved by WhatsApp service provider.

### Create a WhatsApp template


To create a WhatsApp template, perform the following steps.

1. Navigate to the **Message Editor** from Campaign menu.
2. In the Message Editor, under the **New** list, select **WhatsApp Template**.
3. Click **Browse** to import the pre-approved WhatsApp template.
4. In the **Template Name** box, provide an appropriate name.
5. In the **Media type** list, select the appropriate media type.
6. Click .

### Create a WhatsApp communication

To send SMS and Whatsapp message through Deliver or Journey, the mobile number must be mentioned in the format "+(country code)(number)" when populating OLT vis Deliver process box in flowchart execution.

To create a WhatsApp communication, perform the following steps.

1. In the **Message Editor**, under the **New** list, select **WhatsApp Communication**.
2. Under the **To** list, select the personalization field which includes the WhatsApp number.
3. Drag and drop the WhatsApp template from the **Content Library** in the left pane. The template displays in the message body.
4. Click  .
5. Provide a unique span id name and an appropriate class and click **OK**.
  - If you want a upload property for the personalized field, provide "draggable" class. The following is an example. `<span id="name" class="draggable">`.
6. Right-click the personalization fields and click **Add content>Field**.
7. Under the **New Field** list, select the appropriate field.
8. For the **Zone: Document**, drag and drop the document or media file you want to upload.
9. Review your changes and click **Save Changes**.

## Supported files


The following table provides the supported media types and their permissible sizes for upload.

Media types	Permissible Size
PDF documents	100 MB
Image	6 MB
Video	16 MB



**Note:** In version 12.1.0.3, video preview is only available in supported HTML5 browsers.

The following table provides the supported file formats for WhatsApp messaging.

Media	Supported content types
Documents	PDF
Image	image/jpeg, image/png
Video	video/mp4, video/3gpp   <b>Note:</b> Only H.264 video codec is supported. Only videos with single audio stream are supported.

## WhatsApp Response codes

To analyse the notification responses, consider these response codes.

- 25: DELIVERED
- 26: READ
- 27: FAILED

# Chapter 4. Messaging configuration overview

Creating and configuring a Deliver message creates the framework for organizing and running a marketing campaign.



Configuring a message involves multiple activities and frequently involves multiple individuals. The various elements of a message are related to each other. It is especially important for everyone who is involved in configuring the message to understand the work flow and to communicate with others who might change the message configuration.

The table presents the typical mailing configuration work flow and additional information for each activity.

**Table 7. Message configuration workflow**

<b>Activity</b>	<b>More information</b>
Create the message in a campaign. Add the message from the campaign summary tab.	<a href="#">Creating a message in a campaign (on page 113)</a>
Reference a recipient list. Select one recipient list from the group of lists that are created within the same campaign.	<a href="#">Referencing a recipient list to a message (on page 114)</a>
Reference a communication of required channel. Select from the list of communications that are available in the Content Library.	<a href="#">Referencing a communication to a mailing (on page 115)</a>
Specify email content format. You can select HTML, text-only, or both.	<a href="#">Content types to send in a message (on page 128)</a>

**Table 7. Message configuration workflow (continued)**

Activity	More information
 <b>Note:</b> It is not applicable for SMS, Push, and WhatsApp communication.	
Specify delivery parameters.   <b>Note:</b> It is not applicable for SMS, Push, and WhatsApp communication.  Specify how the system must transmit and track email or SMS messages.	<a href="#">Contents of the Edit Mailing tab (on page 117)</a>
Specify constants.  (Optional) Specify a value if the email communication contains constant personalization fields.	<a href="#">Constant personalization fields in the mailing configuration (on page 128)</a>

## Creating a message in a campaign


You create a Deliver message by adding a message to a campaign in Unica Campaign. You can create multiple messages within a campaign, and you can create messages in more than one campaign.

When you enable Unica Deliver, the Campaign interface adds a link that you can use add a message to a campaign. Each message that you add appears as a separate tab in the campaign.

When you add the message, you must assign a unique name to the message and save it. When you save the message, Campaign creates a separate message tab in the campaign

interface. The mailing tab displays in edit mode. Deliver does not provide an option to save the message without opening the messaging configuration. You must open the new message for editing on the mailing tab, even if you make no changes to the configuration.

1. In Campaign, open the campaign to which you want to add the mailing.

2. On the campaign summary tab, click **Add Messages** .

3. On the page that displays for the new mailing, assign a name to the mailing.

The name must be unique within the campaign.

4. In the **Channel** field, select required channel type (SMS, email, Push, or WhatsApp).

5. Click **Save and Edit**.

When you save the mailing, the Mailing tab displays in edit mode.

You can continue to configure the mailing, or you can close the mailing and return to finish the configuration later.

Use the Edit Mailing tab to configure the message, monitor mailing status, start mailing runs, or enable the mailing for scheduled or transactional messages.

On the **Messaging Overview** page, you can view and manage all of the messages that you create in the Campaign installation. This page lists all of the messages that have been created by all users across all campaigns in your Campaign installation.

## Referencing a recipient list to a message


Personalizing message and landing pages with Deliver depends on the use of personalization fields. To enable the system to properly evaluate personalization fields and provide accurate previews, you must reference the recipient list to the message as early as possible in the messaging configuration process.

To create a recipient list and make it available for reference in the messaging configuration, you must configure and save Deliver process in a campaign flowchart. Ensure that the flowchart exists in the campaign where you created the message and that the recipient list is available.

The recipient list is created as an Output List Table (OLT). The OLT contains recipient information that is required to personalize the Deliver document that defines the content of the message. To establish the required connection between the list and the communication, you must refer the OLT and the communication to the same mailing.

Every standard message must refer a communication and an OLT. However, message that are used exclusively for transactional message do not require to refer a recipient list.

On the Mailing tab, you must select a recipient list from a menu of recipient lists that exist in the campaign.

1. In the Summary Mailing tab, click **Edit**  to open the mailing page in edit mode.
2. In the **Properties** section, select a recipient list from the pull-down list in the **Recipient List** field.

The drop-down list contains all recipient lists currently created for the campaign and configured for use with the type of message you are configuring.

3. To save your selection, click **Save Changes**.

## Accessing the flowchart referenced by a mailing

The summary mailing tab for each Deliver mailing provides a hyperlink to the flowchart used to create the recipient list that is referenced by the mailing. The flowchart contains the Deliver process that is used to create the Output List Table (OLT).

On the **Summary Mailing** tab, under **Email Recipients**, click the link for the recipient list.

The flowchart opens in Campaign, where you can run or edit the flowchart.

## Referencing a communication to a mailing

A communication defines how messages display to each recipient. A message must reference a communication. Also, multiple messages can refer the same document.

You select the communication from a list of communications in the Message Editor or Quick Builder. Ensure that the communication that you want to reference is available.

To make the communication available, you must save and publish the document in the Message Editor or Quick Builder.

The structure and content of the email, SMS, Push, and WhatsApp depends on the design of the document template, personalization settings in the document, and on personal data that is contained in the recipient list that is referenced to the same message.

When you add the document to the message, you must specify the message format. You can choose HTML, Text, or both.

1. In the **Summary Mailing** tab, click **Edit**  to open the Mailing page in edit mode.
2. In the **Properties** section, click **Select a Communication**.

The **Select a Communication** window displays a list of Deliver documents that you can reference to the mailing.

3. Select a communication to reference to the mailing and click **Accept and Close**.


The document that you select defines the message that is sent when you run the mailing.

4. In the **Content Type to Send** field, select a content type from the pull-down list.
5. To save your selection, click **Save Changes**.

## Editing a message configuration

You can update a message configuration at any time, except when the message is actively running, enabled for scheduling, or enabled for transactional email, SMS, or WhatsApp.

When you update the message, the Mailing tab opens in edit mode to display configuration controls.

1. Find the message that you want to edit.
2. On the **Mailing** tab, click  or **Edit**.

The Mailing tab opens in edit mode.
3. Modify the settings and save your changes.



If you canceled scheduling to edit the message, reschedule the message. If you disabled transactional email, SMS, or WhatsApp, re-enable the message for transactional email, SMS, or WhatsApp.

## Deleting a message configuration

You can delete messages individually with the mailing tabs in the campaigns where you created each message.

Deleting the message does not remove the Deliver document or the recipient list the message references. When you delete a message, the system removes execution history from the system, but retains any contact history and tracking data.

You cannot delete a message that is running.

1. In the campaign, open the **Mailing** tab for the message that you want to delete.

2. Click **Delete** .

3. When prompted to confirm the deletion, click **OK** to delete the message.

## Contents of the Edit Mailing tab

You configure a Deliver message on a tab that you create in Unica Campaign. In edit mode, the tab displays the current configuration settings in editable fields. In the edit mode, the tab is also referred to as the Edit Mailing tab.

The Mailing tab automatically displays in edit mode when you add a message or update an existing message configuration.

For saved messages, click a link on the Summary Mailing tab to display the tab in edit mode.

## Properties

Field	Definitions
Name (required)	<p>The name that is used to identify the message in the campaign and in reports. It cannot exceed 64 characters and cannot contain the special characters % * ?   : , &lt; &gt; &amp; / \ "</p> <p>The message name must be unique within the campaign.</p>
Enabled for A/B Testing (only for emails)	<p>Select this option to send the mailing as an A/B test.</p> <p>When you enable the mailing for A/B testing, the system removes the option to reference a document to the mailing. In the A/B test configuration, you can associate multiple documents (or multiple versions of the same document) to the mailing.</p>
Communication	<p>The name of the communication that is referenced by the message.</p> <p>Includes the <b>Select a Communication</b> link. The link opens a dialog box that you use to reference a communication to the message.</p>
Recipient List	<p>The name of the recipient list that is referenced by the message. Provides a menu to reference a list to the message.</p>
Content Type to Send (only for emails)	<p>The format of the message sent to message recipients. You must select one of the following.</p> <ul style="list-style-type: none"> <li>• <b>HTML and text</b> Deliver sends a multi-part email</li> <li>• <b>HTML only</b> Deliver sends only the HTML version of the message.</li> </ul>

Field	Definitions
	<ul style="list-style-type: none"> <li>• <b>Text only</b></li> </ul> <p>Deliver sends only the text version of the message.</p> <p>The message uses the latest published version of the content. If the content you selected is not published, the system displays an error message and the system does not start the messaging run.</p>

## Delivery Parameters

Field	Definitions
messaging Code (required)	An alphanumeric value that is generated by Deliver to uniquely identify the message. You can modify this value. The message code can include underscore(_) and hyphen(-) characters, but it cannot exceed 64 characters. The messaging code must be unique within the Unica Platform.
Outbound Rate Limit (Messages per Hour)	Specify the approximate rate (in messages per hour) at which you want Deliver to transmit email messages.  The default value is 0. A value of 0 indicates that there is no limit on the transmission rate. To specify a limit, enter a number.
Logging and Tracking Level	Specifies how Deliver will track message delivery and link clicks during and after a run of the message.  Deliver tracks <b>Message and Link level</b> events.
How long to track message links (days)	Specifies how long the link remains active and how long the system receives and forwards link responses to the Deliver system tables.

Field	Definitions
	<p>By default, the system tracks links for 90 days. To specify a shorter time period, enter the number of days.</p> <p>Links in test messages are active for up to 7 days. You can specify a different link expiration for test messages when you run the test message.</p> <p>For production messages, enter a value between 1 and 90.</p> <p>For test messages, enter a value between 1 and 7.</p>

### Constant Personalization Field Values

The Constant Personalization Field Values section identifies the constant personalization fields that are present in the communication that is referenced by the message. The communication can contain multiple constant personalization fields.

Each constant personalization field is listed on the Mailing tab individually by name. An editable field displays below each field name where you enter a text value for the constant personalization field.

## Contents of the Summary Mailing tab

You configure a Deliver message on a tab that you create in Unica Campaign. In summary mode, the tab is referred to as the Summary Mailing tab. The Summary Mailing tab displays the current configuration settings as read-only.

After you save the message for the first time, mailing tab displays in summary mode. The Summary Mailing tab contains the following sections and fields to describe specific aspects of the message.

- Channel
- Properties
- Delivery Parameters
- Constant Personalization Field Values
- Delivery Options and Status

The mailing tab also includes the following general links.

- **What's New** Link to a list of changes to Deliver, presented according to the date the feature became available. Consult this list periodically because Unica continually introduces new features and enhancements to Deliver.
- **View Mailing Execution History** Link to the Mailing Execution History report for the most recent run of the mailing.
- **View Deliverability Report** If you selected a deliverability list when you run a production run of the mailing, Deliver generates a Deliverability Monitoring report. Click the link to view the report for previous as well as the most recent run of the mailing. You can select a run from dropdown list on report page to view report for that run.
- **Edit...** Click this link to switch the mailing tab to Edit mode and change configuration settings for the mailing.

## Channel

The **Channel** field indicates the type of message configuration. The options are **Email** for email messages, **SMS** for sms messages, **Push** for Push messages, and **WhatsApp** for WhatsApp messages. You define the channel when you add the message to the campaign. You cannot change this setting.

## Errors and warnings

The Summary Mailing tab displays errors and warnings to alert you to potential problems with the messaging configuration.

- Error messages display in red.


An error message indicates a problem that could prevent the message from running successfully. You must respond to proceed with the messaging.


- Warning messages display in orange.

Depending on the problem, a warning might describe a condition that can produce undesirable results, or it might provide information that you do not consider a problem. Review each warning to determine how to proceed with the messaging.

## Properties

The Properties section contains information about the Deliver document and the recipient list that is referenced in the messaging configuration.

Field	Description
Communication	<p>Name of the communication that is referenced by the messaging.</p> <p>Also indicates the last date and time the document was edited. Knowing the most recent edit date can help you determine if the correct version of the document will be sent in the next messaging run.</p> <p>The section includes the following links.</p> <p><b>Edit Communication</b> Click this link to open the communication in either Deliver Message Editor or Quick Builder, depending on where it was updated recently. You must publish the updated document to make your edits available in the next messaging run.</p> <p><b>Save as</b> This option will be disabled when user navigates to communication from Mailing summary page. Users can open the communication from listing page in order to "save as" the communication.</p> <p><b>Preview Communication</b> Click this link to see a preview of the latest published version of the document that is referenced by the messaging. To ensure that the messages contain the correct content and format, preview the document after you change it.</p> <p> <b>Note:</b> To preview a document through this link, you must edit the messaging configuration to select</p>

Field	Description
	 a Content Type to Send. The preview displays the email content type that you specify.
Enabled for A/B Testing (only for emails)	<p>If the mailing is enabled for A/B testing, the system displays a summary of the A/B test configuration instead of information about a single document. The test configuration specifies multiple documents, or multiple versions of the same document, that the system sends when the mailing runs as an A/B test.</p> <p>The A/B test summary provides links to preview each document or document version included in the test. If you select a deliverability list for the test, the summary also provides links to deliverability reports for each test split.</p> <p>Click the <b>Configure</b> link to display the A/B Test Configuration window, where you configure the A/B test.</p>
Recipient List	<p>Name of the recipient list that is referenced by the messaging.</p> <p>Lists the status, date, and time of the most recent run of the flowchart that is used to create the list.</p> <p>Indicates whether the list contains production or test data. Knowing the type of recipient data can help you to ensure that the correct list of recipients will receive email messages during the next messaging run.</p> <p>The section provides the following link.</p> <p><b>Edit Recipient List</b> Click this link to open the flowchart that contains the Deliver process that was used to generate the recipient list that is referenced by the messaging. Edit the flowchart and the Deliver process to edit the list of recipi-</p>

Field	Description
	<p>ents and metadata that are associated with the individuals selected as messaging recipients.</p> <p>A breakdown of the list composition displays here, as follows.</p> <ul style="list-style-type: none"> <li>• <b>Production recipients.</b> The number of individuals that receive email during a production run of the messaging.</li> <li>• <b>Production seed addresses.</b> The number of seed addresses added to the recipient list.</li> <li>• <b>Test recipients.</b> The number of individuals that receive email during a test run of the messaging.</li> </ul>
Content Type to Send	<p>Deliver displays a notification on the mailing tab to indicate the format of the email or sms that Deliver sends during a run of this messaging. The format can be HTML and Text, HTML only, or Text only. You must specify a message format.</p>
Complete personalization field list for this messaging	<p>List of the personalization fields that are used in the document (including all linked landing pages) currently referenced by the messaging.</p> <p>Deliver also requires that the personalization fields listed here must also be present and fully defined in the recipient list (the Output List Table, or OLT) currently referenced by the messaging.</p> <p>A message displays if the recipient list defines personalization fields that are not used in the referenced document or its associated landing pages.</p>



Field	Description
	A warning displays if the referenced document or its associated landing pages uses personalization fields that are not defined in the recipient list.
Complete landing page list for this messaging	<p>List of the published landing pages that are linked to the document currently referenced by the messaging. A landing page must be published to be available to the messaging. Review this list before you start a messaging run to confirm that all required landing pages are published.</p> <p>The landing pages display as links. Click the link to open the Message Editor. In the Message Editor, you can open and edit the selected landing page.</p>

## Delivery Parameters

The delivery parameters section contains information that describes how the system is configured to send the messaging.

Field	Description
Mailing Code	An alphanumeric value that is assigned by Deliver to identify the message. The code is unique across Platform. You can modify this value when you edit the messaging configuration.
Outbound Rate Limit (Messages per Hour)	<p>Indicates the approximate rate (in messages per hour) at which Deliver will transmit email messages during the next messaging run.</p> <p>The default value is 0. The 0 value indicates that there is no limit on the transmission rate. You can modify this value when you edit the messaging configuration.</p>
Logging and Tracking Level	Specifies how Deliver will track message delivery and link clicks during and after a run of the message.

Field	Description
	Deliver tracks <b>Message and Link level</b> events.
How long to track message links (days)	<p>Specifies how long the link remains active and how long the system receives and forwards link responses to the Deliver system tables. After the link expires, the system responds to link requests with an error message. Optionally, the system can redirect the request to a default web page that you specify.</p> <p>By default, the system tracks links in production messages for 90 days. You can specify a shorter time period when you edit the messaging configuration. Links in test messages are active for up to 7 days. You specify the link expiration for test messages when you run the test message.</p> <p>The tracking period must be between 1 and 90 days for production messages. For test messages, the tracking period must be between 1 and 7 days.</p>

## Constant Personalization Field Values

The Constant Personalization Field Values section of the mailing tab identifies the constant personalization fields that are defined for this message.

Each constant personalization field is listed individually by name. The list includes all of the constant personalization fields that are contained in the document the message references. The static text that is defined for each field displays below the field name.

## Delivery Options and Status

The Delivery Options and Status section contains information that describes the status of the message, including summary information for the last messaging run, if completed. It also includes links to start various types of messaging runs.

A message displays indicating the run status of the message.

If the messaging run has started, click the link to display the following information.

- The user that started the messaging
- Start date and time
- End date and time
- Number of messages sent
- Number of messages failed

Field	Description
Send This Mailing (for emails) Send Broadcast now (for SMS/WhatsApp) Send Push now (for mobile push notifications)	Starts a production mailing run.
Schedule This Mailing (for emails) Schedule This Broadcast (for SMS/WhatsApp) Schedule Push (for mobile push notifications)	Enables Deliver to start a production run later or on a recurring basis. Establishing a schedule or recurrence pattern requires configuring the Platform scheduler to schedule a flowchart run. If the mailing is scheduled, the link displays as <b>Disable Scheduling</b> .
Enable Transactional Mailing (for emails) Enable Transactional Delivery (for SMS/WhatsApp)	Click this link to enable the message for use in transactional messages.
Test Send to Test Recipients (for emails, SMS, WhatsApp, and Push)	Sends a test mailing only to recipients selected as test recipients or to addresses on a seed list. Disabled if the recipient list does not contain test recipients or a seed list.
Test Send with Custom Settings (for emails)	Sends a test message that provides the ability to specify your own test parameters.

## Content types to send in a message

To run a test or production message, you must specify the type of content that you want to send. You can use Deliver to send HTML email, text-only email, or both. If you send both versions in a production message, Deliver sends a multi-part email message.

You specify the content type to send on the Mailing tab in edit mode. The Summary Mailing tab indicates which content type is specified and which of the content types available in the referenced document are published.

Deliver uses the latest published version of the content that is specified in the mailing configuration. If you have not selected a content type, or if the content you selected is not published, the system displays an error message and the mailing will not run.

## Constant personalization fields in the mailing configuration

The Mailing tab displays a section that lists the constants available for use in the mailing. Constants are text values, including numerical text, that message designers can add to the design of the email, SMS, Push, or WhatsApp message sent with the message. The text specified as the value for the constant appears as the same value in each message.

You define a constant by defining a constant personalization field as a message setting for the entire Campaign installation. However, you specify the value for the constant personalization field on the Mailing tab. Because you create constant personalization fields at the installation level, you can use the same constant personalization field in multiple messages. However, because you configure the field's text value as part of the messaging configuration, the same constant personalization field can display different text in different messages.

You add or remove constants by adding or removing constant personalization fields in the communication that is referenced by the message. If the communication contains constant personalization fields, the name of the constant display on the Mailing tab. You cannot create the constant on the Mailing tab, nor can you add or remove constants from the Mailing tab. A message can define multiple constants if the referenced document contains the required constant personalization fields.



**Note:** Defining a value for every constant added to a message is not required to configure or run the messaging. However, depending on how and where the constant personalization field appears in the document, the missing constant value might affect how the message appears to the recipient.

## Other mailing settings

The Mailing tab displays and provides access to various characteristics of the message. Although you do not make these changes by updating the message configuration directly, they do affect how the message behaves and what the recipient sees.

- The Mailing tab displays the list of hosted landing pages that are linked to the email or SMS that is sent with the message.
- You can schedule a message to run on a specific date and time.
- You can configure the message to run as both a standard email or Push or SMS or WhatsApp and as a transactional email, SMS, or WhatsApp. Transactional email, SMS, or WhatsApp sends a single email, SMS, or WhatsApp to a specific individual in response to a transaction that occurs in your business systems.

## Setting for logging and tracking

You cannot modify this mailing configuration setting. Deliver tracks Message and Link level events. delivery, view, trackable link, and click data is captured and available in the Message Overview Report.

Deliver provides tracking details for all trackable links in sent messages. Tracking results are available in various reports provided by Deliver. Reviewing these reports can help you analyze mailing execution and evaluate recipient responses to the messages that you sent.

# Chapter 5. Test methods for personalized messaging

Testing a messaging allows you to identify and resolve any problems that might exist with your messaging list, verify how the message will appear to each recipient, and address issues that might interfere with efficient transmission and delivery of your communication. For best results, test each Deliver messaging before you use it to send a production messaging.

Deliver provides several methods to test a messaging before you use it to send production communication.

HCL Unica begins to transmit messagings in the order in which you submit each messaging run request. Test messagings might be delayed on some occasions if you also send large messagings frequently from the same communication domain. To avoid possible delays, you can request that Unica assign priority fulfillment for your hosted communication domains.

## Test methods available in Deliver

Running a messaging as a test messaging allows you to send the messaging to various lists without sending email or SMS messages to actual production recipients.

Sending a test messaging is also called performing a test send.

Deliver provides the following methods to test a messaging.

- Send a test message to test recipients.
- Send a test message using custom settings.
- Send unique permutations to a test distribution to test conditional content.

You access these methods from the Mailing Execution and status section of the Mailing tab.

Deliver also provides tools to test the deliverability of your email messages as a way to help ensure that each marketing message reaches the intended recipient.

## Test methods for messagings enabled for transactional messaging

Before you enable a messaging for transactional messaging, you can test the message content, design, and personalization features before you put the messaging into production.

Messages that are enabled for transactional messaging must reference a document that defines the content and personalization of the messaging message that is sent in response to a transactional message request. Testing the document content in advance, including conditional content and personalization elements, can avoid sending a poorly formed message to your customer.

Transactional messagings that are based on a standard messaging might reference an Output List Table (OLT) that defines a recipient list. However, the transactional messaging does not use the list as a source of recipient information. Instead, the local transactional client must provide the required recipient-specific data for the transactional message. You can use test recipients that can be defined in the OLT to test the appearance and personalization behavior of the transactional messaging by running test messagings.

Any of the test methods available for testing standard messagings are available for testing messagings that are enabled for transactional messaging.

### Creating an OLT only for testing transactional message

A recipient list in the form of an Output List Table (OLT) is not required for use with transactional communication. However, you can create an OLT that contains test addresses to test the appearance and personalization of a transactional message.

When you enable a standard mailing for transactional message, you must configure corporate transactional applications to provide recipient information. However, to test the mailing, you can reference an OLT that is used only for testing.

To create the OLT, you must run a Campaign flowchart that contains a Deliver process. The process must be configured to select input cells that contain test recipient addresses or phone numbers. The IDs for the test recipients are not added to the OLT until you perform a production run of the flowchart. You must avoid selecting production recipients during testing.

After you specify test input cells, you can use Output tab of the Deliver process to map other recipient-specific data to the OLT. Consult with the members of the digital marketing team responsible for testing to determine the specific recipient data that is required to test the transactional message.

1. In a Campaign flowchart that contains a Deliver process, define a cell that specifies one or more test recipients that receive messages when you test the transactional message.
2. In the flowchart, open the Deliver process and select the **Source** tab.

For information about creating a flowchart to create a recipient list, see [Recipient selection \(on page 24\)](#).

3. In the **Test List** field, select the cell that contains the IDs of the test recipients.



**Important:** Do not select cells that contain production recipients. Clear cells that are specified in the **Production List** field.

4. Save your changes and perform a production run of the flowchart.

The OLT that the flowchart run creates contains a list of test recipients and associated recipient-specific data. The OLT must not contain addresses for production recipients.

To test a standard mailing that is enabled for transactional messages, you can reference the test OLT and send a test mailing to the test recipients.

## Destinations for test mailings

To avoid sending test messages to actual customers and prospects, Deliver allows you to use test lists and test distributions as substitute destinations for the test mailing. The choice between the two depends on the type of test you are performing.

A test list is a generated list created by a Deliver process. It contains addresses and related data for recipients selected by running a flowchart.



A test distribution is a comma-separated list of email addresses. It does not contain additional recipient-related data, nor is the distribution built using a flowchart. Each address is added manually.

## Test lists

Members of the test list are identified in the recipient list referenced by the mailing. To specify test recipients as part of the recipient list, you must select one or more cells as sources for the Deliver process.

The configuration of the flowchart that contains the Deliver process determines how to select and exclude potential test recipients.

The test list includes email addresses, phone numbers for SMS or WhatsApp and recipient-related data that can be displayed by personalization fields in the document referenced by the messaging. You can use the recipient data to test the composition of the document sent during the test messaging. For example, you can observe how conditional text in the document changes, depending on data associated with each test recipient.

## Test distributions

A test distribution is a comma-separated list of email addresses. Because test distributions do not contain recipient-related data, they do not cause changes in the personalization fields that are contained in a document.

When you send a test messaging, you can use a test distribution to override a test list that is associated with the recipient output list for the messaging. Creating a test distribution allows you to send test messages to a production list without risk of sending messages to actual production recipients.

For example, a test distribution is required when you send test messagings that use unique permutations to evaluate conditional content against the list of production recipients. Messages are evaluated against production recipient data, but are sent to the test distribution.

## Creating a test distribution

Test distributions are configured and maintained in the hosted mailing environment that Unica provides as part of HCL Unica hosted services. To create a test distribution that you can use to test your messagings, you must ask Unica to configure one for your hosted email accounts.

Submit your test distribution request to Unica Deliver Services via HCL technical support team. In the request, specify a name for the test distribution and the list of email addresses or phone numbers that you want to include. The name that you specify appears as an option on the Mailing tab in fields where you can select a test distribution. You can request more than one test distribution, but only one can be the default distribution. Specify which test distribution you want to be the default.

## Sending a test messaging to test recipients

You can send a test messaging to test recipients if the recipient list for the messaging includes addresses or phone numbers for SMS and WhatsApp and data for test recipients, or addresses for a seed list. This test sends personalized mailing to seed list addresses and test recipients defined in the recipient.

This option is disabled if the recipient output list added to the mailing does not contain test list or seed list data.

1. Find the mailing you want to test.
2. On the **Mailing** tab, under the **Delivery Options and Status** section, click **Test Send to Test Recipients**.

The Send the Mailing window indicates how many test recipients will receive a message.

3. In the window, click **Send the Test Mailings**.
4. While the test mailing executes, monitor the test mailing execution in the Mailing Execution and status section.

## Sending a test message using custom settings

Sending a test message with custom settings allows you to specify your own test parameters. Using custom test settings also allows you to enter a custom test distribution.

1. Find the mailing you want to test.
2. On the **Mailing** tab, in the **Mailing Execution and status** section, click **Test Send with Custom Settings**.

The system displays the Test Send with Custom Settings window.

3. In the **Test Send with Custom Settings** window, specify the custom criteria that you want to apply during the test mailing.

For more information about the available options, see [Settings for using custom test criteria \(on page 135\)](#).

4. Click **Send the Test Mailings**.
5. Monitor the mailing in the Mailing Execution and status section of the **Mailing** tab.

## Settings for using custom test criteria

Deliver provides several settings for defining custom test criteria.

Field	Description
Send emails to the following test addresses	<p>Specify the email addresses or phone numbers to receive emails when you run the test mailing. Select one of the following options:</p> <ul style="list-style-type: none"> <li>• <b>Create a New List</b> Opens another entry field that allows you to create a custom test distribution. Enter one or more email addresses. Separate with a semi-colon (;).</li> <li>• <b>Test distributions</b> If Unica has configured test distributions for your account, they appear as options here, using the names that you specified when you requested them.</li> </ul>

Field	Description
	<ul style="list-style-type: none"> <li>• <b>Recipient Test List</b></li> </ul> <p>Send to the test list currently selected in the <b>Recipient List Data To Use</b> field. This option is not available when you select a production list.</p>
Recipient List Data To Use	<p>Select a production, test, or seed list.</p> <p>The choices are:</p> <ul style="list-style-type: none"> <li>• <b>Production List Unique Permutations</b></li> </ul> <p>Generates the possible message variations by evaluating the data for production recipients in the recipient list against personalization rules defined in the document.</p> <ul style="list-style-type: none"> <li>• <b>Test List</b></li> </ul> <p>One email is generated for every test recipient in the recipient list referenced by the mailing.</p> <ul style="list-style-type: none"> <li>• <b>Test List Unique Permutations</b></li> </ul> <p>Generates the possible message variations by evaluating the data for test recipients in the recipient list against personalization rules defined in the document.</p> <ul style="list-style-type: none"> <li>• <b>Seed List</b></li> </ul> <p>One message is generated for every seed address in the recipient list referenced by the mailing.</p> <ul style="list-style-type: none"> <li>• <b>Seed List Unique Permutations</b></li> </ul> <p>Generates the possible message variations by evaluating the data for the seed addresses in the recipient list against personalization rules defined in the document.</p>

Field	Description
Send separate Text and HTML email	<p>Sends a text version and an HTML version of the email to each address.</p> <p>This option is available only when you select <b>HTML and Text</b> as the content type to send. When you select this option, Deliver sends separate email messages instead of a multi-part email. Sending separate HTML and text versions is available only for test mailings.</p>

## Sending unique permutations to a default test distribution

Use this procedure if Unica has configured a default test distribution for your hosted email account. Otherwise, you can conduct a test mailing run to view unique message permutations by performing a test send with custom settings.

1. Find the mailing you want to test.
2. On the Mailing tab, in the Mailing Execution and status section, click **Test Send Unique Permutations**.



**Note:** This link appears on the mailing tab only if Unica has configured a test distribution for your account. For more information about requesting a test distribution, see [Test distributions \(on page 133\)](#).

The Send the Mailing window indicates how many production recipients are selected to receive a test message, and indicates the number of recipients that will be evaluated for unique permutations.

3. In the window, click **Send the Test Mailings**.
4. Monitor the mailing in the **Mailing Execution and status** section of the **Mailing** tab.

## Conditional content tests using unique message permutations

Testing for unique message permutations allows you to evaluate conditional rules specified in the Deliver document against the recipient data specified in the recipient list. When you run a test mailing to view unique permutations, Deliver processes all of the recipient list specified in the test run configuration and generates a single example of every possible variation of the message.

For example, if your document contains one conditional element with five possible conditions, and your customer data contains rows that satisfy each of these five conditions at least once, your test run will contain five messages. Even if the recipient list contained a million rows, the test run for unique permutations would generate only five messages.

The number of messages generated can increase quickly, depending on the number of conditional elements, the complexity of the conditional rules, and the variation in the recipient data. The possible variations also depend on the interplay of the conditional elements that the document defines. If your document contains two conditional elements, one with five conditions and another with three conditions, and your customer data contains rows that match each of these eight conditions at least once, your test run will contain fifteen (5 x 3) emails.



**Note:** Deliver does not generate unique message permutations for nested conditional content defined by advanced scripts for email. Unique permutations reflect only the variations created by personalization rules defined in the Message Editor.

A test messaging run for unique permutations sends the different versions of the messages to a test distribution. Each address in the distribution receives all of the unique versions of the message, based on the recipient data in the recipient list that you selected for the test messaging. Message is never sent to your customers or prospects when you test for unique permutations. For more information about test distributions, see [Test distributions \(on page 133\)](#).

If Unica has configured a default test distribution for your account, you can send the unique permutations to the default test distribution.

If Unica has not configured a default test distribution, you can perform a Test Send with Custom Settings. Using this option, you can select where to send the unique versions of the message.

# Chapter 6. How to send personalized messages

To send personalized message to each member of your target audience, you conduct a Deliver messaging. Deliver provides several different ways to perform a messaging run .

You can send a messaging multiple times as individual messaging runs. Each messaging run is considered a separate messaging instance. When you start a messaging run. Unica manages transmission of the messages through the hosted messaging infrastructure that Unica maintains for you. From within your local Unica Campaign environment, you can configure, run, and monitor multiple mailings within a single campaign.

On the Mailing tab in Campaign, you can update the mailing configuration, specify delivery parameters, and select the transmission method to meet your digital marketing requirements. When you start a mailing run, the mailing tab provides information to monitor the progress or status of the mailing transmission.

Before you start any type of mailing run, you must complete various mailing preparations, depending on how and when you want to run the mailing.

After you have finished configuring and testing a mailing, you can select from several different methods to transmit the message to the target recipients. Each method requires specific steps and preparations. The table lists the ways that you can use Deliver to send personalized message to your target audience.

<b>Method</b>	<b>More information</b>
Send message now as a standard mailing.	<a href="#">Sending a standard mailing (on page )</a>
Send message later as a scheduled mailing.	<a href="#">Options for scheduling a messaging (on page 149)</a>
Send individual email messages	<a href="#">Sending transactional messages (on page 189)</a>



Method	More information
as transactional email.	
Send email to the winner of an A/B test.	<a href="#">A/B test mailings (on page 173)</a>

## Preparation for running a messaging

To help to ensure that the messaging runs successfully, review the status of each element of the messaging configuration.

To verify that all messaging elements perform as expected, Unica recommends that you test the messaging thoroughly. Deliver provides several functions that you can use to test the messaging in advance of a production messaging run.

After you have tested the messaging, confirm that the messaging configuration is complete.

- Confirm that the communication that is referenced by the messaging is published.
- Confirm that the recipient list that is referenced by the messaging has been refreshed by performing a production run to the flowchart that was used to create the list.
- If the communication contains constant personalization fields, define values for the fields.
- Confirm the settings for delivery parameters.



**Note:** The preparations for transactional messagings are different from preparations for standard or scheduled messagings.

Before you can run or schedule a messaging, Deliver prompts you to confirm that important preparations are complete. Deliver disables the controls required to send or schedule the messaging until you complete this checklist.

When you complete the checklist, you can enable deliverability. It is important if you plan to evaluate how many of your messages reached the intended mailbox.

## Messaging readiness checklist

The messaging readiness checklist lists actions that you can take to prevent messaging errors. To start a messaging run, you must click each item on the list. The checklist also provides an option to select a deliverability list.

Validation	Description
Previewed the document with test content	Click to validate that the document added to the messaging is complete and meets messaging requirements.  See <a href="#">Previewing the document referenced by the messaging (on page 142)</a> .
Reviewed membership of the recipient list	Click to validate that the recipient list currently added to the messaging contains addresses and data for the individual that you want to receive the production messaging.  See <a href="#">Reviewing the recipient list referenced by the messaging (on page 143)</a> .
Properly configured your delivery parameters	Click to validate that the delivery parameters specified by the current messaging configuration meet the delivery performance requirements for the production messaging.  See <a href="#">Checking delivery parameters and the mailing configuration (on page 144)</a> .
Include seedlist for Deliverability monitoring	See <a href="#">Enabling deliverability (on page 144)</a> .

## Previewing the document referenced by the messaging

To check the appearance and content of the document referenced by the messaging, click **Preview Document** in the section of the Mailing tab that displays document properties. The document opens in the Preview pane of the Deliver Message Editor.

To check the appearance and content of the document referenced by the messaging, click **Preview Document** in the section of the mailing tab that displays document properties. The document opens in the Preview pane of the Deliver Message Editor. For more information about how to preview the message, see [Preview \(on page 398\)](#).

To make changes in the document, click **Edit Document**. The document opens in the editing pane of the Message Editor or Quick Builder depending on where it was updated most recently. For more information about the Message Editor, see [Deliver Message Editor \(on page 226\)](#). For For more information about the Quick Builder, see [Quick Builder \(on page 443\)](#)

If you make changes to the document, you must publish the updated version to make the updates available in the messaging. For information about publishing the document, see [Publication \(on page 404\)](#).

## Reviewing the recipient list referenced by the messaging

Reviewing the recipient list before you start the messaging provides a final opportunity for you to confirm that you are sending the right information to the right people.

Check your flowchart and list design. Confirm that the flowchart logic selected the recipients that you intended to contact.

Check to see that the design of the recipient list maps personalization fields in the list to the correct fields in your data mart. If you are using dimensional tables to support advanced email scripting, confirm that the table and field names match the references in the script.

Confirm that the right personalization fields are available. Under **Complete field list for this mailing**, the mailing tab lists the personalization fields that are required by the email document.

- If the recipient list does not contain all of the personalization fields the document requires, Deliver displays an error and the messaging will not run.
- If the recipient list contains more personalization fields than the document requires, Deliver displays a warning that identifies the unused fields, but the messaging run can proceed.

Update the recipient list as necessary. To update the recipient list, click **Edit Recipients**. The Deliver process used to create the list opens for editing so that you can change it. When you change the recipient list, you must complete a production run of the flowchart and allow the list to finish uploading to HCL Unica to make the updates available in the messaging.

For more information about working with the recipient list, see [Recipient lists for personalized messaging \(on page 19\)](#).

## Checking delivery parameters and the mailing configuration

To review the delivery parameters and other aspects of the mailing configuration, review information displayed on the mailing tab. If the communication that is referenced by the mailing contains constant personalization fields, you can define values for each field.

The **Constant Personalization Field Values** section lists the constant personalization fields that are used in the mailing. You can define values for each field that is listed. For more information about defining constants in the mailing configuration, see [Constant values in personalized messages \(on page 145\)](#).

If the document referenced by the mailing contains a link to one or more landing pages, the names of the landing pages display on the mailing tab. As a best practice, when you prepare to run or schedule a mailing, preview the landing pages to confirm that they are complete and correct.

For more information about what to confirm in the mailing configuration, see [Messaging configuration overview \(on page 112\)](#).

## Enabling deliverability

You can enable deliverability for standard production mailings only when you run a mailing. You cannot enable deliverability for transactional messages, scheduled mailing, or test run.

A deliverability list is a group of test email accounts Unica has established for a specific type of business.

When you enable deliverability list and start the mailing, Deliver sends a copy of your message to each email account in the list. Monitoring these test messages provides information about deliverability message transmission behavior and determines how

various Internet Service Providers are likely to process and respond to your production messages.



**Important:** To analyze mailing deliverability after you perform a mailing run, you must enable deliverability before you start the mailing run. Once enabled, the "Include seedlist for Deliverability monitoring" checkbox is visible. If not, contact the Deliver Services team.

Select "Include seedlist for Deliverability monitoring" checkbox. This action sends the seedlist along with the addresses mentioned in the OLT. Once emails are sent, a link is provided to view the deliverability report.

Once the email is sent to the seedlist, a Deliverability report is generated. You can view the report by clicking "View Deliverability Report". It takes 30 mins to generate the report.

### **Deliverability Report**

Under the Overview tab, you can view the following information.

- **Delivery destination report:** This report provides the percentage of messages delivered and spam filter for each destination.
- **Duration report:** This report provides the time intervals when the message was actually delivered.
- **Spam filter scores:** It includes information on the ratings of Spam as Good, Warning, Bad.

Under the ISP trends tab, you can view the Delivery Destination reports of the different ISPs. Under Search ISP, you can also search for the ISP for which you want to view the Delivery Destination report. You can view report for previous runs by selecting it from Select mailing execution dropdown list.

## **Constant values in personalized messages**

Constants are text values that appear in every message in a messaging campaign and display the same way in each message. You can define constants for a messaging

campaign only if the communication that is referenced to the messaging campaign includes the corresponding constant personalization fields.

You define the value for each constant on the Mailing tab as part of the messaging configuration. Before you begin the mailing run, determine if constants are present in the communication that is referenced in the messaging configuration.



**Note:** Transactional messages does not support using constant personalization fields. Transactional message requests fail if the messaging that you enable for transactional email also defines constants.

Defining a value for every constant added to the messaging is not required to run the messaging. However, if you do not define a value for a constant, the document referenced by the messaging displays nothing in place of the constant personalization field. Depending on how and where you used constant personalization fields in the document, the missing content might be noticed by the email recipient. For example, the absence of a value for a constant is noticeable if you included a constant personalization field in a sentence.

The following versions of the same sentence illustrate the effect of not defining a value for a constant. In this example, the constant personalization field `const_promotionCode` is inserted into the sentence in the document template, as follows.

```
Enter const_promotionCode to receive this valuable offer.
```

- When you define the constant as `Customer Loyalty Code: ABC123`, the recipient sees:

"Enter Customer Loyalty Code: ABC123 to receive this valuable offer."

- When you do not define the constant, the recipient sees:

"Enter to receive this valuable offer."

Your actual results depend on how the constant value appears in the design of the message. To see how defining a constant might affect your message, configure sample data for the corresponding constant personalization field and use the Preview feature to

view the result. For information about previewing your message using sample data for constants, see [Sample data for personalization fields \(on page 414\)](#).

## Configuring values for constants in a mailing

To display constant values in personalized email, you must add the constant to the mailing configuration. You must configure a constant personalization field in advance and add it to the email communication that you reference to the mailing.

In order for a constant to appear in email messages sent with the mailing, do the following before you begin to run or schedule the mailing.

- Create a constant personalization field.
- Add the constant personalization field to a Deliver document.
- Reference the document in the mailing.

On the mailing tab, the **Constants** section lists all of the constant personalization fields that you can define for the mailing. The list represents all of the constant personalization fields contained in the Deliver document referenced by the mailing. If the text and HTML versions of the document contain different constant personalization fields, the list includes only the constants related to the currently selected content type.

1. Open the mailing tab for editing.

In the **Constants** section, a text entry field appears beneath the name of each constant personalization field.

2. In the text entry field for each constant personalization field, select **Type a value string** and enter the text that you want the field to display.

If you are using the same constant personalization field in other mailings, the text that you enter here does not affect the other mailings.

3. Save your changes to return to the summary mailing tab.

In the summary mailing tab, the new text now appears below the name of the constant personalization field in the **Constants** section.

## Sending a standard messaging

To begin sending personalized email messages immediately, you manually run a standard messaging. A standard messaging run sends a personalized email message to each individual in the recipient list. The message is based on the email communication that is referenced in the messaging configuration.

- Perform a production run of the flowchart used to create the recipient list that is referenced in the messaging configuration. Performing a production flowchart run helps to ensure that the messaging is using the most current recipient data available.
- Confirm that you published the latest version of the Deliver communication that is referenced in the messaging configuration.
- Optional. Select **Include seedlist for Deliverability monitoring** checkbox. This option is available as part of the messaging account settings.



**Note:** Deliverability reports are a paid service and entitlement and usage is monitored.

You cannot send the standard messaging manually if the messaging has been scheduled. You must cancel the scheduled messaging run to send the messaging manually.

When you start a messaging run, the Mailing tab expands to allow you monitor the progress of the messaging run. Deliver displays a checklist to confirm that you completed important messaging preparations. Controls on the Deliver Mailing tab are used to start a production mailing are disabled until you validate that you have completed these preparations.

When the mailing finishes, you can view reports that provide details about the mailing run.

1. In Campaign, find the mailing you want to execute.
2. On the **Mailing** tab, in the **Mailing Execution and Status** section, complete the following actions.
  - For email messages, click **Send This Mailing**.
  - For SMS/WhatsApp messages, click **Send broadcast now**.



The Send the Production Mailing window displays a checklist to confirm that necessary validation is complete.

3. Confirm that you have completed the necessary checks by selecting each checkbox.

The **Send the Production Mailing** control is disabled until you select all of the checkboxes.

4. Select **Include seedlist for Deliverability monitoring** checkbox.
5. Click **Send** to start sending messages to production recipients.

## Options for scheduling a messaging

To run a messaging at a specific date and time, you can schedule the messaging run. The Summary Mailing tab provides an option to configure the messaging schedule.

Deliver provides the following scheduling options in a wizard that displays when you click **Schedule This Mailing** on the Mailing tab.

- Schedule a messaging run after a scheduled flowchart run. You schedule a flowchart run and configure a flowchart trigger that starts a messaging run after the flowchart run completes successfully.
- Schedule a messaging run. You define the specific date and time to start the messaging run.

### Scheduling a messaging to run after a scheduled flowchart run

Scheduling a messaging to run after a flowchart run ensures that the recipient list has the most current recipient data available. You must also confirm that changes to the document referenced by the messaging are complete and that the latest version is published.

You must schedule the flowchart run before you begin to schedule the messaging to run.

When you select the option to run a messaging after a scheduled flowchart run, the option to schedule a messaging run is disabled until you schedule the flowchart run.

You can use a single scheduled flowchart run to trigger one or more different messagings. If you schedule multiple messagings, each messaging must use a different OLT.



**Note:** Scheduling multiple large messagings to run concurrently can extend the time that is required to complete the messagings.

You schedule messaging run times according to the time kept on the server where you installed the Unica Platform. The scheduling wizard displays the current server time. This time may be different from your local time.

1. On the mailing tab of the messaging that you want to schedule, click **Schedule This Mailing**.

A wizard opens to create the messaging schedule.

2. On the **Mailing Schedule** page, enter a name for the schedule in the **Schedule Name** field.

You can enter a brief description of the schedule.

3. In the Schedule Run section, select **Start after this scheduled flowchart run**.

In the drop-down list, select the scheduled flowchart run that you want to trigger a messaging.

The list contains scheduled flowchart runs that run in the future, not yet started, and are not currently used with a scheduled messaging.

4. On the **Scheduling Options** page, you can select the following options.

- **Lock the Deliver document.** This option is selected by default to prevent changes to the Deliver document referenced by the messaging until the messaging runs. Clear this option to allow changes.

- 

The option to lock the recipient list is disabled when you select this method to schedule a messaging.

5. On the **Confirm Scheduling** page, select the check boxes to confirm that each messaging preparation is complete. When done, click **Schedule**.

The Mailing tab now displays the name of the scheduled flowchart run and the trigger that the system sends when the run completes.

## Scheduling a messaging run only

You can schedule a messaging to run a specific date and time, without requiring a trigger from a scheduled flowchart run. When you schedule a messaging run only, the messaging uses recipient data in the most recently uploaded recipient list.

Before you begin, confirm that all required changes to the recipient list referenced by the messaging are uploaded to HCL Unica by the time the messaging starts. You must also confirm that changes to the document referenced by the messaging are complete and that the latest version is published.

You schedule messaging run times according to the time kept on the server where you installed the Unica Platform. The scheduling wizard displays the current server time. This time might be different from your local time.

1. On the mailing tab of the messaging that you want to schedule, click **Schedule This Mailing**.

A wizard opens to create the messaging schedule.

2. On the **Mailing Schedule** page, enter a name for the schedule in the **Schedule Name** field.

You can enter a brief description of the schedule.

3. In the **Schedule Run** section, select **Start on this date and time**.

Use the calendar to set the date of the messaging run. Use the drop-down fields to select a server time for the messaging run, to the nearest minute.



**Note:** Server time refers to time kept on the server that hosts the Unica Platform. Refresh the screen to update the server time.

4. On the **Scheduling Options** page, you can select the following options.

- **Lock the recipient list (OLT).** This option is selected by default to prevent changes to the recipient list referenced by the messaging. Clear this option to allow changes.
  - **Lock the Deliver document.** This option is selected by default to prevent changes to the Deliver document referenced by the messaging. Clear this option to allow changes.
  -
5. On the **Confirm Scheduling** page, select the check boxes to confirm that each messaging preparation is complete. When done, click **Schedule**.

When you finish, the mailing tab displays the date and time the messaging is scheduled to run.

## Changing a messaging schedule

You can update the schedule of any scheduled messaging at any time before the start of the scheduled messaging run.

1. On the mailing tab for the scheduled messaging, click **Edit Schedule**.  
The schedule wizard opens with the **Mailing Schedule** window.
2. Change the scheduled run time, run method, or run options.

You must complete the readiness checklist each time you change the schedule configuration.

## Canceling a messaging schedule

You can cancel a messaging schedule at any time before the scheduled run time. You cannot cancel the scheduled run after the scheduled messaging run starts.

On the mailing tab for the scheduled messaging, click **Cancel Schedule**.

The system releases all locks that were placed on the recipient list or message document while the messaging was scheduled.

## Option to lock the recipient list

In the scheduling wizard, the option to lock the recipient list is selected by default to prevent changes to the current recipient list until the scheduled messaging run finishes. While the recipient list remains locked, the system prevents upload of new recipient data from the local environment to the hosted environment. If you clear the option to lock the list, you can run the flowchart and the updated recipient list uploads normally.

Running the flowchart when the recipient list is locked updates the local version of the recipient list. However, the Deliver process in the flowchart displays a red X to indicate that the process failed. In this scenario, the failure is a failure to upload the list due to the lock.

The system releases the lock after the scheduled messaging run completes. After Deliver unlocks the recipient list, you must run the flowchart again to upload changes that were made to the list.



**Note:** This option is not available when you schedule a messaging to run after a scheduled flowchart run. There is no reason to lock the recipient list because the messaging runs immediately after the flowchart run updates the list.

## Option to lock the Deliver document

In the scheduling wizard, the option to lock the Deliver document is selected by default to prevent changes until the scheduled messaging run finishes. While the document remains locked, Deliver prevents changes to the Deliver document by preventing publication of new versions. If you clear this option, you can update and publish the document normally.

If you modify the document in the Message Editor while the document is locked, you can save the new version, but you cannot publish it. The changes are not available to the messaging until the lock is released and you publish the messaging again.

Deliver releases the lock after the scheduled messaging run completes.

## Flowchart scheduling for scheduled messages

Depending on how you schedule a message, you might need to schedule a run of the flowchart that is used to create or update the recipient list that is referenced by a scheduled messaging. You can use a scheduled flowchart run to trigger one or more messaging runs.

You schedule the flowchart run in the Unica Scheduler. You can run the flowchart on a particular future date or according to one of several recurrence patterns. Platform maintains a list of scheduled tasks, including scheduled flowchart runs, on the schedule management windows. To access the schedule management windows, navigate to **Settings > Scheduled Tasks**.



**Note:** You must schedule the flowchart to run at some time in the future. The messaging scheduler cannot detect a flowchart schedule with a starting date set to **Now**.

When you configure a scheduled flowchart run in the Scheduler, you assign a name to the scheduled run. You select the scheduled flowchart by this name when you schedule a messaging.

Assign an intuitive name that can be easily recognized when you select the scheduled flowchart. To help distinguish the various schedules available in the scheduler, include the date and time you want the flowchart to run in the name of the scheduled flowchart run.

For more information about working with the Unica Scheduler, see the Unica Platform Administrator's Guide.

## Schedules and recurrence

You configure the flowchart run schedule with the Unica Scheduler. If the scheduled messaging is configured to run after the flowchart, the configuration of the flowchart schedule determines when Deliver runs the messaging.

You can schedule flowcharts to run as follows.

- Run once, on a specified future date
- Run repeatedly, according to a recurrence pattern that you specify

You can configure various recurrence patterns in the scheduler. For example, you might schedule flowchart runs every month to support a monthly newsletter. Depending on the flowchart design, the recurring flowchart runs would capture changes in your subscriber lists.

## Messaging triggers and scheduled flowchart runs

You can configure the Scheduler to send a trigger to indicate completion of a scheduled flowchart run. A trigger is a text value that is referenced in the configuration of the scheduled flowchart run. Deliver starts a scheduled messaging run when it receives the trigger notification.

When you schedule a messaging, Deliver generates the unique trigger that it recognizes as the notification that the flowchart is finished. The trigger displays on the mailing tab as a string of characters. You can also see the trigger by navigating to **Settings > Scheduled Tasks** and finding the scheduled task in the **Schedule Definitions** window.

Deliver automatically adds the trigger string to the configuration of the scheduled flowchart run. The trigger appears in the field, **On successful completion, run trigger**.

When you schedule a messaging to run after a scheduled flowchart run, Deliver creates another scheduled task that works with the scheduled flowchart run to start the messaging. You can view this messaging task in the **Scheduled Tasks** window.

The scheduled flowchart and run of the messaging proceed in the following sequence.

1. The scheduled flowchart runs on the date and time that you specified when you scheduled the flowchart and messaging runs.
2. When the scheduled flowchart run finishes, it sends the pre-configured trigger. Deliver listens for the trigger as a signal to upload the new recipient list and start the messaging task.
3. Deliver uploads the updated recipient list to the hosted messaging environment in HCL Unica.
4. When the list upload is complete, the messaging task signals the hosted environment to start the production messaging.

## Creating a flowchart schedule using default parameters

Follow this procedure to schedule a flowchart using the default parameters.

1. On a flowchart tab in **View** mode, click the **Run** icon and select **Schedule**.

The Schedule flowchart dialog box opens.

2. Complete the fields in the Schedule flowchart dialog box.

If you choose to run more than once, click **Set up Recurrences** to set up a recurrence pattern.


3. Click **Run with this Schedule**.



**Important:** When you schedule a flowchart, the scheduled task is based on the flowchart name. If the flowchart name is changed after a scheduled task is created, the scheduled task will fail.

## Creating a flowchart schedule

Follow this procedure to schedule a flowchart.

1. On a flowchart tab in **View** mode, click the **Schedules** icon  and select **Schedule**.

The Override flowchart parameters for dialog box opens.

2. If you want to override the default flowchart parameters, complete the fields in the dialog box to specify your flowchart parameters. This step is optional.

You can add multiple user variables and data sources by clicking the **Add user variable** and **Add data source** links.

The system does not check syntax of the parameters you enter in these fields. Double-check that you have entered the correct values before proceeding.

If you do not want to override default flowchart parameters, go on to the next step.

3. Click **Schedule a run** to open the Create a schedule dialog box.



You can define when the schedule runs and optionally set up recurrences, triggers, and throttling.

4. Click **Run with this schedule**.



**Important:** When you schedule a flowchart, the scheduled task is based on the flowchart name. If the flowchart name is changed after a scheduled task is created, the scheduled task fails.

## Cancel scheduled mailing after you cancel a scheduled flowchart run

When you delete a scheduled flowchart run that is also used to start a scheduled mailing, you must manually cancel the scheduled mailing in Deliver.

You can delete a scheduled run of a flowchart in the Unica Scheduler. If the scheduled flowchart run is being used to trigger a scheduled messaging, the messaging remains scheduled in Deliver, even after you delete the scheduled flowchart from the Unica Scheduler.

## The create a schedule wizard

This section describes in detail the pages you use when you create a schedule.

The following table describes the fields you use when you schedule runs of Campaign flowcharts, Deliver messagings, Unica Optimize sessions, external scripts, and API calls.

**Table 8. Fields in the create a schedule wizard**

Field	Description
Select a task type	<p>The type of object to be scheduled. The following options are available.</p> <ul style="list-style-type: none"> <li>• <b>External task - script</b></li> </ul> <p>Allows you to schedule invocation of tasks defined in batch or shell scripts external to HCL Unica.</p>

**Table 8. Fields in the create a schedule wizard (continued)**

Field	Description
	<p>Only if you have applied Platform FixPack 10.0.0.1, the script must be listed in a whitelist file located in the <code>conf</code> directory under your Platform installation. Also, the script must be on the web application server where Platform is deployed.</p> <ul style="list-style-type: none"> <li>• <b>External task - API</b></li> </ul> <p>Allows you to schedule invocation of APIs external to HCL Unica.</p> <p>Only if you have applied Platform FixPack 10.0.0.1, the API must be listed in a whitelist file located in the <code>conf</code> directory under your Platform installation.</p> <ul style="list-style-type: none"> <li>• <b>Campaign flowchart</b></li> </ul> <p>Allows you to schedule invocation of Campaign flowcharts. Selecting this option takes you to the Campaign list page where you select a campaign, optionally set flowchart override parameters, and schedule the flowchart run.</p> <ul style="list-style-type: none"> <li>• <b>Unica Optimize session</b></li> </ul> <p>Allows you to schedule invocation of Unica Optimize sessions. Selecting this option takes you to the Unica Optimize sessions list page where you select a session and schedule the session.</p> <ul style="list-style-type: none"> <li>• <b>Deliver messaging</b></li> </ul> <p>Allows you to schedule invocation of Deliver messagings. Selecting this option takes you to the Deliver mailings list page where you select and schedule the messaging.</p> <ul style="list-style-type: none"> <li>• <b>Unica Plan bulk deactivation</b></li> </ul> <p>Allows you to schedule bulk deactivation of projects in Unica Plan. Selecting this option takes you to the Unica Plan Admin-</p>

**Table 8. Fields in the create a schedule wizard (continued)**

Field	Description
	<p>Administrative Settings page where you click <b>Deactivation Administration</b> and schedule the bulk deactivation.</p> <ul style="list-style-type: none"> <li>• <b>Alert</b></li> </ul> <p>Allows you to schedule alerts for users of HCL Unica. Selecting this option opens a window where you set the message title, message body, and severity. After you click <b>Schedule this alert</b>, you can create a schedule for the alert.</p> <p>Users can manage their notification subscriptions based on severity.</p> <ul style="list-style-type: none"> <li>• <b>Notification</b></li> </ul> <p>Allows you to schedule notifications for users of HCL Unica. Selecting this option opens a window where you set the message title, message body, and severity. After you click <b>Schedule this notification</b>, you can create a schedule for the notification.</p> <p>Users can manage their notification subscriptions based on severity.</p>
Schedule name	Enter a name for the schedule.
Scheduler group	If you have created one or more throttling groups, you can associate this schedule with a group to limit the number of runs of this schedule that can execute at the same time. Throttling groups configured on the Configuration page appear as options in this field
Description	Enter a description for the schedule.
Run parameters	<p>Used when you schedule APIs and scripts.</p> <p>Only if you have applied Platform FixPack 10.0.0.1, a whitelist prerequisite applies to any external tasks that you create to schedule API calls or scripts. Before you can schedule an external task, you</p>

**Table 8. Fields in the create a schedule wizard (continued)**

Field	Description
	<p>must add the API or script to a whitelist located in the <code>conf</code> directory under your Platform installation.</p> <ul style="list-style-type: none"> <li>For API schedules, enter the URI, plus any parameters in the format shown in the examples.           <p>API with no parameters: <code>http://example.com</code></p> <p>API with parameters: <code>http://www.example.com/tickets?fields=id&amp;state=open&amp;sort=updated_at</code></p> <p>Currently, there is no support for Platform tokens in the URI.</p> </li> <li>For script schedules, enter the full path to the script on the Platform server, plus any parameters in the format shown in the examples. Specify the parameter names between double number signs (<code>##</code>) followed by a space.           <ul style="list-style-type: none"> <li>Windows™ examples               <p>Script with no parameters: <code>C:\Scripts\ExecuteDatabaseJob.bat</code></p> <p>Script with parameters: <code>C:\Scripts\RunETLJobs.bat ##username## ##password## ##db_table##</code></p> </li> <li>UNIX™ examples               <p>Script with no parameters: <code>/opt/ExecuteDatabaseJob.sh</code></p> <p>Script with parameters: <code>/opt/RunETLJobs.sh ##username## ##password## ##db_table##</code></p> </li> </ul> </li> </ul>

**Table 8. Fields in the create a schedule wizard (continued)**

Field	Description
	Execution of these tasks is asynchronous. Platform does not track success or failure of script and API tasks. Status indicates only whether they are launched successfully.
On successful completion, send a trigger	If you want runs of this schedule to send a trigger when the run completes successfully, enter the trigger text here. Other schedules can be set to listen for this trigger.
On error, send a trigger	If you want runs of this schedule to send a trigger when the run fails, enter the trigger text here. Other schedules can be set to listen for this trigger.
Search tags / keywords	Enter any tags you want you associate with the schedule for use in searches. Separate multiple entries with commas.
Schedule status	Whether the schedule is enabled or disabled. Disabling a schedule applies only to future or queued runs of that schedule. Any run currently underway is not affected. The default status is <b>Enabled</b> .
Select time zone	If you select an option other than the server default, the <b>Start, End,</b> and <b>Last updated</b> columns on the Schedule management page show both the server default time and the time in the selected zone.
When to start	<p>Select one of the following options to specify the first time the schedule runs. The start time applies only to the first run; it defines the time when a schedule is first eligible to run. The actual first run might be after the start date if any of the following conditions are present.</p> <ul style="list-style-type: none"> <li>• The schedule is configured to wait for a trigger.</li> <li>• The schedule is a member of a throttling group.</li> <li>• The schedule uses a recurrence pattern.</li> </ul>

**Table 8. Fields in the create a schedule wizard (continued)**

Field	Description
	<ul style="list-style-type: none"> <li>• <b>Now</b></li> <li>• <b>On a date and time</b> - Select a date and time.</li> <li>• <b>On a trigger</b> - Select an existing trigger or enter a new one. If you enter a new one, you must configure a schedule to send this same string on success or failure.</li> <li>• <b>On a trigger after a date</b> - Select an existing trigger or enter a new one, and select a date and time. If you enter a new trigger, you must configure a schedule to send this same string on success or failure.</li> <li>• <b>On completion of other tasks</b> - Select from a list of existing schedules. The schedule runs only when the selected other schedules have finished their runs.</li> </ul>
Number of runs	<p>Select one of the following options to specify the number of runs.</p> <ul style="list-style-type: none"> <li>• <b>Run once only</b> - The schedule runs one time. It is eligible to execute the run on the start date and time you specify.</li> <li>• <b>Stop after n occurrences</b> - Runs stop after the specified number of runs have occurred (whether the runs succeed or fail) or the end date arrives, whichever is first.</li> <li>• <b>Stop by a date and time</b> - Runs are initiated as many times as defined until the specified end date and time is reached. A run might execute after this time if the run execution has been delayed due to throttling constraints.</li> <li>• <b>On completion of other tasks</b> - The schedule runs only when all the other tasks selected for this option complete successfully.</li> </ul> <p>When you click the <b>Set up recurrences</b> button, you can select one of the following options.</p>

**Table 8. Fields in the create a schedule wizard (continued)**

Field	Description
	<ul style="list-style-type: none"> <li>• <b>Use a pre-defined recurrence pattern</b> - Select a pattern from the list. The Platform provides a set of pre-defined patterns, and you can create your own by adding properties on the Configuration page.</li> <li>• <b>Use a simple custom recurrence pattern</b> - Select an interval.</li> <li>• <b>Use a cron recurrence expression</b> - Enter a valid cron expression.</li> </ul>

## Time zone support

You can schedule runs to occur in the context of any one of a large number of worldwide time zones.

When you create a schedule, the default is always the time zone of the server on which Platform is installed. However, you can select from any other time zones listed in the **Select time zone** drop down list. These options are expressed as GMT times followed by the commonly used term for that time zone. For example, (GMT-08:00) Pitcairn Islands or (GMT-08:00) Pacific Time (US & Canada).

The selected time zone is applied to all aspects of the schedule, including the following.

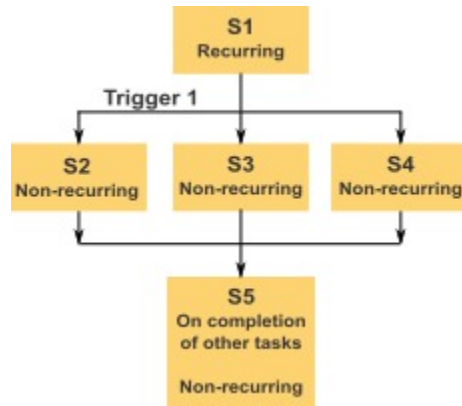
- Information shown on the Schedules and Runs tabs
- Recurrence patterns and triggers

## Schedules that depend on completion of multiple runs

You can configure a schedule to run only when multiple other schedules have finished their runs by using the **On completion of other tasks** option in the **When to start** drop down list.

For example, suppose you have a schedule, S1, that is set up with a recurrence pattern. S1 has a trigger that is sent every time an S1 run completes successfully. Three schedules, S2, S3, and S4, are configured to start when they receive the outbound trigger from S1. You can set up an additional schedule, S5, that runs when S2, S3, and S4 complete successfully.

S5 runs only when all three of the runs on which it is dependent complete. The following diagram illustrates this example.



To set up a scenario like the one described in the example, you would configure S5 using the **On completion of other tasks** option in the **When to start** drop down list.

When you configure a run to be dependent on other runs in this way, you must keep in mind the following considerations.

- The schedules on which the schedule you are configuring depends must be non-recurring. In the example above, S2, S3, and S4 must be non-recurring. However, because S1 recurs, S2, S3, and S4 effectively recur, based on S1 runs.
- The schedule that is dependent on other schedules must also be non-recurring. In the example, S5 must be non-recurring. Again, because S1 recurs, S5 effectively recurs as well.
- The schedule that is dependent on other schedules cannot be used as one of the criteria in the **On completion of other tasks** option for any other schedule. In the example, S5 cannot be used as a criterion in the **On completion of other tasks** option for any other schedule.
- If you want to delete a schedule that is configured with the **On completion of other tasks** option, you must first change the configuration to remove the **On completion of other tasks** option. Then you can delete the schedule.



## The Override Flowchart Parameters page

The following table describes the fields on the Override flowchart parameters dialog. All of the editable fields in this dialog are optional. The system does not check syntax of the parameters you enter in these fields. Double-check that you have entered the correct values before proceeding.

The values you enter in this dialog are shown on the next page of the wizard in the **Run parameters** field.

**Table 9. Fields on the Override Flowchart Parameters page**



Field	Description
Flowchart Id	Unique ID for the flowchart. This field is filled automatically, and is read-only.
Campaign - Flowchart name	The name of the campaign, campaign code, and flowchart name. This field is filled automatically, and is read-only.
Catalog file name	Specify a stored table catalog file to use for this run.
User variable name	Enter the name of any user variable that has been defined within the flowchart.
Value	Enter a value for the user variable.
Data source name	Enter the name of any data source that the flowchart accesses.
Login	Use this field to override the default login name for the specified data source. The default is the login name of the user who is creating the schedule.
Password	Use this field to override the default password for the specified data source. The default is the password of the user who is creating the schedule.

