



Enterprise Chat and Email Administrator's Guide to Email and Routing Resources, Release 12.6

For Unified and Packaged CCE

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Enterprise Chat and Email Administration Console Help August 19, 2024

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Preface

- [About this Guide](#)
- [Change History](#)
- [Related Documents](#)
- [Communications, Services, and Additional Information](#)
- [Field Alerts and Field Notices](#)
- [Documentation Feedback](#)
- [Document Conventions](#)

Welcome to Enterprise Chat and Email (ECE), which provides multichannel interaction software used by businesses all over the world as a core component to the Unified Contact Center Enterprise product line. ECE offers a unified suite of the industry's best applications for chat and email interaction management to enable a blended agent for handling of web chat, email and voice interactions.

About This Guide

Enterprise Chat and Email Administrator's Guide introduces you to the ECE Administration and helps you understand how to use it to set up and manage various business resources.

Change History

This table lists changes made to this guide. Most recent changes appear at the top.

Change	See	Date
Added the maximum limit for adding new and existing aliases	Configuring Email Accounts	August 2024
Added Microsoft Graph API server type details	Configuring Email Accounts	June 2024
Updated steps for creating queues	Creating Email Queues Editing Imported Queues for Email	July 2023
Added a note for the Configuring OAuth Applications section	Configuring OAuth Applications	June 2023
Updated the existing topics for the Email Accounts chapter to provide the information for the OAuth 2.0 support for Gmail.	Configuring OAuth Applications Configuring Email Accounts	March 2023
Added a new topic- Registering Applications	Registering Applications With Google Cloud	March 2023

with Google Cloud		
Changed the maximum value for Maximum Email Size for Retriever setting	Email Settings	March 2023
Added a section for customizing the Email Text Editor	Customizing Email Text Editor	October 2022
Added the maximum limits for creating various objects	Creating Aliases Configuring Delivery Exceptions Configuring Blocked File Extensions Creating Patterns Creating Service Levels	September 2022
Listed requirements to configure email accounts.	Configuring Email Accounts	June 2022
Note added in reference to adding specific URLs to communicate with mailboxes while configuring Email Accounts.	About Email Accounts	April 2022
Added section for Email Accounts	About Email Accounts	September 2021

Related Documents

The latest versions of all Cisco documentation can be found online at <https://www.cisco.com>

Subject	Link
Complete documentation for Enterprise Chat and Email, for both Cisco Unified Contact Center Enterprise (UCCE) and	https://www.cisco.com/c/en/us/support/customer-collaboration/cisco-enterprise-chat-email/tsd-products-support-series-home.html

Communications, Services, and Additional Information

- To receive timely, relevant information from Cisco, sign up at [Cisco Profile Manager](#).
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Cisco Bug Search Tool

[Cisco Bug Search Tool](#) (BST) is a web-based tool that acts as a gateway to the Cisco bug tracking system that maintains a comprehensive list of defects and vulnerabilities in Cisco products and software. BST provides you with detailed defect information about your products and software.

Field Alerts and Field Notices

Cisco products may be modified or key processes may be determined to be important. These are announced through use of the Cisco Field Alerts and Cisco Field Notices. You can register to receive Field Alerts and Field Notices through the Product Alert Tool on Cisco.com. This tool enables you to create a profile to receive announcements by selecting all products of interest.

Log into www.cisco.com and then access the tool at <https://www.cisco.com/cisco/support/notifications.html>

Documentation Feedback

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Document Conventions

This guide uses the following typographical conventions.

Convention	Indicates
<i>Italic</i>	Emphasis. Or the title of a published document.
Bold	Labels of items on the user interface, such as buttons, boxes, and lists. Or text that must be typed by the user.
Monospace	The name of a file or folder, a database table column or value, or a command.
<i>Variable</i>	User-specific text; varies from one user or installation to another.

Contents

Copyrights and Trademarks.....	2
Preface.....	3
About This Guide.....	4
Change History.....	4
Related Documents.....	5
Communications, Services, and Additional Information.....	6
Cisco Bug Search Tool.....	6
Field Alerts and Field Notices.....	6
Documentation Feedback	6
Document Conventions.....	6
Email Basics.....	8
Navigating the Console.....	9
Key Terms and Concepts for Email.....	9
Aliases	9
Blocked File Extensions.....	9
Delivery Exceptions.....	10
Queues.....	10
Service Levels	10
Transfer Codes.....	10
Workflows.....	10
Configuring the System for Email.....	11
Important Tasks on the Mail Server.....	11
Data Masking for Email	12
Services for Emails.....	12
Settings for Emails.....	12

Aliases	14
About Aliases	16
Creating Aliases	16
Changing Alias Status	21
Deleting Aliases	22
Email Accounts	24
About Email Accounts	25
Registering Applications with Azure Active Directory	25
Registering an Application	25
Adding Client Secret	26
Assigning API Permissions	27
Registering Applications With Google Cloud	27
Enabling the Gmail API	28
Creating the OAuth Client ID	28
Configuring OAuth Applications	29
Deleting OAuth Applications	31
Configuring Email Accounts	32
Creating Email Accounts	32
Adding Email Aliases	34
Testing Connections for Email Accounts	37
Removing Linked Aliases from Email Accounts	38
Deleting Email Accounts	38
Blocked File Extensions	39
About Blocked File Extensions	40
Configuring Blocked File Extensions	40
Deleting Blocked File Extensions	41
Delivery Exceptions	42
About Delivery Exceptions	43
Configuring Delivery Exceptions	43

Deleting Delivery Exceptions	44
Data Masking.....	46
About Data Masking	47
About Patterns.....	47
Creating Patterns.....	48
Creating Patterns in XML File	50
Exporting Masking Patterns	52
Importing Masking Patterns.....	52
Copying Patterns	53
Deleting Patterns	53
Validating Masking Patterns.....	53
Validating Individual Patterns.....	53
Validating Masking Patterns Applied to Channels	54
Applying Patterns to Email Channel.....	55
At the Partition Level.....	55
At the Department Level.....	59
Assets For Email.....	61
Email Settings	62
Common Email Settings	62
Inbox Settings.....	63
Dispatcher and Retriever Settings	64
Workflow Settings.....	66
Activity Assignment Settings.....	68
Activity Handling Settings.....	71
About Email Articles	73
Creating Email Articles	73
Copying Articles	74
Editing Articles.....	74
Deleting Articles	75

Setting the Language of Articles.....	75
Knowledge Settings.....	75
eGain Knowledge System.....	75
KB Primary Language.....	76
Custom Language Label.....	76
Customizing Email Text Editor	76
Queues.....	77
About Queues	78
Types of Queues.....	78
Queues Created by the System.....	78
Creating Email Queues.....	79
Configure General Properties.....	79
Configure Email Properties	80
Editing Imported Queues.....	81
Configure General Properties.....	81
Configure Email Properties	83
Configure Concurrent Task Limit	84
Picking, Pulling, and Transferring Activities	85
Important Things to Note About Permissions to Pick and pull Activities	85
Important Things to Note About Transferring Emails.....	86
Important Things to Note About Transferring Chats.....	87
Changing the Status of Queues	88
Deleting Queues.....	88
Service Levels.....	90
About Service Levels	91
Creating Service Levels	91
Deleting Service Levels.....	92
Routing And Workflow.....	93
About Routing and Workflow	94

About Workflows.....	94
Alarm Workflows.....	94
Inbound Workflows.....	95
Outbound Workflows.....	95
About Workflow Editor.....	96
Configuring Start Node in Inbound Workflows.....	98
Configuring Start Node in Standard Start Workflow.....	100
Configuring Start Node in Standard Finish Workflow.....	101
Configuring Start Node in Standard Transfer Workflow.....	102
Configuring Start Node in Outbound Workflows.....	103
Configuring Start Node for Alarm Workflows.....	104
Configuring Auto-Acknowledgement Node.....	107
Configuring Classifications Node.....	109
Configuring User Node.....	112
Configuring Queue Node.....	113
Configuring Filter Node.....	114
Configuring Department Node.....	116
Configuring Completion Node.....	117
Configuring Workflow Node.....	118
Configuring Modify Object Node.....	118
Configuring Service Level Node.....	121
Configuring Alarm Node.....	122
Configuring Branch Node.....	125
Creating Workflows.....	127
Copying Workflows.....	129
Deleting Workflows.....	130
Sample Workflows.....	131
Inbound: Processing Inquiries at a Phone Company.....	132
Outbound: Reviewing Outgoing Emails for Trainee Agents.....	144

Alarm: Monitoring Activities About to be Due in One Hour147

Email Basics

- Navigating the Console
- Key Terms and Concepts for Email
- Configuring the System for Email

Navigating the Console

The console interface has different functional areas that follow a hierarchical structure. These areas adjust and refresh as you click different options in the menus to navigate through the console. Thus, it is important to logically navigate the interface with a step-by-step approach in mind.

The functional areas are as follows:

1. Partition and Department Menu: Use this dropdown menu to switch between departments or to switch to the Partition space that allows you to adjust the configurations of multiple departments at once.
2. Top Menu: This is the top level navigation menu. Clicking an option in the Top menu changes the options that are available in the left menu.
3. Left Menu: Once you have selected an option from the Top menu, use this menu to navigate to through the different sections of the application you can configure.
4. Workspace Area: Upon selecting an option from the left menu, the space in the center of the screen refreshes. Here, you can make all your modifications and configurations to the application.
5. Workspace Toolbar: The buttons that appear for each workspace you have selected may vary, but you must remember to save your changes before moving on.

The console follows a particular logic path when it comes to navigation and displaying information. When working in the console, you should follow the process of navigating the console in the order of these different sections.

In most instances, you start in the upper left section of the desktop to verify that you are working in the correct department or at the partition level. Next, you want to select an option from the Top menu and navigate the Left menu to select the setting or configuration you wish to adjust. Doing so refreshes Workspace Area, where you can select the individual functions of the configuration and make your necessary adjustments. When you are finished with your changes, use the buttons in the Workspace Toolbar to finalize your modifications.

Key Terms and Concepts for Email

Aliases

Aliases are mapped to email addresses that customers use to contact your company—for example, support@yourcompany.com or sales@yourcompany.com. They function as entry and exit points for emails processed by the system. Once an alias is configured and made active, the Retriever Service retrieves emails from the mail server on which the email address is configured. For more details, see [About Aliases](#).

Blocked File Extensions

This is a security feature that allows you to selectively prevent certain types of attachments, which may contain viruses, from entering the system. For example, files with extensions like .exe, .vbs, .js, and so on. This feature works in conjunction with department settings for email attachments. Using settings, the system can be configured to block all

attachments, block incoming and outgoing attachments, and delete or quarantine blocked attachments. For more information, see [About Blocked File Extensions](#).

Delivery Exceptions

This feature allows you to handle emails that bounce back to the system. Administrators can create a list of words and phrases that may appear in the email subjects and email addresses of incoming emails. If any of these words or phrases are found in the subject or email address of emails, they are treated as bounce backs, permanent or temporary. A permanent bounceback indicates that an irreparable reason (such as invalid email address) caused the email to bounce back. A temporary bounceback indicates that a temporary reason (such as out of office reply, destination server down, and so on.) caused the email to bounce back. For more details, see [About Delivery Exceptions](#).

The application includes 144 common delivery exception scenarios. Other exceptions can be created as needed.

Queues

Queues hold incoming customer service activities such as emails and chat sessions that are waiting to be assigned to agents. Email activities are routed to queues by workflows, and then either pushed to, or pulled by agents, depending on the configuration of the queue. Chat and call back activities are also routed to queues, but by the External Agent Assignment service, and then either pushed to, or pulled by users. A department can have any number of queues. A single queue can hold multiple activity types like email, chat, and so on. For more details, see [About Queues](#).

Service Levels

In order to provide quality customer service, most organizations measure the performance of their customer service center against established service levels. Using service levels, administrators can set up response time expectations for different types of incoming customer service interactions like email, chat and so on. Once defined, service levels are used in workflows to set the due date of activities. Routing decisions can also be made based on service levels. Service level performance reports are available in the Reports Console. For more details, see [About Service Levels](#).

Transfer Codes

While transferring chats, agents can assign transfer codes to chats, which typically identify the reason why chats are being transferred. For more details, see the *Enterprise Chat and Email Administrator's Guide*.

Workflows

Workflows provide a mechanism for applying a sequence of rules on activities. Flexible and easy to use, they allow administrators to define rules to modify business objects, automate the progression of activities through the system, raise alarms and send notifications about the status of activities, and so on.

There are three types of workflows:

- Alarm workflows
- Inbound workflows
- Outbound workflows

For more details, see [About Workflows](#).

Configuring the System for Email

The following items must be configured before agents can begin replying to emails from customers:

- **Email aliases:** These map to email addresses to which customers send emails. For details, see [About Aliases](#).
- **Inbound workflows:** Process the emails. See [About Workflows](#) for details.
- **Queues:** A holding location for emails waiting to be routed to agents. See [Creating Email Queues](#) for details.
- **Users:** Agents who reply to emails, supervisors who monitor and manage agents, and administrators who create and administer workflow and routing. See the *Enterprise Chat and Email Administrator's Guide* for details.

Important Tasks on the Mail Server

Before configuring aliases, make sure that the following objects have been configured and are ready to be used:

- An email address with credentials on the company mail server.

Along with the email address, make sure to have the following details. This information is required to configure the alias.

For the incoming email server:

- The server type, either POP3 (Post Office Protocol 3) or IMAP4 (Internet Message Access Protocol).
- The server name or IP (Internet Protocol) address.
- A user name and password for the server.

For the outgoing email server:

- The server type, either SMTP (Simple Mail Transfer Protocol) or ESMTP (Extended Simple Mail Transfer Protocol).
- The outgoing server name or IP address.
- A user name and password for the outgoing server (only if using ESMTP).

Refer to your IT department's policies and decide whether or not to use SMTP if ESMTP authentication fails.

Configuring Spam Filters on Mail Server

You may wish to block emails from certain email addresses or domains from being processed by the system. To do this, spam filters must be established on the IMAP or POP3 mail server to handle spam emails coming in the system. Refer to your IT department for more information.

Data Masking for Email

Data masking allows businesses to ensure that sensitive information, like credit card numbers, Social Security Numbers, bank account numbers, and so on is not transmitted from the system to the customers and vice versa. If the customer and agent do add any sensitive data in the email content and chat messages, all such data is masked before it is displayed to customers and agents and before it is stored in the application.

Data masking is the process of scanning the content for sensitive information and applying regular expressions to mask the sensitive information and hide the original data with characters, like, * ^ #. Data is masked using patterns, which are defined using Javascript and Java regular expressions.

Masking patterns are defined by the partition administrators and then are applied to the email and chat channel. The partition administrator can decide to manage the channels for all departments at the partition level, or can allow each department to manage their own configurations.

For email, you have the option to enable data masking for incoming and outgoing emails. For details about setting up data masking, see [About Data Masking](#).

Services for Emails

Make sure the following services are configured properly and are running. For details on setting up these services, see the *Enterprise Chat and Email Administrator's Guide*.

- **Retriever Service:** Gets incoming emails from configured aliases and parses them.
- **Dispatcher Service:** Sends outgoing emails out of the system.
- **Workflow Cache Service:** Maintains information about objects used in workflows.
- **Workflow Engine Service:** Applies workflows on emails to automate their routing and handling.
- **External Agent Assignment Service:** Routes activities to agents integrated with Unified CCE.
- **External Agent Messaging Service (EAMS):** Initiates and maintains the channel of communication with the Agent Peripheral Gateway (PG)/ARM interface of Unified CCE. Responsible for reporting all agent events.

Settings for Emails

Make sure that the following global and department level settings are configured properly. For more information about these settings, see [Email Settings](#).

Settings for Delivery Exceptions

These settings are available at the global level.

- Default SMTP Server Settings

Settings at the Partition Level

- Alarm service delay
- Auto response number

- Auto response time (minutes)

Settings at the Department Level

- Activities to pull first
- Activity type for auto pushback
- Include original message for auto acknowledgement
- Maximum activities to pull at a time
- Personalized activity assignment

Aliases

- [About Aliases](#)
- [Creating Aliases](#)
- [Changing Alias Status](#)
- [Deleting Aliases](#)

About Aliases

Aliases are email addresses that customers use to contact your company—typically something like support@yourcompany.com or sales@yourcompany.com. They function as entry and exit points for emails processed by the system. The Retriever Service monitors the specified aliases and retrieves emails from these aliases when they arrive in the email server. They are used by the inbound workflows to identify which emails to process through the workflows.

Aliases provide customers with a convenient method for communicating with the company. This helps in avoiding large number of email addresses that customers write to and enables you to have email addresses for specific products, services, sales, and so on. You can have separate aliases for products, services, and departments. For example, a bank may decide to create separate aliases for the different kinds of services they provide such as banking accounts, home loans, car loans, mutual funds, credit cards, and so on. Using aliases you can easily identify the type of customer and route the query to the concerned department. In this case, you could have aliases such as accounts@yourbank.com, loans@yourbank.com, mfunds@yourbank.com and so on.

Basic authenticated email aliases can be added to email accounts to convert them to OAuth authenticated aliases. For more information, see [About Email Accounts](#).

Creating Aliases

Before you create an alias, verify that the corresponding email address has been created on the email server. To create an alias, you will need the following details:

- An email address with credentials on the company mail server.
- For the incoming email server:
 - The server type, either POP3 (Post Office Protocol 3) or IMAP (Internet Message Access Protocol).
 - The server name or IP (Internet Protocol) address.
 - A user name and password for the server.
- For the outgoing email server:
 - The server type, either SMTP (Simple Mail Transfer Protocol) or ESMTP (Extended Simple Mail Transfer Protocol).
 - The outgoing server name or IP address.
 - A user name and password for the outgoing server (only if using ESMTP).
 - Whether or not to use SMTP if ESMTP authentication fails.

The destination of the incoming emails will be dictated by the workflows and queues present in the system – if no queues and subsequent workflows have been created, the emails will be sent to the Exception Queue.

To create an alias:

1. In the department-level Top Menu, click the **Apps** option.
2. In the Left menu, navigate to **Email > Aliases**.
3. Click the **New** button.

A maximum of 1000 email aliases can be created in a department.

4. Under the General tab, provide the following details.

- **Name:** Type the name of the alias. This is required information.
- **Email address:** Type the email address for the alias. This is required information. The email address you provide here should be first created on the incoming email server.
- **Status:** Click the **Toggle** button to set the status of the alias. For more details, see [Changing Alias Status](#).
- **Default alias:** Click the **Toggle** button to set the alias as the default alias for the department. When an agent composes a new email, the default alias is selected as the From address for the email. The default email address is also used for activities transferred to this department from other departments, if the value of the setting **Set “From” email address for email activities transferred between departments** is set to **Use default alias of destination department**.

A default alias should also be active and for each department only one alias can be the default alias.

- **Description:** Type a brief description of the alias.
- **Automatic BCC:** Type the email address to which you want to send a BCC copy of the email. Only one BCC address may be used. Whenever an email is sent out from this alias, a BCC copy of that email is automatically sent to this address. You can use this option when you want to review later the replies sent out from a particular alias.

If you provide email addresses in both Automatic BCC and Send Email To fields, then the email is sent only to the address given in the Send Email To field.

- **Send Email to:** Specify the email address to which the outgoing emails from this alias should go. Whenever an agent replies to a customer email, the reply is sent only to the email address specified in the Send Email To field and not to the customer email address. You can use this option to test that the alias has been configured properly and to test workflows. Make sure that after testing the alias you make this field empty.
- **Redirection Email Addresses:** List the email addresses from where you want to redirect the emails to this email address. Separate the list of email addresses using a semicolon.

Create Alias

General	Servers
Name*	Customer Support
Email Address*	support@eighbank.com
Status*	<input checked="" type="checkbox"/>
Default Alias*	<input type="checkbox"/>
Description	To handle customer support requests
Automatic BCC	
Send Email To	
Redirection Email Addresses	

5. Go to the Servers tab. In this tab, provide the details of the incoming and outgoing servers to be used for the alias.

- In the Incoming section, provide the following details. All the fields are required in this section.
 - Server Type:** Select the server type you want to use. By default **POP3** is selected. The options available are **POP3** and **IMAP**.
 - Server Name:** Type the name of the server.
 - User Name:** Type the user name of the email account.
 - Password:** Type the password of the email account.
 - Verify password:** Verify the password.
 - Connection Type:** Select one of the following options.

The port value changes based on the connection type.

- Plain text:** Set the retriever service to work with a mail server that does not use SSL or TLS authentication.
- SSL:** Enable the retriever service to work with an SSL enabled mail server.

- **TLS:** Enable the retriever service to work with an TLS enabled mail server.
- **Port:** Provide the port used by the services server to connect to the IMAP or POP3 server. The field is pre-filled with a port number based on the type of server and SSL configuration selected. The default ports are:
 - POP3, with Plain text: 110
 - POP3, with SSL: 995
 - POP3, with TLS: 995
 - IMAP, with Plain text: 143
 - IMAP, with SSL: 993
 - IMAP, with TLS: 993
- **Folder:** The folder from which emails are fetched. By default, "inbox" is selected. This can be changed to a different folder if IMAP protocol is selected.

Create Alias

General	Servers
Incoming	
Server Type	POP3
Server Name*	pop.gmail.com
User Name*	support@eighbank.com
Password*
Verify Password*
Connection Type	SSL
Port*	995
Folder*	inbox

- Next, in the Outgoing section, provide the following details.

- **Server Type:** Select the server type you want to use. By default **SMTP** is selected. The options available are **SMTP** and **ESMTP**.
- **Use SMTP:** If your server type is ESMTP, then you can optionally use the SMTP server when the ESMTP server authentication fails. Select Never if you do not want to use the SMTP server. The options available are Never and When authorization fails. This field is enabled only if the server type is set as ESMTP in the Server type field.
- **Server Name:** Type the name of the server.
- **Connection Type:** Select one of the following options.

The port value changes based on the connection type.

- **Plain text:** Set the dispatcher service to work with a mail server that does not use SSL or TLS authentication.
- **SSL:** Enable the dispatcher service to work with an SSL enabled mail server.
- **TLS:** Enable the dispatcher service to work with an TLS enabled mail server.
- **Port:** Provide the port used by the services server to connect to the SMTP or ESMTP server. The field is pre-filled with a port number based on the type of server and SSL configuration selected. The default ports are:
 - SMTP, with Plain text: 25
 - SMTP, with SSL: 465
 - SMTP, with TLS: 587
 - ESMTP, with Plain text: 25
 - ESMTP, with SSL: 465
 - ESMTP, with TLS: 587

The following three options are enabled only if the server type is set as **ESMTP** in the **Server type** field.

- **User name (ESMTP):** Type the user name.
- **Password:** Type the password.
- **Verify password:** Verify the password.

Create Alias

General	Servers
Outgoing	
Server Type	ESMTP
Server Name*	smtp.gmail.com
User Name (ESMTP)*	support@eightbank.com
Password*
Verify Password*
Use SMTP	Never
Connection Type	SSL
Port*	465

6. Click the **Save** button.

Once the alias is created, it is automatically added to the retriever instance and started. You can use the alias in an inbound workflow. For more details on workflows, see [About Routing and Workflow](#).

Changing Alias Status

Administrators can change the status of an alias from the Administration Console. The system can also automatically set an alias to be active or inactive. The retriever tries to connect to an alias three times, and after the third failed attempt, it sets the alias to be inactive.

For the following two conditions, retriever sets an alias to be inactive and it tries to connect to the alias after ten minutes, and if the problem is solved, retriever makes the alias active and starts retrieving the emails:

- POP3 server is not available because of network problem, or if the server is stopped for maintenance.
- Some user is logged in to mailbox through telnet or through some other external client.

For the following two conditions, retriever sets the alias to be inactive and the administrator has to manually fix the problems, and make the alias active again:

- If POP3 or IMAP service is not started on the POP3 or IMAP servers
- If the authentication details provided for the alias are incorrect.

To change the status of an alias:

1. In the department-level Top Menu, click the **Apps** option.
2. In the Left menu, navigate to **Email > Aliases**.
3. Select an alias.
4. Under the General tab, click the toggle button next to **Status** to change the status of the alias. The options available are:
 - **Active:** If set to active, the retriever retrieves incoming emails from this alias and the dispatcher dispatches outgoing emails from the alias. By default the status of an alias is set as active.
 - **Inactive:** If you make an alias inactive, the retriever does not retrieve incoming emails from this alias, but the dispatcher dispatches outgoing emails from the alias.
5. Click the **Save** button.

Deleting Aliases

Messages sent to a deleted alias are not received by the system even if the email address to which it maps continues to exist on the mail server. Ensure that your customers know that the alias you have deleted no longer exists and provide them with an alternative.

You cannot delete an alias, if:

- It is configured as the default alias.
- It is associated with a retriever instance.
- It is used in an inbound workflow.

If any replies are sent out from a deleted alias, they go out using the default SMTP preferences. For this, make sure you have set the following six default SMTP settings at the partition level.

- Default SMTP Server
- Default SMTP protocol
- Default SMTP Port
- SMTP Flag
- Default SMTP user name

- Default SMTP password

If these settings are not set, the replies from deleted aliases are not sent out to customers.

To delete an alias:

1. In the department-level Top Menu, click the **Apps** option.
2. In the Left menu, navigate to **Email > Aliases**.
3. In the Aliases workspace, hover your mouse over the alias you wish to remove and click the **Delete**  button.

Email Accounts

- [About Email Accounts](#)
- [Registering Applications with Azure Active Directory](#)
- [Configuring OAuth Applications](#)
- [Deleting OAuth Applications](#)
- [Configuring Email Accounts](#)
- [Testing Connections for Email Accounts](#)
- [Removing Linked Aliases from Email Accounts](#)
- [Deleting Email Accounts](#)

About Email Accounts

You can use the OAuth 2.0 authentication service (provided by Azure Active Directory) to enable your application to connect with IMAP, POP, SMTP protocols, or Graph API to send and receive emails more securely. Email accounts allow you to create or add OAuth-authenticated aliases. These email accounts are associated with the OAuth applications registered with Microsoft Azure Active Directory. To use the OAuth 2.0 authentication for email, perform the following tasks:

- [Register your application with Azure Active Directory](#) or the [Google Cloud](#).
- [Configure an OAuth application in the Administration Console](#).
- [Configure an email account and add email aliases to it](#).

While configuring an email account, you must ensure that the following URLs have been provided accessibility and connectivity from the Application server and the Services server to communicate to the mailbox: *.office365.com and *login.microsoftonline.com.

