



Cisco Unified Web and E-Mail Interaction Manager Administration Console User's Guide

For Unified Contact Center Enterprise and Hosted and Unified ICM

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Preface

- ▶ [About this guide](#)
- ▶ [Document conventions](#)
- ▶ [Acronyms and initialisms](#)
- ▶ [Other learning resources](#)

Welcome to Cisco® Interaction Manager™, multichannel interaction software used by businesses all over the world to build and sustain customer relationships. A unified suite of the industry's best applications for web and email interaction management, it is the backbone of many innovative contact center and customer service helpdesk organizations.

Cisco Interaction Manager includes a common platform and one or both of the following applications:

- ▶ Cisco Unified Web Interaction Manager (Unified WIM)
- ▶ Cisco Unified E-Mail Interaction Manager (Unified EIM)

About this guide

Cisco Unified Web and E-Mail Interaction Manager Administration Console User's Guide introduces you to the Administration Console and helps you understand how to use it to set up and manage various business resources.

This guide is for installations that are integrated with Cisco Unified Contact Center Enterprise (Unified CCE).

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.
<code>Monospace</code>	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.

Document conventions

Acronyms and initialisms

Acronyms and initialisms used in this document are listed here:

- ▶ ACD: Automatic Call Distributor
- ▶ ARM: Agent Reporting and Management
- ▶ CSA: Cisco Security Agent
- ▶ CTI: Computer Telephony Integration
- ▶ EAAS: External Agent Assignment Service


- ▶ ICM: Intelligent Contact Manager
- ▶ IPCC: Internet Protocol Contact Center
- ▶ IPTA: ICM-picks-the-agent
- ▶ JDBC: Java Database Connectivity
- ▶ MR: Media Routing
- ▶ MRD: Media Routing Domain
- ▶ ODBC: Open Database Connectivity
- ▶ PG: Peripheral Gateway
- ▶ PIM: Peripheral Interface Manager
- ▶ SNMP: Standard Network Management Protocol
- ▶ UI: User Interface

Other learning resources

Various learning tools are available within the product, as well as on the product CD and our web site. You can also request formal end-user or technical training.

Online help

The product includes topic-based as well as context-sensitive help.

Use	To view
 Help button	Topics in <i>Cisco Unified Web and E-Mail Interaction Manager Help</i> ; the Help button appears in the console toolbar on every screen.
F1 keypad button	Context-sensitive information about the item selected on the screen.

Online help options

Document set

The Cisco Unified Web and E-Mail Interaction Manager documentation is available in the `Documents` folder on the product CD. It includes the following documents:

- ▶ *Cisco Unified Web and E-Mail Interaction Manager System Requirements*
- ▶ *Cisco Unified Web and E-Mail Interaction Manager Installation Guide*
- ▶ *Cisco Unified Web and E-Mail Interaction Manager Browser Settings Guide*
- ▶ *Cisco Unified Web and E-Mail Interaction Manager Agent Console User's Guide*
- ▶ *Cisco Unified Web and E-Mail Interaction Manager Knowledge Base Console User's Guide*

- ▶ *Cisco Unified Web and E-Mail Interaction Manager Reports Console User's Guide*
- ▶ *Cisco Unified Web and E-Mail Interaction Manager Supervision Console User's Guide*
- ▶ *Cisco Unified Web and E-Mail Interaction Manager System Console User's Guide*
- ▶ *Cisco Unified Web and E-Mail Interaction Manager Tools Console User's Guide*

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

- ▶ All Unified EIM documentation can be found online at http://www.cisco.com/en/US/products/ps7236/tsd_products_support_series_home.html
- ▶ All Unified WIM documentation can be found online at http://www.cisco.com/en/US/products/ps7233/tsd_products_support_series_home.html
- ▶ In particular, Release Notes for these products can be found at http://www.cisco.com/en/US/products/ps7236/prod_release_notes_list.html
- ▶ For general access to Cisco Voice and Unified Communications documentation, go to http://www.cisco.com/en/US/products/sw/voicesw/tsd_products_support_category_home.html

1

Console basics

- ▶ [Key terms and concepts](#)
- ▶ [Important tasks](#)
- ▶ [Elements of the user interface](#)

The Administration Console is the main management console in the system. It is designed to help managers set up various business entities such as users and resources such as calendars, workflows, and email aliases.

Key terms and concepts

Console

Cisco Unified Web and E-Mail Interaction Manager has seven workspaces, or consoles. The consoles are part of the core Cisco Unified Web and E-Mail Interaction Manager Platform and are present in every installation, irrespective of the number of products deployed. However, the features available in each console vary from one installation to another as they are determined by settings and the products and modules installed. Every installation has:

- ▶ **One service console**
 - Agent Console
- ▶ **One authoring console**
 - Knowledge Base Console
- ▶ **Five management consoles**
 - Administration Console
 - Reports Console
 - Supervision Console
 - System Console
 - Tools Console

The consoles serve a simple function—to make it easy for target users to perform their daily tasks. Each console is designed by the Cisco usability team to be a specialized work area for a specific set of interaction hub users such as agents, knowledge authors, supervisors, managers, business analysts, system administrators, and programmers.