## The Schedule management pages



You access the scheduler management pages by selecting **Settings > Schedule Management** or by selecting **View when scheduled** from a flowchart's **Run** menu.

### The Schedules tab

**Table 10. Fields and links on the Schedules tab**

Field or link	Description
 Disable	Disable one or more selected schedules. Available only if you have applied Platform FixPack 10.0.0.1.
 Enable	Enable one or more selected schedules. Available only if you have applied Platform FixPack 10.0.0.1.
Create a schedule	Click to open a wizard where you can set up a schedule.
Edit the schedule list filter	Click to create an advanced filter for the list.
Delete	Delete one or more selected schedules. You can select schedules by clicking in the column at the left of the schedule. To select all schedules, click at the top of the left side column.
Refresh	Click to refresh the list.
Filter	Click to create a simple filter for the list.
Schedule name	The schedule of which the run is an instance.
Schedule state	Whether the schedule is enabled or disabled.
Scheduled item	The name of the object to be run.
Item type	The type of object to be run.

**Table 10. Fields and links on the Schedules tab (continued)**

Field or link	Description
Created by	The user name of the account that created the schedule.
Start trigger	If the schedule depends on a trigger, the trigger that causes the schedule to run.
Start	Date and time when the first run of this task is scheduled.
Recurrence pattern	A description of the recurrence pattern.
End	<p>Date and time when the last run of this task is scheduled.</p> <p> <b>Note:</b> Applies to recurring scheduled tasks only.</p>
Previous 1 and next 2 runs	<p>Date and time of the previous run and next two scheduled runs.</p> <p> <b>Note:</b> Applies to recurring scheduled tasks only.</p> <p>The information about previous one and next two scheduled runs is shown as per the scheduler definition. It is not currently validated against the exclusion rules.</p>
Dependencies	If the scheduled object depends on other objects, they are listed here.
On success trigger	The string that is sent if the product reports that a run of this schedule has completed successfully. This field is blank if no on success trigger is specified.
On failure trigger	The string that is sent if the product reports that a run of this schedule has failed. This field is blank if no on failure trigger is specified.

## The Runs tab

**Table 11. Fields and links on the Runs tab**

Field or link	Description
Edit the schedule list filter	Click to create an advanced filter for the list.
Delete	Delete one or more selected schedules. You can select schedules by clicking in the column at the left of the schedule. To select all schedules, click at the top of the left side column.
Mark as cancelled	Cancel one or more selected schedules.
Refresh	Click to refresh the list.
Filter	Click to create a simple filter for the list.
Run id	The identification number assigned to the run in the Platform system tables.
Schedule name	The name specified for the schedule by its creator.
Scheduled item	The name of the object to be run.
Item type	The type of object to be run.
Start	The date and time when the run started.
Last updated	The date and time when the information for this run was updated.
Execution state	<p>State of the run as defined in the scheduler, as follows.</p> <ul style="list-style-type: none"> <li>• <b>Scheduled</b> - The run has not begun.</li> <li>• <b>Queued</b> - The scheduler has started the run, but the HCL Unica product has not begun executing the scheduled run due to throttling constraints.</li> <li>• <b>Completed</b>- The run has completed and has returned a status of Failed or Succeeded.</li> </ul>

**Table 11. Fields and links on the Runs tab (continued)**

Field or link	Description
	<ul style="list-style-type: none"> <li>• <b>Cancelled</b> - A user has cancelled a run by clicking <b>Mark as Cancelled</b> on the Scheduled Runs page. If the run was queued when the user marked it as cancelled, it does not execute. If the run was executing, this action does not stop the run, but it is marked as cancelled, and any triggers configured for this run are not sent. Also, runs that depend on the cancelled run do not execute.</li> <li>• <b>Unknown</b> - Indicates that Platform can not determine whether the job is still running, completed or failed.</li> </ul>
Run status	Status of the object's run as defined by the product executing the run. If the run sends a status of Cancelled, and the run is later started again and sends any other status to the scheduler, the status is updated in this field.
Details	Information about the run as provided by the product. For example, for a flowchart run, details include the flowchart name and ID, the error if the run fails, and the elapsed time if the run succeeds.

## Edit the schedule list filter - Schedules

**Table 12. Edit the schedule list filter on the Schedules tab**

Column	Description
Filter by search tags / keywords	Select this check box if you want to include search tags or keywords in your filter. The string you enter here is matched with strings entered in the <b>Search tags / keywords</b> fields when schedules are created.
Search tags / keywords	Enter the search tags or keywords you want to use in your filter.

**Table 12. Edit the schedule list filter on the Schedules tab (continued)**

Column	Description
Filter on other criteria	Select this check box if you want to include additional criteria in your filter.
Run metadata	<p>Select one of the following options to include in your rule.</p> <p>The options are:</p> <ul style="list-style-type: none"> <li>• <b>Schedule name</b></li> <li>• <b>Schedule state</b></li> <li>• <b>Item type</b></li> <li>• <b>Created by</b></li> <li>• <b>Scheduled item</b></li> </ul>
Condition	<p>Select one of the following options to determine how your rule is evaluated.</p> <ul style="list-style-type: none"> <li>• <b>Matches</b></li> <li>• <b>Starts with</b></li> <li>• <b>Ends with</b></li> <li>• <b>Contains</b></li> </ul>
Value	<p>Enter or select the value you want to apply to the rule. The options vary depending on the metadata you select for the rule.</p> <ul style="list-style-type: none"> <li>• <b>Schedule name</b> Enter any characters.</li> <li>• <b>Schedule state</b> Value options are <b>Enabled</b> and <b>Disabled</b>.</li> <li>• <b>Item type</b> Value options are the various schedule types.</li> <li>• <b>Created by</b></li> </ul>

**Table 12. Edit the schedule list filter on the Schedules tab (continued)**

Column	Description
	<p>Enter any characters. Your value is compared with user login names.</p> <ul style="list-style-type: none"> <li>• <b>Scheduled item</b></li> </ul> <p>Enter any characters. The string you enter here is compared with the text in the <b>Scheduled item</b> column.</p>
And / Or	Select one of these operators for each rule you create.

**Edit the schedule list filter - Runs****Table 13. Edit the schedule list filter on the Runs tab**

Column	Description
Filter based on time	Select this check box if you want to show runs that occurred within a specified time interval.
Time zone	If you select an option other than the server default, the search uses the selected time zone to calculate which schedules fall within the date range you specify.
List runs for the last n instances	For recurring runs, specify how many previous runs to show in the list.
List runs from	Specify a time interval for the runs shown in the list.
Filter on other criteria	Select this check box if you want to include additional criteria in your filter.
Run metadata	<p>Select one of the following options to include in your filter.</p> <p>The options are:</p> <ul style="list-style-type: none"> <li>• <b>Schedule name</b></li> <li>• <b>Execution state</b></li> </ul>

**Table 13. Edit the schedule list filter on the Runs tab (continued)**

Column	Description
	<ul style="list-style-type: none"> <li>• <b>Run status</b></li> <li>• <b>Scheduled item</b></li> </ul>
Condition	<p>Select one of the following options to determine how your criteria are evaluated.</p> <ul style="list-style-type: none"> <li>• <b>Matches</b></li> <li>• <b>Starts with</b></li> <li>• <b>Ends with</b></li> <li>• <b>Contains</b></li> </ul>
Value	<p>Enter or select the value you want to apply to the filter. The options vary depending on the metadata you select for the rule.</p> <ul style="list-style-type: none"> <li>• <b>Schedule name</b> Enter any characters.</li> <li>• <b>Execution state</b> Value options are: <ul style="list-style-type: none"> <li>◦ <b>Queued</b></li> <li>◦ <b>Running</b></li> <li>◦ <b>Completed</b></li> <li>◦ <b>Unknown</b></li> <li>◦ <b>Cancelled</b></li> </ul> </li> <li>• <b>Run status</b> Value options are <b>Succeeded, Running, Cancelled,Failed, and Unknown.</b></li> <li>• <b>Scheduled item</b> Enter any characters. The string you enter here is compared with the text in the <b>Scheduled item</b> column.</li> </ul>



**Table 13. Edit the schedule list filter on the Runs tab (continued)**

Column	Description
And / Or	Select one of these operators for each rule you create.

## A/B test mailings

You can use recipient responses to determine the most effective email design and message content by sending the mailing as an A/B test. In Deliver, you can configure and conduct an A/B test and automatically send the most effective version of an HTML email message to your audience.

Deliver does not support sending text-only email as an A/B test. For A/B testing, specify **HTML only** as the content type to send.

When you send a mailing as an A/B test, the system sends different email messages, or different versions of the same message, to between two and five sample groups of recipients. The sample groups are selected at random from the recipient list that is referenced by the mailing. You control the sample size, the number and type of message variations, the evaluation criteria, and how long the system waits to evaluate the responses. In the test, you can compare how recipients respond to various combinations of different message layouts, content variations, or subject lines.

You can start the A/B test immediately or you can schedule the test to start later. The system then sends the different email versions and collects recipient responses. After the system collects responses for the period that is specified in the test configuration, it evaluates recipient responses to each email version.

The system determines which version of the email best meets the specified success criteria and automatically sends that version to the remainder of the mailing list. The version that is sent to the rest of the list is called the "winner" of the A/B test.

Deliver provides the A/B Testing Performance Report to present evaluation results and to identify the winning version. Optionally, you can generate a Deliverability Report for each test version and for the test winner.

Conducting an A/B test requires that you complete the following steps, in order.

1. Enable the mailing for A/B testing.
2. Configure the A/B test.
3. Start the A/B test and observe the results.



**Note:** Content elements and email subject lines that are associated with personalization rules are not eligible for comparison in an A/B test. Do not configure personalization rules in zones or subject lines that contain content that you want to include in an A/B test.

## Preparation and design for an A/B test

Running a meaningful A/B test requires careful planning and specific comparisons between the versions of the message that you are testing. You must evaluate several characteristics that affect the test outcome and usefulness.

Before you run an A/B test, consider the following issues.

- The number and type of variations to test. You can compare email layouts, content designs, subject lines, or a combination of all.
- The size of the recipient sample for the different versions of the email message.
- How long to run the test. This decision affects how many recipients can respond in time to participate in the test.
- Criteria that the system uses to evaluate recipient responses.

You can compare results for different email layouts, different content elements within the same email layout, or a combination of different layouts and different content. You can also test different email subject lines. You can test between two and five variations in a single A/B test.

Each variation that you add to the A/B test requires that you allocate a portion of the recipient list to receive and respond to it. The individual portions of the list that receive a different version of the message are often called test splits. You can vary the size of the test splits. Consider how much of the recipient list you select for the test splits. Recipients in the test splits do not receive the winning version that the system sends to the rest of the list.

You control how long to run the test by specifying a test duration or by specifying the exact evaluation date and time. Consider how much time is necessary to create an accurate view of recipient opinion about the email variants.

You can choose between several options for evaluation criteria when you configure how to evaluate recipient responses to determine the winning variation. You must select one of the options that are provided on the A/B Test Configuration page.

## How many recipients to include in an A/B test

A/B testing sends different email content or design variations to different portions of the recipient list for the mailing that you enable for A/B testing. Each of the selected portions of the list is called a test split. The system constructs each test split by selecting recipients at random from the recipient list.

You specify test splits as a percentage of the total list and assign each split a unique name. All splits are the same relative size. By default, the system assigns 10% of the recipient list to each split. You can change the split size, but all splits are of the same size.

Recipients are assigned to only one split at a time. If the system selects a recipient for a test split, the recipient receives only the version of the message that is sent to that split. After the test and evaluation phases of the A/B test, the system sends the winning version of the message to the remainder of the original mailing list. For example, when you conduct an A/B test with three 10% splits, 80% of the recipient list receives the winning email variation.

To better understand how many individuals see the winning version of the message, consider the split distribution.

- Variation A goes to 10% of the entire mailing list.
- Variation B goes to a different 10% of the list.
- Variation C goes to yet another 10% of the list.

Variation C is declared the winner. So, according to the test configuration, the remaining 70% of the list also receives Variation C.

As a result of the A/B test, Variation C is delivered to 10% of the original mailing list as part of the initial test. Variation C is also delivered to the remaining 70% of the list as part of the final mailing. The total result is  $10\% + 70\% = 80\%$ . According to the test design, 80% of the individuals in original mailing list receive Variation C as the best version of the message.

To determine the appropriate split size for an A/B test, consider the total size of the recipient list and how many variations are being tested. If you select too small a split size, you might not have a representative sample for each variation. If you select too large a split size, you might send a non-winning content variation to a larger portion of the recipient list than is desirable.

When you save the A/B test configuration, the summary mailing tab displays the number, name, and size of the test splits. If a recipient list is referenced to the mailing, the mailing tab lists the exact number of recipients in the list and in each test split. You can configure test splits before you reference the list to the mailing, but the specific number of recipients for each test does not display on the summary mailing tab. Only the percentage of the list for each split is listed until you reference a recipient list to the mailing.

## Compare email layout in an A/B test

When you configure an A/B test to compare email layout, you can compare design elements to send the version that engages your target audience most effectively.

For example, you might conduct an A/B test to send a mailing that includes a link to open a new account or receive a special offer. Create one email communication that puts the call to action at the top of the message. Create another communication that places the link at the bottom of the message. Add each document as a separate test in the A/B test configuration to determine the more effective design.

To compare the different versions of the email layout, select **Maximum Unique Clicks** as the evaluation criterion.

Other ways to compare designs include the following.

- Vary the number of options that you provide in a call to action
- Compare a shorter message to a longer message

- Try different typefaces
- Compare a single-column layout to a multi-column layout

## Compare content designs in an A/B test

In some cases, you might want to determine the effect of changes in content rather than changes in the layout of an email message. To compare content variations, add the same document in several tests and specify multiple content in one or more zones. Select a different content element in several test splits.

Select **Maximum Unique Clicks** as the evaluation criterion.

To compare content variations, add the content variations as multi-content in one or more zones in an email document. Do not configure personalization rules for the content that you want to compare. To isolate results for the effect of content differences, minimize differences in the email layout.



**Note:** Content elements and email subject lines that are associated with personalization rules are not eligible for comparison in an A/B test. Do not configure personalization rules in zones or subject lines that contain content that you want to include in an A/B test.

For example, in an email communication, add multiple versions of a sign-up button to a zone in an email communication. In the configuration of the A/B test, add each version of the button as a separate test.

Other examples of how to compare content design include the following.

- Compare results between using a graphic or a human photograph in a call to action.
- Compare colors and graphics for headlines or sign-up buttons.
- See what happens when you include the word *Free* in a headline.
- Compare images that show people of different ages.

## Compare subject lines in an A/B test

The email subject line is the first element of your email message that your target audience sees. You can conduct an A/B test to determine the best email subject line.

You can create several email documents, each with a different email subject line, and add each document to a separate test split in an A/B test. You might instead create a single email document in the Message Editor that contains multiple email subject lines. In the A/B test, select each version of the subject line as multi-content in separate test splits. Do not conditionalize the multiple subject lines with personalization rules.

In the A/B test, to find the most appealing variation of the subject line, select **Maximum unique views** as the evaluation criteria. The objective of the test is to determine which subject line variation compels the greatest number of recipients to open the email.

You can also use the A/B test to find the subject line variations to avoid. Select **Minimum unique complaints** as the evaluation criteria. The objective of the test is to determine the email subject line least likely to compel email recipients to mark the email as spam.

The scenarios described here require conducting separate A/B tests. You can select only one evaluation criterion for each A/B test.

## How long to run an A/B test

A/B test results are generated by the responses of email recipients to the several email variants that you are comparing. To generate meaningful results, give recipients sufficient time to receive and respond to the email messages before the system declares a winner and completes the mailing. By default, the system evaluates recipient response 72 hours after the test begins.

You can configure a different test duration or specify a specific date and time to evaluate recipient responses. You can update the duration or date at any time up to when the system begins to send the winning email variant.

Consider your audience and the nature of the design or content variation that you are testing. If you end the test too soon by setting a short test duration, you might get too few responses to generate an accurate result. Waiting too long to evaluate results might mean that you introduce an unnecessary delay long after the winning variant is obvious. Examine

previous response rates and times for your target audience to better determine how long to run the A/B test.

If the mailing must be sent by a specific date, schedule the A/B test accordingly. For example, if you conduct an A/B test for a holiday mailing, allow enough time to generate meaningful results and specify an evaluation date that sends the final mailing in time for the holiday. Similarly, if a holiday occurs during the test, and you anticipate a corresponding drop in email response rates, you might consider starting the test earlier to allow enough time to generate an accurate test.

## Criteria to use to evaluate response to the A/B test

As part of the planning for an A/B test, you must define the criteria that the system uses to determine the winner.

A/B testing provides three criteria for evaluating responses.

- **Maximum unique views.** Considers how many different recipients opened the email.
- **Maximum unique clicks.** Considers how many different recipients clicked at least one link in the email.
- **Minimum unique complaints.** Considers how many different recipients reported the email as spam or asked to unsubscribe.

Evaluating responses according to unique views indicates how many recipients found the email interesting enough to at least open the email. For example, you might specify **Maximum unique views** as an evaluation criteria if you were conducting an A/B test to compare email subject lines. When you evaluate according to unique views, the system counts only one message view by each recipient. If an individual recipient opens the email several times, the system does not count any of the views by that individual after the first view.

Evaluating responses according to unique clicks includes recipients that have open the email and clicked at least one link in the document. The system counts any link click in the email, not a specific link. For example, you might use **Maximum unique clicks** as an evaluation criteria to compare recipient response to different email designs, the placement of an opt-in button, or different formats for hyperlinks. The system counts only the first link

click by each individual. Subsequent clicks in the email are not counted in the evaluation results. However, link clicks are also captured in the Deliver system tables. You can view the link click results in Deliver performance reports, such as the Detailed Link and Detailed Link by Cell reports.

Evaluating responses according to unique complaints provides a way to see which message variants your target audience does not like. The system records a complaint when it records an unsubscribe request or an indication from an ISP that the recipient marked the message as an unwanted email, or spam. For example, if you are comparing email subject lines, using **Minimum unique complaints** as an evaluation criteria can help you to identify subject line variations to avoid for the current mailing. You can use the results of an A/B test that evaluates by unique complaints to improve designs of future mailings. The system counts one complaint for every recipient. It does not count multiple complaints from the same individual recipient.

## Enabling a mailing for A/B testing

Before you can run a mailing as an A/B test, you must enable the mailing for A/B testing. When you enable a mailing for A/B testing, the system changes how you select a document to send with the mailing. The system removes the option to reference a single document to the mailing. Instead, you use the A/B test configuration to select one or more documents to send with the mailing.



**Note:** You cannot enable a mailing for A/B testing and transactional email at the same time.

To enable or disable a mailing for A/B testing, you must open the mailing for edit. On the mailing edit tab, select **Enabled for A/B Testing**.

Clear this option to disable the A/B test.

After you enable the mailing for A/B testing, the summary mailing tab provides a link to the A/B test configuration settings. The link to the A/B configuration settings is available only after you enable the mailing for A/B testing.



## Configuring an A/B test

To configure an A/B test, you specify the recipient sample sizes, content variations for each test split, test sequence, and the test evaluation criteria.

Before you can configure an A/B test, you must enable the mailing for A/B testing. If the mailing is already configured for A/B testing, a summary of the configuration settings displays in the Mailing Components section of the summary mailing tab.

If a document used in the A/B test includes constant personalization fields, you must define values for the fields after you save the A/B test configuration. Typically, you define values for constant personalization fields after you reference a document that contains constants with a mailing. However, when you enable a mailing for A/B testing, you can associate documents with the mailing only through the test splits for the A/B test. Therefore, you cannot define values for constant personalization fields until you save the A/B test configuration.



**Note:** Text-only email does not support A/B testing. Select documents that provide only an HTML message.

If the evaluation of recipient responses results in a tie between splits, the system declares the first split in the A/B test configuration as the winner.

Use the following steps to configure the A/B test or to update the current A/B test configuration.

1. On the summary mailing tab, click **Configure** to open the A/B Test Configuration window.
2. Specify the size of the recipient sample for the test versions of the email.

Each test split sends a version of the email to a portion of the overall recipient list. You specify the portion as a percentage of the total recipient list. The system randomly selects recipients from the list to add to each test split. Recipients in different splits see different versions of the email message.

3. Select the email design or content variations to test. For each variation, add a test. A test is equivalent to a test split. You can add between two and five test splits to an A/B test.

For each test split, specify the following.

- **Test name** Each test must have a unique name.
- **Document** Select the document that contains the email design or content that the system sends to the test split. You can select only one document in a particular split, but you can select different documents for each split in the A/B test.

Select a document that provides only HTML content. Text-only email documents do not support A/B testing.

- **Multi-content** If the document includes zones that contain multiple content elements, click **Edit** to select which content variant to display in the test split.



**Note:** Content that is controlled by personalization rules is not available for selection in an A/B test and does not appear in the **Multi-content** field.

Preview the email for each split to see an example of the message that is sent to recipients in the split during the A/B test.

4. Specify the split evaluation order. Click   to change the sequence. Move a split up to run earlier.

If there is a tie between splits, the first split to run is declared the winner.

5. Specify how long the A/B test must run by indicating when the system evaluates test results. The system evaluates responses received up to the time you specify.

You can specify a test duration or select a specific date and time when the system evaluates responses and transmits the winning version of the email.

Date and time options are set according to the system time for the server on which Campaign and Deliver are installed. The server time might be different from your local time. The current server time displays next to the date option on the A/B test Configuration page.

6. Specify the criteria that the system must use to determine which version of the email to send to the remainder of the mailing list. This version of the email is considered the winner of the A/B test.

You can select only one of the following.

- Maximum unique views
- Maximum unique clicks
- Minimum unique complaints

When you save the A/B test configuration, a summary of the configuration displays in the Mailing Components section of the summary mailing tab. You can update the evaluation time and evaluation criteria at any time up to when the system begins to send the winning email.

The Mailing Components section displays a breakdown of the number of recipients in each test split. If you did not reference a recipient list to the mailing, the number of recipients in each split is zero. However, the portion of the total list that you selected for each split displays as a percentage.



If any of the documents that are specified in the A/B test contain constant personalization fields, you must define values for the constant personalization fields. Define the constants on the mailing tab. The mailing tab cannot list the constant personalization fields that you must define until you configure and save the A/B test.

## Contents of the A/B Test Configuration page

The A/B Test Configuration page provides settings to specify test splits and parameters that are required to send a mailing as an A/B test.

### Configure A/B tests

Field	Description
Percent of recipients for each test	The size of each test split. For each split configured in the A/B test, a portion of the email recipients receives a different version of an email message. You specify the size of

Field	Description
	the recipient sample here, as a percentage of the total number of recipients in the list. The percentage is the same for all splits.
Percent of remaining recipients	The portion of the recipient list that is not associated with a test split. Recipients that are not associated with a test split receive the winning version of the email.
Test splits (table)	<p>Configure test splits by using the settings available in the table.</p> <p> Delete the test split</p> <p> Change the run order of the test splits.</p> <p># The number of the test split.</p> <p><b>Test Name:</b> Enter a unique name to the split.</p> <p><b>Document:</b> Select a document that contains the layout, content, or subject line that you want to test. The list includes all published email communications that are not currently used by other mailings.</p> <p><b>Multi-content:</b> Click <b>Edit</b> to select a content element to test. The Configure Multi-content window displays thumbnail versions of the content that you can select if the document contains zones with multiple content elements. Elements that are controlled by personalization rules do not display. For each zone, select the content that you want to include in the email that is sent with test split.</p> <p><b>Preview:</b> Click to preview the version of the document that is sent with the test split.</p>
Evaluate test results	Specify how long the system waits after you start the A/B test before it evaluates recipient responses. Select a test

Field	Description
	duration (measured in hours) or select a specific date and time.
Winning criteria	<p>Select the method that the system uses to evaluate recipient responses and determine the winner of the A/B test.</p> <ul style="list-style-type: none"> <li>• <b>Maximum unique views</b> The number of different recipients who opened the email.</li> <li>• <b>Maximum unique clicks</b> The number of different recipients who clicked at least one link in the email.</li> <li>• <b>Minimum unique complaints</b> The number of different recipients who reported the email as spam or asked to unsubscribe.</li> </ul>

## Starting an A/B test

You can start an A/B test immediately or schedule the test to begin later. When the A/B test begins, the test splits run sequentially, in the order in which they are listed in the A/B configuration.

Before you can start an A/B test, you must first enable a mailing for A/B testing and then configure the A/B test for the mailing. The A/B test configuration specifies several test splits. You also configure when the system evaluates the recipient responses to the split tests.

You can generate a deliverability report for each test split and for the winning split. If you intend to run deliverability reports, select "Include seedlist for Deliverability monitoring" checkbox when you start or schedule the A/B test. The system uses the same deliverability List for all of the splits, including the winning split.

- To start an A/B test immediately, click **Send This Mailing** on the summary mailing tab.

Complete the mailing confirmation checklist.

The first split that is configured in the A/B test begins to run immediately.

- To run the A/B test later, click **Schedule This Mailing** on the summary mailing tab.

A wizard opens to create the mailing schedule. Complete all scheduling preparations that are required for a scheduled mailing and complete the mailing confirmation checklist.

The first split that is configured for the A/B test starts at the date and time you scheduled the mailing to start. However, the system evaluates the recipient responses according to the evaluation schedule specified in the A/B test configuration.

## Evaluate the progress and results of an A/B test

You can monitor the progress and observe the results of an A/B test with various interfaces and reports. Test results might change during the progress of the A/B test as the system sends email and recipients respond to them.

You can evaluate an A/B test in the following ways.

- Monitor A/B test status on the mailing tab
- Monitor A/B test progress with the A/B Test Performance Report
- Monitor an A/B test as a scheduled task
- Monitor A/B test status changes in the Mailing Execution History Report

Deliver performance reports, such as the Detailed Link, Detailed Link by Cell, and Detailed Bounce reports, provide additional data for link clicks and responses that are related to the email messages sent as part of an A/B test.

## Monitoring A/B test status on the mailing tab

When the A/B test begins, you can view the progress of the test in the Mailing Execution and Status section of the summary mailing tab. Until the winner is determined and the mailing completes, the system displays a status for each test split and the winning variation.


When the mailing completes, the Mailing Execution and Status section displays the start and finish time and the date for the A/B test.

When you configure an A/B test, the Mailing Components section of the summary mailing tab displays a table that describes how the A/B test configuration. The recipient

list summary graphic indicates the test split size and how much of the recipient list is configured to receive the winning email.

The mailing tab summary of the A/B test configuration contains the following information.

**A/B test configuration summary on the mailing tab.**

<b>Field</b>	<b>Description</b>
#	The number of the test split. If the evaluation of recipient responses results in a tie, the system declares the first split in the list as the winner.
<b>Test Name</b>	The name of the split.
<b>Document</b>	The email document that contains the layout, content, or subject line to be tested. Provides a link to the communication in the Message Editor, where you can edit the document.
<b>Multi-content</b>	Indicates that zones in the document contain multiple content elements that might be displayed in various ways as part of the A/B test. The system displays a warning  if the content changes.
<b>Preview</b>	A link to preview the version of the email that is sent as part of the test split.
<b>Deliverability Report</b>	If you select "Include seedlist for Deliverability monitoring" checkbox when you start the A/B test, this link becomes active and opens a deliverability report for the test split. Because the system receives email delivery responses over time, the report results can be different each time you run the report.
<b>Evaluate test results</b>	Before the test begins, this field indicates when the system evaluates recipient responses. When the test finishes, this field indicates when the system declared a winner.

Field	Description
<b>Winning criteria</b>	The criterion that the system uses to evaluate recipient responses and declare a winner of the A/B test.

## Monitoring A/B test progress in the A/B Test Performance Report

You can run the A/B Test Performance report at any time, even after the system sends the winning email version. The A/B Test Performance report continues to record recipient responses to email after the system sends the winning version of the test.

To monitor the progress of the A/B test, run the A/B test report and observe the current values.

As the A/B test runs and the system sends email to recipients in each test split, the system updates the values for messages sent. As recipients respond to the mailings, the system updates the results for received messages, message views, link clicks, and email abuse complaints. When the system evaluates the results, it also updates the reports with the scores for each test split.

After the winner is determined and the winning email is sent to the recipient list, the system continues to record responses. Because the system continues to update responses to the A/B test, the values in the report can change over time. The report values, including test scores, can be different from values that are contained in earlier runs of the report.

## Monitoring an A/B test in the Mailing Execution History Report

You can run the Mailing Execution History Report for a mailing that runs as an A/B test at any time, including before the winning mailing run completes. If you run the report before mailing of the winner completes, the Status column indicates whether tests are currently running or if the A/B test has completed.

To view the status of an A/B test in the Mailing Execution History Report, open the mailing that is enabled for A/B testing and click **View Mailing Execution History** at the bottom of the mailing tab. View the current status of the A/B test in the Status column.



## Monitoring an A/B test as a scheduled task

An A/B test runs as a scheduled task. All variations, including the winning variation, are listed on the Schedule Definitions page.

1. Go to **Settings > Scheduled Tasks > Schedule Definitions**.
2. To view the status of the scheduled task for the A/B test, click **View Scheduled Runs**.  
The mailing name displays in the Scheduled Item column.

The Status column indicates whether the scheduled task succeeded, is running, or if it failed.

You can sort results for every column.

## Declaring the winner of the A/B test

The system declares a winner by evaluating the responses received up to the evaluation deadline that is specified in the A/B test configuration. The winning email is the version that best satisfies the specified evaluation criterion. For maximum views or clicks, the version with the greatest number of responses is the winner. For minimum complaints, the email with the fewest responses wins.

If the test results in a tie between splits, the split that is listed first in the A/B test configuration is the winner of the test. For example, in an A/B test that involves five splits results in a tie between splits 2, 4 and 5, the system declares split 2 the winner.

The system continues to accept and record email responses after the winner is declared and the mailing is complete. You can view the additional results by running the A/B Test Performance report.

## Sending transactional messages

A transactional message is a single message that is sent in response to a specific, predetermined transaction that is detected in your business systems. Transactional messages tend to have higher open rates than other types of marketing message. Message recipients are more likely to open a message that is related to a transaction they recognize or expect than they are to open an unsolicited message. Unica provides the Deliver

Transactional messaging Service (TMS) as a hosted web service to process transactional messages.

Unica Journey uses Deliver transactional messaging service to deliver messages sent from Journey. For more information on how to integrate Unica Journey with Unica Deliver, see the Unica Journey Administrator Guide.

Sending transactional message requires developing locally installed transactional message client software that integrates your transaction monitoring systems and marketing databases with Deliver elements in Campaign and with the Deliver TMS hosted by Unica. Digital marketers use Campaign and Deliver to configure messages and enable messagings for transactional message. Application developers in your organization create the transactional message client software.



**Note:** Transactional messages do not support constant personalization fields. Transactional message requests fail if the messaging that you enable for transactional message also defines constant personalization fields.

HCL Unica begins to transmit messagings in the order in which you submit each messaging run request. Transactional message might be delayed on some occasions if you send large messagings frequently from the same domain. To avoid possible delays, you can request that Unica assign priority fulfillment for your hosted domains.

For more information about how to integrate your transaction systems with Deliver, see the Unica Deliver Transactional Message Administration Guide.

## About using Deliver to send transactional message

To use Deliver to send transactional message, digital marketers consult with application developers to complete the configuration and programming work required to send transactional message.

The digital marketing team determines which transactions require an automated message response, create the appropriate message and attachments, and enable a mailing for transactional message. Application developers create a client application that processes

transaction notifications, retrieves personalization data from marketing databases, and submits transactional message requests to the Deliver TMS.

Every transactional message is based on a standard Deliver mailing that references the appropriate message and personalization information. To use the standard mailing to send a single message in response to a transaction, you must enable the mailing for transactional message.

You can enable any standard Deliver mailing for transactional message. After enabling a mailing for transactional message and configuring a transactional message client to submit web service requests, sending transactional message requires no further manual intervention. However, the mailing remains available for execution as a standard or scheduled mailing.

Transactional email messages can include attachments to provide the email recipient with additional personalized information. For example, to confirm purchase of a concert ticket, the transactional email can include a printable version of the ticket and a seating map. Deliver supports email attachments only with transactional email. You cannot attach documents to standard email messages.

Consider the following points when preparing to send transactional messages.

- What event triggers the transactional message?
- What information is required to respond to the transaction?
- What recipient contact and personalization information is required?
- Do you need to include attachments with the transactional message?
- Has the application development team finished configuring the local transactional message client that submits the web service request required to send the transactional message?

## Error messages for transactional email

The Deliver Transactional Mailing Service returns error messages and related codes.

The error messages that are described in the following table apply only to transactional email and transactional email requests.

Message	Description	Code
INVALID_LOGIN	The authentication credentials (user name, password, or both) provided during the call to the Deliver TMS do not match the credentials on file with Unica for your account. Review the <b>userName</b> and <b>password</b> parameters to ensure that the credentials have been specified correctly.	1
UNRECOGNIZED_MAILING_CODE	The mailing identified by the mailing code included in the call to the Deliver TMS is not enabled for transactional email. Check the mailing configuration to verify the code. Review the <b>mailingCode</b> parameter to ensure that the code has been configured correctly. The mailing code included in the call to the TMS does not match a transactional mailing. Check the mailing to verify the code. Review the <b>mailingCode</b> pa-	2

Message	Description	Code
	parameter to ensure that the code is correct.	
RUNTIME_EXCEPTION_ENCOUNTERED	The email request encountered an unexpected runtime exception. Contact Unica support.	3
ENVIRONMENT_EXCEPTION_ENCOUNTERED	The email request encountered an unexpected environment exception. Contact Unica support.	4
SMTP_CONNECTION_FAILURE	The connection to the SMTP server failed. Contact Unica support.	5
DOCUMENT_NOT_DEFINED_FOR_SPECIFIED_MAILING	The mailing enabled for transactional email does not reference an Deliver document. Examine the mailing configuration. The mailing configuration must reference an email document that defines the contents of the email message. The mailing does not include an email.	6
EMAIL_FAILED_TO_SEND	The email message was not transmitted successfully. You can try again or contact Unica support.	7

Message	Description	Code
REQUIRED_PFS_MISSING	The email request did not specify names and values for all of the personalization fields required by the mailing. Confirm that the web service request defines all personalization fields used in the email document. The mailing configuration contains a link that lists all of the required personalization fields. The email request did not specify names and values for all of the fields that are required by the mailing. Confirm that the web service request defines all fields that are used in the email. The mailing lists all of the required fields.	8
AUDIENCE_ID_MISSING	The request does not include an audience ID. Confirm that the web service request defines a value for the <b>audienceID</b> parameter.	9
ATTACHMENT_NUMBER_MISMATCH	The number of attachments defined in the mail-	12

Message	Description	Code
	<p>ing does not match the number passed in the web service request. Review the mailing configuration and the web service request. The mailing configuration and web service request must specify the same number of attachments. The number of attachments that is defined in the mailing does not match the number that is passed in the web service request. Review the mailing and the web service request. The mailing and web service request must specify the same number of attachments.</p>	
ATTACHMENT_SIZE_EXCEEDED	<p>The size of one of the attachments exceeded the maximum allowed attachment size. Individual attachments cannot exceed 1 MB.</p>	13
TOTAL_ATTACHMENT_SIZE_PER_MESSAGE_EXCEEDED	<p>The total size of all attachments in the request exceeded the maximum</p>	14

Message	Description	Code
	total attachment size per message. The total size of all attachments cannot exceed 2 MB.	
TMS_MAILING_ATTACHMENTS_LABEL_NOT_FOUND	A label provided in the <b>attachments</b> parameter (typically to identify a dynamic transactional image) is missing or does not match the label contained in the email document. NOTE: Attachment labels are case-sensitive; labels entered in the web service request must exactly match the label as entered in the mail document. A label that is provided in the <b>attachments</b> parameter (typically to identify a personalized image) is missing or does not match the label in the email. NOTE: Attachment labels are case-sensitive; labels in the web service request must exactly match the label in the email.	15



Message	Description	Code
TMS_MAILING_ATTACHMENTS_LABEL_DUPLICATED	A label provided in the <b>attachments</b> parameter (typically to identify a dynamic transactional image) appears multiple times in the web service request. In the web service request, attachment labels must be unique. A label that is provided in the <b>attachments</b> parameter (typically to identify a personalized image) occurs multiple times in the web service request. In the web service request, attachment labels must be unique.	16

## What digital marketers do for transactional messages

Using Deliver to send transactional message requires advance preparation and coordination between the digital marketing team and application developers responsible for your corporate transactional systems.

The following table lists typical activities that a digital marketer performs to prepare a messaging for transactional message.

### Responsibilities for digital marketers.

Activity	Description
Identify the type of transaction that will initiate a transactional message request.	Confirm with the application development team that transaction systems

<b>Activity</b>	<b>Description</b>
	can detect the transaction event that must trigger the email.
Compose and publish the Deliver document that you want to use for the transactional messaging.	Compose a Deliver document for transactional message in the same way as you would any other Deliver document.
Fully configure the messaging that you plan to enable for transactional email. In the configuration, indicate if transactional email includes attachments.	Reference the document that you have created for the transactional email. If you are including attachments, specify the number of attachments.
Identify all personalization fields used in the document. The mailing tab includes a list of personalization fields used in the document.  Provide the names and personalization field definitions to the application developers.	Application developers need to configure the transactional message client application to provide personalization information.  Each transactional message request web service request must specify the personalization field names and values as name-value pairs and specify the required data type.
Provide application developers with the mailing code for the messaging that you intend to enable for transactional message.	Developers require this information to identify the messaging for the Deliver TMS.
Determine if the transactional email includes attached files. If you use dynamic transactional images, add placeholders for the attachments in the email document that defines the transactional email message.	Consult with application developers regarding the number and size of the attached files. Agree on the labels to be used to identify dynamic transactional images.

Activity	Description
<p>Enable the messaging for transactional message, using links on the mailing tab.</p> <p>Confirm that developers have finished configuring the local transactional message client before you enable the messaging for transactional message.</p>	<p>The Deliver TMS begins accepting message requests immediately after you enable the messaging for transactional message.</p>

## Transactional messaging and standard messaging compared

Deliver constructs and sends transactional messages differently than it does standard personalized message. During a standard messaging run, the system processes potentially large volumes of individually personalized messages. However, for transactional message, Deliver performs the same personalization operations for multiple web service requests, but each request processes only one message at a time.

You can enable any standard Deliver messaging for transactional message. Most messaging features available to standard messagings remain available when you enable the messaging for transactional message. Content elements available in standard message, such as personalization fields, text, images, HTML snippets, and hyperlinks are also available in transactional email message. However, some differences exist in the messaging features available in standard and transactional message.

The following table compares key features available in standard and transactional email message.

### Comparison of features in standard messagings and transactional messagings.

Feature	Standard messaging	Transactional messaging
Transmit HTML, HTML and text, and text-only versions.	X	X
Output List Table (OLT) to specify personalization data	X	Not used.

Feature	Standard messaging	Transactional messaging
	OLT contains all recipient data used to personalize email.	Can be used for testing.
OLT personalization fields	X	X
Built-in personalization fields	X	X
Constant personalization fields (constants)	X	X
Conditional content	X	X
Advanced scripting for email	X	X
Message preview	X	X  Preview not available for attachments.
Messaging results appear in standard Deliver performance reports	X	X
Track links in email messages	X	X
Tracking Audience ID as a contact attribute	X	X
Use personalization fields for contact tracking	X	X
Additional URL parameters for link tracking	X	X
Global email suppression	X	
Email attachments		X

## About transaction events

You can configure a transactional email to respond to any activity that your transaction management systems can detect. Deliver considers such an activity to be transaction events. Typical transaction events include purchases, customer enrollment for a service or newsletter, information requests, or customer account updates.

Transaction events are not limited to database transactions or actions initiated by the recipient of the email. For example, you can send a transactional email when an individual initiates the action by placing an order. However, you can also send a transactional email when your organization initiates the action by shipping the customer's order or issuing an account status message. Any business activity that your organization considers a marketing opportunity can be a transaction event.

## About responding to errors related to transactional email

Sometimes a transactional email message does not transmit as expected. The failure could be due to problems with the message configuration or temporary problems with mailing resources. If the Deliver TMS determines that a problem exists, the web service returns an advisory error code to the local transactional email client.

The local transactional email client is responsible for error handling. Application developers must design the client to recognize the error messages that the Deliver TMS might return. For a list of error codes in the Deliver TMS, see [Error messages for transactional email \(on page 191\)](#).

All parties must be prepared to respond to unforeseen email problems. If the problems relate to mailing configuration or message design, application developers might call on the digital marketing team to resolve the issue.

## Communications that are used with transactional message

You compose a communication for transactional message just as you would to create a communication for standard messagings. Like communication that are used with standard messagings, a communication that is used with transactional message defines the content of the email message.



**Important:** After you enable a messaging for transactional message, you cannot delete or change the communication that is referenced by the messaging. To edit the communication, you must disable the messaging for transactional message. You can re-enable the messaging for transactional messaging after you complete the changes.

Communications that are used for transactional message require the following.

- The communication must contain personalization fields for the email address or phone number or WhatsApp number, and usually contains fields that provide the name of the recipient.

You can incorporate other personalization fields in the message as necessary to suit the transaction.

- Provide application developers with a list of the personalization fields contained in the message and the type of values expected for each field.

The mailing tab provides a link to generate a list of the personalization fields contained in the communication that is referenced by the messaging.

- The communication must contain a `From` address or that is displayed to the recipient.

If you use a personalization field to specify the `From` address, the email domain of the address must match the email domain registered with Unica for your Deliver account.

As a best practice, preview the communication that defines the message and fully test the messaging configuration.

## Recipient data selection for transactional message

Transactional messages do not rely on data that is contained in an OLT to populate personalization fields in the message. Instead, the local transactional message client application retrieves recipient-specific information that is required by a transactional message directly from your marketing databases. The client application must be able to access the databases that contain the required personalization data.

The local transactional message client must provide a value for every personalization field that is defined for the messaging, including fields that are used for additional contact and link tracking. Digital marketers must work with the application developers to identify all personalization fields that are required and ensure that the client can provide a value for each field.

For more information about how to configure transactional message that includes recipient-specific information, see the Unica Deliver Transactional Message Administration Guide.

## Personalization fields used in a transactional message

The local transactional message client identifies each personalization field as a separate name-value pair in the web service request that it submits to the hosted transactional messaging service. The client application must specify the name of each personalization field that is contained in the message. The client must also access the business systems and databases that provide the required personalization values.

The messaging that you enable for transactional message must reference a corresponding document. The document provides the structure and content of the transactional message. The document also includes the names of the personalization fields that are included in the message. The personalization fields are added to the document as placeholders that accept specific information about the recipient when the messaging service assembles and transmits the message.

The Summary Mailing tab provides a field that is labeled **Complete field list for this mailing** to identify the personalization fields that are included in the document that is referenced by the messaging. The web service request must contain information for each of the fields on the list. The names of the personalization fields in the web service request must exactly match the names that appear in the document.

The web service request must also provide the data that is required to complete the message, including values for each personalization field that is included in the message. The digital marketing team must consult with application developers to identify and locate all of the information that the transactional message client must provide.

The transactional messaging service evaluates each web service request to determine if the request provides all of the name-value pairs that are required by the transactional message.

The request fails if the personalization field names, values, or data types do not match the requirements for the message.

## Personalization fields for additional link or contact tracking in transactional message

If you request that Unica perform additional link or contact tracking, every transactional message request must include the name and value of personalization fields that are used for additional tracking.

The web service request for transactional message must include parameters that specify the name and value of the tracking personalization fields. The digital marketing team must provide application developers with the following information.

- Names of the tracking personalization fields
- Expected personalization field values and data types
- Format or length restrictions

Deliver does not validate the uniqueness of the fields you specify for additional tracking. To distinguish additional tracking data for transactional message from data that is collected for standard message, establish internal procedures or naming conventions to ensure unique personalization field names. Avoid specifying the same personalization field name for link or contact tracking in standard messagings and transactional messagings.

## Global message suppression and transactional message

Unica Deliver does not apply global email suppressions to transactional message requests.

To avoid violating laws regarding unwanted email delivery, such as CAN-SPAM, you must make your transactional systems aware of email addresses that must not receive email.

Preventing transmission of transactional email to incorrect or unsubscribed addresses can also avoid deliverability problems caused by recipients that mark the transactional email as unwanted email.



## Attached files for transactional email

The Transactional Mailing Service (TMS) supports attaching files to transactional email messages. When you enable a mailing for transactional email, you must specify how many attachments you want to send with the email message. Deliver places limits on the size of individual attachments and the total size of all attachments.

The transactional email request submitted to the TMS must contain the document content and information about each attached document. The email marketing team must work with application developers to provide the following information about each attachment.

- The filename of the attachment
- MIME content type of the file
- Contents of the file

The method used to include attachments depends on the programming language and development tools that application developers use. For more information about how to provide attached content, see the *Unica Deliver Transactional Email Administration Guide*.

## About enabling messagings for transactional message

Transactional messages are based on standard messagings that have been enabled for transactional message. You enable a messaging for transactional message in Campaign, on the Summary Mailing tab. Consult the **Deliver Mailings** page to see which messagings are enabled for transactional message.

You can enable any Deliver messaging for transactional message. The transactional message request fails if you have not updated the messaging configuration to enable the messaging for transactional message. However, even after you enable a messaging to send individual messages as transactional message, you can run the same messaging as a standard messaging to perform a messaging campaign involving a large volume of messages.

Each transactional message request must include the mailing code that identifies the messaging. When you enable a messaging for transactional message, note the mailing

code and provide it to application developers responsible for configuring the local transactional message client.

If you are attaching files to the transactional email messages, the messaging configuration must specify the number of attachments. Every transactional email message receives the number of attachments you specify. The number of attachments entered in the messaging configuration must match the number configured in the web service request submitted to the Deliver TMS. The attached files are sent only with transactional email. Deliver does not support sending attachments when you run a standard messaging, even if the messaging is also enabled for transactional email.

You can disable the messaging for transactional message at any time. For example, you must disable a messaging for transactional message to change the messaging configuration. The Deliver TMS does not accept transactional message requests while the messaging is disabled for transactional message.

As a best practice, before you enable a messaging for transactional message, fully test the messaging and preview the Deliver document the messaging references. Make certain that the messaging and the message meet your expectations and business objectives.

## About editing messagings that are enabled for transactional message

To edit a messaging that is enabled for transactional message, you must disable the messaging for transactional message before you begin.

After you finishing editing the messaging, you must re-enable the messaging for transactional message. During this process, the Deliver TMS does not respond to transactional requests for the disabled messaging. The local systems that monitor transaction events must be designed to temporarily store the message requests until you re-enable the messaging for transactional message.

## About system delays when changing transactional message status

When you enable or disable a messaging for transactional message, the Deliver TMS requires a short delay to change status.

Allow time when disabling messaging for transactional message before updating the messaging or editing associated documents and lists. It typically takes about 60 seconds for the system to complete the disabling process and stop processing transactional message requests.

The system experiences a brief delay when you start or restart sending transactional message. It takes approximately 60 seconds for the TMS to completely enable the transactional message features and begin processing transactional message requests.

## About avoiding constants in mailings enabled for transactional message

Transactional messages do not support using constant personalization fields, which are also referred to as constants.

If the messaging referenced in the transactional message request defines constants in the messaging configuration, the web service request fails. Perform the following checks before you enable a messaging for transactional message.

- Review the messaging configuration to ensure that the messaging does not define constants.
- Examine the document referenced in the messaging configuration to ensure that the document does not contain constant personalization fields.

## Identifying personalization fields used in a document

From the Summary Mailing tab, you can generate a list of personalization fields used in the document referenced by the messaging.

If you use the messaging for transactional message, you must provide this list to application developers responsible for integrating corporate transaction applications with Deliver.

In the Deliver Document section of the Summary Mailing tab, click the **See complete field list for this mailing** link .

The list of fields appears in a drop down list. The list identifies every personalization field contained in the document.

## Enabling a messaging for transactional message

You can enable any Deliver messaging for transactional messaging.

Before you begin, confirm that application developers have finished configurations required to submit a transactional message request to the Deliver TMS. Preview the Deliver document that defines the message to verify that the message design is correct and complete.

1. Select the messaging that you want to enable for transactional messaging.
2. On the **Mailing** tab, click **Enable Transactional Mailing**.  
The system displays a validation dialog box.
3. If the transactional version of the messaging includes attachments, specify the number of attached documents in the **Number of attachments expected** field.

Ensure that the number you enter here matches the number of attachments specified in the transactional email client application. By default, the number of attachments expected is zero.

4. Complete the validation and click **Enable Transactional Mailing**.

The transactional messaging run starts and the system automatically processes the transactional message requests as they are received.

## Disabling a messaging for transactional message

To stop Deliver from accepting transactional message requests for a particular messaging, you can disable the mailing for transactional message. You can re-enable the messaging for transactional email later.

For example, to edit the document referenced by the messaging, you must temporarily disable the messaging for transactional message. You can re-enable the messaging for transactional message when you have finished editing the document.

1. Select the messaging that you want to disable for transactional messaging.
2. On the Mailing tab, click **Disable Transactional Mailing**.

The current transactional message run stops and the Deliver TMS stops accepting transactional message requests for this messaging.

You can re-enable the messaging for transactional message at any time after the messaging has been fully disabled for transactional message.

## Messaging monitoring and management

When you start a messaging run, the Mailing Execution and status section of the Mailing tab expands to display additional fields to monitor the progress of the messaging as Deliver transmits the personalized message.

The expanded interface also displays log messages that can alert you to potential problems with the messaging run.

After the messaging run completes, when you exit the Mailing tab, the Mailing Execution and Status section returns to its pre-execution state and execution information is no longer visible on the tab.

The Mailing tab provides a link to the Mailing Execution History report. When the messaging completes, you can view this report to view execution information that is no longer displayed on the Mailing tab.

## Information available about mailing execution and status

The mailing tab includes a section that provides information that you can use to monitor a messaging run, and pause the run if necessary.

Field	Description
Mailing status message	The system displays a brief statement describing the current status. For example, "The mailing is being sent to the Production Recipients."
Started by	The user name of the user that started the mailing.

Field	Description
Start Time	The date and time when the mailing started.
End Time	The date and time when the mailing completed.
Duration	Elapsed time from the messaging start time to the present, or to when the messaging completed.
Progress	Compares the number of messages sent to the total number in the messaging.
Console Error Messages	Count of error messages recorded. To view, expand the log console.
Console Warning Messages	Count of warning messages recorded. To view, expand the log console.
Sent	Number of messages sent.
Failed	Number of messages that were not delivered.
Progress bar	Provides a graphical representation of the number of messages sent, compared to the total number of messages in the messaging. Completion is expressed as a percentage of the total.
Mail Merge Resource Details	<p>Displays the number of mail merge engines (MME) assigned to the messaging. For each MME, the expandable display lists:</p> <ul style="list-style-type: none"> <li>• Number of messages sent and failed</li> <li>• Current® transmission rate</li> <li>• Number of warnings and errors recorded</li> </ul>
Log Console	Displays a total count of errors and warnings recorded. The expandable display lists messages logged, including date and time recorded. New messages replace the previous ones.

Field	Description
Pause This Mailing	Click to temporarily suspend message transmission. To stop the mailing completely, you must click this first.

## Current execution status

The Mailing execution and status section of the mailing tab provides information about the execution status of the messaging. If you have scheduled the messaging, this section displays schedule information and status.

### Current execution status

A brief statement at the top of the section indicates if the messaging has been sent yet. For example, after you execute a messaging, this message changes from **This standard mailing has not been sent** to **Production mailing has completed**.

### Scheduled mailing status

When you have enabled the messaging for scheduling the Mailing Execution and status section displays the following schedule information.

- The **Enable Scheduling** link changes to **Scheduling Enabled**.
- The **Disable Scheduling** link displays.
- The mailing tab displays the trigger value required by the messaging schedule.

## Accessing execution history

The Mailing tab provides a link to the Mailing Execution History report. This report captures many of the statistics available during the messaging run.

When the messaging completes, you can view this report to evaluate how the messaging executed. The report contains links to other reports that you can review for further analysis of the messaging results.

To view the report, click **View Execution History** after the messaging run finishes.

## Pausing a messaging

When you pause a messaging, Deliver temporarily stops sending personalized message. To avoid dropping messages, the system finishes sending messages that are already in process.

The Mailing Execution History report records that the messaging was paused during messaging execution.

When you execute a messaging, Deliver sends messages to addresses contained in the recipient list referenced in the messaging configuration, starting from the beginning of the list. When you pause the messaging, the system notes how far it has progressed through the list.

In the Mailing Execution and status section of the mailing tab, click **Pause This Mailing**. The Mailing Execution and Status section indicates that the messaging is paused and displays messaging statistics collected up to the point where you paused the messaging.

## Stopping a messaging

You can completely stop transmission of messages during execution of a production messaging. Stopping a messaging is a two-step process.

To stop a messaging, you must first pause the messaging to allow completion of messages being processed. After the messaging has paused, you can stop the messaging permanently.

1. In the **Mailing Execution and Status** section of the mailing tab, click **Pause This Mailing**.
2. Wait for the message in the Execution and status section that the messaging has paused. Click **Abort the send**.
3. When prompted to confirm the stop, click **OK**.

Selecting this permanently cancels the messaging.



## Resuming a paused messaging

When you resume a paused messaging, Deliver begins sending personalized message to the remaining individuals contained in the recipient list referenced by the messaging.

In the Mailing Execution and Status section of the mailing tab, click **Continue Sending This Mailing**.

In the Mailing Execution and Status section of the mailing tab, click **Continue Sending This Mailing**.

# Chapter 7. Hosted landing pages for personalized messaging

Landing pages in Deliver are personalized web pages and online forms hosted by Unica that you can link to personalized marketing messages that you send with Deliver. You create and maintain landing pages using the same composition and personalization features that you use to create personalized messages. You can also configure hosted landing pages as online forms to solicit and accept responses from message recipients.

Landing pages hosted by Unica allow you to continue interacting with your customer after the message is received. Through landing pages, you can provide additional information, offer more options, and to solicit input. Because Unica hosts the landing pages, you do not need to rely on your corporate information technology staff to maintain the pages.

Unica tracks who visits the pages and the links that page visitors open. Results for link clicks in hosted landing pages are available in standard Deliver link reports.

You create personalized landing pages with the Deliver Message Editor by modifying an HTML template that defines the layout of the page. Zones that are defined in the template accept various types of content, including images, links, and HTML snippets. You can also add personalization fields to zones in the landing page template or embed personalization fields directly in the HTML template code for the page. To create conditional content on the landing page, you can build personalization rules around the personalization fields that you add to the page.



**Note:** Landing pages do not support personalization methods available in advanced scripting for email.

When you add a View as Web Page link to an email, Deliver automatically creates a copy of the email as a hosted landing page. You can also manually save an email as a hosted landing page to provide email recipients with an option to view the email as a web page.

## Creating a landing page

A landing page in Deliver is a web page that Unica maintains in its hosted messaging environment. You can link various messages to the landing pages that you create. To create a landing page, you add an HTML template to a landing page communication in the Deliver Message Editor.

1. In the Message Editor, create a new Landing Page communication.

The new communication displays in the editing pane as a default communication.

2. Rename the default communication.

3. Add an HTML template to the landing page communication.

The Message Editor renders the blank landing page template in the editing pane when you add the template to the communication.

4. Click **Save Changes**  or **Save Changes As** .

After you create the landing page, use composition and editing tools in the Message Editor to add content, trackable links, and personalization elements to the page. You can also use the landing page to create an online form.

You must publish the landing page to make it available to messages that link to it.

## Personalization fields in landing pages

The system assembles the page based on information provided through personalization fields included in the landing page. Each page view is unique because, through the use of personalization fields, the page displays information specific to the person viewing the page.

When an email recipient clicks a link to visit a personalized landing page or online form, Unica Deliver uses information in the link parameters (which can include personalization fields) to identify and qualify the person making the page request.

Personalized landing pages must be linked to an email that is referenced by an Deliver mailing. The mailing must also reference an OLT. When you reference the email and an OLT to the same mailing, you establish the relationship between the OLT and the hosted landing page that is linked to the email. The personalization field name and type that you

specify in the landing page must exactly match the name and type that is defined for the personalization field in the OLT.

The information used to personalize the landing page reflects the data provided at the time the OLT was last uploaded. Deliver does not automatically refresh the data if the source information changes in your marketing database.


When the email recipient opens the landing page from a link in the email, the system displays personalized content that is based on the personalization field values that were defined in the OLT at the time of the mailing run that sent the email.

## Linking email and landing pages

You associate a landing page with an email by adding a link to the page in the body of the email. You configure the link using the Hyperlink widget in the Message Editor. The link configuration specifies the type of landing page to which you are linking.

Before you begin, verify that the landing page to which you want to link has been created and has been saved in the Content Library.

Simultaneously Creating or editing an email message while simultaneously creating or editing a landing page that is linked to the message can cause conflicts when saving the communications that define them. Save changes in either communication before changing the other document.

1. In the Communications section of the Message Editor, open the email that you want to link to a landing page.
2. Select **Show All Droppable Areas**.
3. Drag the Hyperlink widget  to the zone where you want to create the link.
4. In the Body section, specify whether the link should appear as text or as an image.  
For an image, you can either specify the URL to the image or select an image from the Content Library.
5. In the Link section, select **Landing Page**. Scroll to select the page to which you want to link.

6. If you are linking to a landing page that serves as an online form, select **Submit form**.  
Scroll to select the form in the landing page template that you want to use.
7. Click **OK** to add the link to the email.

## Online forms

You can configure a landing page as an online form to request and receive information from email recipients. The online form can contain various personalized elements to present different options to different people or groups.

The template that you use to create the online form must contain at least one HTML `<form>` tag. The form must also contain appropriately defined HTML `<input>` tags to define the input fields and controls presented to the person using the form. You can define the fields in the template or add and define the input fields using the Message Editor.

A common use for landing page forms is a page that lets a person subscribe, or "opt-in", to your corporate mailings or newsletter. You must design the form to accept the personal, account preference, and address data you require. Alternatively, you can configure an online form to process unsubscribe requests. In the design of an unsubscribe form, you might include a brief survey to ask why the person wants to leave your list or decline your offer.



**Note:** If you configure a landing page as an online form, you must also configure another landing page to act as a submission page to process the form input. However, in Deliver, configuring a Cancel page is optional.

## Working with forms

Linking your email marketing messages to landing pages configured as online forms allow message recipients users to respond to your message. They also allow you to collect valuable and timely input from your customers. HCL Unica receives the form responses and forwards them to your local Campaign installation, where they are saved in the Deliver tracking tables.

Online forms are based on HTML templates that include HTML `<form>` and `<input>` tags. You will need to create another page that will be used to submit the data and confirm to the form user that their input has been accepted.

Configuring email messages and simple or personalized landing pages does not require an extensive knowledge of HTML code and design practices. However, to work with landing page forms, you should be familiar with HTML in general and how to use the `<form>` and `<input>` tags in particular.

## About configuring Deliver landing pages as online forms

You use the Message Editor to design the appearance and content of landing pages used as online forms, as you do with other landing pages. However, for landing pages used as online forms, you must also configure the form inputs. The form inputs, like text fields, radio buttons, and checkboxes, require the HTML `<input>` tag in the template for the page. The form itself is defined using the `<form>` tag.

Using the Message Editor to configure form inputs lets you define the attributes of the `<input>` tag in the underlying HTML template without accessing the code directly. However, you should be familiar with the function and use of the HTML `<input>` tag to perform this configuration.

## About using the `<form>` tag in landing page templates


Templates used for online data entry forms must include an HTML `<form>` tag to specify locations in the page where user data can be entered. A landing page can contain more than one form on a page.

Designing a template that contains multiple forms allows the template designer to mix data input areas with other content elements to present a more logical or intuitive view of the page. For example, in an order entry form, the designer can add a picture, link, or descriptive text next to a series of selections to assist the user when making a choice.

## About configuring form inputs in Deliver

How you configure form inputs determines how Deliver is able to track and identify the input response data.

Online forms define `<input>` tags for every location in the form where a user can enter data or make a selection. Deliver allows the template designer to define the inputs in either of the following ways.

- **Configurable inputs.** Allow the inputs to be configurable by defining droppable areas in the code to let email marketers specify the type and name attributes using the **Form Field**  widget in the Message Editor.
- **Explicit inputs.** Define `<input>` tags explicitly in the template code, including the type and name attributes.

A form template can contain a combination of explicit inputs and configurable inputs.

Deliver identifies input data based on the **Report Field Name** configured for the input used to enter the response. By default, the Report Field Name is identical to the `name` attribute for the input. However, you can edit the Report Field Name for all form inputs, including those defined explicitly in the form template, so that you can specify exactly how to identify input responses.



**Important:** The name you enter for Report Field Name cannot exceed 30 characters.

In Deliver, response data from online forms is stored in the Deliver tracking tables. Deliver identifies the response in these tables based on the name you specify for Report Field Name. The Report Field Name also appears as a selection in the Extract process in Campaign.

For more information about defining form inputs, see [How to code forms for landing page templates \(on page 221\)](#).

## Where Deliver saves response data

In Deliver, response data from online forms is stored in the Deliver tracking tables in the **UCC\_ResponseAttr** table. The Deliver tracking tables are part of the Campaign schema maintained in your Platform installation.

When you configure a form input, the name you specify for **Report Field Name** is entered in a row of the **UCC\_ResponseAttr** table.

For more information about working with this and other Deliver tracking tables, see the Unica Deliver System Tables and Data Dictionary.

## Creating an online form

You can use the Message Editor to create a landing page as an online form. The resulting form can be linked to an email message and allows message recipients to enter information and make selections. The form can contain a combination of configurable inputs.

Before you begin, verify that all required content and an HTML template with the appropriate form elements is uploaded to the Content Library.

Configuring a landing page as an online form involves the following actions.

- Create the online form.
- Link the input form to a submission form.



**Note:** To complete these tasks, you must be familiar with HTML coding practices and understand how to use HTML form field tags.

1. Create a landing page communication and select the template that contains the form.
2. Configure the form inputs. Repeat this step for each input defined in the form.
  - For inputs added to zones in the template, see [Configuring inputs added to droppable areas \(on page 223\)](#).
  - For inputs defined explicitly in the template, you can review the input mappings contained in the template.

To review the mapping, click **Add/Edit form mappings** . You can change the default name for **Report Field Name** in the **Report Field Name** column of



the Form Mappings window. All other columns in this window are read-only. To make other changes, you must modify the HTML template file directly.



**Note:** The Form Mappings window does not list inputs configured in zones with the Form Field widget.

3. Click **OK** and save the communication.

After you create the form, you must link it to a submit page. For details, see [Specifying a submission form \(on page 224\)](#).


## How to code forms for landing page templates

You can configure landing page forms that collect data from your customers and store that data in the Deliver tracking tables.

The HTML template for the landing page must include a fully defined `<form>` tag with all required attributes, including the `name` attribute. Without a `name` attribute that is specified for the form, you cannot configure the submit function from the landing page.

### Two ways to configure inputs (form fields)

While the form must be defined, the inputs (fields) for the form can be defined in either of the following two ways:

- Option 1: Define both the form and all the inputs (form fields) completely in the HTML template. With this option, you would also create a droppable area for the submit option. When people use this template, they check input values to fields and configure the submit option, but they do no additional formatting of the form fields.
- Option 2: Define the framework of the form in the HTML template. You create and name the form. However, rather than create the `<inputs>` for the fields, you configure droppable areas for the field inputs. Create one droppable area for each form field and droppable areas for the submit and cancel functions. When people use the template to create a landing page, they use the **Form Field**  widget to construct the HTML for the `<input>` tags.

## Droppable areas for the submit function

The submit function in a landing page form is managed with a hyperlink to another landing page. Therefore, the HTML template must contain a droppable area that provides a way to access to the submit function.

## Example form templates

The following template creates a form with all the inputs defined (option 1).

```
<form id="mailingPrefs" name="mailingPrefsForm" method="post" action="">
<p><strong>Please update your mailing preferences:</strong>
</p>
<p>&nbsp;</p>
  <p>Would you like to receive offers through email messages?
  Yes
  <input name="optInEmail" type="radio" value="true"
id="optInEmailYes"/>
  No
  <input name="optInEmail" type="radio" value="false"
id="optInEmailYes"/>
</p><br />
  <p>Would you like to receive offers through the mail?
  Yes
  <input name="optInDirectMail" type="radio" value="true"
id="optInDirectMailYes"/>
  No
  <input name="optInDirectMail" value="false" type="radio"
id="optInDirectMailNo"/></p><br />
  <p>Would you like to receive offers through text messages?
  Yes
  <input name="optInSMSText" type="radio" value="true"
id="optInSMSTextYes"/>
  No
```

```

        <input name="optInSMSText" type="radio" value="false"
id="optInSMSTextYes" /></p><br />

</form>

<p><span id="SubmitForm" class="droppable">
[configure Submit Form here]
</span></p>


<p><span id="CancelForm" class="droppable">
[configure Cancel here]
</span></p>

```

## Configuring inputs added to droppable areas

Use this procedure when configuring inputs added to droppable areas defined in an online form template.

The HTML template must contain tags that define droppable areas for the form field inputs. The template must define the input type and input name.

1. Drag the **Form Field** widget  from the palette and drop it in a droppable area.

The Form Field definition window appears. The values displayed in the **Input type** and **Input name** fields match the values specified by the HTML form field attributes in the HTML template you selected.

2. In the Form Field definition window, click the **Input type** field and select a form field type. This field corresponds to the type attribute for the HTML `<input>` tag that creates this form field.
3. In the **Input name** field, enter a value for the name attribute of the `<input>` tag.
4. Depending on the type of input, click **Add Html Parameter** to configure any additional attributes necessary for the `<input>` tag.

For example, for a radio button or check box, you must define the `value` attribute. For a text area, you should set values for the `cols` and `rows` attributes.

- Enter the name of the attribute in the **Parameter Name** column.
  - Enter the value of the attribute in the **Parameter Value** column.
5. In the **Report Field Name** field, enter a name for the input as you want it to appear in the Deliver tracking tables.



**Important:** The name cannot exceed 30 characters.

## Specifying a submission form

The data that you gather with a landing page form must be submitted to the system through a hyperlink in the data entry to another landing page.

Before you begin, create (or determine the names of) the landing pages to be used as submission pages.

The template for the submission page must contain at least one HTML submit tag. Typically, the submission landing pages also display a confirmation message, but this is not required.

Because a landing page can contain multiple forms, when you configure the link to the submission page, you must specify the form contained in the data entry template that corresponds to the data being submitted.

1. In the landing page communication that contains the data entry form, drag the Hyperlink widget from the palette to the droppable area designed for the submit option.
2. Configure the body of the hyperlink to display what you want to appear as the link to the submission landing page.
3. In the Link section, select the Landing Page option. From the drop-down, select the landing page that you want to use as the submission page.
4. Select **Submit form**.