- [Test connection for the email account](#).

Registering Applications with Azure Active Directory

Before using OAuth 2.0 authentication with your application, you must register your application with Azure Active Directory. Once the registration is complete, you will get the client ID, tenant ID and the value of the client secret. For more information, see [Register an application with the Microsoft identity platform](#).

You need to perform the following tasks:

- Register an application on the Azure portal.
- Add a client secret.
- Assign API permissions to the registered application

Registering an Application

To register an application with Azure Active Directory:

1. Sign in to the [Azure](#) portal.
2. Search for and select **Azure Active Directory**.
3. Under Manage, select **App registrations > New registration**.
4. In the Register an application page, provide the following details:
 - **Name:** Provide a user-facing display name for the application.
 - **Supported Account Types:** Select the Accounts in this organizational directory only (Single tenant) option.

- **Redirect URL:** Provide the Redirect URL in the following format: `https://ECE_External_URL_of_Application/Context_Name/web/view/mail/admin/account/showauthcode.jsp`. For example, `https://sample.company.com/system/web/view/mail/admin/account/showauthcode.jsp`. This is the URL of the page where the authorization code is generated after successful authentication.

5. Click **Register**.

The Overview pane opens after the application is registered. The following information is displayed for the registered application:

- **Application (client) ID** (also called the **client ID**): This value uniquely identifies your application in the Microsoft identity platform.
- **Directory (tenant) ID** (also called the **tenant ID**)

Record the **client ID** and **tenant ID**. This information is used while configuring the OAuth Application in the Administration Console. For more information, see [Configuring OAuth Applications](#).

Adding Client Secret

A client secret is a secret string that is used by the application to prove its identity when requesting a token.

To add a client secret:

1. Sign in to the [Azure](#) portal.
2. Search for and select **Azure Active Directory**.
3. Under Manage, click **App registrations** and select the application that you registered with Azure Active Directory.
4. Now, under Manage, select **Certificates & secrets > New client secret**.
5. In the Add a client secret page, provide the following details:
 - **Description:** Add a description for your client secret.
 - **Expires:** From the dropdown, select an expiration for the secret or specify a custom lifetime. You can select from the following options:
 - **Recommended: 6 months**
 - **3 months**
 - **12 months**
 - **18 months**
 - **24 months**
 - **Custom:** You can provide a custom start and end date.

Client secret lifetime is limited to two years (24 months) or less. You cannot specify a custom lifetime longer than 24 months.

6. Click the **Add** button.

The client secret **Value** and **Secret ID** is displayed.

Record the **Value** of the client secret as it is masked after you leave the page. This information is used while configuring the OAuth Application in the Administration Console. For more information, see [Configuring OAuth Applications](#).

Assigning API Permissions

To assign API permissions:

1. Sign in to the [Azure](#) portal.
2. Search for and select **Azure Active Directory**.
3. Under Manage, click **App registrations** and select the application that you registered with Azure Active Directory.
4. Now, under Manage, select **API Permissions > Microsoft Graph > Delegated permissions**.
5. In the Request API page, select the following delegated permissions:
 - IMAP.AccessAsUser.All
 - Mail.Read
 - Mail.Read.Shared
 - Mail.ReadWrite
 - Mail.ReadWrite.Shared
 - Mail.Send
 - Mail.Send.Shared
 - offline_access
 - POP.AccessAsUser.All
 - SMTP.Send User.Read
6. Click the **Update Permissions** button.

Registering Applications With Google Cloud

Before using OAuth 2.0 authentication with your application, you must register your application with the Google Cloud and create Your Client ID and Your Client Secret.

You need to perform the following tasks:

- [Create a Google Workspace account.](#)
- Verify your domain and [create gmail accounts for users who need their own Google Workspace account](#).
- Verify whether the gmail accounts that you have created in the previous step are able to send or receive emails.
- [Create a new Google Cloud project from your Google Workspace Account.](#)
- [Enable the Gmail API from the Google API library.](#)
- [Create the OAuth Client ID.](#)

Enabling the Gmail API

After creating a new Google Cloud project, you need to enable the Gmail API.

To enable the Gmail API:

1. Log into your [Google Workspace account](#).
2. From the Select a Project dropdown, select the Google Cloud project that you have created.
3. From the Navigation menu, browse to **APIs and services > Enabled APIs and services**.
4. In the APIs and services page, search for `Gmail` and click **Enter**.
5. Go to the MARKETPLACE AND APIS tab and select **Gmail API** from the search results.
6. In the Product details page, click the **ENABLE** button.

Creating the OAuth Client ID

To create the OAuth Client ID, you need to perform the following tasks:

- Configure the OAuth consent screen.
- Create the Credentials for the Client ID and Client Secret.

To configure the OAuth consent screen:

1. Log into your [Google Workspace account](#).
2. From the Select a Project dropdown, select the Google Cloud project that you have created.
3. From the Navigation menu, browse to **APIs and services > Credentials**.
4. Click the **CREATE CREDENTIALS** button and select the **OAuth Client ID** option from the dropdown menu.
5. To create an OAuth client ID, you must configure your consent screen. To do that, click the **CONFIGURE CONSENT SCREEN** button.
6. Under the User Type section, select the **Internal** option.
7. Now, click the **CREATE** button.
8. In the Edit app registration page, under the OAuth consent screen section, provide the following details:
 - **App Name:** The name of the app requesting consent.
 - **User support email**

- **App logo:** Upload a photo of your app displayed on the OAuth consent screen.
 - **Authorized domains:** Provide your app domain.
 - **Application Homepage link**
 - **Application Privacy Policy link**
 - **Application Terms of Service link:** This is an optional field.
9. Click the **SAVE AND CONTINUE** button.
10. You are now directed to the Scopes section of the Edit app registration page. Click the **ADD OR REMOVE SCOPES** button.
11. In the Update selected scopes modal window that opens, search for and select the **https://mail.google.com/** and click the **UPDATE** button.
12. Now, click the **SAVE AND CONTINUE** button.

To create the credentials:

1. From the Navigation menu, browse to **APIs and services > Credentials**.
2. Click the **CREATE CREDENTIALS** button and select the **OAuth Client ID** option from the dropdown menu.
3. In the Create OAuth client ID page, provide the following details:
 - From the **Application type** dropdown, select the **Web Applications** option.
 - **Name:** Provide the name of your OAuth 2.0 client.
 - **Authorized redirect URLs:** Provide the Redirect URL in the following format: `https://ECE_External_URL_of_Application/Context_Name/web/view/mail/admin/account/showauthcode.jsp`. For example, `https://sample.company.com/system/web/view/mail/admin/account/showauthcode.jsp`. This is the URL of the page where the authorization code is generated after successful authentication.
4. Now, click **Create**.

The OAuth client created modal window opens after the application is registered. The following information is displayed for the registered application:

- **Your Client ID**
- **Your Client Secret**

Record the **client ID** and **client secret**. This information is used while configuring the OAuth Application in the Administration Console. For more information, see [Configuring OAuth Applications](#).

Configuring OAuth Applications

After registering your application with the [Azure Active Directory](#) or the [Google Cloud](#), you need to configure your application details in the Administration Console.

To configure an OAuth application:

1. In the global-level Top Menu, click the **Apps** option.
2. In the Left menu, navigate to **Email > OAuth Applications**.
3. In the OAuth Applications space, click the **New** button.

While configuring OAuth applications, after providing the value for the **External URL of Application** setting or after editing the value, you need to restart the application server.

4. In the Configuration tab, provide the following details:

- **Name:** The name for the configuration.
- **Description:** Provide a brief description.
- **Provider:** Select **Microsoft Office 365** for Outlook accounts and **Google Mail** for Gmail accounts.
- **Endpoint:** Select **Worldwide** when the provider is set as Microsoft Office 365 and **Global** when the provider is set as Google Mail.
- **Tenant ID:** Provide the **Tenant ID** assigned by Azure Active Directory. For more information, see [Registering Applications with Azure Active Directory](#)
- **Client ID:** Provide the Client ID assigned by the [Azure Active Directory](#) for the Microsoft account or the one created by [Google Cloud](#) for the Gmail account.
- **Client Secret:** Provide the client secret **Value** created for the [Microsoft account](#) and **Your Client Secret** created for the [Gmail Account](#).

Create OAuth Application

Configuration

Name*	Email _Account_OAuth_App
Description	
Provider*	Microsoft Office 365
Endpoint*	Worldwide
Client ID*	26047cfe-0c27-47dc-843d-b9a188...
Tenant ID*	d60887ce-696b-4e9a-98db-a7266a...
Client Secret*

5. Click **Save**.

Deleting OAuth Applications

You cannot delete an OAuth application, if it is used in email accounts.

To delete an email account:

1. In the global-level Top Menu, click the **Apps** option.
2. In the Left menu, navigate to **Email > Accounts**.
3. In the OAuth Application workspace, hover your mouse over the OAuth application you want to remove and click the **Delete**  button.
4. You are prompted to confirm the deletion. Click **OK** to delete the OAuth application.

Configuring Email Accounts

After configuring the OAuth applications, you need to create email accounts and add email aliases to them.

Before configuring the email accounts, perform the following tasks:

- Configure the External URL of Application partition setting to generate the authorization code.
- Ensure that the FQDN (Fully Qualified Domain Name) used in the External URL of Application must match the FQDN used in the Redirect URL configured in the Azure Active Directory.
- The Administrator must log into the ECE Administration Console using the same FQDN as inputted in the External URL of Application.

Creating Email Accounts

To create an email account:

1. In the department-level Top Menu, click the **Apps** option.
2. In the Left menu, navigate to **Email > Accounts**.
3. In the Accounts space, click the **New** button.
4. In the Create Account space, under the General tab, provide the following details:
 - **Name:** The name of the account.
 - **Description:** A brief description of the account.
 - **Status:** Click the **Toggle** button to set the account's status. By default, it is set to active.
 - **OAuth Registered App:** Select the OAuth application, which is configured at the partition level. For more information, see [Configuring OAuth Applications](#). Note that you can map an OAuth application to multiple email accounts. This setting is disabled after the email account is saved.
 - **Server Type:** Select the server type you want to use. The options available for Microsoft Office 365 are **POP3 and SMTP, IMAP and SMTP**, and **Graph API**. The options available for Gmail account are **POP3 and SMTP**, and **IMAP and SMTP**.

If you change the Server Type option while editing email accounts, you must regenerate the authentication code.

- **Address:** When the OAuth registered application is associated with a Microsoft account, for the **POP3 and SMTP** and **IMAP and SMTP** server types, the value is set as **outlook.office365.com**, and for the **Graph API** server type, it is set as **graph.microsoft.com**. When the OAuth registered application associated with a Gmail account is selected, for the **POP3 and SMTP** server type, the value is set as **pop.gmail.com**, and for the **IMAP and SMTP** server type, the value is set as **imap.gmail.com**. This value cannot be changed.
- **Authentication Type:** The value is set as **OAuth 2.0** and cannot be changed.

- **Authentication Code:** While creating an Outlook account, click the **Generate** button to generate the authorization code. On the Microsoft Sign-in page, log into the Microsoft account associated with the registered application and accept the permissions requested to generate the authorization code. Once the authorization is complete, the authorization code is automatically added to the field.

Create Account

General	Email Address
Name*	<input type="text" value="email_account"/>
Description	<input type="text"/>
Status	<input checked="" type="checkbox"/>
OAuth Registered App*	<input type="text" value="ECE_Oauth_feature"/>
Server Type	<input type="text" value="IMAP and SMTP"/>
Address	<input type="text" value="outlook.office365.com"/>
Authentication Type	<input type="text" value="OAuth2.0"/>
Authorization Code*	<input type="text" value="....."/> Generate

While creating a Gmail account, click the **Sign in with Google** button. On the Sign in with Google page, log into the gmail account and click **Allow** to provide the requisite permissions to the Google project associated with the registered application. Once the authorization is complete, the authorization code gets automatically added to the field.

Create Account

General	Email Address
Name*	<input type="text" value="email_account"/>
Description	<input type="text"/>
Status	<input checked="" type="checkbox"/>
OAuth Registered App*	<input type="text" value="Gmail_account_OAuth_App"/>
Server Type	<input type="text" value="IMAP and SMTP"/>
Address	<input type="text" value="imap.gmail.com"/>
Authentication Type	<input type="text" value="OAuth2.0"/>
Authorization Code*	<input type="text"/>  Sign in with Google

5. Click **Save**.

Once the account is saved, the Email Address tab is enabled.

Adding Email Aliases

Under the Email Address tab, you can either [create new email aliases](#) or [add existing email aliases](#), under basic authentication, to email accounts to convert them into OAuth authentication. After the existing aliases are added to the email account, they are no longer available in the Aliases list. To know more about creating basic authenticated aliases, see [About Aliases](#).

Adding new email aliases

To add a new email alias:

1. In the department-level Top Menu, click the **Apps** option.
2. In the Left menu, navigate to **Email > Accounts**.
3. In the Account space, select the account to which you want to add a new email alias.
4. In the Edit Account space, click the **New** button under the Email Address tab.

You can add a maximum of 25 new email aliases at a time.

5. In the Add a New Email Address window, provide the following details:

- **Name:** Type a name for your alias.
- **Email address:** Type the email address for the alias. This is required information. The email address you provide here should be first created on the incoming email server.
- **Description:** Provide a brief description.
- **Status:** Click the **Toggle** button to set the status of the alias to active.
- **Automatic BCC:** Type the email address to which you want to send a BCC copy of the email. Only one BCC address may be used. Whenever an email is sent out from this alias, a BCC copy is automatically sent to this address. You can use this option to review later the replies sent out from a particular alias.

If you provide email addresses in both Automatic BCC and Send Email To fields, then the email is sent only to the address given in the Send Email To field.

- **Send Email To:** Specify the email address to which the outgoing emails from this alias should go. Whenever an agent replies to a customer email, the reply is sent only to the email address specified in the Send Email To field and not to the customer's email address. You can use this option to test that the alias has been configured properly and to test workflows. Make sure that after testing the alias, you make this field empty.

Add a new email address

Name*	Customer Support
Email Address*	support@company.com
Description	
Status*	<input checked="" type="checkbox"/>
Automatic BCC	
Send Email To	
Default Alias*	<input type="checkbox"/>
<input type="button" value="Cancel"/> <input type="button" value="Done"/>	

- **Default alias:** Click the **Toggle** button to set the alias as the default alias for the department. When an agent composes a new email, the default alias is selected as the From address for the email. The default email address is also used for activities transferred to this department from other departments if the value of the setting **Set “From” email address for email activities transferred between departments** is set to **Use default alias of destination department**.

A default alias should also be active, and for each department, only one alias can be the default alias.

- **Redirection Email Addresses:** List the email addresses from where you want to redirect the emails to this email address. Separate the list of email addresses using a semicolon.
- **Shared Mailbox:** To add shared mailboxes as aliases to email accounts, select **Yes**, else select **No**.

Please note that you cannot add shared mailboxes to Gmail accounts.

- **Folder:** The folder from which emails are fetched. By default, the value is set as **Inbox**. Please note that the folder name must match the one on the email account provider. For Microsoft accounts, it can be edited for **IMAP and SMTP** and **Graph API** server types only, but not for **POP3 and SMTP**. For Gmail accounts, it can be edited for **IMAP and SMTP** server types only, but not for **POP3 and SMTP**. Any changes to the folder name on the account provider must be updated in ECE.

The screenshot shows a modal dialog titled "Add a new email address". It contains the following fields:

- Automatic BCC: An input field.
- Send Email To: An input field.
- Default Alias*: A toggle switch that is turned on (blue).
- Redirection Email Addresses: An input field.
- Shared MailBox: A dropdown menu set to "No".
- Folder: An input field set to "Inbox".

At the bottom right of the dialog are two buttons: "Cancel" and "Done".

6. Click **Done**.

Adding existing email aliases

To add an existing alias:

1. In the department-level Top Menu, click the **Apps** option.
2. In the Left menu, navigate to **Email > Accounts**.
3. In the Account space, select the account to which you want to add an existing email alias.
4. In the Edit Account space, under the Email Address tab, click the **Add Existing Email Address** button.

You can add a maximum of 25 existing email aliases at a time.

5. In the Add Existing Aliases window, from the list of existing email aliases within the department, click the check boxes next to the email aliases you want to convert to OAuth authenticated aliases.
6. If the existing email alias belongs to a shared account, click the check box next to the **Add as Shared Mailbox** option.

Add Existing Aliases X

Email Address
<input type="checkbox"/> customer.service@egeng.info
<input checked="" type="checkbox"/> customer.support@egeng.info

Add as Shared Mailbox

Cancel Done

7. Click **Done**. The aliases are validated and then added to the account. When an alias, which does not belong to the email account, is added, an error is shown.

Testing Connections for Email Accounts

After adding email aliases to an email account, the **Test Connection** button is enabled. It is used to test the validity of an email account.

An email account can become invalid due to the following reasons:

- When the generated authorization code is revoked or has expired.
- When the email aliases no longer belong to the account.
- When the permissions granted to the OAuth application are revoked.

To test the connection for an email account:

1. In the department-level Top Menu, click the **Apps** option.
2. In the Left menu, navigate to **Email > Accounts**.
3. In the Account space, select an existing email account.
4. Click the **Test Connection** button to test the validity of the account. If the email account is valid, the following message pops up: **Connection established successfully**. If the account is rendered invalid, an error message is shown.

Removing Linked Aliases from Email Accounts

To delete an email account, it is imperative to remove linked email aliases. When email aliases are removed from an email account, any aliases that are moved from basic authentication to OAuth authentication, are converted back to basic authentication. These aliases become available in the **Aliases** list in an inactive state. The newly added OAuth authenticated aliases are deleted permanently.

You cannot delete an email account, if an alias added to the email account:

- Is configured as the default alias and is in the active state.
- Is associated with a retriever service instance.
- Is used in an inbound workflow.

To remove an alias from an email account:

1. In the department-level Top Menu, click the **Apps** option.
2. In the Left menu, navigate to **Email > Accounts**.
3. In the Account space, select the email account for which you want to remove the email aliases.
4. In the Edit Account space, under the Email Address tab, hover your mouse over the email aliases you want to remove and click the **Delete**  button.
5. You are prompted to confirm the deletion. Click **OK** to remove the email aliases from the email account.

Deleting Email Accounts

You can delete email accounts only after removing all linked email aliases from the account. For more information, see [Removing Linked Aliases from Email Accounts](#).

To delete an email account:

1. In the department-level Top Menu, click the **Apps** option
2. In the Left menu, navigate to **Email > Accounts**.
3. In the Account space, hover your mouse over the email account you want to delete and, click the **Delete**  button.
4. You are prompted to confirm the deletion. Click **OK** to delete the email account.

Blocked File Extensions

- [About Blocked File Extensions](#)
- [Configuring Blocked File Extensions](#)
- [Deleting Blocked File Extensions](#)

About Blocked File Extensions

This is a security feature that allows you to selectively block certain types of attachments, which may contain viruses. You can block attachments of such types from entering the system. (For example, .exe, .vbs, .js) This feature works in conjunction with department settings for email attachments. Using settings for email attachments, the system can be configured to block all attachments, block incoming and outgoing attachments, and delete or quarantine blocked attachments.

Along with setting the file extensions for blocking, you need to configure the following department settings for this feature to work:

- Block all attachments
- Action on blocked attachments

For more information, see [Email Settings](#).

Blocked File Extensions are not necessary for new installations. This feature is only required for upgrade installations.

Configuring Blocked File Extensions

To configure a blocked file extension:

1. In the department-level Top Menu, click **Apps**.
2. In the Left menu, click **Email > Blocked File Extension**.
3. Click the **New** button or select the Blocked File Extension you wish to edit.

A maximum of 25 blocked file extensions can be configured in a department.

4. In the Create Blocked File Extension page, provide the following details.

- **Name:** Type a name for the blocked file extension.
- **Blocked File Extension:** Type the file extension you want to block such as .exe, .vbs, .js.
- **Description:** Type a brief description.

Create Blocked File Extension

Name*

Blocked Executables

Blocked File Extension*

.exe

Description

5. Click the **Save** button.

Deleting Blocked File Extensions

To delete a blocked file extension:

1. In the department-level Top Menu, click **Apps**.
2. In the Left menu, click **Email > Blocked File Extensions**.
3. In the Blocked File Extensions space, hover your mouse over the extension you wish to remove and click the **Delete**  button.
4. Click the **Yes** button when the system prompts you to confirm the deletion.

Delivery Exceptions

- [About Delivery Exceptions](#)
- [Configuring Delivery Exceptions](#)
- [Deleting Delivery Exceptions](#)

About Delivery Exceptions

This feature allows you to handle emails that bounce back to the system because the original outgoing email could not be delivered to the intended recipient. Emails can bounce back for a number of reasons, like an incorrect email address, a customer mail box that has exceeded its storage limit, or network connectivity issues. Such emails are processed using the delivery exception feature of the application.

Administrators create a list of delivery exception words and phrases, like `Out of office`, `Auto-Reply`, `mail-daemon` that may appear in the email subject line or email addresses which indicate that an email is a bounce back. If the system finds any of these phrases, it treats the email as a bounced back email. Regular emails that contain phrases configured for delivery exception are also categorized as bounced back emails, and treated as such. Bouncebacks are of two types:

- **Permanent:** Indicates that an irreparable reason, such as an invalid email address, caused the email to bounce back. These are permanent failure conditions and any email sent to such email address would always bounce back.
- **Temporary:** Indicates that a temporary reason, such as an out of office reply or a temporary unavailability of the destination server caused the email to bounce back. The inference here is that should the emails be sent again, there is a chance that they may be delivered.

When the retriever picks up an email, it checks it for delivery exception words and phrases configured in the system. If the email address or subject contains any of those words, the activity subtype is changed to **Email-permanent undeliverable** or **Email-temporary undeliverable**, based on the failure type configured for that word or phrase, and the email activity is sent to the exception queue by the standard start workflow. These activities can be processed from the exception queue by a user with the appropriate permissions. Workflows can also be configured to process activities that are routed to the exception queue.

The application comes with some default delivery exception instances. Should you need to create other instances of delivery exception, you can easily do so from the **Delivery Exceptions** node in the Administration Console.

Configuring Delivery Exceptions

To create new delivery exceptions:

1. Select **Apps** from the Top menu
2. Select **Email > Delivery Exceptions** from the left menu. This opens the Create Delivery Exceptions space.

A maximum of 1000 delivery exceptions can be configured in a department.

3. In the Create Delivery Exception space, provide the following details.

- **Name:** Type a name for the delivery exception.
- **Type:** Select the type from the dropdown list which determines if the delivery exception look at the subject line or destination email address when an email is returned. The options available are:

- **Address**
- **Subject**
- **Phrase:** Type the phrase that the delivery exception will look for when a message is returned.
- **Failure:** Select the type of failure that the delivery exception is looking for from the dropdown list. The options available are:
 - **Permanent**
 - **Temporary**
- **Description:** Provide a brief description of the delivery exception's characteristics and purpose.

Create Delivery Exception

Name*	Out-Of-Office
Type*	Subject
Phrase*	Currently Out-of-Office
Failure*	Temporary
Description	

4. Click the **Save** button.

Deleting Delivery Exceptions

If you delete a system provided delivery exception phrase, it gets deleted from all the departments in the system.

To delete a delivery exception:

1. In the department-level Top Menu, click **Apps**.
2. In the Left menu, click **Email > Delivery Exceptions**.
3. In the Delivery Exceptions space, hover your mouse over the exception you wish to remove and click the **Delete**  button.

4. Click the **Yes** button when the system prompts you to confirm the deletion.

Data Masking

- [About Data Masking](#)
- [About Patterns](#)
- [Creating Patterns](#)
- [Creating Patterns in XML File](#)
- [Exporting Masking Patterns](#)
- [Importing Masking Patterns](#)
- [Copying Patterns](#)
- [Deleting Patterns](#)
- [Validating Masking Patterns](#)
- [Applying Patterns to Email Channel](#)

About Data Masking

Data masking allows businesses to ensure that sensitive information, like credit card numbers, Social Security Numbers, bank account numbers, and so on. is not transmitted from the system to the customers and vice versa. If the customer and agent do add any sensitive data in the email content and chat messages, all such data is masked before it is displayed to customers and agents and before it is stored in the ECE system.

Data masking is the process of scanning the content for sensitive information and applying regular expressions to mask the sensitive information and hide the original data with characters, like, *, ^, #. Data is masked using patterns, which are defined using Javascript and Java regular expressions.

Data masking is available for emails and chats.

Masking patterns are defined by the partition administrators and then are applied to the email and chat channel. The partition administrator can decide to manage the channels for all departments at the partition level, or can allow each department to manage their own configurations.

For chat, you have the option to allow customers to disable data masking for selective messages. The Off-the-record feature allows agents and customers to exchange sensitive information as data masking rules do not apply to these messages. Any information exchanged while off-record is not stored in the ECE system. Off the record conversation can be started and stopped only by customers.

Data masking rules also apply to the message typed by customers in the callback request form.

About Patterns

Patterns are definitions of data masking rules that you apply to the content of emails and chat messages to hide sensitive data. Patterns are defined using JavaScript and Java regular expressions. In the pattern definition, you also define the character to use for replacing the matching data (for example, *, ^, #). You can enable the Luhn algorithm for masking credit card numbers. This algorithm distinguishes the valid credit card numbers from a random sequence of numbers.

A partition administrator with the following actions can manage patterns, that is create, delete, edit, copy, import, and export patterns. You can either create a pattern from the user interface, or you can create patterns in an XML file and import the file using the import feature.

<input type="text"/> New Import/Export ▾				
Name	Status	Last Modified At	Description	Actions
American Express Credi...	● Active	02/25/2021 12:19:52 pm	American Express credit card 15
Discover Credit Card	● Inactive	03/09/2021 01:42:45 pm	16 digit	...
MasterCard Credit Cards	● Active	02/25/2021 12:19:52 pm	MasterCard credit card 16 digit nu...	...
US Social Security Num...	● Active	02/25/2021 12:19:52 pm	US Social Security Numbers (SSN...	...
Visa Credit Card 13 Digits	● Active	02/25/2021 12:19:52 pm	Visa credit card 13 digit numbers
Visa Credit Card 16 Digits	● Active	02/25/2021 12:19:52 pm	Visa credit card 16 digit numbers

Creating Patterns

You can either create a pattern from the user interface, or you can create patterns in an [XML file](#) and import the file using the [import feature](#). Masking patterns can be created at the partition and at the department level.