System and business areas

Broadly speaking, the installation has two areas:

- ▶ **System area:** Used by system administrators to set up and manage system resources such as host machines and services. It has two consoles:
 - Administration Console
 - System Console

Very few users need access to this area, as it is used to perform only system administration tasks.
- ▶ **Business area:** The main part of the installation, used by business users to perform their tasks. It has all seven consoles:
 - Administration Console

- Agent Console
- Knowledge Base Console
- Reports Console
- Supervision Console
- System Console

Partition

A partition contains system and business resources for a completely independent business unit or client. A single Cisco Unified Web and E-Mail Interaction Manager installation can have one or more partitions. With multiple partitions, you can use the same system in various independent business units—while the hardware and software is common, resources are stored and managed separately for each unit.

Partitions are ideal for organizations where business units (or clients, in the case of an outsourced business) do not need to share customer information or knowledge base. This is usually the case if the units serve very different customers. For example, a bank, which serves individual retail consumers as well as corporations, may want two partitions as the product offerings and customer service needs for these segments are different. Partitions can also be used for different geographies. The same bank, to continue with our example, may choose to use separate partitions for their US and China businesses because of legal and regulatory needs.

When Cisco Unified Web and E-Mail Interaction Manager is installed, the first partition is created by the installation program. Additional partitions can be created using the Custom installation option of the installation program.

You could set up additional partitions if you:

- ▶ Want complete segregation of data between business units in your enterprise.
- ▶ Are an outsourcer or application service provider and want to serve multiple customers from a single installation.

Setting up additional partitions is not very common. If you are still not sure whether you need partitions, you probably don't need them.

Department

Each partition can have one or more departments. While partitions do not share system resources or business objects, departments within a partition share system resources and—if required—specific business resources. Departments are suited for organizations where units would like to share system resources and a few business resources such as customer information or agents. Cisco Unified Web and E-Mail Interaction Manager has a number of tools for configuring and managing access to various resources.

When Cisco Unified Web and E-Mail Interaction Manager is installed, the first department in the first partition is created by the installation program. This department is called `Service`. You can rename it if you like.

You can create additional departments to:

- ▶ Mirror your company's organization.
- ▶ Create units with independent business processes.
- ▶ Allow limited sharing of information between largely independent units.

Customer information can be shared across all departments. Other resources such as agents and activities can be shared between departments. Sharing of such resources is one-directional, which means that even if Department A shares its agents with Department B, Department B could decide not to share its agents with Department A.

User type

The system lets you create various types of user accounts. Some important concepts about user management are explained here.

User levels

Users can be created at three levels:

- ▶ System level user: This user is typically the system administrator of the system who does not require any license to operate.
- ▶ Partition level user: This is the partition administrator user who uses licenses to create administrators and users in the system.
- ▶ Department level users: These are users who require licenses to perform their tasks in the system. The licenses associated with the user may also differentiate between the roles of the users.

User roles

The system lets you define roles to make it easy to manage user permissions. A role is nothing but a set of permissible actions for various business resources. An agent's role, for instance, would include actions such as "View Agent Console," "Edit customer," and "Add notes." You can assign one or more roles to a group of users or an individual user. The system contains standard roles for eight types of users. You can edit these roles or create new ones.

Standard users

Two users are created during the installation:

1. System Administrator: The first system user, created during installation, is a user called **System Administrator**. Assigned the System Administrator role, this user sets up system resources and creates one or more system-level users.
2. Partition Administrator: The first business user, created during installation, is a user called **Partition Administrator**. Assigned the Partition Administrator role, this user manages partition users and settings and creates more partition users as well as one or more department-level users to manage department resources.

User groups

User groups are a collection of users that share similar functions or roles in the system. Groups make it much easier to manage user accounts. A standard user group called **All Users in** *Department Name* is created in each department. Every new user in the department is automatically included in this group. Integrated users, who are managed through Unified CCE are not included in this group.