A field displays in the Landing Page section that lists the HTML forms defined in the template for the data entry form.

5. Select the name of the form that defines the inputs you want to submit.
6. Click **OK** and save the communication.

## Responses to online forms

Deliver receives the responses from people that complete online forms. Deliver components installed in your local environment retrieve this data and store the information in the Deliver tracking tables that are part of the Campaign schema.

You can access tracking tables to take action on the form responses. For example, you can access the response data to collect subscribe and unsubscribe requests.

The Extract process in Campaign allows you to configure the process to extract form responses for use in Campaign flowcharts. For more information on using the Extract process to work with response data, see the description of the Extract process in the Unica Campaign User's Guide.

## Extract process

The Extract process in Campaign allows you to configure the process to extract form responses for use in Campaign flowcharts.

For example, you could add an Extract process to a flowchart that runs nightly to extract unsubscribe requests. To help preserve your email reputation, you can use this information to continually update your mailing lists to avoid sending email to uninterested recipients who might report your email as SPAM.

For each input that you configure in an online form, the name you specify for **Report Field Name** appears as an attribute that you can select when you configure the Extract process.

For more information on using the Extract process to work with response data, see the Unica Campaign User's Guide.

# Chapter 8. Deliver Message Editor

Digital marketers construct email, landing pages, WhatsApp messages, and text messages in Unica Deliver in the Deliver Message Editor. Marketers without specific HTML editing experience can create valid, full-featured HTML email and landing pages with the editing and personalization tools in the Message Editor.

The Message Editor provides a user interface to add content and personalization elements to a preconfigured HTML document that functions as a template for the email or landing page. The template defines the general structure of the message or landing page. The HTML code can be designed to contain special markup and configurable areas to accept personalized content added by the email marketer.

The Message Editor provides various previewing tools that allow you to check your work and to see how various email clients are likely to render the message, allowing you to see the message as your customers will see it in time to optimize its appearance, if necessary. You can also preview your text messages you have created for sms communication.

Deliver introduced Quick Builder as a new user interface that enables you to design your email communications very easily and quickly using the available tools. You can also preview your email messages in different different devices and email clients. For more details, see the different topics under [Quick Builder \(on page 443\)](#) section .

You can access both Quick Builder and Message Editor to create communications.

To work effectively with the Message Editor, review the following sections to understand the following concepts.

- In the Message Editor, email, landing pages, WhatsApp messages, and text messages are referred to as communications. See [Communications \(on page 230\)](#).
- The Content Library is the repository that provides access to the HTML templates, images, and other content required to build the document. See [Content Library \(on page 238\)](#).
- Adding content to configurable zones in templates to personalize email and landing pages. See [Adding content to zones \(on page 269\)](#).

- How to organize the Message Editor. See [Organizing the Message Editor \(on page 336\)](#).
- How to access the Message Editor. See [Accessing the Deliver Message Editor \(on page 227\)](#).



**Note:** To access Message editor or Quick Builder in Safari browser, apply the following settings in Safari browser.

- Navigate to **Safari > Preferences > Privacy tab**.
- Deselect first cross site checkbox.
- Relaunch Safari.

## Accessing the Deliver Message Editor

You can access the Message Editor from the **Campaign** menu or from a link on the Mailing tab for a Deliver messaging.

You cannot open the Message Editor as two different users in the same browser session. For example, if you establish a Development environment and a Production environment, each with a separate hosted email account, you cannot access the two environments simultaneously in separate tabs in the same browser session. Instead, open the different environments in two separate browser sessions.

For best results when you view the Message Editor, configure Internet Explorer to check for new versions of the page Automatically. Avoid setting the browser to check for new page versions Every time I visit the webpage.

- Access from the **Campaign** menu.

From the Campaign menu, select **Message Editor**.

The Message Editor opens. By default, the Message Editor opens on the Communications tab in the navigation pane. By default, the Message Editor opens the Communications tab in the navigation pane.

. The Communications tab lists the currently available email, SMS, WhatsApp. The Content Library and saved searches display on separate tabs in the navigation pane.

- Access from a Mailing tab.

After you reference a communication to a messaging, the Mailing tab displays a link to the document.



On the Mailing tab, click **Edit Document** to open the referenced document in the editing pane of the Message Editor.

## The Message Editor toolbar








The Message Editor provides access to various functions through a context-sensitive toolbar that is displayed across the top of the content or communication page. The appearance of the toolbar varies depending on the task you are performing.





You use the toolbar to perform the following tasks:

- Configure the email header.
- Preview an email or landing page.
- View the properties for an email or landing page.
- Add or edit field mappings for an online form.
- Find communications that use a specified content element.
- Publish email or landing pages.
- Access the Rules Spreadsheet to manage personalization rules for the entire document.

Display	Name or Description	Function
 Current@ publish and save status  Publish error	Status indicator for Publish and Save	<p>Provides most recent publication and save status for a communication.</p> <p>Indicates system progress during publish and save operations.</p>



Display	Name or Description	Function
		Indicates error status and provides access to error messages.
	Variation field and values for content element variations.	Identify or change the currently enabled variation field. Lists the available variation values.  Displays only if the communication contains content elements that provide multiple content variations.
	Content Type (email only)	Select the type of email communication. Select either HTML or Text.
	Configure email options (email only)	Click to enter email header information.
	Add/Edit Form Mappings (landing pages only)	Click to review the input mappings that are contained in a landing page template that is used to create an on-line form.
	Preview	Click to preview a communication.
	Rules Spreadsheet	Opens the Rules Spreadsheet in a new window.
	Find communications that use this template	Opens the Communications References tab to display a list of communications that

Display	Name or Description	Function
		are based on the selected template.
	View Properties	Click to view the properties of a communication, content element, or saved search.
	Save Changes	Save changes to a communication, content element, content file, or saved search.
	Publish	Click to publish a communication.
	Save Changes As	Click to save changes to a communication with a different name.

## Communications

In the Deliver Message Editor, email documents, landing pages, and texts are referred to as communications. You add and access email, SMS, WhatsApp, landing pages, and text messages on the **Communications** tab.


You can perform the following tasks on the Communications tab:

- Create a new communication.
- Edit an existing communication.
- Add a template to a communication.
- Change the current template.
- Name or rename a communication.
- Copy a communication.
- Delete a communication.

## Creating a communication

A communication can define an email message or landing page, WhatsApp message, or text message. To create an email, landing page, or text message communication, you must add the appropriate template to the communication.

Before you begin, confirm that a template exists for the communication that you want to create, and that you know where to access it.

1. Use any of the following methods to open a new communication.
  - In the toolbar, click **New**.
  - In the bottom of the **Communications** tab, click **Create new communication** .
  - Right-click anywhere in the **Communications** tab and select **New** or right click on the folder in the communication tab in which you want to create the communication and click **Create communication**.

A default communication editor displays in the editing pane.

2. Add a template to the communication.

Select a template designed to create the type of communication that you want to create.

3. Give the communication a name.

The name must be unique within the Message Editor.



**Note:** You cannot use the characters > < / \ ? | " \* in the communication name.

Unica recommends that you assign a name according to an easily recognizable naming convention so that you and your colleagues can distinguish between the different types of communications in the Message Editor.

4. Click **Save Changes** .



**Note:** For text message communications, templates are not required. You are required to write the text in the editor box and can include your personalization fields as per the requirements. For more details, see the [Sending an SMS \(on page 90\)](#) topic.

## Adding a template to a communication

This feature is only valid for email messages. The template that you add to a communication provides the structure for the communication.

Before you begin, ensure that the template you want to add is uploaded to the Content Library or is accessible for upload from your local system or from a shared drive.

The asset that contains the template file must be marked as a template. Content elements that are marked as a template cannot be dragged into zones defined in email or landing page documents.

Use either of the following methods to add a template to a communication.

- Drag the template element from the Content Library into the editing section of the email or landing page document.
- Click **Please select a template**. In the Select template window, select the template that you want to add and click **Insert**. The Select template window displays HTML files only.

When you add the template to the document, the default layout of the email or landing page appears in the editing section of the Message Editor.

## Changing the template for a communication


You can change the template used by a communication (email, landing page, or online form) when you edit the communication. Because the template defines the default layout of the document, changing the template can significantly alter the appearance and content of

the email, landing page, or form. The controls required to change the template appear at the top of the communication editor.


If the current template is a master template, altering the template affects all other communications that use the template. If the current template is a local copy, then changes you make here affect only the current document.

Use the Message Editor to make any of the following changes.

- Switch to a different template. This option replaces the current template with another template that you select.


Click **Select new template** . In the Select Template window, browse to select a different template from the Content Library.

- Clear the template. This option removes the template from the communication.

Click **Clear template** . The system removes the current template from the document. Changes that you made to the template are removed. Changes that you made to the document, such as adding content to zones, remain in place.

You must add another template to be able to save the communication. Drag a template from the Content Library or click to select a new template.

- Edit the source code of the current template.

Click **Edit template**  to edit the HTML source code in a text editor.

- Edit the template in the graphical HTML editor. Right-click in the communication and edit the master copy or create a new local copy.

Use the embedded graphical editor to change the document layout and fixed content. You can also use the graphical editor to edit the HTML source code.

## Editing a communication

After you create an email communication, you can add images, HTML snippets, hyperlinks, and personalization fields to create a personalized message.

Use either of the following methods to open a communication for editing.

- In the **Communications** tab, right-click the communication and select **Edit**.
- In the **Communications** tab, double-click the communication.

The communication displays in a communication editor in the editing section of the page.

## Setting editor preferences for email messages

Several features available in the Message Editor give you control over how often the system requires you to confirm every selection or format change. Frequent confirmation requests can be time-consuming and distracting. To limit how often the system interrupts you to confirm your actions, you can set editing preferences. You set a preference for each of several features separately.

Editing preferences apply to the following features.

- Format options for social sharing links
- Personalization rule evaluation order
- Choice of which short link to use in an SMS message

You access editing preferences through a link that is visible in the Message Editor toolbar.



1. In the Message Editor toolbar, click **Editor preferences**.
2. For each feature that is listed, indicate how often you want the system to confirm your actions while you are editing a communication.

## Naming a communication

The unique name that you give to a communication specifies that the system uses to identify the email or landing page in the user interface, tracking reports, and in the Deliver tracking tables in the Campaign schema.




**Note:** You cannot use the characters > < / \ ? | " \* in the communication name.

1. Open the communication for edit and use any of the methods below to assign a name to a new communication or change the name of an existing communication.
  - Right-click the tab of the communication editor and select **Rename**. In the Properties window, enter a name.
  - In the toolbar, click **Properties** . In the Properties window, enter a name.
  - Double-click the tab on the communication editor and enter a name.
2. Click Save Changes .


The communication displays the new name in the Communications tab as soon as you save changes.

## Copying a communication

You can copy communications that have been created in the Message Editor previously. If an existing communication displays characteristics or content that you want in a new communication, copying an existing communication can save configuration time.

1. Use either of the following methods to create a copy of a communication.
  - In the Communication tab, right click the communication and click **Copy**.
  - Open the communication for editing and click **Save Changes As** .

A copy of the communication displays in a communication editor. Deliver assigns a name to the new communication in the form, `Copy of <the original communication name>`.

2. (Optional) Rename the communication.
3. Click **Save Changes** .

## Deleting a communication

You can delete a communication from the Message Editor. Removing the communication can affect every mailing.

In the **Communications** tab, right-click the communications and click **Delete**. Click **OK** when prompted.


## Saving a communication



Saving a communication is linked to publishing the communication. Publishing the communication makes the communication and the resources it contains available for use in a personalized message or landing page. The Message Editor toolbar indicates the current save and publication status.



Save the communication in an existing folder in the Content Library or create a new folder within an existing folder to save the communication.



**Note:** You cannot use the characters > < / \ ? | " \* in the communication name.



Each time that you save, the system prompts you to publish the communication. The first time that you publish a communication, the Message Editor displays a status indicator  in the toolbar that indicates the last time that the publication was saved.

If you save changes to a communication but do not publish it, the  indicator changes to  and the system displays a message to indicate that the communication changed since the last time it was published. The warning persists even when you close the browser session and open the communication again in a different session.

Hover over  or  to view the date and time of the last time the communication was saved.

Although you can save a communication without publishing it, you must publish the communication to include the changes in any mailing that references the communication. For example, you might make a series of changes to a communication and save the work in progress several times without publishing. After the final edit, you would publish the communication to capture all of the changes in a new publication of the communication.

In the Message Editor, you can save a communication in the following ways.


- Click  to save changes to the existing communication.
- Click  to save the communication as a new communication with a different name.



## Viewing the communication ID







The system automatically assigns a communication ID to every communication that you create in the Message Editor. You can use the communication ID to identify the communication in an application programming interface (API).

You can view the Communication ID in the properties of a communication.

1. In the **Message Editor**, open a communication.
2. In the **Message Editor** toolbar, click .

The Communication ID appears on the General tab.

## Communications tab contents

Display	Name	Function
	Create new communication	Click to create a new communication.
	New Folder	Click to create a new top-level folder.
	Refresh objects	Updates the navigation tabs in the local Message Editor with information from the hosted server. It does not refresh the various editors
	Search	Opens an editor for search where you can enter search parameters and save the search.
	Email	Email communication.
	Landing page	Landing page communication: standard landing page or online form.

# Content Library

The Content Library is a single repository for content and templates that are used in personalized email and landing pages, SMS, and WhatsApp messages. Access the library through the Content Library tab in the Message Editor. The Content Library is organized as a multi-level folder hierarchy.

You add digital assets (PDF, video, image, text, and HTML files) to the Content Library by associating each asset with a wrapper that you configure in the Content Library. Each wrapper is a separate content element that you configure in a folder as a content tab with a unique name.



**Note:** Video and PDF documents are applicable to WhatsApp communication only. HTML snippets are applicable to email messages only.

In the Message Editor, you create email, landing pages, and sms and WhatsApp messages by selecting content elements from the Content Library and adding them to a communication. Some content elements provide templates that define the framework of an email, landing page, or text message. Other content elements provide visible content, such as images, text, or small sections of HTML code that you add to communications as HTML snippets.

A content element can be associated with one or more digital assets. You can preview and edit attached assets in the content element tab. You can also assign extra information to a content element. For example, you can add a label that communication designers can use to add content by including a reference to the label.

Security policies that are applied at the folder level determine the tasks that you can perform on content elements in each folder. For more information about security policies and folder permissions, see the Unica Deliver Startup and Administration Guide.

## What the Content Library contains

The Content Library contains content elements for images, text, PDF documents, video, HTML snippets, and, communication templates that digital marketers require to create

personalized email, SMS, WhatsApp, and landing pages. Within a folder hierarchy, content elements are identified by type (with icons) and by content element name.










**Note:** In the Content Library tree, you must double-click the icon or name of a content element to open it.

You can configure content elements to contain the following types of assets.

- Images
- Text
- Video
- PDFs
- HTML snippets
- Templates

The table lists the navigation and editing controls available in the Content Library tab.

Display	Name	Function
	Create new content	Click to create a content element.
	New Folder	Click to create a new top-level folder.
	Refresh objects	Updates the local Message Editor with information from the hosted server.
	Search	Opens an editor for search where you can enter search parameters and save the search.
	Template	Identifies an HTML content element that is used as a communication template. In the content element configuration, Is template must be selected.
	Non-template content	A content element that contains a single image, text block, or HTML snippets.

Display	Name	Function
	that contains a single asset.	
	Non-template content that contains multiple assets.	A content element that contains multiple images, text blocks, or HTML snippets. The content element configuration also specifies a personalization field that acts as a variation field. The value of the variation field determines which of the attached assets displays for a particular email recipient or landing page visitor.


## Templates

A template is an HTML file that creates the framework for a personalized email or hosted landing page. Templates typically contain elements and HTML tags specific to Deliver. Templates are identified separately within the Content Library.

In the HTML code of the template, you can apply custom tags to create the elements and features that are unique to personalized email and hosted landing pages in Deliver. For example, you can use a custom HTML tag to define personalization fields directly in an HTML template. You can use custom tags to configure zones that accept various types of manually dropped content in the Message Editor. Another custom tag can be used to add images, text, and HTML code by reference. Adding content by reference avoids the need to add content manually in every communication that is based on the template. The custom tags are recognized only in the Message Editor and are ignored by web browsers.

Templates that are used to create text-only email must also be HTML files. Text-only templates must be HTML files to support the drag-and-drop functions available in the Message Editor.

When you upload an HTML file for use as an email or landing page template, you must clearly identify the file as a template file. The Content Library provides the **Is Template** option in the content element properties for this purpose. When you select **Is Template**, the

system can recognize the attached HTML file as a template. Content elements that are used as templates appear in the Content Library as  .

## Images

Images enhance the appeal and impact of marketing email and landing pages. You make an image available for use in email and landing pages by uploading the image file to the Content Library. Communication designers access the Content Library to add the image to an email or landing page communication.

The Message Editor supports the following image file formats.

- .jpg
- .png
- .gif
- .bmp

Consider the image size when you add an image to an email or landing page. By default, HTML attributes in the communication template control the appearance and behavior of images in a communication. In some cases, the template formatting might cause unanticipated changes to an image that you add to the communication.

If you drop the image into a zone, you can override the HTML attributes defined for the zone. If you add the image by reference with the custom `UAEreferenceLabel` tag, you can define attributes within the reference label tag.

## HTML snippets

HTML snippets are self-contained sections of HTML code that you can insert into an email or landing page template. You can use HTML snippets to add prepared HTML content to zones defined in HTML email and landing pages. You can also add HTML snippets by reference with the `<UAEreferenceLabel>` tag.

Using HTML snippets gives the communication designer great flexibility to vary the content and structure of an email or landing page communication. Snippets provide a way to quickly add rich content to a communication. To control the appearance and behavior of a snippet,

you can define any standard HTML attribute in the snippet code. The appearance of the snippet in a communication depends on the attributes defined in the snippet code, not the attributes defined in the template.

Snippets can contain images, text blocks, and personalization fields. Snippets can also contain references to images, text, and other snippets. However, snippets cannot contain zones.

Snippets are not intended for use as email or landing page templates. Do not select the **Is Template** option for HTML content that is used as a snippet.

## Text

You can make sections of text available for use in email and landing pages by uploading the text block to the Content Library. Communication designers can add the text to email and landing pages by adding the content element that contains the text block.

For example, when you auto-generate a text-only email from an HTML template, you can use a text block to replace images in the HTML version of the email. You can also apply the `UAEreferenceLabel` tag in an HTML email or hosted landing page to include text by reference and use HTML attributes to format how the text appears in the message or page.




## PDF

PDF is an Adobe Reader file which is used as document while sending WhatsApp messages. You can drag and drop PDF file on the editor as a droppable field.

## Identifying templates and content

The Content Library uses different types of icons to identify HTML templates and other non-template content elements. You can also adopt a naming conventions and folder structures within your organization to further distinguish the various types of content in the Content Library.

The Content Library identifies content types as follows.


-  HTML templates for email and landing pages.
-  Content elements that contain a single image, text, or HTML asset that is not used as a template.
-  Content elements that contain multiple image, text, or HTML assets. This type of content displays assets according to the value of a specific personalization field.

When you define a content element that contains an HTML file, you must indicate whether the attached file is to be used as a template or as other HTML content. You indicate the intended use by selecting or clearing the **Is Template** option in the content element properties. Identifying content elements as templates helps to ensure that the system adds the correct type of file when you drag content into an email or landing page. The system displays a warning if you attempt to add the wrong type of content.



**Note:** The **Is Template** option is not required for images or non-HTML content.

In some situations, the system might not be able to clearly determine a content type. For example, the system cannot determine the content type when you upload multiple files in a compressed archive and select a mix of different content types. The system also cannot determine content type for content elements that existed in the Content Library before the introduction of the **Is Template** option.

If the content type is unknown, the system displays a warning icon  and selects the **Is Template** option in the content element properties. The system prompts you to designate a content type the next time that you edit and save the content element.

If you change the content type designation, the system changes the icon that displays for the content element in the Content Library tree.

## Adding content to the library

To add digital assets (templates, images, text, PDFs, video, and HTML snippets) to the Content Library, you must create a content element in a Content Library folder. Associate each uploaded file with a content element and configure the content element properties that determine how the contents of the file are used in various communications. You

can configure a content element to provide a single piece of content or multiple content variations.

Unless you create other folders in the Content Library, new content elements are always added in the Default folder. You can create other folders and subfolders to help organize and control access to the content that you add to the library. When you add a content element to the Content Library, you can choose the folder where the new content is saved. The name that you give to each content element must be unique within the folder where it is saved.

Access to a content element is determined by the security policy that is applied to the folder where the content element is saved.

The table lists the various methods that you can use to add content to the Content Library.

<b>Method</b>	<b>More information</b>
Create single content.	<a href="#">Configuring content that provides a single content variation (on page 245)</a>
Create multiple content variations.	<a href="#">Configuring content with multiple variations (on page 246)</a>
Create text and HTML content when you edit a content element.	<a href="#">Source files that are created within the Content Library (on page 245)</a>
Create a content element when you edit a communication.	<a href="#">Adding content to the library while you edit a communication (on page 248)</a>

## Source files that are uploaded from external repositories

You can add content to the Content Library by uploading source files that are stored on a local or shared directory that is located outside of the Content Library. Upload the files individually or upload multiple files in a compressed archive. You can upload image, video, PDF, text, and HTML files.




To configure content that provides a single content variation, upload a single file.

To configure content with multiple variations, you can upload individual files for each variation or upload a file archive. If you upload an archive, the system can automatically create content elements with multiple variations, based on the source files that you upload. Creating the content elements from the file archive requires that you follow a specific file naming convention.

## Source files that are created within the Content Library

You can add content to the Content Library by creating a source file with a text editor that is available in the Content Library. Use the internal text editor to create a text or HTML files as the source for a content element. You cannot create an image, video, and PDF file as a source file.

You can create the text or HTML source file when you create either static or dynamic content. In the asset editor,  provides access to the internal editor.

Use the New File editor to create new text or HTML content or to copy content from other content elements, HTML templates, or HTML snippets. You can also copy text or HTML content from sources outside of the Content Library.

For example, in the New File editor, you can copy and paste text or HTML code from any file or web page. You can then use the editor to repeatedly modify the copied text or snippet to create multiple variations that you can use in dynamic content.

## Configuring content that provides a single content variation

To configure content that provides a single content variation, add a single digital asset to a content element. You can add an image, text, PDFs, videos, or HTML file. HTML files that are used as email and landing page templates are always added as single digital assets.



**Note:** Defining a reference label is optional. Define a reference label if you plan to add the content to an email or landing page by reference.

1. Right-click a folder in the Content Library. Select **New > Content**. A new content tab displays in the editing section.


The **Folder** field indicates where the new content element is created. Depending on your user permissions, you might be able to move it to a different folder later.

If you add content by using the **New** menu, content is always added to the Default folder.

2. Name the content element. Use either of the following methods.
  - Double-click the tab name and enter a new name.
  - Right-click the tab name, select **Rename**, and enter a new name for the content element in the **Properties** window.



**Note:** You cannot use the characters > < / \ ? | " \* in the content element name.


3. Select **Static content**.
4. Select the source of the content. Use either of the following methods.
  - a. Upload from an external source. Select **Upload file**. Browse in a local or shared directory to a single file that you want to associate with the content element. You can create static content with a single image, video, PDF, text, or HTML file.
  - b. Create a text or HTML file. Select **Create file**. Click . In the new file window, enter a file name. Enter a file type, either .html or .txt. In the editor, enter the new text or HTML content. Click **OK**.

If you are adding an HTML file for use as a template, select **Is Template**.

5. (Optional) Define a reference label to identify the content element.

6. Click **Save Changes** .

Content for templates is identified in the Content Library with .

Non-template content is identified with .

## Configuring content with multiple variations

To configure content that provides multiple variations, add multiple digital assets to a single content element and specify a personalization field to act as a variation field. The

personalization field maps to a recipient characteristic defined in an Output List Table (OLT). When Deliver assembles an email or landing page, the value of the variation field that is rendered for the email recipient determines which asset to display. If no values match, Deliver displays the asset that is configured as the default content.

Before you begin, you must define extra values for the personalization field that is specified as the variation field. The variation field must be an OLT personalization field. You define additional values for personalization fields on the Deliver Personalization Fields page. The values that you add as properties to the personalization field appear as available variation values in drop-down lists for variations in the Message Editor.

Go to **Settings > Deliver Settings** and display a list of all personalization fields. Click a personalization field name to edit properties.



**Note:** Defining a reference label is optional. Define a reference label if you plan to add the content to an email or landing page by reference.

1. Right-click a folder in the Content Library. Select **New > Content**. A new content tab displays in the editing section.

The **Folder** field indicates where the new content element is created. Depending on your user permissions, you might be able to move it to a different folder later.

If you add content by using the **New** menu, content is always added to the Default folder.

2. Name the content element. Use either of the following methods.
  - Double-click the tab name and enter a new name.
  - Right-click the tab name, select **Rename**, and enter a new name for the content element in the **Properties** window.



**Note:** You cannot use the characters > < / \ ? | " \* in the content element name.

3. Select **Dynamic content**.
4. Select a variation field.

The drop-down list displays only personalization fields for which multiple values are configured.


5. Define content variations.

A blank variation displays by default.

a. Double-click in the **Field Value** column. Enter or select a variation field value.

The drop-down list contains the list of values that are defined as properties of the personalization field that is specified as the variation field.

b. Specify the asset that displays for the specified variation field value.

- Browse to an external image, HTML, or text file.
- Create a new text or HTML file. Click . Enter a name for the new file.

Select a file type. Enter text or HTML content. Click **OK** to save and close.

Select or create the same type of file for all variations. Do not mix content types, which are also referred to as MIME types.




**Note:** Previews of the uploaded asset display only after you save.

6. (Required) Select a default variation. The default content displays if the personalization characteristics for the email recipient do not match the variation value for any of the other variations.

The default variation always moves to the top of the list of variations.

7. (Optional) Define a reference label to identify the content element.

8. Click **Save Changes** .

Dynamic content is identified in the Content Library with .

## Adding content to the library while you edit a communication

You can add a file to the Content Library when you are editing a communication. When you add the file to the Content Library, the new file is immediately available for use in the communication that you are editing. You cannot upload file archives while you edit a communication.

When you add or replace a content element in a communication the communication editor displays an asset selector screen.

1. In a communication, right-click a content element and select **Add content** or **Replace asset**. The content selector screen opens with the current content element highlighted.

2. In the toolbar, select **Upload asset** .

3. In the Upload Asset window, enter a name for the content element to be created and browse to the file that you want to upload.

If the file that you are uploading is an HTML template, select **Please check if the asset is a template**. Do not select this option if the asset is an image, text, or non-template HTML snippet.



**Note:** You cannot use the characters > < / \ ? | " \* in the content element name.

4. Click **Upload**.

The file appears in the content selector screen. To add the uploaded file to the communication, double-click the name of the uploaded file in the list.




## Content element properties tab






Properties for each content element in the Content Library are contained in a separate tab. The tab provides various options to edit the properties of the content element and to select and preview assets that are attached to the content element.

The table describes the options available on the content element properties tab.

### Options available on a content element properties tab

Field or option	Function
Folder	The folder in the Content Library where the content element is stored. If you move the content element to a different folder, the tab displays the new location the next time you open the tab.

Field or option	Function
	(read-only)
Type	<p><b>Static content</b> Select to create a content element that is associated with a single digital asset.</p> <p><b>Dynamic content</b> Select to create a content element that is associated with multiple assets.</p>
Is template	Select when the attached file is an HTML file that is used as a template for email or landing pages.
Create file	Select this and click  to create a new text or HTML file. The file that you create provides the source for the content element. Save the content element in the Content Library. You can then drop the content, including the new HTML or text content, into a zone or you can reference the content element in a template or snippet.
Variation field	The personalization field that determines which variation displays in an email or landing page. The field must be configured with multiple values to be listed in the drop-down menu.
 Add Variation	Click to add a variation row.
 Remove all variations	Clears all variations. An empty variation remains visible with no content selected.
Field value	Enter or select a value for the variation field that must be true for the email recipient or landing page visitor to display the variation. The drop-down menu lists values already defined for the field, but you can enter a different value. The value must exactly match the personalization field value that exists in the OLT.
Filename	Name of the file that you upload for the variation. Double-click the name to change the file.


Field or option	Function
Default	Select to make the variation the default variation. You must select a default variation. However, you can select only 1 default variation. The default variation is always at the top of the list of variations.
Reference Label	<p>Enter a name for a Content Library Reference Label that identifies the content element.</p> <p>You can add the attached content to a template or HTML snippet by referencing this value in a &lt;UAEreferenceLabel&gt; tag.</p>
	<p><b>Find Label References</b> Click to display a list of templates and other content elements that include the current content element by reference. The list displays in a separate tab.</p>
<b>Preview Section</b>	A preview of the asset that is attached to the content element displays in the preview section. When you add or change an asset, you must save the changes to preview the asset.
	Preview the attached file in a separate window.
	Download the attached file from the Content Library to a local directory or accessible server.
	<p>Edit the attached file. Available only when you attach a text or HTML file to the content element. This option opens the content in a text editor in the preview section of the tab.</p> <p> <b>Note:</b> The embedded graphical HTML editor is not available in a content element properties tab.</p>

## Adding multiple content files from a file archive


You can add multiple files to the Content Library simultaneously by uploading the files in a compressed archive, such as a ZIP archive. For example, you can add a collection of images to the library simultaneously, instead of one at a time. The upload process organizes the new content elements according to the folder structure that exists within the file archive. Depending on how you name the files, the system can configure the content element properties automatically.


You can upload file archives that include content files, HTML templates, or a mix of both. Use one of the following options to indicate the type of files that are contained in each archive that you upload.



- **Template:** HTML files used as templates to define the framework of email and landing pages.

When you upload a **Template** archive, the system selects **Is Template** for each content element and identifies each file with .

- **Mixed:** refers to archives that contain a combination of templates, images, videos, PDFs, text, and non-template HTML files.

When you upload a **Mixed** archive, the file type is considered to be unknown. Each file is identified in the Content Library with .

The system selects **Is Template** for each content element. The first time that you open a content element that is uploaded in a **Mixed** archive, the system displays a warning  and prompts you to confirm whether the asset is a template. If the asset is not a template, clear the **Is Template** option.


The first time that you use or save a file that you upload in a mixed archive, the system prompts you to confirm whether or not the file is a template. The Content Library then identifies the content element as template  or non-template .

- **Content:** images, text, videos, PDFs, and non-template HTML files.

If the file names follow a specific pre-defined format, the Message Editor can automatically configure content elements that provide multiple content variations and



selectively assign reference labels to individual content elements. For each content element with multiple variations, you must specify a single default variation.

The Content Library identifies the files with multiple variations with .

To simplify file management in the Content Library, upload templates and non-template files in separate archives. You can more easily specify a file type for an archive when you use separate archives.

The Content Library requires a specific the file name structure to perform the automatic content element configuration. You must follow the name format exactly. The format is described in the upload interface and online documentation. Configuring content elements automatically is not available for files uploaded in **Template** or **Mixed** archives.

## Uploading files from an archive to create multiple content elements

Uploading files in a compressed archive to the Content Library allows you to quickly add, configure, and organize large numbers of digital assets. You extract the archive contents into a folder in the Content Library. If you create a folder hierarchy in the archive, the Content Library replicates the archive hierarchy in the folder where you unzip the archive.

1. In the **Content Library** tab, navigate to the folder where you want to upload the files.
2. Right-click the folder and select **New > Folder Hierarchy From Zip**.
3. In the Upload Zip File window, browse to the file archive you want to upload, and select it.
4. Choose a content type.
  - **Content:** Images, text, and non-template HTML files. To create multiple content variations or apply reference labels automatically, you must follow the specific file name convention that is recognized by the Content Library. Guidance for the name format is available on the Upload Zip File dialog.

- **Template:** HTML files that are used as templates for email and landing pages. The system selects **Is Template** for each content element that is associated with an uploaded file.
  - **Mixed:** combination of templates, images, text, and non-template HTML files. You must indicate a content type when you add the content to a communication.
5. Click **OK** to upload the archive.

The uploaded files appear in the folder that you specified in Step 1, according to the file structure that is defined in the compressed archive.

## Required file name format for uploading a file archive

When you upload multiple files in a compressed archive to the Content Library, the Message Editor uses the name of each uploaded file to generate the name of the content element that it creates for the file. If the file name includes double underscores, the Message Editor can configure additional content element properties, including reference labels and multiple content variations. The file name format uses double underscores as separators in a specific sequence. All files in the archive must follow the file name format exactly.

Automatically configuring reference labels and content variations based on file name is available only for file archives that you designate as **Content** archives. You cannot automatically configure multiple content variations or reference labels for **Template** or **Mixed** archives.

If the Message Editor detects a file name that contains double underscores in its filename, the system checks the archive to confirm that all file names follow the required name format. The system cancels the upload if any of the files do not follow the name format exactly. If no files contain double underscores, the system does not configure additional content element properties and it creates a single content element for each uploaded file.



**Note:** If any file names in the archive contain double underscores, the Message Editor assumes that you want to automatically configure properties for content



elements. If this is not the case, you must remove the double underscores from the file names or upload the files individually, outside of a file archive.

If all of the file names comply with the name format, the Message Editors extracts the files and automatically configures content elements as described in the following table. In the content element editor, you can change the name of content element after the upload finishes.

### Name convention for configuring content as a multiple file upload.

Content type	File name structure required during upload
Content element that contains a single asset	<p><code>&lt;content element name&gt;.&lt;file extension&gt;</code></p> <p>Example: Uploading the file <code>Coupon.html</code> creates the content element <b>Coupon.html</b>.</p>
Content element with a single asset and a reference label (optional)	<p><code>&lt;content element name&gt;__&lt;reference label&gt;.&lt;file extension&gt;</code></p> <p>Example: <code>Coupon__frenchcoupon.html</code> creates the content element <b>Coupon__frenchcoupon.html</b> and assigns the reference label <code>frenchcoupon</code> to the content element.</p>
Single content element that contains multiple variations.	<p><code>&lt;content element name&gt;__&lt;variation field name&gt;__&lt;variation field value&gt;.&lt;file extension&gt;</code></p> <p>Example: Uploading an archive with the following three files creates the single content element <b>Coupon</b> that contains the files as multiple variations.</p> <ul style="list-style-type: none"> <li>• <code>Coupon__LOCALE__[english].html</code></li> <li>• <code>Coupon__LOCALE__french.html</code></li> <li>• <code>Coupon__LOCALE__german.html</code></li> <li>• <code>Coupon__LOCALE__italian.html</code></li> </ul> <p>If the value of the personalization field <code>LOCALE</code> for an email recipient listed in the output list table (OLT) is <code>french</code>, then the content of</p>

Content type	File name structure required during upload
	<p>Coupon__LOCALE__french.html displays in the email or landing page sent to that individual. For example, the coupon might be translated into French for an email recipient that specified French as the preferred language for contact by email.</p>
<p>Default content variation.</p>	<p><code>&lt;content element name&gt;__ &lt;variation field name&gt;__[&lt;variation field value&gt;]].&lt;file extension&gt;</code></p> <p>Content elements that contain multiple variations must specify one default variation. The default variation displays when the value of the variation field for the recipient does not match any of the variation values specified in the content element. Specify the default variation by using double square brackets in the file name.</p> <p>Example: In the following list of files, Coupon__LOCALE__[ [english]].html will be designated the default variation for the content element <b>Coupon</b>.</p> <ul style="list-style-type: none"> <li>• Coupon__LOCALE__[ [english]].html</li> <li>• Coupon__LOCALE__french.html</li> <li>• Coupon__LOCALE__german.html</li> <li>• Coupon__LOCALE__italian.html</li> </ul>
<p>Content element with multiple variations and specifies a reference label.</p>	<p><code>&lt;content element name&gt;__ &lt;reference label&gt;__&lt;variation field name&gt;__ &lt;variation field value&gt;.&lt;file extension&gt;</code></p> <p>Example: Uploading the following list of files creates the content element <b>Coupon</b> and assigns the reference label <code>rewardspromo</code> to the content element. Notice that you need to define a reference label for only one variation to assign the label to the content element.</p> <ul style="list-style-type: none"> <li>• Coupon__rewardspromo__LOCALE__[ [english]].html</li> <li>• Coupon__LOCALE__french.html</li> <li>• Coupon__LOCALE__german.html</li> <li>• Coupon__LOCALE__italian.html</li> </ul>

The variation field that you specify to configure multiple content variations must be an OLT personalization field defined in an Output List Table (OLT). You can view a list of available personalization fields on the Deliver Settings page. You cannot use a Built-in or Constant personalization field as a variation field.

The variation value that you select for each content variation must be configured as an additional value for the personalization field that you specify as the variation field. You define the possible variation values in the properties of the personalization field.

## Editing content in the library

You can edit properties and assets that are associated with a content element that you have added to the Content Library. Folder permissions control the changes that you can make. Changes to a content element affect all communications that use the content element. The system warns you when you attempt to change an element that is used in one or more communications.

You cannot edit image, PDF, or video assets in the Content Library. The Message Editor does not provide an image, PDF, or video editor. However, you can replace the image, PDF, video added to a content element with another image, PDF, video.

You can edit text and HTML assets that are attached to content elements, including HTML assets that are designated as templates for email and landing pages.

Optionally, you can assign a reference label to the content element so that you can add the content to an email or landing page by reference.

Changes do not affect how an updated content element appears in an email or landing page that you published previously. However, the changes appear when you republish the communication.



1. Open a content element for editing. Use any of the following methods.
  - In the Content Library tab, right-click the content element and select **Edit**.
  - In the Content Library tab, double-click the content element.






- In a document where the content element is added to a zone, right-click the zone and select **Edit Asset**.

If the zone contains multiple content, double-click the zone to display thumbnails. Right-click the thumbnail and select **Edit Asset**.

## 2. Change the content element or attached assets.


### Content edit tasks

What you want to change	Action required
Attach a different asset to the content element.  Applies to a single asset (static content).	With <b>Static content</b> selected, browse to the file that you want to add. Save changes to display a preview of the asset.
Attach a different file to an asset variation.  Applies to multiple assets (dynamic content).	With <b>Dynmic content</b> selected, double-click the name in the <b>Filename</b> field. Browse to the file that you want to add.
Change the variation field for content that contains multiple assets.	Select a different personalization field from the drop-down list. Changing the field clears the field values for all variations. You must enter new values for each asset variation.
View an attached asset in a separate window.	Select the asset or variation. Click 
Download an attached asset.  For example, you might download an image file for editing and then upload the updated file.	Select the asset or variation. Click 

What you want to change	Action required
Edit an attached text file.	<ol style="list-style-type: none"> <li>Select the attached text asset or variation. Click . The preview changes to a text editor.</li> <li>Change the text and click <b>Save content</b>.</li> <li>Click <b>Close</b> to return to the preview.</li> </ol>
Edit an attached HTML snippet.	<ol style="list-style-type: none"> <li>Select the attached HTML asset or variation. Click . The preview changes to a text editor that displays the HTML source for the snippet.</li> <li>Change the code and click <b>Save content</b>.</li> <li>In the Message Editor toolbar, click <b>Validate the content</b> . Make corrections if necessary.</li> <li>Click <b>Close</b> to return to the preview. The preview displays how the snippet appears in a browser.</li> </ol>
Edit an attached template.	<ol style="list-style-type: none"> <li>Select the attached HTML asset. A template cannot have asset variations. Click . The preview changes to a text editor that displays the HTML source for the template.</li> <li>Change the code and click <b>Save content</b>.</li> <li>In the Message Editor toolbar, click <b>Validate the content</b> . Make corrections if necessary.</li> <li>Click <b>Close</b> to return to the preview. The preview displays how the template might look in a web browser</li> <li>Confirm that <b>Is Template</b> is selected.</li> </ol>

3. (Optional) Enter a reference label value for the content element.


Reference label names must be unique within the Content Library. Reference label names are not case-sensitive, so changing capitalization is not enough to make the name unique.

4. In the Message Editor toolbar, click  **Save Changes**.

## Finding communications that use an asset

Changes to assets that are stored in the Content Library affect the communications that contain the asset. You can find which communications contain the asset so that you can determine the effect on the communication.

Use either of the following methods to determine which communications use a content element.

- On the Content Library tab, right-click the content element. Select **Find Communication References** in the menu.
- Open the content element for editing. In the toolbar, select **Find communications that use this content** .

A list of communications that use the content element opens in the Communications References tab.

## Removing content from the library

Depending on your folder permissions, you can remove an asset from the Content Library. Removing the asset can affect all communications that use the asset.

Use the following steps to remove a content element from the Content Library. If the content element is open for editing, you must close the element tab. When you republish communications that use the content element, the content attached to the deleted element is no longer available in the communication.

1. Right-click the content element.
2. Select **Delete** from the list.



The Message Editor warns you when the content element is currently used in a communication.

3. Click **OK** when prompted to delete the content element.

## Working with zones in a document

Personalized email, SMS, WhatsApp, and landing pages include specific areas where you can add images, videos,PDFs, text, and hyperlinks without directly accessing the underlying HTML code. The Message Editor refers to these areas as zones.Each zone is identified by a name that is unique within the document. The name of the zone corresponds to the ID element in the HTML code of the email or landing page template that defines the document layout.



**Note:** HTML snippets that you add to a template cannot contain zones, even if you add the snippet by reference. Deliver supports configuring zones only in the body of HTML templates.

In addition to images, text, PDF, video and links, you can add personalization fields to zones to incorporate recipient-specific information into the document. Zones can contain multiple content elements of different types. You can define personalization rules within zones to conditionally display content contained in a zone according to specific characteristics of the recipient.

Understanding how to find and work with zones is a key aspect of composing personalized email and landing pages. The Message Editor provides several ways to identify zones and to describe what each zone contains.

## Viewing zone contents

The Message Editor identifies each zone in the document with a separate pushpin icon. Each pushpin provides a point of access for information about the zone, the zone contents, and options available for the zone. You can also view a list of all zones and zone contents in the Rules Spreadsheet.

A zone pushpin always aligns with the top of the zone. Information about the contents of the zone is displayed when you hold the mouse cursor over the pushpin. If the zone contains multiple content elements, the pushpin label identifies the number of content elements in the zone and which content element is displayed. Use arrows on the pushpin to select and display each of the content elements available in the zone. A tooltip presents a small thumbnail of the next or previous content in the list of content contained in the zone.

The zone pushpin provides various double-click and right click options to view, edit, and manage zone contents. You can also define and apply personalization rules to each content element in the zone.

The Rules Spreadsheet provides a list of all of the zones defined in the document and lists each content element contained in each zone. In the spreadsheet, you can preview each content element, add or delete content elements, view, create, and edit personalization rules for each content element, and locate each zone in the document. You can also sort the list of zones and zone contents.

## Showing zones

The Message Editor provides several ways to identify and select zones contained in a document.

Use any of the following methods to find configurable zones contained in a document template.

- Hover over zones. Use the cursor to highlight individual zones and display options.
- Display pushpins for all zones in the document.
- Show zones by content variation. Highlight zones according to the number of content elements present in the zone.
- Select a single zone. Navigate to a specific zone or specify its name.

The Message Editor provides extensive support for keyboard navigation. To move between zones, press the **Tab** key. To move between content elements inside a zone, press the left and right arrow keys.

## Hover to display zones

When **Show zones** is not selected, you can find zones in the document by moving the mouse cursor over the document. Each zone is highlighted when you pass the cursor over the zone in the document. When you hover over a zone, the Message Editor shows the name of the zone, a pushpin for the zone, and a tooltip.

The pushpin indicates whether the zone contains content elements. For zones that contain multiple content elements, the pushpin lists the total number of content elements in the zone and which element currently appears in the document preview. For example, in a zone that contains three content elements, if the second element appears in the document preview, the pushpin displays the notation **2/3** to indicate that the currently displayed content is the second of three elements.

The tooltip contains the zone name and a thumbnail of the current content. If the current content is based on a content element from the Content Library, the tooltip displays the name of the content element.

## Showing all zones

To highlight all zones contained in the document, click **Show zones** in the toolbar. Pushpins for all zones display in the document to identify to location of each zone. Hover over a zone for more information and options for the zone.

The field next to **Show zones** allows you to filter the zones that the Message Editor highlights.

## Show zones by contents

You can filter the zones that the Message Editor displays according to the number of content items the zone contains. Highlighting zones according to the number of pieces of content that they contain can be useful when you work with large or complex communications.

When you show zones, the Message Editor highlights each zone with a pin according to the selection in the drop-down menu next to the **Show zones** option in the toolbar. Filtering the zones that are displayed can simplify editing the communication. For example, you might

want to show only zones without content so that you know which zones require more work. When you review personalization rules, you might want to highlight only zones with multiple content.

You can choose between the following options.

- All zones
- Zones with content
- Zones with a single content element
- Zone with multiple content elements
- Empty zones

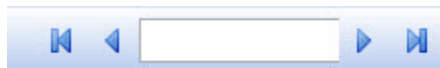
Showing zones according to their content also limits the zones that are displayed in the **Rules Spreadsheet**. To use the **Rules Spreadsheet** to manage all of the personalization rules that are defined in the document, select **All**.



**Note:** Filtering zones by the content variation is not related to viewing asset variations for content elements in the Content Library that contain multiple files.

## Showing a specific zone

Selecting a specific zone can be useful when working with documents that contain many zones. To show a specific zone, use the **Tab** key or use zone selector in the toolbar.



- Click anywhere in the document and press the **Tab** key to select zones sequentially.
- To navigate to a specific zone, use the navigation arrows in the zone selector. Move sequentially through the zones in the document until you find the zone you want to select.
- Enter the name of the zone in the field between the zone navigation arrows. When you begin to enter the zone name, the field automatically attempts to populate the field with zone names that match the characters you enter. A drop-down menu displays possible matches. Select a zone or finish entering the zone name.

When you select a zone, the Message Editor changes the document display to focus on the pushpin for the selected zone. The pushpin displays at the top border of the zone.

## Options for zones

Zones provide various options for managing the content in personalized email and landing pages. In each zone, you can access various editing options, add or edit personalization rules, and define the order in which personalization rules are applied to content elements in the zone.

Right-click in a zone to display a menu that provides various editing options and content management options.

Double-click in a zone to open a window where you can manage how to personalize the zone contents.

## Right-click options for zones

When you right-click in a zone, the Message Editor opens a menu that provides various options for editing content elements that are contained in the zone. The menu also contains a link to the personalization rules editor.

The right-click menu provides the following options.

### List of options in the menu that opens when you right-click in a zone.

Options	Description
<b>Cut</b> <b>Copy</b> <b>Copy All</b> <b>Paste</b>	Options for moving content elements between zones in the document.
<b>Add content</b>	Options for adding content elements from the Content Library and for adding content widgets to a zone.  <b>Asset from content library</b> Opens the Content Library content selector window.

Options	Description
	<p><b>Text block</b> Opens the Graphical HTML editor so that you can enter text.</p> <p><b>Hyperlink</b> Opens the hyperlink editor.</p> <p><b>Image</b> Opens the image editor.</p> <p><b>Field</b> Select this option to add a personalization field to the template.</p>
<b>Replace asset</b>	Opens the Content Library content selector window. The content element that you select replaces the content element currently displayed.
<b>Edit content formatting</b>	Opens a window where you can define HTML attributes for link and image content that is dropped into a zone. Use this option to override formatting in the communication template for zones in email and landing page communications. The Edit Content Formatting option is not available for snippets. To enter custom HTML attributes, clear the <b>Use formatting from template</b> option.
<b>Edit asset</b>	Opens the content element for editing. The content element tab opens separately in the editor.
<b>Edit Rule</b>	Opens the personalization rules editor so that you can define a personalization rule. When you access the rules editor from this menu, you edit the rule for the currently displayed content.
<b>Delete current content</b>	Delete the content element currently displayed.
<b>Delete all content</b>	Delete all content elements that are currently contained in the zone.

## Double-click options for zones

When you double-click in a zone, the Message Editor displays the **Personalized content** window for the zone. Each content element contained in the zone appears in the Personalized content window as a thumbnail. The window provides links to the personalization rules editor, and displays currently defined rules for each content element contained in the zone.

You can select any of the thumbnails in the Personalized content window. The thumbnail that you select appears in the Message Editor as the currently displayed content.

The Personalized content window provides links to the personalization rules editor. You can use the rule editor to add or modify a personalization rule applied to any content item in the zone. The rule for the currently selected content item appears in the lower part of the window. Select a thumbnail to see its personalization rule. The personalization rule determines the conditions under which the content appears in an email or landing page. If no rule is assigned to the content (a blank rule) the content always displays and subsequent content in the zone is not evaluated or displayed.

The thumbnails previews appear in the order in which Deliver evaluates the personalization rules in the zone. Deliver evaluates personalization rules from left to right. You can change the evaluation order by dragging the thumbnails from side to side.

## Editing content in zones

The Message Editor provides various editing options when you double-click or right-click a zone. Double-clicking the zone opens a window where you can access all content elements that are contained in the zone. When you right-click a zone, you can operate on the currently displayed content element.

You can make the following changes to content elements in a zone.

- Replace the current content element with a different content element from the Content Library.
- Override the default template formatting for the zone

- Define HTML attributes separately for individual links or images dropped into the zone.
  - Edit the content element properties or edit the file that is attached to the content element.
1. In the zone, access the content element that you want to edit. Use either of the following options. Right-click in a zone or right-click a content thumbnail in the Personalized content window for the zone.
    - Display the content element in the zone and right-click the zone.
    - Double-click the zone to open the Personalized content window. Right-click the content element that you want to edit.
  2. In the menu that displays, select one of the following options.
    - **Replace asset** Opens the content selector in the Content Library. Select another content element to replace the selected content element.
    - **Edit content formatting** By default, HTML attributes defined in the communication template determine the appearance of content dropped into a zone. However, you can override the template formats for images and links that are dropped into the zone. To enter custom HTML attributes, clear the **Use formatting from template** option to assign basic and advanced HTML attributes to individual links and images in a zone.
    - **Edit asset.** Opens the content element tab for the selected content element. Edit the content element properties or edit the file that is attached to the content element.
  3. Save your changes.

You must publish the document to make the new content visible to email recipients or page visitors.

## Moving content between zones

In the Deliver Message Editor, you can cut, copy, and paste content elements between zones in a document.

Use the following steps to move content between zones.



1. Right-click in a zone or right-click a content thumbnail in the Personalized content window for the zone.
2. Select the content that you want to cut or copy.  
If the zone contains multiple content elements, when you click in the zone, you can either copy one or copy all of the content elements contained in the zone.
3. Cut or copy the content elements that you want to move.
4. Right-click the zone to receive the content and click **Paste**.

## Deleting content in zones

The Deliver Message Editor allows you to remove content from a zone without changing the underlying template. If the zone contains multiple content elements, the Message Editor gives you an option to remove all content elements from the zone.

Use the following steps to delete content in zones.

1. Right-click in a zone or right-click a content thumbnail in the Personalized content window for the zone.  
  
If you right-click in a zone that contains multiple content elements, you can delete the currently displayed content or all of the content in the zone.  
  
If you right-click on a specific content element in the Personalized content window, you can delete the selected content element.
2. Click **Delete current content** or **Delete all content**, depending on the content that you want to remove.

## Adding content to zones

You can add content elements for hyperlinks, images, PDF, video and personalization fields, to Deliver documents using zones defined in the document template.

Unica Deliver supports adding the following types of content to configurable zones defined in a template.

- PDF
- Video

- Images
- Personalization fields
- Hyperlinks, including image links
- HTML snippets and text



**Note:** Unica Deliver supports using zones only in the body of HTML templates. You cannot create zones in HTML snippets that you add to a template.

You can use the following methods add content to a zone.

- Drag content elements from the Content Library into the zone.
- Add a content widget to the zone and then configure the widget.
- Navigate to content in the Content Library and insert it into the zone.

## Adding content using widgets

The Message Editor provides several widgets that you can use to add and configure content elements to zones contained in an SMS, WhatsApp, email or landing page.

To add content with a widget, add a content widget to a zone and then configure the widget.

To add a widget to a zone you can either drag the widget from the toolbar or right-click in the zone or its Personalized content window and select the widget from the context menu.

To configure the widget, the Message Editor provides different interfaces for configuring different types of content.

Complete the following steps to add content using a widget.

1. Add the content widget to the zone. Use either of the following methods.
  - From the toolbar, select the widget for the type of content that you want to add and drag it into the zone.
  - Right-click in a zone or in the Personalized content window for the zone and select **Add content**. From the menu, select the type of widget that you want to add.

## 2. Configure the widget.








When you add a widget to a zone, the appropriate content editor appears in the zone. For example, when you add a personalization field widget, the list of available personalization fields displays so that you can select a personalization field.



When you have finished, the content defined by the widget displays in the zone. If the zone contains multiple content elements, the new content appears as the last content element in the Personalized content window for the zone.

You must save and publish the document to make the content available for use in email or landing pages.

## Widget toolbar contents

Use widgets to add content to zones that are defined in message and landing page communications. Drag the widgets into a zone to add content or define a link.

Display	Name	Function
	Text block	Insert a text block.
	Hyperlink	Insert a hyperlink.
	Image	Insert an image.
	Field	Insert a personalization field.
	Form Field	Insert a field into a landing page configured as an online form. (landing pages only)
	Share	Insert a social sharing link.
	View As Web Page	Drag into a zone to add a view as web link in an HTML or text-only email.

Display	Name	Function
	Content Connector	Insert a connection to external content.
	Forward to a Friend	Insert a link that gives an email recipient the ability to forward the message to specific individuals.

## Dragging content from the Content Library

You can drag images, PDFs, videos, and HTML snippets from the Content Library into a zone in a document. You cannot drag personalization fields or form fields into a document.

Dragging content from the Content Library allows you to add content quickly to the document so that you can see how it appears in your SMS, WhatsApp, email or landing page.

1. Locate the content in the Content Library.
2. Drag the content icon from the folder in the Content Library and hover over the zone.

The zone changes color to indicate when you can add the content element to the zone.

3. Drop the content into the zone.

The number of content elements indicated in the pushpin changes when you add the content.

The new content appears as a thumbnail in the Personalized content window for the zone.

4. Save your changes.

You must publish the document to make the added content visible to email recipients or page visitors.

## Selecting content to add from the Content Library

The Message Editor provides a content selector so that you can select a content element in the Content Library and insert it into a zone.

Using this method to add content allows you to search for content and preview it before adding it to a zone in an email or landing page document.

1. Right-click in a zone or in the Personalized content window for the zone.

A menu displays with an option to add content.

2. Select **Add content > Asset from content library**.

A content selector window displays the current folder hierarchy of the Content Library.

3. In the content selector window, move to the content element that you want to add and select it.

Information about the selected content element displays, including a content thumbnail if you enabled content preview.

4. Click **Insert**.

The content element that you selected displays in the zone. If the zone contains multiple content elements, the new content appears as the last content element in the Personalized content window for the zone.

You must save and publish the document to make the content available for use in email or landing pages.

## Adding content that contains variations

Content variations become available in a communication when you add a content element that contains variations to a zone, or when you add the content by reference in a snippet or text block. When you use multiple content variations in a communication, you can view and edit the different variations directly in the communication editor.

When you add content with variations to the communication, the Message Editor toolbar changes to include a field that indicates which variation field is enabled for the communication and the possible content variation values. The multiple content indicator

does not display in the communication until you add a content element that contains multiple variations.

A communication may contain different content elements that are each configured to use different variation fields to control content variations. For example, some of the content elements in a communication might vary by language and others by brand. However, you can enable only one variation field at a time in a communication.

In the communication editor, you can change the variation value to see the different versions of the communication in the communication editor. Changing the variation value changes the content controlled by the variation field that is currently enabled. Content variations controlled by other variation fields display their default variation in the editor.

The preview in the communication editor simultaneously changes all of the content elements that are controlled by the enabled variation field. For example, if the entire content of an email or SMS communication is composed of content elements that vary by language, you can change the variation value in the preview to quickly see the email or SMS translated into a different language.

If the communication contains links to hosted landing pages whose content and appearance are controlled by the same variation value, the preview also updates the links to point to the appropriate target page. For example, you might create a communication that varies by language and also contains a link to view the email as a web page. When you change the variation value, the preview displays the link in the selected language and changes the links to target the hosted landing page version of the email in the appropriate language.

## Viewing and editing content variations in communications

When you open a communication that contains multiple content variations, the Message Editor toolbar indicates which variation field is currently enabled in the communication and it lists the variation values available for the field. Selecting a different variation value simultaneously changes the variation value for every content element in the communication that uses the variation field. Content elements configured to use other variation fields display their default variations.

The table lists how you can use the variation field selector to view and edit variations that are present in the communication.

### Variation field selector functions

Task	What to do
View the variation fields available in the communication.	In the toolbar click <b>View &lt; name of the field &gt;</b> . A screen displays the list of variation fields available in the communication. The list indicates the content elements that specify the field as the variation field. Only one of the fields can be enabled at a time in the communication.
Change which variation field is enabled in the communication.	View the list of available variation fields. In the <b>Enable</b> column, select the variation field to enable it for the communication.
To view the list of variation values that are available for the enabled variation field.	The list of available values appears in a drop-down list next to the variation field name in the toolbar. Select a value from the list.
To view the different versions of the communication.	Change the variation value.
To change the parts of the communication that vary.	Select a different variation field.
To add a variation field.	Add a content element to the communication that uses a different variation field. Save and publish the communication to make the new field available in the editor.

## Adding content by reference

As an alternative to manually dropping content into zones, you can add video, PDFs, images and snippets automatically by adding a reference to them in a communication template.

You create the content reference by assigning a unique alphanumeric value to a video, image, PDF, or snippet in the Content Library. The value is referred to as a Content Library reference label. You specify the reference label as an attribute of the custom `<UAEreferenceLabel>` tag in a communication template. When you preview or publish the document, Deliver replaces the tag with the referenced content.

To add a video, image or HTML snippet by reference, you must insert the custom HTML tag, `<UAEreferenceLabel>` into the HTML code for a SMS, WhatsApp, email or landing page template, or in an HTML snippet. You can also add the `<UAEreferenceLabel>` tag to advanced scripts for email.

## HTML attributes for content added by reference

When you add images by reference, you can define other HTML attributes in the `<UAEreferenceLabel>` tag to control the appearance of the image in the communication. However, the `<UAEreferenceLabel>` tag does not support defining HTML attributes for snippets that you add by reference.

The `<UAEreferenceLabel>` tag supports the `style` attribute and all HTML attributes that are valid for images, including `height`, `width`, and `alt`. To more reliably render images in all email clients and browsers, define `height`, `width`, and `border` as elements of the `style` attribute.

For example, to reference a JPG image from the Content Library that measures 100 pixels by 200 pixels, insert the `<UAEreferenceLabel>` tag into the communication template, as follows.

```
<UAEreferenceLabel n="RewardGold" style="height:100px;width:200px;border:1px DarkBlue solid" alt="Rewards for our best customers"/>
```

In this example, `RewardGold` is the reference label that you defined in the Content Library for the image. The `height` and `width` elements determine the image size. Defining text for the



`alt` attribute provides a message that displays if the receiving email client is configured to turn images off.

## Adding content references to communications and scripts

To add content to an email or landing page by reference, add the custom `<UAEreferenceLabel>` tag to the HTML code in a template or HTML snippet. You can also insert the tag into the code for advanced scripts for email when you add a script to a template.

The `<UAEreferenceLabel>` tag takes the name of a content reference label name as an attribute, with the syntax `<UAEreferenceLabel n="reference label name"/>`. You add the **content reference tag** to the template or snippet where the referenced content is to be added. However, you define the **reference label name** in the configuration of the digital asset that is being referenced.



**Note:** Although Deliver supports reference labels in HTML snippets, it does not support content references in text blocks.

1. Open the template, snippet, or script for editing.

Use any external HTML or text editor to add the reference label before you upload a snippet or template to the Content Library. After you upload a snippet or template, use the various editors available in the Message Editor to add or edit a reference label tag.

2. Insert `<UAEreferenceLabel n="reference label name"/>` where you want the content element to display. Replace "reference label name" with the name of the reference label that is assigned to the digital asset that you want to reference. The reference label name in the `<UAEreferenceLabel>` tag must exactly match the reference label name that is specified in the configuration of the asset that you reference.

## Content references in text-only email

In Deliver, text-only email is formatted as an HTML document and includes the `<html>` and `<body>` tags. Because text-only is based on an HTML document, you can use the `<UAEreferenceLabel>` tag add content to text-only email by reference.



**Note:** You cannot insert images by reference into a text-only email document communication.

If you auto-generate text-only email from an HTML communication that contains a `<UAEreferenceLabel>` tag, the system incorporates the tag without changes. However, if the reference label specified in the HTML message points to an image, you must redefine the content reference because text-only email does not support images. The system does not automatically validate whether or not a referenced asset is supported in text-only email.

## Content references in advanced scripts for email

Using a content reference is the only way to display content from the Content Library in an advanced script.

You can add content by reference to an advanced script for email by inserting the `<UAEreferenceLabel>` tag directly into the body of the script where you want the content to appear.

## Nested content references

You can use content references in combination with each other to quickly create sophisticated content structures for marketing email. A content reference can point to a digital asset that contains another content reference. In turn, the target of the second asset can contain yet another content reference. This practice is called creating nested content references.

You can use nested content references to save a considerable amount of development time. When you nest content references, you need only to add the top-level asset to the communication to display all of the referenced assets.

For example, you can use nested references to create an email footer that references a privacy policy, terms and condition statement, and company logo. In this example, you add a single digital asset, called **footer**, to add multiple assets to the document.

Digital Asset	...points to asset	The asset contains
footer	stdFooter.htm	Snippet that contains the label: PrivacyPolicy.
PrivacyPolicy	policies-Priv.html	Snippet that contains the label: privacyWebpage.
privacyWebpage	PrivacyPage.html	Snippet that contains a hyperlink to a page on the company website to describe the privacy policies in detail.

## About avoiding circular references

When you configure a series of nested content references, you must be careful to avoid having a content reference that refers to itself. Doing so creates a circular reference which results in document processing that Deliver can never complete.

For example, in the following reference hierarchy a series of text blocks describe a campaign to encourage customers to upgrade their membership level. The chain of references contains a circular reference to the label GoldCustPromo. If you add GoldCustPromo to an email template, Deliver displays an error message and prevents you from previewing or publishing the email.

Content Reference	...points to content element	The content element contains
GoldCustPromo	GoldCustomerPromo.htm	Text block containing label: GoldBenefits
GoldBenefits	Benefits_GoldAcct.htm	Text block describing reasons to upgrade to a gold account and contains the label: GoldOffer

<b>Content Reference</b>	<b>...points to content element</b>	<b>The content element contains</b>
GoldOffer	GoldOffer.htm	Text block that describes an upgrade promotion and includes the reference label: <code>GoldCustPromo</code> Note: this is the point where the circular reference occurs.

## About managing nested references

Creating hierarchies of nested content references allows you to save time by creating sophisticated content relationships but doing so also adds a degree of complexity that you must manage carefully. For example, preventing circular references can become more difficult as you increase the number of reference labels in a series of nested references.

Including multiple levels of nested references also adds to the processing work that must perform to render content elements when you preview or publish a document. The greater the number of nested references, the longer it takes to preview or publish an email document.


To effectively manage nested references and to render the nested content efficiently, Unica strongly recommends that you avoid creating content reference hierarchies greater than 3 levels deep. Deliver enforces a maximum nesting limit of 10 levels.

## Adding a reference label to a digital asset

You add a reference label to a digital asset by editing the asset properties. You can add a reference label when you create the content element or at any time after you create the element in the Content Library.

1. Open the digital asset for editing.
2. In the **Reference Label** field, enter a name.

Reference label names must be unique within the Content Library. Reference label names are not case-sensitive, so changing capitalization is not enough to make the name unique.

3. Click **Save Changes**  to add the reference label to the asset.

## Changing the content referenced by a reference label

Content reference labels can reference only one asset at a time. However, you can update a reference label to reference a different asset by moving the reference label name to the other asset. Reassigning a reference label name gives you the ability to update multiple email and landing page communications simultaneously.

For example, to insert an image of the product logo into email by reference you might apply the reference label name `ProductLogo` to the uploaded image. If the product logo changes, you can quickly update all templates, snippets, and scripts that reference the old logo. Upload the new logo to the Content Library and add `ProductLogo` to the new image.

Changes that you make affect any document that points to the content reference label you are changing. All documents display the new content element to which you are adding the reference label. Consider the implications of such a change carefully.



**Note:** Communications that are already published do not automatically reflect changes to content reference labels they contain. To update published communications, you must republish the communication.

1. Open the digital asset to which you want to switch the reference label name.
2. In the **Reference Label** field, enter the name of the existing reference label that you want to apply.

The system displays a warning that the reference label is used by another content element and that continuing affects any documents that include it. In this case, because you do want to change the asset that is associated with the label, continue to edit the label name.

3. Click **OK** to continue.

The label now references the new asset. The reference label is removed from the digital asset to which it was previously applied.

To see the content change in documents that contain a reference to the updated label, you must publish each document.

The new content displays when you open an email or landing page that includes a reference to the updated label. If the email or landing page is open, you must close and reopen it to see the change.

## Reference label names

Reference labels do not appear as separate object that you can view and organize in a Content Library folder. Because of this, creating clear, intuitive reference label names is very important to using them effectively, especially if individuals who were not involved in creating the labels are expected to use them.

Some content that you use everywhere can use a simple reference name. For example, you might create content references with obvious names like copyright or Company Logo. Using simple names might be sufficient if you insert content by reference in a limited number of documents and circumstances.


However, as you become more sophisticated in how you add content by reference, the number of labels in active use can grow to be quite large and diverse. Establishing a well-understood and well-publicized naming convention will be essential to helping multiple users employ them consistently and managing changes. .

## Changing the name of a reference label


You can change the name of a reference label, but changes you make here can affect other templates and content elements.

The system validates your changes for the following conditions.

- Other content elements reference the label you want to change.
- The new name that you want to use is already in use by another content element.

1. In the Content Library, open the content element for editing.
2. In the **Reference Label** field, change the name of the reference label.
3. To save the new reference label, as a property of the content element, click **Save Changes** .

The system validates your changes and warns you of potential conflicts.

- The system displays a warning if other content elements refer to the label you are changing. Click **Find Label References**  for a list of templates and content elements that will be affected if you continue.
- If your changes result in a label name that is already associated with another content element, the system warns you that the label name is already in use. If you do not want to change the content associated with the label indicated in the warning, click **Cancel** and choose another name.

If you continue, any document that includes the reference label indicated in the warning will change. It will now use the content element that you are editing instead of what it displayed previously. This may not be what you intend to do. Consider the implications of such a change carefully.

## Possible reference label naming conventions

You can follow various strategies to manage your collection of reference labels. Consider the following examples of reference label naming conventions. These are only suggestions.

You might use a common prefix to group related label names, as follows.

- product\_footerImage
- product\_termsOfService
- product\_brandLogo1
- product\_brandLogo2
- product\_SummerPromo

You can use suffixes as the means distinguish labels.