To create a pattern:

1. In the global-level Top Menu, click the **Security** option.
2. In the Left menu, navigate to **Data Masking > Patterns**.
3. Click the **New** button.

A maximum of 100 masking patterns can be created in a partition.

4. In the New Pattern space, on the General tab, set the following:
 - **Name:** Type a name for the pattern.
 - **Description:** Provide a description for the pattern that explains what type of masking is done by the pattern.
 - **Active:** Click the Toggle button to make the pattern active when it is ready for use. Only active patterns can be applied to channels. Once a pattern is made active and used in channels, it can be made inactive only after the association from the channels is removed.

New Pattern

General Masking Pattern

Name* Discover Credit Card

Description 16 digits

Active

5. On the Masking Pattern tab, set the following:

- **Masking Character:** From the dropdown list, select the character to be used to mask the data. The default value is *. Options available are: *, -, #, X, x.
- **JavaScript Regular Expression:** Provide the JavaScript regular expression for masking.
- **Java Regular Expression:** Provide the Java regular expression for masking.
- **Number of characters to unmask from left:** Provide the number of characters that should be ignored from left while masking. For example, if you are masking a 10 digit account number and you do not want to mask the first 4 numbers of the account number, the account number will show as 8765*****
- **Number of characters to unmask from right:** Provide the number of characters that should be ignored from right while masking. For example, if you are masking the social security number and you do not want to mask the last 4 numbers of the SSN, the SSN will show as *****3545
- **Apply Luhn's Algorithm:** Select **Yes** to apply the Luhn's algorithms to credit card numbers.

New Pattern

General	Masking Pattern
<p>Masking Character* <input type="text" value="*"/></p> <p>JavaScript Regular Expression* <input type="text" value="3((\r)?\n){0,2}[47](((\r)?\n){0,2}[0-9)){13} 3((\r)?\n){0,2}[47](((\r)?\n){0,2}[0-9)){2}((((\r)?\n){1,2}) (\r))"/></p> <p>Java Regular Expression* <input type="text" value="3((\r)?\n){0,2}[47](((\r)?\n){0,2}[0-9)){13} 3((\r)?\n){0,2}[47](((\r)?\n){0,2}[0-9)){2}((((\r)?\n){1,2}) (\r))"/></p> <p>Number of characters to unmask from left <input type="text"/></p> <p>Number of characters to unmask from right <input type="text" value="4"/></p> <p>Apply Luhn's Algorithm <input type="checkbox"/></p>	

6. Click the **Save** button.

Creating Patterns in XML File

You can either create a pattern from the [user interface](#), or you can create patterns in an XML file and import the file using the [import feature](#).

While preparing a file for importing patterns, keep in mind that:

- Only XML files can be used to import patterns.
- You can name the file anything you want.
- Elements should be defined in the order specified in the pattern file exported from the application.
- Elements and values of elements in the XML file are case sensitive.
- For user created patterns, the `isDefault` element should be always set to **no**. Likewise, for default patterns, the `isDefault` element should be always set to **yes**.
- If you are importing a pattern that already exists in the system, your existing pattern will be overwritten by the import process.

The following table lists the names of the properties as they appear in the file and on the UI. For the description of each field, see [Creating Patterns](#).

Name on the UI	Name in the file
Name	name
Description	description
Active	isActive
Default	isDefault
Masking character	maskingCharacter
JavaScript Regular Expression	javascriptRegularExpression
Java Regular Expression	javaRegularExpression
Number of characters to unmask from right	numOfCharsToUnmaskFromLeft
Number of characters to unmask from left	numOfCharsToUnmaskFromRight
Apply Luhn algorithm	applyLuhnAlgorithm

A sample pattern looks like:

```

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<patterns xmlns="http://bindings.egain.com/security/masking">
    <pattern>
        <name>Pattern for masking Visa, MasterCard, and American Express credit card numbers</name>
        <description>Single pattern for three cards</description>
        <isActive>yes</isActive>
        <isDefault>no</isDefault>
        <maskingCharacter>*</maskingCharacter>
        <javascriptRegularExpression>
            ((?:(:4\d{3})|(:5[1-5]\d{2}))|6(?:011|5[0-9]{2})) (?:-?|\040?) (?:\d{4} (?:-?|\040?)){3} | (?:3[4,7]\d{2}) (?:-?|\040?) \d{6} (?:-?|\040?) \d{5})</javascriptRegularExpression>
        <javaRegularExpression>
            ((?:(:4\d{3})|(:5[1-5]\d{2}))|6(?:011|5[0-9]{2})) (?:-?|\040?) (?:\d{4} (?:-?|\040?)){3} | (?:3[4,7]\d{2}) (?:-?|\040?) \d{6} (?:-?|\040?) \d{5})</javaRegularExpression>
        <numOfCharsToUnmaskFromLeft>4</numOfCharsToUnmaskFromLeft>
        <numOfCharsToUnmaskFromRight>4</numOfCharsToUnmaskFromRight>
        <applyLuhnAlgorithm>yes</applyLuhnAlgorithm>
    </pattern>
</patterns>

```

Exporting Masking Patterns

Patterns can be exported in XML format to share them across installations or if you wish to edit the patterns through an XML file. All the patterns configured in the system will be part of the exported XML file.

To export patterns:

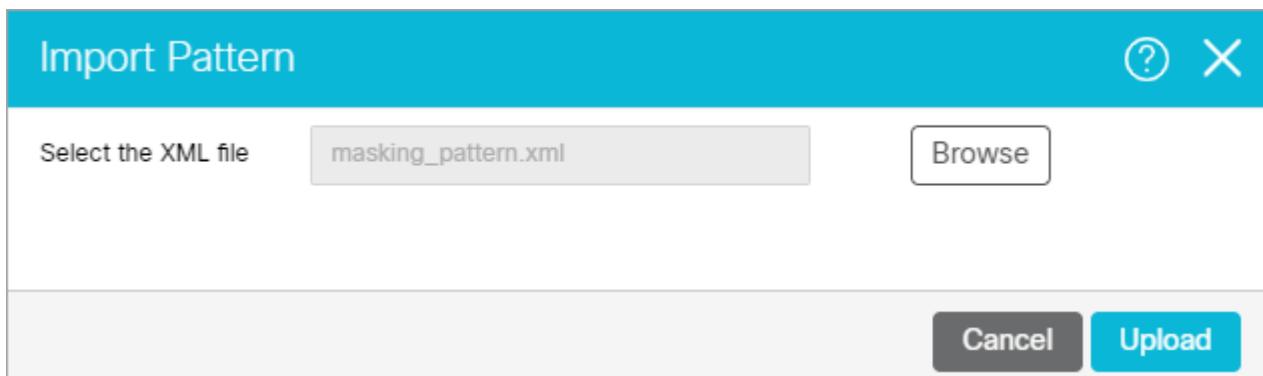
1. In the global-level Top Menu, click the **Security** option.
2. In the Left menu, navigate to **Data Masking > Patterns**.
3. Click the **Import/Export** button and select the **Export Pattern** option.
4. The patterns XML file is downloaded.

Importing Masking Patterns

Only XML files can be used to import patterns.

To import a pattern:

1. In the global-level Top Menu, click the **Security** option.
2. In the Left menu, navigate to **Data Masking > Patterns**.
3. Click the **Import/Export** button and select the **Import Pattern** option.
4. In the Import Patterns window, provide the location of the XML file. Click **OK**.



You are also notified if the import process will over-write existing patterns.

If the file has any issues, the import process is aborted and the user is notified about the same. Some of the issues with the file can be:

- Type of file is not XML.
- Size of the imported file is more than 10 MB.
- XML is malformed.

- The values of the name, description, JavaScript Regular Expression, Java Regular Expression fields are more than the allowed size.
- A custom pattern is defined as a default pattern.
- A default pattern is not defined as a default pattern.
- The JavaScript regular expression defined in the file is not correct.
- The Java regular expression defined in the file is not correct.
- You are deactivating a pattern that is in use.

Copying Patterns

To copy a pattern:

1. In the global-level Top Menu, click the **Security** option.
2. In the Left menu, navigate to **Data Masking > Patterns**.
3. In the Actions column of the desired pattern, click the **Options**  button and select the **Create Copy** option.

You are notified when the pattern is copied. All patterns are copied in the inactive state. You can make them active when you are ready to use the pattern.

Deleting Patterns

Patterns cannot be deleted if they are associated with a channel. You must remove all associations before deleting the pattern.

To delete a pattern:

1. In the global-level Top Menu, click the **Security** option.
2. In the Left menu, navigate to **Data Masking > Patterns**.
3. In the Actions column of the desired pattern, click the **Options**  button and select the **Delete** option.
4. In the window that appears, confirm the deletion.

Validating Masking Patterns

Validating Individual Patterns

After you create a pattern, test it by using the validation option available for each pattern.

To validate a pattern:

1. In the global-level Top Menu, click the **Security** option.
2. In the Left menu, navigate to **Data Masking > Patterns**.
3. Select the pattern you want to test.
4. Click the **Validate** button.
5. In the Validate Pattern window, do the following:
 - a. In the Sample Data provide the text you want to use for testing the pattern and click the **Show** button.
 - b. In the Masked Data section, you will see the JavaScript Regular Expression and Java Regular Expression applied to the sample data. All the settings configured in the Masking Pattern tab will be applied to the sample data.
 - c. After you are done testing, click the **Close** button.

Validate Pattern : MasterCard Credit Cards (?) X

Sample Data

American Express: 3461-421666-87940 | 346142166687940 | 3461 421666 87940
Visa 16: 4485-0713-3727-3343 | 4485071337273343 | 4485 0713 3727 3343
Master Card: 5227-6667-0186-2363 | 5227666701862363 | 5227 6667 0186 2363
Visa 13: 4222-2222-2222-2 | 422222222222 | 4222 2222 2222 2
US Social Security Number: 555-55-5555 | 5555555555 | 555 55 5555

Show **Clear**

Masked Data

JavaScript Regular Expression
(Used to mask sensitive data in customer chats, agent chats, and agent emails.)

American Express: 3461-421666-87940 | 346142166687940 | 3461 421666 87940
Visa 16: 4485-0713-3727-3343 | 4485071337273343 | 4485 0713 3727 3343
Master Card: ****63 | ****63 | ****63
Visa 13: 4222-2222-2222-2 | 422222222222 | 4222 2222 2222 2
US Social Security Number: 555-55-5555 | 5555555555 | 555 55 5555

Java Regular Expression
(Used to mask sensitive data in auto-generated emails and inbound emails.)

American Express: 3461-421666-87940 | 346142166687940 | 3461 421666 87940
Visa 16: 4485-0713-3727-3343 | 4485071337273343 | 4485 0713 3727 3343
Master Card: ****63 | ****63 | ****63
Visa 13: 4222-2222-2222-2 | 422222222222 | 4222 2222 2222 2
US Social Security Number: 555-55-5555 | 5555555555 | 555 55 5555

Validating Masking Patterns Applied to Channels

In addition to validating individual patterns, you can validate the patterns selected for a channel and make sure that they work properly as a group and the order of the selected patterns is correct.

To validate patterns applied to channels:

1. In the department-level Top Menu, click the **Apps** option.
2. In the Left menu, navigate to **Email > Data Masking** or **Chat & Messaging > Data Masking**
3. Click the **Validate** button.
4. In the Validate Pattern window, do the following:
 - a. In the Sample Data provide the text you want to use for testing the pattern and click the **Show** button.
 - b. In the Masked Data section, you will see all the selected patterns applied to the sample data.
 - c. After you are done testing, click the **Close** button.

Applying Patterns to Email Channel

At the Partition Level

A partition administrator with the following actions can perform this task:

- **Manage Application Security:** Allows you to view the patterns applied to channels and to apply patterns to channels.
- **View Application Security:** Gives a read-only view of the patterns applied to channels. Users with this action cannot change any configurations.

What can the administrator do?

- Enable data masking for incoming and outgoing emails for all departments and manage all configurations from the partition level.
- Give control to the department administrators to configure their own settings. At this point, department administrators can choose to configure their own settings or can continue to use the settings configured by the partition administrators. Once a department administrator decides to configure their own settings, they are not affected by the changes made by the partition administrator.

To apply patterns to the email channel:

1. In the Global-level Top menu, select the **Security** option.
2. In the Left menu, navigate to **Data Masking > Email**.
3. In the Data Masking: Email space, under the General tab, adjust the following fields:
 - **Name:** This field is disabled and cannot be changed.
 - **Description:** This field is disabled and cannot be changed.

- **Enable Data Masking in Incoming Emails:** Click this toggle button to enable or disable data masking for incoming emails. This ensures that sensitive information in the content of an email remains undisclosed in the email body when it arrives in the agent's inbox.
- **Enable Data Masking in Outgoing Emails:** Click this toggle button to enable or disable data masking for outgoing emails. This ensures that if the agent's reply or email thread contains sensitive information about the customer, it is not at risk of being disclosed when the agent's reply is sent.
- **Allow Resetting at the department level:** Click this toggle button to allow data masking settings to be configured at the department level. If this toggle remains disabled, the settings configured at the partition level apply to all departments.

Data Masking: Email

General	Masking Patterns	Departments
Name	Email	
Description	Mask sensitive data in emails	
Enable data masking in incoming emails	<input checked="" type="checkbox"/>	
Enable data masking in outgoing emails	<input checked="" type="checkbox"/>	
Can be reset at department level	<input type="checkbox"/>	

4. On to the Masking Patterns tab, click the **Search and Add**  button and select the patterns to be applied to the chat channel and define the order of the patterns. While defining the order make sure that the longest pattern is on top followed by the short patterns. This ensures that patterns that use smaller matches do not partially mask the text that would match the longer text. For example, if you are selecting both Visa Credit Card 16 Digits and Visa Credit Card 13 Digits, make sure the order is - Visa Credit Card 16 Digits and then Visa Credit Card 13 Digits. If the order is not correct, and let us say you mask the following content: Visa 16: 4485-0713-3727-3343 and Visa 13: 4222-2222-2222-2, it will get masked as Visa 16: *****343 and Visa 13: *****. You will notice that the 16 digit credit card did not get masked properly.

Data Masking: Email

General **Masking Patterns** Departments

Patterns +

Name	Order
Visa Credit Card 16 Digits	1
MasterCard Credit Cards	2
American Express Credit Cards	3
Visa Credit Card 13 Digits	4
US Social Security Numbers	5

5. Next, go to the Departments tab to see a read-only view of the departments that are using the masking patterns applied by the partition administrator.

Data Masking: Email		
General	Masking Patterns	Departments
Name		Use masking patterns applied by Partition Administrators
Eight Bank		Yes
Eight Banks- Management		Yes
Eight Banks- Marketing		Yes
Eight Banks- Media		Yes
Eight Banks- PE		Yes
Eight Banks- QA		Yes
Eight Banks- Sales		Yes
Eight Banks- Services		Yes
Eight Banks- Strategy		Yes
Eight Banks- Support		Yes

6. Click the **Save** button.
7. After saving the changes, validate the patterns selected for the channel by using the [Validate](#) button.

(?) X
Validate Pattern

Sample Data

```
American Express: 3461-421666-87940 | 346142166687940 | 3461 421666 87940
Visa 16: 4485-0713-3727-3343 | 4485071337273343 | 4485 0713 3727 3343
Master Card: 5227-6667-0186-2363 | 5227666701862363 | 5227 6667 0186 2363
Visa 13: 4222-2222-2222-2 | 422222222222 | 4222 2222 2222 2
US Social Security Number: 555-55-5555 | 5555555555 | 555 55 5555
```

Show Clear

Masked Data

JavaScript Regular Expression

(Used to mask sensitive data in customer chats, agent chats, and agent emails.)

```
American Express: ***** | ***** | *****
Visa 16: ***** | ***** | *****
Master Card: ***** | ***** | *****
Visa 13: ***** | ***** | *****
US Social Security Number: ***** | ***** | *****
```

Java Regular Expression

(Used to mask sensitive data in auto-generated emails and inbound emails.)

```
American Express: ***** | ***** | *****
Visa 16: ***** | ***** | *****
Master Card: ***** | ***** | *****
Visa 13: ***** | ***** | *****
US Social Security Number: ***** | ***** | *****
```

At the Department Level

A department administrator with the following actions can perform this task:

- **Manage Department Security:** Allows you to view the patterns applied to channels and to apply patterns to channels.
- **View Department Security** Gives a read-only view of the patterns applied to channels. Users with this action cannot change any configurations.

How much control do department administrators get?

- If the partition administrator has not given control to department administrators to configure their own settings, department administrators get a read-only view of the settings configured by the partition administrator.
- If the department administrator has the option to configure their own settings, and they choose to do so, they are not affected by the changes made to the configurations by the partition administrators.

To apply patterns to the email channel:

1. In the department-level Top menu, select the **Apps** option.
2. In the Left menu, navigate to **Email > Data Masking**.

3. In the Data Masking: Email space, select the **Enable Department Settings** toggle switch to enable data masking configuration for the department. If this toggle is enabled, you may configure and adjust the fields under the General and Masking patterns tabs.
4. On the General tab, set the following:
 - **Name:** This field is read-only.
 - **Description:** This field is read-only.
 - **Enable data masking in incoming emails:** Click the toggle to enable data masking for incoming emails. By default this is set to **Off**.
 - **Enable data masking in outgoing emails:** Click the toggle to enable data masking for outgoing emails. By default this is set to **On**.
5. On to the Masking Patterns tab, click the **Search and Add**  button and select the patterns to be applied to the chat channel and define the order of the patterns. While defining the order make sure that the longest pattern is on top followed by the short patterns. This ensures that patterns that use smaller matches do not partially mask the text that would match the longer text. For example, if you are selecting both Visa Credit Card 16 Digits and Visa Credit Card 13 Digits, make sure the order is - Visa Credit Card 16 Digits and then Visa Credit Card 13 Digits. If the order is not correct, and let us say you mask the following content: Visa 16: 4485-0713-3727-3343 and Visa 13: 4222-2222-2222-2, it will get masked as Visa 16: *****343 and Visa 13: *****. You will notice that the 16 digit credit card did not get masked properly.
6. Click the **Save** button.
7. After saving the changes, validate the patterns selected for the channel by using the [Validate button](#).

Assets For Email

- [Email Settings](#)
- [About Email Articles](#)
- [Creating Email Articles](#)
- [Copying Articles](#)
- [Editing Articles](#)
- [Deleting Articles](#)
- [Setting the Language of Articles](#)
- [Knowledge Settings](#)

Email Settings

Common Email Settings

Language Detection Threshold (KB)

Use this setting to define the amount of data that is required to be present in activity before the application is able to identify the language of the activity.

- **Access level:** Partition settings
- **Default value:** 10
- **Minimum value:** 1 KB
- **Maximum value:** 1024 KB

Message Note for Large Body

Use this setting to change the message added to emails, which exceed the allowed maximum body size for incoming emails.

- **Access level:** Partition settings
- **Default value:** Email body was too large. It is saved as an attachment
- **Minimum value:** —
- **Maximum value:** 255

Action for Large Email

Use this setting to decide what should be done with large emails coming in the system. An email is considered as large if it exceeds the size specified in the **Maximum email size for retrieval** setting.

- **Access level:** Partition settings
- **Default value:** Skip and notify
- **Value options:**
 - **Skip and Notify:** Retriever skips the email and notifies the administrator about the same.
 - **Delete and Notify:** The email is deleted from the mail server and a notification is sent to the administrator.

Set 'From' Email Address for Email Activities Transferred Between Departments

This setting determines how the from email address is set for the email activities that are transferred to the department from other departments.

- **Access level:** Partition settings, Department settings
- **Default value:** Do not change
- **Value options:**
 - **Do not change:** The original email address set in the From field is retained.
 - **Use default alias of destination department:** The From email address is set to the default alias configured for the department. Make sure that a default alias is configured for the department.
 - **Force agents to select “From” email address:** The value of the “From” field is reset to “Please select an email address” and agents are required to pick the From address while sending out the email.
- **Editable at lower level:** Yes

Restrict To, Cc, and Bcc Email Address Fields

Use this setting to determine if the To, Cc, and Bcc fields in the Agent Console require the dropdown menu to select an email address, or if agents can manually enter email addresses. Restricting agents from manually entering email addresses prevents auto-complete from affecting the fields.

- **Access level:** Partition settings, Department settings
- **Default value:** Allow user to type a new address and select from dropdown
- **Value options:** Allow user to type a new address and select from dropdown, Prevent user from selecting from dropdown, Prevent user from typing new email address

Inbox Settings

Inbox Sort Column

In this setting, define the column that is used to sort items in the Activity and Cases folders in the Agent Console. Use the **Inbox sort order** setting to define whether the items are sorted in the ascending or descending order. This setting does not apply to the Chat Inbox. For chat, use the **Chat - Inbox Sort Column** setting.

- **Access level:** Partition settings, Department settings
- **Default value:** Activity ID
- **Value options:** Activity ID, Activity Priority, Case ID, Contact point, Department name, Subject, When created, Activity type, Activity sub status
- **Editable at lower level:** Yes

Inbox Sort Order

Use this setting to define the order - ascending or descending, in which items appear in the Activity and Cases folders in the Agent Console. Use the **Inbox sort column** setting to determine the column by which items are sorted. This setting does not apply to the Chat Inbox. For chat, use the **Chat - Inbox Sort Order** setting.

- **Access level:** Partition settings, Department settings

- **Default value:** Ascending
- **Value options:** Ascending, Descending
- **Editable at lower level:** Yes

Email - Enable Sound Alert

Use this setting to define if you want the system to play a sound when an email is assigned to the agent. To minimize distraction, the alert sounds only when the focus is not in the mail inbox.

- **Access level:** Partition settings, Department settings
- **Default value:** Yes
- **Value options:** No, Yes
- **Editable at lower level:** Yes

Dispatcher and Retriever Settings

Maximum Email Size for Dispatcher (MB)

Use this setting to define the maximum size of an outgoing email. This size includes the body of the email and the attachments. The system will not allow agents or workflows to create outgoing emails whose size is larger than this setting value. Users are notified while composing email from the Agent Console, and while configuring workflows from Administration Console. If a system generated email (auto-acknowledgements, auto-replies and so on.) exceeds this size, the email will not be sent and a notification is sent to the email address configured in the **To: address for notification from Services** setting.

Note: The value of this setting should be 40% less than the email size configured on the SMTP server. This buffer is needed because email data (content and attachments) is encoded before an email is sent out by the SMTP server. For example, if the size configured on SMTP is 10 MB, the value of this setting should be 6 MB.

- **Access level:** Partition settings
- **Default value:** 25
- **Minimum value:** 1
- **Maximum value:** 150

Maximum Body Size for Dispatcher (KB)

Use this setting to define the maximum body size of an outgoing email. This size considers only the email body size and excludes the email attachments. The system will not allow agents or workflows to create outgoing emails whose body size is larger than this setting value. Users are notified while composing email from the Agent Console, and while configuring workflows from Administration Console. If a system generated email (auto-acknowledgements, auto-replies and so on.) exceeds this size, the email will not be sent and a notification is sent to the email address configured in the **To: address for notification from Services** setting.

- **Access level:** Partition settings

- **Default value:** 100
- **Minimum value:** 100
- **Maximum value:** 1000

Notification Mails Auto BCC

DSM sends out notifications when any error occurs in the functioning of services (example, retriever, dispatcher, and so on). Use this setting to specify the email address that will be sent notification emails, but remain hidden to other recipients.

- **Access level:** Partition settings
- **Default value:** —
- **Minimum value:** 0
- **Maximum value:** 255

Number of Emails to Retrieve

Use this setting to define the maximum number of emails to be picked by the Retriever Service for processing.

- **Access level:** Partition settings
- **Default value:** 10
- **Minimum value:** 10
- **Maximum value:** 250

Maximum Email Size for Retriever (MB)

Use this setting to define the maximum size of emails that the Retriever Service can retrieve from the Mail Server. This size includes the email subject, body (text and HTML content), header, and attachments. For example, if the value of the setting is 1 MB, and an email with 1 MB content comes in, this email will not be retrieved, as the size of the email is greater than 1 MB because of headers and both text and HTML parts of email. If the email size exceeds the number specified in this setting, the email is either skipped or deleted, and a notification is sent. This action is defined in the **Action for Large Email** setting.

- **Access level:** Partition settings
- **Default value:** 16
- **Minimum value:** 2
- **Maximum value:** 50

Maximum Body Size for Retriever (KB)

Use this setting to define the maximum size of the email body that the Retriever Service can retrieve from the Mail Server. This size does not include the header and attachments. If the body size exceeds the size specified in this setting,

the body is saved as a text file and is attached to the email. A note is added to the email body that the original email content is available as an attachment. This note can be changed from the **Message note for large body** setting.

- **Access level:** Partition settings
- **Default value:** 1000 KB
- **Minimum value:** 100
- **Maximum value:** 1000 KB

Workflow Settings

Auto Response Number

Use this setting to define the number of auto-acknowledgements and auto-responses to be sent to a customer in a specified time duration. The time duration is configured through the **Auto response time** setting. For example, if the value in this setting is three and a customer sends four emails in one hour (time duration configured through the **Auto response time** setting), the customer will get auto responses to three emails only.

- **Access level:** Partition settings
- **Default value:** 3
- **Minimum value:** 3
- **Maximum value:** 100

Auto Response Time

In this setting define the time duration (in minutes) to be considered to decide the number of auto responses to be sent to a customer.

- **Access level:** Partition settings
- **Default value:** 1440
- **Minimum value:** 360
- **Maximum value:** 1440

Include Original Message for Auto Acknowledgement and Auto Reply

Use this setting to include the content of incoming emails in the auto-acknowledgement and auto-reply emails sent to customers in response to the incoming emails.

- **Access level:** Partition settings, Department settings
- **Default value:** Enable
- **Value options:** Disable, Enable
- **Editable at lower level:** Yes

From Email Address for Alarm

Use this setting to configure the email address to be displayed in the "From" field of alarm notifications.

- **Access level:** Partition settings, Department settings
- **Default value:** —
- **Minimum value:** 0
- **Maximum value:** 255
- **Editable at lower level:** Yes

Alert Subject

Notifications can be sent to users when new activities are assigned to them. Use this setting to configure the subject of these notifications.

- **Access level:** Partition settings, Department settings
- **Default value:** You have received a new activity
- **Value options:** —
- **Editable at lower level:** Yes

Alert Body

Notification can be sent to users when new activities are assigned to them. Use this setting to configure the message displayed in these notifications.

- **Type:** Department settings group
- **Default value:** You have received a new activity (id = ``activity_id) from customer identified by ``contact_point_data
- **Value options:** —
- **Editable at lower level:** Yes

Block all Attachments

Use this setting to block all attachments coming in the system.

After changing the value of the setting, you need to restart all retriever instances in the system.

- **Access level:** Partition settings, Department settings
- **Default value:** No
- **Value options:** Yes, No

Action on Blocked Attachments

Use this setting to decide what should be done with all the block attachments. You can either save the attachments in the Cisco_Home\cService\storage\1\mail\attachments folder or you can delete them.

After changing the value of the setting, you need to restart all retriever instances in the system.

- **Access level:** Partition settings, Department settings
- **Default value:** Quarantine
- **Value options:**
 - **Quarantine:** The attachment is saved in the Cisco_Home\cService\storage\1\mail\attachments folder and a notification email is sent to the administrator.
 - **Delete:** The attachment is deleted.
- **Editable at lower level:** Yes

Email - Criteria for Blocking Attachments

Use this setting to configure the criteria for blocking attachments. You can choose to block attachments for incoming emails, or for both incoming and outgoing emails.

After changing the value of the setting, you need to restart all retriever instances in the system.

- **Access level:** Partition settings, Department settings
- **Default value:** Inbound emails only
- **Value options:** Inbound email only, Both inbound and outbound emails
- **Editable at lower level:** Yes

Activity Assignment Settings

Maximum Activities to Display for Pull

Use this setting to specify the maximum number of activities that are displayed in the Pull activities window in the Agent Console.

- **Access level:** Partition settings
- **Default value:** 50
- **Minimum value:** 1
- **Maximum value:** 100

Maximum Activities to Pull at a Time

This setting determines the maximum number of activities that are assigned to an agent when he clicks the Pull button in the Agent Console.

- **Access level:** Partition settings, Department settings
- **Default value:** 10
- **Minimum value:** 1
- **Maximum value:** 25
- **Editable at lower level:** Yes

Activities to Pull First

This setting determines the criteria for pulling activities in the Agent Console. When the agent clicks the Pull button in the Agent Console, the activities based on this criteria are assigned to the agent.

- **Access level:** Partition settings, Department settings
- **Default value:** Most overdue
- **Value options:** Most overdue, Due Soonest, Highest Priority, Newest, Oldest
- **Editable at lower level:** Yes

Alert Agent when Activity is Assigned

Use this setting to decide if an alert should be displayed to agents when new activities are assigned to them. The following alerts are displayed: If the Agent Console is minimized, or not in focus, an alert is displayed in the bottom right hand side section of the screen. This setting does not apply to chat activities.

- **Access level:** Partition settings, Department settings
- **Default value:** Always
- **Value options:**
 - **Never:** Activity is displayed in the Inbox, but no alert is displayed to agents.
 - **Always:** An alert is displayed every time an activity is assigned to the agent.
 - **When the agent has no open activity:** The alert is displayed only when the agent has no activities in the inbox.
- **Editable at lower level:** Yes

Enable Autopushback

Use this setting to enable the auto-pushback feature for your department. Auto-pushback helps you to automatically pull back activities from logged out agents and assign these activities to other available agents. Pinned activities are not candidates for auto-pushback. Along with this setting, make sure you configure the time duration after which an activity should be considered for pushback and the criteria for activities to be pushed back from the agent's inbox. Note that

these auto-pushback settings apply to the following activities - inbound emails associated with queues, supervisory activities associated with queues, tasks associated with queues, and custom activities associated with queues. The following activities are not considered for auto-pushback - rejected supervisory activities, drafts, pinned activities, locked activities, and outbound emails.

- **Access level:** Partition settings, Department settings
- **Default value:** Enabled
- **Value options:** Disabled, Enabled
- **Editable at lower level:** Yes

Autopushback Time (Minutes After Logout)

In this setting, define the time duration after which an activity is pulled back from an agent and is sent back to the original queue to be reassigned to another agent.

- **Access level:** Partition settings, Department settings
- **Default value:** 30
- **Minimum value:** 0
- **Maximum value:** 21600 (15 Days)
- **Editable at lower level:** Yes

Activity Type for Autopushback

In this setting, determines the criteria for automatically pulling back activities from the agent's inbox.

- **Access level:** Partition settings, Department settings
- **Default value:** New activities only
- **Value options:**
 - **None:** No activities will be pushed back to the queues.
 - **New activities only:** Only activities with substatus "New" are pushed back to the queues.
 - **Both new and incomplete activities:** All the activities are pushed back to the queues.
- **Editable at lower level:** Yes

Send Agent an Email When Activity is Assigned

Use this setting to decide if an email notification should be sent to agents when new activities are assigned to them. This setting does not apply to chat activities.

- **Access level:** Partition settings, Department settings
- **Default value:** Never
- **Value options:**

- **Never:** Email notifications will not be sent.
 - **When Logged In:** Email notifications will be sent only if the agent is logged in.
 - **When not Logged in:** Email notifications will be sent only if the agent is not logged in.
 - **Always:** Email notifications will always be sent whether the agent is logged in or not.
- **Editable at lower level:** Yes

Activity Handling Settings

Force Activity Categorization

Use this setting to ensure that agents assign categories to each activity before completing it. This setting does not apply to chat activities. For chat, use the **Chat - Force Activity Categorization** setting.

- **Access level:** Partition settings, Department settings
- **Default value:** No
- **Value options:** No, Yes
- **Editable at lower level:** Yes

Force Resolution Code

Use this setting to ensure that agents assign resolution codes to each activity before completing it. This setting does not apply to chat activities. For chat, use the **Chat - Force Resolution Code** setting.

- **Access level:** Partition settings, Department settings
- **Default value:** No
- **Value options:** No, Yes
- **Editable at lower level:** Yes

Require Activity Note on Transfer

Use this setting to decide if agents are required to add a note to the activity before transferring it to another agent or queue.

- **Access level:** Partition settings, Department settings
- **Default value:** No
- **Value options:** Yes, No

Add Contact Point on Compose

In this setting you can decide if the email address specified in the To field of a composed email activity should be added to the customer profile associated with the case to which the activity belongs.

- **Access level:** Partition settings, Department settings
- **Default value:** Yes
- **Value options:** Yes, No
- **Editable at lower level:** Yes

Include Message Header in Reply

With this setting you can decide the amount of header information that is displayed to agents in the Agent Console. This information is available in the Activity pane.

- **Access level:** Partition settings, Department settings
- **Default value:** Basic
- **Value options:** None, Basic, Complete
- **Editable at lower level:** Yes

Personalized Activity Assignment Settings

The personalized activity assignment feature assists in configuring the application to route incoming activities pertaining to a case to the agent who last sent a response for that case. This feature applies to email activities. For example, say an email (activity ID 1001) comes in for case 2001, and agent Mary responds to the activity. The Agent ID is passed with a NEW_TASK request to Unified CCE when next email reply (activity ID 1003) from the customer comes in. Unified CCE can then leverage it to perform the necessary routing and assignments.

PERSONALIZED ACTIVITY ASSIGNMENT

- **Access level:** Partition settings, Department settings
- **Default value:** Logged in
- **Value options:** Always, Disable

ENABLE PERSONALIZED ACTIVITY ASSIGNMENT FOR FORWARDED ACTIVITIES

Use this setting to enable personalized activity assignment for forwarded emails.

- **Access level:** Partition settings, Department settings
- **Default value:** Enabled
- **Value options:** Enabled, Disabled

ENABLE PERSONALIZED ACTIVITY ASSIGNMENT TO FOREIGN USERS

Use this setting to enable personalized activity assignment feature for foreign users in a department.

- **Access level:** Partition settings, Department settings
- **Default value:** Enabled
- **Value options:** Enabled, Disabled

ENABLE PERSONALIZED ACTIVITY ASSIGNMENT ONLY TO USERS WITH PERMISSIONS ON QUEUE

Use this setting to enable personalized activity assignment feature for just users with permissions for the queue.

- **Access level:** Partition settings, Department settings
- **Default value:** Disabled
- **Value options:** Enabled, Disabled

About Email Articles

Articles are powerful tools that can be crafted and added to an agent's toolset when handling emails. Articles save agents time by providing pre-written information that can be used to quickly respond to customer inquiries and maintain professional consistency without having to individually type out a standard response. They can also be a simple tool used in routing to assure the customer that their issue is being handled. The types of email articles available are:

- Headers
- Greetings
- Footers
- Signatures
- Auto-Acknowledgements: Articles that can be used to inform customers that their email has been received. These articles are for use in workflows and cannot be accessed by agents in the Agent Console.

Once these articles have been established, they can be implemented into email queues and workflows. Auto-acknowledgements ensure that customers are immediately informed that their email has been received and will be addressed. Headers, greetings, footers, and signatures can be automatically added to agent responses to maintain consistency in the presentation of agent replies.

Creating Email Articles

To create email articles:

1. In the department-level Top Menu, click the **Apps** option.
2. In the Left menu, navigate to **Email** and select one of the following options:
 - Headers
 - Greetings
 - Footers
 - Signatures
 - Auto-Acknowledgements

3. In the workspace, click the **New** button.
4. Under the General tab, provide the following:
 - **Name:** A name for the article.
 - **Description:** A description for the article
 - **Language:** The language of the article. This is set to the default language and cannot be changed. For more information about changing the language, see Setting a Primary Language.
 - **Owned By:** Set the owner of the article.
5. Under the Content tab, provide the content for the article. You can also use the **Find** and **Replace** buttons to perform a quick search of the content and make any necessary changes.
6. Under the Attachments tab, you can upload attachments to the article.
7. You can add notes to the article as well.
8. Click the **Preview** button to preview the presentation of the article. When you are satisfied, click the **Save** button.

Copying Articles

To copy an article:

1. In the Chat or Email article workspace, in the Actions column, click the **Options**  button for the article you wish to copy.
2. Select the **Create Copy** option.
3. Edit the Name, Description, and Content of the article as needed and click the **Save** button when finished.

Editing Articles

To edit an article:

1. In the Chat or Email article workspace, click the article you wish to edit
2. In the Edit space, adjust the Name, Description, and Content of the article as needed. For more information about authoring articles and what type of content to provide, see [About Chat Articles](#) and [About Email Articles](#).
3. Click the **Preview** button to preview the presentation of the article. When you are satisfied, click the **Save** button.

Deleting Articles

To delete an article:

1. In the Chat or Email article workspace, in the Actions column, click the **Options**  button for the article you wish to delete.
2. Select the **Delete** option.
3. In the window that appears, click the **Yes** button to confirm the deletion.

Setting the Language of Articles

To set the language of articles:

1. In the Chat or Email article workspace, click the **Actions** button.
2. Select the **Change Language** option.
3. In the Change Language window, select a language from the **Select Knowledge Base Language** dropdown.
4. When you have made your selection, click the **Done** button. The language you have selected is now applied to all new chat articles that you author.

Knowledge Settings

eGain Knowledge System

This setting only applies to systems that have purchased Knowledge add-ons.

Use this setting to identify an external knowledge system as the source of knowledge for configuration with digital channels, such as chat or email. The URL for the knowledge system must be provided here in order to configure queues to use external knowledge bases for Solve.

- Access Level: Partition settings; Department settings
- Default value: —
- Minimum: —
- Maximum: —
- Editable at lower level: Yes

KB Primary Language

Designates the primary language for the Knowledge Base (KB). This setting does not appear in the Language Tools section and must be set here. To add additional languages from the language pack, click the **Search and Add**  button, then select the desired language from the popup window that appears.

- **Access level:** Partition settings, Department settings
- **Default value:** —
- **Value options:** English (US), English (UK), Arabic, Chinese (Simplified), Chinese (Traditional), Czech, Danish, Dutch, Finnish, French, German, Greek, Hungarian, Italian, Japanese, Korean, Norwegian (Bokmal), Norwegian (Nynorsk), Portuguese, Portuguese (Brazilian), Romanian, Spanish, Swedish, Turkish
- **Editable at lower level:** Yes

Custom Language Label

This setting allows you to add a custom language to the list of languages available in the KB primary language setting.

- **Access level:** Partition settings, Department settings
- **Default value:** Custom
- **Minimum:** 0
- **Maximum:** 225
- **Editable at lower level:** Yes

Customizing Email Text Editor

You can customize the email text editor toolbar to add more fonts, change font size, add more colors etc.

To customize the text editor toolbar:

1. Provide the following path of the web server ECE installation directory:
`web\custom\apps\css\main_ckeditor.css.`
2. Open the `main_ckeditor` file.
3. Make the required changes in the file. For example, if you want to update the font, add the following details:

```
Arial;  
font-size: 14px;
```
4. Save the file. Once you save the file a backup file is automatically created.

Queues

- [About Queue](#)
- [Creating Email Queues](#)
- [Editing Imported Queues for Email](#)
- [Picking, Pulling, and Transferring Activities](#)
- [Changing the Status of Queues](#)
- [Deleting Queues](#)

About Queues

Queues hold incoming customer service activities such as emails and chat sessions that are waiting to be assigned to agents. There is no limit to the number of queues that can be created in a department. A single queue can hold multiple activity types like email, call, chat, and so on. Agent access to queues is controlled through permissions.

Assume that a sports goods company receives email queries that can be categorized into one of the following: Orders, Replacements, Billing details, or Shipment details.

The administrator for that company can create four queues - Orders, Replacements, Billing, and Shipment, and using workflows, route each type of query to its respective queue. Agents with expertise in a particular area are given permissions to access the appropriate queue. In this example, an agent may have access to the Shipment queue, but not the Replacements one.

You can and should create different queues for each type of activity that is processed by the system. If the system is being used to handle email and chat type activities, create two independent queues, one for email, and one for chat, and configure permissions as required.

Types of Queues

Unified CCE: This is a Unified CCE type of queue and the routing of activities from this queue is done by Unified CCE. This queue is mapped to a Unified CCE MRD and a script selector. When the MRD or script selector attributes are modified in Unified CCE, the modifications are automatically retrieved and synchronized in ECE when an administrator clicks the name of the queue in the Administration Console. If the MRD or script selector is deleted from Unified CCE, the queue in ECE is unmapped when a user clicks the name of the queue in the Administration Console, and the administrator is shown a message saying that the queue has been unmapped.

Queues Created by the System

Exception Queue

By default, an exception queue is created in every department. Activities are routed to the exception queue when:

- There are no active inbound workflows in the department.
- A workflow faces an error while processing activities.
- The queue used in a workflow is made inactive. All the activities coming to the inactive queue are routed to the exception queue.
- Emails are bounced back.
- Emails are not parsed by the retriever. If the email subject contains a closed case ID, the case matching the ID is reopened and the activity is associated with it. If the ID matches an open case, the email activity is associated with it. If the ID does not match any cases, a new case is created and associated with the activity.
- A `new_task_failure` message is returned by ICM.

The exception queue cannot be deleted or made inactive.

Supervisory Queues

By default, a supervisory queue is created for each MRD associated with either the email or the outbound media classes. This is a standalone queue in ECE. Administrators must use this supervisory queue as the end node of all outbound workflows that form supervisory loops for integrated users or user groups who are part of that MRD. Integrated users who are assigned the Supervisor or Administrator roles are automatically given permissions to the Supervisory queue. For more information about setting up supervisory loops, see [About Workflows](#).

Call Queue

A system provided queue for calltrack activities.

Creating Email Queues

Configure General Properties

To configure the general properties of the email queue:

1. In the department-level Top Menu, select **Business Rules**.
2. In the Left menu, navigate to **Queues**.
3. Click the **New** button to open the Create Queue space. In the General tab, fill in the following information:

- **Name:** Type a name of the queue. This is required information. The following characters are not allowed in the name: < , . ? : > \$ * \ /
- **Type:** This is set to **Unified CCE** and cannot be changed.
- **Media Routing Domain:** From the dropdown list, select the MRD to which the queue should map.
- **Script Selector:** From the dropdown list, select a script selector associated with the MRD to which the queue is mapped.
- **Active:** Denotes if the queue is active or inactive. To make the queue active, click the **Toggle** button.

If this queue is intended to be part of a workflow, then it is highly recommended not to set the queue status to inactive.

- **Description:** Type a brief description.
- **Maximum Task Limit:** Sets the maximum amount of tasks that the queue can hold. The value in this field is set automatically based on the selected MRD and it cannot be changed.
- **Routing Priority:** Determines how the queue will sort and route priority tasks. There are two options:
 - **Due date:** Determines task priority based on the due date of the task.

- **Longest waiting:** Prioritizes tasks that have been waiting in the queue for the longest amount of time.
 - **Queue Priority:** Marks the priority level for the queue. There are three options: **Low**, **Medium**, and **High**. This field is disabled and does not apply to ECE queue types.
 - **Configure Solve:** This setting only applies to systems that have purchased Knowledge add-ons. For more information, see *eGain Solve for Cisco Companion Guide*.
4. Click the **Save** button. Select the following tabs that apply to this queue to configure more advanced properties. Note that sections are only visible for queues tied to MRDs with those channels, for example, the Chat tab is only visible for a Chat MRD queue

Configure Email Properties

To configure the email properties:

1. Select the **Email** tab.

You must create the headers, footers, greetings, and signatures articles from the Knowledge Base Console. Only one greeting, header, footer, and signature can be associated with a queue.
2. From the Email Media section, select the headers, footers, greetings, and signatures to be associated with the queue. For each queue, you can configure the header, footer, signature and greeting to be associated with the queue. The selected header, footer, signature and greeting are available to the agents in the Reply pane toolbar for quick access. The selected header, footer, signature, and greeting are also automatically added to the Reply pane, and the agent can choose to use them or delete them, if he does not want to use them. Provide the following details:
 - **Header:** Click the **Search and Add**  button to display a list of headers. From the available articles, select the header to be associated with the queue.
 - **Greeting:** Click the **Search and Add**  button to display a list of greetings. From the available articles, select the greeting to be associated with the queue.
 - **Signature:** Click the **Search and Add**  button to display a list of signatures. From the available articles, select the signature to be associated with the queue.
 - **Footer:** Click the **Search and Add**  button to display a list of footers. From the available articles, select the footer to be associated with the queue.
 - **Include Original Message in Reply:** Click the **Toggle** button to display the incoming message from the customer in the Reply pane. If this option is disabled, the incoming message is displayed in the Activity Body section of the Information pane. By default this option is disabled.

Email Media

Header	Header1	<input type="button" value="X"/>	<input type="button" value="+"/>
Greeting	Greetings1	<input type="button" value="X"/>	<input type="button" value="+"/>
Footer		<input type="button" value="+"/>	
Signature		<input type="button" value="+"/>	
<input type="checkbox"/> Include Original Message in Reply			

3. Click the **Save** button.

Editing Imported Queues

Queues can be created by importing the information from their designated MRD from Unified CCE.

Configure General Properties

To configure general properties:

1. In the department-level Top Menu, select **Business Rules**.
2. In the Left menu, navigate to **Queues**.
3. In the Queues space, select the queue you wish to edit.
4. In the Edit Queue space, on the General tab, set the following properties of the queue:
 - **Name:** Type a name of the queue. This is required information. The following characters are not allowed in the name: < , . ? : > \$ * \ /
 - **Type:** This is set to **Unified CCE** and can not be changed.
 - **Media Routing Domain:** Select the MRD to which the queue should map. One MRD can be mapped to only one queue. The list of MRDs is dynamically retrieved from Unified CCE. While creating queues for outbound emails, make sure you select the MRD created for outbound emails. Similarly, while creating queues for inbound emails, make sure you select the MRD created for inbound emails.
 - **Select Script:** From the dropdown list, select a script selector associated with the MRD to which the queue is mapped. It is the keyword that identifies the ICM routing script that is executed in Unified CCE on the

activity originating from this queue. An MRD can have multiple script selectors associated with it, but you can select only one script selector for a queue.

- **Active:** When a queue is created, by default it is active. Click the **Toggle** button to make it inactive. If you are using a queue in workflows or are intending to use it, it is advised that you do not make the queue inactive. If a queue is being used in workflows and it is made inactive, no new incoming activities are routed to the queue. All activities coming to an inactive queue are routed to the exception queue. Also, if the queue is being used in workflows, and agents have pull and transfer permissions on the queue, they can pull activities from, and transfer activities to inactive queues. If you want to restrict these actions, remove the pull and transfer permissions on the inactive queue.
- **Description:** Type a brief description.
- **Maximum Task Limit:** This is the maximum number of activities or tasks that can reside within the MRD at any point. It is also referred to as the Unified CCE queue depth or the Maximum calls per queue. The value in this field is set automatically based on the selected MRD and it cannot be changed.
- **Routing Priority:** Select the routing priority for activities waiting in the queue. The value chosen here determines the order in which activities are retrieved from the queue, and which new activity requests are sent for routing to Unified CCE. The options available are:
 - **Due date:** New activity request with the nearest due date is sent to Unified CCE.
 - **Longest waiting:** New activity request with the longest wait time is sent to Unified CCE.
- **Queue Priority:** Select the priority of the queue. While sending new activity requests from a queue, the priority of a queue is checked. If more than one queue has the same priority, than the queues are considered in alphabetic order. The EAAS instance retrieves activities from the highest priority queues first, and the lowest priority queues last. The queue priority can be:
 - Low
 - Medium
 - High
- **Configure Solve:** This setting only applies to systems that have purchased Knowledge add-ons. For more information, see *eGain Solve for Cisco Companion Guide*.

Edit Queue: WIM_MRDPD1_WIM_DN_PD1

General	Chat	Call Variables	Expanded Call Variables	Skill Groups	Precision Queue	Concurrent Task Limit
Name*	WIM_MRDPD1_WIM_DN_PD1					
Type*	Unified CCE					
Media Routing Domain*	WIM_MRDPD1					
Select Script*	WIM_DN_PD1					
Active	<input checked="" type="checkbox"/>					
Description						
Maximum Task Limit	300					
Routing Priority	<input checked="" type="radio"/> Due Date <input type="radio"/> Longest Waiting					
Queue Priority	<input type="button" value="▼"/>					
Configure Solve	Click the Assistance button to view and <input type="button" value="+"/>					

- Click the **Save** button.

Configure Email Properties

This tab is enabled only for queues that belong to an email MRD.

To configure email properties:

- Select the **Email** tab.
- From the Email Media section, select the headers, footers, greetings, and signatures to be associated with the queue. For each queue, you can configure the header, footer, signature and greeting to be associated with the queue. The selected header, footer, signature and greeting are available to the agents in the Reply pane toolbar, for quick access. The selected header, footer, signature, and greeting are also automatically added to the Reply pane, and the agent can choose to use them or delete them, if he does not want to use them. Provide the following details:

You must create the headers, footers, greetings, and signatures articles from the Administration Console. For more information, see [Creating Email Articles](#). Only one greeting, header, footer, and signature can be associated with a queue.

- **Header:** Click the **Search and Add**  button to display a list of headers. From the available articles, select the header to be associated with the queue.
- **Greeting:** Click the **Search and Add**  button to display a list of greetings. From the available articles, select the greeting to be associated with the queue.
- **Signature:** Click the **Search and Add**  button to display a list of signatures. From the available articles, select the signature to be associated with the queue.
- **Footer:** Click the **Search and Add**  button to display a list of footers. From the available articles, select the footer to be associated with the queue.
- **Include Original Message in Reply:** Click the **Toggle** button to display the incoming message from the customer in the Reply pane. If this option is disabled, the incoming message is displayed in the Activity Body section of the Information pane. By default, this option is disabled.

Edit Queue: New Email Queue

General	Email	Call Variables	Expanded Call Variables	Skill Groups	Precision Queue	Concurrent Task Limit
Email Media						
Header	<input type="text" value="Header1"/>  					
Greeting	<input type="text"/> 					
Footer	<input type="text"/> 					
Signature	<input type="text"/> 					
Include Original Message in Reply						

Configure Concurrent Task Limit

To configure concurrent task limit:

1. Go to the **Concurrent Task Limit** tab. For integrated queues for email and chat activities, set the maximum number of tasks that a given agent can handle at a time. This value is also known as the maximum concurrent task limit for an agent. There are two types of agents that are displayed here:
 - Agents who belong to the skill group associated with the Unified CCE MRD selected in the General tab.
 - Agent whose Attribute is used in PQ step and that PQ is mapped to the Unified CCE MRD selected in the General tab.

2. If more than one queue is mapped to the same MRD, then the highest value assigned to the agent for any of those queues will apply as the concurrent task limit. In such cases, users must go to the Concurrent Task Limit tab for each queue mapped to that same MRD to view the actual value that the system considers.
3. The Concurrent Task Limit for a user cannot be greater than the maximum task limit of the queue. The maximum task limit of a queue can be viewed from the **Maximum Task Limit** field on the General tab. The value for this field is configured in the **Max Calls In Queue** in the ICM Configuration Manager > Media Routing Domain List Tool.
4. The concurrent task limit for an agent is valid only as long as the agent remains in the same skill group. When the agent is reskilled, the value is lost. If the agent is added to the same skill group again, this field must be manually updated.

Edit Queue: Email Queue- Services

General	Email	Call Variables	Expanded Call Variables	Skill Groups	Precision Queue	Concurrent Task Limit
Concurrent Task Limit for sumit4@egeng.info	<input type="text" value="1"/>					
Concurrent Task Limit for sumit3	<input type="text" value="1"/>					
Concurrent Task Limit for sumit2	<input type="text" value="1"/>					
Concurrent Task Limit for sumit1	<input type="text" value="1"/>					

5. Click the **Save** button.

Picking, Pulling, and Transferring Activities

Queue permissions are assigned automatically based on the MRDs that were imported. These permissions cannot be changed in ECE.

Important Things to Note About Permissions to Pick and pull Activities

Emails

- Agents can pick emails from other agents that belong to the same set of skill groups.
- Only agents who are part of a skill group that is associated with the queue can pick or pull from that queue.

- Only agents who match the attributes of a Precision Queue (PQ) that is associated with the ECE queue can pick or pull from that queue.
- Based on the **Maximum Task Limit** setting, agents who have reached their concurrent task limit can pick additional activities. The maximum number of activities is defined as part of the setting.
- When working on a non-interruptible chat or voice call:
 - Agents can pick or pull interruptible emails from queues and other agents.
 - Agents cannot pick or pull non-interruptible emails from queues or other agents.
- Agents with the **Administrator Role** or the **Supervisor Role** can pick from the Default exception queue.

Emails with exception keywords that are routed to the Default exception queue should not be transferred to other queues. These emails cannot be picked or pulled upon being transferred to other queues.