- brandLogo\_big\_productA
- brandLogo\_sm\_productA
- brandLogo\_big\_productB
- brandLogo\_sm\_productB

Incorporate a hierarchy in the label names.


- acct/gold/terms
- acct/gold/terms/PayOptOnline
- acct/gold/terms/PayOptSched
- offers/gold/intro
- offers/gold/loyalty

## Finding where reference labels are used

You can use the same content reference in multiple templates or HTML snippets. Finding which templates and content elements refer to a reference label can be essential to determining the impact of reference label changes on email and landing page documents that have been created in the Message Editor.

You can find templates and snippets that contain a particular content reference label in the configuration of digital asset that uses the reference label. For example, if you have created an HTML snippet to provide a product description that appears in multiple email templates, you can find each template that refers to the snippet. If you need to change the description, finding which templates refer to the snippet can help you determine the impact of the change.

1. In the Content Library, locate a digital asset that uses the reference label.

If you do not know which assets use the reference label, you can click **Search for objects**  at the top of the navigation pane to perform a keyword search. Reference labels are identified in a separate column in the results.

Do either of the following.



- Open the digital asset for editing.
- Right click the listing for the asset in the Content Library folder hierarchy.

2. Click **Find Label References** .

The Content References tab displays a list of templates and snippets that reference the asset through the reference label that has been defined in the asset properties.

3. To view nested references, you can right-click an asset listed on the Content References tab to view other assets that refer to asset that you selected in the list.

In the Content References tab, right-click in any of the column headings and select **Columns > Reference Label** to display the Reference Label column. For each asset in the list, the Reference Label column identifies the content reference label, if any, that has been defined for the asset.

## Connections to external content

You can connect email and landing pages that you create in Deliver to content that is stored outside of your HCL Unica installation. Create the connections in zones with the Content Connector widget or embed the connections in HTML templates or HTML snippets.

Connecting to external content gives you the flexibility to update email and landing pages without opening a communication. Content connections also give individuals that do not have access to your Unica installation the ability to contribute content to your marketing email and landing pages.

You can add connections in HTML email or text-only email to external content that is provided from the following sources.

- HTML or text content on a web server
- HTML or text content on an FTP server hosted by HCL (not available for landing pages)
- Content from an RSS feed (not available for landing pages, email sent as an A/B test, or transactional email messages)

When you configure the connection, you must specify when the system retrieves the content from the source and adds it to the email or landing page.

The system provides options to retrieve the content from the source either when you publish the communication or when you send the message. The specific options available for each connection depends on the type of content, the type of communication, and the source of the content.

If an email contains a View As Web Page link, you can configure the content connection to include or exclude the external content in the web page version of the message.

You cannot create a content connection to an image file or other types of digital files. However, HTML snippets that you add through a content connection can include images if you include the full path to each image.

You cannot create a connection to content that contains a <UAEreferenceLabel> tag. The <UAEreferenceLabel> tag is used to reference digital assets that are stored in the Content Library.

After you add a content connection, you can preview the communication to see how the connected content appears to a message recipient. You can also preview the message in the Message Editor. or from a link on a mailing tab in Campaign.

## General guidelines for connecting to external content

When you connect an email or landing page to external content, you must specify the source of the content and when the system retrieves the content from the source. The options and methods for doing so depend on the type of connection, content source, the type of communication, and the method for adding the connection to the communication.

To ensure that the external content displays in your marketing communications as expected, consider the behavior of the external connection that you add to email and landing pages. Preview the design to ensure that the added external content appears as you intend.

See the related topics for specific guidelines and considerations related to external content connections.

## Precautions for connecting to external content

Deliver imposes specific requirements and restrictions on connections to external content in email and landing pages.

You cannot link a content connection directly to an image file. However, you can connect to an HTML snippet that contains images. In a snippet, all image links must use absolute paths. You cannot connect to snippets that use partial paths for images.

If you add a content connection to a text-only email, you must remove all non-text content from the file to which you are connecting. Deliver does not validate the file contents to ensure that the content displays in the text-only format.

Do not include CDATA in external content that you connect to HTML email or landing pages. The mailing fails to run if CDATA is present in the content.

You cannot include OLT personalization fields in the file path to external content that you connect to an email or landing page.

## Content connections in zones

To add a content connection to a zone in an email or landing page communication, use the Content Connector widget. When you add a content connection to a zone, you specify the content to retrieve, where the content is stored, and when to retrieve it. Each connection specifies a single HTML or text file, or RSS feed as the source.

For email, you can add content from a web server, an FTP server, or RSS feed (RSS connections are not supported in A/B tests or transactional email).

For landing pages, you can add content from an external web server only.

You can add multiple content connections to a zone. Define personalization rules to determine how the message displays the connected content.

## Content connections embedded in templates and snippets

To embed a content connection in an email or landing page communication, you must modify the HTML code of the communication template or the HTML code of a snippet that

you add to the communication. The method required to embed the connection depends on the type of content connection.

When you embed a connection, you must specify the content to retrieve, where the content is stored, and when to retrieve it.

For connections to content on a web server or on the FTP server that is hosted by Unica, use the `<UAEconnect/>` tag. Add the tag to the HTML source code of the email or landing page template or to an HTML snippet. You can also embed the tag in a text-only email but you can link only to content that can display as text.



**Note:** You cannot use a `<UAEconnect>` tag as the value for OLT personalization fields that you add to a communication.

For connection to content on an RSS feed, use the `<UAEScript/>` tag. Connections to content on an RSS feed are based on advanced scripts for email. To embed the connection in an HTML template or snippet, you must configure an advanced script to define the connection.

For more information, see the topics in this guide that are related to the type of connection that you want to embed.

## When to retrieve external content

When you configure a content connection, you must specify when the system retrieves content from the FTP server, web server, or RSS feed. Connections in email messages can retrieve content when the email communication is published or when the email message is sent. Connections in landing pages can retrieve content only when the landing page communication is published.

Consider the following questions when you specify content retrieval time.

- What type of content are you connecting to?
- How often does the content change? If so, how often?
- When will the message be sent?

To ensure that an email message contains the latest content, configure the connection to retrieve content when the message is sent. When you select this option for email sent in a standard mailing, the system retrieves the latest content from the source immediately before the mailing runs. This option is available only for connections in email messages.



**Note:** Connections in transactional email that are configured to retrieve content when the message is sent actually retrieve content when the mailing is enabled for transactional email.

If you configure the connection to retrieve content when you publish the communication, the system adds content that was current when you last published the communication. Connections in hosted landing pages retrieve content only when you publish the landing page communication. This option is not available for connections to RSS feeds.

If the external content that you specify in a content connection is likely to change, plan content retrieval times carefully. This is especially true for landing pages and for connections in email that retrieve content when the message is published. If your content changes more often than you publish communications, you risk sending or displaying outdated content.

Planning for content connections must always compare how often the content changes to how often you send messages that contain the external content.

## Options for connecting content to the View as Web Page version of an email

The system creates the View As Web Page version of the email by generating a copy of the message as a hosted landing page. If the message contains content connections, you can include the external content in the View As Web Page version of the email. You also have the option to omit the external content from the page.



**Note:** This option is not available for landing pages and connections in email to RSS feeds.

The View as Web Page version of an email retrieves updated content only when you publish the email communication. The content in the web page version can become outdated if the external content can change and if connections in the email retrieve content when the message is sent. To avoid outdated content, either configure connections in the email to retrieve content when the message is published or omit the external content from the web page version.

If you omit the external content from the web page version, consider how removing the content affects the content and layout of the page.

If you configure connections in the email to retrieve content when you publish the email, publish the email every time the external content changes.

## External content in transactional email messages

Transactional email messages can contain external text or HTML content. To include external content in transactional email, add content connections to the email communication that is referenced in a mailing that you enable for transactional email. If the external content might change, you must take precautions to ensure that the message includes the correct version of the content.

For transactional email, content connections retrieve the external content from the server when you enable the mailing for transactional email, not each time that you send or publish the email.

- For connections that retrieve content when the message is sent, the connections retrieve content from the server when you enable the mailing for transactional email.
- For connections that retrieve content when the email is published, you must publish the communication before you enable the mailing for transactional email.

If the mailing is already enabled for transactional email when you retrieve new content from the server, you must disable and re-enable the mailing for transactional email to include the new content in transactional email messages.



**Note:** You cannot include external content from an RSS feed in an email message that is enabled for transactional email.

## External content in scheduled mailings

You can add content connections to email messages that you send in mailings that you schedule. However, if the external content might change, you must plan carefully to ensure that the email messages contain the correct content when the scheduled mailing runs.

Coordinate content changes with your mailing schedule. Scheduling mailing times is especially important for connections that you configure to retrieve when the message is published. If the external content changes after you publish the email communication, the scheduled mailing may contain obsolete content.

If the message for a scheduled mailing links to a hosted landing page, consider if or when external content might change. Content connections in hosted landing pages can retrieve content only when you publish the landing page communication. If the landing page contains content that can change, make sure to publish the landing page before the start of the scheduled mailing run.

## External content in A/B tests

You can add content connections to email messages that you send as part of an A/B test. The external content that is connected to the winning split is the version that is included with the final mailing.

A/B tests often determine the winner at least in part that is based on differences in content. It is important to consider when content connections retrieve content in each A/B split. If any of the splits link to content that might change during the A/B test, plan content retrieval to ensure that the correct content is included in the test.

The start of the split does not affect connections that are configured to retrieve content when the message is published. You must publish the email communication before you add it to a split. Changes to content after you publish the message are not included in the split results.

When the A/B test finishes and a winner is declared, the system sends the content that was retrieved for the winning split. The system does not refresh the content with current content from the FTP or web server. The external content that was retrieved when the winning split started to run is included in the final mailing.



**Note:** You cannot include external content in an email message that is sent as part of an A/B test.

## Preview results when external content might change

When you connect an email or landing page to external content that changes, email and landing page previews might not be accurate in some situations. When you preview, consider how often the content changes, when the connection retrieves the content, and how you access the preview.

In an email or landing page that contains content connections, the external content can be in either of two states.

- *Current* The latest version of the external content that is present on the FTP or web server when you preview the message.
- *Published* The version of the external content that was present on the FTP or web server when the email or landing page was published.

Depending on the type of communication and the content retrieval setting, the content that you see in a preview might not be the content that is seen by an email recipient or landing page visitor. If you update the content on the FTP or web server after you publish the connected email or landing page communication, the current and published versions of the external content will differ from each other.

The following table illustrates the possible preview results.



**Note:** Connections to RSS feeds always retrieve current content when the message is sent.



**Preview results**


Communication	Content Retrieve Setting	Version that you see in preview		External content that the recipient or visitor sees
		Mailing tab	Message Editor	
Email	When sent	Current® (at preview time)	Current® (at preview time)	Current® (when the mailing starts or is enabled for transactional email.)
	When published	Published	Current® (at preview time)	Published
Landing page	When published	Not available	Current® (at preview time)	Published
View As Web Page	When published	Not available	Current® (at preview time)	Published
	Do not include external content	Not applicable	Not applicable	Not available

## Previewing communications that contain external content

When you design email or landing pages that contain content connections, you can preview how the connected content appears in the communication. The preview results depend on the configuration of the connection, the type of communication, and how you access the preview.

You can preview email communications in the Message Editor and through a link on the mailing tab.

You can preview landing page communications only in the Message Editor.

- In the Message Editor, click **Preview**  to preview an email or landing page and the connected content they contain.

The preview in the Message Editor always displays the current content that is available on the FTP server or web server.

- On the mailing tab, click **Preview Document** to preview an email message and the connected content it contains.
  - For connections that are configured to retrieve content when the message is sent, you see the content that is currently available on the FTP or web server.
  - For connections that are configured to retrieve content when the message is published, you see the content that was available on the servers the last time that the message was published.
  - You cannot preview a landing page from the mailing tab.

## Connections to content on a web server

You can connect email or landing pages to content in files that are stored on a web server. The system must be able to connect to the server automatically. The files must return HTML or text content.

When you configure the content connection, you must specify the full path to the server. The system retrieves content from the web server over HTTP.




**Note:** To connect over a secure connection, you must store content on the FTP server that is hosted by Unica.

You cannot add content from the hosted FTP server to a hosted landing page. To add external content to landing pages, you must store the external content on a web server.

## Adding content from a web server to a zone

You can use the Content Connector to retrieve HTML and text content from a web server that is installed outside your HCL Unica installation. The system downloads the content over HTTP.

1. In a communication, drag the Content Connector widget  into the zone or right-click the zone and select **Content Connector**.

The Content Connection window opens.

2. Specify the content source. Select **External web address**. Enter the URL for the web server that contains the content.

This setting instructs the system to automatically retrieve content from the web server over HTTP according to the retrieval setting.

3. Specify when to retrieve the content and add it to the communication.

- a. To retrieve content each time that you publish the communication, select **When the message is published**.

- b. To retrieve content when you send the email, select **When the message is sent**.

Content connections added to hosted landing pages can retrieve content only when you publish the landing page communication.

4. If you are adding a connection to an email message that contains a View As Web Page link, indicate whether to include or exclude the external content in the web page version of the message.

If you include the external content, the connection retrieves the content only when you publish the email communication. If the content changes, you must publish email communication again to retrieve the latest version.

5. To see how the connected content will appear in the communication, click **Preview**.

The Preview tab opens to display a sample of the connected content.

6. Click **OK** to save the changes and add the content connection to the zone.

## Embedding connections to content on a web server

Use the custom tag `<UAConnect>` to embed a connection to content on a web server. Add the tag to the HTML code for an email or landing page template or in an HTML snippet.

For email:

```
<UAEconnect n="[content source path]" t="[retrieve time]-[View As Web
Page update]"/>
```

For landing pages:

```
<UAEconnect n="[content source path]" t="[retrieve time]"/>
```

The attribute for the content source path must define the URL or path to the file that provides the content. You cannot include OLT personalization fields in the path to the file.

The retrieval time indicates when the system downloads source content. For content connections in email, you can configure the connection to retrieve content when you send the message or when you publish the email communication. For landing pages, the connection can retrieve content only when you publish the landing page communication.

If the communication contains a View As Web Page link, the value for View As Web Page update indicates whether the system includes the external content in the web page view of the message, or excludes it. Updates to the web page version of an email message occur only when you publish the communication.



**Note:** By default, the system updates content when the email message is sent and the system adds the content to the web page version of the message. If you do not specify values for retrieve time and View As Web Page update, the system uses the default values.

Complete the following steps to embed a content connector.

1. Indicate the location of the content source by entering the appropriate prefix for the path to the source.

For content on a web server: n="http://<url>"

2. Specify when to retrieve the content.

- To retrieve when the communication is published: `t="publish-<web page update>"`
  - To retrieve when the message is sent: `t="send-<web page update>"`
3. Indicate whether to include connected content in the web page version of the email message.

This setting applies only if the communication contains a View As Web Page link.

- To include external content in the View As Web Page version: `t="<retrieve time>-webpublish"`
- To exclude external content in the View As Web Page version: `t="<retrieve time>-noweb"`

The table illustrates the format of the `<UAEconnect>` tag for typical content connections to a web server.

#### UAEconnect tag format

Source Location	Content Retrieval Time	Update View As Web Page	Tag Format
Email			
Web server	Publish	Yes	<code>&lt;UAEconnect n= "http://&lt;url&gt;" t="publish-webpublish"/&gt;</code>
		No	<code>&lt;UAEconnect n= "http://&lt;url&gt;" t="publish-noweb"/&gt;</code>
	Send	Yes	<code>&lt;UAEconnect n= "http://&lt;url&gt;" t="send-webpublish"/&gt;</code>
		No	<code>&lt;UAEconnect n= "http://&lt;url&gt;" t="send-noweb"/&gt;</code>
Landing page			
Web server	Publish	Not Applicable	<code>&lt;UAEconnect n= "http://&lt;path&gt;/file.extension" t="publish"/&gt;</code>

You can preview the message to see how the connected content displays in the message. The version of the content that you see in the preview depends on the content retrieval settings and whether you preview from the Message Editor or a mailing tab in Campaign.

## Requirements for connecting to content on a web server

The web server that provides external content to an email or landing page can be installed anywhere outside of HCL Unica. Unica does not host a web server to support content connections. The server does not need to be installed in your local HCL Unica environment. To ensure that the system can consistently retrieve content that is stored on a web server, the server must meet certain requirements.

Deliver must be able to access the server automatically. The web server must be able to respond to the connection request within 10 seconds.

Deliver downloads files from the web server over an HTTP connection, not over HTTPS. Downloads from a web server to a content connection are not encrypted. If you require download over a secure connection, you must upload content to the hosted FTP server.

The names of the files on the server must exactly match the file name that is specified in the content connection. If you rename a source file on the web server, you must update the file name in the corresponding content connection.

## Connections to content on the FTP server hosted by HCL

You can configure a connection in email messages to retrieve HTML and text content from an FTP server that is hosted by Unica as part of HCL Unica. The system downloads the content to the communication over a secure FTP connection.



**Note:** This option is not available for content connections in landing pages hosted by Unica.

You must configure your system to automatically provide login credentials to access the FTP server. The credentials for the FTP server are different from the credentials that are required to upload OLT files to HCL Unica.

To request an FTP server account for use with content connections, contact Deliver Services via HCL technical support team.

## Requirements for connecting to content on the hosted FTP server

The hosted FTP server that can provide external content to email messages is part of HCL Unica. Content from the hosted server is provided over an encrypted FTP connection. The connection to the server, and the content that you upload, must meet certain requirements.

To connect an email to content on the FTP server, your hosted messaging account must have valid login credentials to the FTP server. The FTP connection requires specific access credentials. Do not attempt to connect to the FTP server with the credentials that you use to upload recipient information in an Output List Table (OLT).

Your local HCL Unica environment and the hosted FTP server communicate over passive FTP. The system supports two passive FTP methods, explicit FTP and implicit FTP.

The local HCL Unica installation and HCL Unica Hosted Services establish FTP communication over the ports listed in the table.

<b>Port Type</b>	<b>Explicit FTP</b>	<b>Implicit FTP</b>
FTP command port	Port 21	Port 990
FTP data upload ports (US data center)	ports 15393 to 15424	ports 15600 to 15701
FTP data upload ports (UK data center)	ports 15393 to 15443	ports 15600 to 15650

HCL Unica never initiates a connection with your local network. It only responds to connection requests initiated from behind your firewall.

You can upload only HTML or text files with the following file extensions to the hosted FTP server.

- .html
- .htm
- .txt

The combined size of all files that you upload to the hosted FTP server cannot exceed 250 MB. After you upload files to the FTP server, the files are immediately available for selection when you configure a content connection.

The names of the files on the hosted FTP server must exactly match the file name that is specified in the content connection. If you rename a source file on the FTP server, you must update the file name in the corresponding content connection.

For more information about how to configure your system to provide FTP access credentials see the [Deliver Startup and Administrator's Guide](#).

## Adding content from the hosted FTP server to a zone

You can use the Content Connector to connect an email message to HTML and text content that is stored on an FTP server that is hosted by Unica. However, you cannot connect a landing page to content that is saved on the FTP server.

1. In a communication, drag the Content Connector widget  into the zone or right-click the zone and select **Content Connector**.

The Content Connection window opens.

2. Specify the content source. Select **Uploaded file**.

This setting instructs the system to automatically retrieve content from the hosted FTP server over a secure connection according to the retrieval setting.

3. Specify when to retrieve the content and add it to the communication.

- a. To retrieve content each time that you publish the communication, select **When the message is published**.

- b. To retrieve content when you send the email, select **When the message is sent**.

4. If you are adding a connection to an email message that contains a View As Web Page link, indicate whether to include or exclude the external content in the web page version of the message.



If you include the external content, the connection retrieves the content only when you publish the email communication. If the content changes, you must publish email communication again to retrieve the latest version

5. To see how the connected content will appear in the communication, click **Preview**. The Preview tab opens to display a sample of the connected content.
6. Click **OK** to save the changes and add the content connection to the zone.

## Embedding connections to content on the hosted FTP server

Use the custom tag `<UAConnect>` to embed a connection to content on the FTP server that is hosted by Unica. Add the tag to the HTML code for an email template or in an HTML snippet. You cannot embed a connection to the FTP server in a landing page template.

In an email communication, embed the connection to the FTP server in the following format.

```
<UAConnect n="[content source path]" t="[retrieve time]-[View As Web
Page update]"/>
```

The attribute for the content source path must define path to the file on the hosted FTP server that provides the content. You cannot include OLT personalization fields in the path to the file.

The retrieval time indicates when the system downloads source content. You can configure the connection to retrieve content when you send the message or when you publish the email communication.

If the communication contains a View As Web Page link, the value for View As Web Page update indicates whether the system includes or excludes the external content in the web page view of the message. Updates to the web page version of an email message occur only when you publish the communication.



**Note:** By default, the system updates content when the email message is sent and the system adds the content to the web page version of the message. If you do not specify values for retrieve time and View As Web Page update, the system uses the default values.

1. Indicate the location of the content source by entering the appropriate prefix for the path to the source.

For content on the hosted FTP server: `n="file://<file path>"` The file path is a relative path to the FTP account home directory.



**Note:** The credentials for the FTP server are different from the credentials that are required to upload OLT files to HCL Unica

To request an FTP server account for use with content connections, contact your Unica representative.

2. Specify when to retrieve the content.

- To retrieve when the communication is published: `t="publish-<web page update>"`
- To retrieve when the message is sent: `t="send-<web page update>"`

The table illustrates the format of the `<UAEconnect>` tag for typical content connections.

### UAEconnect tag format

Source Location	Content Retrieval Time	Update View As Web Page	Tag Format
Email			
FTP server	Publish	Yes	<code>&lt;UAEconnect n=?file://dir/file.extension? t="publish-webpublish?/&gt;</code>
		No	<code>&lt;UAEconnect n=?file://dir/file.extension? t="publish-noweb?/&gt;</code>
	Send	Yes	<code>&lt;UAEconnect n=?file://dir/file.extension? t="send-webpublish?/&gt;</code>
		No	<code>&lt;UAEconnect n=?file://dir/file.extension? t="send-noweb?/&gt;</code>

You can preview the message to see how the connected content displays in the message. The version of the content that you see in the preview depends on the content retrieval settings and whether you preview from the Message Editor or a mailing tab in Campaign.

## Connections to content on an RSS feed

You can use the Content Connector to configure connections in email messages that retrieve content from an RSS feed when you send the message. The connections to RSS feeds are built using the same advanced scripting language that you can use to add nested conditional content and data tables to email messages. Unica has adapted the script syntax to create connections to RSS feeds. You can modify the script to customize the RSS connection.

Adding content from an RSS feed to your marketing email provides the ability to present the very latest information to message recipients. For example, if you send a monthly email newsletter, you can automatically include updated items of interest from one or more RSS news feeds each time that you send newsletter.

When you send the email message, the system automatically retrieves the content available on the feed at that time. You can control how the content appears in the email and how many items are included. You can also personalize how the RSS content appears for each message recipient. You can connect to RSS feeds that are created in either RSS or Atom formats.

The RSS connection retrieves content that is available on the feed only when the email is transmitted. The connection does not refresh the content when the email recipient opens the email. To establish a link to an RSS feed that provides continually updated RSS content, you must add a hyperlink to the feed in the communication.

You can add a connection to RSS feeds using the Content Connector in a zone, by embedding the connection in an HTML email template or HTML snippet, or by referencing a snippet that contains an RSS connection.

The Content Connector interface provides two predefined display format options. The interface also provides access to the script that defines the connection. You can customize a connection by editing the script that defines it. For more information about editing

advanced scripts, see Appendix A. Using advanced scripts in email and the related topics in this guide.

## Scripts that define a connection to an RSS feed

Each connection to content on an RSS feed is defined by a custom script. You can modify the script to customize and personalize how the content displays to message recipients. Each script is enclosed with the custom `<UAEScript>` tag and includes a declaration section and a body section. The script body defines the header of the RSS connection and the list of RSS items that are displayed in the message.

The following diagram illustrates the typical structure of a script that defines a connection to content on an RSS feed.


### As seen in the script editor

```
<UAEScript>
<declareRSS source="http://rss.example.com/typicalfile.example.com/rss.xml"
feedName="rss" sendMin="" dateRange="" maxRows="5"/>
<!--scriptBody>
<h2>${rss.title}</h2>
<@list feedName="rss" maxRows=5; item>
  <a href=${item.link}><strong>${item.title}</strong></a><br><br>
</@list>
</scriptBody-->
</UAEScript>
```

### Expanded view of the script

```

A <UAEScript>
B <declareRSS
  source="http://rss.example.com/typicalfile.example.com/rss.xml"
  feedName="rss" C
  sendMin=""
  dateRange=""
  maxRows="5"/>
D <!--scriptBody>
E <h2>${rss.title}</h2>
F <@list feedName="rss" maxRows=5; item>
  <a href=${item.link}><strong>${item.title}</strong></a><br><br>
  </@list>
  G
</scriptBody-->
</UAEScript>
```

<p><b>A</b></p>	<p>&lt;UAEScript&gt; tag. Encloses an advanced script for email. Edit the script to create a custom connection. When you embed the script in a template or snippet, include the opening and closing tags and everything in between. The &lt;UAEScript&gt; tag is not case sensitive.</p> <p>More information:</p> <p><a href="#">Editing the display format to create a custom RSS connection (on page 308)</a></p> <p><a href="#">Embedding connections to an RSS feed in a template or snippet (on page 311)</a></p>
<p><b>B</b></p>	<p>Declaration section. You must declare the RSS source, the feed name, and number of rows to be displayed. Declare personalization fields if you add them to the connection.</p> <p> <b>Note:</b> Remove all empty spaces before the closing bracket of the &lt;declareRSS&gt; tag.</p> <p>More information:</p> <p><a href="#">Declaring retrieve and display variables for RSS connections (on page 313)</a></p>
<p><b>C</b></p>	<p>The name of the feed. The value is used as the prefix to RSS fields that you add to the header.</p> <p>More information:</p> <p><a href="#">Configuring the RSS connection title (on page 314)</a></p>
<p><b>D</b></p>	<p>Body of the script. The script defines the list of RSS items that are displayed in the message. The script also defines a title for the section.</p> <p>More information:</p> <p><a href="#">Editing the display format to create a custom RSS connection (on page 308)</a></p>
<p><b>E</b></p>	<p>Title section. The default connection defines the RSS title inside the header tag (&lt;h2&gt;). You can apply different HTML formats to the title, and to other parts of the script.</p>

	<p>More information:</p> <p><a href="#">Configuring the RSS connection title (on page 314)</a></p>
F	<p>List section. The list is defined within the @list tag.</p> <p>More information:</p> <p><a href="#">Configuring the list of RSS items (on page 315)</a></p>
G	<p>Loop variable. Determines how the script loops through the source to present the content. This value is used as the prefix for RSS fields that you add in the list section. <a href="#">Configuring the list of RSS items (on page 315)</a></p> <p>More information:</p> <p><a href="#">RSS fields supported in connections to RSS feeds (on page 320)</a></p>

If you add an RSS connection to a text-only email, you must manually remove all HTML formatting from the script that defines the connection. For example, the default RSS connection formats the RSS title inside a `<h2>` tag. If you generate a text-only version of an HTML email that includes a connection to an RSS feed, you must remove the `<h2>` tag from the RSS title in the text version only.

## Requirements for connecting to content on an RSS feed

To ensure that the system can consistently retrieve content that is provided on an RSS feed the connection and the RSS must meet certain requirements.

The RSS feed must be publicly accessible. The feed must not require access credentials to open.

You must be able to provide the location of the XML file that creates the RSS feed. The RSS connection can access RSS feeds that use either the RSS or Atom format. Examine the target RSS feed carefully. Consider the type of content that the feed provides, the length of the item summaries, and how frequently that new content appears on the feed. When you configure a connection, you must specify how much content to retrieve and how much to display in a marketing message.

The content and description of the RSS feed to which you connect is maintained by the feed owner. HCL does not maintain or moderate the feeds to which you connect.

To achieve predictable results when you edit scripts for RSS connections, you should have a solid understanding of how to write and implement HTML scripts.

## Adding content from an RSS feed to a zone

The Content Connector includes settings to add and configure a connection to content available on RSS feeds. Add the connector into a zone that is located where you want the contents of the feed to appear.



**Note:** Adding a connection to an RSS feed is not available for content connections in landing pages or in email messages configured to run as an A/B test.

1. In an email communication, drag the Content Connector widget into the zone or right-click the zone and select **Content Connector**.

The New Content Connection window opens.

2. In the Content Source section, select **RSS feed**.

The RSS feed field and RSS display and retrieval options are enabled. Options not related to RSS connections are disabled.


3. In the RSS feed field, enter the location of the XML file that defines the RSS feed.

4. Select an RSS display format from the list of display options.

**Summary:** Includes only the title of each RSS item. Each item appears as a link.

**Detailed:** For each item, includes the title (as a link), the date and time when the item was added to the feed, and a brief summary of the content.

**Custom:** Enabled when you edit a Summary or Detailed connection.

5. Optionally, change how the system retrieves items from the RSS feed and how it displays them in an email. Click **RSS retrieve and display options** . In the RSS Retrieve and Display Options window, configure the following options.

- What to retrieve from the RSS feed. You can control how many items the connection retrieves from the RSS feed.
  - Optionally, indicate if you do not want to send the message unless a minimum number of items have been added to the RSS feed.
  - Specify the maximum number of RSS items to display the email message. By default, the system displays a maximum of 5 items.
6. Click the **Preview** tab to see how the RSS items appear when the message is transmitted. The preview includes up to the maximum number of RSS items that is specified in the maxRows setting for the connection. The RSS Display Format tab displays the script that defines the connection.
  7. To save all changes for the RSS connection, click **OK** in the Content Connection window.

## Editing the display format to create a custom RSS connection

In an email communication, you can create a custom connection in a zone to an RSS feed by modifying one of the predefined display formats. When you edit a display format, the system opens a script editor so that you can customize the advanced script that defines the RSS connection.

For example, in the summary view, an RSS connection displays only the title of each item as a link. However, you can customize the connection to indicate when each item is added to the feed by adding the publishDate RSS tag to the script that defines the connection.

By making the change, you create a custom display format. Making the change also enables the **Custom** format option in the Content Connector.



**Note:** Changes that you make in the script editor are reflected in the RSS Retrieve and Display Options window. Conversely, if you change retrieve and display options through the RSS Retrieve and Display Options window, the script reflects the changes.

1. Add a content connection to a zone and select **RSS feed**.  
The RSS display options become enabled.



2. Click  to edit the **Summary** or **Detailed** display format.

The editor displays the script that defines the connection. The script settings match the settings that are configured in the Content Connector.



**Note:** Changes that you make in the script are matched in the Content Connector. Changes that you make in the Content Connector are matched in the script.

3. Complete the steps in the following table to customize the script. For details about each step, see the specified topics that provide additional information.

Step	Script element or entry method
<p><b>Declare retrieve and display variables. (required)</b></p>	<pre>&lt;declareRSS source="&lt;RSS source location&gt;" feedName="rss" sendMin=" " dateRange=" " maxRows="5" /&gt;</pre> <p><a href="#">Declaring retrieve and display variables for RSS connections (on page 313)</a></p>
<p><b>Specify the title.</b></p> <p><b>Title for the list of RSS items that displays in the message.</b></p>	<pre>&lt;h2&gt;text,RSS field, or both &lt;/h2&gt;</pre> <p>Syntax for adding as RSS field:</p> <p><code>\${&lt;feedName&gt;.&lt;RSS field name&gt;}</code> The <code>feedName</code> value must match the value specified in the declaration. The RSS field name must be one of the supported field names.</p> <p>Default: <code>\${rss.title}</code></p> <p><a href="#">Configuring the RSS connection title (on page 314)</a></p>
<p><b>Configure the list of RSS items. (required)</b></p>	<pre>&lt;@list feedName="&lt;name&gt;" maxRows="5"; &lt;loop variable&gt;/&gt; &lt;a href=\${&lt;loop vari- able&gt;.link}&lt;strong&gt;\${&lt;loop variable&gt;.title} &lt;/strong&gt;&lt;/a&gt;</pre>

Step	Script element or entry method
	<p>feedName: Default is <code>rss</code></p> <p>maxRows: Default is 5</p> <p>loop variable: Default is <code>item</code></p> <p><a href="#">Configuring the list of RSS items (on page 315)</a></p>
<b>Declare personalization fields.</b>	<pre>&lt;declarePF names="&lt;display name&gt;, &lt;display name&gt;, ..." /&gt;</pre> <p>Display name= the display name for any OLT, BuiltIn, or Constant personalization field.</p> <p><a href="#">Declaring personalization fields in connections to RSS feeds (on page 318)</a></p>
<b>Insert personalization fields.</b>	<p>Place the cursor where the value of the personalization field must appear when the message is sent.</p> <p>Press <b>Ctrl+space</b>.</p> <p>Select a field from the list that displays.</p> <p><a href="#">Inserting personalization fields into connections to RSS feeds (on page 316)</a></p>
<b>Insert additional RSS fields.</b>	<p>Place the cursor where the value of the RSS field must appear when the message is sent.</p> <p>Press <b>Ctrl+u</b>.</p> <p>Depending on where you place the cursor, select a field from the list of header fields or list fields.</p> <p><a href="#">Inserting RSS fields into connections to RSS feeds (on page 319)</a></p>

4. Click **Update Preview** to see the results of your changes.
5. Click **Save as Custom** to save your changes.



In the Content Connector, the **Custom** option is enabled.

You can copy the script that you create in the editor and embed it into an HTML email template or HTML snippet.

## Embedding connections to an RSS feed in a template or snippet

Use the custom tag `<UAEScript>` to embed a connection to content on an RSS feed. Embed the connection by inserting the entire script that defines the connection into the HTML code of an email template or into an HTML snippet.

You can create the script in the Content Connector or in a text editor. The script editor in the Content Connector provides sample code and formatting tools to assist in creating the script.

1. Open a text editor or the script editor provided in the Content Connector. Use any of the following methods to open the script editor.
  - a. Click  to edit the Summary or Detailed display format.
  - b. Click **Preview** in the Content Connector and select the **RSS Display Format** tab.
  - c. If the Custom option is enabled, click  for **Custom**.
2. Create the script in the editor.
  - a. Declare display and retrieval variables (required)
  - b. Declare personalization fields that are added to the script. (as applicable)
  - c. Define a title.
  - d. Define the list of items that are displayed in the message (required)
  - e. Add personalization fields.
  - f. Add additional RSS fields.

For details, see the instructions for creating a custom RSS connection.

3. Preview the connection. If you created the script in Content Connector, click **Update Preview**.

4. Add the script to the email template or HTML snippet.

Copy all of the code between the `<UAEScript>` tags and insert it in the HTML code of an email template or HTML snippet where you want the RSS content to display.

## RSS retrieve and display options

The number of items that the system retrieves from the RSS feed and the number of items that are displayed in an email is configured by default. However, you can edit the **RSS retrieve and display options** to suit your marketing objectives.

You can specify the following options in the Content Connector or in the script that defines the RSS connection.

### **What to retrieve from the RSS feed**

The connection retrieves the most recent RSS items in the feed. By default, the connection matches the number of items that are retrieved to the number of items that are displayed in the message. If you do not specify a maximum number to display, the connection retrieves and displays all available items on the RSS feed.

Optionally, you can retrieve only items that were added to the RSS feed within a specified range of hours, days, weeks, or months.

In the RSS script, specify the range with the `dateRange` attribute.

### **Minimum number of RSS items required to send messages**

Optionally, you can prevent the system from transmitting the message unless a minimum number of items have been added to the RSS feed since the last time the message that contains the connection was sent. You set the minimum requirement for each RSS connection separately. If the message contains multiple RSS connections, all the connections must satisfy their specific minimum requirement. If at least one connection does not satisfy its minimum requirement, the system does not send the message.

In the script, specify the minimum required number of items with the `sendMin` attribute.

### **Maximum number of RSS items displayed in each message**

Specify a limit to how many RSS items display in the message. By default, the connection displays 5 items.

If you attempt to configure the connection to retrieve more items than you specify as the maximum to display in the message, the system retrieves only enough of the most recently added items needed to reach the specified maximum limit.

If you clear this option, all items available in the feed are displayed in the message. If you sent the message before, the system displays all the items added to the feed since the last time the message was sent.

In the script, specify the number to display with the `maxRows` attribute.

## Declaring retrieve and display variables for RSS connections


Every script that defines an RSS connection must start with a declaration of the variables that are used to specify how to retrieve and display items in the RSS feed. Use the `<declareRSS>` tag to define the variables.



**Note:** If you customize the RSS connection to include personalization fields, you must declare the personalization fields separately with the `<declarePF>` tag.

The system automatically populates the `<declareRSS>` tag with values that you enter in the Retrieve and Display Options window or with the script editor. If you create the script in a separate text editor, configure the `<declareRSS>` tag manually.

The `<declareRSS>` tag appears in the RSS script before the `<scriptBody>` tag. Declare variables for the connection as follows.

1. Open the script editor. Click  to edit the Summary or Detailed display format. You can also click **Preview** in the Content Connector and select the **RSS Display Format** tab.
2. In the `<declareRSS>` tag, enter values for the following variables.

`source="< The path to the XML file that creates the feed>"` Populated by default with the path that is specified in the RSS feed field in the Content Connector. (Required)

**Example:** `source="http://example.com/news/feed.atom"`

`feedName="<Name to identify the feed>"` Used as a prefix for fields in the header. The default value is `rss`. (Required)

**Example:** `feedName="rss"`

sendMin="< minimum number of items that must be present to send the message>"

**Example:** sendMin="3"

dateRange="<the amount of time to look back in the RSS feed for items to retrieve>" Enter quantity as a number and a single character to specify unit of time as H (hours), D (days), W (weeks), or M (months).

**Example:** dateRange="6W"

maxRows="<maximum number of row that display in the message>" The default value is 5. (Required)

**Example:** maxRows="5"

Using the sample variables, the completed declaration appears as follows.

```
<declareRSS source="http://example.com/news/feed.atom" feedName="rss"
sendMin="3" dateRange="6W" maxRows="5"/>
```



**Note:** Do not leave a space between the final variable (in this example, maxRows="5") and the closing tag for <declareRSS>. Adding an extra space causes an error.

3. Click **Update Preview** to see the results of your changes.
4. Click **Save as Custom** to save your changes.

In the Content Connector, the **Custom** option is enabled.

## Configuring the RSS connection title

You can specify a title for the list of RSS items that displays in the message. Specifying a title is optional but, by providing a title, you give the message recipient a context in which to view the RSS items in the list.

In the default script, the title is added with the <h2> tag. In the <h2> tag, you can add text, an RSS field, or a combination of both. The default script is provided as an example. You can apply other HTML formatting to the title.

The script editor in the Content Connector automatically formats RSS fields that you add to the script.

In the script that defines an RSS connection., enter a title for the list of RSS items in the `<h2>` tag, using any of the following methods.

- Enter text.
- Enter an RSS field. By default, the system adds the RSS title field to take the title from the RSS feed. If you specify a field, use the value for `feedName` as the prefix, as follows. `${rss.title}`, where `rss` is the value that you defined for `feedName` in the script declaration.
- Enter a combination of text and an RSS field. For example: `<h2>We think that you will like ${rss.title}</h2>`

## Configuring the list of RSS items

Connections to content in an RSS feed use the `@list` tag to create the list of RSS items that displays in the message. The `@list` tag requires attributes to define the name of the RSS feed, the number of items that are displayed in the list, and a loop variable.

Each item in the list is displayed as a link. You can modify how the list appears by adding personalization fields and additional RSS fields.

1. In the script that defines an RSS connection., define attributes for the `@list` tag, as follows.

```
<@list feedName="<name>" maxRows=5;<loop variable>>
```

`feedName` = the name of the feed. By default, the name is `rss`.

`maxRows` = the maximum number of items that can appear in the message. The default is 5 items.



**Note:** The values that you specify for `feedName` and `maxRows` must exactly match the values that you specify for these attributes in the script declaration section.

`loop variable` = a value that the system uses to execute the script. By default, the loop variable is `item`. You can change the value, but you must also use the new value as the prefix for RSS fields that you add to the list definition.

## 2. Configure how items appear in the list.

By default, each item is configured as a link that includes RSS fields.

```
<a href=${item.link}><strong>${item.title}</strong></a><br>
```

This example defines the Summary display, where each item displays the item title as a link.

## 3. Add additional RSS fields and formatting to customize how the items appear. For example, include the posting date and a brief summary of the item, as provided by the RSS feed, as follows.

```
<@list feedName="rss" maxRows=5; item>
```

```
<a href=${item.link}><strong>${item.title}</strong></a><br>
```

```
<span>${item.publishDate?datetime}</span><br><br>
```

```
<span>${item.content}</span><br><br>
```

## 4. Click **Update Preview** to see the results of your changes.

## 5. Click **Save as Custom** to save your changes.

In the Content Connector, the **Custom** option is enabled.

## Inserting personalization fields into connections to RSS feeds

You can customize how content from an RSS feed displays to each message recipient by adding personalization fields to the script that defines the RSS connection.

When you add a personalization field to an RSS script, you must declare the field at the beginning of a script. If you use the script editor to add the personalization field, the editor adds the declaration automatically.

Insert personalization fields inside the script body of the script that defines the RSS connection. Add personalization fields to the script by specifying the field's display name in the following format.



`${<display name>}`

You can add OLT, BuiltIn, or Constant personalization fields to the connection. The personalization fields must be configured in the system before you add them to the RSS script. OLT personalization fields must be defined in an OLT that has been uploaded to HCL Unica.

1. Open the script editor. Place the cursor where you want the value of the personalization field to appear in the message.
2. Press **Ctrl+space**. A list of available personalization fields displays.
3. Select a personalization field from the list.

The personalization field is added to the script.

The system adds the `<declarePF>` tag to the beginning of the script, including the declaration for the field that you added. If you insert multiple fields, the script editor adds each field display name to the declaration.

4. Click **Update Preview** to see the results of your changes.
5. Click **Save as Custom** to save your changes.

In the Content Connector, the **Custom** option is enabled.

The following script presents an example of how you might customize RSS content with personalization fields. In this example, notice the following.

- A** You must declare the personalization fields that are included in the script. If you use the script editor provided in the Content Connector, the editor adds the declarations automatically.
- B** A personal greeting to each message recipient. A personalization field inserts information from your marketing database.
- C** A call to action that is specific to the message recipient. This example uses a personalization field to provide the location of a showroom closest the physical address of the recipient, based on your customer records.

```

<UAEScript>
  A <declarePF names="FIRSTNAME, STOREADDRESS"/>
    <declareRSS source="http://feeds.example.com/ourfeeds/specials"
      feedName="rss" sendMin="2" dateRange="36H" maxRows="6"/>

    <!--scriptBody>
      <span>
        B <strong>Hello ${FIRSTNAME}, we thought you might like...</strong>
        </span>

        <h2>${rss.title}</h2><br>
        <span>${rss.description}</span><br><br>

        <@list feedName="rss" maxRows=5; item>
          <a href=${item.link}><strong>${item.title}</strong></a><br>
          <span>${item.publishDate?datetime}</span><br><br>
          <span>${item.content}</span><br><br>

        C </@list><br><br><strong>Want more? Visit our showroom at ${STOREADDRESS}</strong>

      </scriptBody-->

</UAEScript>


```

## Declaring personalization fields in connections to RSS feeds

If you include personalization fields in a connection to an RSS feed, you must declare the personalization fields in the beginning of the script. Use the `<declarePF>` tag to list the personalization fields that are used in the script.

The `<declarePF>` tag takes personalization field display names as attributes. If you use multiple personalization fields in the script, include the display name of each field.

When you use controls in the script editor to add a personalization field, the system automatically adds the `<declarePF>` tag in the declaration section of the script. If you create the script in a text editor, you must add the personalization field declaration manually.

1. Open the script editor. Click  to edit the Summary or Detailed display format. You can also click **Preview** in the Content Connector and select the **RSS Display Format** tab.
2. Add the `<declarePF>` tag to the RSS script before the `<scriptBody>` tag. Use either of the following methods.
  - Insert a personalization field in the script. Place the cursor within the script body and press **Ctrl+space**. Select a field from the list that displays. The system automatically adds the `<declarePF>` tag in the declaration section of the script.
  - Enter the tag manually, with the following syntax: `<declarePF names= "  
" <display name> "`

Declare multiple personalization fields as a comma-separated list of display names, within a single pair of quotation marks, as follows.

```
<declarePF names= "<display name>, <display name2>, display name3>,..." />
```

Do not place quotation marks around each display name.

## Inserting RSS fields into connections to RSS feeds

You can customize a connection to an RSS feed by adding RSS fields to the script that defines the connection. The additional fields include information that is received from the RSS feed in the RSS content that is displayed to message recipients. The RSS connection can receive information from feeds configured as either RSS or Atom content feeds.

The script editor provides a specific set of RSS fields that you can use to add additional information to what is displayed in the message.

In the script that defines the connection, the list of RSS items is defined within the `@list` tag. The header is defined in the script body, outside of the `@list` tag. The format of RSS fields in the connection header is different from the format used to add RSS fields to the list of RSS items.

If you add RSS fields with the script editor, the editor adds the fields in the required format.

1. Open the script editor. Place the cursor where you want the value of the RSS field to appear in the message.
2. Press **Ctrl+u**. A list of available RSS fields displays.
3. Select a field from the list.

- In the header, the value of the `feedName` variable is the prefix for header elements. Example: `${rss.description}`
- Inside the `@list` tag, the loop variable is the prefix for RSS item elements. Example: `${item.content}`.

If you add the fields manually, use the appropriate prefix.

4. Click **Update Preview** to see the results of your changes.
5. Click **Save as Custom** to save your changes.

In the Content Connector, the **Custom** option is enabled.

## RSS fields supported in connections to RSS feeds

The scripts that define connections to an RSS feed support a specific set of generic RSS fields that can provide information from the RSS feed. The RSS fields available in the script editor correspond to fields in RSS and Atom formats.



**Note:** The script editor does not support the full list of RSS and Atom fields.

The following table lists the RSS tags that are supported in the header and list sections of the script that defines the connection.

RSS tag	Format	Description
Header (The value for <code>feedName</code> is <code>rss</code> )		
<code>title</code>	<code>\${rss.title}</code>	Appears as the title for the feed, as provided by the RSS feed source.
<code>link</code>	<code>\${rss.link}</code>	Displays a link to the feed.

<b>RSS tag</b>	<b>Format</b>	<b>Description</b>
description	<code>\${rss.description}</code>	Displays the description of the feed that is provided by the feed source.
publish-Date	<code>\${rss.publishDate?datetime}</code>	Displays the publication date for the feed, provided by the feed source.
Item (The loop variable is <code>item</code> )		
title	<code>\${item.title}</code>	Displays the title of the item.
link	<code>\${item.link}</code>	Link to the RSS item. Enter as the target of the link in the script.
content	<code>\${item.content}</code>	Displays a summary of the content that is contained in the item.
publish-Date	<code>\${item.publishDate?datetime}</code>	Indicates when the item was added to the RSS feed.

## HTML attributes and the appearance of images and links in communications

HTML attributes defined in a communication template control how images and links display in personalized email or landing pages. However, you can manually override the template formatting for an individual image or link within the communication.

The method that marketers are expected to use to add content to a communication often determines how the template designer defines HTML attributes in the template. Marketers can add images and links by reference with the `<UAEreferenceLabel>` tag or they can manually drop the content into a zone. Templates define zones wherever an HTML tag

includes the `id` attribute. To restrict where the system creates zones, you can define the `class` attribute with the value `droppable` for selected HTML tags.

For content dropped into a zone, the template designer defines default content appearance by specifying attributes in the HTML tag that creates the zone. When you drop an image or link into the zone, the system automatically applies the zone attributes to the content that is dropped into the zone. For example, to constrain the size of images dropped into a zone to 50 pixels by 60 pixels, the template can create the zone as follows.

```
<img id="zone1" class="droppable" style="height:50px;width:60px" />
```

For content added by reference, the template designer defines HTML attributes in the `<UAEreferenceLabel>`. You do not use the `id` attribute or `droppable` class because the image or link displays in the communication without creating a zone. When you preview or publish the communication, the system displays the image according to the attributes contained in the tag. For example, to constrain the size of an image that you add by reference, include the following tag in the communication template.

```
<UAEreferenceLabel n="example_imgLabel" style="height:50px;width:60px" />
```

You can override the template formatting for content that you drop into a zone. In any zone, you can open a graphical interface to define basic and advanced attributes for images and links that are dropped in the zone. You cannot override template formatting for images added by reference. You can change the format for referenced content only by modifying attributes that are defined in the reference label.



**Note:** You cannot define attributes for HTML snippets that you add to a communication, either by reference or by dropping into a zone. To control the appearance and behavior of an HTML snippet, you must edit the HTML code in the snippet.

## HTML attribute override options for content dropped in zones

For each image or hyperlink dropped into a zone, you can override the default HTML attributes that are defined in the communication template.

The system provides an interface that you can access from within a communication to quickly define a set of basic format options. You can also define HTML attributes as advanced formatting. If the zone contains multiple images or links, you can format each image or link differently within the zone.

Each format override applies only to the specific image or link and only for the current communication. Overriding the template format for an image or link in a zone does not change the template or affect formatting for the same image or link elsewhere in the same communication.

### Precautions for displaying links and images correctly

To help ensure that email and landing pages display consistently in email clients and browsers, use the `style` attribute to format images and links. Define the `style` attribute in the HTML tags that you put in templates to create zones or reference labels.

You can add the following HTML elements to the `style` attribute in a template or define them as custom attributes when you override template formatting.

- Height
- Width
- Border
- Color (for text links only)
- Font size (for text links only)
- Font family (for text links only)
- Background

For example, to use a `span` to define a zone where you expect to drop images, you can construct the tag as follows.

```
<span id="banner" style="height:50px;width:350px;border:5px DarkBlue solid"></span>
```

To define a zone where you expect to drop text links, you can define a tag as shown here.

```
<span id="promoLink1" class="droppable" style="background:azure;border:1px darkGreen solid;color:crimson;font-family:arial;font-size:14pt">Drop promo links here</span>
```

## Overriding template attributes for images and links in a zone

By default, HTML attributes in the communication template define the appearance and behavior of images and links in a zone. However, in each zone, you can selectively override the template formatting to define different attributes for individual images or links.

You must format each image or link individually. For zones that contain multiple images or links, you can define different formatting for each image or link in the zone.

1. In a zone, right-click the image or link that you want to format.
2. Select **Edit content formatting**.

The **Basic Attributes** window displays the current attributes for the link or image. If **Use formatting from template** is selected, the attributes that are defined for the zone in the template are visible, but are not accessible.

3. In the **Basic Attributes** window, clear **Use formatting from template**.
4. Edit the attributes that you want to change.
  - Click **Clear Formatting** to clear all currently displayed format settings.
  - Click **Undo** to revert the most recent selection.

As you enter values for basic attributes, the values that can define the `style` attribute display simultaneously in the **Style** field. Controlling content appearance with the `style` attribute can help to ensure consistent performance in email clients and web browsers.

When entering values for Height, Width, and Font Size, do not add a space between the quantity and the unit of measure.



You can also define advanced formatting attributes for the image or link. Use the advanced formatting options to apply any valid HTML attribute that is not available as a basic attribute.

Preview the communication to confirm the changes in the appearance of the image or link.

## Attribute precedence in zones that contain multiple content

In zones with multiple content, each image or link can either use attributes from the template or custom attributes that are defined separately. Images or links that you add to the zone adopt the formatting method that is used by the image or link currently displayed in the zone.

For example, if all images and links in a zone use the template formatting, any image that you add will also use the template formatting.

However, if the zone currently displays an image or link that does not use the template formatting, a new image will not use template formatting. To force the new image or link to use attributes that are defined in the template, edit the image or link and select **Use formatting from template**.

New content added to an empty zone always uses the HTML formatting from the template.

## Basic formatting options for images and links

A graphical interface is available to configure common HTML attributes that define the appearance and behavior of images and links in email and landing pages.

Preview the communication to see the effect of changes that you make to the link or image attributes.

The following units are valid for height, width, border, and font size. Some attributes are appropriate only for links.

- **Px**: pixels
- **Em**: Multiple of the current font size. 1 em equals the current font size. 2 em is twice the current font size.
- **Pt**: points

- **Ex:** x-height of the current font (typically half of the current font size)
- **Cm:** centimeters
- **In:** inches
- **Mm:** millimeters
- **Pc:** picas

You cannot specify % as a size unit.

### Basic attributes for images and links

Attribute	Description	Example
Height	Enter a number to specify the height of the image. Note the valid values.  Do not include a space between the value and the unit of measure.	<code>height:100px</code>
Width	Enter a number to specify the width of the image. Note the valid values.  Do not include a space between the value and the unit of measure.	<code>width:3in</code>
Class	Enter a class name.	<code>class="droppable"</code>
Border	Enter a number. Note the valid values. Default is 0px.  You must enter a color, thickness, and border style.	<code>border:Red 2px Dashed</code>
Style	Displays the inline style for the image or link. Attributes that are used to define inline styles, such as height, width, and border, are populated automatically as you define them.	<code>style="border:blue 3px dashed; height:100px; width:100px"</code>

Attribute	Description	Example
Tooltip	Defines the <code>title</code> attribute. Enter text to display when the recipient places the cursor over the image.	<code>"Special offer"</code>
Color	Specify the color of the text. Links only.  Enter the text or hexadecimal value for the color.	<code>color:DarkGreen</code>  <code>color:#006400</code>
Background	Specify the color of the background for the text link. Background is a basic attribute for links. You can define background as an advanced attribute for images.  Enter the text or hexadecimal value for the color.	<code>background:ivory</code>  <code>background:#FFFFF0</code>
Font Size	Size of the text as it displays in the email or landing page. Note the valid values. Links only.  Do not include a space between the value and the unit of measure.	<code>font-size:14pt</code>
Font Family	Specify the font that is used to display the text in the email or landing page.  Links only.	<code>font-family:arial</code>


## Applying advanced formatting options for images and links


To configure advanced formatting options for images and links in a zone, you can define HTML attributes to supplement the basic HTML attributes. You can use any valid HTML attribute as an advanced attribute.

Advanced attributes that can be used to define an inline style are automatically added to the `style` attribute for the zone. For example, if you define `background` as an advanced attribute, it is added as an element of the `style` attribute.

Advanced attributes that are not used to define an inline style are listed on the **Basic Attributes** window below the list of basic attributes. For example, if you define an `id` attribute, its value displays in the **Basic Attribute** window.

1. Display the basic attributes window for an image.
2. In the basic attributes window, click **Add/Edit Advanced Formatting**.

The **Advanced Attributes** window lists the basic attributes. The attribute names are read-only but you can enter a value or change the current attribute value. Click  to clear the value.

3. Click **Add HTML attribute** to add a row. In each added row, you can enter a valid HTML attribute and value. Click  to remove an advanced attribute.
4. Click **OK** to save the advanced attributes.
5. Click **OK** to apply all of the attributes to the image.

## HTML attribute override options for images added by reference

For images added by reference, you cannot override the default HTML attributes from within a communication. To change the HTML formatting for referenced images, change the attributes that are defined in the `UAEreferenceLabel` tag.

To edit the `UAEreferenceLabel` tag, you must edit the communication template. Make a local copy of the template to avoid affecting other communications that are based on the same template.

If the reference tag contains non-English characters, you must define HTML attributes in the source code with a text editor. Do not use the embedded graphical HTML editor.

## Editing templates and content in the Message Editor

You can use the text and HTML editors in the Message Editor to modify templates that are uploaded to the Content Library or that are used in email or landing page communications. The Message Editor provides a graphical HTML editor and a text editor that you can

use to edit HTML templates. You can open the editors in the Content Library or in a communication that uses the template.

You can use the graphical HTML editor that is embedded in the Message Editor to fix typographical errors, change small sections of text, or edit embedded personalization fields. You can also use the graphical editor in the Message Editor to add reference labels to the template.

Because a template can be used in multiple communications, consider the possible effect on other communications when you edit a template in the Message Editor.

## Precautions for editing uploaded templates

HTML templates define the framework and appearance of the email and landing pages that you send. In some cases, a single template is used by multiple communications. When you edit a template in the Message Editor, be certain to consider the effect that your edits might have on all communications that are based on the template.

Because a single template can be used by more than one email message or landing page, it is prudent to find all communications that use the template before you make changes. The changes that you make to a template affect all of the email messages or landing pages that use the template. You can identify the communications that use a template by examining the template configuration in the Content Library.


You should modify the HTML code of a template only if you have a thorough understanding of how to edit HTML code and are familiar with the programming conventions used in your organization. The Message Editor provides a validation tool to help ensure that your changes result in valid HTML code.

## Finding communications that use a specific template

If you edit a template that is used by at least one communication, the Message Editor displays a warning to indicate that the template is in use. Any changes that you make to the template can affect all of the communications that use the template. You can examine the template properties to determine which communications might be affected when you edit the template.

When you edit a communication, the name of the template on which the communication is based displays above the editor toolbar. You can view properties for template, including communications that use the template, by opening the template in the Content Library.

1. In the Content Library, select the template.

Templates are identified with . You can also search for the template.

2. Open the template.

The system displays a warning if the template is used by more than one document.

3. In the toolbar, click **Find communications referencing this asset** .

The system displays a list of documents that use the template. Double-click any document in the list to open the document in an editor.

## Edit a template in the HTML version of a communication

The Message Editor provides an embedded text editor that you can use to edit the HTML source. When you edit the template from inside a communication, you can either edit the master template that is saved in the Content Library or create and edit a local copy of the template.

### Option to create a local copy or edit the master copy of a template

If you edit the master copy of a personalized email or landing page, your changes affect all other documents based on the template. The changes appear the next time you publish the other documents. If you do not want to change the other documents by altering the template, you can create a local copy of the template in which to make the changes.


Creating a local copy of the template breaks the association with the master template. All subsequent changes to document layout or default content affect only the individual document. Changes made to the master template will not be shared with the local copy you created.

## Editing an HTML template with the embedded text editor

The Message Editor provides a text editor that you can use to edit the HTML source of a template.

1. Open the email or landing page for editing in the Message Editor.

In the **Content Type** field, select `HTML`.

2. In the toolbar, click  **Edit Template** to display the template's HTML code in the Edit Template window.

A warning indicates when the template is in use by other email messages or landing pages.

3. Edit the HTML code.
4. Click **OK**.

The updated template is saved in the Content Library.


The updated template is saved under the same name in the Content Library. You cannot save the modified template under another name.

The change affects all documents that use the template.

## Editing a template used in the Text version of an email

The Message Editor provides an embedded text editor that you can use to modify the text version of an email communication. The text version of the email communication uses a limited set of HTML tags.

Changes to the text template will affect all text-only email messages that use the template.

1. Open the email in the Deliver Message Editor.
2. In the **Content Type** field, select `Text`.
3. In the toolbar, click  **Edit Text Template** to display the HTML code for the text version of the email.

A warning indicates if the template is currently in use by other email messages.

4. Make changes in the text version of the content.

You can add certain HTML tags that Deliver supports in text-only email.

5. Click **OK**.

The updated template is saved in the Content Library.




**Note:** If the text version is based on an auto-generated text template, the changes do not appear in the template that is saved in the Content Library. The changes affect only the text version of the current communication. An indication that the template is auto-generated displays with the template name at the top of the editor.

## Editing a template in the Content Library

You edit a template that is stored in the Content Library with the content element editor.

1. In the Content Library, select the template that you want to modify.

Templates are identified with . You can also search for the template.

2. Double-click the selected template or right-click and select **Edit** to open the content editor.

A preview of the template displays in the editor.

A warning indicates when the template is in use by one or more email messages or landing pages.


3. Click .

The preview changes to a text editor that displays the HTML source for the template.

a. Change the code and click **Save content**.

4. Click **Close** to return to the preview. The preview displays how the template might look in a web browser

5. Confirm that **Is Template** is selected

6. Click  **Save Changes** to save the updated template.

The updated template is saved under the same name in the Content Library. You cannot save the modified template under another name.



Email messages and landing pages that use the template do not reflect the changes until you publish each email or landing page again.

## Methods to add personalization fields using the Message Editor

By adding personalization fields using the Message Editor, you can add and configure personalization field individually when you add them to an email, SMS, WhatsApp, or landing page. When you use the Message Editor to add personalization fields, you must add the personalization fields to each document separately.

You can use the following methods to add personalization fields using the Message Editor.

- Insert personalization fields into zones.
- Insert personalization fields into a text field.
- Insert a personalization field into a link.

You can also embed personalization fields directly in templates used to create email and landing pages.

## Identifying personalization fields in Deliver documents

The Message Editor identifies personalization fields differently, depending on whether you added the personalization field to the template or in a configurable zone.

Personalization fields that you add to zones appear in the Message Editor as shown here.

←name→

Personalization fields that you added directly to the HTML template appear in the Message Editor as shown here. [BUILTIN\_MailingName]

You can use the Message Editor to modify or remove personalization fields added to a zone in the document.

You can use the graphical HTML editor provided by the Message Editor to add, modify, or remove personalization fields that you added directly to the template.

## Selecting personalization fields

Selecting personalization fields allows you to incorporate specific pieces of recipient-specific data into each message.

When you use the Deliver Message Editor to add a personalization field to a document, the system displays a list of available personalization fields. If the document is not referenced by a mailing, the list of available personalization fields includes all OLT personalization fields created for all recipient lists within your Campaign installation. Depending on the size and scope of your recipient lists, this list of personalization fields can be extensive. The list of available personalization fields also includes system-defined fields identified as BUILTIN personalization fields and the constant personalization fields defined for your installation.

However, if you reference the document in a Deliver mailing that also references a recipient list, the system limits the list of OLT personalization fields that you can select to include only the personalization fields defined in the recipient list. You can still select from the complete list of BUILTIN and constant personalization fields.

Referencing the recipient list and the Deliver document in the same mailing establishes a relationship between the list and the document. Changes in the number or names of the personalization fields in the recipient list are automatically reflected in the list of available personalization fields in the Message Editor.

## Inserting personalization fields into zones

In the Message Editor, you use the Field widget to add a personalization field to a configurable zone. The Deliver Message Editor provides different ways to apply the Field widget

1. In the Deliver Message Editor, select either of the following methods to insert a personalization field.

- Drag the Field widget  to the zone and release it into the zone.

The zone changes color when you place the widget in the correct position over the zone.

- Right-click in a zone, select **Add Content > Field**.

The Message Editor displays a list of available personalization fields.

2. Select the personalization field that you want to insert.



The name of the personalization field appears in the zone when you add it.

## Inserting personalization fields into text fields

In some cases, you might want to add a personalization field in a text field. For example, you can add a personalization field to a field in the email header.

Use the following procedure to insert personalization fields into text fields,

If you are combining the personalization field with text in the field, place the cursor in the text where you want the information from the personalization field to display.

1. In the Deliver Message Editor, select either of the following methods to insert a personalization field.
  - In an Email Header field, place the cursor in the field and press **Ctrl+spacebar** or click the Insert Personalization Field icon .
  - Open the text field for editing in the graphical HTML editor provided by the Message Editor. Place the cursor where you want to place the field. In the toolbar, click the Insert personalization field icon .

The Message Editor displays a list of available personalization fields.


2. Select the personalization field that you want to insert.

The name of the personalization field appears in the field or text block when you add the field.

## Inserting a personalization field into a link

You add personalization fields to links as link parameters.

1. In the Deliver Message Editor, edit the hyperlink using any of the following methods.
  - Drag the hyperlink widget into a zone.
  - Right-click the zone, select **Add content > Hyperlink**.

- Right-click an existing link, select **Edit content**.
  - Use the embedded graphical HTML editor to edit links in the static portion of the template.
2. In the Hyperlink window, click the **Link** tab and select **Url**.
  3. In the URL for the link, place the cursor in the link parameters (after the ? character) that follow the domain name and file path.
  4. Press **Ctrl+spacebar** or click the Insert Personalization Field icon .
- The Message Editor displays a list of available personalization fields.
5. Select the personalization field that you want to insert.

The personalization field is added to the link at the point where you inserted the cursor as a link parameter.

## Organizing the Message Editor

Because it is likely that multiple users will access the Message Editor, it is important to consider how you organize the communications, content elements, and saved searches that it contains.

The following topics describe the tasks that you can perform to organize the Deliver Message Editor.

- [Adding folders on the Communications tab \(on page 339\)](#)
- [Organization guidelines for content and communications \(on page 336\)](#)
- [View and editing properties \(on page 340\)](#)
- [Deleting communications, content, and searches \(on page 340\)](#)

## Organization guidelines for content and communications

The Communications tab and Content Library contain multiple folders to contain and organize all of the email, landing pages, SMS communications, WhatsApp and supporting content that you and others create. You can create multiple folders and arrange the them in a hierarchy. You can also control access to each folder through security policies, if you have

permissions to create folders. Security policies also control your ability to move and delete folders and their contents.



**Note:** You assign a security policy when you create a top-level folder and the policy cannot be changed after you save the folder. The policy that you assign applies to all subfolders that you create within the top-level folder.

## Default folders

The first time you open the Message Editor, the Communications tab opens with two default folders named **Email** and **Landing Pages**. You are not required to use these folders. You can create new folders to suit your requirements and practices.

## Drag and drop folders

You can reorganize the communications hierarchy by dragging and dropping folders within the Communications tab. You can quickly create a multi-level hierarchy. Creating a hierarchy can be useful as the number of email and landing page communications increases over time.

## Select a folder location as a property of the communication

When you display folder properties, you can select a folder location.

## Naming conventions

Because many users can access the Message Editor, Unica suggests that you establish naming conventions for communications that define email, landing pages, and online forms.

## Folder permissions

When you create a folder (if you have create permissions), you must specify the security policy that controls access to its contents. The security policy applies to all subfolders. When you create a subfolder, the system applies the security policy of the top-level folder to the contents of the subfolder. You cannot change the security policy that is applied to subfolders.


Your ability to find, create, edit, view, delete, or move content and communications in the Message Editor and Content Library depends on the security policy that is applied to the folder that contains the content or communication. The security policy determines the access permissions that are granted to your user role.

When you move a communication between folders that have different security policies, you must republish the communication.

The user that you specify when you log in to HCL Unica is associated with a role. Roles and permissions to find and access content and communications are configured by system administrators as part of one or more security policies. For more information about configuring permissions, roles, and policies, see the Deliver Startup and Administrator's Guide.

## Adding folders in the Content Library

Depending on your folder permissions, you can create new folders and subfolders in the Content Library. The system warns you if you do not have appropriate access or create permissions.

1. In the Content Library, navigate to where you want to create the folder. Depending on your folder permissions, you can create the folder at the top level of the Content Library, or in a sub-folder.
2. Click **New Folder**  or right-click in an open area of the tab and click **New**. To create a new subfolder, right-click the parent folder where you want to create the new subfolder.

A new content library tab opens.

3. In the **Name** field, enter a name for the folder.

You can also enter a description of the folder. The description can contain up to 500 characters.

4. In the Policy field, select a security policy.

The field lists all of the security policies currently configured for your installation. The Global Policy is available by default. Consult with your security administrator when

assigning a security policy to ensure that you select a policy that provides appropriate access.




**Note:** You cannot change the security policy on a folder after you have assigned it.

5. Click **OK** to create the folder.

## Adding folders on the Communications tab

Depending on your folder permissions, you can create new folders and subfolders on the Communications tab. The system warns you if you do not have appropriate access or create permissions.

1. On the Communications tab, navigate to where you want to create the folder.  
Depending on your folder permissions, you can create the folder at the top level of the Communications tab, or in a sub-folder.
2. Click **New Folder**  or right-click in an open area of the tab and click **New Folder**. To create a new subfolder, right-click the parent folder where you want to create the new subfolder.

The New Folder window opens.

3. Enter a name for the folder.

You can also enter a description of the folder. The description can contain up to 500 characters.

4. In the Policy field, select a security policy.

The field lists all of the security policies currently configured for your installation.

The Global Policy is available by default. Subfolders inherit the policies of the parent folders. Consult with your security administrator when assigning a security policy to ensure that you select a policy that provides appropriate access.




**Note:** You cannot change the security policy on a folder after you have assigned it.

5. Click **OK** to create the folder.

## View and editing properties

You can view and edit properties associated with communications, content elements, and files attached to content elements. The properties that you can view depend on the object that you select.

1. Open the communication, content element, or file attached to a content element for editing.
2. In the toolbar, click **Properties** .
- The Properties window displays a name and description. For communications, the Properties window also displays the current folder location.
3. Edit the name, description, or folder location, as necessary. Click **OK**.

## Deleting communications, content, and searches

You can delete assets, communications, folders, or saved searches. Before you delete communications or content, check for usage and users. Deleting an asset, communication, or folder moves the item to the Recycle Bin.

Your ability to delete communications, content elements, or saved searches depends on your user permissions.


Deleting a content element affects all communications that use it. Before you delete, determine which communications use the content element.

If multiple users are working in the Communication Editor, coordinate with the other individuals before you delete an object.

1. In a navigation tab, right-click the item that you want to remove and select **Delete**.
2. Click **OK** to confirm.



## Refreshing the Message Editor

When you save changes in the navigation tabs for communications, content elements, and saved searches in the Deliver Message Editor, your changes are displayed immediately in your current browser session. However, if multiple users are also working in the Message Editor, you do not immediately see changes made by the other users in your local browser. You cannot see these changes by simply refreshing your local browser. To see changes made by other users, click **Refresh** .

For example, if you are updating an email document for an upcoming email newsletter and you are waiting for another user to update the banner image it will use, your local instance of the Message Editor does not change when your colleague uploads the new creative. To see the new content, you must refresh the Message Editor. When you refresh, Deliver checks for changes in HCL Unica and updates your local Message Editor with the latest information.

## Recycle Bin

When you delete a communication, asset, or folder, the Communication Editor moves the deleted items to the Recycle Bin. You can restore the deleted items if necessary. The Communications Editor maintains a separate Recycle Bin on the Communications tab and on the Content Library tab.

The recycle bins are temporary holding areas for items that you want to remove from the system, but might need to retrieve. You can remove items from a Recycle Bin by restoring the item or by permanently deleting the item.

When you delete an asset or communication, it moves to the Recycle Bin and is no longer visible in the Content or Communications libraries. When you delete a folder, the folder hierarchy is removed from the library tree.

Communications that include or reference a deleted asset lose access to the asset, including assets in deleted folders and subfolders.

Searches for a deleted item or folder do not show the item. Searches for items in a deleted folder hierarchy do not include the deleted items in the search results.

To restore access to a deleted item, you must restore the item to the Communication or Content libraries.

## Opening the Recycle Bin

You can access the Recycle Bin for the Communications Library and the Content Library on the toolbar for each tab. Open each bin separately.



On the Communications or Content Library toolbar, click the **Recycle Bin**

## Restoring deleted items

In the Recycle Bin, you can restore individual assets or communications. You can also restore deleted folders and subfolders. Restoring an item moves the item out of the Recycle Bin.

Before you restore an item or folder, note the file path that is displayed in the Recycle Bin. Doing so makes it easier to find the items after you restore them. The item or folder is restored to its original location.

In the Recycle Bin, right-click the item and select **Restore**.

The item returns to its original location. Folders retain their original structure.

Restoring an asset or folder to the Content Library does not overwrite an asset or folder that has the same name. If an asset or folder with the same name already exists, the system duplicates the name for the restored items.

In the Communications or Content Library, click **Refresh** to view the restored item.

## Permanently removing items and folders

In the Recycle Bin, you can permanently delete items and folders, including subfolders. Before you delete the item, the system confirms that the item is not referenced by another item.

Permanently deleting an item cannot be reversed. You cannot recover the asset, communication, or folder after you permanently delete it.

When you permanently delete an asset or folder, the system determines whether the asset is used or referenced by a communication. If you permanently delete a folder, the system evaluates every asset in the folder, including any subfolders. For example, when you permanently delete an HTML template, the Communication Editor searches the entire system to determine whether a communication references the template.

By default, the system prevents permanently deleting items that are used in a communication and communications that are used in SMS broadcast.

1. In the Recycle Bin, right-click the item and select **Permanently Delete**.

The system prompts you to confirm the deletion.

If the system cannot delete the item or communication because it is in use, hover over the error message to view a tooltip that identifies the communication or notification that uses the item or communication that you want to delete.

To force deletion of content that is used or referenced by a communication, clear the option that prevents deleting content that is in use.

2. Click **OK**.

The item no longer displays the Recycle Bin.

To permanently remove all items from the Recycle Bin, click **Empty Recycle Bin**.

## Concurrent actions in the Recycle Bin

The Recycle Bin allows more than one user at a time to access deleted items. Users see the results of their own changes but the Recycle Bin does not refresh the view display to all users after every user action.

If multiple users operate on the same item, the system completes the first action that is entered into the system. In some situations, this behavior might lead to conflicting results.

For example, if one user permanently deletes an asset and a short time later another user restores the same file, each user receives confirmation that the action is successful.

However, in this example, the first action takes precedence and the asset is deleted, not restored.

To avoid potentially misleading results, click **Refresh Objects**  to view the updated status of objects in the Recycle Bin.

## Working with search

You can search the Message Editor to find communications or content elements that contain a particular word or combination of characters. For example, you can find all of the ZIP files that have been uploaded to the Content Library by searching for the characters `.zip`

You can search for email, landing pages, SMS, WhatsApp, or content elements that contain a particular word or combination of characters. You cannot search for multiple words.



**Note:** Your user permissions control what you can find when you search. You must have at least View permissions on a folder to include the folder contents in the search result.

## Finding communications or content

Use the search function to run a keyword search to find communications, assets, or reference labels in the Content Library. You can preserve the search results as a saved search.

The objects that are found by the search display as a single list of links. To view the results in folders that distinguish communications from assets, save the search. The saved search displays the results in a folder hierarchy in the left navigation pane of the Saved Searches tab.



**Note:** The folders on the Saved Searches tab separate the results into communications and content. They do not replicate the folders and subfolders on the Communications and Content Library tabs.

You can find objects to which have at least Read access.


1. At the top of the navigation pane, click **Search for objects** .

2. Enter the search parameters in the **Properties** window.

If you intend to save the search, enter a name in the **Saved search name** section.

3. Click **Search** to begin the search.

The search results display in the **Results** window.

4. To save the search, click **Save Changes** .

To view the saved search as a folder hierarchy, click **Refresh** .

## Running a saved search


You can use saved searches to apply your preferred search criteria without having to reenter them each time that you search. When you save a search, you save the search criteria.

When you run the saved search again, the system applies the saved criteria against the current objects that are stored in the Content Library.

You can run a saved search again to refresh the search results.

1. Open the Saved Searches tab. Right-click the saved search that you want to run and click **Edit**.

The saved search refreshes with the stored search criteria and displays the latest results according to their type.

2. To update the search results again, click **Refresh** .

# Chapter 9. Template design

Email and landing page templates are documents that you create outside of the Deliver Message Editor to define the layout of personalized email, hosted landing pages. The design of the template guides the design of the message. To create personalized email, marketers add content to the template by modifying the template or by using editing tools that are provided in the Message Editor.

The marketing team must clearly communicate the marketing goals of the email campaign to the email template designers. Template designers must communicate with email marketers to ensure that the templates align with marketing objectives and that the marketers understand the template designs.

To ensure that marketers can use the template to create and send marketing messages through Deliver, the template designer must be familiar with how marketers use the template in the Message Editor. Template designers must understand the guidelines and requirements for importing and modifying a template in the Message Editor. In particular, template designers must be familiar with the custom HTML tags that Deliver recognizes and how marketers can apply the custom tags.

## Overview of templates for messages and landing pages

Template designers create templates to form the foundation for personalized messages and landing pages. Marketers create messages and landing pages by modifying the template in the Message Editor. To create an effective message or landing page, template designers must understand how marketers use the template. Marketers must understand how templates are created and must be prepared to provide the information that template designer requires.

Template designers and marketers use templates to create personalized messages and landing pages as follows.

1. The template designer creates a template. Typically, the designer creates the template outside of the Deliver Message Editor.

The template is usually an HTML file. For text-only email, the template can be a text file, but the file must define certain HTML tags that the Message Editor requires.

For information about template requirements, see [Template types and requirements \(on page 352\)](#).

Unica recommends that experienced web developers do this work. In some cases, a third-party web design team might create templates to specifications that marketers provide.

2. The template designer uploads the completed template to the Content Library with tools that are available in the Deliver Message Editor.

If the template designer cannot access the Content Library, the email marketing team might be called upon to upload the template.

For uploading guidelines, see [Adding content to the library \(on page 243\)](#).

3. In the Message Editor, the email marketer adds the template to an email or landing page communication.

For more information, see [Deliver Message Editor \(on page 226\)](#).

4. The marketer modifies the HTML template by adding individual content elements, conditional content, personalization fields, and hyperlinks.

Email marketers can also use the Message Editor to modify the static elements of the uploaded template.

When marketers design messages, they can use the template to create HTML email, text-only email, or automatically generate text-only email that is based on an HTML template.

For more information, see [Template types and requirements \(on page 352\)](#).

5. To make the modified communication (email or landing page) available for use in a mailing, the email marketer uses the Message Editor to publish it.

For information about publishing an email or landing page, see [Publication \(on page 404\)](#).

6. The email or landing page communication is referenced in the configuration of messaging campaign. If a referenced email communication includes HTML and Text versions, the mailing configuration specifies a content type, which determines the version that the system sends.

For more information about configuring a mailing, see *Working with mailings in Unica Deliver* (on page      ).

## What template designers should know about templates in Deliver

Template designers should understand the following.

- How to configure HTML tags and follow generally accepted HTML design practices. Familiarity with XHTML is a plus.
- How to create templates that marketers can use for text-only email.
- How to configure the Deliver-specific tags and attributes to define personalization fields and zones in email and landing pages.
- How to create online forms and how to design a template that allows email marketers to define form inputs using the Deliver Message Editor. Individuals that design landing pages used as online forms must be familiar with how to use the `<form>` and `<input>` tags.
- How email marketers use the Message Editor to modify templates.
- The overall workflow for creating a marketing email or landing page based on the template.

To ensure that the template design matches the objectives, the template designer should understand the marketing objectives for the email or landing page.

## What email marketers should know about templates in Deliver

Email marketers should know the following.

- How to use the Message Editor to add content to a template.
- Which personalization fields are required in the email or landing page, including those that are defined in the template.



- How to use the Message Editor to create a text version of an HTML email.
- How to identify the personalization fields that are defined in HTML and text-only templates.
- How to coordinate with template designers to ensure that the template design provides what is needed to meet marketing objectives.

Email marketers that use the Message Editor to modify the template's HTML code must be familiar with HTML coding practices and standards.

## Editing and viewing templates in the Message Editor

Templates define the layout of email and landing page communications. Marketers use editors in the Message Editor to add templates to email and landing page communications. As you design and edit a template, add the template to a communication in the Message Editor to view your design and edits.

The Message Editor provides two embedded editors to edit HTML templates and content. You can also use an external text or HTML editor to create templates. View the results of changes that are made with any of the editors by viewing the template in a communication, as follows.

1. In the Message Editor, create a new communication. Add the template to the communication. If you are editing a template is added to a communication, open the communication.
2. Edit the template by using any of the available editors.
  - View and edit the template with the embedded graphical editor.
  - View and edit the template with the embedded text editor.
  - Use an external text or HTML editor to view and edit the template.
3. View the edit results.
  - Edits that you make with the embedded editors are visible in the communication when you save.
  - To view the results of edits that you make with an external editor, click **Reload**



## About zones in templates

Template designers can define areas in the template that allow email marketers working in the Deliver Message Editor to drag elements from the Content Library or the widget toolbar and into the defined area. The defined areas are called zones. When the email or landing page opens, content added by the marketer to the zone displays to the email recipient. Marketers can add multiple content elements to zones and define personalization rules to selectively display content according to criteria specified in the rule.

Template designers can incorporate zone in templates created for text-only email, as well as HTML email.

Zones must be of a size and style that can accept the content that marketers anticipate using. For details about how to define zones in a template, see [Zones for email and landing page templates \(on page 358\)](#).

Areas in the document outside of zones are static. The HTML code in the template defines their content and structure. However, marketers can use the Deliver Message Editor to edit the HTML.

## Content references in templates

Unica Deliver supports inserting content into email or landing page templates by reference with the custom HTML tag `<UAEreferenceLabel>`. You can reference digital assets in the Deliver Content Library (such as an image or HTML snippet) that are assigned a content reference label.

To add content elements by reference, add the `<UAEreferenceLabel>` tag directly in the body of the communication template. You can use the `<UAEreferenceLabel>` tag in templates for HTML email, text-only email, and for personalized landing pages that are hosted by Unica.

The `<UAEreferenceLabel>` tag includes a content reference label that is assigned to a particular content element in the Content Library. You configure the reference label as a property of the content element. You specify the reference label as an attribute of the `<UAEreferenceLabel>` tag when you add the tag to a template.

When you preview or publish an email document, Deliver replaces the `<UAEreferenceLabel>` tag with the content it points to. To make the substitution, the content must be available in the Content Library and properly identified with a content reference label.

You can add content references to communication templates with the embedded graphical editor that is available for editing templates in the Message Editor. When you add content references with the embedded editor, you can define or overwrite content reference labels for the digital asset that you want to reference. This feature is available only when you edit a template with the embedded editor.


## About defining personalization fields in templates

Deliver provides custom HTML tags that template designers can use to embed personalization fields directly into email and landing templates. Personalization fields embedded in a template appear in every email or landing page that is based on the template.

## About form fields in templates

Landing pages can be configured as online forms. In the design of the HTML template for an online form, you can do either of the following.

- Fully configure inputs for all form fields in the HTML code.
- Design the form to allow email marketers to define some or all of the form field inputs.

If the HTML template does not define a form field input, the email marketer can define the `<input>` in the Message Editor using a **Form Field**  widget. To allow marketers to use the widget, the template must provide a zone for the form field. The template must provide a zone for each form field where email marketers are expected to define the `<input>`.

For details about configuring templates for online forms, see [About configuring form inputs in Deliver \(on page 218\)](#).

## Template types and requirements

Marketers can create various types of personalized messages and landing pages. The different types of communications require different types of templates.

In Deliver, you use templates to create the following types of marketing communications.

- HTML email
- Text-only email
- Landing pages linked to personalized email messages
- Landing pages used as online forms, including submission pages

The design and content of the template can differ, depending on the type of communication required.

For example, landing pages defined as online forms must contain the `<form>` tag, including the `name` attribute. However, a template used to create an email message would not include tags for forms, but might contain tags used to define personalization fields and zones in the Deliver Message Editor. An email message might also need to include static text required for compliance with CAN-SPAM regulations.

For information about requirements for HTML email and landing page templates, see [Template requirements for HTML email and landing pages \(on page 352\)](#).

For information about requirements for templates used to create text-only email, see [Template requirements for text email \(on page 353\)](#).

For information about automatically generating a text version of an HTML email, see [How HTML tags and links display in automatically generated text-only email \(on page 354\)](#).

### Template requirements for HTML email and landing pages

Templates for email and landing pages must be compliant with HTML 4.01 (Transitional).

To ensure that email and landing pages display as intended on the broadest possible range of display devices and browsers, consider designing your templates with well-formed HTML that is compliant with XHTML (XHTML 1.0 Transitional).

## Template requirements for text email

To allow email marketers to design text-only email, template designers must create text-only email templates. Marketers can auto-generate a text-only template from an existing HTML version of the email.

In Deliver, a template used to create text-only email uses a limited set of HTML tags, including tags and settings that are used to define personalization fields and zones. Templates used to create text-only email must also be in HTML format to support the Deliver Message Editor's drag-and-drop editing functions.

The tags that Deliver uses in text-only email include the following.

- `<html>` and `<body>` to define the template
- `<span>` when used to identify a zone by defining the class attribute as `droppable`
- `<UAEpf>` to define personalization fields in the template, including personalization fields in hyperlinks
- `<UAEreferenceLabel>` to add content (except images) by reference
- `<br/>` to force line breaks

Deliver ignores all other HTML tags when generating text-only email.

For example, a simple text-only email template would look like the following.

```
<html>
<body>

Dear <UAEpf n="salutation"/> <UAEpf n="LastName"/>,
<br/>
Thank you for attending our recent conference
in <UAEpf n="city"/>.
You will begin receiving our monthly newsletter beginning with the
<UAEpf n="monthStartNL"/> edition.
<br/>
To show our appreciation for your interest, we will be sending you
<span id="gift" class="droppable">Conference thank you gift</span>
```

```

autographed by our keynote speaker, <span id="speaker" class="droppable">
Conference Keynote</span>.
<br/>
We look forward to seeing you again at future events coming to
<UAEpf n="city"/> soon.


</body>
</html>


```

## How HTML tags and links display in automatically generated text-only email

Email marketers can use the Deliver Message Editor to generate text-only email based on an HTML email template. This feature is called auto-generating a text-only version of the email.

When Deliver generates a text version of an HTML email, it ignores all HTML formatting tags except for the `<html>` and `<body>` tags. The Message Editor converts specific parts of the HTML content to text, as listed in the following table.

In the HTML version	In the text-only version
<code>&lt;UAEpf /&gt;</code> Define personalization fields in the template.	Personalization fields added to text and links in the HTML template are retained in the text version of the email.
<code>&lt;span /&gt;</code> Used to define zones in the template.	Converted only where used to define zones.   <b>Note:</b> The Image widget is not supported for populating zones in the text-only version.
<code>&lt;br /&gt;</code>	Appear as line breaks in the text. Deliver adds <code>&lt;br /&gt;</code> tags to recreate line breaks in the HTML version.
hyperlinks	The entire link URL, including parameters, appears as plain text enclosed in square brackets.

In the HTML version	In the text-only version
	<p>For example, a link URL in the HTML version, formatted as follows</p> <pre style="background-color: #f0f0f0; padding: 10px;"> &lt;a   href="http://www.example.com/?someParameter=abc" "&gt; Visit us today!&lt;/a&gt; </pre> <p>appears in the text version as</p> <p>Visit us today! [http://www.example.com/online?someParameter=abc]</p> <p>Some email clients present the plain text as a link when rendering the text email, others do not.</p> <p> <b>Note:</b> If you plan to auto-generate text-only email from an HTML template, do not format hyperlinks to separate link parameters using URL-encoded ampersands (&amp;#amp;#38;#38;#38;). Instead, separate link parameters with a single &amp;.</p>
Images	<p>Images contained in the HTML version of an email do not appear in the auto-generated text.</p> <p>If an image in the HTML version defines a zone, auto-generating a text-only version creates a corresponding zone in the text-only version that displays text in place of the image.</p> <p>The new zone uses the same ALT and ID attributes. The text that you define for the ALT attribute appears in place of the image. If you have not defined ALT text, the ID value displays instead.</p> <p>For example, if you defined an image in the HTML as:</p>

In the HTML version	In the text-only version
	<pre>&lt;img id="A1" class="draggable" alt="This month's feature." /&gt;</pre> <p>The text-only version converts the <code>&lt;img&gt;</code> tag to:</p> <pre>&lt;span id="A1" class="draggable"&gt;This month's feature.&lt;/span&gt;</pre> <p>On the Text tab of the Message Editor, the auto-generated text appears as <code>[This month's feature]</code> if you defined the <code>alt</code> attribute in the HTML. If you did not define the <code>alt</code> attribute, the text version displays <code>[A1]</code>.</p> <p>The auto-generated text appears in square brackets to indicate that the text is a zone. The brackets do not appear in the message preview or in the transmitted email.</p>
Static text content	<p>The text version retains the text, but does not re-create the HTML formatting.</p> <p>For example, text that you format in the HTML as blue, bold-face text with a mouseover appears in the text-only version as plain text.</p>

Text email that is automatically generated from an HTML template must meet the same requirements that apply to templates created for text email. For more information about HTML tags used in text-only email templates, see [Template requirements for text email \(on page 353\)](#).

## General guidelines for templates

To ensure that marketers can use a template to create messages and landing pages in Deliver, template designers must design template within certain guidelines that are specific to Deliver. Deliver uses several custom HTML tags that are recognized only by Deliver.

In particular, template designers must understand requirements for the following template characteristics.



- Styles must be inline. CSS is not supported.
- Character encoding must be UTF-8.
- Formatting must be defined within the body of the template.

## Styles must be inline (embedded in the document)

Because emails are separate documents that are opened individually in each recipient's email client, you cannot provide styles and formatting in external `.css` files. All style definitions must be embedded in the template.

## Specify character encoding as UTF-8

Unica Deliver supports only UTF-8 character encoding. You must specify character encoding as Unicode encoding, UTF-8, so that text in your messages displays properly in email clients and browsers.

## About formatting with the `<body>` tag

Although Deliver does not support formatting with external style sheets, you can format an entire email or landing page using attributes for the `<body>` tag. For example, you can define a background color for an email or landing page as follows.

```
<body BGCOLOR="#F3F5A3" >  
Page content  
</body>
```

You can see the format results in a browser page when you open the template from the Content Library and when you generate a Message Viewer report to preview the email or landing page. However, the Message Editor Deliver does not recognize format attributes defined for the `<body>` tag. When you view the Deliver document that defines the email or landing page, the Message Editor displays the page using the default gray background. If you preview the page from the mailing tab, the page displays using a white background.

The Message Viewer report (on page [10](#)), and the preview available in the Content Library, each provide a view of the email or landing page as the email recipient sees it when you send the mailing.

## Templates and naming conventions

After users create a new landing page or email, the first thing they do is click the **Add Template** button. The system then displays a form that lists all the HTML files stored in the Content Library. When you create and upload templates, you cannot specify that a template should appear only in the template list for one communication type or the other. Whether an individual HTML file is meant to be the template for landing pages or for email messages depends on the design and your intention.

Therefore, use a template naming convention that indicates the purpose of the template clearly enough that users can determine which template to choose when they create communications. Additionally, you can use folder names in the Content Library to organize the template files and indicate the communication type for which you expect them to be used.

### Additional tips

- Be sure to include `alt="image description"` information for all images. Image descriptions are an important accessibility aid, and can also provide useful information if the image does not render.
- Unless you are quoting something in a non-English language, do not use the `&raquo;` character entity. Instead, use two `&gt;` character entities.
- The character entity for the horizontal ellipsis (...) is supported in HTML and XHTML, but it is not valid in XML. Therefore, it is best to use three periods rather than the `&hellip;` character entity when you need to use a horizontal ellipsis.

## Zones for email and landing page templates

Templates that are used in Deliver can define zones that accept content that marketers drag into a communication that is based on the template. The template must include specific design elements to create the zones.

Zones in a template provide an area in the document where marketers can drag content from the Content Library and drop it into the document. Because zones support drag-and-drop editing, they are sometimes called droppable zones or droppable areas.

You can create a zone in a template in one of the following ways:

- Include a value for the ID attribute of the element that defines the section of the template. The value you specify for the element ID becomes the label for the zone when the template is used for an email or landing page communication.
- To specify only some of the elements as droppable (and the rest as static), add the class attribute `droppable` to the elements that you want to be able to accept dropped content.

In other words, if none of the elements are marked with the `droppable` class attribute, then any element with an ID attribute is a configurable zone. However, if any elements have the `droppable` class attribute, those elements are interpreted as zones while elements without the `droppable` class attribute are not.

When you design the HTML template and add zones, you choose the element type that best supports the content types that you expect to be dropped into each zone. The styles you embed in the template and the sizing attributes you specify for the elements determine the appearance and size of the zones. When designing a zone, consider the type of content that might be dropped into it.

To help ensure that HTML elements that contain the `droppable` class attribute display properly when previewed in the Deliver Message Editor, remove return characters from all droppable elements in email and landing page templates.

Unica Deliver supports using zones only in the body of HTML templates. You cannot create zones in HTML snippets that might be added to the template by reference or by adding them to another zone.

The following code sample uses both the `ID` attribute and the `droppable` class attribute to create five zones.

```
<table>
  <tbody>
    <tr>
      <td><img id="banner" class="droppable"
        alt="Whatchamacallit" /></td>
```

```

</tr>
<tr>
  <td>
    <ul class="nav">
      <li>Page 1 </li>
      <li>Page 2 </li>
      <li>Page 3 </li>
    </ul>
    <img id="ad1" class="droppable" alt="ad1"/>
  </td>
  <td valign="top">
    <div id="body" class="droppable">
      <p>Lorem ipsum dolor sit amet, consectetur
        adipiscing elit. </p>
    </div>
  </td>
  <td>
    <img id="ad2" class="droppable" alt="ad2"/>
    <img id="ad3" class="droppable" alt="ad3"/>
  </td>
</tr>
</tbody>
</table>

```

The following code sample creates the same five zones, but without using the `droppable` class attribute:

```

<table>
  <tbody>
    <tr>
      <td><img id="banner" alt="Whatchamacallit"/></td>
    </tr>
    <tr>

```

```

<td>
  <ul class="nav">
    <li>Page 1 </li>
    <li>Page 2 </li>
    <li>Page 3 </li>
  </ul>
  <img id="ad1" alt="ad1"/>
</td>
<td valign="top">
  <div id="body">
    <p>Lorem ipsum dolor sit amet, consectetur adipiscing
      elit. </p>
  </div>
</td>
<td>
  <img id="ad2" alt="ad2"/>
  <img id="ad3" alt="ad3"/>
</td>
</tr>
</tbody>
</table>

```

However, to create a template that defines areas that should not be modified, you must use the `droppable` class attribute to specify which elements are droppable areas and which are not.

The following example defines a zone for a banner ad and includes a default image file:

```

<td style="background-color: rgb(255, 255, 255);">
  
  <br/>
</td>

```

If the person using the template does not replace the image in this zone, the default image file is used for the communication.


The following example uses text in the zone to show the location of the area to the people who use the template:

```
<span id="centerContent1" class="droppable">Drop Zone #1</span>  
<br/>  
<br/>  
<span id="centerContent2" class="droppable">Drop Zone #2</span>
```

It is helpful to indicate both location and purpose with the default text for a zone. For example, if your template is designed to use a personalization field that represents the recipient's first name, you can name the zone "First Name." The Deliver Message Editor identifies zones using graphical pushpins. For more information about how to find zones when using the Message Editor, see [Viewing zone contents \(on page 261\)](#).

## Formatting for hyperlinks generated by the Hyperlink widget

To support using the hyperlink widget to define links in a zone, the template must enclose the zone in a `<span>` tag.

In most cases, zones in an email document or landing page use the formatting defined by the styles embedded in the HTML template without any additional coding. However, when you know that a Hyperlink widget  will be dropped into a zone, you must apply an additional `<span>` element to force the generated link to use a specific style.

For example, if you are creating a zone in an email template for a View as web page link, you might add a style element called `viewAsWebPageWrapper` to define the formatting for the View as web page hyperlink:

```
<style type='text/css">.viewAsWebPageWrapper a {color #999}  
</style>
```

You then surround the zone containing the View as web page hyperlink with an additional `<span>`, setting the class to `viewAsWebPageWrapper`.

```
<span class="viewAsWebPageWrapper" >
<span id="viewAsWebPage0" class="droppable">View as web page</span>
</span>
```

## Design for deliverability

Deliverability measures your ability to consistently Deliver marketing email to the intended recipient's inbox. Email deliverability can be affected by many factors including spam filters, blacklists, and bad addresses. When you design email templates, remember to include standardized items that make it easy for each message generated from the template to comply with anti-SPAM regulations, and to include elements that generate confidence in your brand.

Common methods to improve the deliverability of your email include the following practices.

- Include a zone designed to provide an opt-out or unsubscribe link.
- If your company can accommodate additional opt-out options (web-based, telephone, reply to email), include standardized text that describes how to do so.
- Include a phrase that clearly identifies the email as an advertisement.

For example, some companies use the unsubscribe statement at the bottom of an email to state "This email advertisement was sent to [email address of the recipient]. If you no longer want to receive these email messages, click here to unsubscribe." Such a sentence ensures that the email complies with US law.

- Provide a valid physical mailing address for recipients to identify or use to contact the company.
- Include a standard sentence that requests that recipients add the **From** address from the message to their address books.
- Put your brand logo in the same place in every email from your company.
- Do not use a single image that covers the entire message.

For more details about CAN-SPAM, see the official Federal Trade Commission (FTC) website, specifically the page [The CAN-SPAM Act: A Compliance Guide for Business](#).



# Chapter 10. Images and Videos

The Deliver Message Editor provide several ways to insert images and videos into personalized messages. You can add images and videos from the Content Library or add them from external sources when you send each message.



**Note:** Videos are only supported for WhatsApp messages.

When you publish a communication that contains an image or video from the Content Library, Deliver makes the image or video file available on the public Internet so that it displays when the recipient opens the message or landing page.

If you specify an image or video file that is saved outside of the Content Library, you are responsible for publishing the image or video separately so that it is available when your recipients open the message or landing page.

## Methods to add images or video from the Content Library

The Content Library is a central repository for various content elements that you can use in personalized messages and landing pages. You can upload various image and video types to the Content Library and attach the file to a content element that you add to Deliver documents.

Use any of the following methods to add an image in the Content Library to a document.

- Drag the image or video element from the Content Library into the document.
- Use the content selector to add the image
- Add a content reference label to the document to add the image

## Dragging images and videos into a zone from the Content Library for email and WhatsApp communications

You can add an image and video to a communication by dragging the image from a Content Library folder into a zone in a communication.

1. In the Message Editor, open the communication.
2. In the Content Library, browse to the content element for the image or video that you want to add to the communication.
3. Drag the image or video element from the Content Library into the zone where you want the image or video to display. The zone changes color when you place the image or video in the correct position over the zone.
4. To configure image attributes, right-click the image and select **Edit content formatting**. In zones that contain multiple content, go to the image that you want to format or access the image in the **Personalized content** window.

## Adding images to a zone by selecting from a menu

You add images to a document by adding the images to zones defined in the document template. The Message Editor provides a menu for working with content in zones. To display the menu, right-click a zone in the document.

1. In the Message Editor, open the communication.
2. Select the zone to which you want to add the image.
3. Right-click the zone and select **Add content > Asset from the content library**.

The content selector window opens.

4. In the content selector, browse to the folder that contains the image that you want to add.
5. Click **Insert** to add the image to the zone.
6. To configure image attributes, right-click the image and select **Edit content formatting**. In zones that contain multiple content, go to the image that you want to format or access the image in the **Personalized content** window.

## Adding images by inserting a reference label

Deliver supports adding images to email, or landing pages by reference, instead of adding the image to a zone.

To add an image by reference, you add a content reference label to a document template or HTML snippet. The content element defined in the Content Library for the image must include the reference label that you add to the template or snippet.

- Define a content reference label for the image in the Content Library.
- Specify the image by adding the `<UAEreferenceLabel>` tag to an email or landing page template, or in an HTML snippet.

The system substitutes the image for the `<UAEreferenceLabel>` when you send the email or when the system displays the landing page.

## Methods to add images from external sources

You can add images that are stored outside of the Content Library to a zone in a communication. When you specify an image that is not already uploaded to the Content Library, you must enter a URL for the file. The location that you specify must be able to provide the image when the email recipient opens the email or landing page.

Use either of the following methods to add an image from an external source to a zone.

- Drag the image widget into the zone
- Right-click in the zone and use the menu to add the image

### Adding an external image with the image widget

You can use the image widget to select an image from outside of the Content Library to add to a zone that is defined in an email or landing page communication.

1. In the Message Editor, open the communication.
2. Drag the Image widget from the toolbar into the zone where you want to add the image. The zone changes color when you place the image in the correct position over the zone.
3. Enter an address for the location of the image file. The image location must be publicly accessible without credentials.
4. To configure image attributes, open the **Formatting Options** section.

## Adding an external image by selecting from a menu

The system provides a menu that you can use to add an image from outside of the Content Library to a zone in a communication.

1. In the Message Editor, open the communication.
2. Select the zone to which you want to add the image.
3. Right-click the zone and select **Add content > Image**.

The **Image** window opens.

4. Enter a URL for the location of the image file. The image location must be publicly accessible without credentials.
5. To configure image attributes, open the **Formatting Options** section.

# Chapter 11. Links

The Deliver Message Editor provides several ways to add links to personalized email messages, and landing pages that are hosted by Unica. Apply link attributes and inline styles to control how the links appear and how the target of the links display. Deliver tracks link clicks and stores the data in the Deliver system tables.

You can add a link to a message or landing page by modifying the underlying HTML code of a message template or snippet. You can also add a link by using the Hyperlink widget in the Message Editor. Both methods provide ways to format the appearance of the link in the message and to specify how the target of the link displays to the message recipient or landing page visitor.

Deliver automatically stores link tracking and response data for links that use `http://` or `https://` as a prefix. The response data is stored in the local Deliver system tables database. You can access information about recipient link tracking and responses in standard Deliver reports and by accessing the Deliver system tables.

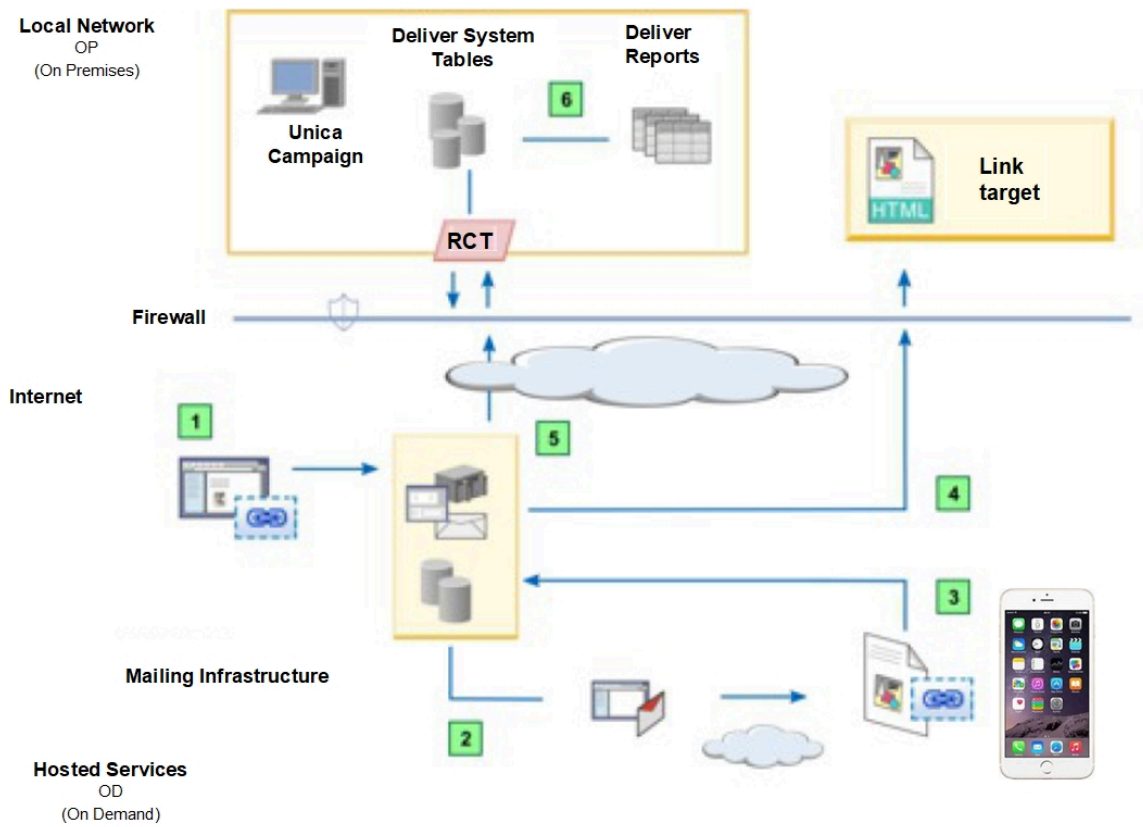
By default, Deliver tracks and records responses to links for up to 90 days after you complete the messaging run that contains the links. For each messaging run, you can configure how long the system tracks link responses.

## Link tracking overview

Unica Deliver tracks links whose URL starts with `http://` or `https://`. When you publish an email or landing page communication, Deliver evaluates each communication to identify the links that must be tracked.

In HTML email and in hosted landing pages, Deliver tracks link URLs found in `<a>` and `<area>` tags. In text-only email, the system tracks link URLs that are enclosed in square brackets `[ ]` or by white space.

The diagram illustrates how Deliver tracks links and collects link tracking data.



<p><b>1</b></p>	<p>Deliver assembles a message or displays a hosted landing page.</p> <p>The system replaces each tracked link URL with a redirect link URL. The rebuilt link points to the hosted email environment.</p> <p>URL parameters in the rebuilt link identify each link, specify the original link target, and provide link tracking elements that are used to generate link tracking reports.</p>
<p><b>2</b></p>	<p>The system sends messages to the message recipients that are designated in the recipient list.</p>
<p><b>3</b></p>	<p>Message recipients or landing page visitors click links in the message or page. The hosted messaging environment receives and records each link request and associated tracking data.</p>

4	After it records the link click data, the system redirects the request to the original link target.
5	The system stores the data in the hosted environment until Deliver components that are locally installed with Unica Campaign request the data.
6	The system stores the link response data in the Deliver tracking tables. The tracking tables are part of the Deliver system tables that are installed on your local network as part of the Unica Campaign schema.

## Where Deliver saves link tracking and response data

Deliver stores link tracking and link response data in the Deliver system tables. The system tables are installed as part of the Campaign schema in your local installation. Deliver components that are installed with Campaign periodically download the link click data to the local Deliver tracking tables.

The link contact tracking data is stored in the `UCC_ContainerURL` table. The data describes the trackable links that the system finds in each message and in hosted landing pages that are linked to the message.

Link response information is stored in the `UCC_Response` table. The information identifies each link individually so that you can determine which link the recipient responded to.

Link attribute information is stored in the `UCC_ResponseAttr` table. The attribute data indicates whether the link clicks originated in an email message or in a hosted landing page.

For more information about the link tracking and response information available in the Deliver system tables, see the Unica Deliver System Tables and Data Dictionary.

## Links to and from landing pages

Deliver tracks links to and from landing pages that are hosted by Unica in the same way that it tracks links in personalized email messages.

The system captures tracking data for links that are related to landing pages, as follows.

- Links in personalized email that point to landing pages hosted by Unica
- Links in landing pages that are hosted by Unica that point to other hosted landing pages
- Links in hosted landing pages that point to external web pages not hosted by Unica



**Note:** To track links that are contained in a landing page, you must publish the landing page.

Deliver components that are installed locally with Campaign periodically download link tracking data and add it to the Deliver system tables in the Campaign schema. By default, Campaign downloads link response data from HCL Unica every 5 minutes.

By default, links that display within email messages and within hosted landing pages expire after 90 days and the system stops recording link responses. However, the links from the email to the hosted landing pages do not expire.

## Link expiration in messages and landing pages

Links expire at the end of the tracking period that you can specify when you configure a messaging run. When a link expires, the system stops processing requests to open the link target.

By default, Deliver records responses to trackable links in messages and landing pages for up to 90 days for production message runs and up to 7 days for test message runs. However, links from messages to hosted landing pages do not expire.

You specify how long the system tracks links in a message as a delivery parameter when you configure the messaging run that is used to send the message. The tracking period begins when the run completes. If you schedule the messaging run, the link tracking period begins at the end of the scheduled run.

You can set the link tracking period differently for each messaging run. Changing how long to track links for a messaging run does not affect expiration settings for other messaging runs that are configured in the Deliver installation.



After a link expires, the system does not forward the link responses to the Deliver system tables that are installed with Unica Campaign. Instead, when a recipient clicks an expired link, the system displays a message to indicate that the link is no longer available. However, you can request that Unica redirect requests for expired links to a default web page. You must indicate a specific web page to be used as the default page for expired links.

## Link expiration for transactional email

Deliver determines link expiration for transactional email differently from how it calculates link expiration for other types of messages. The system calculates the end of the tracking period for transactional email messages based on when you disable the mailing for transactional email.

Because mailings that you enable for transactional email do not transmit messages in a single mailing run, the system cannot calculate a link tracking period that is based on the time the run completes. Instead, the time when you disable the mailing for transactional messaging is the specific date and time that the system uses to calculate when to stop link tracking.

After you disable the mailing for transactional email, the system forwards link responses according to the link tracking period that is specified in the mailing configuration. Links in the message expire at the end of the tracking period.


## Expired link forwarding

Instead of displaying an error message when a link expires, you can request that Unica redirect link requests for expired links to a page on your corporate website.


Specifying a redirect page for expired links avoids displaying an error message to email recipients that click an expired link in an email. For example, you might specify a redirect page if your business needs require that you configure links that expire quickly. Deliver redirects all of your expired links to the same web page.

Contact the Unica Deliver Deliver Services team to specify the web page that you want to accept expired link redirects. Contact the Deliver Services team via HCL technical support team.

## Adding links to zones in communications

In the Message Editor, use the Hyperlink widget  to configure hyperlinks in zones that are contained in message and landing page communications. The Hyperlink widget displays in the widget toolbar at the top of a message or landing page communication.

The Hyperlink widget contains the Body tab and the Link tab. Use the Body tab to specify the appearance of the link in the message or landing page. Use the Link tab to specify the link target page and to specify how the target page displays to the message recipient or landing page visitor.

1. Drag the Hyperlink widget  into a zone or right-click in the zone and select **Add content > Hyperlink**. The **New Hyperlink** window displays. The window contains the Body tab and the Link tab.
2. On the Body tab, specify what displays in the message or landing page communication.

**Text** Enter text that displays the link as a text link.

**External image** Display the link as an image. Enter the URL of the location where the system can retrieve the image when you publish the communication.

**Content** Specify an asset in the Content Library to display as the body of the link. You can specify an image, HTML snippet, or text block.

3. To configure the link differently than the format specified in the communication template, clear **Use formatting from template**.

In the Formatting Options section, you can specify the custom attributes to apply to the body of the link.

4. On the Link tab, specify the target of the link.

**View as Web Page** Select to create a link that displays an email message as a web page

**URL** Enter the URL of the web page that is the destination of the link.

**Landing Page** Specify a page that is hosted by HCL for your hosted messaging account.

By default, the target of the link opens in the same frame. Configure the target attribute to specify a different way to open the link target.


- To specify how the link target opens, clear **Use formatting from template**. In the Link Attributes Formatting section, specify a value in the Link Target field.

<b>_self</b>	Open in the same frame. This option is the default.
<b>_blank</b>	Open in a new window or tab.
<b>_parent</b>	Open in the parent frame
<b>_top</b>	Open in the full body of the window
<b>framename</b>	Enter the name of a frame that you create to display the target.



**Note:** The other formatting attributes on the Link tab are the same as the attributes on the Body tab.

- To configure more attributes, click **Add/Edit Advanced Formatting**.
- Click **OK** to add the link to the communication.

To test the appearance and behavior of the link, open a communication in the Message Editor that contains the template or snippet. Click **Preview**  in the Message Editor toolbar to preview the communication and the link.

## Embedding links into HTML templates and snippets

To embed a hyperlink into an HTML template or HTML snippet, enter the link directly into the HTML code. Use inline styles to specify link appearance and behavior.

1. Open the template or snippet in a text or HTML editor. You can use the embedded HTML editor in the Message Editor.
2. Use an anchor `<a>` tag to insert a hyperlink. Define the value for the `href` attribute. Enter the full URL for the target of the link. You must include the `http://` or `https://` prefix.
3. In the `<a>` tag, define attributes that control how the link appears and where the target of the link appears. Typical attributes include the following:

`title` provides a mouseover for the link.

`target` specifies where to display the target of the link


`style` controls how the link displays in the message or landing page

4. Specify the body of the link.
  - For a text link, enter the text as you want it to appear in the message or landing page.
  - For a link that displays as an image, configure an `<img>` tag.

For example, `<a href="http://www.example.com/offers"><img src=http://www.example.com/images/image1.jpg" alt="example"></a>`

5. Save the changes in the editor.

To test the appearance and behavior of the link, open a communication in the Message Editor that contains the template or snippet.

Click **Preview**  in the Message Editor toolbar to preview the communication and the link.

## Format options for controlling link appearance and behavior

You can format hyperlinks in messages and hosted landing pages to control how the links appear and where the target of the link opens. However, Deliver imposes specific link format requirements. The methods that are available to format the link depend on how you add the link to the message or landing page.

If you add a hyperlink directly to the HTML code of a template or snippet, you must use inline styles and attributes to format the link. Because messages and landing pages open

individually in an email client, web browser, or mobile app, you cannot rely on `.css` to style the links.

Deliver supports applying valid HTML attributes to format the `<a>` tag that defines a link. Use the `target` attribute to control where the link target displays. Use the `style` attribute to control how the link displays in the message or landing page.

If you use the hyperlink widget to add a link to a zone that is defined in an HTML template, the template formatting controls the appearance of the link. The hyperlink widget provides a way to override the template formatting.



**Note:** Hyperlinks in text-only versions of email messages display as plain text.

## Branded link and image URLs

To enable link tracking, Unica modifies links in email messages and landing pages. Deliver rebuilds the link to identify one of your registered messaging domains, instead of seeing a link that references an Unica domain.

When Deliver assembles an email message or displays a hosted landing page, it replaces each hyperlink with a redirect link that connects to Unica hosted messaging services. Without any further link modification, email recipients would see a URL that identifies Unica as the source of the link.

To ensure that message recipients see your brand as the source, Deliver rebuilds each link to include the email marketing domain that you specify as the **From:** email domain. You specify the **From:** domain when you configure the email header. Rebuilding the links to reflect your email domain is referred to as presenting a branded URL.

Deliver creates branded URLs for the following links.

- Hyperlinks added to HTML email.
- Hyperlinks in email that point to hosted landing pages
- Hyperlinks between hosted landing pages
- Image source URLs in HTML email

The following table describes how Deliver ensures that email and landing page links display your preferred email domain.

### How Deliver builds and displays trackable links.

Building and viewing the link	Link format
<p>What you see in the Message Editor.</p>	<p>When you add a link to the email or landing page, the link displays as shown here.</p> <pre>&lt;a href="http://example.com/NewProducts"&gt; See our latest entries.&lt;/a&gt;</pre> <p>In this example, the link target is the new products page on your corporate website: <a href="http://example.com/New_products">http://example.com/New_products</a>.</p>
<p>How Deliver assembles the link.</p>	<p>Deliver replaces the original link target with a redirect link that points to an email marketing domain in the Unica hosted email environment. The rebuilt link includes unique URL parameters that identify the link, specify the original link target, and provide link tracking data.</p> <p>When you run a mailing, Deliver rebuilds the link in the following format.</p> <pre>&lt;a href="http://content.&lt;your selected email domain&gt; /deliverIRS/servlet/IRSL?&lt;link parameters&gt;"&gt; See our latest entries.&lt;/a&gt;</pre> <p>Deliver sends the rebuilt link as follows:</p> <pre>&lt;a href="http://content.<b>example.online.com</b>/DeliverIRS /servlet/IRSL?&lt;link parameters&gt;"&gt; See our latest entries.&lt;/a&gt;</pre> <p>In this example, <a href="http://example.online.com">example.online.com</a> is the domain that you selected in the <b>From:</b> field in the email header. This URL is also called the branded URL.</p>

Building and viewing the link	Link format
What the email recipient sees.	<p>When email recipients hover over the link in HTML versions of the email, they typically see the branded URL, as seen in the following example.</p> <pre>http://content.example.online.com/DeliverIRS/servlet/IRSL? &lt;encrypted link parameters&gt;See our latest entries</pre> <p>The actual display behavior depends on the email client or browser in which the recipient views the email.</p>



**Note:** The branded URL displays when email recipients and landing page visitors hover over or click links in the email or landing page. However, if the recipient opens the link target in a web browser, the browser displays the actual URL of the target page.

## Email domains available for use in branded URLs

The email marketing domain that displays for links in email and hosted landing pages is the domain that is selected as the **From:** email domain in the email header.


When you edit an email communication, you can select one of the available email marketing domains that Unica maintains for your hosted email account. You select the email domain that you want to use from a list that is presented for the **From:** address in the email header.

When you run the mailing, all of the messages, and all of the landing pages that are linked to the message, indicate the selected email domain.

Deliver system administrators can configure folder permissions to control which domains an email designer can see during email composition. For more information about limiting access to email domains, see the Unica Deliver Startup and Administrator's Guide.



## Adding social sharing links to email

Add links for up to five social networks in an email communication. You can add only one set of social share links in a single communication. Use the Share widget to configure the links.

Social networks require specific information to describe and display your content when recipients share it. You provide the information in the Content to share section of the Share widget .

You can also control how each share link appears in the email. Configure the link buttons by expanding the Share widget to display the button options.

Complete the following steps to add a social sharing link.

1. From the Message Editor toolbar, drag the Share widget  into any zone in the communication.
2. In the **Description of content to share** section, provide the following information that social networks use to represent the shared content.
  - a. **Title:** displays as the content listing in the social network. By default, the system uses the email subject line as the title.
  - b. **Description:** Enter a brief description of the email content.
  - c. **Thumbnail:** Specify the source of the image.
    - To specify a remote image, select **External image** and specify the full path to the image file.
    - To specify an image that is stored in the Content Library, select **Content Library image**, and select the image to use. Select a static image. You cannot specify image assets with variations for a social sharing link.
  - d. **Type:** Select or enter the type of content that is contained in the email.
  - e. **Link:** Select the domain for the link that appears on the social network. Select **Use short link** to display the available short link domains.
3. Click the arrow  to configure how the sharing links appear in the email.



In the button properties section, configure the appearance of the buttons. Look in the **Preview share buttons** section to view the effect of your changes.

- a. Specify the orientation and spacing of the buttons.
- b. **Tooltip**: Enter the text that displays when the recipient hovers over the button.
- c. **Alt**: Enter the text that displays if the email client does not display images.
- d. **Button image**: Select an image to display for the link.
  - To specify a remote image, select **External image** and specify the full path to the image file.
  - To specify an image that is stored in the Content Library, select **Content Library image**, and select the image to use.
  - Specify the button dimensions.



**Note:** The default values for button options are always the values that were entered the last time the button options were modified.

4. Save your changes.

## Required information for sharing content

When you configure a social sharing link, you must provide information that social networks use as metadata to describe and display the shared content. The format requirements for each network determine how it creates a link to your content. The information that you provide can influence how the content link appears to members of the social network.

When an email recipient clicks a social sharing link, the system includes metadata with the share request that it sends to the social network.

Except for **Type**, you must provide all of the information that is described in the table when you add social sharing links to your marketing message.

**Social link information**

<b>Metadata</b>	<b>Description</b>
<b>Title</b>	Appears as the heading in social network listings. By default, the system uses the email subject line as the value for Title, but you can change it. You can create a title that is more descriptive or attracts attention better than an email subject line. Be as concise as possible. Some social networks limit the number of allowed characters.
<b>Description</b>	Short summary that you want to appear on the social network. Be concise. Some networks impose character limitations that restrict the length of the description. If you do not provide a description, some social networks scan the beginning of the email to create a description.
<b>Thumbnail</b>	A small image that appears next to the shared content listing in some social networks. You can specify a custom image to highlight the shared content as it appears on a social network. Choose an image from the Content Library or enter a URL to an image on a web server.
<b>Type (optional)</b>	Select or enter information that describes the type of content in the email that is being shared. The Share widget provides several default categories, but you can enter a different type. Some social networks use the type information to manage shared content.
<b>Use short link</b>	The link to the web page version of the email. When you publish an email that contains a social sharing link, the system creates a hosted landing page that duplicates the email. The duplicate page does not include the social share links. The link that is shared on social networks points to the duplicate landing page.

Metadata	Description
	When you receive short links from Unica , you can select the short link domain here.

To stay within character limitations that are imposed by some social networks, the system shortens the link that it provides to social networks. The shortened links are called short links. The system constructs a short link that is based on a unique short link domain. To use short links, you must have a short link domain that is configured for your hosted messaging account. Short link domains are available only upon request from Unica .

When the email recipient clicks a social sharing link, the system tracks the share request as a link click. The system also records when other individuals click the content link that appears on social networks. The link click data is added to the Deliver system tables and attributed to the original email recipient.

## Format options for social sharing links

Social sharing links appear as a series of adjacent buttons in an email message. You control the size, orientation, and spacing of the links by configuring button options in the Share widget. The Share widget provides default images and formatting, but you can customize the links to suit the design of your message.

Each link to a social network appears as a button. You can arrange the share buttons vertically or horizontally and configure the button spacing.

You can specify custom images for each button. If you specify a custom image, you must specify the source of the image. You can either select images that are stored on a website or select images that are stored in the Content Library.

The size of each share link buttons is individually configurable. You can configure the link buttons to all be the same size or you can specify different dimensions for each link. For example, if you use custom images for the links, each image might require a specific button size to avoid distorting the images.

When you define button dimensions, the system asks that you to confirm each entry and each change. You can configure the system to remember your editing decisions by setting

editing preferences. Use the **Editor preferences** link in the Message Editor toolbar to make your choice.

## Adding a Forward to a Friend link to email messages

You can add Forward to a Friend links to any zone in an email communication, embed the link in the HTML template, or add the link to an HTML snippet that you add to the message. The Forward to a Friend link appears as a trackable link in the email message. You can configure how the link appears in the email and how the link opens when the recipient clicks the link. You can also edit the form that email recipients use to forward the message and the confirmation page that displays when the system accepts the forwarding addresses.

The Forward to a Friend feature is available only by request. You must contact Unica Deliver services via HCL technical support team. to enable Forward to a Friend for your hosted messaging account.

When you publish the email communication that contains a Forward to a Friend link, Deliver automatically creates a hosted landing page form where the email recipient can enter up to 5 email forwarding addresses. A second hosted landing page serves as a confirmation page that displays to acknowledge receipt of the form. You can modify the default submission form and confirmation page, including creating multiple translations of the form and confirmation page if your target audience contains multiple locales.


When you add a Forward to a Friend link to an email message, you must complete the following tasks.


Task	More information
Configure a Forward to a Friend link in an email communication.	<a href="#">Adding a Forward to a Friend link to a zone (on page 385)</a> <a href="#">Embedding a Forward to a Friend link in an HTML template or snippet (on page 386)</a>
Modify the submission form and confirmation page (optional)	<a href="#">Editing the default submission and confirmation pages (on page 388)</a>

Task	More information
Create multiple versions of the supporting pages for different languages. (optional)	<a href="#">Creating submission and confirmation pages that display in multiple languages (on page 392)</a>

## Adding a Forward to a Friend link to a zone

Use the Forward to a Friend widget to add a Forward to a Friend link to any zone that is defined in an email communication.

1. From the widget toolbar, drag the Forward to a Friend widget  into a zone. The Forward to a Friend link editor displays. The Link tab is disabled.
2. Configure how the link displays in the email message.
  - **Text** Enter text that displays the link as a text link.
  - **External image** Display the link as an image. Enter the URL of the location where the system can retrieve the image when you publish the communication.
  - **Content** Specify an asset in the Content Library that displays as the body of the Forward to a Friend link in the email. You can specify an image, HTML snippet, or text block.
3. To configure the Forward to a Friend link differently from the format that is specified in the communication template, clear **Use formatting from template**.  
In the Formatting Options section, specify the custom attributes to apply to the body of the Forward to a Friend link.
4. Click **OK** to add the link to the communication.

Click **Preview**  in the Message Editor toolbar to see how the Forward to a Friend link appears in an email message.

## Embedding a Forward to a Friend link in an HTML template or snippet

Use the custom `<UAEf2f>` tag to embed a Forward to a Friend link in an HTML template or snippet. The tag is not case-sensitive.

1. Open an HTML email template or HTML snippet in a text or HTML editor.
2. Place the tag where you want the link to appear in the message.
3. Enter the tag in one of the following formats.
  - To display a text link: `<UAEf2f><a href="F2F">text</a></UAEf2f>`
  - To display the link as an image, using an image that is stored outside of the Content Library: `<UAEf2f><a href="F2F">URL to the external image</a></UAEf2f>`

For example: `<UAEf2f><a href="F2F"></a></UAEf2f>`

You cannot embed a Forward to a Friend link that uses an asset in the Content Library.




**Note:** The value of the `href` value for the anchor tag `<a>` is a placeholder. When you publish the communication, the system replaces the value with an internal link to the hosted submission page.

4. To configure the Forward to a Friend differently than the format specified in the communication template, specify HTML attributes in the `<UAEf2f>` tag. Use the `style` attribute to format the link.


For example: `<UAEf2f><a title="Forward to a friend!" target="_blank" style="display:block; width:250px; height:55px; background:blue; padding:10px; text-align:center; border-radius:15/25px; color:white; font-weight:bold;" href="F2F"> Send this message to your friends!</a></UAEf2f>`

5. Click **OK** to add the link to the communication.

Click **Preview**  in the Message Editor toolbar to see how the Forward to a Friend link appears in an email message.

## Forward to a Friend default submission and confirmation pages

When an email recipient clicks a Forward to a Friend link in an email message, the system displays a web submission form where the recipient enters the forwarding email addresses. After the recipient submits the email addresses, the system displays a confirmation page. The Content Library contains system-generated assets that the Message Editor uses to create the default email submission form and the confirmation page. The assets are identified in the Content Library as BUILTIN assets.

Unica creates the submission form and confirmation page automatically by creating the pages as hosted landing pages. The system creates the default submission form and confirmation page the first time that you add a Forward to a Friend link to a communication and use **Preview**  to view the assembled message.

After the first preview, the assets that are required to build the submission form and confirmation pages appear in the Content Library as BUILTIN assets in the Forward to a Friend Contents (BUILTIN) folder. The folder includes the following assets.

- **Forward to a Friend Confirmation (BUILTIN)** The asset that the system uses to create the confirmation page. You can edit this HTML snippet.
- **Forward to a Friend Form (BUILTIN)** The asset that the system uses to create the email address submission form. You can edit this HTML snippet.
- **Forward to a Friend Template (BUILTIN)** The HTML template that defines the structure and format of the submission and confirmation pages. You cannot edit this template.

The system creates only one default submission form and confirmation page. The same landing pages are used to provide an email submission form and confirmation page for all Forward to a Friend links. Each time that you publish a communication that contains a Forward to a Friend link, the system also creates and publishes the associated hosted submission and confirmation landing pages.

You can modify the BUILTIN form and confirmation assets. For example, you can add a company logo, change the background color, or revise the text. The system uses the updated assets to build a new default submission form or confirmation page. Because the system uses the same landing pages for all Forward to a Friend links, any changes that you make to the BUILTIN assets affect all messages that include a Forward to a Friend link that you publish after you make the changes.

There are limits to how you can modify the default submission form and confirmation page. The default assets contain some required HTML elements that you cannot change. You cannot rename, delete, or move the default assets or the Forward to a Friend Contents (BUILTIN) folder. You cannot add new assets or subfolders the Forward to a Friend Contents (BUILTIN) folder.

## Editing the default submission and confirmation pages

The Content Library contains the template that provides the framework for the default submission form and confirmation page. HTML snippets that provide the content for the default pages are also available in the Content Library. The default pages contain simple greetings and fields for entering email addresses. You can edit the snippets so that the default email address submission form and the confirmation page reflect your brand.

The default submission form and confirmation page are stored in the Content Library. They are identified as BUILTIN assets because the system builds them automatically.

The BUILTIN assets become available in the Content Library only after you add a Forward to a Friend link to a communication for the first time. To be able to add the link, Unica must enable Forward to a Friend for your hosted messaging account.

After the BUILTIN assets become available in the Content Library, you can modify the BUILTIN submission form or the BUILTIN confirmation page. For example, the default submission form includes a section in the HTML code to add a logo or image. You can also change the default wording of the form.

You cannot edit Forward to a Friend Template (BUILTIN), which is the template that the system uses to build the pages.

The submission form includes required default HTML elements that you must not change.



The following example illustrates the HTML code for the default submission form and indicates the required HTML elements.



A	Header. You can add content, such as a company logo or other image.
B	The submission form must be named <code>f2fForm</code> .
C	<p>By default, the form contains 5 input fields for the name of the recipient of each forwarded message. The input fields must be named sequentially <code>name1</code> through <code>name5</code>.</p> <p>You can remove input fields, but the form must contain at least one name input field named <code>name1</code>. The system ignores input from more than 5 fields.</p>
D	<p>The form contains 5 input fields for email address. The input fields must be named sequentially <code>email1</code> through <code>email5</code>.</p> <p>You can remove input fields, but the form must contain at least one email input field named <code>email1</code>. The system ignores input from more than 5 fields.</p>
E	The field that is used to enter the name of the person who forwards the message must be named <code>senderName</code> .
F	The field for entering a message to accompany the forwarded message must be named <code>message</code> .
G	The link for submitting the form must define the link target as <code>#f2fSubmit-Link#</code> .

The system uses the same submission form and confirmation page for every mailing that includes a Forward to a Friend link. When you change a BUILTIN asset, the change affects every Forward to a Friend link in messages that you publish after you edit the asset.

1. In the Content Library, open the Forward to a Friend Contents (BUILTIN) folder.



**Note:** To make the Forward to a Friend Contents (BUILTIN) folder available, you must add and preview a Forward to a Friend link in at least one communication.

2. Open Forward to a Friend Form (BUILTIN) or the Forward to a Friend Confirmation (BUILTIN) page for editing.

3. In the Preview section, click **Edit Content** . Modify the HTML code as necessary.

The page supports any valid HTML content. You can use an external text or HTML editor to create the new content and paste the updated HTML content into the **Edit Content** window.

4. Click **Save Changes** .

## Creating submission and confirmation pages that display in multiple languages

If the mailing delivers email in multiple languages, you can create submission and confirmation forms in the corresponding languages. Use the ability of the Message Editor to manage dynamic content to create the required language variations.

To support Forward to a Friend links in multiple languages, you create multiple versions of the submission and confirmation pages and define them as variations to support dynamic content.

Using dynamic content to support multiple languages depends on the value of a personalization field to indicate the preferred language of the message recipient. When used to control content variation, the personalization field is called the variation field.


The variation field must be an OLT personalization field. The field must be defined in the recipient list (OLT) that is associated with the mailing that is used to transmit the email that you want recipients to forward. Your marketing database must define the preferred language for each recipient. Update the personalization field configuration to include the required variation value for each language. The variation values must appear exactly as they appear in the marketing database.

Use the same variation field in the message, the submission form, and confirmation page. Before you begin, determine which personalization field to use as the language variation field and create translations to match the personalization field values that you expect in the target audience.

For example, you might define a personalization field that is named Locale that specifies the preferred language of email recipients. Add the personalization field to the Output List Table (OLT) that defines the list of message recipients. Reference the OLT to the mailing that


you plan to use to send the email that contains the Forward to a Friend link. Create multiple versions of the message, submission form, and confirmation page that correspond to the different language preferences in the OLT that is referenced in the mailing.

To prepare multiple translations of the submission and confirmation pages, copy the content of the default pages in English. Create multiple translations as separate HTML snippets and upload them to the Content Library.

1. In the Content Library, open the Forward to a Friend Contents (BUILTIN) folder.
2. Open **Forward to a Friend Form (BUILTIN)** or **Forward to a Friend Confirmation (BUILTIN)** for editing.
3. Select **Dynamic content**.
4. Select a variation field. The drop-down list displays only personalization fields for which multiple values are configured.
5. Define content variations. A blank variation displays by default. Click **Add variation**  to create new variations. For each content variation, define a field value and associate a file.
  - Double-click in the Field Value column. Enter or select a variation field value. The drop-down list contains the list of values that are defined as properties of the personalization field that is specified as the variation field.
  - Browse to the translated HTML file that you want to associate with the variation field value.



**Note:** Previews of the uploaded asset are available only after you save.

6. Select a default variation. The default content displays if the personalization characteristics for the email recipient do not match the variation value for any of the other variations. The default variation always moves to the top of the list of variations.
7. Click **Save Changes** .

## Short links

Short links are concise placeholders that replace full length hyperlinks in message formats that limit how many characters you can use in a message. Each short link consists of a short link domain and a unique link identifier.

For example, when recipients share your message on social networks, a short link to the web page version can avoid exceeding character limits on Twitter. A full length hyperlink, especially links in Deliver that include tracking parameters, can easily exceed the character limit for a tweet.

A typical full length hyperlink might appear as follows when the system converts the link to a branded URL and applies link tracking parameters.

```
http://content.example.online.com/deliverIRS/servlet/IRSL?  
v=5a=46r=582m=5l=2e=2x=2456617.0
```

(91 characters)

As a short link, the same link might appear in the message as follows.

```
http://e.online.com/a3b45
```

(25 characters)

In this example, `example.online.com` is the email domain and `e.online.com` is the short link domain.

When you add a short link to a communication, you specify a target URL and the short link domain that you want to use. The following guidelines apply to working with short links.

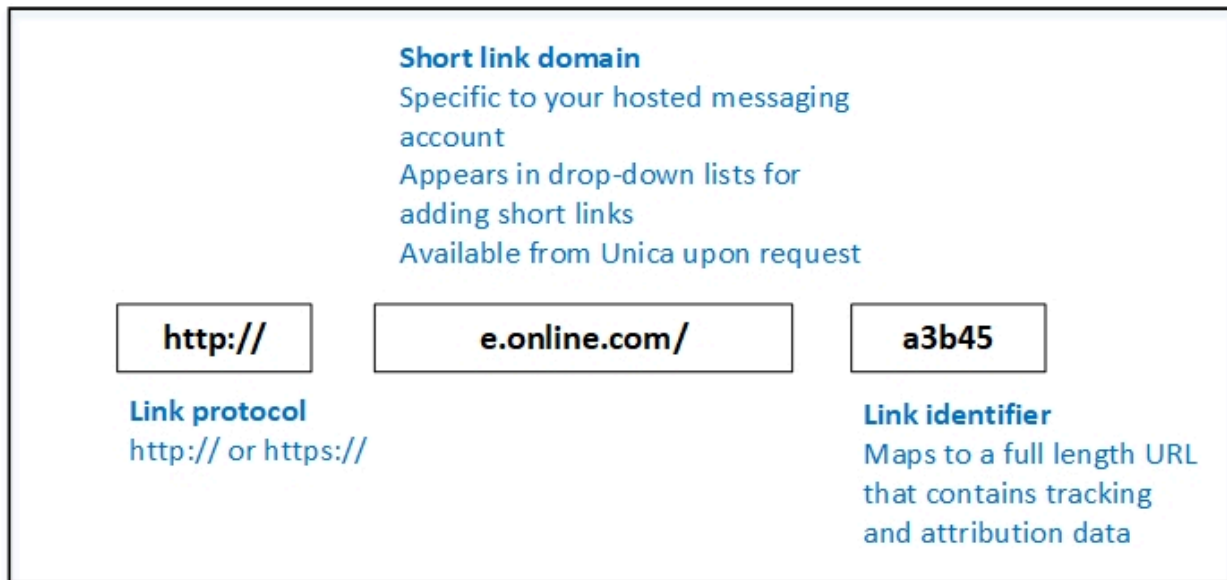
- You can request multiple short link domains for your hosted messaging account.
- You can add multiple short links to a communication.
- You can use only one short link domain in each communication.