Chats

Agents are assigned chats by the system automatically. They cannot pull chat activities from queues. Pick does not apply to chats.

Important Things to Note About Transferring Emails

- Multiple emails can be selected and transferred to another user or queue at the same time, so long as the emails are new and have no draft responses. If an email has any draft responses, or is not a new incoming email, it must be transferred individually.
- Outbound emails created by agents can only be transferred to users and not to queues.

For installations that have upgraded from a version prior to 12.0(1), a routing script must be applied to the Pick/Pull node for the outbound MRD in order for agents to pick, pull, or transfer outbound emails. For more information about the script, see the *Scripting and Media Routing Guide for Cisco Unified CCE*.

- Disabled users are not listed in the list of users to whom you can transfer activities.
- You can transfer activities only if you have the **Transfer** action.

Transferring to Queues:

- An email can be transferred to any queue that belongs to the same media class. From there, the activity is routed based on the queue-to-script mapping.

Transferring to Agents:

- Agents can transfer emails to other agents that belong to the same set of skill groups.
- Based on the **Maximum Task Limit** setting, agents can transfer additional activities to agents who have reached their concurrent task limit. The maximum number of activities is defined as part of the setting.

- Emails cannot be transferred to departments directly. If the **Allow Transfer of Activities to Integrated Queues in Other Departments** setting is enabled, agents can transfer activities to queues of other departments.
- If the **Allow email transfer to agents who are not available** setting is enabled, agents can transfer activities to other agents who are not available to work on new activities. To be able to transfer an email to an agent, the agent must be logged in to the application, should not have met the concurrent task limit, and should not be working on a non-interruptible activity. If these requirements are not met, the agent is not displayed in the Transfer Activities window.
- If the **Allow email transfer to agents who are not logged in** setting is enabled, agents can transfer activities to other integrated agents who are not logged in to the application. To be able to transfer an email to an agent, the agent should not have met the concurrent task limit. If this requirement is not met, the agent is not displayed in the Transfer Activities window.
- An agent can transfer interruptible email activities to another agent. An agent cannot transfer non-interruptible email activities to another agent. The concurrent task limit of the agent is considered in these instances.

Important Things to Note About Transferring Chats

- Only one chat activity can be transferred at a time.
- Only open chat activities, in which the customer has not left the chat session, can be transferred.
- Disabled users are not listed in the list of users to whom you can transfer activities.
- You can transfer activities only if you have the Transfer action. For more information about actions and permissions, see the *Enterprise Chat and Email Administrator's Guide to the Administration Console*.

Transferring Chats to Queues:

- Only agents who match the attributes of a Precision Queue (PQ) that is associated with an ECE queue can transfer chats to that queue.
- Chats cannot be transferred to departments directly. If the **Allow Transfer of Activities to Integrated Queues in Other Departments** setting is enabled, agents can transfer activities to queues of other departments.
- A chat can be transferred to any queue that belongs to the same media class. From there, the activity is routed based on the queue-to-script mapping.
- To be able to transfer a chat to a queue, at least one agent who can receive work from that queue must be logged in, must be available, and must not have met the concurrent task limit. The queue must also not be at its maximum task limit.

Transferring Chats to Agents:

- Agents who do not meet these conditions are not displayed in the transfer window.
- Agents can transfer chats to other agents that belong to the same set of skill groups.
- Only agents who are part of a skill group that is associated with a queue can transfer chats to that queue.
- The receiving agent must be logged in to the application.

- The receiving agent must be available, depending on how the **Allow chat transfer to agents who are not available** setting is configured.
- The receiving agent should not have met the concurrent task limit, unless you are working on non-interruptible chat activities. This may be affected by the **Maximum assignment beyond concurrent task limit** setting.
- Based on the **Maximum assignment beyond concurrent task limit** setting, agents can transfer additional activities to agents who have reached their concurrent task limit. The maximum number of activities is defined as part of the setting.
- If the **Allow chat transfer to agents who are not available** setting is enabled, agents can transfer activities to other integrated agents who are not available to work on new activities. To be able to transfer a chat to an agent, the agent must be logged in to the application. Also, the agent should not be at the concurrent task limit (CTL), and the queue associated with the agent should not be at its maximum task limit (MTL). If the CTL and MTL for the agent have been reached, or if the agent is not logged in, the agent is not displayed in the Transfer Activities window.
- An agent can transfer chat activities to another agent who is working on an interruptible email activity or a non-interruptible chat activity. If the receiving agent is working on a non-interruptible voice call, only interruptible chat activities can be transferred to that agent. Agents working on non-interruptible voice calls cannot be transferred non-interruptible chats.

Changing the Status of Queues

When a queue is created, by default it is active. If you are using a queue in workflows or are intending to use it, do not make the queue inactive. If a queue used in workflows is made inactive, no new incoming activities are routed to the queue. All activities coming to the inactive queue are routed to the exception queue.

If the queue used in workflows, and agents have pull and transfer permissions on the queue, they can pull activities from, and transfer activities to inactive queues. If you want to restrict these actions, remove the pull and transfer permissions for the inactive queue.

Queues used in chat entry points cannot be made inactive.

To change the status of a queue:

1. In the department-level Top Menu, select **Business Rules**.
2. In the Left menu, navigate to **Queues**.
3. In the Edit Queue space, on the General tab, click the toggle button next to the **Active** field to make the queue active or inactive.
4. Click the **Save** button.

Deleting Queues

You can only delete queues for which you have delete permissions.

You cannot delete queues that have open activities, or queues that are being used in workflows or chat entry points, or the queues that are associated with activity sub types. Also, the default queues provided with the system cannot be deleted.

To delete a queue:

1. In the department-level Top Menu, select **Business Rules**.
2. In the Left menu, navigate to **Queues**.
3. In the Queues space, hover your mouse over the queue you wish to remove and click the **Delete**  button.
4. Click the **Yes** button when the system prompts you to confirm the deletion.

The **Delete** button is enabled only if you have permission to delete a queue.

Service Levels

- [About Service Levels](#)
- [Creating Service Levels](#)
- [Deleting Service Levels](#)

About Service Levels

Service levels allow you to set up response time expectations for incoming customer service interactions. Service levels can be defined for cases and all activities other than chat activities. Once defined, they are used in workflows to influence activity routing. Service level performance reports are available in the Reports Console.

Creating Service Levels

To create a service level:

1. In the department-level Top Menu, click the **Business Rules** option.
2. In the Left menu, navigate to **Service Levels**.
3. Click the **New** button.

A maximum of 25 service levels can be created in a department.

4. In the General tab, provide the following details.

- **Name:** Type the name of the service level.
- **Description:** Provide a brief description.

The screenshot shows the 'Create Service Level' dialog box. At the top, it says 'Create Service Level'. Below that, there are two tabs: 'General' (which is selected) and 'Durations'. Under the 'General' tab, there are two input fields: 'Name*' with the value '8Hr SLA' and 'Description' with the value 'For email activities'.

5. Next, click the **Durations** tab and specify the service level for various type of work units. They are:

- **Email:** Specify the service level in minutes or business hours.
- **Case:** Specify the service level in minutes or business hours.
- **CallTrack:** Specify the service level in minutes or business hours.

Create Service Level

General Durations

Email

Value* 8

Unit* Business Hours

If there are any custom activity types created in the system, they are also available in this list and you can set service levels for them.

5. Click the **Save** button.

Deleting Service Levels

Before deleting a service level, make sure that it is not used in any workflow.

To delete a service level:

1. In the department-level Top Menu, click the **Business Rules** option.
2. In the Left menu, navigate to **Service Levels**.
3. In the Service Levels workspace, hover your mouse over the service level you wish to remove and click the **Delete**  button.
4. Click the **Yes** button when the system prompts you to confirm the deletion.

Routing And Workflow

- [About Routing and Workflows](#)
- [About Workflows](#)
- [About Workflow Editor](#)
- [Configuring Start Node in Inbound Workflows](#)
- [Configuring Start Node in Standard Start Workflow](#)
- [Configuring Start Node in Standard Finish Workflow](#)
- [Configuring Start Node in Standard Transfer Workflow](#)
- [Configuring Start Node in Outbound Workflows](#)
- [Configuring Start Node for Alarm Workflows](#)
- [Configuring Auto-Acknowledgement Node](#)
- [Configuring Classifications Node](#)
- [Configuring User Node](#)
- [Configuring Queue Node](#)
- [Configuring Filter Node](#)
- [Configuring Department Node](#)
- [Configuring Completion Node](#)
- [Configuring Workflow Node](#)
- [Configuring Modify Object Node](#)
- [Configuring Service Level Node](#)
- [Configuring Alarm Node](#)
- [Configuring Branch Node](#)
- [Creating Workflows](#)
- [Copying Workflows](#)
- [Deleting Workflows](#)

About Routing and Workflow

Smart routing enables efficient and effective interactions to customers. Queues, service levels, and workflows are used to ensure that work is distributed efficiently and intelligently to qualified agents, and that service levels are met. Workflows also help automate parts of the interaction-handling process to provide quicker resolution of customer queries.

About Workflows

Workflows provide a mechanism for applying a sequence of rules on activities. Flexible and easy to use, they allow administrators to define rules to modify business objects, automate the progression of activities through the system, raise alarms and send notifications about the status of activities, and so on.

Visually, a workflow is defined as a set of interconnected nodes created with the help of the Workflow Editor. Each node contains definitions of a list of rules that are applied as an activity passes through that node. Each rule consists of a set of conditions along with the set of actions to be performed when the conditions evaluate to true or false.

ECE does not include the ability to add custom rules, add automatic replies, add automatic suggestions, add users, or create new objects in workflows.

There are three types of workflows: Alarm, Inbound, and Outbound.

Alarm Workflows

Configure alarm workflows to process activities in the system and perform actions such as notifications, reassignments, and so on depending on the specified conditions. Alarm workflows are typically used to provide customer service based on customer value. Alarm workflows act on all activities except for chat activities.

Additional workflows can be configured to work on activities processed by the alarm workflows.

Alarm workflows can be run on:

- Queues

The system comes with a default alarm workflow:

- **Exception Queue Alarm Workflow:** A workflow configured to send notifications when activities are routed to the exception queue because of workflow errors encountered while processing activities. This workflow is active by default and it runs every 12 hours to check if there are any activities with the substatus "Workflow-Error" in the exception queue. If any such activities are found, a notification email with the list of activity IDs is sent. The notification email is sent to the address specified in the "To address: for Notification for services" setting. This is the default configuration of the workflow; however it can be changed to meet your business needs. Although the workflow can be deleted, it is recommended that you do not delete it. If you do not wish to use the workflow, make it inactive.

Inbound Workflows

Inbound workflows define rules for all activities coming into the system. Some special inbound workflows also route activities transferred from other departments.

Activities from inbound workflows can be routed to:

- Queues
- Other inbound workflows
- Other departments

Each department comes with three default inbound workflows. You can also create your own workflows. The three default workflows are as follow:

- **Start Workflow - Standard:** The first workflow that acts on all new, incoming activities. This workflow is ignored for activities transferred from other departments.

The system provided workflow creates a new case for activities that do not have a case, and for activities which already have cases, it associates the activities with the existing cases. If the existing case is closed, the workflow reopens the case and assigns the activity to the reopened case. Then, the workflow checks if the incoming activities are bounce backs, and routes such activities to the Exception queue. This is the default behavior of the workflow and it can be changed to meet your business needs; however it cannot be made inactive.

- **Start Workflow - Transfer:** This workflow is responsible for transferring activities from one department to another. Users from other departments can transfer activities only to the departments that have active transfer workflows. The system provides a blank transfer workflow. You can lay the workflow according to your business requirements.
- **Finish Workflow:** This workflow applies on activities only if no user-defined inbound workflow has been applied to the activity. For example, if you have configured three aliases in your department and you have configured inbound workflow for only one alias, the activities from that alias are handled by the configured inbound workflow. Activities from the other two alias are handled by the finish workflow.

The system provides a blank finish workflow. You can modify the workflow according to your requirements. You can choose not to use the finish workflow.

In addition to the pre-packaged workflows, new workflows can be defined in a department. Also, workflows can be chained in such a way that one workflow takes over the processing of activities after another one has finished.

If there are no inbound workflows configured in a department, or if the inbound workflows are marked inactive, all the incoming activities coming to the aliases configured in the system are moved to the exception queue after an hour.

Outbound Workflows

An outbound workflow identifies the set of rules that are applied on activities that are generated when email responses are sent out manually in the system. One of the primary use of outbound workflows is to have a control on the quality of outbound email responses.

Outbound workflows are applied on outbound email responses generated by a configured set of users or user groups. In addition to this, outbound workflows can be configured to apply on responses to activities belonging to certain queues. However, outbound workflows are not applicable to emails forwarded and redirected from the system.

When there are multiple outbound workflows configured in a department, and an activity qualifies for all the workflows, then the workflow for a user takes precedence over the workflow for a user group, and the workflow for the user group takes precedence over the queue. For example, if there is one workflow for a user group and another workflow for a queue, and the user from the user group defined in the workflow sends out an email, which belongs to the queue defined in the other workflow, then the workflow configured for the user group will act on the activity, and the workflow for the queue will be ignored. Likewise, if there is another workflow configured for the user, and an activity qualifies for all three workflows, then the workflow for the user group and queue will be ignored and the workflow for the user will act on the activity.

Outbound Email Review Workflows

To ensure high quality replies to email inquiries, customer service managers may wish to review the content of replies before they are sent out to customers. The outbound email review workflow can be used to set up a supervisory loop that addresses this need. A supervisory loop allows you to route a reply from an agent to another user – a supervisor – based on pre-determined conditions, before the reply leaves the system. The supervisor can then accept the reply, sending the email to the customer, or reject it, returning it to the original agent for revision. During this process, supervisors can edit replies, modify attachments, and provide feedback to the agent using notes. Activities that are generated as part of the supervisory loop are not included in activity reports.

Some important things to note about outbound email review workflows are:

- The end node of an outbound email review workflow must be a queue. No other end nodes are supported.
- You cannot configure multi-level supervision. Once a supervisor approves an email, the email is sent out of the system. If another outbound workflow is configured for the supervisor, the email is processed by all the nodes, but it is not routed to another queue. The email is sent out to the customer.

About Workflow Editor

The visual Workflow Editor makes it easy to create workflows via a palette of nodes. Each node offers specific functionality, some of which use Regex to create powerful expressions. For example, the Service Level node allows service levels to be set at that point of the workflow. Placing nodes on the workflow canvas and linking them with connectors creates a system workflow. The Diagram tab in the property sheet of a workflow opens the Workflow Editor.

The following table lists the available workflow nodes and buttons in the workflow editor.

Use	To
 Start node	Add a start node, the starting point of workflows, which can be an email alias or another workflow. If you create a new inbound workflow, this node helps you specify the email alias for activities to enter the system.

Use	To
	<p>For details, see</p> <ul style="list-style-type: none"> ▪ Configuring Start Node in Inbound Workflows ▪ Configuring Start Node in Standard Start Workflow ▪ Configuring Start Node in Standard Transfer Workflow ▪ Configuring Start Node in Standard Finish Workflow ▪ Configuring Start Node for Alarm Workflows ▪ Configuring Start Node in Outbound Workflows
 Queue node	<p>Route activities to an available queue.</p> <p>For details, see Configuring Queue Node</p>
 User node	<p>Route activities to an available user.</p> <p>For details, see Configuring User Node</p>
 Completion node	<p>Create a rule to complete activities that are processed by the particular workflow.</p> <p>For details, see Configuring Completion Node</p>
 Workflow node	<p>Add another workflow to further process activities. This is also referred to as chaining of workflows.</p> <p>For details, see Configuring Workflow Node</p>
 Department node	<p>Add a department to route activities to an available department.</p> <p>For details, see Configuring the department node</p>
 Alarm node	<p>Set up an alarm if certain conditions are met.</p> <p>For details, see Configuring Alarm Node</p>
 Auto-acknowledgment node	<p>Set up rules for sending auto-acknowledgments for incoming emails. A specified knowledge base (KB) article is used in the auto-acknowledgment.</p>

Use	To
	For details, see Configuring Auto-Acknowledgement Node
 Branch node	Set up rules that allow a branch, i.e., routing of activities to different users or queues based on whether the conditions are met or not. For details, see Configuring Branch Node
 Filter node	Set up rules for routing a controlled percentage of email activities to a queue or user for review in outbound workflows. For details, see Configuring Filter Node .
 Classification node	Set up rules to add available categories and resolution codes to activities. While configuring this node, you do not need to specify the false condition. For details, see Configuring Classifications Node
 Modify object node	Set up rules to modify specified objects if certain conditions are met. For details, see Configuring Modify Object Node
 Service level node	Set up rules to add available service levels. For details, see Configuring Service Level Node
 Auto Layout nodes button	Format the layout of the workflow. For details, see Creating Workflows

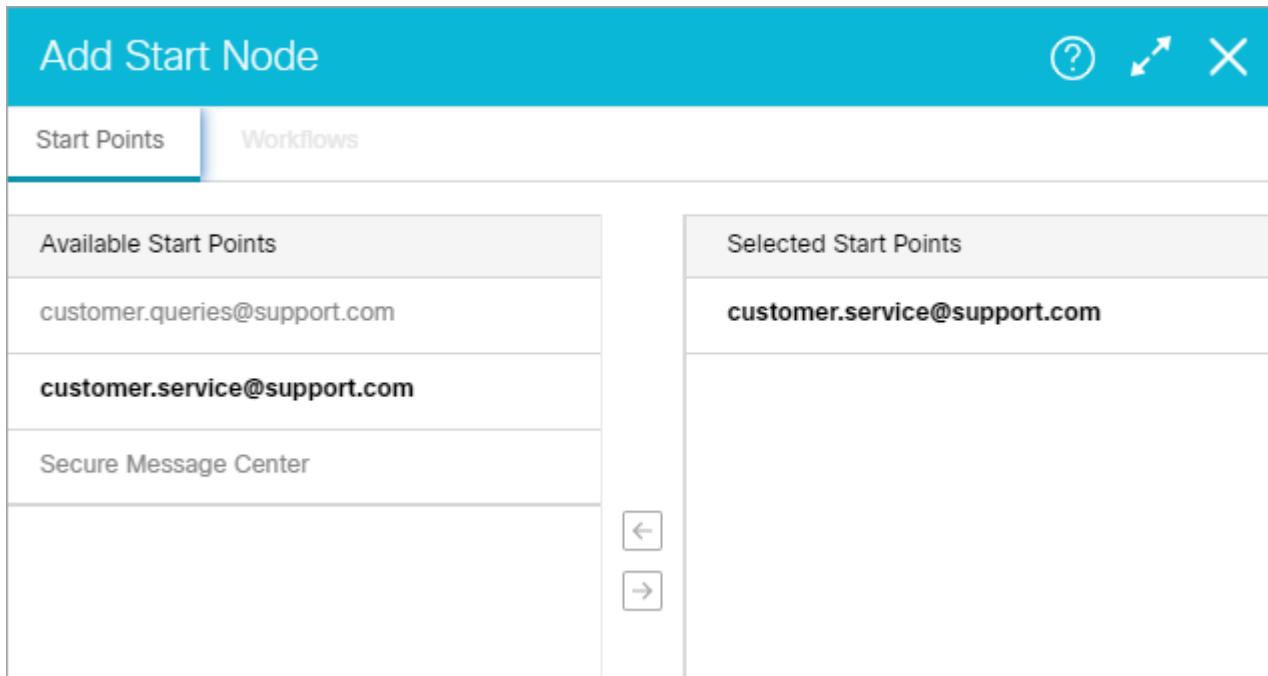
Configuring Start Node in Inbound Workflows

A start node is the starting point of a workflow and no workflow can be created without a start node. An inbound workflow can have two types of start points - Alias and Workflow. All emails coming to an alias, specified as the starting point of an inbound workflow, are routed by that workflow. You can add more than one aliases as the start point of a workflow, but one alias can be a start point of only one inbound workflow. After saving a workflow, if you add the workflow as an end node in another workflow, then the second workflow becomes the start point of the first workflow. This means, that the activities routed by the second workflow are processed by the first workflow. An inbound workflow can have both aliases and workflows as the start point.

A workflow can have only one start node.

To configure the start node in an inbound workflow:

1. In the department-level Top Menu, select **Business Rules**.
2. In the Left menu, navigate to **Workflow > Inbound**.
3. In the inbound workflow space, select an existing inbound workflow or click the **New** button to create a new inbound workflow.
4. In the Edit Inbound Workflow space, on the Diagram tab, add the **Start**  node in the Workflow Editor.
5. In the Add Start Node window, in the Start Points tab, select the email alias to be set as the start point for this workflow. All emails coming to the selected alias are routed by this inbound workflow. You can add more than one aliases as the start point of a workflow, but one alias can be a start point of only one inbound workflow.



The department's secure message center also appears as a valid start point for the inbound workflow. This allows messages sent through secure messaging to be sent to queues and handled much like standard emails. Secure message centers are available for Enterprise Chat and Email as an add-on feature. For more information, see *eGain Solve for Cisco Companion Guide*.

The Workflows tab is enabled only after a workflow is saved. After saving the workflow, if you add the workflow as an end node in another workflow, then that workflow is listed in the Workflows tab. This means, that the activities routed by the other workflow are processed by this workflow. An inbound workflow can have both aliases and workflows as the start point.

5. Click the **Done** button to close the window.

Configuring Start Node in Standard Start Workflow

A start node is the starting point of a workflow and no workflow can be created without a start node. In the start node of a standard start workflow, you make the important decision of creating or not creating cases for each incoming activity. By default, the node is configured to create a new case for activities that do not have a case and for activities which already have a case, associates the activity with the existing case. If the existing case is already closed, the workflow reopens the case and assigns the activity to the reopened case. This is the default configuration of the node and it can be changed to meet your business needs.

A workflow can have only one start node.

To configure the start node in the standard start workflow:

1. In the department-level Top Menu, select **Business Rules**.
2. In the Left menu, navigate to **Workflows > Inbound**.
3. From the Inbound Workflow space, select **Start Workflow - Standard**.
4. In the Edit Inbound Workflow: Start Workflow- Standard space, on the Diagram tab, add the **Start** node in the Workflow Editor.
5. In the Add Start Node window, select one of the following options.
 - **Always create a new case for the activity:** If you select this option, all options, except for the option to associate cases for activities that have existing cases, in the window are disabled.
 - **Create a new case or assign to current case under the following conditions:** If you select this option, you can further specify the conditions when a case is to be created.
 - Specify what is to be done when an activity has an existing case and the case is open. The following options are available:
 - Always associate this activity to open case
 - Always create new case
 - If the existing case has been open for more than n number of days, then create a new case else associate to old case: You can specify the number of days to be considered for this option.
 - Now, specify what is to be done when an activity has an existing case and that case is closed. The following options are available:
 - Always reopen the case and assign the activity to the case
 - Always create new case
 - If the existing case has been closed for more than n number of days, then create a new case else associate to the old case. You can specify the number of days to be considered for this option.

Add Start Node

Specify the action to take when a new activity arrives

Always create a new case for the activity

Create a new case or assign to current case under the following conditions

If the activity has an existing case, then:

For existing open case

Always associate this activity to open case

Always create new case

If the existing case has been open for 90 days, then create new case else associate to old case

For existing closed case

Always reopen the case and assign the activity to the case

Always create new case

If the existing case has been closed for 90 days, then create new case else associate to old case

If a new case was created for the activity that has an existing case, then associate the two cases.

- Lastly, you can associate two cases, if a new case was created for the activity that has an existing case. In the Add Start Node window, select the **If a new case was created for the activity that has an existing case, then associate the two cases** option.
- Click the **Done** button to close the window.

Configuring Start Node in Standard Finish Workflow

A start node is the starting point of a workflow and no workflow can be created without a start node. No properties need to be set for the start node of a finish workflow. The start node of the standard finish workflow picks up all the incoming activities that are not processed by any other custom inbound workflow. Activities are routed to the finish workflow only after they are processed by the Standard - Start Workflow.

A workflow can have only one start node.

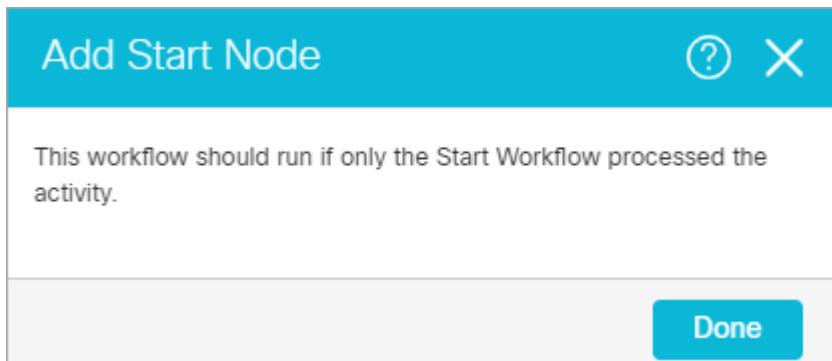
To configure the start node in a standard finish workflow:

- In the department-level Top Menu, select **Business Rules**.
- In the Left menu, navigate to **Workflow > Inbound**.

3. From the inbound Workflow space, select **Finish workflow**.

4. In the Edit Inbound Workflow: Finish Workflow, on the Diagram tab, add the **Start**  node in the Workflow Editor.

5. In the Add Start Node window you will see a message that the workflow will run only after the start workflow has processed the activity. No additional properties need to be set for this node of the workflow.



6. Click the **OK** button to close the window.

Configuring Start Node in Standard Transfer Workflow

A start node is the starting point of a workflow and no workflow can be created without a start node. For the start node of a transfer workflow, you do not need to configure any properties. All the activities that are transferred from other departments form the start point of the transfer workflow.

A workflow can have only one start node.

To configure the start node in the standard transfer workflow:

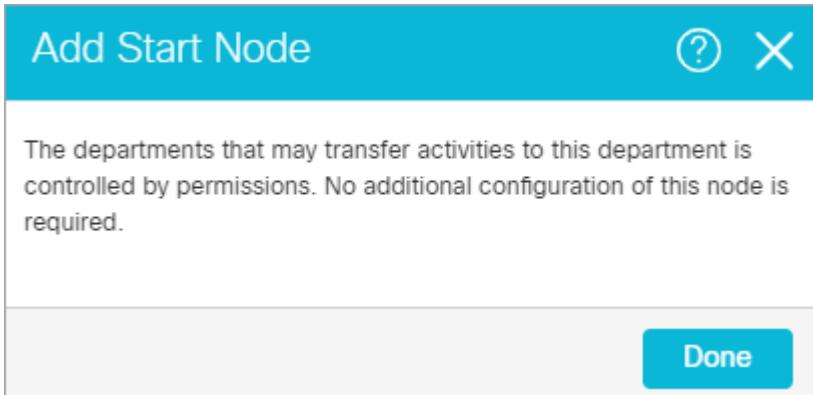
1. In the department-level Top Menu, select **Business Rules**.