The system populates drop-down lists with the short link domains that are configured for your hosted email account. To select the short link domain, select one of the domains on the list. You cannot enter a short link by manually entering the link into a communication.

## Short link construction

The system builds short links by combining a unique short link domain and a unique link identifier for each link that you add to a communication. The short link domain is unique to your hosted email account. The system maps each short link to a full length URL that you specify when you add a short link to a communication.

The following diagram illustrates the structure of a short link.



The system constructs short links when it assembles the message for transmission. When message recipients click the short link, the system tracks the link clicks and forwards the responses to the Deliver system tables.

## Establishing a short link domain with HCL

To use short links in communications that you create in Deliver, you need to specify a short link domain. The short link domain must be one that is provided by Unica. Short link domains are specific to your hosted messaging account. To establish a short link domain, you must contact Unica to request short link domains for your hosted email account.

To request that Unica configure short links for your account, contact the Unica Deliver Services team via HCL technical support team.

Unica can create short links for domains that you previously delegated to Unica or you can delegate a new domain to be used for short links.

## Short link tracking

The system tracks link clicks for short links in the same way that it tracks link clicks for full length links.

The system tracks short links that are based on the tracking parameters in the full length URL that is mapped to the short link. Link responses for short links are not distinguished from full length links in the Deliver system tables and tracking reports.

## Short link availability

The short link domains that are available for you to use in a communication depend on the permissions that you have for the folder in which the communication is saved. System administrators control folder permissions, including permissions that govern the use of short link domains.

If you do not have permission to use a particular short link domain, you might use a different short link domain. If that is not possible or desirable, you must request that the system administrator update the short link domain policy.

For more information about folder permissions, see the *Unica Deliver Startup and Administrator's Guide*.

## Identifying links in reports

Deliver describes link tracking results in the Detailed Link and Detailed Link by Cell reports. The reports use specific HTML link attributes to distinguish each link in the message. The attribute that the reports use depends on whether the link displays as text or an image, and whether the link attributes are unique. To identify links in reports, ensure that the attributes that the reports use to distinguish links are unique for each link in the message.

By default, Deliver reports distinguish links in messages as follows.



- For text links, reports identify links according to the body text that is defined for each link.
- For image links, reports identify links according to the `ALT` text that is defined for the link.
- If multiple links define identical body text or ALT text, the report identifies the first duplicate link according to the body or ALT text. The report identifies the remaining duplicate links according to the `Title` attribute that is defined for each link.

If links do not define body, `ALT`, or `Title` attributes, the report displays the link URL to distinguish each link.

To clearly identify message links in the link reports, adopt the following practices when you add links, or HTML snippets that contain links, to messages and landing pages.

- Define unique body text for each text link. For image links, define unique ALT text for each link in the message.
- Configure a `Title` for each link in the message. The title of each link must be unique within the message. If the marketing objective demands that some links use identical body or `ALT` text, then defining a unique title ensures that reports can still distinguish each link in the message.

# Chapter 12. Preview

Use the Preview feature in the Message Editor to see how a personalized message might appear to message recipients. Preview simulates how personalized parts of the Deliver document used to create the email, landing page, SMS, WhatsApp may change according to the personal characteristics of each recipient.

The message or page preview is based on sample data configured for the page. If you configured sample data for the personalization fields in the document, the preview displays the sample data in place of the personalization field display names. The system evaluates personalization rules for conditional content based on the sample values you provide. You can view the page based on default sample values (if default values are configured) or experiment with new values.

If you configured personalization rules to display content conditionally, previewing the document provides an opportunity to examine the possible content variations.

The Preview section of the Message Editor contains a link to the Design Report. The Design Report provides previews of how various email clients will display the email or landing page. If you know which email clients most of your intended recipients use to view email, you can use the Design Report to optimize your email and landing page designs.

## Previewing a communication


The Preview feature in the Message Editor provides a way to see the message as it will be seen by the message recipient. You can use Preview to evaluate the message design so that you can make any necessary adjustments. You can preview a communication at any time before or after you publish the communication.

You access Preview from a link in the Deliver Message Editor toolbar.

The Preview section of the Deliver Message Editor displays as a separate window within the Message Editor. Preview displays a sample of the document as it would appear when it is assembled for a mailing.

The preview document is based on the layout defined by the document template, personalization fields in the document, personalization rules, and content added to the current version of the document.

If you configured default sample values for personalization fields, the preview displays the sample values. In the Preview section, you can view a list of all personalization fields included in the document, and their default values. If sample data is not configured for the personalization field, Deliver uses the field's display name in the preview.

1. Open an editor for the Deliver document that you want to preview. In the Message Editor toolbar, click **Preview** .

The Preview page displays in a separate Message Editor window. The preview includes a list of available personalization fields and the Reports section, where you can generate the Design Report.

If the document includes a text-only version, personalization fields appear in the Text tab preview in square brackets. For example, [www.example.com].

2. In the Preview section, examine the appearance of the document. If you are previewing an email, examine the email header.
3. In the list of personalization fields, you can substitute new sample values for personalization fields in the Value field. Click **Update Preview** to observe the change in the personalization field in the preview document.

After you review the document and are satisfied that it is ready to be transmitted, you must publish the document to make it available for use in a messaging.

## Document mode mismatch

When you preview a message or landing page communication in the Message Editor, the system compares the document mode of the communication template to the operating mode of the Message Editor. The system displays a document mode mismatch message when the modes are different.

Web browsers automatically run in standards mode when the browser detects a `doctype` declaration at the start of the HTML code for the page. However, the Message Editor is

configured to always run in quirks mode. It does not automatically switch to standards mode when the communication that you preview includes a `<!doctype>` declaration.

When you preview a communication that declares a `<!doctype>`, the Message Editor displays the page in quirks mode instead of standards mode. The resulting preview might not exactly predict how the message or landing page appears in a browser or email client that is running in standards mode. In Microsoft™ Internet Explorer, the Message Editor displays a message to warn that the document mode and the preview browser mode do not match.

The difference between how the page displays in the Message Editor preview and how it displays in a web browser that is running in standards mode depends on the design of the communication and the behavior of the browser. You can often ignore the document mode mismatch if you are confident that the design of the message or landing page does not rely on non-standard browser features.



**Note:** When you preview a landing page, the Message Editor automatically adds a `<!doctype>` declaration to the landing page template. This modification causes the page to always display a document mode mismatch message when you preview a landing page. Email communications are always previewed in quirks mode.

To prevent the document mode mismatch message from displaying every time that you preview a communication, you can set the Editor Preference to never display the warning message. You can change the preference setting at any time.

## Personalization fields in communication previews

The Preview section displays a list of all personalization fields that are available for use in the Deliver document you are previewing. Personalization fields that are currently used in the document appear in bold. The list of fields indicates the default sample value configured for each personalization field, if the data is available.

You can change the sample values to observe changes in document appearance or behavior. For example, you can substitute new personalization field values to simulate variations in recipient data to test personalization rules and observe changes in how conditional content displays as a result. The changes are reflected when you update

the preview document. Observing the effect of the sample data changes on the preview document simulates how different message recipients might see the email or landing page. You can use these results to optimize your message.

To enable Deliver to correctly display sample data for the personalization field, the OLT that defines the personalization field and the Deliver document that uses the field must be referenced by the same messaging.

After you change sample data for a personalization field, you can save the new value as the default. Saving a new default value updates the sample data value for the field on the Deliver Personalization Fields page. New documents that use the same personalization field use the new value when previewed. When you update an OLT by running the associated flowchart, Deliver updates the sample data for personalization fields in the OLT to reflect any sample data updates.

## Changing the default values for personalization fields

The Message Editor uses personalization field default values when assembling a preview document. You can change the fields values to observe the effect in the document.

The default values are the sample data for the personalization field configured in the Deliver configuration on the Deliver Personalization Fields page.

Defining default values is particularly important in regard to personalization fields that are referenced in conditional content personalization rules. The default value determines which content displays in the preview of the conditional content.

In the Preview section of the Message Editor, you can define or update default values for personalization fields used in the current document.

1. In the list of personalization fields that appears in the preview, find the personalization field that you want to update.
2. In the **Value** field, enter a new value.
3. Click **Save as Default**



**Note:** The new sample value becomes the default sample value for this personalization field in every document that contains it. The new default value



also updates the sample data value configured for the personalization field on the Deliver Personalization Fields page.

4. Click **Update Preview** to observe the change in the preview of the current document.

## Preview of conditionalized content

You can preview conditionalized content in an Deliver document to ensure that the content appears in personalized email as you intend. Conditional content that appears in personalized email is controlled by personalization rules. Personalization rules are configured around values in personalization fields. In the Preview section of the Message Editor, you can substitute different values for personalization fields that are configured in personalization rules.

Substituting values for personalization fields simulates the data variation that you expect in the recipient list that you are using with the document. Depending on the personalization rules that you configured in the document, when you change the value of a personalization field, content in the preview document might change in response.


To preview conditional elements in the document, Deliver validates the data type of the personalization fields that are used in the various condition criteria. To define personalization field data type, you must define the field in an Output List Table (OLT) and upload the OLT to the hosted mailing environment that is maintained by Unica .

You can edit data type of the OLT personalization field that is used in the personalization rule if the data type is incorrectly defined or incorrectly causes rule validation to fail. You can change the personalization field data type from the Deliver Settings page by updating the properties for the field that is configured as a criteria in the personalization rule.

## Previewing conditionalized content

You can preview conditionalized content in the Preview section of the Deliver Message Editor.

The Preview section displays a preview of the assembled Deliver document and a list of all personalization fields added to the document. The list includes any default values defined as sample data for personalization fields.

In the list of personalization fields, the  icon appears next to personalization fields added to zones containing multiple content elements. This icon identifies fields associated with multi-element conditionalized content.

1. In the communication editor for the Deliver document that you want to preview, click

**Preview** .



The Preview section displays a preview of the assembled document and a list of personalization fields.

2. In the preview document, find the conditionalized content that you want to preview.
3. In the list of personalization fields, find the personalization fields used in the personalization rules that control display of the conditional content that you want to preview.
4. In the Value field, enter a new value for a personalization field.

Observe the change in the conditional content displayed in the preview document.

## Previewing content variations in communications

If a communication contains content elements that provide multiple variations, you can preview each version of the email or landing page in Preview. The preview displays a sample of the communication based on the currently selected variation field and variation value.

- To preview the communication, click  in the toolbar. In the list of personalization fields, the currently enabled variation field displays in the list with . The current variation value displays as the personalization field value.
- In the Preview, if you select a different value for the variation field, the sample communication changes to display the variations associated with the variation value that you entered. You can change the variation value from within the preview to see other variations. If you enter an incorrect value, the preview displays the default variations.

Changes to variation value in the preview do not change the content variations displayed in the communication editor.

# Chapter 13. Publication

Publishing the communication in the Deliver Message Editor makes the communication and the resources it contains available for use in a personalized message or landing page. Publishing a communication does not transmit the communication to message recipients or landing page visitors. However, to send a message through Deliver, you must first publish the message in the Message Editor.

When you publish an email, WhatsApp, Push, or landing page communication, Deliver places images and landing pages that are associated with the communication available on a publicly accessible server that is maintained by Unica. This server renders the requested content or landing page when message recipients open a personalized message or landing page.




**Note:** Deliver checks publication status when you transmit the message. A messaging campaign fails if the communication, or any landing page that is linked to the communication, is not published.

If you change a communication after you publish it, you must publish the document again to make the changes available. You can republish a communication multiple times. Deliver manages republished documents used for messages differently from the way it handles republished documents used for landing pages.

## Publishing a communication

You must publish a communication to make it available for use in a personalized message.

You must save the document before you publish it.


In the Message Editor toolbar, click **Publish** .

If the email or landing page that you are publishing links to one or more landing pages, the system provides an option to publish all of them simultaneously.





## Indicator for publication status



When you publish a communication, the Message Editor displays a publication status indicator in the toolbar. The publication status indicator provides clear feedback to indicate that publication is continuing and indicates when the communication has been published successfully. The status indicator also provides information about when the communication was last saved.

The publication status indicator  does not appear until the first time that you attempt to publish the communication. You must save the communication before you publish.

When you publish a communication, the status indicator displays the publication steps being completed. If the publication publishes successfully, the status indicator displays the date and time when the publication process completed successfully.

If the system detects a problem with the publication process, the Message Editor displays a warning indicator  in the toolbar. The warning is persistent and indicates the date and time of the error. Click  for details regarding the error.

If you close a communication after you start to publish and return later, the progress indicator continues to show the current publication status or publication warning.

Hover over  or  to view the date and time of the last time the communication was published.

## When to republish communication

When you make a change to a Deliver document used to define a message, you must publish the document again to make the change available to recipients. You must republish the document again to use the updated document in a mailing.

Every time you republish a Deliver document used for messages, the system overwrites the currently published version of the document.

## When to republish landing pages

When you make a change to an Deliver document used to define a landing page hosted by Unica, you must publish the document again to make the change available to email recipients who navigate to the page through a link in a personalized email.

Deliver creates multiple versions of published landing pages. Each time you start a production mailing that references a published landing page, the system checks to see if the landing page has been referenced by any other production mailing. The system does not perform this check when you run a test mailing.

- If the currently published version of the document has been referenced by a production mailing, the system automatically creates a new version of the document that contains your changes. The system creates a new version and saves the previous version at the start of the mailing run.

Creating a new version preserves the content of the previous version for use by email recipients who received the earlier mailing.

- If the landing page defined by the document has never been referenced in a production mailing, the system overwrites the currently published version of the document.

Deliver manages access to the multiple versions. If you republish a landing page several times, several versions of the document will exist in the system. Deliver manages multiple versions of landing page documents automatically, and provides email recipients with access to the version of the landing page content according to the email link they use to access the page.

You cannot access the individual versions of the landing page from the Deliver Message Editor. You can see only the most recently published version of the page.

# Chapter 14. Personalization fields

Personalization fields provide the means to add recipient-specific information from your marketing database to a SMS, email, WhatsApp, push notifications . Personalization fields are also used in rules that control how conditionalized content displays in each personalized message.

Deliver provides the following types of personalization fields.

- Built-in personalization fields. These system fields are defined by Deliver and are available for all mailings.
- Constant personalization fields. You define constant personalization fields to add a static text value to every message sent during a mailing. You specify a value for constant personalization fields in the mailing configuration.
- OLT personalization fields. This type of personalization field is defined in an Output List Table (OLT) configured in your local Deliver installation and uploaded to HCL Unica.

You can add personalization fields to email communications by adding them to zones that are defined in email communications. You can add personalization fields to email communications by adding them to zones that are defined in email communications in the Message Editor or by typing "#" in the Quick Builder. You can also use custom HTML tags to embed personalization fields in the template that defines a communication. You cannot add personalization field tags to landing page templates.

You can specify a default value for a personalization field by defining sample data for the field. When you preview a personalized message , Deliver uses sample data to create the preview. If the personalization field is used in a personalization rule, the system evaluates the rule by substituting the sample data that you defined for the field.

You can view and manage personalization fields for the entire Deliver installation on the **Deliver Settings** window.

## Built-in personalization fields

Built-in personalization fields are system-defined fields that provide system-related information that you can incorporate into your messages.

For example, the built-in personalization field `RunDate` provides the date that you ran the mailing. Adding this field to the document can be a useful way to identify individual mailings if you have scheduled the mailing to run recurrently.

When you add personalization fields to a Deliver document, built-in personalization fields are identified in the list of available fields with the prefix `BUILTIN_`.

You cannot add, delete, or modify Built-in personalization fields.

## Constant personalization fields

Constant personalization fields display the same value in every email message in which they appear. Constant personalization fields do not take their values from an output list table (OLT). Instead, you define the value of constant personalization fields in the mailing configuration by entering a value on the mailing edit tab.

By defining one or more constant personalization fields in a mailing. You can add static text to all email messages in the mailing without being forced to edit a zone, modify the document template, or update the OLT referenced by the mailing.

For example, if you want to provide a unique promotion code for each mailing, you might define a constant personalization field, `const_PromoCode`. You can then incorporate `const_PromoCode` into all of the email templates you use. To specify a promotion code for each mailing, you need only to change the value of `const_PromoCode` in the mailing configuration. If you define the promotion code with an OLT personalization field instead of a constant personalization field, you must run the flowchart in Campaign to update and upload the OLT to provide the new promotion code.

You create constant personalization fields at the Deliver installation level. Doing so makes the constant personalization field available to all mailings that you create across the installation. However, because you define the value for a constant personalization field at the mailing level, the same constant personalization field can appear differently in different mailings.

For more information about using constant personalization fields in an individual mailing, see [About configuring constants \(on page 409\)](#).

For more information about creating constant personalization fields for the Deliver installation, see [Creating a constant personalization field \(on page 410\)](#).

## About configuring constants

To display static text for all email in a mailing, you can define a constant in the mailing configuration. If you define a constant in the mailing configuration, the document referenced by the mailing must contain the corresponding constant personalization field. A mailing can define multiple constants if the referenced document contains the required constant personalization fields.

When you configure the constant on the mailing tab, you are specifying the text that the constant personalization field displays in the message. The text that you enter appears only for the mailing you are configuring and appears in the same way in every message sent as part of the mailing.

Because you create constant personalization fields at the Deliver installation level, you can use the same constant personalization field in multiple mailings. However, you configure the text displayed by a constant personalization field at the mailing level. Because you configure the field's text value as part of the mailing configuration, the same constant personalization field can display different text in various mailings.



**Note:** Defining a value for every constant added to a mailing is not required to configure or run the mailing. However, depending on how and where the constant personalization field appears in the document, the missing constant value might affect how the message appears to the recipient.

For more information about defining and managing constant personalization fields, see [Constant personalization fields \(on page 408\)](#).

## Creating a constant personalization field

When you create a constant personalization field it becomes available for all mailings in your Deliver installation.

The constant personalization field can appear in a mailing only when the mailing references a document that contains the constant personalization field. If the referenced document contains a constant personalization field, you define the value for the field when you configure the mailing.

1. Navigate to **Settings > Deliver Settings** and click **Display a list of all Personalization Fields**.

2. Click  **Add a Personalization Field**

The Create Constant Personalization window displays.

3. In the **Personalization Field Name** field, you must enter a name for the constant personalization field.

For easier management of personalization fields, Unica recommends that you establish a consistent naming convention for constant personalization fields. For example, `const_<name>`.



**Important:** Do not use spaces in the name of constant personalization fields. Spaces in the name of a constant personalization field added to a landing page can cause problems when previewing the landing page.

4. Optionally, enter a description and sample data for the constant personalization field.

The sample data that you enter here displays when you preview documents that contain the field. The data does not appear in email and landing pages that are transmitted during a mailing.

5. Save your changes.

To use the constant personalization field, you must add it to an Deliver document. When you reference the document in a mailing, you can edit the mailing configuration to define a static text value for the constant personalization field.

## Create Constant Personalization Field screen reference

Field	Description
Personalization Field Name	Enter a name for the constant personalization field.  Unica recommends that you establish a distinct naming convention for constant personalization fields.
Description	Enter a description of the field.
Sample Data	Enter sample data for the field.  The value that you enter here displays when you preview documents that contain the personalization field.
Source	Constant  You cannot edit this field.

### About configuring constants

To display static text for all email in a mailing, you can define a constant in the mailing configuration. If you define a constant in the mailing configuration, the document referenced by the mailing must contain the corresponding constant personalization field. A mailing can define multiple constants if the referenced document contains the required constant personalization fields.

When you configure the constant on the mailing tab, you are specifying the text that the constant personalization field displays in the message. The text that you enter appears only for the mailing you are configuring and appears in the same way in every message sent as part of the mailing.

Because you create constant personalization fields at the Deliver installation level, you can use the same constant personalization field in multiple mailings. However, you configure the text displayed by a constant personalization field at the mailing level. Because you configure the field's text value as part of the mailing configuration, the same constant personalization field can display different text in various mailings.



**Note:** Defining a value for every constant added to a mailing is not required to configure or run the mailing. However, depending on how and where the constant personalization field appears in the document, the missing constant value might affect how the message appears to the recipient.

For more information about defining and managing constant personalization fields, see [Constant personalization fields \(on page 408\)](#).

## OLT personalization fields

When you create a recipient list, you define personalization fields and map them to fields in your corporate marketing database. Because each personalization field represents a column in the OLT, the personalization fields that you define using the Deliver process are called OLT personalization fields.

To create a list of recipients, you configure a Deliver process in Campaign. The output of the configured Deliver process is an Output List Table (OLT). The OLT serves as the recipient list that you reference in a messaging.

For more information about configuring a Deliver process to create an OLT, see [Understanding how to create a recipient list \(on page 408\)](#).

You must upload the OLT to HCL Unica to make the OLT available for use with Deliver messagings. After you upload the OLT, the OLT personalization fields are added to a master list of all personalization fields available for use in any other OLT that you create afterward.

You can add an OLT personalization field to an Deliver document in the following ways.

- Using the `<UAEpf>` tag to define the personalization field in the document template.

For more information, see [Personalization fields in HTML templates, content, and links \(on page 422\)](#).

- If the template defines configurable zones, use the Deliver Message Editor to add OLT personalization fields to zones in the document.



For more information, see [Methods to add personalization fields using the Message Editor \(on page 333\)](#).

- Use the rule editor to specify the OLT personalization field in a personalization rule.

## Where to use personalization fields

You can use personalization fields in various parts of a communication. You can also add personalization fields to advanced scripts for email.

- Use personalization fields to populate address and subject fields in the email header.
- Define personalized content in the Message Editor by dropping personalization fields into zones.
- Add personalization fields to text and image links.
- Incorporate personalization fields into text blocks added to the document.
- Personalization fields are required to define personalization rules that govern how conditional content appears in email messages.

For more information about personalization fields and conditional content, see [Defining personalization rules \(on page 425\)](#).

- Add one or more constant personalization fields to incorporate a text value that appears consistently in every email. For example, you can use a constant personalization field to incorporate a promotional code into all messages for a specific mailing.
- Use personalization fields in advanced scripts for email.

For more information about using advanced scripts, see [Advanced scripts for email messaging \(on page 461\)](#)

When you add a personalization field to an address field or zone, the Message Editor provides a list of fields that are available for use. Deliver maintains a list of all personalization fields that are available for use. For more information about seeing the list of personalization fields that you can use, see [Selecting personalization fields \(on page 334\)](#).

## About addressing email with a personalization field

You must use a personalization field to specify the email address of the email recipient. The value for this field appears on the `TO:` line of the email header.



**Important:** The OLT and the Deliver document referenced by a mailing must use the same personalization field to specify the email address of the message recipient.

For details about specifying a personalization field for email address in the OLT, see [Defining the Output List Table \(OLT\) \(on page 29\)](#).

## Sample data for personalization fields

The Message Editor provides a method to define sample values for personalization fields that are present in a communication.

The Deliver Message Editor uses the personalization field display name to represent the field in a communication editor. Although the display name helps to identify personalization fields in the document, seeing an example of the text that might replace the field when you run the mailing can often provide a better view of how data might appear to customers and prospects. If the personalization field is used in a personalization rule, experimenting with sample values for the field allows you to test the rule.

Sample values for personalization fields display in place of the field name when you preview the Deliver document that defines the email or landing page. The sample data does not replace the display name when you view the content in the communication editor, nor does it display when you perform a test or production run of the mailing.

For example, if you defined a personalization field `AccountType`, you might define sample data `Preferred`. In the communication editor, the sentence appears as, "A unique and timely offer for our `<AccountType>` customers." However, when you preview the email message, the sentence appears in the preview as, "A unique and timely offer for our Preferred customers." In the Preview window, you can substitute other sample values for the personalization field to view the result of possible changes in the personalization field.

## Defining sample data for personalization fields

You can define sample data for personalization fields at the installation level or at the document level.

To define sample data for the installation, define sample data for personalization fields using the **Deliver Personalization Fields** page, accessed from the **Settings** menu. When you define sample data at the installation level, the same sample data appears in the preview for every document that contains the field. For more information about defining sample data for personalization fields at the installation level, see [Editing personalization field properties \(on page 416\)](#).

To define sample data for a document, open the **Preview** pane of the Deliver Message Editor. Changing sample data in the Message Editor allows you to experiment with how data might appear in a particular message, without affecting other documents. However, you can change the sample data for the entire installation in the **Preview** pane by saving your changes as the default sample value for the personalization field. For more information about changing personalization field sample data at the document level, see [Personalization fields in communication previews \(on page 400\)](#).

The type of sample data that you enter must match the data type (numeric or string) specified for the personalization field in the Available Fields section of the Deliver process used to define the field. To enable Deliver to validate sample data type, the OLT that defines the personalization field and the document that uses the field must be referenced by the same mailing. For more information about determining the data type of a personalization field, see [Contents of the Deliver process Output tab \(on page 30\)](#).

## Managing personalization fields

On the Deliver Settings page, you can view and edit properties for all of the personalization fields available for use in communications and mailings across the entire Deliver installation. You can view the properties for OLT, built-in, and constant personalization fields.

To view the list and edit personalization field properties, select **Deliver Settings > Deliver Personalization Fields** and click **Display a list of all Personalization Fields**.

You can modify certain personalization field properties at the installation level. For example, The changes that you make to personalization field properties affect the personalization field wherever you add it.

OLT personalization fields are defined when you create a recipient list by running a Campaign flowchart and map the personalization field to a field in your marketing database. However, after you have defined an OLT personalization field, you can update the specified data type and configure sample data appears for the field that when marketers preview a message or landing page that contains the field. You can also specify specific values that the Message Editor recognizes when the OLT personalization field is used as a variation field. Although you can view the list of OLT personalization fields available across the installation, the list of fields available in a specific mailing depends on the recipient list that the mailing references.



**Note:** To ensure that personalization fields that are defined in an Output List Table (OLT) appear in the list of fields, complete a production run of the flowchart that defines the OLT.

Unlike OLT personalization fields, which are defined in specific recipient lists, constant personalization fields are defined at the installation level so that they are available to all mailings. Although you create constant personalization fields at the installation level, marketers specify a values for each field in specific mailings.

Built in personalization fields are generated by the system and allow limited modification. You can add a description and provide values that are used as sample data in messages and landing page previews.

## Editing personalization field properties

Personalization field properties can affect the behavior of functions in Deliver that rely upon the personalization field values for recipients and landing page visitors. Some personalization field properties cannot be changed.

If you create content elements in the Message Editor that provide multiple variations, you define the variation values on this page.

1. Go to **Settings > Deliver Settings** and click **Display a list of all Personalization Fields**.
2. In the **Name** column, click the name of the personalization field that you want to modify.


The Personalization Field Properties page displays.

3. On the Personalization Field Properties page, edit properties for the selected personalization field. Place the cursor into the blank field beneath the property name to enter values.

You cannot edit the personalization field name or the source. The table lists the other changes that you can make.

### Personalization field changes

Personalization Field Property	Changes that you can make
Personalization Field Name	You cannot change the name of a personalization field.
Description	Add a description to better identify the field in a list of fields. For example, you can indicate in the description which personalization fields are used as variation fields in the Message Editor.
Data Type	Specify a data type as necessary to use personalization fields in personalization rules and scripts.  You can change a data type for OLT personalization fields only.
Source	You cannot change the designated source of a personalization field.
Sample data	Enter data that appears in communication previews. Enter a value that is consistent with the specified data type.

Personalization Field Property	Changes that you can make
Add new pf value to list	<p>If you use the selected personalization field as a variation field in the Message Editor, enter values that determine which content variation displays. The values that you enter here appear as a drop down list in the Message Editor.</p> <p>Enter values for OLT personalization fields only.</p> <p>Enter values individually and click <b>Add</b> to add each value to the list of possible values.</p> <p> <b>Note:</b> Do not include commas when you enter numbers as values for numeric fields.</p>
List of possible values	List of personalization field values that you can use as a variation field value for content elements in the Message Editor that contain multiple content variations.

#### 4. Save your changes.

The updated information appears on the Deliver Personalization Fields page, except for the list of possible content variation values.

## Data types for OLT personalization fields

Personalization fields that are defined in an Output List Table (OLT) are referred to as OLT personalization fields. OLT personalization fields specify a data type as either numeric or string. The data type that is specified depends on the data type of the database field to

which the OLT personalization field is mapped. However, you can manually change an OLT personalization field data type.



**Note:** You cannot change the data type specified for Built-in or Constant personalization fields.

The data type specified for an OLT personalization field can affect how the field displays in document previews and how personalization rules and advanced scripts evaluate the field. For example, a rule or script that evaluates customer age as a numeric value fails if the data type of the personalization field that provides customer age is configured as a string.

To specify a data type for an OLT personalization field, you must either upload an OLT that defines the field or manually specify the data type. You upload an OLT by completing a production run of the Campaign flowchart that defines the OLT. You can manually set the data type through the list of personalization fields that you can access from the Deliver Settings page.

When you define the data type for an OLT personalization field for the first time, Deliver retains the data type selection. The personalization field data type is available when you preview communications that contain the field, even if the communication is not associated with the OLT that defined the field originally.

Manually changing the data type for OLT personalization fields provides a way to correct errors in personalization field definitions and might help with troubleshooting personalization rules and advance scripts for email.

In some cases, Deliver designates the data type of an OLT personalization field as **Unknown type**. You can update the data type designation for the field manually by updating the personalization field properties. You can also update the data type for the field by uploading the OLT that defines the field.

## Deliver Personalization Fields screen reference

The Deliver Personalization Fields screen lists all of the personalization fields that are currently configured within the Deliver installation. It provides a summary of personalization

field properties and links to the Personalization Field Properties page, where you can update the properties for each field.

To edit the properties of a personalization field, click the name of a personalization field to access the Personalization Field Properties page.

Use the  **Add a Personalization Field** link to create constant personalization field.

Field	Description
Name	Display name for the personalization field. click the name to access the Personalization Field Properties page.
Description	Short description of the field.
Sample Data	The text that displays when you preview communications that contain the personalization field.
Source	The source of the data that are used to populate the personalization field when you run a mailing.
Data Type	The type of data that is rendered by the personalization field, either a string or a number. You can change the data type for OLT personalization fields only.
Last Modified	The date and time of the most recent change to the properties of the personalization field.

## Personalization Field Properties screen reference

Field	Description
Personalization Field Name	Display name for the personalization field. You cannot edit this field.
Description	Enter or edit a short description of the field.



Field	Description
	For example, you can describe the content that is provided by the field to make it easier to decide which field to use in a document.
Sample Data	<p>Enter sample data for the field.</p> <p>The text that you enter here displays when you preview Deliver documents that contain the personalization field.</p>
Source	<p>The source of the data that are used to populate the personalization field when you run a mailing.</p> <ul style="list-style-type: none"> <li>• <b>Built In</b> System-related data. For example, <code>BUILTIN_ContactDate</code> provides the date when you sent the message.</li> <li>• <b>Constant</b> The configuration of the constant personalization field provides the static text for the field. For details, see <a href="#">Creating a constant personalization field (on page 410)</a>.</li> <li>• <b>Olt</b> An Output List Table provides the information that is displayed by the field. For details, see <a href="#">About adding personalization fields to the OLT (on page )</a>.</li> </ul> <p>You cannot edit this field.</p>
Add new pf value to list	<p>Enter values here for personalization fields that are used as variation fields in the Message Editor when you configure content elements that provide content variations. The values that you enter determine when a content variation displays.</p> <p>If you do not enter variation values here, you cannot use the personalization field to configure content variations.</p>

Field	Description
List of possible values	The list of values added to the personalization field. The values also appear as values in a drop-down list in the Message Editor when you configure content elements that contain content variations.

## Personalization fields in HTML templates, content, and links

You can manually define a personalization field in HTML email and landing page templates, and in HTML snippets. You can also define personalization fields in URL link parameters for links added to templates and snippets.

Defining a personalization field tag in a template, snippet, or link is referred to as embedding the personalization field. Embedding a personalization field in a template or snippet avoids the need to separately add the field to each message by using a zone. For URL link parameters, embedding personalization fields in link parameters provides the ability to personalize hyperlinks in email and landing pages. You can also embed personalization fields in text-only email because text-only templates for Deliver are HTML documents. To support embedding personalization fields, Deliver recognizes custom HTML tags and a custom link parameter syntax.

To embed a personalization field in a template or snippet, you must use the custom `<UAEpf>` tag. This tag is case-sensitive. When you run a mailing that references a document containing this tag, Deliver recognizes the tag as a personalization field and merges recipient or visitor-specific information into the email or landing page that it renders. Embedding personalization fields in link parameters also requires a custom parameter syntax (`pf=#pf:PF_NAME#`) that is recognized only in Deliver.

Personalization fields that are inserted into the template must be defined as part of a recipient list (an OLT) and the OLT must be referenced by the mailing that references the template where you embed the personalization field. Template designers must coordinate with the email marketing team to ensure that the personalization fields they add to the template are properly defined in Deliver. The name of a personalization field defined in

the template is case-sensitive and must exactly match the name that the email marketer assigned to the personalization field in the recipient list.

## To add personalization fields to text in a template or HTML snippet

You add a personalization field to text anywhere in the template or snippet with the HTML tag `<UAEpf>`. The tag is case-sensitive and takes the following format.

```
<UAEpf n="PF_NAME" />
```

Where `PF_NAME` is the name of the personalization field as it is defined in your Deliver installation. The personalization field name is case-sensitive. You must specify the name exactly as it is configured in Deliver.

For example, for a personalized transactional email sent to welcome new customers, you can define the following.

```
<p>Welcome <UAEpf n="name" />!</p>

<p>We are pleased to earn your business.
We mailed your <UAEpf n="CustType" /> Benefits Card
on <UAEpf n="CardShipDate" />.
Please visit our nearest branch office at <UAEpf n="LocalOffice" />
to receive your welcoming gift of <UAEpf n="MonthlyPromo" /></p>.
```

## To add personalization fields to links in a template or snippet

You add a personalization field to a link in a template or HTML snippet by embedding the personalization field as a link parameter. You can add one or more personalization fields to the same link. Add the personalization field as a link parameter in the following format.

```
pf=#pf:PF_NAME#
```

Where `pf` is the parameter name

`PF_NAME` is the name of the personalization field as it is defined in your Deliver installation. You must specify the name exactly as it is configured in Deliver. The personalization field name is case-sensitive.

## Adding a single personalization field to a link

To add a single personalization field to a link, modify the link as shown here.

```
<a href="www.example.com/rewards?camCode=#pf:BUILTIN_CampaignCode#" />
```

## Adding multiple personalization fields to a link

To add multiple personalization fields to a link, configure the link as follows.

```
<a href="www.example.com/rewards?camCode=#pf:BUILTIN_CampaignCode#&
acctNum=#pf:CustomerID#&buyAmt=#pf:PurchVol#" />
```

You can combine personalization field parameters with other link parameters, but you must enclose each personalization field name with an opening and closing # character.

## Adding personalization fields to an image link

To add personalization fields to an image link, configure the link as follows.

```
<a href="www.example.com/rewards?camCode=#pf:BUILTIN_CampaignCode#&
acctNum=#pf:CustomerID#&buyAmt=#pf:PurchVol#" />
<img src=http://www.example.com/images?img=reward1.png/>
```

# Chapter 15. Conditional content

Creating conditional content allows you to vary the content that you display to your target audience according to characteristics defined in personalization fields. In Unica Deliver, you can define two types of conditional content. Simple conditional content, which uses personalization fields in personalization rules, and nested conditional content, which uses personalization fields in Deliver advanced scripting for email.

Simple conditional content compares the value of a personalization field to some text or numerical value using various comparison operators (such as equal, not equal, greater than, or less than). Conditionalized content associated with the rule displays in an email or landing page when the comparison defined in the rule is true. Simple personalization rules support using parenthetical expressions to create groups of conditions, and support the logical operators `AND` and `OR` to connect conditions and groups of conditions.

Nested conditional content is based on scripts that you create using Deliver advanced scripting for email. In addition to the operators available in simple conditional content, the scripts for nested conditional content support arithmetical operators (`add`, `subtract`, `multiply`, `divide`, and `% remainder`), boolean operators (`if`, `elseif`, `else`), and the logical operator `NOT`. You can use nested conditions to deliver highly targeted content and options to a broader range of individuals and with greater sophistication than you can with simple conditions. For more information about working with nested conditions, see the description of advanced scripting for email.



**Note:** Nested conditions are not available for use in hosted landing pages because landing pages do not support using advanced scripting.

## Defining personalization rules

To create conditional content, you define personalization rules that describe the recipient characteristics that must be true to display the content element. Personalization rules are configured around a personalization field and one or more conditional expressions.

Conditional expressions test personalization field values that change (because they are recipient-specific) against a constant value that is specified in the logic for the expression.

If the result of the test is TRUE, then the content that is associated with the rule displays. If the result of the test is FALSE, then the content does not display.

For example, you can apply the personalization rule `<- AccountType -> = "SILVER"` to an image in an Deliver document.

- **AccountType** is the personalization field.
- The `=` symbol is the comparison operator that defines the type of test. In this example, the test evaluates whether the value of the personalization field exactly matches the constant.
- SILVER is the constant value. In this example, the type of customer account.

If the message recipient has a Silver account, then the result of the conditional expression is true and the associated image displays in the email. If the message recipient has a Gold account, then the expression is false and the image does not display in the message.



**Note:** To ensure that the system accurately evaluates a personalization rule, reference the OLT that defines the personalization field on which the rule is based and the communication that contains rule to the same mailing. Reference the OLT and the communication to the mailing before you attempt to preview the results of the personalization rule.

To create more sophisticated rules, you can define groups of conditions. You can connect conditions and groups with the logical operators AND and OR.

## Creating groups of conditions for personalization rules

You can combine conditional expressions into groups and subgroups to have greater flexibility and precision when constructing sophisticated personalization rules. Use logical operators (`AND` and `OR`) to connect the groups into more complex conditional expressions.

Deliver evaluates expressions inside groups before other expressions in the rule.

In the text view of the rules editor, use parentheses to create groups of expressions.

You can create subgroups and define a condition hierarchy by entering parenthetical

expressions inside other parenthetical expressions. Enter logical operators manually to define the relationship between the groups in the rule.

The graphical view of the editor represents each group in a separate box and allows you to nest up to three levels of groups to create a hierarchy. The editor provides a selector to specify the logical operator to use with each set of groups.

## Comparison operators for personalization rules

The following examples list the comparison operators available for use in simple personalization rules.



**Note:** The rules editor features a graphical view and a text view for defining personalization rules. The examples here present the operators as seen in the text view of the rules editor. The operators appear differently in the graphical view, but you apply them in the same way.

Content displays when this condition is satisfied.	Operator	Example
The field value exactly matches the rule value.	= ==	<code>region = "east"</code> All recipients in the east region see the content.
The field value does not match the rule value.	! =	<code>accountStatus != "past due"</code> Content appears to all recipients except those individuals whose accounts are overdue.
The field value exceeds the rule value.	>	<code>age &gt; 21</code> All recipients older than 21 see the content.
The field value is less than the rule value.	<	<code>age &lt; 65</code>

Content displays when this condition is satisfied.	Operator	Example
		All recipients less than 65 years old see the content.
The field value matches or exceeds the rule value.	>=	<code>accountBalance &gt;= 25000</code> Content appears to all recipients with at least \$25000 on account.
The field value matches, or is less than, the specified rule value.	<=	<code>claimRate &lt;= 2</code> Recipients with 2 claims or less see the content.

## Logical operators for personalization rules

The following examples list the logical operators available for use in simple personalization rules.

Simple personalization rules support using the logical operators `AND` and `OR` to combine conditional expressions and groups of expressions. Creating groups of expressions can provide more precise control over conditional content.

Content displays when this condition is satisfied.	Operator	Example (as seen in text versions)
Evaluate multiple conditions. Both expressions must be true to allow content to display.	<code>and</code> <code>&amp;&amp;</code>	<code>creditLine = 10000 &amp;&amp; region = "south"</code> Content appears only to recipients in the south region with credit approval for \$10,000
Evaluate multiple conditions. Either expression can be true to allow content to display.	<code>or</code> <code>  </code>	<code>age &gt; 35 or accountBalance &gt; 500000</code>



Content displays when this condition is satisfied.	Operator	Example (as seen in text versions)
		The content displays if the email recipient is over 35 years old or has more than \$50,000 on account.

For example, if the following rule is applied to a text block, the text appears to all account holders with balances above \$25000, regardless of their age. Deliver evaluates rules from right to left.

```
<- accountStatus -> = "current" and <- age -> > 50 or <- accountBalance -> > 25000
```

When it evaluates a rule, Deliver assigns greater importance to the `OR` operator than it does to the `AND` operator. In this example, despite the fact that the `AND` operator appears first, the `OR` operator takes precedence.

## Personalization field types in personalization rules

Personalization rules compare recipient-specific values for a personalization field to a value specified in the rule. The type of data that you specify in the rule must match the type of data provided by the personalization field. Personalization fields provide either numeric or text data. The type of data provided by the field is part of the personalization field definition contained in the Output List Table (OLT) referenced by the mailing.

For example, if you specify a personalization field for `<-PostalCode->` in the rule, and Postal Code is defined as a numeric personalization field in the OLT, you must specify a number as the comparison value. If you specify a text value, the rule will fail validation.

The Rule editor considers the personalization field type when you specify a comparison operator. The data type of the personalization field and the comparison value must be appropriate for the type of comparison operator you select. For example, if you select the operator `greater than (>)`, you must specify a numerical value. If you enter a text value, or surround a number with quotation marks, the rule will fail validation.



**Note:** To ensure that the system accurately evaluates a personalization rule, reference the OLT that defines the personalization field on which the rule is based and the email communication that contains rule to the same mailing. Reference the OLT and the communication to the mailing before you attempt to preview the results of the personalization rule.

## Applying personalization rules to content

You can apply personalization rules to individual content elements in an email, SMS, WhatsApp, or landing page document. The rules you define and the order in which you apply them affects how content displays to each recipient. Because you apply personalization rules to each content element individually, you can have precise control over which content displays.

Understanding how Deliver evaluates personalization rules is an important consideration when applying rules to personalized content. If you add multiple content elements to a zone, you must consider the order in which Deliver evaluates the rules. Deliver stops evaluating personalization rules as soon as it finds a rule that is satisfied and it displays the associated content.

Deliver provides a personalization rules editor that you can use in graphical mode or text mode to define and apply personalization rules. You can access the rules editor through zones in the document or through the Rules Spreadsheet. The Rules Spreadsheet also provides an inline editor that you can use to edit personalization rules.

## How Deliver evaluates personalization rules

Deliver evaluates personalization rules when you run a messaging, or when an email recipient clicks an email link to open a hosted landing page. Deliver evaluates each zone to determine which content element to add to the email or display in the landing page. In zones that contain multiple content elements, the order in which the content elements are defined in the zone affects the order in which Deliver evaluates the personalization rules and displays content.

Deliver evaluates content in zones from left to right, as seen in the Personalized content window for the zone. For each zone that contains conditional content, Deliver displays the content element associated with the first personalization rule that is a true statement. If you do not apply a personalization rule to a content element, Deliver displays the content in every email or landing page. Depending on the order of evaluation, if Deliver evaluates the blank rule first, it does not proceed to evaluate any of the other rules that might be defined for other content in the zone.

Deliver always considers a missing or blank personalization rule as being a true statement. When Deliver evaluates zones with multiple content, if it finds content with a blank rule before it encounters content with a rule that is true, it displays the content with the blank rule because the blank rule is also seen as true.

If all content in a zone contains personalization rules but none of the rules in the zone are true, no content is shown for that zone.

## Personalization rules order of evaluation

Deliver evaluates personalization rules assigned to individual content elements within each zone, on a zone-by-zone basis.

You assign personalization rules to content elements in a zone either in the Personalized content window for the zone or in the Rules Spreadsheet. In the Personalized content window, you manage rules for a specific zone. In the Rules Spreadsheet, you can manage rules for all of the zones in the document from a single interface.

Within each Personalized content window, Deliver evaluates personalization rules from left to right.

Within the Rules Spreadsheet, Deliver evaluates personalization rules from the top down.

Deliver displays the content element assigned to the first rule that is a true statement.

Within each zone, Deliver stops evaluating content after finding a rule that is true. Content with no rule assignment is always seen as true. If a content element with no rule assigned appears in the Personalized content window to the left of content that has a personalization rule, Deliver does not evaluate the rule. In the Rules spreadsheet, if content without a rule

appears above content that has a personalization rule, the system does not evaluate the rule.

## Defining default content


In zones that contain multiple content, Deliver evaluates content in the zone from left to right. When it finds a rule that is true, it stops evaluating the remaining personalization rules in the zone. The element that appears furthest to the right in the Personalized content window for the zone is last content element to be evaluated.

You can define default content for a zone by ensuring that the content element furthest to the right is never assigned a personalization rule. Because Deliver always sees an empty rule as true, the last content element always displays, even if the conditionalized content does not.

## Rule Editor: graphical mode

Unica Deliver provides a graphical editor to create and edit personalization rules. When you create or edit a personalization rule, the Rule Editor opens in graphic mode.


Deliver provides several ways to access the graphical Rule Editor.

- Right-click the current content in a zone and select **Edit rule** to display the Rule Editor. The editor opens as the Graphical editor. You can switch between the Graphic editor and the Text editor.
- Double-click the zone to display the Personalized content window. The text version of the rule displays in the bottom of the window. Click **Edit rule**  to open the Rule Editor.
- Right-click a row in the Rules Spreadsheet and select **Edit rule**.

The graphical view of the Rule Editor provides various controls to select personalization fields, numerical and text values, and operators to build the rules you need. The graphical interface provides controls to create groups and it allows you to click and drag conditions and groups to rapidly restructure a rule if necessary.

## Adding or editing rules with the Graphical editor


The Rule Editor provides a graphical mode, called the Graphical editor, to create personalization rules by selecting rule elements from a graphical interface and entering values in text entry fields. The graphical interface supports drag and drop editing.

1. In the Message Editor, select the content element that you want to conditionalize.
2. Open the Rule Editor and select **Graphical editor** in the Editor type field. Use any of the following methods to access the Rule Editor.
  - In a zone, display the content, right-click, and select **Edit Rule**.
  - Open the Personalized content window for a zone, select a content element, click  or click the link, **click to add a rule**.
  - In the Rules Spreadsheet, right-click in the Rule column and select **Rule Editor**.

The Graphical editor opens with a single empty condition.

3. Construct or edit a rule.
  - a. Select a personalization field. The list of available fields is filtered according to the OLT referenced by the mailing.
  - b. Select a comparison operator.
  - c. Enter an appropriate comparison value for the rule. The data type of the value must match the data type for the personalization field.
  - d. Add a condition, as necessary. Click **Add Condition**.
  - e. Add a group, as necessary. Click **Add Group**.
 

You can use a series of logical operators (and/or) to add groups in a series or to add a group within a group to create a nested sub-group. You can create a maximum of three levels of nested sub-groups.

At any time, you can click the validate icon  to validate the rule. Deliver validates the rule when you save it.

4. Click **OK** to validate and save the rule.

## Adding groups in the Graphical editor

In the Graphical editor, you can group conditions for greater flexibility in building personalization rules. Deliver always evaluates conditions within groups before it evaluates other conditions in the rule. Adding groups in the Graphical editor is analogous to using parentheses in the Text editor.

You can add groups in a series to create a single-level hierarchy. Use the logical operators (AND and OR) to define the relationship between each group. The Graphical editor adds a logical operator when you add a group. You can use the selector in the editor to change it. You can choose only between AND and OR. In a flat series of groups, the logical operator between groups must be the same.


To create even more sophisticated rules, you can add groups within groups to create multi-level condition hierarchies. The logical operator used within each level must be the same, but you can use different operators on different levels. Unica recommends that you avoid creating hierarchies of more than three levels. For more sophisticated condition nesting, create nested conditional content using advanced scripting for email.

## Arranging rule elements in the Graphical editor

In the Graphical editor, you construct the rule logic from the top down. In addition to adding and deleting conditions and groups, you can also drag and drop rule elements to quickly reconfigure the rule. Moving conditions or groups changes the outcome of the rule.

You can use drag and drop editing to make the following types of changes.


- Change the location of a condition within a group or within in the rule
- Move conditions in and out of groups
- Move groups up or down
- Move groups into other groups to create nested subgroups
- Cut, copy, and paste values between conditions

To help ensure that moving elements does not create unforeseen problems, check the rule validation frequently. Click the validate icon  located at the top of the editor to validate the rule. Deliver also validates the rule when you save it.

## Rule Editor: text mode

Unica Deliver provides a text-based editor to create and edit personalization rules. In the Rules Spreadsheet, you can access the text-based rules editor as an inline editor in each row of the spreadsheet.


Deliver provides several ways to access the text-only Rule Editor.

- Right-click the current content in a zone and select **Edit rule** to display the Rule Editor. Select the **Text editor**.
- Double-click the zone to display the Personalized content window. The text version of the rule displays in the bottom of the window. Click **Edit rule**  to open the Rule Editor. Select the **Text editor**.
- Right-click a row in the Rules Spreadsheet to access the inline rules editor, which always provides a text view.


In the text view of the Rule Editor, manually enter personalization fields, numerical and text values, and operators to build the rules you need. Use parentheses to create groups within rules.

## Adding or editing rules with the Text Editor

The Rule Editor provides a text-only mode, called the Text editor, to create personalization rules by manually entering or editing rule elements.

1. In the Message Editor, select the content element that you want to conditionalize.
2. Open the Rule Editor and select **Text editor** in the Editor type field. Use any of the following methods to access the Rule Editor.
  - In a zone, display the content, right-click, and select **Edit Rule**.
  - Open the Personalized content window for a zone, select a content element, click  or click the link, **click to add a rule**.
  - In the Rules Spreadsheet, right-click in the Rule column and select **Rule Editor**.
3. Enter the rule elements.
  - a. Enter a personalization field.
  - b. Enter a comparison operator.


- c. Enter an appropriate value.
- d. Create groups, as necessary. Use parentheses to define groups and sub-groups.
- e. Enter logical operators to establish the required relationships between conditions or groups.

At any time, you can click the validate icon  to validate the rule. Deliver validates the rule when you save it.

4. Click **OK** to validate and save the rule.

The Rule Editor provides a content selector that you can use to select other content elements within the same zone. For zones that contain multiple content elements, this is a convenient way to quickly configure personalization rules for all of the content in the zone.

## Entering a personalization field into rules with the Text Editor

To enter a personalization field into a rule, position the cursor where you want to enter the field and click **Insert Personalization Field**  or press **Ctrl+spacebar**. Select the personalization field from the drop down list that displays.

To enter the field manually, you must wrap the field name with the following characters <- and ->. For example, <- FieldName ->

## Entering text values into rules with the Text Editor

When using the Rule Editor in text view, use either single or double quotation marks before and after text values.

Do not use curly quotation marks. Curly quotation marks can occur if you create the expression in a word-processing program and paste the expression into the Message Editor.

If you do not define personalization rules directly in the Rule Editor, Unica recommends using a text editor to write the rule.

## Entering numerical values into rules with the Text Editor

The Rule Editor assumes that values without quotation marks are numerical values. Do not use quotation marks when entering numerical values.



# Managing personalization with the Rules Spreadsheet

Unica Deliver provides the Rules Spreadsheet as a single interface to manage all zones, personalization rules, and content in a document.

The Rules Spreadsheet presents information about zones, rules, and content elements in a spreadsheet format. Each row describes a single content element, including the attached file, assigned personalization rules, and the zone that contains the content element. You manage personalized content in the document with simple spreadsheet functions. To change how personalized content displays in the document, you can move rows within the spreadsheet, copy and paste rows and cells, and make inline edits to cell contents.

The Rules Spreadsheet provides various ways to manage how you personalize email and landing pages.

- Manage personalization rule assignments. See [Managing personalization rule assignments \(on page 438\)](#)
- Change the rule evaluation order. See [Changing the rule evaluation order from the spreadsheet \(on page 439\)](#)
- Manage personalized content assignments. See [Managing personalized content from the spreadsheet \(on page 439\)](#)
- Manage zone assignments. See [Managing zone assignments \(on page 440\)](#)
- See where conditionalized content displays in the document. See [Locating where zones appear in the document \(on page 442\)](#)

In the spreadsheet, you can view rule information by zone or by rule. Viewing by zone assignment lists zones and their rule assignments alphabetically. When you view by rule, zones are listed according to the personalization rules assigned within the zones.

For text-only email, you can use the Rules Spreadsheet to view and manage personalization rules that you applied to the text version.

## Viewing rules by message content type

You can create different rules for HTML and text-only versions of an email or landing page that contains multiple content elements and personalization rules.

For example, rules in the HTML version of an email or landing page related to images are not available in the text-only version because displaying images is not supported in text-only email. In the text-only version, you might replace the images with text and then configure different rules to conditionalize the text-only content.

Rules for the HTML and text-only versions appear on separate tabs in the Rules Spreadsheet.

To view and manage rules for HTML email, click the **HTML** tab.

To view and manage rules for Text-only email, click the **Text** tab.

## Managing personalization rule assignments

In the Rules Spreadsheet, you can add, edit, or change the personalization rule that is assigned to a content element.

In the Rules Spreadsheet, the **Rule** column displays the currently assigned personalization rules. You change rule assignments in the **Rule** column by adding or modifying a rule. In each row, you can see the zone where the rule is defined and the content element to which it is applied.

1. In the **Rule** column, select the cell where you want to add or modify a personalization rule
2. Right-click the cell to display a menu. Do any of the following.

- Select **Inline Edit** to open the inline rule editor.  
Select one of the existing rules from the drop-down selections or edit the current rule.
- Select **Rule Editor** to add a rule or open the current rule in the Rules Editor.
- Cut, copy, or paste a rule.

3. Click **Validate**.

The system automatically validates all rules in the spreadsheet.

If errors exist, they are listed at the bottom of the spreadsheet.

4. If no errors exist, click **OK** to save the rules and return to the document edit window.

## Changing the rule evaluation order from the spreadsheet

In the Rules Spreadsheet, you can change the order in which Deliver evaluates personalization rules.

In the Rules Spreadsheet, Deliver evaluates personalization rules from top to bottom. You change the order in which Deliver evaluates the rules by moving rows up and down within a zone.

1. In the spreadsheet, find the zone where you want to change the rule evaluation order.
2. Select a row.
3. Hover over the row until arrows display in the center cell. Click the arrows to move the row up or down.
4. Click **Validate**.

The system automatically validates all rules in the spreadsheet.

If errors exist, they are listed at the bottom of the spreadsheet.

5. If no errors exist, click **OK** to save the rules and return to the document edit window.

Your changes display in the edit view of the document.

## Managing personalized content from the spreadsheet

In the Rules Spreadsheet, you can add, edit, or change the content element that is contained in a zone.

The **Content** column displays the currently content in each zone. Each row displays zone and rule information for a single content element. You can change the content element assignment in the **Content** column by selecting a different content element. For content elements that provide multiple content variations, the spreadsheet displays the content variation currently displayed in the communication editor.

1. In the **Content** column, select the cell that references the content element that you want to change.
2. Right-click the cell to display a menu. Do any of the following.

- Cut, copy, or paste the content element.
  - Delete the content element. You must replace the content with another content element.
  - Click **Add content** or **Edit content** to open the content selector and select a content element from the Content Library.
  - Add a content widget
3. Click **Validate**.

The system automatically validates all rules in the spreadsheet.

If errors exist, they are listed at the bottom of the spreadsheet.

4. If no errors exist, click **OK** to save the rules and return to the document edit window.

Your changes display in the edit view of the document.

## Managing zone assignments

In the Rules Spreadsheet, you can add, edit, or change the zone that uses a personalization rule and content element.

The **Zone** column displays the list of zones that are contained in the document.

In each row of the spreadsheet, you can see the rule and content element that is associated with a zone. A zone can contain multiple rules and content elements. You can change the zone that uses a particular combination of rule and content by changing the zone assignment in the **Zone** column.

1. In the **Zone** column, select the cell where you want to change zones.
2. Right-click the cell to display a menu. Do any of the following.
  - Select **Inline Edit** to open a list of available zones.

Select one of the zones from the drop-down selections or enter a zone name. The system automatically attempts to match an available zone name to the characters you enter.
  - Delete the zone. You must replace the deleted zone with another zone.
  - Cut, copy, or paste a zone.
3. Click **Validate**.

The system automatically validates all rules in the spreadsheet.

If errors exist, they are listed at the bottom of the spreadsheet.

4. If no errors exist, click **OK** to save the rules and return to the document edit window.

Your changes display in the edit view of the document.

## Changing the spreadsheet view

The Deliver Rules Spreadsheet provides two views of the personalized content in email and landing pages.


The Rules Spreadsheet displays in **View by Zone** mode by default. In this view, zones in the document are listed alphabetically.


By switching to **View by rule** mode, you can view zones according to the personalization rules assigned to the zones. Using the View by Rule mode can be useful when managing a document that contains a large number of personalized zones.


In the spreadsheet, click **View by rule** to change the view.

## Previewing content in the spreadsheet

In the Rules Spreadsheet, you can preview the content currently added to the communication. Previewing contents in the spreadsheet can be useful when you create and edit personalization rules and when you add content elements that provide multiple variations.

Click **Show/Hide the Preview Panel**  to display previews of the content available in the communication.

Content elements that provide a single content variation are listed with .

Content elements that provide multiple variations are listed with . The spreadsheet preview displays the content variation currently displayed in the communication editor.

## Locating where zones appear in the document

From the Rules Spreadsheet, you can locate where zones appear in the document. If you are working with a document that contains many zones, locating a zone in the document can help avoid potential errors and confusion.

The Rules Spreadsheet provides a link to the edit view of the document that allows you to locate zones in the document, but not edit them.

1. In the Rules Spreadsheet, click **Locate zone in template** .

The edit view of the document opens. Zone edit controls and scroll bars are disabled.

The Zone window displays in the edit view.

2. In the Zone window, click the zone you want to view.

The system navigates to the pushpin for the selected zone. The pushpin displays at the top border of the zone.

# Chapter 16. Quick Builder

Quick Builder is the user interface for creating smart email communications, wherein you can design the email messages as per your requirements using the enhanced tools available. You can also use Deliver Message Editor to create email communications.

You can also create SMS messages and push communications using Quick Builder. To get more details on the push notifications, see [Personalized mobile app push notifications \(on page 458\)](#) section. To get more details on the SMS messages, see the [Personalized SMS messaging \(on page 457\)](#) section.

The Quick Builder provides enhanced and smart features over existing Deliver Message Editor to create, edit, preview, and publish email communications that determine the appearance and behavior of the email messages that you send. This user interface allows you to include images from any external content management system along from the Deliver system. You can include hyperlinks, social networking links, URLs, browser links with varied settings in your email message. Once you have designed your email communication, you can preview your email message using Client Preview, which enables you to preview your email renderings in different versions or platforms of mobile or tablet, desktop, and webmails. To get more details on personalized email messaging, see the [Personalized email messaging \(on page 445\)](#) section.

To access the Quick Builder user interface, navigate to Campaign > Quick Builder.

The Editor interface includes the Communications tab and the Content tab.



**Note:** To access Message editor or Quick Builder in Safari browser, apply the following settings in Safari browser.

- Navigate to **Safari > Preferences > Privacy tab**.
- Deselect first cross site checkbox.
- Relaunch Safari.

## Communications

You can perform the following tasks on the Communications tab.



**Note:** To be able to create, edit, and save communications, you must possess Create and edit permissions for Assets and Communication (Documents) in the same policy.

- Create a new communication.
- Edit an existing communication.
- Search email or push communication. Search functionality is only applicable for selected folder and not globally. You can also filter your search based on Push, SMS, or Email communication using the Filter drop-down list on the UI.
- Move communications on listing page to different folders.
- Send emojis along with the communication.
- Move folders to another folder. You can right-click on any folder and click "Move" to choose the destination folder.
- Delete a communication.

**Note:** Email previews can be generated for valid licenses. See the Unica License Guide for more information.

## Content

The Content is a repository for content that are used in personalized email and landing pages. Access the library through the Content tab in the Quick Builder. The Content is organized as a multi-level folder hierarchy. You add digital assets (image) to the Content by associating each asset with a wrapper that you configure in the Content. Each wrapper is a separate content element that you configure in a folder as a content tab with a unique name. In the Quick Builder, you create emails by selecting content elements from both the Content and external CMS and adding them to a communication.

Security policies that are applied at the folder level determine the tasks that you can perform on content elements in each folder. For more information about security policies and folder permissions, see the Unica Deliver Startup and Administration Guide.



## Personalized email messaging

Creating and sending standard personalized email requires that you create a recipient list in Unica Campaign and design an email message in the Quick Builder. However, personalized email that is sent as transactional email does not take information from a recipient list. For transactional email, personalization data must be included in the message request.

### Add content for the email communications

You can use any external content management system or Deliver system to get the content for designing email communications.

In case, you do not possess an external content management system, you must upload the content to Deliver system. The uploaded content becomes available for your view under the Content tab in the Quick Builder.

To configure an external CMS, contact the Unica Support team. See the following sections on how to create a folder and upload content in the Deliver system.


#### Create a folder



To create a folder, complete the following steps.

1. In the **Quick Builder**, under **Content** tab, click **Add Folder**.
2. Under **Name**, provide an appropriate name, under **Security Policy**, choose the policy and under **Description** provide appropriate description.
3. Click **Save**. The folder is created.

#### Add Content

To add content to a folder, complete the following steps.

1. In the **Quick Builder**, click  to add content to an existing folder.
2. Under **Properties** tab, provide the following information.
3. Under **Content Name**, provide the name of the content.


4. Optional. Under **Description**, provide a description.
5. Click **Change** to change the location of the content to be saved.
6. Click **Save**.
7. Under **Content Type**, provide the following information.
8. Under **Type**, you can either select Static Content or Dynamic Content.
  - Under **Static Content**, click **Upload** to browse and select the content you want to upload. Currently, only image files are supported. The preview of the asset is available in the Content Preview box. Click  to view the preview in a new window. Click  to download the asset.
  - You can click **Change File** to re-select the content for upload.
9. Click **Save**.

The images are saved under the folder in the Content tab. When you select the file, the thumbnail views of the images are displayed. To edit the image file, hover to the thumbnail view and click the Delete icon to delete and Edit icon to review and change the properties of image. You can also re-upload the image by repeating the above procedure.

## Integrate offers

In Quick Builder, you can search for the Campaign's offer and link to content in Quick builder and send email when the offer is linked. Only one offer can be integrated in a content.

Perform the following steps.

1. In the **Quick Builder**, click  to add content to an existing folder.
2. Under **Properties** tab, complete the following substeps..
  - a. Under **Content Name**, provide the name of the content.
  - b. Optional. Under **Description**, provide a description.
  - c. Click **Change** to change the location of the content to be saved.
3. Under **Content type** tab, complete the following substeps.

- a. Under **Static Content**, click **Upload file** to browse and select the content you want to upload. The preview of the asset is available in the Content Preview box.
- b. Click **Select Offer**. The Search Offer page displays. In the Search bar, you can search for an Campaign offer using an offer's name, code,description or owner. Select the offer.
- c. Click **Save**. The offer is integrated with the content. The attributes and their values are listed.
- d. You can change the attribute values. Click **Save**.



**Note:** Once the offer is assigned, you can remove the offer by clicking Remove Offer and assign any other offer



**Note:** Offer integration , that is, assigning Campaign offers to content (either in Quick Builder or in existing Message Editor) will work on Chrome and Safari browsers with the following settings depending on the application server, where Campaign is deployed.

- If Campaign is deployed in Websphere. Offer integration works only if Campaign is configured for SSL and Websphere version is 8.5.5.18 or higher along with the following settings.
  - Create the following custom property on WAS admin console at **Enterprise Applications > Campaign war > Session management > Add New Custom property**.  
 Custom Property Name:- CookieSameSite  
 Custom Property value:- None
  - Restart Websphere.
- If Campaign is deployed in Tomcat: Offer integration works only if Campaign is configured for SSL along with the following settings.
  - Add the following sameSite configuration in context.xml file for Tomcat.
 

```
< CookieProcessor sameSiteCookies="None" />
```
  - Restart Tomcat.



- If Campaign is deployed in JBOSS or Weblogic: Offer integration works only if Campaign is configured for SSL with following settings.
  - In Chrome address bar, type `-chrome://flags/#same-site-by-default-cookies`.
  - Disable "SameSite by default cookies".
  - Relaunch Google Chrome.

## Design an email communication




You can design your email communications using the various functionalities provided in the new Deliver new user interface. The following sections provide the detailed instructions on designing an email communication.

- Under the **Communications** tab, under the **New** list, click **Email communication**.

## Design columns

Design columns are the building-blocks to design email communications. Perform the following steps.

1. In the right pane, under **Content** tab, under **Design columns**, choose the columns as per your requirements.
2. Drag and drop the design columns to the design editor.
3. Hover through the columns to get more options.

- Change Structure order: Click  to change the order of the structure.
- Duplicate structure: Click  to copy and paste the same structure.
- Delete structure : Click  to delete the column structure.





Use the different tools provided under the Toolbox to proceed with the design of emails. The following sections provide instructions to use the tools that are available under ToolBox. The following tools are available under ToolBox.


- Text
- Image
- Button
- Divider
- Spacer
- Social
- Browser

## Text

To add text functionalities to your column structures, complete the following steps

1. Under the **ToolBox**, drag the **Text** widget to the column structure you want and click in the column.
2. In the column, you may write the personalized text you want to provide and select it. A strip of options appear.

Op-tions	Description
B	Select to make the selected text bold.
I	Select to make the selected text italic.
U	Select to underline the selected text.
	Select to strike through the selected text.
	Select the required alignment from the list.
	Click and select the color of the text you want to apply.
	Click to provide hyperlink. Perform the following steps.

	<p>a. In the <b>Hyperlink Properties</b> box, under <b>Type URL</b>, specify the URL you want to insert in the test you have selected.</p> <p>b. Click <b>Save</b>.</p>
	Select to clear the the formatting.
Tags	Click Tags to select the appropriate personalization tag you want to apply for the selected text.

3. In the right pane, click **Settings**, under **Font**, the following controls are available.

- Family: Choose the font family from the list.
- Fallback: Choose the font.
- Size: Choose the size of the text.
- Weight: Choose the weight of the text to be displayed.
- Style: Choose the style of the test to be displayed.
- Color: Choose the color of the text to be displayed.
- Line Height: Choose the height of the column to be displayed.
- Unit: Choose the unit for the line height to display.

4. Click **Settings**, expand **Padding** and provide the following information.

- Provide appropriate values under **Top, Right, Bottom, Left** to provide text alignments.

## Image

To add an image to your column structures, complete the following steps

1. Drag and drop the image widget to the column structure. You can drag and drop the image widget to the same column structure where you have dropped the Text widget. A default image appears.
2. Click **CHANGE image**.
3. Under **Settings**, under **Upload details**, click **Browse** to select the image from **Content Picker** or under **Source**, specify the URL of the image that you want to display.

IF you click **Browse** to select the image, under **Select repository** list, select the appropriate repository.

**Note:** Along with Deliver Content, you can configure and use any external content management system to pick your image files. If you do not have a content management system, you must save your image files in the Deliver Content.

1. Under **Folder List**, select the image file. You can also search for the image by providing the name of the image under **Search for Content**. The thumbnails for the image display.
2. Review the image and click **Done**.
3. Under **Settings**, expand **Sizes** to provide the following information.
  - You can disable **Auto**, if you want to change the alignment of the image and specify width and height in pixels under Width and Height. By default, Auto is disabled.
4. Under **Attributes**, provide the following information.
  - Title: Provide the title.
  - Align: Choose the alignment.
  - Link: Provide a hyperlink you want to provide on clicking the image.
5. Expand **Border**. The following controls are available.
  - Width: Provide the width of the border you want.
  - Radius: Provide a value to set a circular border.
  - Style: Choose an appropriate style for the border.
  - Color: Choose an appropriate color for the border.
6. Expand **Padding** and provide a value under **Top**, **Right**, **Bottom**, and **Left** to adjust the size of the selected image.
7. To set an image in the background of the message, hover through the boundary of the message being designed. Click the pink line. Under **Settings**, perform the following substeps. Expand **Background** and specify the following information.
  - a. By default, Transparent is disabled for background. Enable it, if you want to set the background of the URL box in your column structure as transparent.
  - b. Select the Color Bar to choose an appropriate color for the background of the URL in your column structure.

- c. You can choose a background image using the following option.
  - Under **Source**, provide the link of the image you want to set as background. Provide appropriate width, height. You can disable **Auto**, if you want to change the alignment of the image and specify width and height in pixels under Width and Height.



**Note:** If you have selected Auto option, the image renders in the original size of the image and if you have selected any specific width and height of image, the image renders in the selected size.

## Divider

- Under **Content**, drag and drop the Divider to create a division within the column structures.

## Spacer

- Under **Content**, drag and drop the Spacer to create a space within the column structures.

## Browser

You can set the email message to view as a web page of your choice. Complete the following steps.

1. Drag and drop the **Browser** to your column structures.
2. Under **Settings**, in the **URL Text box**, specify the URL text.
3. Expand **Font** and provide the following details.



- Expand **Background** and specify the following information. If you want to set the background of the URL box in your column structure as transparent, disable **Transparent**.
    - If you have disabled Transparent in the previous step, select the Color Bar to choose an appropriate color for the background of the URL in your column structure.
    - You can choose a background image using the following option.
      - Under **Source**, provide the link of the image you want to set as background. Provide appropriate width, height. Disable Auto, if you want to set the height and width of URL text.
4. Under **Attributes**, **Border**, and **Padding** provide the appropriate information.

## Configure your email communication

Once you have designed your email communication, you can configure the email. You can either provide “#” to select personalization fields or directly provide specific information in the fields.

1. Under **Email Configuration**, under **From** field, provide the following information.
  - a. Optional. In the **Display Name** field, you can either provide “#” to select personalization fields or provide a name.
  - b. In the **Domain** list, select the appropriate domain.
2. In the **To** field, provide the following information.
  - a. Optional. In the **Display Name** field, you can either provide “#” to select personalization fields or provide a name.
  - b. Under **Email address**, specify “#” or a recipient’s email address.
3. Expand **Show/Hide Fields** list and select the **Reply To** and **BCC** fields to configure them.
  - a. Optional. In the **Display Name** field, you can either provide “#” to select personalization fields or provide a name.
  - b. Under **Email address**, specify “#” or a recipient’s email address.
4. Under **Subject**, provide an appropriate subject.
5. Click **OK**.

## Preview your email communications

The following section provides detail on previewing an email communication.

### Email preview screen tests

You can now preview the email message you have designed. Unica Deliver introduced email preview options which enable you to preview your email communication in multiple devices before sending, including laptop, mobile, and tablet screen design renderings.




**Note:** Email previews can be generated for valid licenses. See the Unica License Guide for more information.


There are two types of email previews available.


- **Device preview:** It offers preview of your email communications in desktop, tablet, and mobile renderings before sending the communication.
- **Client Preview:** It offers preview of your email communications in different versions of mobile/tablet, different operating systems of desktop, and different webmails before sending.

To preview the email communication using Device Preview, perform the following steps.

1. Click **Preview**.

2. Click  to preview the email in desktop view.

3. Click  to preview the email in tablet view.

4. Click  to preview the email in mobile view.

To preview the email communication using Client Preview, perform the following steps.

1. Click **Request Preview**.
2. Under the **Preview history** list, select the preview. You can view the requested previews in the descending order of their request time. The previews are retained for 48 hours.
3. Select **Mobile/Tablet**, **Desktop**, or **Webmails** tab. The following versions are supported for preview in Mobile/Tablet, Desktop, and Webmails.
4. Under **Filter** list, select one the display options provided for the preview. A thumbnail preview is generated.

The following versions of devices are supported.

Devices	Supported Platforms/Versions
Mobile/Tablet	<ul style="list-style-type: none"> <li>• Android 8.0</li> <li>• iOS 13.1</li> <li>• iOS 11.3.1</li> <li>• Android 10.0</li> <li>• Android 7.0</li> <li>• iOS 13.4.1</li> <li>• iOS 14.1</li> <li>• iOS 12.0</li> <li>• Android 9.0</li> <li>• Android 10.0 Dark</li> </ul>
Desktop	<ul style="list-style-type: none"> <li>• macOS 10.15</li> <li>• Windows 10</li> <li>• macOS 10.12.6</li> <li>• Simulated</li> </ul>

Devices	Supported Platforms/Versions
Webmails	<ul style="list-style-type: none"> <li>• Chrome</li> <li>• Firefox</li> <li>• Internet Explorer</li> </ul>



**Note:** During Client preview for some email clients, you may not find the images in the preview, but on receipt of the email, the actual users will get an option to open the email in a browser and view the images.

## Sending the email communications

The procedure for sending the email communications is unchanged.

## Recommended setting in Quick Builder while designing email

When you use a three-column layout in your email, it is recommended to have white color background for your email (you can select background color by clicking anywhere on Email, i.e., outside of design column and select white color from settings).

Use border upto 5px and not more than this for uniformity across different mail clients. Do not use border radius. Set to default (default = 0) for uniformity across different mail clients. Use total border (design column + per column + toolbox (Images , buttons) ) upto 5px for uniformity across different mail clients.

Measure the total width of the inner elements (all design columns having images in your email) and verify that it does not go beyond the mail width (default is 1000px)..

When you use the Browser Tool box, ensure that the string length does not exceed the column width.

When you use the Social Tool box, ensure the total width of the social icons do not exceed the column width.

While designing a email if margin is set for of the Design column and it is not displayed in final email for example: on Outlook desktop client), instead of using margin user can use

empty single design column and enable the transparent option for this, it will be displayed as margin in the final email.

## Personalized SMS messaging

Creating and sending standard personalized SMS requires that you create a recipient list in Unica Campaign and design a SMS message in the Quick Builder. However, personalized SMS that is sent as transactional SMS does not take information from a recipient list. For transactional SMS, personalization data must be included in the message request.

### Create an SMS

You can create a SMS communication in the Quick Builder. Perform the following steps.

1. Under **Communication** tab, in the **New** list, select **SMS**.
2. Under the **Properties** tab, perform the following substeps.
  - a. Under **SMS Notification Name**, specify an appropriate SMS notification name.
  - b. Optional. Provide a description.
  - c. To change the SMS communication location, click **Change** to browse and select the folder you want to choose . Click **Save**.
3. Under **Content**, perform the following substeps.
  - a. Under **From** list, select the SMS service provider.
  - b. Under **To** list, select the personalization field which holds the mobile number of the user.
  - c. In the **Message body**, type the SMS message.



**Note:** In the right pane, the preview of SMS message is available.



**Note:** You can also view the number of characters of your message. If it exceeds the maximum limit (160 characters), then operators charge message for multiple units. One unit in case of message exceeding



160 characters consists of 153 characters with 7 control characters to recreate message on target mobile device.

- d. Click on the Personalization field to select and add any required personalization filed in the SMS message.
- e. Click **Add a short link** to add a short link into your SMS message. You can specify any valid URL and select a brand in "Add a short link" window.
- f. Optional. Click **Manage Field spaces** to specify character length of each personalisation field used in your SMS message. This helps you to identify the approximate message length based on the typical length of personalization fields in your marketing database.
- g. Click **Save & Publish**.

## Personalized mobile app push notifications

In Deliver, you can create and send simple push notifications to a recipient's mobile device lock screens.

Each push notification is based on a push communication. A communication combines various design and messaging elements to define the structure, content, and behavior of the message that you deliver as a notification to a mobile app. You design push communications in the Deliver Quick Builder. The push notifications deliver a message to the phone's lock screen. The recipient can view the notification at a convenient time.

For information on how to modify a mobile app to support simple push notifications, see the Unica Deliver Startup and Administration Guide.

You can target specific mobile app users by running a flowchart in Unica Campaign to create an Output List Table (OLT). The OLT provides the recipient information that is required to personalize the message and identify each mobile device that is supposed to receive the notification.

You must also modify your mobile app to integrate with Deliver. For more information about how to integrate your iOS or Android app with Deliver, see the Unica Deliver Startup and Administrator's Guide.

To send personalized mobile app push notifications, you must install Campaign 12.1.0.4 fix pack or higher.

## Create a push notification

You can create a push communication in the Quick Builder. Perform the following steps.

1. Under **Communication** tab, in the **New** list, select **Push**.
2. Under the **Properties** tab, perform the following substeps.
  - a. Specify an appropriate Push Communication name.
  - b. Optional. Provide a description.
  - c. Click **Change** to browse and select the folder you want to choose to save the notification under All Communications. Click **Save**.
3. Under **Content**, perform the following substeps.
  - a. Under **Title**, provide a appropriate title of the push notification, type "#" to include a personalized field , and use emoji picker to use emojis.
  - b. Under **Message**, type the message you want to display in the push notification, type "#" to include a personalized field , and use emoji picker to use emojis.
  - c. Click **Choose Image** to browse and select the image under **Folder List** in **Content Picker**. The preview of all images in the selected folder are displayed.
  - d. You can also use the images stored under a different repository. Select the appropriate repository from the **Repository** list.
  - e. Click **Select**. The preview of the notification with title, message, and the selected image appears in the right pane.
4. Under **Advance Settings**, perform the following substeps.
  - a. Optional. Under **General**, to open a URL when the push notification is tapped by the user, toggle the "Open URL" switch and enter the URL you want to open.
  - b. Optional. To send a notification that can be processed in the background, toggle the "Run background handler" switch. The title & message become optional, and can be omitted to create a silent push.
  - c. Optional. To add an arbitrary meta-data object to the push notification, for example to trigger a deep link, toggle the **Include JSON** switch and enter a valid JSON object into the editor.

- d. You can add up to three action buttons to a push notification by toggling the **Action Buttons** switch. Enter the identifier (used by your app to determine what action to take) and text for each button. To remove a button, click the trashcan icon. Provide a unique ID under **ID** field and provide a label of the button under **Text**.



**Note:** A concise, descriptive button label helps the recipient to understand the results of clicking the button. For example, you may name the button **Call Now!** instead of **Open**.

5. Enable either **iOS settings** or **Android settings** to complete the platform-specific settings.
6. Click **Save & Publish**.

## Interoperability

You can quickly design emails using the Quick Builder by adding placeholder images in your message to create drop zones. You can then open the same email communication in Message Editor to use advanced features like linking to landing pages, adding advanced scripting, and creating rules for dynamic content.

Designing or editing the email communications in Quick Builder originally designed in Message Editor is not supported.



# Chapter 17. Advanced scripts for email messaging

Deliver provides a template-based scripting language for creating self-contained scripts that provide a way to personalize content in ways that you cannot easily duplicate in the Deliver Message Editor.

With Deliver advanced scripting for email, you can display multiple nested levels of conditional content or create data tables that display lists of recipient-specific values. The scripts use existing personalization fields and output list tables (OLT).

You can insert into templates for HTML or text-only email. You can add the scripts to your current email templates or incorporate them into new template designs. You cannot add advanced scripts to landing pages.

When you run a mailing, the script runs for each message in the mailing to generate the required personalization. The script output displays in an email as text that is formatted according to the design of the template.

By adding a content reference label to an advanced script, you can reference content that is stored in the Content Library, such as an image or HTML snippet. You can also upload an advanced script as a snippet to the Content Library. If you assign a reference label to the uploaded script, you can insert the script into email communications by reference.

To achieve predictable results with the advanced scripting features provided by Deliver, you must have a solid understanding of how to write and implement HTML scripts.

## Data tables

You can use advanced scripting for email to design scripts to create a data table that displays a list of recipient-specific information in an email message.

In Deliver, to display a single piece of recipient data in an email, you add a personalization field to the email template. However, to display a list of related recipient-specific data, you must use a script that displays information that is provided from a dimension table in Unica Campaign. This list is referred to as a data table. The data table can contain a list of text values or links.

In a script, use the `<@list>` tag to specify the dimension table in Campaign and the specific fields in the dimension table that contain the information you want to display. Use the `<@list>` tag to sort and control how much information the script retrieves from the dimension tables.

The output of the `<@list>` tag appears as a list of values in the email. The script does not need to specify all of the fields that are contained in the dimension table, but you must map all dimension table fields that are specified in the script to the Output List Table (OLT).



**Note:** Changing the display name of the personalization field that is defined for the key field that connects a dimension table to a base table causes an error when you run the flowchart.

Deliver supports referencing multiple dimension tables in a single OLT. However, although you can configure multiple levels of dimension tables in Campaign, Deliver does not support using dimension tables that reference other dimension tables. Each dimension table that is referenced by a script must map directly to a base record table in Campaign.

## Nested conditional content

You can use advanced scripting for email to design scripts that define multiple levels of conditional content for an email message. Multiple levels of conditional content are also referred to as nested conditional content.

You can create a script that contains a series of condition statements where one or more condition statements can contain other condition statements that display content only if the higher-level condition is also true. Use the resulting condition structure to create a single script that addresses the interests of large numbers of diverse email recipients.

You can design a script with multiple nested conditions to efficiently use customer demographics and history to create sophisticated email messages with a high degree of personalization. For example, to create a single email for use in a nationwide email campaign to stimulate in-store sales you can use nested conditions to offer a mix of products, discounts, and store addresses according to the recipient's proximity to a store, their income level, and the category of their most recent purchase.

The advanced scripting language in Deliver provides various condition statements and operators that you can use to design your evaluation criteria. Use combinations of condition statements and various operators to create nested conditional content.

Use the following tags and operators to create nested conditional content.

- Arithmetical operators
- Comparison operators
- @if, @elseif, @else
- Logical operators

## Working with advanced email scripts

You can add advanced scripts directly into an HTML document used as the template for a personalized email. Templates for text-only email in Deliver are also HTML documents that accept advanced scripts for email. The script syntax includes several tags and elements used exclusively with Deliver.

In a script, you reference personalization fields defined in an output list table (OLT) that provides the various recipient characteristics that the script evaluates. The script can operate on the values contained in the OLT only when you add the script to a document and reference both the document and the OLT to the same Deliver mailing.

You can use the same script in different situations. Use the script with different email communications or with a different OLT. However, if you use the script with more than one OLT, confirm that each OLT provides data for all of the personalization fields defined in the script. It is also a good practice to confirm that conditional content provided by the script is suitable for the document to which you have added the script.

## Advanced scripts in templates

You add scripts directly into the HTML code for an HTML or text-only email template.

You can use any text or HTML editor to create an advanced email script for use by Deliver. The script must contain valid HTML elements.

The script must be bounded by the custom `<UAEScript>` tag. This custom tag is recognized only in Deliver and works only in templates for email.

The `<UAEScript>` tag is not case sensitive.

## Where to add scripts

Insert an advanced email script where you want the script output to appear. If you are using more than one script in a document, you can place them in various locations within a single template for HTML or text-only email.

When the recipient opens the email, the script output displays as part of the email. You can see how the script output appears in the email using Preview in the Deliver Message Editor.



**Note:** Preview displays the email, including the script output, using sample data configured for the personalization fields defined in the document and in the script. The data type of the sample data must match the data type expected by the script. You can change the data type for OLT personalization fields.

## Content references in advanced scripts

You can insert content from the Deliver Content Library into the script output by including a content reference label in the script.

Using a reference label is the only way to include content elements from the Content Library in the output of an advanced script for email. When you preview or publish the email document to which you have added a script that includes a content reference label, Deliver replaces the label with the referenced content element in the script output.

You can add a content reference to a script by including the `<UAEReferenceLabel>` in the script and specifying the reference label of the content element as an attribute of the tag. Use the tag to reference any image, text, or HTML snippet that has been uploaded to the Content Library and has been assigned a reference label.

## Personalization fields in advanced scripts

In an advanced script, you can use personalization fields in several different ways, depending on where you add the field and what you want to accomplish. The methods that are used to add personalization fields to advanced scripts are different from the methods that are used to add fields to email communications.

You specify the personalization field display name when you add a personalization field to a script. The display name is specified in the Output List Table (OLT) that is referenced to the same mailing as the email communication that contains the advanced script.

General guidelines for adding personalization fields to advanced scripts:

- You must declare the personalization fields that you add to a script. Use the `<declarePF>` tag.
- Add personalization fields to advanced scripts by using the field's display name, in the form: `#{display name}`. Do not use the `<UAEpf>` tag that is used to add personalization fields to the communication outside of the script.
- To create data tables, use personalization fields in conjunction with the `<@list>` tag. When the script creates data tables, the declaration must distinguish between base table personalization fields and dimension table personalization fields.
- In conditional statements, use the display name only. Do not use the form `#{display name}`.

To preview the output of the personalization field as it is used in the script, use **Preview** in the Deliver Message Editor to display a version of the email that is based on sample data that is configured for personalization fields. If a script includes a numeric personalization field for which sample data is not defined or that references non-numeric sample data, the system assigns a sample value of 0 (zero).

The following diagram illustrates the different ways to represent personalization fields at various stages of the process of defining personalization fields and adding them to a script. Notice that the method that is used to represent the database field and corresponding personalization field changes at each step of the process.

1. Select a database field from the tables that are mapped to the Deliver process.
2. Select the field as a personalization field.
3. Define a display name, or accept the default.
4. Declare the personalization field in a script.

In the flowchart: as displayed in the Deliver process				In the script
	Available Fields <b>1</b>	Selected as Personalization Fields <b>2</b>	Display Name <b>3</b>	Declared in UAEScript <b>4</b>
Base table fields	<base table> <field name>	<base table>.<field name>	<display name>	<display name>
Dimension table fields	<dimension table> <field name>	<base table>.<dimension table>.<field name>	<display name>	<dimension table>.<display name>
<i>Example</i>				
<b>Customers</b> lastName		Customers.lastName	CustomerLN	CustomerLN
<b>CustTransact</b> transType		Customers.CustTransact.transType	TransactionType	CustTransact.TransactionType

## Declaration format for personalization fields

In every script, you must declare all personalization fields that are referenced in the script.

Use the <declarePF> tag, as follows.

```
<declarePF names= "<display name>, <display name2>, display name3>,..."/>
```

Declare base table and dimension table personalization fields differently.

- For base table personalization fields, enter the display name only.
- For dimension table personalization fields, reference the dimension table name and the display name, as follows.

```
<dimension table name>.<display name>
```

For example, for a script that displays a name (from a base table) and a list of merchandise shipped (from a dimension table called `Transactions`), the personalization field declaration appears as follows.

```
<declarePF names= "FirstName, LastName, Transactions.ItemShipped"/>
```

You can find the display name for a personalization field on the Output tab of the Deliver process that is used to define the Output List Table (OLT) that is used with the script.

## Reference to personalization fields within scripts

Advanced scripts require a specific method to reference a personalization field in a script. Do not use the `<UAEpf>` tag to embed a personalization field in a script.

To add a personalization field to a script, specify the personalization field display name in the following form.

```
${display name}
```



**Note:** You can reference dimension table personalization fields only from within an `<@list>` tag when you create a data table.

## Reference to personalization fields to create data tables

To create data tables, use the `<@list>` tag to reference dimension table personalization fields. You cannot reference a base table personalization field in a data table.

Reference dimension table personalization fields in data tables as follows.

```
${<loop variable>.<display name>}
```

Where `<loop variable>` is the loop variable specified in the `<@list>` tag.

## Reference to personalization fields in conditional statements

Use the display name only to reference personalization fields in conditional `@if`, `@elseif`, or `@else` statements.

Do not use the `${display name}` format.

## Preview of personalization fields used in scripts

You preview personalization fields that are present in the script by observing their appearance and behavior when you preview them in the Message Editor. To generate an

accurate preview of the personalization fields, configure the related mailing, refresh the OLT, and provide sample data for the fields to display. You define sample data for the fields in the Message Editor preview.

To preview personalization fields that are used in a script, do the following.

- Verify that the OLT that defines the fields declared in the script and the document that contains the scripts and are referenced to the same mailing.
- Verify that all personalization fields declared in the script are created in the OLT referenced by the mailing and in the Deliver configuration. Review the personalization field properties in Deliver Settings.
- If the script declares OLT personalization fields, run the associated flowchart to upload the latest recipient data.
- Configure sample data for personalization fields in the Message Editor preview of the document that contains the script, or in the Deliver configuration. Confirm that the data type of the sample data is the same type that the script expects when it runs. You can change the designated data type if necessary.

To display a preview of a personalization field in the Message Editor, Deliver must know the sample value that is defined for the field and the data type of the personalization field. Deliver can access the information that is required to validate and preview the personalization field only after you reference the document that contains the script and the OLT that defines personalization fields to the same mailing.

The personalization field and its sample data must be the same data type. The Deliver process that is used to define the OLT identifies the data type for each personalization field. You can view and configure data type and sample data as personalization field properties in the Deliver Settings.

In the preview of the document, change the sample data for individual personalization fields to observe changes in conditional content that is rendered by the script.



## Structure and appearance of data table rows

Tags in advanced scripts control the structure of data tables that you create with advanced scripts. The design of message templates control how the data table appears in the message.

You can control the structure and appearance of the data tables that you create using scripts.

The following tags control the structure of the data tables that you create.

- @ list
- deliverRowNumber

To control the appearance of the data table, you must format the output according to the design and styles available in the HTML template that contains the script. Depending on the design of your templates, the same data table may look very different when you add it to different templates.

## Numbers in scripts

How you specify numbers in a script depends on if you are entering the number as text or in a tag or tag attribute.

To enter a number in text displayed as script output, enter the number as a literal text value. For example,

```
You have over 1000 points.
```

If you are entering a number in a script tag or tag attribute, enter the number using the following format.

```
?number <some operation><number>
```

For example,

```
<p>
<@if (NumberOfPoints?number >1000)>You have won a prize!</@if>
</p>
```

## Strings in scripts

To enter text or strings in script tags or tag attributes, enclose the string in quotation marks.

For example,

```
"enter a text value"
```

Use HTML formatting to control the appearance of the script output.



**Note:** Scripts in Deliver do not support using smart quotation marks.

### Example

```
<p>
<@if (AccountStatus= "open")>Your account is now active.</@if>
</p>
```

## Links in scripts

You can include trackable links in advanced scripts. However, advanced scripts do not support adding links to landing pages hosted by Unica.

Deliver considers the links to be trackable links if you use the prefix `http://` or `https://`.

## Droppable zones not supported in scripts

Scripts in Deliver do not support using droppable zones.

You can add links in the script to content on your corporate web site, but you cannot link to the Content Library or use droppable zones to add content.

## Advanced email script structure and syntax

Advanced scripts for email require that you adhere to a specific structure and use specific tags and operators to write scripts that create data tables and conditional content that you can incorporate into email messages.

The advanced scripting language include the following major elements.

- Scripts are bounded with the custom `<UAEScript>` tag. This tag is used only by Deliver.
- The `<@list>` tag is used to create data tables
- The `@if`, `@elseif`, `@else` tags are used to create nested conditions.
- The scripting language supports various arithmetical, comparison, and logical operators.
- Advanced scripts can use the `deliverDimensions` variable to determine the size of a dimension table.
- You can use `deliverRowNumber` with the `<@list>` tag to distinguish rows in a data table.

## General structure for scripts

Advanced scripts for email must adhere to a specific structure and syntax.

Open and close each script with the `<UAEScript>` tag.

Place the contents of the script between the `<scriptBody>` tags. Anything that you place outside of these tags is not executed as a script.

The following example illustrates a simple advanced script.

```
<UAEScript>

<declarePF names="personalization field 1,personalization field 2,
personalization field 3, ..."/>

<!--scriptBody>

Create a script to build data tables, a series of conditional statements,
or a combination of both.

Format the script output using standard HTML elements.
Include additional valid HTML text and links as required.

</scriptBody-->
```

```
Descriptive note (optional, but recommended)
```

```
</UAEScript>
```

The `<scriptBody>` tags resemble an HTML comment tag. When you display a page that contains an advanced script in a browser, the script code does not display. Only the optional comment that follows the closing `<scriptBody>` tag displays in the browser. When you execute a mailing, the script runs and displays the required output in the email.

Use the available tags and operators to construct the script. You can add standard HTML elements to the script to include text or links in the script output.

Scripting in Deliver does not support adding zones or links to the Content Library to the script.

## @list

Use the `<@list>` tag to build data tables.

You can use data tables in email messages to display multiple rows of information that is retrieved from one or more dimension tables in Campaign.

In the `<@list>` tag, you specify fields in the dimension table that contain the information that you want to appear in the list. For each email message, the `<@list>` tag iterates through the dimension table that you specify and selects only those rows that contain information that is applicable to the email recipient. You can specify a sort order for the results, limit the number of rows that display, and use the script logic and operators to control the organization of rows and cells in the table.

You can write scripts that use the `<@list>` tag to display the tag output in various formats, including tables and comma-separated lists.

Use the following syntax.

```
<@list dimension= "dimension table name" sortBy= "display name:data
  type:sort order"
maxRows= number; loop variable> </@list>
```

The syntax for specifying a personalization field as a cell value is ``${<loop variable>}.<display name>``

The following example illustrates how to use the list tag to create a table that presents list of the 10 largest purchases, with the largest purchase listed first.

```
<table>
<@list dimension= "CustomerTransactions"
sortBy= "purchaseAmt:numerical:descending" maxRows= 10; row>
<tr><td>`${row.PurchaseDate}`</td><td>`${row.PurchaseAmount}`</td></tr>
</@list>
</table>
```

The following sections describe the elements that are used to create the table.

## dimension

The name of the dimension table in Campaign that provides the values that display in the data table. The name must appear in quotation marks.



**Note:** Scripts in Deliver do not support smart quotation marks.

## sortBy

```
sortBy= "display name:data type:sort order"
```

Specifies how data table values are listed.

### display name

**Value:** The display name of the personalization field that is mapped to the dimension table field that is used to define the sort order. Enter the display name as it is defined in the Deliver process that is used to build the OLT that you use with the document.

For example, to retrieve all instances where the customer returned merchandise, sort the dimension table with the field for return authorization numbers.

### data type

**Value:** numeric | string

The data type for the dimension table field that is used to sort the data. The data type is specified in the **Type** field of the Output tab of the Deliver process that is used to define the OLT. You can change the data type from the Deliver Personalization Fields page, that you access from the Deliver Settings page.

#### **sort order**

Value: `ascending` | `descending`

The order in which you want the data to appear.

For example, a list of sequential transaction IDs listed in *descending* order displays the most recent transaction as the first item in the table.

#### **maxRows**

`maxRows=number`

Limits the number of rows that display in the data table. Enter the number of rows that you want to appear in the table.

#### **loop variable**

When you run an advanced script, Deliver uses the loop variable as it steps through the dimension table. The value of the loop variable increments each time that the script completes an iteration through the dimension table. You must specify the loop variable when you include a personalization field in the data table output.

You can specify any name for the loop variable.

#### **@if, @elseif, @else**

Use these tags to specify conditions in the script logic.

Use `<@if>` to specify a condition that, if true, displays content that you specify in an email. In Deliver scripts, the value of a personalization field often provides the condition and the content displayed.

Optionally, you can use `<@if>` in combination with `<@elseif>`, and `<@else>` to define multiple conditions.

Deliver scripts support using various [Operators \(on page 477\)](#) to construct condition statements.

### Syntax

```
<@if (condition)>
<@elseif (condition2)>
<@else>
</@if>
```

You can include more than one `<@elseif>` in a condition statement.

### Example

A test for account type, assuming the database identifies account type with a number.

```
<p>
<@if (AccountStatus ?number==1)This is a Premium account.
<elseif (AccountStatus ?number==2)This is a Preferred account
<@else>This is a standard account
</@if>
</p>
```

## deliverDimensions

Use the `deliverDimensions` variable to determine the size of a specified dimension table.

Use `deliverDimensions` with the following syntax.

```
deliverDimensions.<dimension table>?size
```

When the script runs, `deliverDimensions` returns the number of rows in the dimension table that contain data that is applicable to the email recipient.

The following example illustrates how to use `deliverDimensions` to determine if a customer has orders waiting to be shipped.

```
<p>
<@if (deliverDimensions.CustomerBackorder?size <1)>
```

```

    You have no backorders.
  </@if>
</p>

```

## deliverRowNumber

Add `deliverRowNumber` to the `@list` tag to enable advanced scripts to distinguish individual rows in the data table.

Use the output of `deliverRowNumber` and the script logic to manipulate the display and organization of rows and cells in the table.

Add `deliverRowNumber` to the `@list` tag as you would add a personalization field. It tracks how many times the script iterates through the dimension table. By default, it always returns a number so you do not need add it to the `@list` tag using the "number" format.

Use `deliverRowNumber` with the following syntax, where `row` is any loop variable.

```

<@list dimension="<dimension table>" ; row>
    ${row.deliverRowNumber}
</@list>

```

The following example shows how to use `deliverRowNumber` to define different background colors for rows in the data table.

```

<@list>

<@if ((row.deliverRowNumber%2)==1)><tr bgcolor=Odd row color>
Insert content</tr></@if>

<@if ((row.deliverRowNumber%2)==0)><tr bgcolor=Even row color>
Insert content</tr></@if>

</@list>

```



## Operators

Deliver scripts supports using arithmetical, comparison, and logical operators to construct conditional statements.

When using operators to construct conditional statements, using parentheses to control the order of precedence is a best practice. Operations inside parentheses are performed first.

Otherwise, Deliver scripts perform operations in the following order.

1. Multiplication, division, and remainder
2. Addition (arithmetical)
3. Comparison - greater than and less than comparisons
4. Comparison - equal to or not equal to
5. Logical AND
6. Logical OR

## Arithmetical operators

Advanced scripts support several arithmetical operators.

You can use the following arithmetical operators in Deliver scripts.

- **+** add
- **-** subtract
- **\*** multiply
- **/** divide
- **%** remainder

You can concatenate strings using the **+** operator. For example, `"FirstName" + "LastName"`.

## Comparison operators

In Deliver scripts, you can use various comparison operators to compare numbers, strings, and Boolean values.

The following sections describe the various comparison operators.

## Numbers

To compare numbers, use the following operators.

= or == equal

!= not equal

> greater than

<= greater than or equal to

< less than

<= less than or equal to

## Strings

To compare strings, use the following operators.

= or == equal

!= not equal

## Boolean values

To compare Boolean values, use the following operators.

= or == equal

!= not equal

! not For example, for the expression `!(accountType=="Gold")` The account type is not Gold.

## Logical operators

Advanced scripts support several logical operators.

|| logical OR

&& logical AND

! logical NOT

## Example 1 Displaying a data table in a document

This example provides a sample script that could be used to generate and display a data table in an email.

In this example, the data table displays a simple list of text values and displays a comment if the recipient satisfies a specific criteria contained in the script.

This example presents a case where you are sending an email to a list of recipients that have engaged in some type of transaction with your company. Some of those transactions involve purchases. The flowchart used to create the recipient list selects only individuals that have made any type of transaction.

The company is running a promotion that awards a varying number of promotional bonus points for each purchase. The calculation of the number of points occurs outside of the script. You are sending a monthly email to inform the email recipients of the points they have earned and how they earned them.

### Tables used in Example 1

The tables in Example 1 represent tables that exist in your Campaign installation.

This example assumes that the following tables exist in the Campaign schema.

- `Customers` - a base record table that contains customer demographic data
- `CustTransact` - a dimension table that contains transaction data for current customers

The dimension table in this example links to the base table through the `CustID` field.

The field names appear differently, depending on where you view or reference them. The following illustration shows the different ways the personalization fields used in the script are represented. Notice that email scripts refer to personalization fields using their display name.

Field names in Available Fields	Field names in Selected as Personalization Fields	Personalization field Display Names	Field names as declared in UAEScript
<b>Customers</b> firstName lastName emailAddress CustID	<b>Customers</b> Customers.firstName Customers.lastName Customers.emailAddress Customers.CustID	<b>Customers</b> CustomerFN CustomerLN emailAddress CustID	<b>Customers</b> CustomerFN (not in script) (not in script) (not in script)
<b>CustTransact</b> CustID transType transDate custTransID earnedPointAmt	<b>CustTransact</b> Customers.CustTransact.CustID Customers.CustTransact.transType Customers.CustTransact.transDate Customers.CustTransact.custTransID Customers.CustTransact.earnedPointAmt	<b>CustTransact</b> CustomerID TransactionType TransactionDate TransactionID PointsEarned	<b>CustTransact</b> (not in script) CustTransact.TransactionType CustTransact.TransactionDate CustTransact.TransactionID CustTransact.PointsEarned

## Code sample for Example 1

The code sample is the advanced script for Example 1.

To use this script in an email, add this HTML code to the email template where you want the output to display. To render output, the dimension table referenced in the script must exist in your Campaign installation and the personalization fields declared in the script must be mapped to an Output List Table (OLT) which has been uploaded to HCL Unica.

```
<UAEScript>
<declarePF names="CustomerFN,CustTransact.TransactionType,
CustTransact.TransactionDate, CustTransact.TransactionID,
CustTransact.PointsEarned"/>
<!--scriptBody>
<p>${CustomerFN}, here is a list of your transactions
with us this month.</p>

<table>
<tr>
<th>Transaction</th>
<th>Date</th>
</tr>
<@list dimension= "CustTransact" sortBy="TransactionID:numeric:descending" ;
row>
<tr>
<td>
```

```

    ${row.TransactionType}
  </td>
  <td>
    ${row.TransactionDate}
  </td>
  <td>
    <@if (row.PointsEarned?number >0>You earned ${row.PointsEarned}
    customer appreciation points with this transaction.</@if>
  </td>
</tr>
</@list>
</table>

</scriptBody-->
List of customer's monthly transactions.
</UAEScript>

```

## What happens in Example 1

The script used in this example creates a simple data table that you would incorporate into the body of a larger email. The code sample for Example 1 presents the contents of the script.

The following sections describe the actions the script performs and their result.

### Identify the personalization fields required

Scripts must always start by declaring the personalization fields that it references. The `names` attribute of the `<declarePF>` tag lists the display names of the personalization fields used in the script.

You identify personalization fields defined from base tables using their display name. You identify personalization fields that map to dimension table fields in the following format.

```
<dimension table name>.<personalization field display name>
```

This example maps to fields in the `CustTransact` dimension table.

## Greeting

The script includes a greeting that includes the customer's first name, specified with a personalization field. You can accomplish the same result using a personalization field in the Deliver Message Editor, but the example includes it here as an illustration of how to represent a personalization field in a script.

## Data table

In this example, the `@list` tag sorts through the `CustTransaction` dimension table row by row. The data table intended for the email is created as part of the `@list` tag. The resulting list of transactions appears in descending order, so that the most recent transaction appears at the top of the list.

The table displays fields in each row of the `CustTransaction` table. Since, for this example, the dimension table lists only completed transactions, there is no need to check for null values.

## Conditional statement

This example contains a simple conditional statement. It does not illustrate nested conditional content.

The script includes an `@if` tag to test for customer purchases. For each transaction that is a purchase, the script displays a statement next to the transaction date indicating the number of points awarded. Notice that if the transaction is not a purchase (the condition is false) the sentence does not appear.

## Identifying note for Example 1

After the closing `<scriptBody>` tag the script includes a short descriptive statement. When you open an HTML document that contains this script or open the document in the Deliver Message Editor, this statement is the only text that appears.

This statement appears as a means to identify the presence of the script and its location within the email template.

## Identify the personalization fields required

Scripts must always start by declaring the personalization fields that it references. The `names` attribute of the `<declarePF>` tag lists the display names of the personalization fields used in the script.

You identify personalization fields defined from base tables using their display name. You identify personalization fields that map to dimension table fields in the following format.

```
<dimension table name>.<personalization field display name>
```

This example maps to fields in the `CustTransact` dimension table.

## Example 2 Displaying nested conditional content

This example illustrates how a script can create nested conditions and data tables to address several different audiences and provide very different content based on the characteristics of the message recipient.

This script also illustrates several attributes for the `<@list>` tag, the `deliverDimensions` test for dimension tables, two conditional statements, and how to specify pages on a corporate web site in a data table.

This example presents a scenario where your company has three classes of customers and tracks new customers. It is running a rewards program over several months to expand purchases in general, and certain new products in particular.

In this example, customers fall into 4 categories.

- **Platinum members.** These are premium customers who qualify for platinum status by purchasing more than \$5000 in the past 12 months and by paying an additional fee.
- **Gold members.** These are preferred customer who qualify for gold status by purchasing between \$1000 to \$4999 in the past 12 months and by paying an additional fee.
- **Silver members.** This is the base level account type. Silver members purchase less than \$1000 per year.
- **New members.** Customers that have joined within the past 30 days. They might be Silver, Gold, or Platinum members.

The company is running a rewards promotion over several months. You are planning an email campaign for the entire customer list to indicate to active customers the rewards they have earned to date and to encourage additional purchases. The mailing also targets inactive customers to encourage them to begin purchasing again. The mailing sets a third objective to target new customers with additional rewards to encourage them to buy more now.

## Tables used in Example 2

The tables in Example 2 represent tables that exist in your Campaign installation.

This example assumes that the following tables exist in the Campaign schema.

- **Customers** a base record table that contains customer demographic data
- **CustTransact** a dimension table that contains transaction data for current customers
- **CustPrefProd** a dimension table that contains product details for products and product categories for which the customer has previously indicated a preference.

The dimension tables link to the base table through the `CustID` field.

The following illustration shows the different ways the personalization fields used in the script are represented.

Field names in Available Fields	Field names in Selected as Personalization Fields	Personalization field Display Names	Field names as declared in UAEScript
<b>Customers</b>	<b>Customers</b>	<b>Customers</b>	<b>Customers</b>
firstName	Customers.firstName	CustomerFN	CustomerFN
lastName	Customers.lastName	CustomerLN	(not in script)
emailAddress	Customers.emailAddress	emailAddress	(not in script)
CustID	Customers.CustID	CustID	(not in script)
acctType	Customers.acctType	AccountType	AccountType
newCust	Customers.newCust	NewCustomer	NewCustomer
prefProdCat	Customers.prefProdCat	PreferredCategory	(not in script)
purch12moAmt	Customers.CustTransact.purch12moAmt	TwelveMonthPurchases	TwelveMonthPurchases
<b>CustTransact</b>	<b>CustTransact</b>	<b>CustTransact</b>	<b>CustTransact</b>
CustID	Customers.CustTransact.CustID	CustomerID	(not in script)
transType	Customers.CustTransact.transType	TransactionType	CustTransact.TransactionType
transDate	Customers.CustTransact.transDate	TransactionDate	CustTransact.TransactionDate
custTransID	Customers.CustTransact.custTransID	TransactionID	CustTransact.TransactionID
earnedPointAmt	Customers.CustTransact.earnedPointAmt	PointsEarned	CustTransact.PointsEarned
purchAmt	Customers.CustTransact.purchAmt	PurchaseAmount	CustTransact.PurchaseAmount
purchDate	Customers.CustTransact.purchDate	PurchaseDate	CustTransact.PurchaseDate
<b>CustPrefProd</b>	<b>CustPrefProd</b>	<b>CustPrefProd</b>	<b>CustPrefProd</b>
CustID	Customers.CustPrefProd.CustID	Customer_ID	(not in script)
itemID	Customers.CustPrefProd.itemID	ItemID	CustPrefProd.ItemID
itemDescrip	Customers.CustPrefProd.itemDescrip	ItemDescription	CustPrefProd.ItemDescription
itemPrefRank	Customers.CustPrefProd.itemPrefRank	PreferenceRank	CustPrefProd.PreferenceRank
prefProdCat	Customers.CustPrefProd.prefProdCat	ProductCategory	CustPrefProd.ProductCategory



## Code sample for Example 2

The code sample is the advanced script for Example 2.

The script in Example 2 tests a dimension table for content, establishes the recipient's account type, displays purchase history, presents additional purchase options based on account type, and offers account upgrades after testing for eligibility.

```
<UAEScript>
<declarePF names="CustomerFN,
  AccountType,NewCustomer,CustTransact.PurchaseDate,
CustTransact.PurchaseAmount,CustTransact.TwelveMonthPurchases,
CustTransact.PointsEarned,CustPrefProd.ItemID,CustPrefProd.ItemDescription"
/>

<!--scriptBody>
  <@if (deliverDimensions.CustTransact?size >0)>
    <p>
      <@if (AccountType="silver")>As a Silver member, during our
Summertime Splash program every time you spend between $100 and $500
you earn 100 bonus points. Spend more than $500 and you earn 200 points.
Look below to see the rewards you have already earned this month.

      <@elseif (AccountType="gold")>As a Gold member, during our
Summertime Splash program you earn at least 100 bonus points every time
you buy. Spend between $100 and $500 and you'll earn 250 points. Spend
over $500 and we'll double your points - a total of 500 points for every
purchase of $500 or more.Look below to see the rewards you have already
earned this month.

      <@elseif (AccountType="platinum")>As a Platinum member,
during our Summertime Splash program you earn at least 200 bonus points
every time you buy. Spend between $100 and $500 and you'll earn 500
points.
```

Spend over \$500 and we'll double your points - a total of 1000 points for every purchase of \$500 or more. Look below to see the rewards you have already earned this month.

```

    </@if>
  </p>
</@if>

<table>
  <tr>
    <th>Purchase Date</th>
    <th>How much you paid</th>
    <th>Reward points you earned</th>
  </tr>
<@list dimension="CustTransact"
  sortBy="TransactionID:numeric:descending";row>
  <tr>
    <td>
      ${row.PurchaseDate}
    </td>
    <td>
      ${row.PurchaseAmount}
    </td>
    <td>
      ${row.PointsEarned}
    </td>
  </tr>
</@list>
</table>

  <@if (AccountType = "platinum")><p>Check out
<a href=http://www.example.com/newProducts?prodID=123>the latest
product that we've reserved for our Platinum members.</a>

```

```
Because you are a Platinum member, we'll ship it for free!</p>
```

```

    <@elseif (AccountType != "platinum" &&
(custTransact.TwelveMonthPurchases?number >5000))><p>
This purchase makes you eligible for Platinum member status! Click
<a href="http://www.example.com/upgrade2Platinum>
Tell me more</a> to learn how you can take yourself to
a higher level.</p>

```

```

    <@elseif (AccountType = "gold")><p>Check out
<a href=http://www.example.com/newProducts?prodID=456>the latest
product that we've reserved for our Gold members.</a> Enjoy a 50%
discount on shipping because you are a Gold member!</p>

```

```

    <@elseif (AccountType = "silver")><p>Check out
<a href=http://www.example.com/newProducts?prodID=789>the latest
product that we've reserved for our Silver members.</a>
Order now and we'll ship direct to you within 3 days.</p>

```

```

    @elseif (AccountType = "silver" &&
custTransact.TwelveMonthPurchases?
number >1000 && custTransact.TwelveMonthPurchases?number <5000)>
<p>This purchase makes you eligible for Gold member status!
Click <a href="http://www.example.com/upgrade2Gold>
Tell me more</a> to learn how you can take yourself to
a higher level.</p>
    </@if>

```

```

    <@if (deliverDimensions.CustTransact?size <1 && NewCustomer?number
=0>
<p>We haven't heard from you for a while. You might be missing out

```

on some of the greatest deals we've ever had. Here is a sample of what's new.</p>

```
<table>
  <@list dimension="CustPrefProd"
  sortBy="PreferenceRank:numeric:descending"
maxRows=3; row>
  <tr>
    <td><a
  href="http://example.com/newProducts?prodID=${row.ItemID}">${
row.ItemDescription}</a></td>
  </tr>
</@list>
</table>
```

```
<p> Check out all of our new items
<a href="http://www.example.com/latest">here</a>.<p>
```

```
<p>To provide a bit more encouragement ${CustomerFN},
we'll give you 100 rewards points with your next purchase.
We hope to hear from you soon!</p>
```

```
</@if>
```

```
<@if (NewCustomer?number =1)><p>Because you
are a new member, we will give you an additional 150 reward points for
every purchase you make this month.
```

```
Just our way of saying thanks for choosing us, ${CustomerFN}.</p >
```

```
</@if>
```

```
</scriptBody-->
```

Summer Splash Promo 2

```
</UAEscript>
```

## What happens in Example 2

The script used in this example creates a series of nested conditions and data tables. The code sample for Example 2 presents the contents of the script.

The following sections describe the actions the script performs and their result.

### Identify the personalization fields required

The script in this example begins by declaring the personalization fields that it references. The names attribute of the `<declarePF>` tag lists the display names of the personalization fields used in the script.

You identify personalization fields defined from base tables using their display name. You identify personalization fields that map to dimension table fields in the following format.

```
<dimension table name>.<personalization field display name>
```

This example maps to fields in the `CustTransact` and `CustPrefProd` dimension tables.

### Testing dimension tables for content

The `deliverDimensions` tag examines a specified dimension table to determine if the table contains any data. Performing this test as part of the script avoids displaying an empty data table in an email.

This example uses the `delivetDimensions` tag to test the `CustTransact` table to determine if it contains any data. In effect, this test distinguishes active and inactive customers in the list. This example assumes that the `CustTransact` table records customer transactions for the past 12 months.

### Nested conditions

The script in this example establishes a series of conditional statements.

Is the customer active or inactive?

If **active**:

Is the customer a platinum, gold, or silver member?

Use conditions to display a link to a different product for each account type.

Identify gold and silver members eligible for upgrade. Display different links for each type.

If **not active**:

Offer a prioritized range of products to encourage them to begin purchasing again.

Is the recipient a **new customer**?

Regardless of account type, make a special offer to maintain the recipient's initial interest.

## Data table options

The example illustrates various ways to use and structure a data table.

The first data table displays only for active customers and displays recipient transaction information retrieved from a data table, much like the data table in Example 1. In this example, the data table also includes a series of conditional statements that display beneath the transaction information when the statements are true. Some of the statements contain links to the corporate web page.



**Note:** Advanced scripts in Deliver do not support links to Deliver landing pages.

The second data table is a single row table that contains a link to a corporate web page. Here, the `@list` tag includes the `maxRows` attribute to illustrate how to limit how many items display in the list. In this case, the script displays the top 3 product preferences.

## Identifying note for Example 2

The text between the closing `<scriptBody>` tag and the closing `<UAEScript>` tag is the only text that appears when you use a browser or the Deliver Message Editor to open a document that includes the script. In this example, the text identifies the promotion the script supports.

Unica recommends adding a unique note to each script you create. When you add an identifying note to the script, message designers using the Deliver Message Editor are able to see where the script appears in the email and distinguish it from other scripts.

# Chapter 18. Offers in personalized email

You can add offers that you define in Unica Campaign to personalized email that you create and send through Unica Deliver. Including offers in your marketing email gives you an opportunity to deliver a timely and targeted call to action to your audience. The system collects the offer responses and makes the data available in the Campaign contact and response history for use in Campaign performance reports.

You can add offers to email messages in several ways and you can include multiple offers in each message. Because you can conditionalize assets that contain offers, you can present different offers to different individuals in the same email campaign. You can also use the same offer in different email campaigns.

Offers are not supported in messages that also contain a Forward to a Friend link.

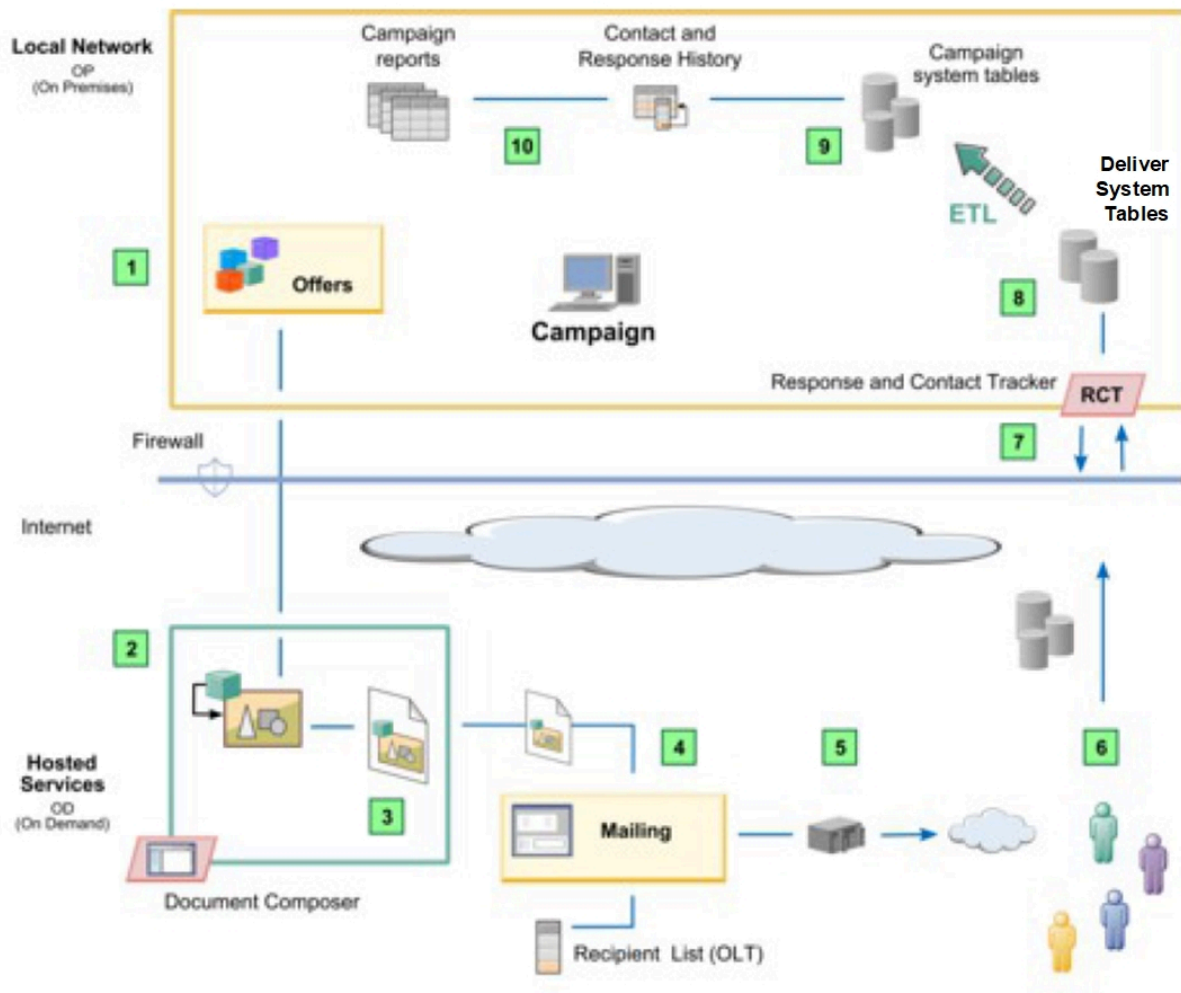
Deliver tracks offer responses by tracking link clicks for the links that are associated with each offer. The response data is stored in the Deliver system tables that are part of the Campaign database schema. You can analyze offer responses in Campaign performance reports that are based on data that Campaign transfers from the Deliver system tables.

## Overview of offers in personalized email

You create offers in Unica Campaign, based on an offer template that defines default offer attributes. In the Deliver Message Editor or Quick Builder, you can associate an offer with an asset, either an image or snippet, that contains a URL. When you add the asset to an email communication that is sent in a mailing, Deliver tracks recipient responses and returns the data to Campaign.

The following diagram illustrates the overall workflow and systems that are involved in sending email offers in Deliver.





## Offer Overview

	Action	Description
1	Create offers in Campaign.	Use standard Campaign procedures to create the offer attributes, offer templates, and offers. Offers that you add to personalized email are no different from offers that you create for other channels.
2	In the Deliver Message Editor, associate the	In a browser, you can log in to your HCL Unica installation and search for offers created in Campaign. The

	<b>Action</b>	<b>Description</b>
	offer with an asset in the Content Library	search finds offers for which you have at least Read access.
3	Add the asset with the associated offer to an email communication.	An asset can be associated with only one offer at time, but an offer can be associated with more than one asset.
4	Reference the email communication to a mailing.	You can send offers with standard, scheduled, or transactional mailings. You can also include offers as part of an A/B test.  You cannot add offers to a communication that also contains a Forward to Friend link.
5	Send the mailing.	Start or schedule a mailing run, or enable the mailing for transactional email. Offers and offer parameters are evaluated during the mail merge. Deliver generates unique treatment codes for offer tracking.
6	Mailing recipients open the email and click the offer links.	The responses are directed to the hosted email environment. Unica stores the email and offer response data until it is requested by Campaign.
7	In the Campaign installation, the Response and Contact Tracker (RCT) requests the latest response data.	By default, the RCT requests response data every 5 minutes. For more information on how the RCT communicates securely to retrieve response data, see the Unica Deliver Startup and Administration Guide.
8	Response data, including offer responses, are stored in the Deliver system tables.	The Deliver tables are part of the Campaign schema. In addition to offer data, they contain data for email transmission, delivery, opens, and link tracking. For more information, see the Unica Deliver System Tables and Data Dictionary.

	<b>Action</b>	<b>Description</b>
9	Campaign runs an ETL operation to move offer data from the Deliver tables to the Campaign system tables.	The ETL process runs automatically. In the Campaign configuration settings, you can configure how frequently the process runs. After the ETL process completes, the new email offer responses are available in the Campaign contact and response history.
10	Run Campaign performance reports to display the offer results.	Use standard procedures for running Campaign reports to analyze the offer responses. Offer responses appear in the Campaign Detailed Offer Response Breakout Report.

## Key tasks for adding offers to personalized email

To create, deliver, track, and analyze offers that are presented to individuals in personalized email you must complete various tasks in Deliver and Campaign.

The general workflow proceeds as follows.

### Offer integration workflow

	<b>Workflow</b>	<b>Related tasks</b>
1.	Configure offer integration with personalized email.	<a href="#">Planning for integrating Campaign offers with personalized email (on page 496)</a>
2.	Create an offer in Campaign.	<a href="#">Create offers in Campaign (on page 497)</a>
3.	Associate the offer with an asset in the Content Library.	<a href="#">Associating an offer with an asset (on page 498)</a> <a href="#">Finding offers to add to an asset (on page 499)</a>
4.	Add the offer to a communication.	<a href="#">Adding offers to communications (on page 501)</a>
5.	Add the communication with the offer to a mailing.	<a href="#">Adding the communication with offers to a mailing (on page 502)</a>

	<b>Workflow</b>	<b>Related tasks</b>
6.	Send the mailing.	<a href="#">Sending a mailing that contains offers (on page 502)</a>
7.	Analyze recipient responses to the offer.	<a href="#">Analyzing offer responses (on page 503)</a>

## Planning for integrating Campaign offers with personalized email

Before you integrate Campaign offers with personalized email, you must prepare Campaign to process the offer responses that arrive from the email channel.

Campaign uses its own process to extract, transform, and load (ETL) offer response data from the Deliver tracking tables into the Campaign contact and response history tables. You must update Campaign configuration properties to control how often Campaign transfers data from the Deliver system tables.

To support offer integration with personalized email, you can modify Campaign system tables and performance reports. You can also modify response type mapping to handle offer responses.

Configuring offers in Campaign and adding them in Deliver might include different members of your organization. Ensure that separate teams and individuals communicate and understand how their actions can affect the work of others. For example, offer administrators responsible for changing or replacing offers must know whether the offers are included in mailings that run repeatedly according to a schedule.

For more information about the Campaign configuration requirements for integrating offers with personalized email, see the Unica Campaign Administrator's Guide.

### Considerations in Campaign for email offers

When you integrate Campaign offers with personalized email, you can create offer attributes, offer templates, and offers as you normally would, with only a few exceptions.

Offer lists are not supported because only one offer can be associated with a digital asset.

You cannot use Derived Fields in Deliver offer attributes because you cannot populate Derived Fields in Deliver. However, you can use Derived Fields on an offer if you also target that offer over another channel.

You can populate parameterized offer attributes with a constant value. However, you cannot use Derived Fields for the email channel and you cannot change values per recipient.

You must consider the email channel when you delete or retire an offer. Always confirm whether the offer is associated with an asset in Deliver before you delete or retire an offer.

For more information about creating and managing offers, see the Unica Campaign User's Guide.

## Create offers in Campaign

Before you can include an offer in a personalized email, you must create the offer in Unica Campaign. The offer is based on an offer template that defines parameterized attributes.

Before you begin to create the personalized email communications and mailings, confirm that offer administrators created the offer templates and attributes that you require. Ensure that administrators do not retire or delete existing offers before you send a mailing that includes the offers.

Confirm that offers do not expire before you can use them in a mailing.

You can search the list of all offers that are available to you, according to your user permissions. To ensure that you can find the offers that you need, coordinate with offer administrators to specify the offer name, description, or offer code. You can also find offers if you know the owner of the offer.

For more information about creating and managing offers in Campaign, see the Unica Campaign User's Guide.

## Considerations in Deliver for email offers

When you integrate Campaign offers with personalized email, you can create assets and mailings as you normally would, with only a few more considerations.

Deliver does not prevent you from sending a mailing that contains retired or deleted offers. It displays errors to identify offers that are deleted, retired, or not active.

You can associate only one offer per asset.

Multiple assets can use the same offer. If you retire or delete an offer, or change offer attributes, the changes affect all communications that contain assets that reference the deleted or modified offer.

## Associating an offer with an asset

You associate an offer with an asset by adding the offer to the asset in the Deliver Message Editor. You can add only one offer at a time to an asset.

In the Message Editor, you can search for available offers in Campaign when you edit an asset. Your user permissions determine which offers you can find and add to an asset.

When you add an offer to an asset, you can modify the default offer attributes.



**Note:** You cannot add an offer to an asset that is marked as a template.

Complete the following steps to associate an offer with an asset.

1. In the Content Library, open an asset for editing.
2. In the asset editor, click **Select offer**.
3. In the **Select Offer** window, enter a search term to find the offer that you want to add to the asset.
4. In the search results, select an offer and click **OK**.

The asset editor displays the **Offer Parameterized Attributes** table. You cannot edit the offer attributes, but you can edit the attribute values.

5. Save your changes.

In the Content Library hierarchy, the icon that is associated with the asset changes

from  to .

For more information about configuring offer attributes, see topics in the *Unica Campaign User's Guide* that describe how to create and manage offers.

## Finding offers to add to an asset

To add an offer to an asset in Deliver, you must search for offers that are available in Campaign. You can search for offers when you edit an asset in the Message Editor.

When you search for an offer in Campaign from an asset editor in the Message Editor, you access Campaign as an HCL Unica user. The user permissions that are associated with the user determine which offers you can find.

A search for offers returns a maximum of 50 offers. The search does not include results for offers that are retired.

You can search for offers that are based on the following offer characteristics.

- Name of the offer
- Offer description
- Owner of the offer (You can enter a comma-delimited list.)
- Offer Code

A partial match returns a result for all characteristics except Offer Code. You must enter the entire Offer Code as a search term.

## Finding offers in Campaign that are linked with assets in Deliver

In Campaign, you can find offers that are linked to digital assets in Deliver. A link on the offer Summary page provides access to the assets associated with the offer.

For example, before you retire or delete an offer, you can see which assets might be affected by the change.

1. Click **Campaign > Offers** to display a list of available offers.
2. In the list of offers, click the name of an offer.

The offer Summary page opens.

3. Click **Link to Unica Deliver Digital Asset** at the top of the **Summary** page. The link is at the far right of the page.

The Deliver Message Editor opens and displays the Offer References tab. If the offer is associated with assets in Deliver, the list of assets displays in the Offer References tab.

You can double-click an asset in the list to edit the asset. The asset editor contains a link that you can use to determine which communications use the asset.

## Finding assets in the Content Library that are associated with offers

In Deliver, the Message Editor displays different icons in the Content Library to distinguish assets that are associated with offers. If you open the asset for editing, you can identify communications that contain the asset and its associated offer.


The Content Library displays the following icons to identify assets that are associated with offers.



Asset with static content and an associated offer



Asset with content variations and an associated offer.

To view the associated offer, edit the asset. In the asset editor, click  **Find communications that use this content** to view a list of communications that contain the asset and its associated offer.

## Asset content type and offers

Assets in Deliver can contain static content or dynamic content. When you add an offer to an asset, the offer is associated with the asset, not the content the asset contains.

Assets that contain static content display a single image or HTML snippet.

Assets that contain dynamic content can display different images or snippets, which are based on the value of a personalization field that is called the variation field. If you add an offer to an asset that contains dynamic content, the offer is associated with every variation of the asset. You cannot add different offers to each content variation.



## Removing an offer from an asset

If you no longer want to associate an offer with an asset, you can remove the offer.

1. In the Content Library, open the asset for editing.
2. Click **Remove Offer**.

In the Content Library hierarchy, the icon that is associated with the asset changes

from  or  to .

## Adding offers to communications

To add an offer to a communication, you add an asset and its associated offer to the communication in the Message Editor. To be able to track the offer responses, you must associate the asset with a hyperlink. The system tracks offer responses by tracking link clicks for the hyperlink that you add to the asset with the offer.

You can add an offer to a communication in the following ways.

- Use the hyperlink widget to add the asset.
  1. Add a hyperlink widget to a zone.
  2. Click **Content** and select an asset that contains an offer from the Content Library.
  3. On the Link tab, enter a target URL or select a landing page.

The content and link display as a link in the email.

- Add an HTML snippet with an associated asset. The snippet must contain a hyperlink that the recipient can click to accept the offer.
  1. From the Content Library, add or drop the snippet into a zone.
  2. Alternately, add the snippet by reference in the template.

To create conditional offers, add multiple assets in a single zone and define personalization rules in the zone. Follow the same procedures for creating conditional assets that are not associated with offers.

## Adding the communication with offers to a mailing

You send offers to your target audience by referencing a communication that contains the offers to an Deliver mailing. You reference a communication when you configure a mailing on a mailing tab in Campaign.

You can reference the communication to a standard mailing, to mailings that you schedule, and to mailings that you enable for transactional email. You can also reference a communication that contains offers to a mailing that you send as an A/B test.

You must also reference an Output List Table (OLT) that provides recipient data that the system uses to address the email and personalize the message. The OLT contains data that the system uses to identify offers and offer recipients.

When you start the mailing, the system assembles each message according to the design of the communication and the recipient data in the OLT. Each recipient that is listed in the OLT receives a personalized email that includes the offers that you added to the communication in the Message Editor.

## Sending a mailing that contains offers

You send mailings that contain offers by using the same procedures that are used to send mailings that do not contain offers. However, if the communication that the mailing references contains offers, the system validates the status of the offers before the mailing starts.

You can avoid mailing errors by reviewing the status of offers that are included in a mailing before you begin the mailing run. Ensure that all offers are valid and are not retired or deleted.

The mailing tab displays an error message if offers associated with the mailing are in any of the following states.

- Not yet active
- Expired
- Retired
- Deleted

The system displays the offer code for expired, retired, or not yet active offers. For deleted offers, the system displays the offer ID for each deleted offer.

You can choose to correct the problems that are related to the offers. However, you can continue to send the mailing. The system does not prevent you from sending the mailing if errors are reported for offers.

## Analyzing offer responses

When you configure and send a mailing that contains offers, DeliverDeliver records information to identify each offer and each offer recipient. When individuals respond to the offer, Deliver records information to identify each response. The offer data is stored in the Deliver system tables until it is retrieved by Campaign for use in Campaign performance reports.

Each offer appears to email recipients as a link in an email message. When the recipient clicks the link, Deliver tracks the link click and stores the responses until the Response and Contact Tracker (RCT) requests the data. Deliver tracks each offer that you send as part of a mailing and tracks the individual responses.

The RCT is installed with Campaign. It retrieves the offer responses and stores them in the Deliver system tables. The Deliver system tables are part of the Campaign database schema. Campaign periodically transfers the offer response data from the Deliver system tables to the Campaign contact and response history tables for use in the Campaign Detailed Offer Response Breakout Report.

For more information about offer response data in reports and how to analyze offer responses, see the [Campaign User's Guide](#).

## Email offer data in Deliver system tables

Several Deliver system tables contain data to identify offers and track offer responses. The Campaign ETL process moves offer data from the Deliver system tables to Deliver contact and response history tables.

The following Deliver system tables contain offer-related data.

- UACE\_OfferHistStg
- UACE\_OfferHistAttrStg
- UACE\_TreatmentStg
- UACE\_TreatmentSetStg
- UACE\_TreatSetItemStg
- UCC\_ContainerURL
- UCC\_Envelope

For more information about the system tables and the data they contain, refer to the Unica Deliver System Tables and Data Dictionary.

## Email offer data in Campaign reports

The Campaign Detailed Offer Response Breakout report provides campaign performance data for offer response types. It lists all offers that are associated with a campaign and indicates the number of responses for each response type across all channels.

If Deliver offer integration is configured, this report includes information about the Deliver Link Click response type.

## Treatment codes for email offers

Offer treatment codes identify a specific offer that was presented to a specific group of recipients at a specific time. Deliver generates each unique offer treatment code when you start a production mailing run.

The treatment codes are included in the offer-related data that Deliver provides to Campaign contact and response history. Deliver treatment codes use the prefix `deliver-`, followed by a series of hexadecimal characters. You cannot override the treatment code.

# Chapter 19. Analyzing your mailing results

Unica provides various reports that you can run to analyze mailing performance, delivery, email reputation, and recipient response. Running these reports can help you measure the return on your email marketing investment and to continually improve the effectiveness of the mailings that you conduct with Deliver.