2. In the Left menu, navigate to **Workflow > Inbound**.

3. From the inbound Workflow space, select **Start Workflow - Transfer**.

4. In the Edit Inbound Workflow: Start Workflow- Transfer space, on the Diagram tab, add the **Start**  node in the Workflow Editor.

5. In the Add Start Node window you will see a message that the transfer of activities from other departments is controlled by permissions. No additional properties need to be set for this node of the workflow.



6. Click the **OK** button to close the window.

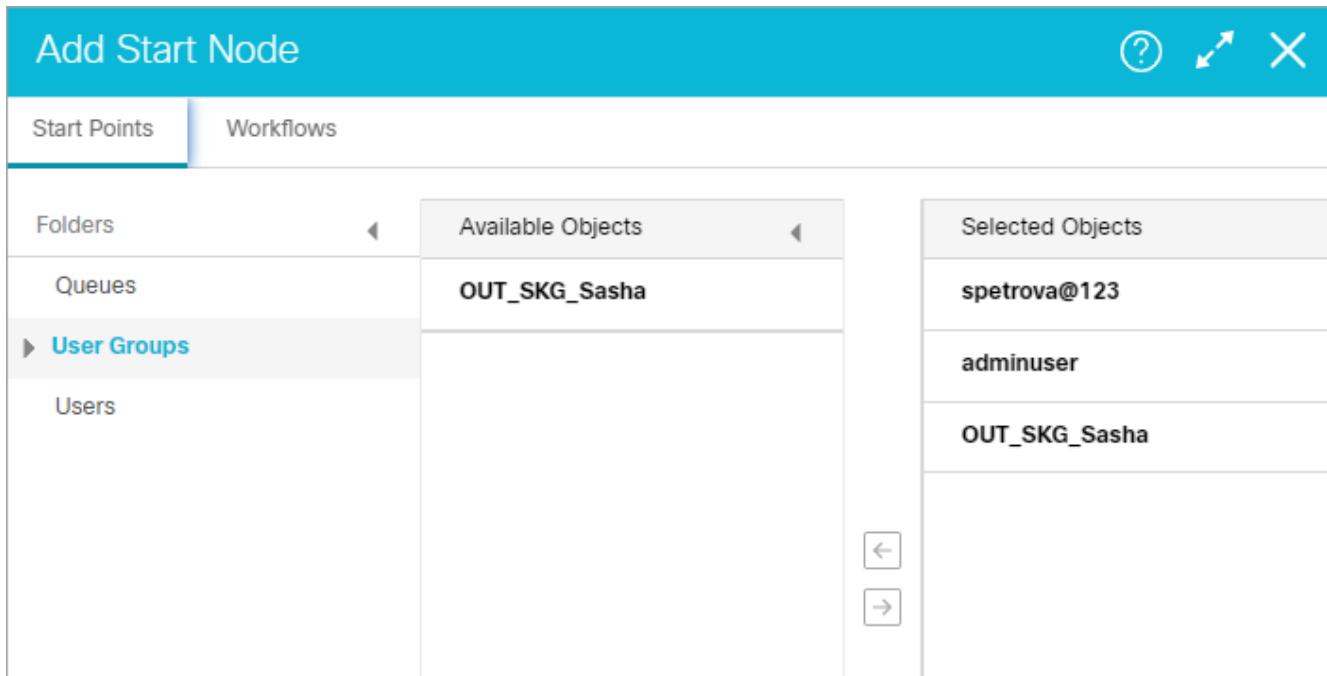
Configuring Start Node in Outbound Workflows

A start node is the starting point of a workflow and no workflow can be created without a start node. The start point of an outbound workflow can be a queue, a user, or a user group. You can select multiple objects as the start point of the same workflow. Also, every workflow has a unique object as its start point. For example, the same user cannot be a start point of two outbound workflows.

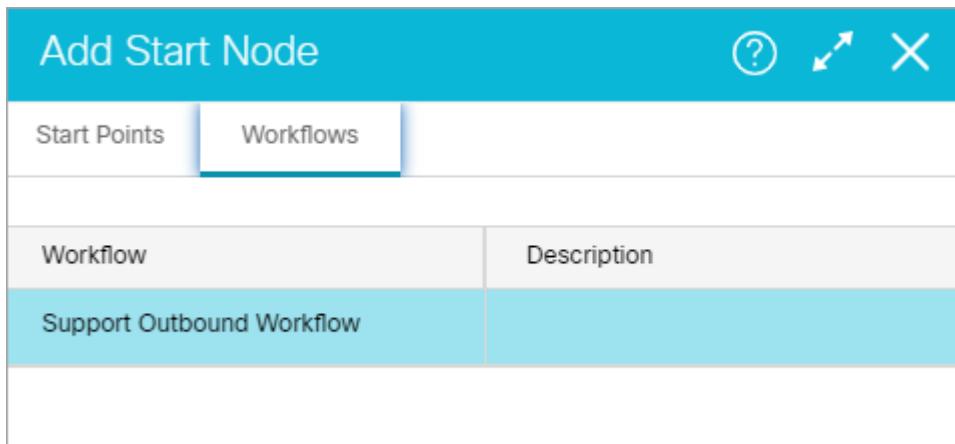
A workflow can have only one start node.

To configure a start node in an outbound workflow:

1. In the department-level Top Menu, select **Business Rules**.
2. In the Left menu, navigate to **Workflow > Outbound**.
3. In the outbound workflow space, select an existing outbound workflow or click the **New** button to create a new outbound workflow.
4. In the Edit Outbound Workflow space, on the Diagram tab, add the **Start**  node in the Workflow Editor.
5. In the Add Start Node window, on the Start Points tab, select from the list of users, queues, and user groups. Note that if you are creating a supervisory loop, the start node must be a user or user group.



The Workflows tab is enabled only after the workflow is saved. After saving the workflow, if you add the workflow as an end node in another workflow, then that workflow is listed in the Workflows tab. This means, that the activities routed by the other workflow are processed by this workflow.



5. Click the **OK** button to close the window.

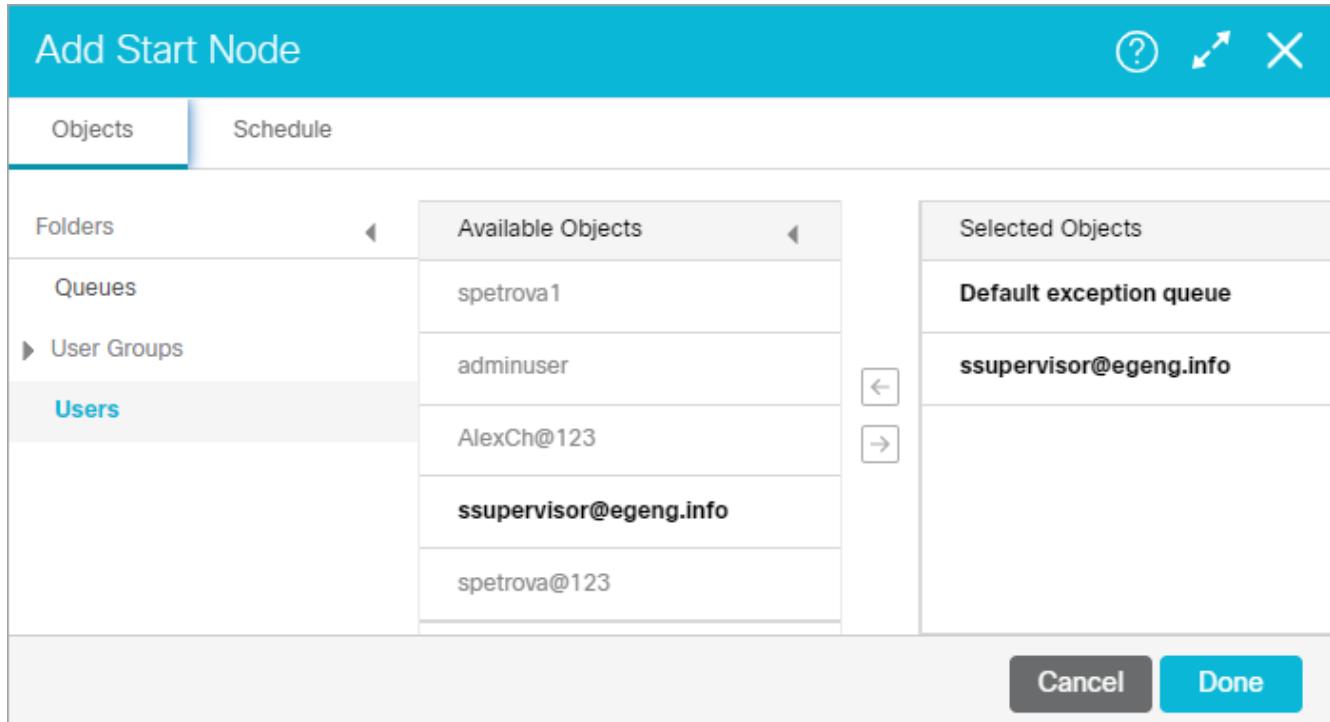
Configuring Start Node for Alarm Workflows

A start node is the starting point of a workflow and no workflow can be created without a start node. In the start node of the alarm workflow, specify the objects you want to monitor. You can select from queues, users, and user groups. Along with the objects, you have to specify the schedule when the alarm workflow should run. You can run the alarm workflow only once or multiple times. Additionally, you can specify the end date and start date of the scheduled alarm workflow.

A workflow can have only one start node.

To configure a start node for an alarm node:

1. In the department-level Top Menu, select **Business Rules**.
2. In the Left menu, navigate to **Workflows >Alarm**.
3. In the alarm workflow space, select an existing alarm workflow or click the **New** button to create a new alarm workflow.
4. In the Edit Alarm Workflow space, on the Diagram tab, add the **Start**  node in the Workflow Editor.
5. In the Add Start Node window, on the Objects tab, select from the list of users, queues, and user groups.



6. Next, in the Add Start Node window, on the Schedule tab, set the schedule for the alarm workflow. The following options need to be set:
 - **Specify the time or times that the workflow should be run:** By default **The workflow should be run once at Time Date** is selected. You can select from one of the following options.
 - The workflow should be run once at *Time Date*
 - This workflow should be run multiple times
 - **Specify the duration of the recurring workflow:** Set the start date for the workflow and for the end date select from one of the following options.
 - No end date
 - End after *n* occurrences
 - End by the *specified date*
 - **Specify the recurrence pattern of the workflow:** Select one of the following options.

- **Daily:** Set the workflow to run:
 - Every n day
 - Every weekday
- **Weekly:** Set the workflow to recur every n week on the *Days of the week*
- **Monthly:** Set the workflow to run:
 - Day n of every n month
 - The *first, second, third, fourth, or last Day* of every n month
- **Yearly:** Set the workflow to run:
 - Every *Month Date*
 - Every *first, second, third, fourth, or last Day of Month*
- **On the day that the workflow runs, run the workflow:** Select one of the following options.
 - Once at *the specified time*
 - Every n hours, minutes or seconds starting at *the specified time* and ending at *the specified time*

Add Start Node

Objects Schedule

Specify the time or times that the workflow should be run.

The workflow should be run once at 01:15:41 PM 03/18/2021

This workflow should be run multiple times

Specify the duration of the recurring workflow:

Start: 03/22/2021

No end date

End after 0 occurrences

End by 03/18/2021

Specify the recurrence pattern of the workflow:

Daily

Weekly

Monthly

Yearly

Recur every 2 week(s) on

Sunday Monday Tuesday Wednesday Thursday Friday Saturday

On the days that the workflow runs, run the workflow:

Once at 01:15:41 PM

Every 12 hours ▼ starting at 12:01:00 PM and ending at 11:59:00 PM

7. Click the **Done** button to close the window.

Configuring Auto-Acknowledgement Node

Use this node to automatically send acknowledgements for incoming emails. Auto-acknowledgement are emails that are sent to customers when conditions set in the auto-acknowledgement node are met. Create the content for these auto-acknowledgements in the form of articles. Then, configure the conditions under which auto-acknowledgments are to be sent to customers. You can configure a set of rules, and for each rule, configure a different auto-acknowledgement.

To configure an auto-acknowledgement node:

- In the Edit Workflow space, on the Diagram tab, add the **Auto-acknowledgement**  node in the Workflow Editor.

2. In the Auto Acknowledgement Rule Configuration window, provide the following details.

- a. In the **Name** field, provide a name for the node.
- b. In the **Rule Name** field, provide a name for the rule and press the Enter Key. Select the rule name to configure the rule properties.
- c. Select one of the following options:
 - This rule is always true
 - This rule is TRUE under the following conditions

If you have selected the **This rule is TRUE under the following conditions** option, configure the conditions when the rule is true.

Auto Acknowledgement Rule Configuration

Name of the New Node *:

Create new rules below; processing ends when a TRUE rule is found.

Enter New Rule

Rule 1

This rule is always true.
 This rule is TRUE under the following conditions:

Specify the condition for the rule.

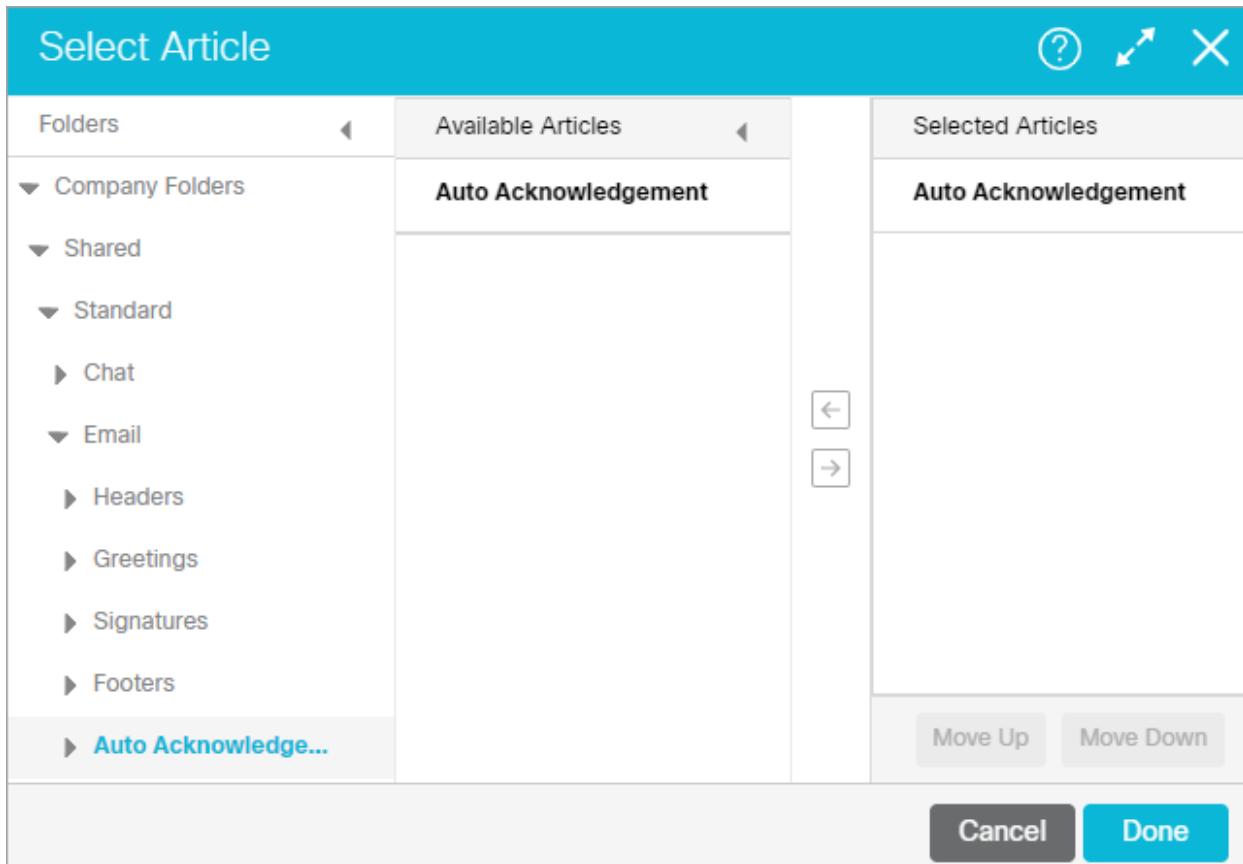
Object	Attribute	Operator	Value	Boolean	
<input type="button" value=""/>					
Case	Severity	!=	Urgent	AND	<input type="button" value="X"/>

If the rule is TRUE, then send this article:

If no TRUE rule is found, then send this article:

- d. Next, select the articles to be sent as an auto-acknowledgement if the conditions configured in the rule are met. Click the **Select Article** button and from the Select Article window select articles for auto-acknowledgement. You can select multiple articles and configure the order in which they should appear in the reply. When the auto-acknowledgement is sent, all the selected articles are combined together in the order they are selected and sent out as one email.

Likewise, you can create multiple rules.



- e. If you have created more than one rule, use the **Move Up** and **Move Down** button to change the order of the rules.
- f. Lastly, you can also send an auto-acknowledgement if no rules are found true. Select the **If no TRUE rule is found, then send this article** option, and select the articles to be sent as auto-acknowledgement. Click the Select Article button and from the **Select Article** window select articles for auto-acknowledgement.

- 3. Click the **OK** button to close the window.

Configuring Classifications Node

Use this node to automatically assign categories and resolution codes to activities processed by the workflow. Create these classifications from the Administration Console. Then, configure the conditions under which classifications should be assigned to activities. You can configure a set of rules, and for each rule, configure a different set of classifications to be assigned to activities.

To configure a classification node:

- In the Edit Workflow space, on the Diagram tab, click and drag the **Classification** node to add it in the Workflow Editor.



2. In the Classification Rule Configuration window, provide the following details.

- a. In the **Name** field, provide a name for the node.
- b. In the **Rule Name** filed, provide a name for the rule and press the Enter Key. Select the rule name to configure the rule properties.
- c. On the Condition tab, select one of the following options:
 - This rule is always true
 - This rule is TRUE under the following conditions

If you have selected the **This rule is TRUE under the following conditions** option, configure the conditions when the rule is true.

Classification Rule Configuration

Name of the New Node *:

Create new rules below; all rules will be processed.

Enter New Rule

Condition	True	False																		
<input type="radio"/> This rule is always true. <input checked="" type="radio"/> This rule is TRUE under the following conditions:	Specify the condition for the rule.																			
	<table border="1"><thead><tr><th>Object</th><th>Attribute</th><th>Operator</th><th>Value</th><th>Boolean</th><th></th></tr></thead><tbody><tr><td>Email</td><td>Subject</td><td>Contains</td><td>Return</td><td>AND</td><td><input type="button" value="X"/></td></tr><tr><td>Email</td><td>Subject</td><td>Contains</td><td>Refund</td><td>AND</td><td><input type="button" value="X"/></td></tr></tbody></table>	Object	Attribute	Operator	Value	Boolean		Email	Subject	Contains	Return	AND	<input type="button" value="X"/>	Email	Subject	Contains	Refund	AND	<input type="button" value="X"/>	
Object	Attribute	Operator	Value	Boolean																
Email	Subject	Contains	Return	AND	<input type="button" value="X"/>															
Email	Subject	Contains	Refund	AND	<input type="button" value="X"/>															

- d. Next, go the True tab and select the categories or resolution codes to be assigned to activities if the conditions configured in the rule are met.

Classification Rule Configuration



Name of the New Node *:

Classification

Create new rules below; all rules will be processed.

Enter New Rule

Move Up Move D

Rule 1

Condition	True	False
Folders		Selected classifications

▼ Classifications

▼ Categories

▼ Delivery Queries

▶ Refund R...

▶ Return R...

▶ Product Queries

▶ Quality Issues

▶ Resolution Codes

Cancel

Done

- e. Next, go the False tab and select the categories or resolution codes to be assigned to activities if the conditions configured in the rule are not met. The False tab is enabled only if you have selected the **This rule is true under the following conditions** option on the Condition tab.

Likewise, you can create multiple rules.

Classification Rule Configuration



Name of the New Node *:

Classification

Create new rules below; all rules will be processed.

Enter New Rule

Move Up Move D

Rule 1

Condition	True	False
Folders	Selected classifications	
▼ Classifications	Price and Variety	
▼ Categories	Exchange	
▶ Delivery Queries		
▶ Product Queries		
▶ Price and Variety		
▶ Quality Issues		
▶ Exchange	E...	
▶ Resolution Codes		

Cancel

Done

- f. If you have created more than one rule, use the **Move Up** and **Move Down** button to change the order of the rules.

3. Click the **Done** button to close the window.

Configuring User Node

Use this node to route activities to agents. After the activity is processed by a workflow, it can be routed to an agent in the department, an agent from another department (foreign user), or a customer's preferred agent. In the case of alarm workflows, it can also be routed to the agent's manager. The user node is a terminating node of a workflow and you cannot add any nodes after it. This node is not available as an end-node in outbound workflows.

To configure a user node:



1. In the Edit Workflow space, on the Diagram tab, click and drag the **User** node to add it in the Workflow Editor.

2. In the Select User window, do the following.

- Select the **Route to the user that is the customer's preferred agent** option to route activities to customer's preferred agent. In this case, the activity is always assigned to the preferred agent even if he is not logged in or has reached his maximum load.
- Select the **Route to the manager of the user** option to route activities to the manager of a user. This option is available in the **User** node of alarm workflows only.
- Select the **Route to the user that is selected below** option and select a user from the list of available users.

Select User

Route to the user that is selected below.

User name	First name	Last name	Email address
<input type="checkbox"/> spetrova1	Sasha1	Petrova	
<input type="checkbox"/> adminuser	Admin	User	
<input type="checkbox"/> AlexCh@123	Alex123	Ch456lastname	
<input checked="" type="checkbox"/> ssupervisor@ege...	Sasha	Supervisor	ssupervisor@gmail.com
<input type="checkbox"/> spetrova@123	Sasha	Petrova	

Cancel **Done**

3. Click the **Done** button to close the window.

Configuring Queue Node

In this node, specify the queue to which activities should get routed after they are processed by a workflow. Queue node is a terminating node of a workflow and you cannot add any nodes after it. The process of adding a queue node for outbound workflows is slightly different than for inbound workflows. In outbound workflows, you must select whether the outbound email is routed to the queue for supervisory review before or after a response has been sent to the customer.

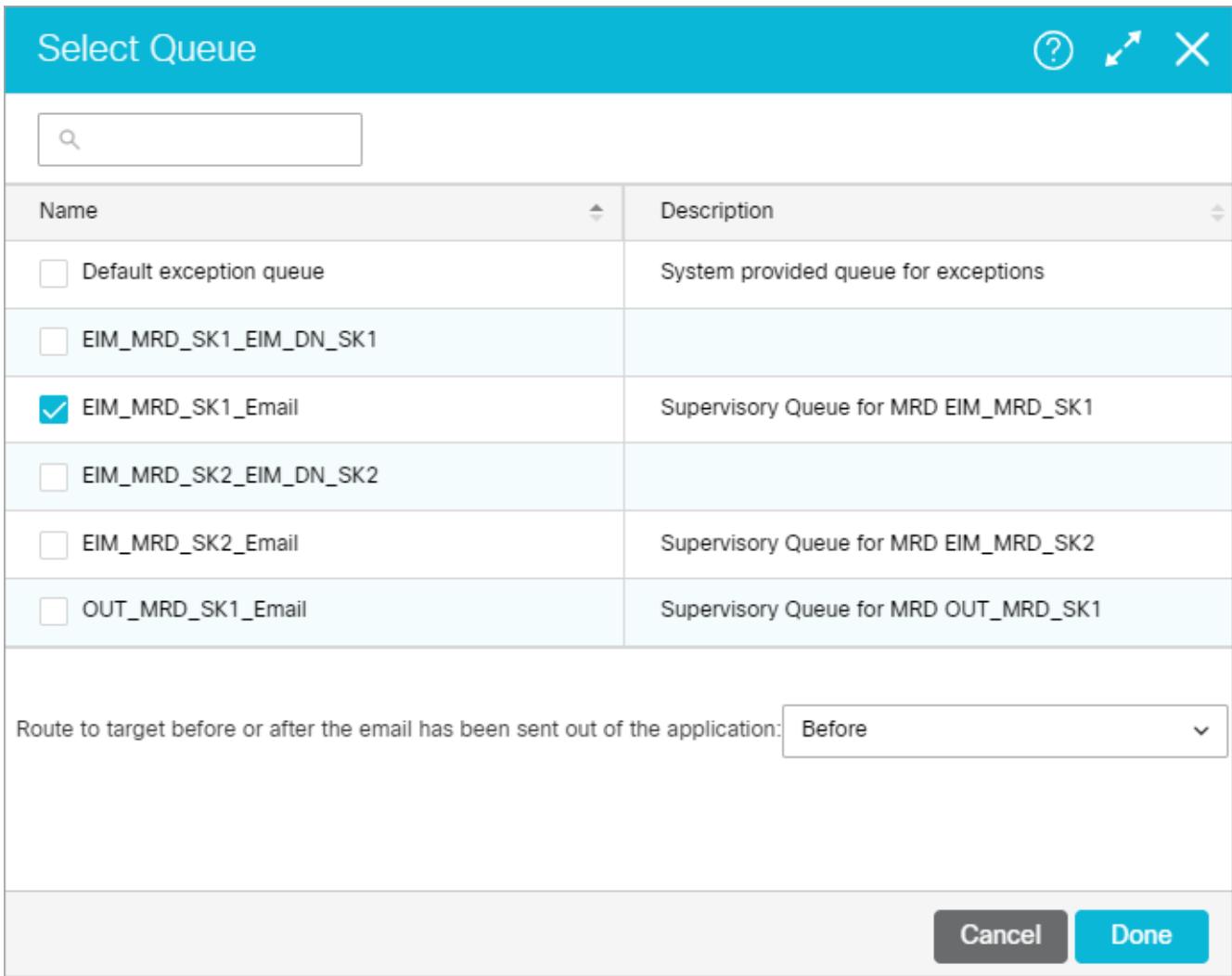
If set to Before: The supervisor is able to review the response before it is sent. If the supervisor Approves the response, it is sent to the customer. If the supervisor Rejects the response, it is sent back to the agent for improvements.

If set to After: If a shorter SLA is high priority, it is recommended to set the queue to route the email After it has been sent, at which point the supervisor can mark the agent's response as Quality Met or Quality not Met.

A queue associated with an Outbound MRD should not be used in Inbound workflow.

To configure a queue node:

1. In the Edit Workflow space, on the Diagram tab, add the **Queue**  node in the Workflow Editor.
2. In the Select Queue window, select a queue. If the queue is being selected for an outbound workflow, select to route the response to the queue Before or After the email has been sent out of the application.



The screenshot shows the 'Select Queue' dialog box. At the top, there is a search bar and three icons: a question mark, a double-headed arrow, and a close button. The main area is a table with two columns: 'Name' and 'Description'. The table contains the following data:

Name	Description
<input type="checkbox"/> Default exception queue	System provided queue for exceptions
<input type="checkbox"/> EIM_MRД_SK1_EIM_DN_SK1	
<input checked="" type="checkbox"/> EIM_MRД_SK1_Email	Supervisory Queue for MRD EIM_MRД_SK1
<input type="checkbox"/> EIM_MRД_SK2_EIM_DN_SK2	
<input type="checkbox"/> EIM_MRД_SK2_Email	Supervisory Queue for MRD EIM_MRД_SK2
<input type="checkbox"/> OUT_MRД_SK1_Email	Supervisory Queue for MRD OUT_MRД_SK1

Below the table, there is a dropdown menu labeled 'Route to target before or after the email has been sent out of the application:' with the value 'Before' selected. At the bottom right, there are 'Cancel' and 'Done' buttons.

3. Click the **Done** button to close the window.

Configuring Filter Node

This node allows you to control the percentage of outgoing email activities that are sent to a location for review. The filter node assists supervisors by reducing and controlling the total outbound agent emails to be reviewed for quality assurance. An outbound email review workflow without the filter node sends all outgoing emails from a user or queue

to the target node in the workflow, while the filter node allows the administrator to control the percentage of outgoing activities to be routed to the review destination. Rerouting of outgoing activities can be done in increments of 5%.

The filter node is only available while configuring outbound email workflows.

To configure a filter node:



1. In the Edit Workflow space, on the Diagram tab, add the **Filter** node in the Workflow Editor.
2. In the Filter Rule Configuration window, perform the following:
 - a. Provide a name for the node.
 - b. From the dropdown menu, select the percentage of emails to be randomly routed to the target node.
 - c. Select the target node to which the selected emails are routed. This object must already be present in the workflow diagram area to be eligible. Click the **Select Target** button and from the Select Target window select the target node. You can choose from the following nodes:
 - Queue
 - Workflow
 - Department
 - Completion
 - Auto-acknowledgement
 - Branch
 - Classification
 - Modify object
 - Service level
 - User
 - d. If necessary, select the option to route the remaining emails to an alternate target node and follow the same steps of selecting a target.

Filter Rule Configuration

Name * :

Percentage of email to be route ▼

Route selected emails to * : ...

Route remaining emails to : ...

3. Click **Done**.

Once you have configured the targets in the filter node, the filter node and target nodes are automatically connected by arrows. The green arrow points to the target node to which the selected emails are routed. The red arrow points to the alternate target node. These arrows cannot be added or removed manually. They are added or removed automatically when you make changes to the filter node.

Configuring Department Node

Use this node to route activities to other departments. Activities can be routed only to departments that have active transfer workflows. Only such departments are available in the department list. The department node is a terminating node of a workflow and you cannot add any nodes after it. This node is not available in outbound workflows.

To configure a department node:



1. In the Edit Workflow space, on the Diagram tab, add the **Department** node in the Workflow Editor.
2. In the Select Transfer Department window, select a department to which you want to transfer activities from this workflow. Only the departments that have active **Start Workflow - Transfer** workflows are available in this list.

Select Transfer Department

Name	Description
<input checked="" type="checkbox"/> Service	Default Department

Cancel **Done**

- Click the **Done** button to close the window.

Configuring Completion Node

This node allows you to complete activities automatically. When activities reach this node, the status of the activities is changed to "Completed". Use this node only when you are sure that no additional work needs to be done, and the activity can be completed automatically, without being viewed by any agent. No properties need to be set for this node of the workflow.

To configure a completion node:

- In the Edit Workflow space, on the Diagram tab, add the **Completion**  node in the Workflow Editor.
- In the Add Set Completion Node window you will see a message that the activities will be marked as completed when they reach this node of the workflow. No additional properties need to be set for this node of the workflow.

Add Set Completion Node

Activities will be marked as completed when they reach this node of the workflow. No additional properties need to be set for this node of the workflow.

Done

- Click the **OK** button to close the window.

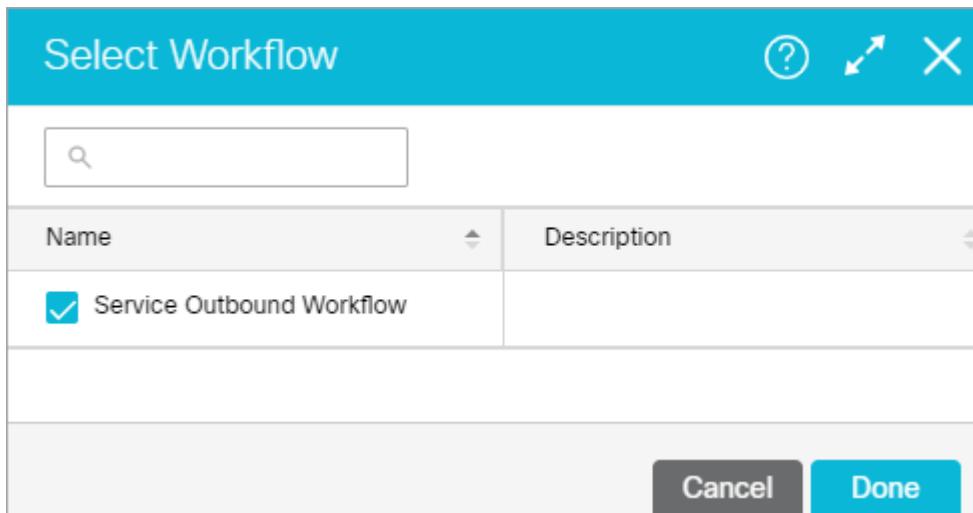
Configuring Workflow Node

Use this node to specify the workflow to which activities should get routed after they have been processed by the current workflow. Only workflows of the same type are available for routing activities, except for inbound workflows, where you can route activities to both inbound and general workflows. Workflow node is a terminating node of a workflow and you cannot add any nodes after it.

To configure a workflow node:



1. In the Edit Workflow space, on the Diagram tab, add the **Workflow** node in the Workflow Editor.
2. In the Select Workflow window, select the workflow to which you want to route activities from the current workflow, for further processing. Only active workflows are available in this list.



3. Click the **OK** button to close the window.

Configuring Modify Object Node

Using this node, you can modify some specific properties of the following objects - activities, cases, customers, emails, and custom activities.

To configure a modify object node:



1. In the Edit Workflow space, on the Diagram tab, add the **Modify Object** node in the Workflow Editor.
2. In the Modify Object Rule Configuration window, provide the following details.
 - a. In the **Name** field, provide a name for the node.
 - b. In the **Rule Name** field, provide a name for the rule and press the Enter Key. Select the rule name to configure the rule properties.

c. On the Condition tab, select one of the following options:

- This rule is always true
- This rule is TRUE under the following conditions

If you have selected the **This rule is TRUE under the following conditions** option, configure the conditions when the rule is true.

The screenshot shows the 'Modify Object Rule Configuration' dialog. The 'True' tab is active. Under 'Condition', the 'This rule is TRUE under the following conditions:' option is selected. The table below shows a condition row for 'Rule 1':
Object: Activity, Attribute: Activity, Operator: ==, Value: Email, Boolean: AND.
A second row is partially visible below it.

d. Next, go to the True tab and select the object you want to modify and specify the values for the objects that are to be modified. Through this node you can modify the following attributes of the objects.

- **Activity:** Activity priority, assigned to, description, due date, due date time, queue, subject
- **Case:** Description, due date, due date time, Owner, Severity, Solution description.
- **Email:** Content, subject
- **Task:** Content
- **Customer - common:** Entitlements, how referred, industry, level, marketing segment, preferred agent
- **Customer - individual:** Date of birth, employment status, First name, middle name, last name, gender, job title, marital status
- **Customer - group:** Customer name, group type, no. of members, region
- **Customer - organization:** Customer name, no. of employees, region, sector type

There are four ways in which you can provide values for these attributes. They are:

- **Macro:** The macro specified here is expanded and the value of the macro is assigned as the value for the attribute.
- **Link:** The data usage link specified here is executed and the value of the link is assigned as the value for the attribute.
- **Constant:** The value specified here is assigned directly as the value for the attribute.
- **Pattern:** The pattern specified here is searched for in the body of the activity. The value immediately following the pattern, till the end of the line, is assigned as the value for the attribute.

Modify Object Rule Configuration

Name of the New Node *:

Condition	True	False
Specify the objects to modify when this rule is TRUE.		
Object	<input type="text"/>	<input type="button" value="+"/>
Activity	<input type="text"/>	<input type="button" value="+"/> <input type="button" value="X"/>
Specify the value for the objects that are modified.		
Name	Type	Value
Activity Priority	Constant	<input type="text"/>
Description	Constant	<input type="text"/>
Due date	Constant	<input type="text"/> 03/31/2021
Due date time	Constant	<input type="text"/> 10:24 PM

- Next, go the False tab and select the object to be modified if the conditions configured in the rule are not met. The False tab is enabled only if you have selected the **This rule is true under the following conditions** option on the Condition tab. It is optional to configure the False tab.
- Likewise, you can create multiple rules.
- If you have created more than one rule, use the **Move Up** and **Move Down** button to change the order of the rules.

3. Click the **Done** button to close the window.

Configuring Service Level Node

Use this node to automatically set service levels for activities. Service levels allow you to set up response time expectations for various emails and custom activities being processed by the workflow. Create the service levels from the Service Levels node in the Administration Console. Then, configure the conditions when a service level should be set for an activity or case. You can configure a set of rules, and for each rule, configure a different service level.

To configure a service level node:



1. In the Edit Workflow space, on the Diagram tab, add the **Service Level** node in the Workflow Editor.
2. In the Service Level Rule Configuration window, provide the following details.
 - a. In the **Name** field, provide a name for the node.
 - b. In the **Rule Name** field, provide a name for the rule and press the Enter Key. Select the rule name to configure the rule properties.
 - c. Select one of the following options:
 - This rule is always true
 - This rule is TRUE under the following conditions

If you have selected the **This rule is TRUE under the following conditions** option, configure the conditions when the rule is true.

- d. Next, select the service levels to be set for activities and cases, if the conditions configured in the rule are met.

Likewise, you can create multiple rules.

- e. If you have created more than one rule, use the **Move Up** and **Move Down** button to change the order of rules.
- f. Lastly, you can also set service levels if no rules are found to be true. Set the following:
 - Select the **If no TRUE rule is found, then set activity service level** option, and select a service level from the dropdown list.
 - Select the **If no TRUE rule is found, then set case service level** option, and select a service level from the dropdown list.

Service Level Rule Configuration

Name of the New Node *:

Create new rules below; processing ends when a TRUE rule is found.

Enter New Rule	
Move Up	Move Down
8 Hr SLA: Email	

This rule is always true.
 This rule is TRUE under the following conditions:

Specify the condition for the rule.

Object	Attribute	Operator	Value	Boolean	
Email	Content	Contains	Return	AND	<input type="button" value="+"/>
Email	Content	Contains	Compla...	AND	<input type="button" value="X"/>

If the rule is TRUE, then set activity service level:

If the rule is TRUE, then set case service level:

If no TRUE rule is found, then set activity service level:
 If no TRUE rule is found, then set case service level:

Cancel **Done**

- Click the **Done** button to close the window.

Configuring Alarm Node

Using this node, you can set up alarms if certain conditions are met. You can monitor some specific attributes of cases and activities, and you can send internal and external notifications if the conditions are met. For activity alarm rules, you can also filter activities based on a defined criteria. The filtered activities can then be further processed by the alarm workflow.

An alarm workflow can have only one alarm node and it should be the second node in the workflow that is the node following the start node.

To configure an alarm node:

- In the department-level Top Menu, select **Business Rules**.
- In the Left menu, navigate to **Workflows >Alarm**.
- In the Alarm workflow space, select an existing alarm workflow.

4. In the Edit Alarm Workflow space, on the Diagram tab, add the **Alarm** node in the Workflow Editor.

5. In the Alarm Rule Configuration window, provide the following details.

a. In the **Name** field, provide a name for the node.

b. Next, on the Condition tab, configure the conditions under which the rule is true. Only the following objects are available in the alarm node - Activity and Case, and you can set conditions for only one object in one alarm node. Another important thing to note is that you cannot set conditions using only the "Count" and "Percentage" attributes. You must select another attributes with these two attributes to be able to save the node.

The screenshot shows the 'Alarm Rule Configuration' dialog box. At the top, there's a blue header bar with the title 'Alarm Rule Configuration' and standard window controls (minimize, maximize, close). Below the header, a sub-header says 'Name of the New Node *:' followed by a text input field containing 'Alarm Notification'. Underneath, there are two tabs: 'Condition' (which is selected) and 'True'. A sub-section titled 'This rule is TRUE under the following conditions:' contains a table with five columns: 'Object', 'Attribute', 'Operator', 'Value', and 'Boolean'. The first row of the table has dropdown menus for each column. The second row shows specific values: 'Activity' in the Object column, 'Activity Sub...' in the Attribute column, '==' in the Operator column, 'Workflow-Er...' in the Value column, and 'AND' in the Boolean column. There is also a small '+' icon next to the Boolean column and a delete icon (an 'X') at the end of the row. At the bottom right of the dialog are 'Cancel' and 'Done' buttons.

Object	Attribute	Operator	Value	Boolean
Activity	Activity Sub...	==	Workflow-Er...	AND

c. Next, on the True tab, configure the action to be performed when the alarm conditions are met. You can do one of the following:

- Send notifications to users: This option is available for both case and activity alarm rules. Set up internal messages or emails to be sent when an alert condition is met. Specify the following - the users to whom you want to send a message (you can send messages to internal user accounts or external email addresses.); the subject of the message; the content of the message.

Alarm Rule Configuration



Condition

True

Specify the objects to create or modify when this rule is TRUE.

Action	Object
Send	Notification

Please specify the notification message to be sent.

To	test2@egeng.info
Subject	Workflow Alert: Some activities have been routed to the Exception Queue.

Some activities have been routed to the Exception Queue by a workflow.

- Date: %alarm_date%
- Time: %alarm_time%

Cancel

Done

- Filter activities, based on a defined criteria: This option is available for activity alarm rules only. Set up the criteria of activities to be further processed by this workflow. Filters should be configured only in alarm workflows set up for users, user groups, and queues.

Alarm Rule Configuration

Condition True

Specify the objects to create or modify when this rule is TRUE.

Action	Object
Send	Notification
Filter	Activity

Specify the criteria of the activities to be further processed by this workflow.

Basic Advanced Relationships

Type	Attribute	Operator	Value	Boolean
activities	Department name	=	Sasha	AND
activities	Activity ID	=	3456	AND
activities	Case ID	=	3455	AND

Cancel **Done**

- Click the **Done** button to close the window.

Configuring Branch Node

Branch node is a decision point where you decide what kind of work is to be routed to which resource. Using rules, you can automatically route work to the resources capable of handling it. Activities can be routed to users, queues, departments, or another workflow. You can create various rules in which you can specify the conditions when a particular type of work should be routed to a specified resource. You can configure the system in a way that when one set of conditions are met the work is routed to one resource, and when another set of conditions are met the work is routed to a different resource. Like this you can configure different sets of conditions and for each set of met conditions, a different resource. For example, your system handles three types of queries - orders, enquiries, and support, and you want to automatically route each type of work to a different queue. Using the branch node, you can set rules and automatically route the work to the appropriate queues.

In the Branch node, along with the rules, you have to also define the resources to which the work is to be routed. So, before configuring the Branch node you have to first add the nodes to the Workflow Editor, to which you want to route the work.

To configure a branch node:

In the branch node, along with the rules, you have to also define the resources to which the work is to be routed. So, before configuring the branch node you have to first add the nodes to the Workflow Editor, to which you want to route the work.



1. In the Edit Workflow space, on the Diagram tab, add the **Branch** node in the Workflow Editor.
2. In the Branch Rule Configuration window, provide the following details.
 - a. In the **Name** field, provide a name for the node.
 - b. In the **Rule Name** field, provide a name for the rule and press the Enter Key. Select the rule name to configure the rule properties.
 - c. Select one of the following options:
 - This rule is always true
 - This rule is TRUE under the following conditionsIf you have selected the **This rule is TRUE under the following conditions** option, configure the conditions when the rule is true.
 - d. Next, select the target node. Click the **Select Target** button and from the Select Target window select the target node. You can choose from the following nodes:
 - Queue
 - Workflow
 - Department
 - Completion
 - Auto-acknowledgement
 - Branch
 - Category
 - Modify object
 - Service level
 - User
 - Filter (outbound workflow)Likewise, you can create multiple rules.
 - e. If you have created more than one rule, use the **Move Up** and **Move Down** button to change the order of rules.

- f. Lastly, you can also select a target node if no rules are found true. Select the **If no TRUE rule is found, then route to this target** option, and select the target node. Click the **Select Target** button and from the Select Target window select the target node.

- Click the **OK** button to close the window.

Once you have configured the rules in the branch node, the branch node and target nodes are automatically connected by arrows. Green arrows are added pointing to targets for true conditions. And, a red arrow is added pointing to the target for activities when no true rule is found. These arrows cannot be added or removed manually. They get added or removed automatically when you make changes to the branch node.

Creating Workflows

To create a workflow:

- In the department-level Top Menu, select **Business Rules**.
- In the Left menu, navigate to **Workflow > Workflow Type**.
- Click the **New** button to create a new workflow.
- In the Create Workflow space, on the General tab, provide the following details.

- **Name:** The name of the workflow.
- **Description:** Provide a brief description.
- **Active:** From the dropdown list, select **Yes** to make the workflow active.

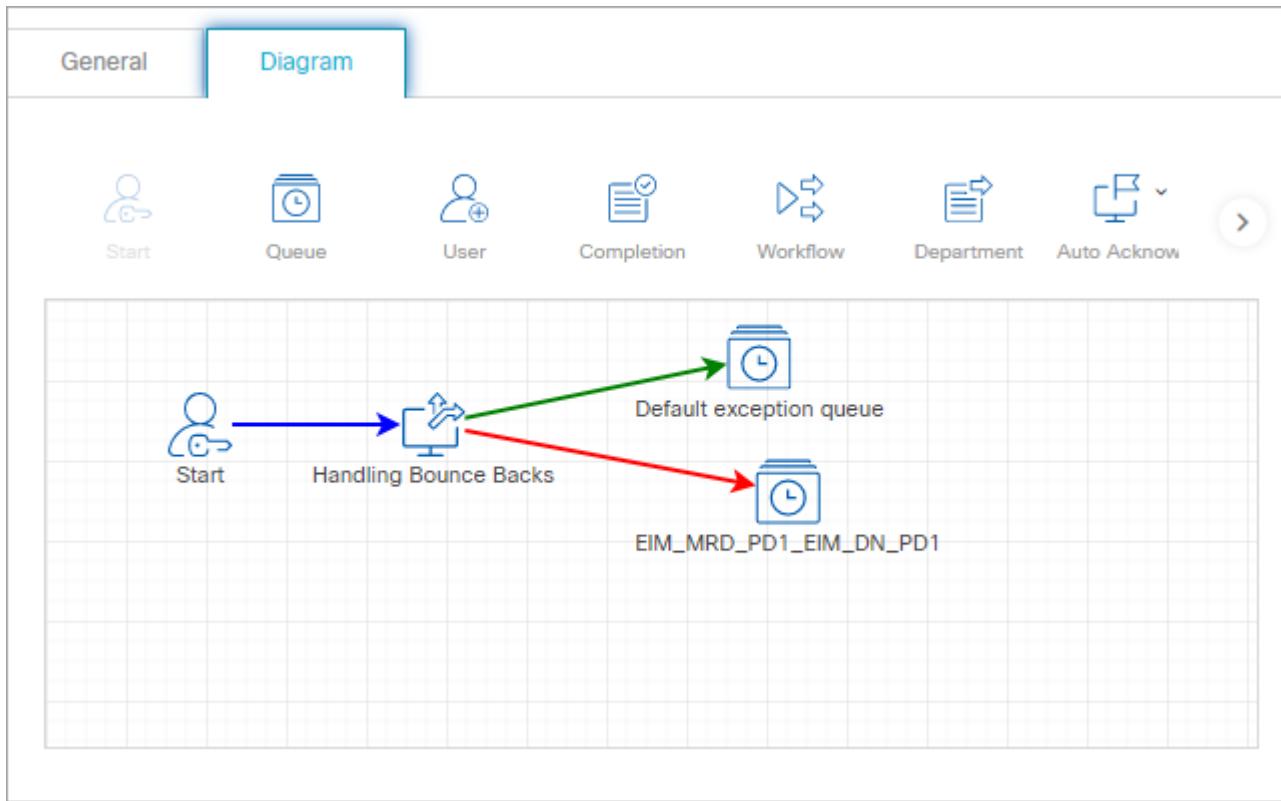
Create Inbound Workflow

General	Diagram
Name*	Service Workflow
Description	To handle service related activities
Active*	Yes

To apply a workflow on activities, you have to make the status active.

4. Next, go to the Diagrams tab, and configure the workflow using the various nodes available in the Workflow Editor toolbar.
 - a. First, add the nodes in the **Workflow Editor**. To add a node, click a node button in the Workflow Editor toolbar, and then click in the **Workflow Editor**. The node is added in the Workflow Editor and a window for configuring the node properties opens. Set the required properties of the nodes.

For some of the nodes, you can also add a copy of the nodes created in other workflows or the same workflow. To add a copy of a node, click the arrow next to the node button in the **Workflow Editor** toolbar, and select the option to add a copy of the node.
 - b. After adding the nodes, you need to connect them to determine the flow of the workflow. From one node, a connector can point towards only one node, but multiple connectors can point towards the same node. In a workflow, all nodes should be connected to some other node. In the Workflow Editor toolbar, click on the node and without releasing the mouse button, click on the second node. A connector appears between the two nodes, indicating the flow of the workflow.
 - c. After you have created the workflow you can use the auto layout option to arrange the nodes neatly. Auto layout arranges the nodes in a way that you can clearly see the flow of the workflow. In the Workflow Editor toolbar, click the **Auto Layout nodes on canvas**  button. All the nodes in the workflow are arranged systematically.



5. Click the **Save** button.
6. Click the **Validate** button to validate the workflow. A workflow is validated only if it is in active state. If you have not completed creating the workflow and want to save whatever is done, you can do that by keeping the workflow inactive.
7. Click the **Audit** button to view an audit trail of the users who have made changes to the workflow and the date and time when the change was made.

Copying Workflows

Copy workflows to reuse existing workflows, and to test workflows. Users with the Create Workflow action can copy workflows. The copied workflow is named as "Copy of *Workflow_Name*" and saved as an inactive workflow, without a start node. In the copied workflow, add the start node, evaluate the end nodes to see if they need to be changed, and when the workflow is ready, make it active. The time taken by the copying process varies based on the size of the workflow, and the user cannot work in the application during this time.

Workflows cannot be copied across departments and the following three standard inbound workflows are not available for copying: Start Workflow – Transfer, Start Workflow – Standard, and Finish Workflow.

To copy a workflow:

1. In the department-level Top Menu, select **Business Rules**.
2. In the Left menu, navigate to **Workflow > Workflow Type**.
3. In the Actions column of the desired workflow, click the **Options** button and select the **Create Copy** option.

4. A message appears notifying that based on the size of the workflow, the copy process might take some time, and that the user would not be able to use the product during the process. In the message, click **Yes** to create a copy of the workflow.

After a copy of the workflow is created, a message is displayed that tells the name of the copied workflow. In the copied workflow, add the start node, evaluate the end nodes to see if they need to be changed, and when the workflow is ready, make it active.

Deleting Workflows

Before deleting a workflow, ensure that it is not in use.

To delete a workflow:

1. In the department-level Top Menu, select **Business Rules**.
2. In the Left menu, navigate to **Workflow > Workflow Type**.
3. In the Actions column of the desired workflow, click the **Options**  button and select the **Delete** option.
4. In the window that appears, confirm the deletion.