Deliver performance reports require the Deliver reports pack. For more information about installing and configuring this report pack, see the [Reports Installation and Configuration Guide](#).

You can request that Unica change settings for your hosted email account to provide additional contact and tracking information. These additional features are available only upon request.



**Note:** To find details on implementing Send Time Analytics in Unica Campaign, see the [Unica Open Insights User Guide](#).

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Related information

[Deliver reports \(on page 505\)](#)

[About enabling additional tracking features \(on page 554\)](#)

## Deliver reports

Deliver provides various reports to help you analyze your mailings from several perspectives, including mailing performance, mailing execution history, message deliverability, and how recipients view your marketing messages.

Unica continually receives message responses and makes the response data available for download to your local environment. The Response and Contact Tracker (RCT) periodically downloads the response data and stores the data in the Deliver system tables. Stored database procedures process the responses according to a configurable schedule for

improved report performance. After the stored procedures finish processing the data, you can view updated response metrics in various reports.

Deliver provides the following reports for evaluating mailing results and responses.

- Deliver Reports Processing Overview
- Message Overview Report
- Detailed Bounce Report
- Detailed Link Report
- Detailed Link by Cell Report
- SMS Message Summary Report
- A/B Testing Performance Report
- WhatsApp Message Summary Report
- Mobile Push Message Summary Report
- Mailing Execution History Report

## Report to monitor incoming response data

Unica Deliver processes incoming email contact and response data to prepare information that is required by various Deliver reports. Processing the new information as it arrives is a required step that improves reports performance. You can run the Deliver Reports Processing Overview to monitor the processing of the latest reporting data.

The system is configured to process incoming data in batches through scheduled database procedures. Typically, the procedures run every day, but the frequency is configurable. The new data is available for reporting after the process completes. The time that is required to complete the process depends on the amount of new contact and response data that you receive.

Run the Deliver Reports Processing Overview to monitor the reports data processing and to determine whether the data is available for use in Deliver reports. Each batch is identified by a unique run identifier. The report also lists the number of records that are being processed, current processing status, and when the processing completed.

For more information about configuring the reports data processing, see the Cognos Reports Installation and Configuration Guide and Unica Insights Reports Installation and Configuration Guide.

## Analyzing overall mailing results

Examining overall mailing results allows you to see quickly how many of the target recipients received your email marketing message, who viewed the information it contained, and which recipients responded by clicking a link in the email.

The [Message Overview Report \(on page 524\)](#) allows you to analyze the overall effectiveness of your email marketing campaign by providing summary results for the following mailing performance characteristics:

- Message delivery
- Messages viewed
- Links clicked by message recipients

Providing these results in a single report allows you to compare results between different mailings, and to compare results for the same mailing when run at different times or dates. Because the Message Overview report contains results for all mailings associated with a campaign, you can interpret these results as representing mailing performance at the campaign level.

## Analyzing mailing execution

Deliver provides the Mailing Execution History report so that you can analyze the performance of your mailing runs. This report allows you to answer various questions about how you are sending your mailings, including the following.

- Who is running mailings?
- When are mailings running?
- How long does it take to complete the various mailings?
- Which recipient lists are you using?

- Which documents are you using to create your email messages?
- How many customers and prospects are you reaching?

Because the Mailing Execution History report provides results for all mailings associated with a specific campaign, you can easily compare results between different mailing runs. For more information about this report, see [Mailing Execution History report \(on page 551\)](#).

## Analyzing mailing delivery

Deliver provides various reports for message delivery and messages viewed so that you can determine how many messages reached the target recipient and how many recipients opened the email to view the information that you sent.

Review the following reports to analyze message delivery.

- Summary delivery information is available in the [Message Overview Report \(on page 524\)](#) report.
- The [Detailed Bounce report \(on page 528\)](#) report provides a breakdown of delivery failures by category.
- 
- Totals for messages received also appear in the [Detailed Link Report \(on page 531\)](#) and [Detailed Link by Cell Report \(on page 540\)](#) reports.

## About tracking bounced messages

Bounced messages are messages that were transmitted successfully but were returned due to problems with the mailing infrastructure, the destination mailbox, or with how the message is characterized by email filters used by Internet Service Providers (ISP).

Deliver tracks email messages that cannot be delivered to the address configured for the message. Deliver uses response messages attached to returned email to identify why the email message is being rejected. Summary return statistics are available for each mailing in the [Detailed Bounce report \(on page 528\)](#). Analyzing this information can help you to find ways to improve your message delivery rate.



## About tracking message transmission problems

To determine how many messages were not delivered due to problems during mailing execution, compare the total number of undelivered messages to the number of bounced messages. The difference is the number of messages that failed during mailing execution. For example, a message could fail during execution because it was rejected by the SMTP transmission server or conditional text criteria could not be met.

See the [Mailing Execution History report \(on page 551\)](#) report for more information about message failure during execution.

For more details about bounced messages, Deliver provides the [Detailed Bounce report \(on page 528\)](#).

## About tracking mailing delivery

The Message Overview Report contains the following data:

- Delivery destination: The percentage of messages sent to Inbox, Spam, or Lost folders.
- Duration: The time taken to get the messages delivered.
- Spam filter scores: The ratings of Spam as Good, Warning, or Bad.

## Analyzing email responses

Deliver allows you to analyze how recipients respond to your message by detecting and tracking the links that they click in your message.

Deliver provides two reports for examining recipient link click behavior. Depending on the report you select, you can view link click data at the mailing level or at the cell level, as follows:

- The Detailed Link Report provides link click data at the mailing level
- The Detailed Link by Cell Report provides link click data for each cell used by a mailing

Link clicks that are associated with social network sharing are specifically identified in the link tracking reports.

Both reports are available through links in the Message Overview Report.

## About tracking viewed messages

Deliver can track message views under the following conditions.

- The email message is delivered and opened in HTML format.
- Message recipients enable image display for incoming email.
- You configured link tracking for the mailing.

Deliver detects message opens based on an image-related tracking URL, also known as a beacon, that it adds to HTML email messages during mailing execution. Message view data is not available when image display is disabled on the email client used to view the message.

View data is captured only if the logging and tracking level for your mailing is set to **Message level events only** or **Message and Link level events**.

## Attributes for link tracking

Deliver records several attributes for link tracking reports.

Deliver captures the following information for link tracking reporting.

- The name of the campaign that contains the mailing
- Recipient that the message was sent to
- Cell or cells of which the recipient was a member at mailing execution time
- Mailing (or mailing instance) in which the message was sent
- Link in the message that was clicked
- Time at which the click (and redirect) was processed

## About attributes used for tracking message views

Deliver provides data for viewed messages in the Message Overview Report. For each mailing in the report, and for each cell in the mailing, the report results include message view data for the following.

- The number of times all recipients have viewed the message
- Total number of recipients that have viewed the message
- Message view rate

The message view rate is calculated by comparing the number of recipients that have viewed the message at least once to the total number of recipients that received email as part of the mailing.

## Analyzing message opens

You can see detailed data describing how many recipients viewed the email in the following reports.

- Message Overview report
- Detailed Link report
- Detailed Link by Cell report

## About modifying reports

You cannot modify the Mailing Execution History report. This report is provided and maintained through HCL Unica.

### **About modifying Performance reports**

Performance reports in Deliver are based on IBM® Cognos® BI, and using them requires that you have installed IBM® Cognos® BI in your local environment.

Although it is possible to use IBM® Cognos® BI to modify the standard Deliver performance reports, to preserve their expected behavior, Unica recommends that you exercise caution if you attempt to customize them. Unlike reports based on IBM® Cognos® BI in Campaign, the performance reports in Deliver are not considered sample reports.

If you intend to modify the standard performance reports, you should be thoroughly familiar with concepts and procedures for creating reports using IBM® Cognos® BI and with the data sources that you intend to use. For information about modifying reports using IBM® Cognos® BI, consult documentation from IBM® Cognos®.

## About accessing Deliver reports

You can access standard Deliver reports in the following ways.

- Select from the list of Deliver reports on the Deliver Analytics page
- Access specific Deliver reports from links in other Deliver reports and Deliver mailings

How you access a report determines how Deliver presents the list of mailings on which you can run the report. You might be able to select from a list of mailings for all campaigns, all mailings within an individual campaign, or a specific mailing instance.

Reports in Deliver are dynamic. When you display a report, Deliver queries the appropriate data source for current data. Depending on the type of report, it might appear differently if you view it at different times. Some reports allow you to save instances of a report in various formats.

For each mailing, Deliver provides the list of specific mailing runs for the mailing, which are also referred to as mailing instances. Depending on the report, you run the report against a campaign, mailing, or a specific mailing instance. Some summary reports in Deliver include links to more detailed reports, so that you can focus on a smaller set of data when analyzing results for a specific mailing.

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### Related information

[Accessing reports from links in mailings and other reports \(on page 514\)](#)

[Accessing reports from the Deliver Analytics page \(on page 512\)](#)

## Accessing reports from the Deliver Analytics page

Accessing Deliver reports from the Deliver Analytics page provides a list of all mailings in all campaigns across your Campaign installation. From this list, you can select a campaign, mailing, and mailing instance for which you want to run a report. Accessing reports from the Deliver Analytics page makes it possible to quickly compare results across multiple campaigns.

When you select a report on the Deliver Analytics page, the HCL Unica interface displays your selection options in the Reports Parameters window. Depending on the report and how you access it, the Report Parameters window presents the list of campaigns, mailings, and mailing instances against which you can run the report. You can choose to view the list in Tree View to see a hierarchical list, or you can choose List View to view a simple list. In List View, you can select multiple targets.

You can access the following reports from the Deliver Analytics tab.

- Several Performance Reports, provided by integrating with IBM Cognos® BI.
- The Mailing Execution History report that describes the date, time, size, contents, and transmission details for each mailing.
- 
- 

## Deliver Analytics screen reference

Field	Description
<b>Performance</b>	Link to the following reports. <ul style="list-style-type: none"> <li>• Message Overview report</li> <li>• Detailed Link report</li> <li>• Detailed Link by Cell report</li> <li>• Detailed Bounce report</li> </ul>
<b>Execution</b>	Link to the Mailing Execution History report.

## Accessing performance reports from Deliver Analytics

You can access performance reports from the Deliver Analytics page. To run a report, you must specify a campaign in Unica Campaign and select one or more mailing instances that are associated with the campaign.

1. From the **Analytics** menu, select **Deliver Analytics** to open Deliver Analytics.

2. In the **Performance** section, click **Mailing Performance Reports** and click the name of the report that you want to run.
3. In the **Report Parameters** window, select a campaign and click **Generate the Report**.
4. Select one or more mailing instances. Click **Finish**.

If response data is available in the Deliver system tables for the selected mailing instances, the report displays the available data.

## Analysis tab

In Unica Campaign, each campaign contains the Analysis tab to access information about campaigns, offers, cells, or segments. When you enable Deliver in Campaign, the Analysis tab provides access to Deliver performance reports.

When you access performance reports through the Analysis tab in a particular campaign, performance reports return results only for objects and messaging instances that are created within that campaign.

## Accessing performance reports from the Analysis tab

In Unica Campaign you can access performance reports from the Analysis tab in a campaign. You can view results only for mailings that are configured in the campaign.

1. In a campaign, click the **Analysis** tab.
2. In the **Report Type** field, select the report that you want to run from the list of reports.
3. Select one or more mailing instances. The list includes only the mailing instances that are available in the campaign. Click **Finish**.

If response data is available in the Deliver system tables for the selected mailing instances, the report displays the available data.

## Accessing reports from links in mailings and other reports

You can access some Deliver reports from links in Deliver mailings and other Deliver reports. Accessing a report from a link frequently presents the report differently than if you accessed the report from the Deliver Analytics page.

For example, when you select the Detailed Link report from the Deliver Analytics page, you can see results for multiple mailing instances. However, the Message Overview report also contains a links to the Detailed Link report. When you access the Detailed Link report from the Message Overview report, the Detailed Link report presents results only for mailing instance that you selected in the overview report.

## About viewing Performance Reports

You view Deliver performance reports in the HCL Unica interface. When it displays a performance report, HCL Unica provides various report controls and a reports toolbar to allow you to select viewing options.

You can view Deliver performance reports in various formats.

### Report controls

When you generate a report for viewing, controls for viewing report generation times and for moving through the report are available.

When you generate a report for viewing, the report displays the following controls and information:

- **Report generation time** - displayed at the bottom right of the report page.
- **Report generation date** - displayed at the bottom left of the report page.
- **Top/Bottom control** - click these links to display the top or bottom of the report. Only displayed if the current report spans more than one page.
- **Page up/Page down control** - click these links to display the previous or next page of the report. Only displayed if the current report spans more than one page.

### The Reports toolbar

When a Cognos®-based report is generated, you see the Reports toolbar.





**Note:** The Reports toolbar is displayed only for reports generated by Cognos®. It is not available for the calendar or segment reports, or for the cell reports within flowcharts.

When a report is generated, you can perform the following tasks from the Reports toolbar:

- **Keep this version:** Send the report by email
- **Drill Down/Drill Up:** Used for reports that support dimensional drilling.
- **Related links:** Used for reports that support dimensional drilling.
- **View format:** The default viewing format for reports is HTML. You can choose other viewing formats from the drop-down list. The viewing format icon changes depending on the currently selected view option.

## Changing the display format of a Campaign report

HTML is the default view for Campaign reports. You can change the display to PDF, Excel, CSV (comma-separated values), or XML format.



**Note:** Not all reports can be viewed in all formats. For example, reports that use multiple queries cannot be viewed in CSV or XML.

1. Access the report in one of the following ways:
  - Choose **Analytics > Campaign Analytics**.
  - Open the **Analysis** tab for the campaign, offer, or other object.
  - Click the Reports icon while you are editing a flowchart.
2. Click the **View format** icon on the Reports toolbar and select one of the following options:
  - **View in HTML Format:** After the page refreshes, you can use the Report controls to navigate through the report, if it spans more than one page.
  - **View in PDF Format:** You can save or print the report by using the PDF reader controls.



- **View in Excel Options:** You can view the report as a single page in Excel format. To view the report without saving it, click **Open**. To save the report, click **Save** and follow the prompts.
- **View in CSV Format:** To view the report as a comma-separated values file, choose **View in CSV Format** from the **View in Excel Options**. To view the report without saving it, click **Open**. The report displays as a single page in a spreadsheet format. To save the report, click **Save**, then enter a name when prompted. By default, the file is saved as an .xls file.
- **View in XML Format:** The report is displayed as XML in the same window.

## Viewing a report in HTML format

HTML is the default view for reports.

If you are viewing a report in another format, you can switch back to HTML by clicking the **View format** icon on the Reports toolbar and selecting **View in HTML Format** from the drop-down list. After the page refreshes, you can use the Report controls to navigate through the report, if it spans more than one page.

## Viewing a report in PDF format

You can view a report as a PDF by changing the viewing format after you generate the report.

After generating a report, click the **View format** icon on the Reports toolbar and select **View in PDF Format** from the drop-down list. The page refreshes, and the report displays in PDF format. You can save or print the report using the PDF reader controls.

## Viewing a report in Excel format

You can view the report as a spreadsheet by changing the viewing format after you generate the report.

After generating a report, click the **View format** icon on the Reports toolbar, then use **View in Excel Options**. When prompted, specify whether to open or save the file:

- To view the report without saving it, click **Open**. The report displays as a single page in Excel format.
- To save the report, click **Save** and follow the prompts.

## Viewing a report in CSV (comma-separated value) format

You can view the report as a comma-separated file by changing the viewing format after you generate the report.

After generating a report, click the **View format** icon on the Reports toolbar, click **View in Excel Options** and select **View in CSV Format** from the drop-down list. A new window opens. You see a window asking whether you want to open or save the file.

- To view the report without saving it, click **Open**. The report displays as a single page in a spreadsheet format.
- To save the report, click **Save**. The **Save As** window opens. Navigate to the location where you want to save the file, and enter a name in the **File name** field. (By default, the file is saved as an .xls file.) Click **Save**. When the file has finished saving, you see the **Download complete** window.

## Viewing a report in XML format

You can view a report as an XML file by changing the viewing format after you generate the report.

After generating a report, click the **View format** icon on the Reports toolbar and select **View in XML Format** from the drop-down list. The page refreshes and the report is displayed as XML in the same window.

## Deliver dashboard reports

Dashboards are configurable pages that contain information useful to groups of users who fill various roles within your company. The components that make up dashboards are called portlets. The Deliver reports pack contains two pre-defined dashboard portlets that you can configure for your installation.

You can configure the following portlets for the following components.

- Recent Email Bounce Responses
- Recent Email Campaigns Sent

The Deliver dashboard portlets serve as condensed reports of recent mailing activity. The portlets are based on definitions provided by IBM Cognos® reports created for Deliver.

The reports contain information related to the five most recent mailings, up to the previous day. The Deliver dashboard reports do not contain data related to mailings that you send during the current day. All times in the reports are provided relative to the system time for the server on which you have installed Campaign and Deliver.

For more information about installing and configuring dashboard reports, see information about creating and managing dashboards that is available in the Unica Platform Administrator's Guide.

### Recent Email Campaigns Sent

The Recent Email Campaigns Sent dashboard report provides a summary view of your most recent mailing activity. It lists totals for message transmission, recipient responses, and email bounces for the five most recent mailings that were sent before the current day.

The report contains the following information about recent mailings.

Column	Description
Campaign Name - Mailing Name	Name of the campaign and the mailing name.
Mailing Start Time	The date and time the mailing run started.

<b>Column</b>	<b>Description</b>
Sent	The number of messages that were sent successfully during the mailing.
Bounced	The number of messages that were returned as undeliverable.
Received	The number of messages that were delivered successfully to the target recipient mailbox.
Unique eMail clicks	Sum of different recipients who clicked at least one link in the email that was sent with the mailing.

## Recent Email Bounce Responses

The Recent Email Bounces dashboard report presents data for various types of email bounces as a bar chart. The chart presents current bounce responses for the five most recent mailings that were sent before the current day.

The report contains the following bounce information.

<b>Bounce type</b>	<b>Description</b>
Mail Bounce	The system cannot deliver the email and cannot positively characterize the delivery failure as either a hard or soft bounce.
Hard Bounce	The system cannot deliver the email because of a permanent problem with the receiving mailbox. For example, the destination mailbox does not exist.
Soft Bounce	The system cannot deliver the email because of a temporary problem with the receiving mailbox. The message might reach the intended recipient if you send it again. For example, the recipient mailbox is full.
ISP Feedback	The system successfully delivered the email message, but the Internet Service Provider (ISP) sent notification that the recipient reported the message as unwanted email (spam).

<b>Bounce type</b>	<b>Description</b>
	This response is represented in the Detailed Bounce report as an abuse complaint.
Out of Office	The system cannot deliver the email because the recipient set an Out-of-Office reply for the destination mailbox. The message might reach the recipient if you send it later. For example, the message might be delivered after the recipient changes the mailbox status.
Technical Issue	The system cannot deliver the email because of a problem with the email infrastructure used to transmit and deliver the message to the recipient mailbox.
Challenge/Response	The system cannot deliver the email message because the ISP that received the email processed the message through a challenge/response SPAM filter. Challenge/response filters require human interaction to allow email delivery.
Other	Email messages were returned for reasons that are not categorized separately in the Recent Email Bounce Responses dashboard report or in the Detailed Bounce Report.
Unknown	The system cannot determine the reason why the email message was returned.
Invalid address	The system did not send the email message because the email address is not formatted correctly or is listed in the global email suppression list.

## Deliver Reports Processing Overview report

The Deliver Reports Processing Overview describes the status and previous results for batch processing contact and response data that is generated by email marketing campaigns. The system processes the latest contact and response data with scheduled

database stored procedures. The report identifies individual processing runs, number of records that were processed, and run completion time.

Run the Deliver Reports Processing Overview to determine whether the latest contact and response data is available for use by other Deliver reports.

The following table lists the processing results that are available in the report. The table contains the totals for each run.

### Contents of the Deliver Reports Processing Overview

Column	Description
From Date To Date	Select the reports data processing runs that you want to review. The report contains results for runs that were started between the <b>From Date</b> and <b>To Date</b> .
Run ID	The identifier that is assigned to the batch when the stored procedures run. The stored procedures must be configured to define a unique ID for each run.
Container Type	Identifies the type of contact and response data. Email contact and responses. SMS contact and responses (if SMS messaging is configured for your hosted messaging account.)
Status	The status of the reports data processing. The status listing indicates whether errors occur during the processing run.
Completed	Number of records that the system processed during the run.
Processing	The number of records to be processed.
Failed	The number of records that were not processed.
Elapsed Time	The time that is required to process the contact and response data.
Start Date	The time the stored procedures began the processing run.
Finish Date	The time the stored procedures completed the processing run.

**Note:**

Right-click commands for columns and cells are not supported in this report.

## Accessing the Deliver Reports Processing Overview report

The Deliver Reports Processing Overview is a Mailing Performance report. You can access the Message Overview report from Deliver Analytics page and from the Analysis tab of a campaign. The report describes the results and status of database processing of contact and response data that is used by Deliver reports.

This report requires the DeliverReports Pack. For more information about installing and configuring this report pack, see the *Cognos Reports Installation and Configuration Guide* and *Unica Insights Reports Installation and Configuration Guide*.

The database processes run on a scheduled basis, typically every day. The Deliver Reports Processing Overview can present results for multiple processing runs. When you open the report, it presents results for runs that were completed during the previous 7 days. You can run the report again to include results for a different time period or range of dates.

1. In the **Analytics** menu, select **Message Analytics**.

The Deliver Analytics window opens.

2. In the **Performance** section, click **Mailing Performance Reports**.

The Deliver Reports window opens and lists the available reports.

3. Click **Deliver Reports Processing Overview** to open the report.

The report opens and displays results for the previous seven days. Complete the remaining steps in this procedure to run the report again and view results for a different number of days or date ranges.

4. Specify a range of dates for which you want review results.

In **From Date**, enter the earliest date for which you want results. In **To Date**, enter the last day to include in the report.

5. Click **Run Report** to display the report.

Depending on the range of dates that you selected, the report might contain several pages of results. Page navigation controls are available at the bottom of the report.

## Message Overview Report

The Message Overview Report displays contact and response data for multiple Deliver mailings associated with a campaign. The report includes total counts for message delivery, messages viewed, and links clicked by message recipients. The report also contains totals for the report as a whole, presenting sums in each category for all the mailings listed in the report.

The report is organized by mailing instance. It presents results for each mailing and for each cell used in the mailing. Mailing instances appear in the report according to execution date and time.

### Contents of the Message Overview report

Column	Description
List	The number of target recipients.
Sent	The number of messages sent successfully.
Bounced	The number of sent messages returned as undeliverable. Provides a link to the Detailed Bounce report
Received	The number of messages successfully delivered to the target recipient's mailbox.
Total Views	The number of times all recipients have viewed this mailing's message.
Unique Views	Total number of recipients that have viewed this mailing's message



Column	Description
Unique View Rate	The percentage of messages viewed (the number of unique views divided by the number of messages received).
Total Clicks	<p>Total number of clicks across all links associated with this report, a mailing, or a cell.</p> <p>The value appears in the report as a link to the Detailed Link report for all of the mailings listed in this Message Overview report. Values for individual cells link to the Detailed Link by Cell report.</p> <ul style="list-style-type: none"> <li>• <b>Total Clicks</b> for the report - The sum of the total clicks for all of the mailings listed in the report.</li> <li>• <b>Total Clicks</b> for each mailing - Total number of clicks across all links associated with the mailing.</li> <li>• <b>Total Clicks</b> for each cell - Total number of clicks across all links associated with the cell.</li> </ul>
Unique Clicks per Email	The total number of recipients that have clicked at least one link associated with this mailing.
Unique Click Rate	The percentage of links clicked (The number of unique clicks divided by the number of messages received).

## About comparing counts for mailings and cells

The Message Overview report provides total counts for message delivery, views, and link clicks for the mailing instance and for each cell that you used to select mailing recipients. The sum of the counts for the individual cells may not be the same as the corresponding totals for the mailing instance. This can happen when mailing recipients belong to two cells. For example, in the recipient list for the mailing you can select a cell for all females and another cell for all people under age 50. A 30 year old female recipient appears in the

counts for both cells, but she appears only once in the totals for the mailing instance and receives only one email message.

Because Deliver usually sends one email per address, the total number of messages reported as sent for the mailing as a whole can appear to be less than the sum of the total messages sent for the two cells that you defined in the mailing.

## SMS Message Summary Report

This report describes SMS channel contact and responses data for a selected campaign and messaging instances. It shows delivered, pending, and failed response types in a list and bar chart.

### Contents of the SMS Message Summary Report

Statuses	Description
Delivered	The number of the messages successfully delivered.
Pending	The number of messages pending to be delivered.
Failed	The number of messages not delivered.
Rejected	The number of messages rejected by the service provider.
Responses	The number of users who clicked the links sent through SMS or replied to SMS message.

## WhatsApp Message Summary Report

This report provides a summary of the overall effectiveness of your WhatsApp marketing campaign.

## Contents of the WhatsApp Message Summary Report

<b>Statuses</b>	<b>Description</b>
Message instance	A string including a message container name and the date/time of the sent message.
Recipients	The number of recipients to whom the messages are sent.
Open/Read	The number of messages opened or read.
Delivered	The number of the messages successfully delivered.
Pending	The number of messages pending to be delivered.
Failed	The number of messages not delivered.
Responses	The number of users who clicked the links sent through WhatsApp or replied to WhatsApp message.

## Mobile Push Message Summary Report

This report provides a summary of the overall effectiveness of your Push marketing campaign.

## Contents of the Push Message Summary Report

<b>Statuses</b>	<b>Description</b>
Message instance	A string including a message container name and the date/time of the sent message.

Statuses	Description
Recipients	The number of recipients to whom the messages are sent.
Dismissed	The number of messages not read by the user.
Open/Read	The number of messages opened or read.
Delivered	The number of the messages successfully delivered.
Pending	The number of messages pending to be delivered.
Failed	The number of messages not delivered.
Responses	The number of users who clicked the links sent through Push or replied to Push message.

## Detailed Bounce report

For each Deliver mailing, the Detailed Bounce Report provides counts of email messages that were transmitted successfully but could not be delivered to the intended recipients. The report organizes these totals into several categories, based on the reason the messages were returned. These reasons include:

- The message was returned by the email server as undeliverable (also referred to as a *bounced* email message)
- The recipient set an out-of-office message for the mailbox
- The recipient, or the recipient's Internet Service Provider (ISP), reported the message as unwanted email
- A technical issue with the mail delivery infrastructure

The report also provides a count of returned messages for which Deliver cannot determine why the message was not delivered.

## Contents of the Detailed Bounce report

The Detailed Bounce Report presents statistics for returned email as total counts in various categories for each mailing instance.

The report presents bounce responses in two charts that illustrate the relative number of various types of email bounces received for the selected mailing instances.

The report also contains a table that lists specific results for each bounce type and each mailing instance.

Column	Description
List	The number of intended recipients. This number equals the number of recipients in the recipient list that is referenced by the mailing
Sent	The number of messages that were sent during mailing execution. If this number is less than the total in the List category, the difference is the number of messages that experienced some form of transmission failure and were never sent. For example, the system does not send email with an invalid address.
Invalid Addresses	The system did not send the email message because the email address is not formatted correctly or is listed on the global email suppression list.
Mail Bounce	Email replies that Deliver can identify as a bounce reply, but cannot positively characterize as either a hard or soft bounce.

<b>Column</b>	<b>Description</b>
Hard Bounce	Email replies that Deliver can identify as representing a permanent problem with the receiving mailbox. For example, the destination mailbox does not exist.
Soft Bounce	Email messages that cannot be delivered now because of a temporary problem with the receiving mailbox. The message might reach the intended recipient if you send it again. For example, the recipient mailbox is full.
Abuse Complaints	Messages that are returned by the Internet Service Provider (ISP) because the recipient reported the message as unwanted email (spam).
Out of Office	The intended recipient set an Out of Office reply for the destination mailbox. The message might reach the recipient if you send it later. For example, the message might be delivered successfully after the recipient changes the mailbox status.
Technical Issue	The email message encountered a problem with the infrastructure used to transmit and deliver the message. For example, a network interruption or the receiving email servers were not operating. This type of issue is not related to problems with the receiving mailbox, which would be reported as a bounced message.
Challenge/Response	Email messages that encounter a challenge/response spam filter. During email delivery, challenge/response filters require human interaction to allow email delivery.
Other	Email messages that were returned because of reasons that are not categorized separately in the Detailed Bounce Report.

Column	Description
Unknown	Deliver is unable to determine the reason why the message was returned.

## Detailed Link Report

The Detailed Link Report provides link response data for Deliver mailings that are associated with a specific campaign. The report provides detailed link click-through data for links in email messages, and for hosted landing pages that are linked to the email.

Because email and landing page response data are contained in a single report, you can perform a comprehensive analysis of how email recipients interact with your marketing email messages. For example, if your email message includes links to different hosted product pages, you can use the Detailed Link Report to compare interest in the respective products.

Deliver maintains a record of each mailing that is run as a mailing instance. The Detailed Link Report is based on message and link response data for mailing instances that you select when you run the report.

The report identifies link clicks related to social networks. The report identifies when the email recipient clicks a social sharing link in the email to share a link to the message on social networks. The report also identifies when other individuals click the link that was shared and the specific social network where the click originated. Analyzing link clicks generated through social sharing links can help measure the visibility of your marketing message on various social networks.

The Detailed Link Report displays data only for email and landing page links that are clicked. The report does not display data for email and landing page links until a recipient clicks the link. However, running the Detailed Link Report later can provide more link response information because email recipients can continue to open email messages, click links, and visit landing pages over time.

## Contents of the Detailed Link report

The Detailed Link Report presents counts for email messages received, messages viewed, and click-throughs. For landing pages that are linked to the email, the report provides link click-through data. Response data for links in email and landing pages appear separately.

The contents of the Detail Link Report appear on multiple levels in a linked hierarchy. As you drill down through the report, each level of the report provides a narrower focus, ultimately showing results for a specific link by mailing instance.

The Detailed Link Report presents email and landing page link response data on the following levels. Report levels are also called dimensions.

1. **Mailing and Landing Pages**
2. **Link Names**
3. **Mailing Instances**

Right-click on a mailing name or landing page name to drill down or drill up through the report.

You can also navigate up and down through the report using the reports toolbar in the upper right corner of the report window. Click in the left column of the report and use the drill up and drill down controls.

### **Mailings and Landing Pages**

The Mailings and Landing Pages level presents results about each mailing for which Unica has received a message or link response. The report lists mailings individually. For mailings with multiple instances, the Mailings level summarizes the values for all instances under each mailing.

For email, you can view counts for message receipt, views, and link clicks for one or more instances of various mailings within a single campaign.

For landing pages, you can view counts for page views and click-through results for links on landing pages referenced by email messages sent as part of the mailing instances selected for the report.



Click a mailing or landing page name to drill down to the Links level.

<b>Email Communication</b>	
Mailing Names - Mailings	Name of a mailing in the campaign. The entry in this column provides the link required to drill down to the Links level of the report.
Received	Sum of email messages sent and received, across all selected mailing instances. Messages that did not send successfully are not included in the count.
Unique Views	The number of different recipients who viewed this message, across all selected mailing instances.
Total Clicks	Sum of the clicks of all email links by all recipients, across all selected mailing instances.
Unique Clicks	Sum of different recipients who clicked at least one link in the email, across all selected mailing instances.
Unique Click Rate	<p><b>Unique Clicks</b> divided by messages <b>Received</b>.</p> <p>The result is multiplied by 100 to express the rate as a percentage.</p>
<b>Landing Page Communication</b>	
Landing Pages - Mailings	Name of landing pages that are linked to mailings included in the report. The entry in this column provides the link required to drill down to the Links level of the report.
Received	Information about total number received is not applicable to landing pages.
Unique Views	Number of different page visitors, across all selected mailing instances.

<b>Landing Page Communication</b>	
Total Clicks	Sum of the clicks for all landing page links by all email recipients, across all selected mailing instances.
Unique Clicks	The number of different email recipients who clicked at least one link in a landing page referenced by this mailing, across all selected mailing instances.
Unique Click Rate	<p><b>Unique Clicks</b> divided by <b>Unique Views</b>.</p> <p>The result is multiplied by 100 to express the rate as a percentage.</p>

## Links

On the Links level, you see response results for each link in the mailing you selected in the Mailing level. For links that appear in multiple mailing instances, the report presents the sum of the values across the instances.

For email, the report lists the display names of links contained in the email message. The link name appears only if at least one email recipient clicked the link.

For landing pages, the report lists names of links on the landing page that were clicked at least once by an email recipient.

The report specifically identifies links associated with sharing your marketing email on social networks. The report identifies clicks when email recipients share a link to the email. The report also identifies clicks on the link that was shared and the social network where the click originated. The report identifies the link clicks as follows.

- Clicks on the social share link in the email: **Social\_Traffic**

This number indicates on how many social networks the email recipient shared a link to the message.

- Clicks in the various social networks on the link that was shared : **<channel>\_Share**

The channel is the specific social network. The number of clicks represents the number of other individuals who viewed your message after the email recipient shared a link to the message.



**Note:** If the email that contains the social sharing links also contains a View As Web Page link, the link clicks on the View As Web Page link are reported instead of **Social\_traffic**. However, the report still reports results for clicks on the links shared on social networks as **<channel>\_Share**.

Click a link name to drill down to the Mailing Instances level.

<b>Email Communication</b>	
Link Names for <mailing name>	The display name of a link that is contained in the selected mailing. The entry in this column provides the link required to drill down to the Mailing Instances level of the report.
Received	Sum of links sent and received as part of the selected mailing, across all selected mailing instances. This total includes links in messages that did not send successfully.
Unique Views	The number of different email recipients who viewed the link (by opening the email), across all selected mailing instances.
Total Clicks	Sum of times the link was clicked by any recipient, across all selected mailing instances.
Unique Clicks	The number of different email recipients who clicked the link, across all selected mailing instances.
Unique Click Rate	<b>Unique Clicks</b> divided by links <b>Received</b> .

<b>Email Communication</b>	
	The result is multiplied by 100 to express the rate as a percentage.
<b>Landing Page Communication</b>	
Link Name for <landing page>	The display names of the links contained in landing pages that are linked to mailings included in the report. The entry in this column provides the link required to drill down to the Mailing Instances level of the report.
Received	Information about total number received is not applicable to landing pages.
Unique Views	The number of times a different email recipient viewed the link (by opening the page), across all selected mailing instances.
Total Clicks	Sum of times the link was clicked by any recipient, across all selected mailing instances.
Unique Clicks	The number of different email recipients who clicked the link, across all selected mailing instances.
Unique Click Rate	<b>Unique Clicks</b> divided by <b>Unique Views</b> .  The result is multiplied by 100 to express the rate as a percentage.

## Mailing Instances

On the Mailing Instances level, the report lists each mailing instance where Unica has received at least one response for the link that you selected on the Links level. Each mailing instance indicates the date and time of the mailing run.

For email, the list includes all mailing instances in which email recipients clicked the link you selected on the Links level.

For landing pages, the list includes the mailing instances in which email recipients visited the landing page and then clicked the link that you selected on the Links level.

<b>Email Communication</b>	
Mailing Instances for <link name>	The mailing instances where the selected link appears and was clicked at least once by an email recipient.
Received	Number of times the selected link was sent and received as part of the mailing instance. This number corresponds to the number of messages sent and received, including links in messages that did not send successfully.
Unique Views	The number of times the link was viewed (by opening the email) by different email recipients who received the email as part of the mailing instance.
Total Clicks	The number of times the link was clicked by any recipient that received the email as part of the mailing instance.
Unique Clicks	The number of different recipients that clicked the link after receiving the email as part of the mailing instance.
Unique Click Rate	<p><b>Unique Clicks</b> divided by links <b>Received</b>.</p> <p>The result is multiplied by 100 to express the rate as a percentage.</p>
<b>Landing Page Communication</b>	
Mailing Instances for <link name>	The mailing instances where the selected link appears and was clicked at least once by an email recipient.
Received	Information about total number received is not applicable to landing pages.

<b>Landing Page Communication</b>	
Unique Views	The number of times the link was viewed (by opening the page) by different email recipients who received the email as part of the mailing instance.
Total Clicks	Total number of times the link on the landing page was clicked by an individual that received email in connection with the mailing instance.
Unique Clicks	The number of different individuals who received the email sent with the mailing instance and who also clicked the link on the landing page.
Unique Click Rate	<p><b>Unique Clicks</b> divided by <b>Unique Views</b>.</p> <p>The result is multiplied by 100 to express the rate as a percentage.</p>

**Note:**

Although the Mailing Instance level is the lowest level of the report, mailing instance names appear as drill-down links. When you click the link, the date and time for the mailing instance displays instead of the link name in the column heading. This additional drill-down link is a known behavior and does not affect the performance of the report. To return to the Mailing Instance level, right-click an instance and select **Drill Up**.

## About following link click data for hosted landing pages

As part of its landing page hosting service, Unica supports links between hosted landing pages. Any hosted landing page can contain links to any other hosted landing page. Landing pages can also link to external, non-hosted pages.

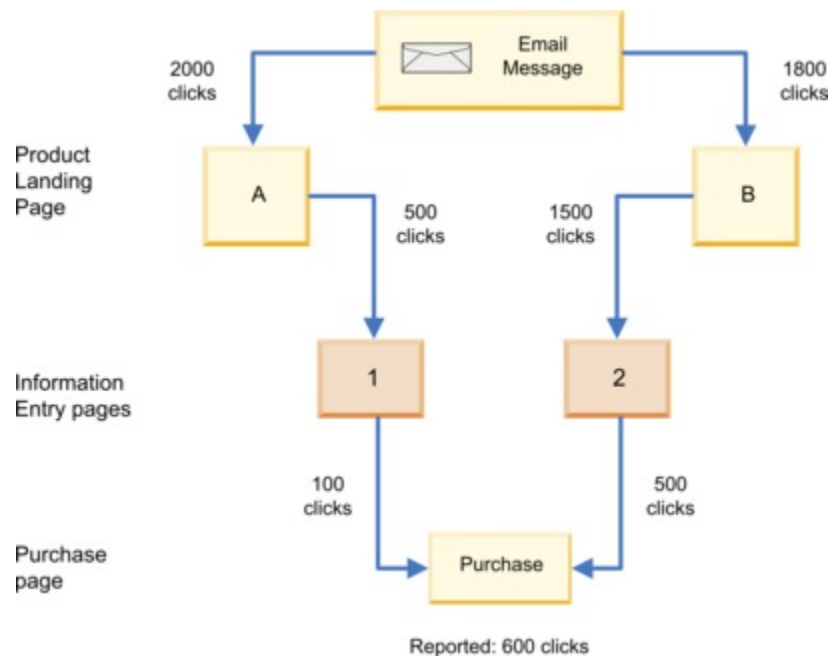
The Links level of the Detailed Link Report does not distinguish between links to hosted landing pages and other links. Links to hosted landing pages appear as ordinary links. This

characteristic can affect certain aspects of how you interpret results for links on landing pages.

For each landing page contained in the report, the list of links displayed on the Links level can include links to other landing pages. However, on the Links level, you cannot drill down further on a landing page link to view link results for the target landing page. To see link click data for a landing page, you must drill down from the Mailings level to the Links level separately for each landing page.

The Detailed Link Report includes data for link click-throughs, including links between hosted landing pages, as summary counts for all clicks to the target page. It does not present click-through data according to any sequence in which a recipient might have reached a link or page.

For example, consider a case of two landing pages with secondary links to the same landing page, as shown in the following example. In the example, two product landing pages link to the same purchase request landing page.



In this example, the number of reported clicks for the Purchase landing page is independent of the path used to reach the page. When listing the 600 clicks for the Purchase page, the

report does not differentiate among the 600 clicks. It does not indicate how many were based on the 500 clicks that came from Landing Page A compared to the 1500 clicks that came from Landing Page B. The report only indicates that the link on the Purchase landing page was clicked 600 times.

To help gain a clear understanding of link click behavior, you might consider creating separate landing pages to isolate links that you want to monitor. In the example given here, you might create separate purchase request pages for each product.

## Detailed Link by Cell Report

The Detailed Link by Cell Report provides link response data for Deliver mailings associated with a specific campaign and associates the responses with the cells that define the audience for the mailing. Presenting link response data and audience cell data in the same report makes it easier to associate link clicks with the characteristics of email recipients that respond to your email. For example, if you design a cell to select men over 50 years old and another cell for men under 30, you can compare link clicks to age in the same report.

Deliver maintains a record of each mailing run as a mailing instance. The cells included in the report are defined by flowcharts in the campaign and are associated with the mailing through the recipient list specified in the mailing configuration. To generate the Detailed Link by Cell report, you select mailing instances and related cells.

The report identifies link clicks related to social networks. The report identifies when the email recipient clicks a social sharing link in the email to share a link to the message on social networks. The report also identifies when other individuals click the link that was shared and the specific social network where the click originated. Analyzing link clicks generated through social sharing links can help measure the visibility of your marketing message on various social networks.

The Detailed Link by Cell report displays data only for email and landing page links that are clicked. The report does not display data for email and landing page links until an individual clicks the link. However, running the Detailed Link by Cell Report later can provide additional link response information, because email recipients can continue to open email messages and visit links or landing pages over time.



## Contents of the Detailed Link by Cell report

The Detailed Link by Cell Report is a drill-down report that presents audience cell data and link response data for selected mailing instances in the same report. Response data for links in email and landing pages appear separately.

The contents of the Detail Link by Cell Report appear on multiple levels in a linked hierarchy. The list of cells that are associated with the mailing instances selected for the report appears at the top level. As you drill down through the report, the report provides information for mailings that are related to the cell, ultimately showing results for a specific link and mailing instance acted upon by members of the cell.

The Detailed Link by Cell Report presents email and landing page link response data on the following levels. The report levels are also called dimensions.

1. **Cell Codes**
2. **Mailing and Landing Pages**
3. **Link Names**
4. **Mailing Instances**

Right-click on a cell name, mailing name, or landing page name to drill down or drill up through the report.

You can also navigate up and down through the report using the reports toolbar in the upper right corner of the report window. Click in the left column of the report and use the drill up and drill down controls.

### **Cell Codes**

The Cell Codes level presents results about each mailing for which Unica has received a message or link response and relates it to a cell. The report lists cells individually. For mailings with multiple instances, the Mailings level summarizes the values for all instances by cell.

For email, you can view counts for message receipt, views, and link clicks for one or more instances of various mailings within a single campaign.

For landing pages, you can view counts for page views and click-through results for links on landing pages linked to email messages sent in connection with the mailing instances selected for the report.

Click a cell code to drill down to the Mailings and Landing Pages level.

<b>Email Communication</b>	
Cell Codes for Cells	Cell codes for the cells associated with the mailing. The entry in this column provides the link required to drill down to the Mailings level of the report.
Received	Sum of email messages sent and received for the cell, across all selected mailing instances. Messages that did not send successfully are not included in the count.
Unique Views	Number of different recipients in each cell who viewed this message, across all selected mailing instances.
Total Clicks	Sum of the clicks of all links by all recipients in the cell, across all selected mailing instances.
Unique Clicks	Number of different recipients in the cell who clicked at least one link in the email, across all selected mailing instances.
Unique Click Rate	<p><b>Unique Clicks</b> divided by messages <b>Received</b>.</p> <p>The result is multiplied by 100 to express the rate as a percentage.</p>
<b>Landing Page Communication</b>	
Cell Codes for Cells	Cell codes for the cells associated with the individuals that clicked links in the listed landing pages. The entries in this column provide a link required to drill down to the Landing Page level of the report.

<b>Landing Page Communication</b>	
Received	Information about total number received is not applicable to landing pages.
Unique Views	The number of different recipients in each cell who viewed this page, across all selected mailing instances.
Total Clicks	Sum of the clicks on the landing page by cell members, across all selected mailing instances.
Unique Clicks	The number of different cell members who clicked at least one link on the landing page referenced by the selected mailings, across all selected mailing instances.
Unique Click Rate	<p><b>Unique Clicks</b> divided by <b>Unique Views</b>.</p> <p>The result is multiplied by 100 to express the rate as a percentage.</p>

## Mailings and Landing Pages

The Mailings and Landing Pages level presents results about each cell for which Unica has received a message or link response. The report lists each mailing within the campaign that is associated with the selected cell. For mailings with multiple instances, the Mailings and Landing Pages level summarizes the values for all instances under the mailing.

For email, you can view counts for message receipt, views, and link clicks for mailings within a single campaign.

For landing pages, you can view counts for page views and click-through results for links on landing pages linked to email messages sent in connection with the mailing instances selected for the report.

Click a mailing or landing page name to drill down to the Links level.

<b>Email Communication</b>	
Mailing Names for <cell>	Name of a mailing in the campaign that includes the selected cell. The entry in this column provides the link required to drill down to the Links level of the report.
Received	Sum of email messages sent and received, across all selected cells. Messages that did not send successfully are not included in the count.
Unique Views	The number of different recipients who viewed this message, across all selected cells.
Total Clicks	Sum of the clicks of all email links by all recipients, across all selected cells.
Unique Clicks	The number of different recipients who clicked at least one link in the email, across all selected cells.
Unique Click Rate	The system calculates the rate as the number of unique clicks divided by the number of messages received. This value is then multiplied by 100 to express the result as a percentage
<b>Landing Page Communication</b>	
Landing Pages for Mailings	Name of landing pages accessed by a member of the cell. The entry in this column provides the link required to drill down to the Links level of the report.
Received	Information about total number received is not applicable to landing pages.
Unique Views	The number of times the page was opened by different page visitors, across all selected mailing instances.

<b>Landing Page Communication</b>	
Total Clicks	Sum of the clicks for all landing page links by all email recipients, across all selected cells.
Unique Clicks	The number of different email recipients who clicked at least one link in a landing page referenced by this mailing, across all selected cells.
Unique Click Rate	<p><b>Unique Clicks</b> divided by <b>Unique Views</b>.</p> <p>The result is multiplied by 100 to express the rate as a percentage.</p>

## Links

On the Links level, you see response results for each link in the mailing and cell that you selected in the Mailing level. For links that appear in multiple mailing instances, the report presents the sum of the values across the instances.

For email, the report lists the display names of links contained in the email message. The link name appears only if at least one email recipient in the selected cell clicked the link.

The report specifically identifies links associated with sharing your marketing email on social networks. The report identifies clicks when email recipients share a link to the email. The report also identifies clicks on the link that was shared and the social network where the click originated. The report identifies the link clicks as follows.

- Clicks on the social share link in the email: **Social\_Traffic**

This number indicates on how many social networks the email recipient shared a link to the message.

- Clicks in the various social networks on the link that was shared : **<channel>\_Share**

The channel is the specific social network. The number of clicks represents the number of other individuals who viewed your message after the email recipient shared a link to the message.



**Note:** If the email that contains the social sharing links also contains a View As Web Page link, the link clicks on the View As Web Page link are reported instead of **Social\_traffic**. However, the report still reports results for clicks on the links shared on social networks as **<channel>\_Share**.

For landing pages, the report lists names of links on the landing page that were clicked at least once by an email recipient in the selected cell.

Click a link name to drill down to the Mailing Instances level.

Email Communication	
Link Names for <mailing name>	The display name of a link that is contained in the selected mailing. The entry in this column provides the link required to drill down to the Mailing Instances level of the report.
Received	Sum of links sent and received as part of the selected mailing, across all selected cells. This total includes links in messages that did not send successfully.
Unique Views	The number of times the link was viewed (by opening the email) one or more times by an email recipient, across all selected cells.
Total Clicks	Sum of times the link was clicked by any recipient, across all selected cells.
Unique Clicks	The number of different email recipients who clicked the link, across all selected cells.
Unique Click Rate	<p><b>Unique Clicks</b> divided by links <b>Received</b>.</p> <p>The result is multiplied by 100 to express the rate as a percentage.</p>

<b>Landing Page Communication</b>	
Link Name for <landing page>	The display names of the links contained in landing pages that are linked to mailings included in the report. The entry in this column provides the link required to drill down to the Mailing Instances level of the report.
Received	Information about total number received is not applicable to landing pages.
Unique Views	Sum of times the link was viewed (by opening the page) one or more times by a different email recipient, across all selected mailing instances.
Total Clicks	Sum of times the link was clicked by any recipient, across all selected cells.
Unique Clicks	The number of different email recipients who clicked the link, across all selected cells.
Unique Click Rate	<b>Unique Clicks</b> divided by <b>Unique Views</b> .  The result is multiplied by 100 to express the rate as a percentage.

## Mailing Instances

On the Mailing Instances level, the report lists each mailing instance where at least one member of the selected cell clicked the link that you selected on the Links level. Each mailing instance indicates the date and time of the mailing run.

For email, the list includes all mailing instances in which email recipients in the selected cell clicked the link that you selected on the Links level.

For landing pages, the list includes the mailing instances in which email recipients in the selected cell visited the landing page and then clicked the link that you selected on the Links level.

<b>Email Communication</b>	
Mailing Instances for <link name>	The mailing instances where the selected link appears and was clicked at least once by an email recipient for the selected cell.
Received	Number of times the selected link was sent to and received by members of the selected cell as part of the mailing instance.
Unique Views	The number of times the link was viewed (by opening the email) by different email recipients in the selected cell who received the email as part of the mailing instance.
Total Clicks	The number of times the link was clicked by any recipient in the selected cell that received the email as part of the mailing instance.
Unique Clicks	The number of different recipients in the selected cell that clicked the link after receiving the email as part of the mailing instance.
Unique Click Rate	<p><b>Unique Clicks</b> divided by links <b>Received</b>.</p> <p>The result is multiplied by 100 to express the rate as a percentage.</p>
<b>Landing Page Communication</b>	
Mailing Instances for <link name>	The mailing instances where the selected link appears and was clicked at least once by an email recipient in the selected cell.
Received	Information about total number received is not applicable to landing pages.



<b>Landing Page Communication</b>	
Unique Views	The number of times the link was viewed (by opening the page) by different email recipients who received the email as part of the mailing instance.
Total Clicks	Total number of times the link on the landing page was clicked by an individual that received email in connection with the mailing instance.
Unique Clicks	The number of different individuals in the selected cell who received the email sent with the mailing instance and who also clicked the link on the landing page.
Unique Click Rate	<p><b>Unique Clicks</b> divided by <b>Unique Views</b>.</p> <p>The result is multiplied by 100 to express the rate as a percentage.</p>

**Note:**

Although the Mailing Instance level is the lowest level of the report, mailing instance names appear as drill-down links. When you click the link, the date and time for the mailing instance displays instead of the link name in the column heading. This additional drill-down link is a known behavior and does not affect the performance of the report. To return to the Mailing Instance level, right-click an instance and select **Drill Up**.

## A/B Testing Performance Report

The A/B Testing Performance Report provides detailed mailing and response data that are generated by a single A/B test. You can run the report at any time before or after the system declares a test winner and completes the mailing.

The report lists results for each test split, including the number of messages that were sent and received. The report also lists results for unique views, clicks, and complaints regardless of which criteria is configured as the criterion for determining the winning email. If you view the report before the system declares a winner, the report indicates that the winner is pending and does not indicate which criteria is selected as the winning criteria.

The report displays results for one mailing at a time. You cannot display results for multiple mailings in a single A/B Test Performance Report.

The A/B test provides a test score to illustrate the relative effectiveness of each split to satisfy the evaluation criterion that is specified for the test. The higher the score, the better the version satisfied the evaluation criterion that is used to determine the test winner. The winning version always scores 100. You can use all of the test scores to learn more about audience preferences and improve email designs for future mailings.

Because the A/B Testing Performance Report is based on recipient responses, the report data can change over time as more recipients respond to the messages sent during the A/B test. Allow email recipients enough time to respond and for the system to determine the winning split.

The system continues to accept and record email responses after the winner is declared and the mailing is complete. You can view the additional results by running the A/B Test Performance report again at any time after the mailing completes.

You can also run the Detailed Link and Detailed Link by Cell reports for more link click and view data for the email messages that were sent during the A/B test.

## Contents of the A/B Testing Performance Report

The A/B Testing Performance Report provides results for each split and for the winning version of the email. The report lists the campaign, mailing instance, and date for the A/B test. It also lists the criteria that are used to determine the winning version of the email.

The table lists the types of information that the A/B Testing Performance report provides.

## Contents of the A/B Testing Performance Report

Column	Description
Test Name	The name of the test split.
Document	Name of the document that was selected for the test split.
Winning Test	Indicates the winning split. (Yes or No)
Sent	Number of email messages that were sent for each split.
Received	Number of email messages that were received from each split.
Unique Views	Number of individual recipients who opened the email. The system counts only one message view by each recipient. If an individual recipient opens the email several times, the system does not count any of the views by that individual after the first view.
Unique Clicks	Number of individual recipients who clicked at least one link in the email. The system counts only the first link click by each individual. Subsequent clicks in the email are not counted in the evaluation results.
Unique Complaints	Number of different recipients who reported the email as spam or asked to unsubscribe.
Score	A relative numerical score that is assigned by the system to indicate how effectively the test splits satisfy the evaluation criterion that is used to determine the test winner. The winning email version always scores 100.

## Mailing Execution History report

The Mailing Execution History report provides message send results and current status for test and production mailings. The report is a summary report that contains results for all mailing instances within a specific campaign.

You can use the data in this report to evaluate or monitor various aspects related to how you have been executing Deliver mailings.

- Execution dates, times, and duration. You can use the mailing name and execution time to identify specific mailing instances.
- Size and content of the mailing, including the specific recipient list and Deliver document referenced by the mailing.
- Logging and link tracking settings
- Message transmission results, including the number of messages sent, the number of messages that could not be sent, and the rate at which Deliver transmitted the messages
- Current® status of the mailing

## Contents of the Mailing Execution History report

The Mailing Execution History report provides details that are related to various important mailing execution metrics. If you access the report from the Deliver Analytics page, the results provide comparisons to previous runs of the same mailing.

The Mailing Execution History report provides results for test mailing runs and for production runs. The report also provides results for mailings that are run as A/B tests.

Column	Description
Start Date/Time	The date and time the mailing execution started. This column is the only column on which you can sort.
Finish Date/Time	The date and time the mailing execution stopped.
Mailing Type	How you executed the mailing. Can be either as a production mailing or as a test mailing.
Status	The state of the mailing when you ran the report. <ul style="list-style-type: none"> <li>• Complete</li> <li>• Paused</li> <li>• Aborted</li> </ul>

<b>Column</b>	<b>Description</b>
	<p>For a mailing that is running as an A/B test, this column displays one of the following to indicate the status of the test.</p> <ul style="list-style-type: none"> <li>• Tests Running</li> <li>• Test Complete</li> </ul>
Duration	The length of time it took the execution to run.
Was Paused?	Whether the mailing execution was paused or not.
Recipient List	The name of the recipient list that is referenced by this mailing.
Document Name	The name of the Deliver document that is referenced by this mailing.
Logging and Tracking Level	The level of detail that is recorded by logs and link tracking, as specified in the mailing configuration.
Outbound Rate Limit	The maximum number of messages per hour the mailing is configured to send.
Track Links Duration	The length of time to track links in any email that is sent in this mailing instance.
Executed by	The name of the HCL Unica user who started the mailing.
Recipient List Size	The number of message recipients that are targeted by the mailing.
Number Sent	The number of messages that are sent during the mailing, including a percentage of the total messages.
% Sent	The number of messages that were sent compared to the Production Count, expressed as a percentage of the Production Count.

Column	Description
Number Failed	The number of messages that Deliver did not send.
% Failed	The number of messages that Deliver did not send compared to the Production Count, expressed as a percentage of the Production Count.
Average Messages Per Hour	The average number of email messages that are sent per hour.

## About enabling additional tracking features

To augment the standard tracking features available for your hosted email account, Unica provides the following additional contact and link tracking features. These features are available upon request from Unica.

- Additionally tracked personalization fields for contact tracking.

You can define personalization fields to provide recipient-specific contact data. You can then request that store the resolved field values in the Deliver system tables each time you run a mailing. The values of the fields that you specify are stored in the tracking tables when you send the mailing, before the email messages are opened or when the recipients respond.

- Custom link URL parameters for link tracking.

You can specify either static values or personalization fields for the tracking parameter. You must tell Unica which name and value pair to use for each URL parameter.

- Tracking audience ID as a contact attribute.

If your recipient lists contain multiple audience values, the system automatically stores each of them in a separate row in the same Deliver tracking table.

For more information about the additional tracking, see the following topics.

- [Additionally tracked contact fields \(on page 555\)](#)
- [Custom URL parameters for additional link tracking \(on page 557\)](#)
- [Tracking audienceID as a contact attribute \(on page 559\)](#)

Additional contact and link tracking features are available only by request. You can request that Unica enable additional contact and link tracking features for your hosted email account by contacting the raising a ticket with HCL technical support team. For information about how to submit such a request, see [Your hosted messaging account \(on page 17\)](#).

## Additionally tracked contact fields

To supplement contact data collected during each mailing run, you can request that Unica track specific personalization fields to generate additional recipient-level contact tracking data. This feature is available only by request to Unica through the Unica Deliver Services team. Your request must include the specific personalization fields that you plan to use in your mailings. For information about how to make a request, see [Your hosted messaging account \(on page 17\)](#).

After enabling this feature for your hosted email account, Deliver records the resolved values of each personalization field as additional contact tracking data in the local Deliver system tables each time you run a mailing.

For example, to track marketing email sent to customers in a particular geographic area, you might define a personalization field `<UAEpf n="postal" />` and map the field to email recipient postal code data in your marketing database. You can then request that Unica use this personalization field for additional contact tracking. When you run the mailing, Deliver records the postal code in the Deliver system tables in the `UCC_EnvelopeAttr` table for each email recipient.

After the mailing run completes, you can query the system tables to access the tracking data. For a summary of the information types available in the Deliver system tables, see [About the Deliver system tables \(on page 560\)](#). For more specific information about the contents and structure of the Deliver system tables, see the Unica Deliver System Tables and Data Dictionary.

Personalization fields used for additional contact tracking do not need to appear in the email document referenced by the mailing. However, after Unica enables this feature for your account, each personalization field that you requested for contact tracking must be defined in the Output List Table (OLT) or mailing configuration for every mailing that you send. Define the personalization fields as follows.

- OLT personalization fields must be defined in the OLT referenced by the mailing.
- Constant personalization fields must be specified in the mailing configuration.
- Built in personalization fields are pre-defined in the system. Deliver automatically provides the appropriate name and value.

The system will not begin a mailing run until you define the personalization fields or mailing configuration as required.

## To use personalization fields for additional contact tracking

Using personalization fields to provide additional contact tracking information is available only by request to Unica. After this feature is enabled for your hosted email account, you must define the specified personalization fields for every mailing that you run.

You can use OLT, Constant, or Built-in personalization fields for contact tracking.

1. Define one or more personalization fields that capture the information that you want to use for tracking.
2. Contact Unica Deliver Services to request that Unica enable additional contact tracking with personalization fields for your hosted email account. You must specify the personalization fields that you plan to use.

For contact information, see [Your hosted messaging account \(on page 17\)](#).

3. Define the tracking personalization fields in each mailing you send.

For more information about defining personalization fields for tracking, see [Additionally tracked contact fields \(on page 555\)](#).

4. Run or schedule the mailing.
5. When the mailing run completes, review the data in the `UCC_EnvelopeAttr` table.



In the `UCC_EnvelopeAttr` table, the **EnvelopeID** column identifies individual email messages. The following additional tracking data is available.

- `AttributeName`: Name of the personalization field used for tracking.
- `AttributeTypeID`: 8
- `StringValue`: Value if the personalization field returns text data
- `NumberValue`: Value if the personalization field returns numerical data
- `DatetimeValue`: Value if the personalization field returns date or time

Use your reporting or database management tools to retrieve and analyze this additional tracking information.

For information about the Deliver system tables, see [About the Deliver system tables \(on page 560\)](#).

## Custom URL parameters for additional link tracking

To gather additional link click information for your marketing email, you can request that Unica automatically add custom URL parameters to links contained in your marketing email messages.

When this feature is enabled for your hosted email account, Deliver automatically adds a name/value pair as an additional URL parameter to every link in your marketing email messages. You do not need to use the Message Editor to manually add the parameter to email links. However, you must define the name and the value that Deliver inserts as an additional URL parameter.

You can also request that Deliver does not add additional URL parameters to links under certain conditions.

Specifying name/value pairs for additional URL parameters gives you the ability to pass selected data to the link target when the email recipient clicks a link in the email message. You can use the URL parameter data for various purposes. For example, if you add URL parameters that identify the specific mailing and message, you can configure web analytic tools to recognize the specified parameter values to identify the individuals who visit your web site and which mailing they responded to.

The parameter value that you specify can be static text or a personalized field.

Automatically adding URL parameters is available only by request. To request custom URL parameters for link tracking, contact the Unica Deliver Services team via HCL technical support team.

## Requirements for adding URL parameters for link tracking

When you request that HCL add custom URL link parameters, you must specify the name-value pair for each link parameter that you want to add to links in your marketing messages. You can specify a static text value or a personalization field.



**Note:** To avoid possible confusion, in your request to Unica, clearly indicate whether the additional parameter is a text value or a personalization field.

Specify each parameter, as follows.

- Specify a name for the parameter.

For example, **name = mailing**.

- Specify the value to be used for the parameter.

You can specify a text value or personalization field. When you specify a text value, specify a character string. For example, `SpringPromo` or `32911`. When submitting your request to Unica, indicate that you want to add the value as a static text value.

- Indicate whether you want to use URL parameters only for test mailings.

If you request this option, the system does not add additional URL parameters to links in email that is sent in production mailings. The change affects all production mailings for your hosted messaging account.

- Indicate whether you want to prevent the system from adding additional URL parameters for specific links.

Specify a unique character string that is part of the links that you want to exclude.

If you specify a personalization field, indicate which field to use. Parameter values generated from personalization fields are URL encoded. You must satisfy the configuration requirements for the type of personalization field that you specify.

- If you specify an OLT personalization field, you must define the field in the OLT referenced by the mailing.
- If you specify a constant personalization field, you must specify the constant in the mailing configuration.
- If you specify a Built-in personalization field, the system adds the correct value, according to the field definition. Indicate the name of the field that you want to add.

## Method to exclude URL tracking parameters in specific links

When you request that Unica add custom link tracking parameters to URLs, you can request that Deliver not add URL parameters to specific URLs.

To prevent the system from adding tracking URL parameters to specific URLs, you must indicate character strings that appear in links for which you want to exclude additional parameters. When you run a mailing, Deliver does not add additional link parameters to any link that contains the character strings that you specify.

For example, to avoid adding URL tracking parameters to the link, `https://www.example.com` you can request that Unica omit URL tracking parameters on all links that include the characters `exa`.

## Tracking audienceID as a contact attribute

In Unica Campaign, you define audience levels to identify objects and individuals defined in your marketing database that you can target with a campaign. You define audience levels by mapping Campaign tables to tables in your marketing databases.

When you run a flowchart to create a recipient list, Deliver creates the list as a database table and includes a row for each email recipient. In each row, Deliver adds the unique audienceID assigned to each individual in Unica Campaign, based on the audience to which the individual belongs. The composition of the audienceID depends on the structure of your marketing data and how that data is mapped to the audience level in Campaign.

The audienceID can be text or a number, and can consist of a single value or multiple values. If the audienceID contains multiple values, Deliver records each value as a contact attribute in the Deliver tracking tables as a separate row in the `UCC_Envelope_Attr` table. However, if the audienceID is defined by a single field, Deliver records the audienceID in the

`UCC_Envelope` table. You can request that Deliver store single audienceID information as contact attribute data in the `UCC_Envelope_Attr` table, as it does for multiple values. Storing all audienceID information in a single table can simplify reporting.

For more information about the Deliver system tables, see [About the Deliver system tables \(on page 560\)](#).

For more information about how to request that all audienceID values be stored in the `UCC_Envelope_Attr` table, see [Your hosted messaging account \(on page 17\)](#).

## About the Deliver system tables

The Deliver system tables are part of the Campaign schema that is installed in your local network, behind your corporate firewalls. The system tables contain contact and response data for every mailing, link tracking data for all trackable links, and data selected for email recipient lists.

For more information about the structure and contents of the Deliver system tables, see the [Unica Deliver System Tables and Data Dictionary](#)

### Email contact and response data

Deliver records tracking data for entire mailings, for individual email messages, and for specific events associated with each email message. Email responses, including data for email opens and link clicks to external web sites appear in these tracking tables. For example, the `UCC_Response` table stores information on message bounces, ISP feedback, out-of-office responses, and unsubscribe requests.

The Deliver Response and Contact Tracker (RCT) processes response data and forwards it to the Deliver system tables. The RCT is installed in your local network as part of your Campaign installation. By default, the RCT requests response data from the hosted environment every 5 minutes, but this polling interval is configurable.

For more information about working with the RCT, see the [Unica Deliver Startup and Administrator's Guide](#).

## Link tracking data

Deliver records link tracking data at the mailing level and for each trackable link in each email message. By default, Deliver tracks all links that use `http://` or `https://` as a prefix.

The link tracking tables contain link response data at the mailing level and for individual email messages. Deliver stores the link tracking data in various tables, depending on if the link appears in all messages sent as part of a mailing, or only in a portion of the total number of messages sent.

## Recipient list data

When you use an Deliver process in Campaign to define a list of email recipients, Unica Deliver creates an Output List Table (OLT). Personalization fields are defined as columns in the OLT and each of these columns is mapped to fields in your marketing datamart. When you save the list, Deliver uploads the OLT to HCL Unica.

For more information about defining personalization fields in an OLT, see [About adding personalization fields to the OLT](#) (on page [19](#)).

# Chapter 20. Supported JDBC Data Types

Personalization fields must map to marketing database fields that are configured for a data type that Deliver supports.

When you send personalized email using Deliver, the information used to personalize the message comes from the recipient list referenced by the mailing. You provide recipient information to the list by mapping fields in your marketing database to personalization fields that you define in the recipient list.

For more information about mapping fields to a recipient list, see [About adding personalization fields to the OLT](#) (on page [10](#)).

When you map a field in your marketing database to a recipient list, the JDBC data type for the source field must be one of the following data types supported by Deliver.

- TINYINT
- SMALLINT
- INTEGER
- BIGINT
- FLOAT
- REAL
- DOUBLE
- NUMERIC
- DECIMAL
- CHAR
- VARCHAR
- LONGVARCHAR
- DATE
- TIME
- TIMESTAMP

- OTHER



**Note:** For `OTHER`, if your source database is an Oracle database and the JDBC driver assigns `NVARCHAR` or `NVARCHAR2` to the source database field, Deliver maps the field to the recipient list as `VARCHAR`.

If your JDBC driver specifies a data type that Deliver does not explicitly support, the system enters an error message in the **Campaign** error log. The error message appears in the file `campaignweb.log`, which is saved in the `Campaign\logs` directory of your Campaign installation.

To determine if a recipient list failed to upload properly due to a JDBC data type specified in the list, review `campaignweb.log` for an error message indicating an unsupported data type.

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