Sample Workflows

- Inbound: Processing Inquiries at a Phone Company
- Outbound: Reviewing Outgoing Emails for Trainee Agents
- Alarm: Monitoring Activities About to be Due in One Hour

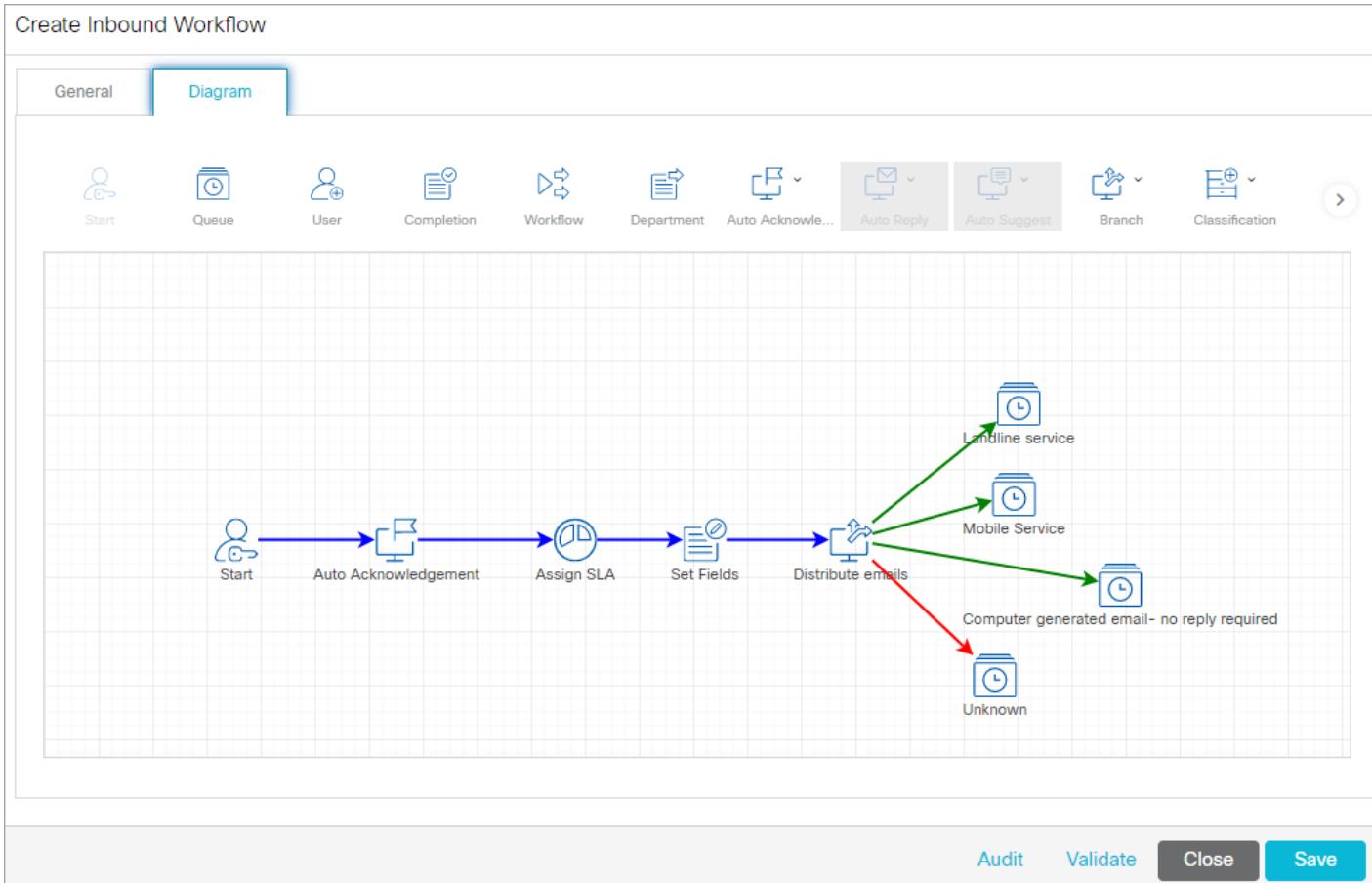
Inbound: Processing Inquiries at a Phone Company

This workflow demonstrates how to manage emails coming into a phone company. First, an autoacknowledgement is sent to customers and a service level is set for the emails. Then, data is automatically extracted from emails and it is saved as part of the case and customer attributes. Then, the workflow starts routing activities. First, emails about landline services are routed to the landline service queue. Emails about mobile services are routed to the mobile service queue. Computer generated emails and emails about any other topic are routed to their respective queues.

Before creating any workflow, you need to create some objects which are then used in the workflow. For this workflow, you need to create the following object from the Administration Console:

- Aliases
- Three service levels named: 8 hours SLA, 24 hours SLA, and 48 hours SLA
- Four queues with the following names: Landline service, Mobile service, Computer generated email- no reply needed, Unknown
- Two auto-acknowledgement articles: Auto-Ack-Landline and Auto-Ack-Mobile.
- One custom case attribute, with the name "Tracking number". For details on creating and adding the attributes in the screens, see [Creating Custom Attributes](#) and [About Screen Attribute Settings](#).

Nodes are not necessarily configured in the order in which they appear in the workflow. For example, before configuring the Branch node, you need to first configure the nodes that need to be used in the rules in the Branch node. To help you better understand the workflow, the nodes in the sample workflow figure are numbered in the order in which they are to be configured.



To create the workflow:

1. In the **Start** node, select aliases.
2. In the **Auto-Acknowledgement** node, create the following rules:
 - a. Check if the subject of the email contains "Landline service" or "Mobile service". If the condition is met, select the relevant Auto- Acknowledgement articles to be sent.
 - b. In the **Rule Name** field, provide a name for the rule and press the Enter Key. Select the rule name to configure the rule properties.
 - c. Landline Service: Select the **This rule is TRUE under the following conditions** option and specify the conditions for the rule:
 - **Object:** Select **Email**
 - **Attribute:** Select **Content** from the dropdown
 - **Operator:** Select **Contains** from the dropdown
 - **Value:** Type *Landline Service* in the field
 - **Boolean:** Select **AND** from the dropdown.
 - Next, in the **If the rule is TRUE, then send this article** field, click the **Select Article** button, and from the Select Article window select the *Auto-Ack-Landline* article.

Auto Acknowledgement Rule Configuration

(?) X

Name of the New Node *:

Auto Acknowledgement

Create new rules below;
processing ends when a TRUE
rule is found.

Enter New Rule	
<input type="button" value="Move Up"/>	<input type="button" value="Move Down"/>
<input type="checkbox"/> Landline Service	
<input type="checkbox"/> Mobile Service	

This rule is always true.

This rule is TRUE under the following conditions:

Specify the condition for the rule.

Object	Attribute	Operator	Value	Boolean	
Email	Cont...	Cont...	Landl...	AND	<input type="button" value="X"/>

If the rule is TRUE, then send this article:

If no TRUE rule is found, then send this article:

d. Mobile Service: Select the **This rule is TRUE under the following conditions** option and specify the conditions for the rule:

- **Object:** Select Email
- **Attribute:** Select Content from the dropdown
- **Operator:** Select Contains from the dropdown
- **Value:** Type *Mobile Service* in the field
- **Boolean:** Select AND from the dropdown.
- Next, in the **If the rule is TRUE, then send this article** field, click the **Select Article** button, and from the Select Article window select the *Auto-Ack-Mobile* article.

Auto Acknowledgement Rule Configuration

(?) X

Name of the New Node *:

Auto Acknowledgement

Create new rules below;
processing ends when a TRUE
rule is found.

Enter New Rule	
<input type="button" value="Move Up"/>	<input type="button" value="Move Down"/>
Landline Service	
Mobile Service	

This rule is always true.

This rule is TRUE under the following conditions:

Specify the condition for the rule.

Object	Attribute	Operator	Value	Boolean	
Email	Cont...	Cont...	Mobil...	AND	<input type="button" value="X"/>

If the rule is TRUE, then send this article:

Auto-Ack_Mobile

If no TRUE rule is found, then send this article:

Cancel

Done

e. Connect the **Start** node with this node.

3. In the Service Level node (named as Assign SLA), configure the following rules.

a. Landline service SLA: Check if the subject of the email contains "Landline service". If the condition is met, set the activity service level as "24 hours SLA".

Service Level Rule Configuration



Name of the New Node *:

Create new rules below; processing ends when a TRUE rule is found.

Enter New Rule	
<input type="button" value="Move Up"/>	<input type="button" value="Move Down"/>
<input type="text" value="Landline Service SLA"/>	
<input type="text" value="Mobile Service SLA"/>	

This rule is always true.

This rule is TRUE under the following conditions:

Specify the condition for the rule.

Object	Attribute	Operator	Value	Boolean	
Email	Subject	Contains	Landlin...	AND	<input type="button" value="X"/>

If the rule is TRUE, then set activity service level:

If the rule is TRUE, then set case service level:

If no TRUE rule is found, then set activity service level:

If no TRUE rule is found, then set case service level:

- b. Mobile service SLA: Check if the subject of the email contains "Mobile service". If the condition is met, set the activity service level as "8 hours SLA".

Service Level Rule Configuration



Name of the New Node *:

Assign SLA

Create new rules below; processing ends when a TRUE rule is found.

Enter New Rule	
<input type="button" value="Move Up"/>	<input type="button" value="Move Down"/>
<input type="text" value="Mobile Service SLA"/>	
<input type="text" value="Landline Service SLA"/>	

This rule is always true.

This rule is TRUE under the following conditions:

Specify the condition for the rule.

Object	Attribute	Operator	Value	Boolean	
Email	Content	Contains	Mobile ...	AND	<input type="button" value="X"/>

If the rule is TRUE, then set activity service level:

8 hours SLA

If the rule is TRUE, then set case service level:

If no TRUE rule is found, then set activity service level: 48 hours SLA

If no TRUE rule is found, then set case service level:

c. If none of the rules configured in this node are true, set the activity service level as "48 hours SLA".

d. Connect the **Auto-acknowledgement** node with this node.

4. In the **Modify Object** node (named as Set Fields), configure the following rules.

a. Set tracking number: Configure the following conditions for the rule.

- Email content contains "Tracking number:", OR
- Email content contains "Rebate ID:", AND
- Case type is "New"

Modify Object Rule Configuration



Name of the New Node *:

Set Fields

Create new rules below; all rules will be processed.

Enter New Rule

Condition	True	False
<input type="radio"/> This rule is always true. <input checked="" type="radio"/> This rule is TRUE under the following conditions:		
Specify the condition for the rule.		
Object	Attribute	Operator
Email	Content	Contains
Email	Content	Contains
Activity	Case ...	==

- b. If the conditions are met, set the value in the "Tracking number" field (custom field) using the pattern "Tracking number:"

Modify Object Rule Configuration



Name of the New Node *:

Set Fields

Create new rules below; all rules will be processed.

Enter New Rule

Move Up Move Down

Set tracking number

Condition True False

Specify the value for the objects that are modified.

Name	Type	Value
Description	Constant	<input type="text"/>
Due date	Constant	Choose a date
Due date time	Constant	Select time
Owner	Constant	<input type="text"/>
Severity	Constant	<input type="text"/>
Solution Description	Pattern	Tracking Number:

Cancel

Done

c. Set tracking number: Configure the following conditions for the rule.

- Email content contains "First name:", AND
- Email content contains "Last name:", AND
- Case type is "New"

Modify Object Rule Configuration



Name of the New Node *:

Set Fields

Create new rules below; all rules will be processed.

Enter New Rule

Move Up Move Down

Set tracking nu...

Set Customer na...

Condition	True	False																								
<input type="radio"/> This rule is always true. <input checked="" type="radio"/> This rule is TRUE under the following conditions:																										
Specify the condition for the rule. <table border="1"> <thead> <tr> <th>Object</th><th>Attribute</th><th>Operator</th><th>Value</th><th>Boolean</th><th></th></tr> </thead> <tbody> <tr> <td>Email</td><td>Cont...</td><td>Cont...</td><td>First ...</td><td>AND</td><td></td></tr> <tr> <td>Email</td><td>Cont...</td><td>Cont...</td><td>Last ...</td><td>AND</td><td></td></tr> <tr> <td>Activity</td><td>Case...</td><td>==</td><td>New</td><td>AND</td><td></td></tr> </tbody> </table>	Object	Attribute	Operator	Value	Boolean		Email	Cont...	Cont...	First ...	AND		Email	Cont...	Cont...	Last ...	AND		Activity	Case...	==	New	AND			
Object	Attribute	Operator	Value	Boolean																						
Email	Cont...	Cont...	First ...	AND																						
Email	Cont...	Cont...	Last ...	AND																						
Activity	Case...	==	New	AND																						

Cancel

Done

- d. If the conditions are met, set the value in the "First name" and "Last name" fields using the patterns "First name:" and "Last name:" respectively.

Modify Object Rule Configuration

(?) X

Name of the New Node *:

Set Fields

Create new rules below; all rules will be processed.

Enter New Rule 

Move Up **Move Down**

Set tracking nu...

Set Customer ...

Condition True False

Specify the objects to modify when this rule is TRUE.

Object



Customer-Individual



Specify the value for the objects that are modified.

Name	Type	Value
------	------	-------

Date of birth	Constant	 Choose a date
---------------	----------	---

Employment status	Constant	
-------------------	----------	---

First name	Constant	
------------	----------	---

Gender	Constant	
--------	----------	---

Job title	Constant	
-----------	----------	---

Last name	Constant	
-----------	----------	---

Last name	Constant	Last Name
-----------	----------	-----------

Cancel

Done

e. Connect the **Service Level** node (named as Assign SLA) with this node.

5. In the Queue node (named as Landline service), select the "Landline service" queue
6. In the Queue node (named as Mobile service), select the "Mobile service" queue.
7. In the Queue node (named as Computer generated email - no reply needed), select the "Computer generate email - no reply needed" queue.
8. In the Queue node (named as Unknown), select the "Unknown" queue.
9. In the Branch node (named as Distribute emails), create the following rules. In this node, we will use the nodes configured in steps 5–8.

a. Landline service emails: Configure following conditions for the rule:

- To email address is "landlineservice@company.com", AND
- Email content does not contain "auto-ack", AND

If the conditions are met, route the activity to the "Landline service" queue.

Branch Rule Configuration

Name of the New Node *:

Distribute emails

Create new rules below; processing ends when a TRUE rule is found.

Object	Attribute	Operator	Value	Boolean	
Email	To em...	==	landlin...	AND	<input type="button" value="X"/>
Email	Content	Not co...	auto-ack	AND	<input type="button" value="X"/>

If the rule is TRUE, route to this target: Landline service

If no TRUE rule is found, route to this target: Unknown

b. Mobile service emails: Configure following conditions for the rule:

- To email address is "mobileservice@company.com", AND
- Email content does not contain "auto-ack", AND

If the conditions are met, route the activity to the "Mobile service" queue.

Branch Rule Configuration



Name of the New Node *:

Distribute emails

Create new rules below; processing ends when a TRUE rule is found.

Enter New Rule	
<input type="button" value="Move Up"/>	<input type="button" value="Move Down"/>
<input type="button" value="Landline service em..."/>	
<input style="background-color: #e0f2e0; border: 1px solid #ccc; padding: 2px; width: 100%; height: 100%;" type="button" value="Mobile service emails"/>	
<input type="button" value="No Reply needed"/>	

This rule is always true.

This rule is TRUE under the following conditions:

Specify the condition for the rule.

Object	Attribute	Operator	Value	Boolean	
Email	To em...	==	"mobil..."	AND	<input type="button" value="X"/>
Email	Content	Not co...	auto-ack	AND	<input type="button" value="X"/>

If the rule is TRUE, route to this target:

If no TRUE rule is found, route to this target:

c. No Reply needed: Configure following conditions for the rule:

- Email content contains "auto-ack" AND

If the conditions are met, route the activity to the "Computer generate email - no reply needed" queue.

Branch Rule Configuration

Name of the New Node *:

Create new rules below; processing ends when a TRUE rule is found.

Enter New Rule	Move Up	Move Down
Landline service em...		
Mobile service emails		
No Reply needed		

This rule is always true.
 This rule is TRUE under the following conditions:

Specify the condition for the rule.

Object	Attribute	Operator	Value	Boolean	...
Email	Content	Contains	auto-ack	AND	<input type="button" value="X"/>

If the rule is TRUE, route to this target:

If no TRUE rule is found, route to this target:

- d. If none of the rules configured in this node are true, route the activity to the “Unknown” queue.

The Distribute emails node is automatically connected to the queue nodes used in the various conditions. Connect the **Modify object** node (named as Set Fields) with the **Branch node** (named as Distribute emails).

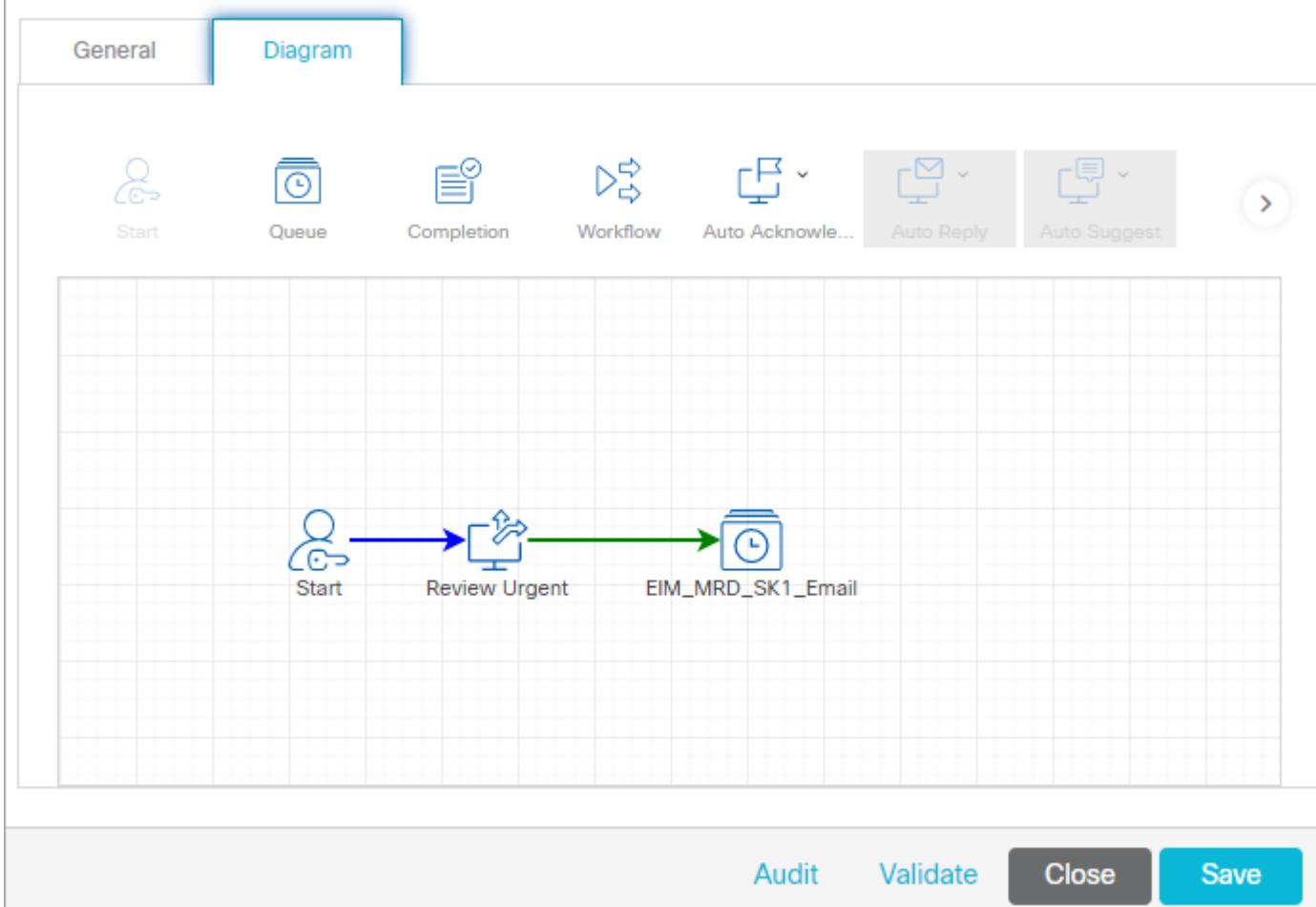
Outbound: Reviewing Outgoing Emails for Trainee Agents

This workflow routes all outbound emails created by users in the user group Trainee, that have the word Urgent in the subject, to a Supervision queue. Supervisors can then pull the emails from the queue and accept or reject the response after reviewing it. Before creating any workflow, you need to create some objects which are then used in the workflow. For this workflow, you need to create the following objects in the Administration Console:

- A user group named Trainees.
- A Supervision queue imported from the MRD, from which supervisors can pull activities for review.

Nodes are not necessarily configured in the order in which they appear in the workflow. For example, before configuring the Branch node, you need to first configure the nodes that need to be used in the rules in the Branch node. To help you better understand the workflow, the nodes in the sample workflow figure are numbered in the order in which they are to be configured.

Create Outbound Workflow



Please note that the supervisory queues that are created for each MRD associated with emails or outbound media classes are the only queues that should be used in outbound workflows to route activities to supervisors. Supervisors to whom the activities are being routed should have the right skill groups associated to all email MRDs to which the supervisory queues in the workflow belong.

To create the workflow:

1. In the **Start** node, select the "Trainees" user group.
2. In the **Queue** node (named as Supervision), select the "Supervision" queue.
3. In the Select Queue window, select the Before option to route the responses to the Supervision queue before the email has been sent out of the application.

Select Queue

Name	Description
<input type="checkbox"/> Default exception queue	System provided queue for exceptions
<input type="checkbox"/> EIM_MRД_SK1_EIM_DN_SK1	
<input checked="" type="checkbox"/> EIM_MRД_SK1_Email	Supervisory Queue for MRD EIM_MRД_SK1
<input type="checkbox"/> EIM_MRД_SK2_EIM_DN_SK2	
<input type="checkbox"/> EIM_MRД_SK2_Email	Supervisory Queue for MRD EIM_MRД_SK2
<input type="checkbox"/> OUT_MRД_SK1_Email	Supervisory Queue for MRD OUT_MRД_SK1

Route to target before or after the email has been sent out of the application:

4. Click **Done**.
5. In the **Branch** node (named as Review 'Urgent'), check the activity subject for the word "Urgent". If the condition is met, route the activity to the "Supervision" queue. This node is automatically connected to the **Queue** node. Connect the **Start** node with the **Branch** node.

Branch Rule Configuration



Name of the New Node *:

Review Urgent

Create new rules below;
processing ends when a TRUE rule
is found.

Enter New Rule

Move Up Move Down

Condition

This rule is always true.

This rule is TRUE under the following conditions:

Specify the condition for the rule.

Object	Attribute	Operator	Value	Boolean	
Email	Subj...	Cont...	Urgent	AND	

If the rule is TRUE, route to this target: EIM_MRD_SK1_Email

If no TRUE rule is found, route to this target:

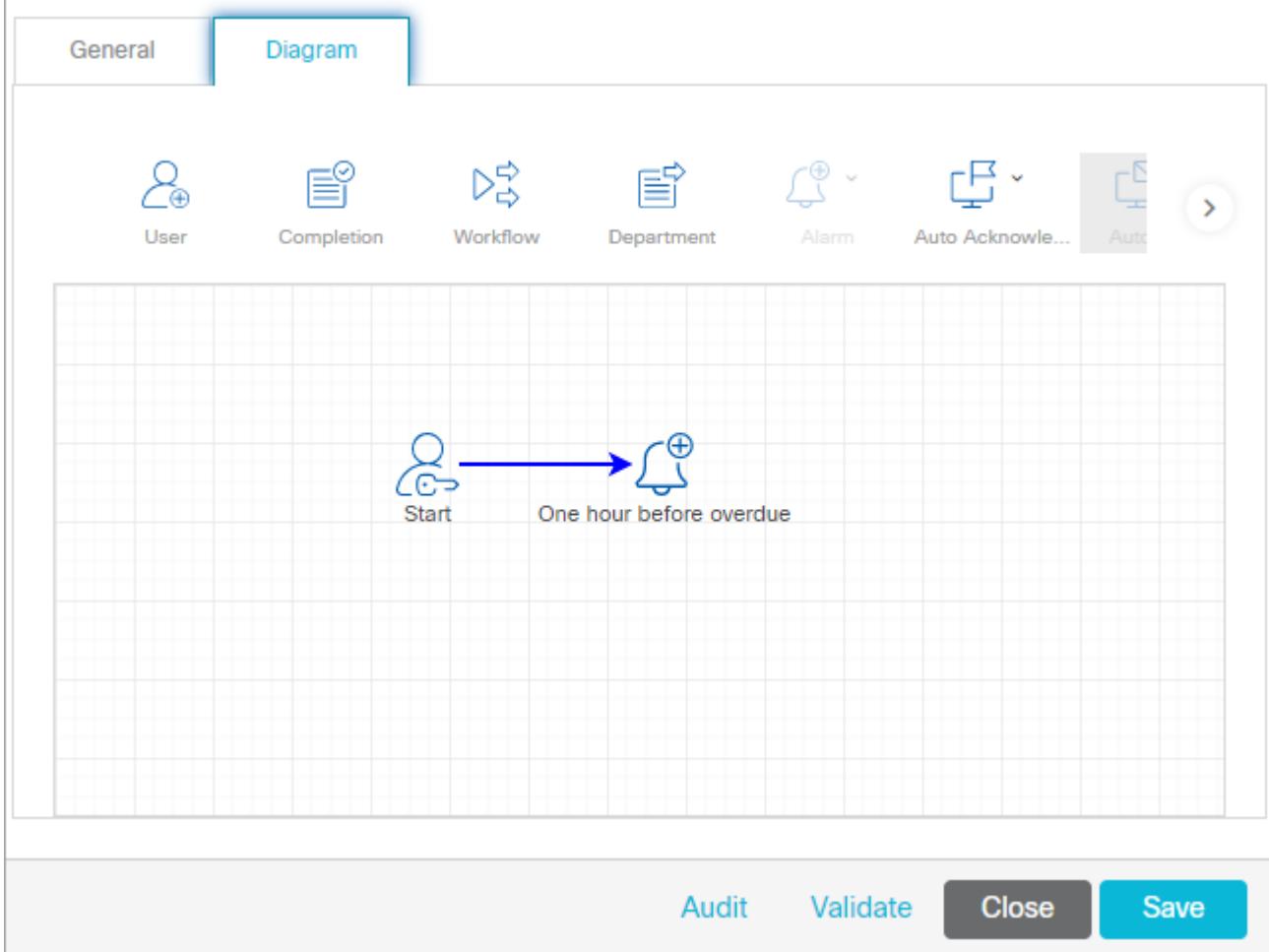
Cancel

Done

Alarm: Monitoring Activities About to be Due in One Hour

Create a workflow to check for activities that are about to be due in an hour, and notify the supervisor of the same.

Create Alarm Workflow



To create the workflow:

1. In the **Start** node, select the queues to be monitored and set the schedule.
2. In the **Alarm** node (named as One hour before overdue), do the following.
 - a. In the Condition tab, set the following conditions:
 - Activity is going to be due in an hour, AND
 - Activity status is "Pre Completion".

Alarm Rule Configuration



Name of the New Node *:

One hour before overdue

Condition

True

This rule is TRUE under the following conditions:

Object	Attribute	Operator	Value	Boolean	
Activity	Hours till due	==	1	AND	
Activity	Activity Status	==	Pre Completion	AND	

Cancel

Done

- b. In the True tab, create a notification to be sent to supervisors, if the conditions are met.

- Set the To email addresses.
- Set the subject as "There are activities due in one hour".
- Create the content of the email.

Alarm Rule Configuration



Name of the New Node *:

One hour before overdue

Condition

True

Specify the objects to create or modify when this rule is TRUE.

Action	Object
Send	Notification

Please specify the notification message to be sent.

To	agent@company.com
Subject	There are activities due in one hour



These are activities in the system that are due in one hour. Please investigate.

Thanks.|

Cancel

Done

3. Connect the **Start** node with the **Alarm** node.