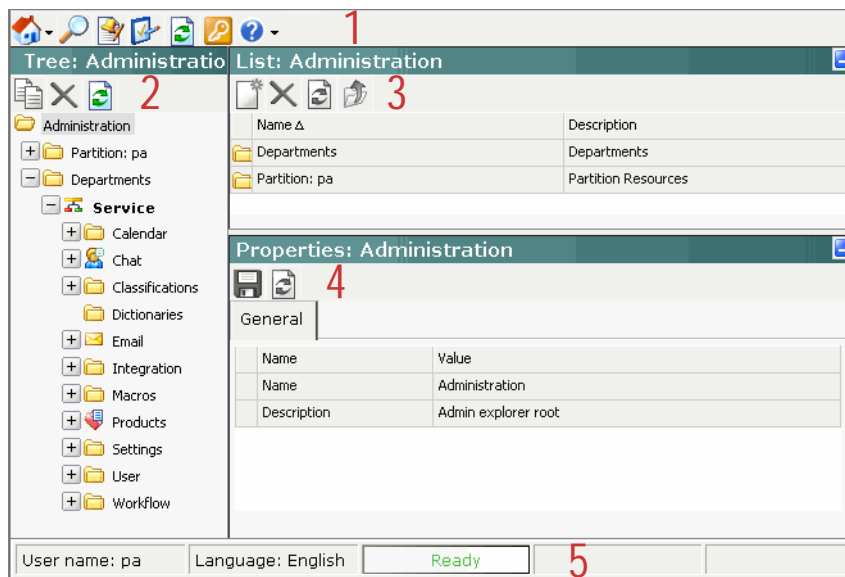
Important tasks

All business resources are set up and managed in Administration Console. Some important tasks performed in this console involve managing:

- ▶ Department and user settings
- ▶ User accounts
- ▶ Business calendars
- ▶ Queues, service levels, and workflows
- ▶ Email aliases (if Unified EIM is installed)
- ▶ Chat queues and entry points (if Unified WIM is installed)
- ▶ Classification categories and resolution codes
- ▶ Dictionaries
- ▶ Macros
- ▶ Archive jobs

Elements of the user interface

To get to know the console user interface better, let us begin by dividing it into five functional areas:



Elements of the console user interface

1. **Console toolbar:** The main toolbar of the console appears at the top of the screen. It allows you to access some frequent commands with a single click.

2. **Tree pane:** The Tree pane lists all the business objects in the application, allowing you to select the node (folder) that you wish to work in. When you select a folder, its first-level contents are displayed in the List pane. In the Tree pane, you can cut paste or copy paste folders, delete folders which you have created, manage bookmarks and print folder contents.

To expand all first and second level nodes with a single click, shift + click the plus [+] button next to the topmost node. The contents of all first and second level nodes are displayed in the Tree pane.

3. **List pane:** The List pane displays first-level contents of the folder selected in the Tree pane. You can view the name, description, date of creation, etc., of the displayed items. In this pane, you can create items or select existing ones to modify or delete them.
4. **Properties pane:** The Properties pane displays the contents of the business object selected in the List pane. In this pane, you can edit the properties of the selected item.
5. **Status bar:** The status bar is present at the bottom of every screen. It displays the following information:
 - The user name with which the user has logged in the system.
 - The language currently in use.
 - The status of the system (**Loading, Ready**, etcetera).

2 Partitions

- ▶ [Installing new partitions](#)
- ▶ [Configuring settings](#)
- ▶ [About the Partition Administrator role](#)
- ▶ [Creating user roles](#)
- ▶ [Creating user groups](#)
- ▶ [Creating users](#)

This chapter will assist you in understanding how to set up partitions according to your business requirements.

Installing new partitions

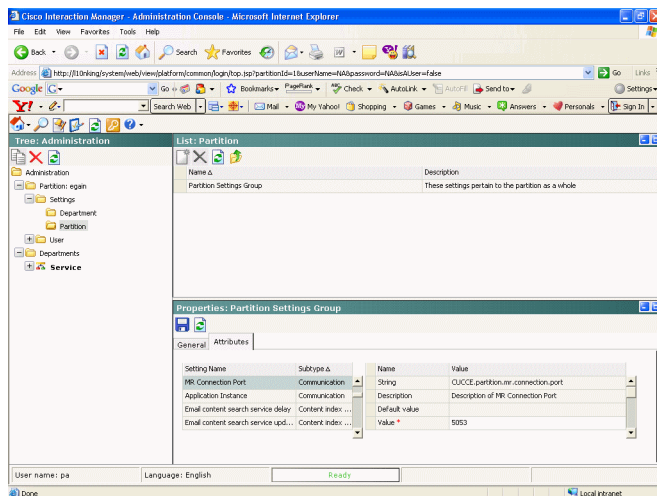
Unlike other business objects, partitions cannot be created from the Administration Console. You have to install a new partition on the server. For detailed instructions on installing partitions, refer to the *Cisco Unified Web and E-Mail Interaction Manager Installation Guide*.

Configuring settings

Settings are used to configure the system. There are two types of settings: department and partition settings. The partition administrator can configure department settings at the partition level. The changes in these settings get reflected throughout the partition across all departments.

Communication settings

In a system integrated with Unified CCE, two communication settings should be configured at the partition level to set up the import of configuration data from Unified CCE and the assignment of activity requests to Unified CCE to determine a target agent. These two settings are described in this section.



Unified CCE settings

MR Connection Port

This is the port used by Cisco Interaction Manager when initializing a server socket connection with Unified CCE to listen to incoming connections from the media routing peripheral gateway (MR PG) of Unified CCE, which is in turn a pre-requisite to be able to send new activity requests for routing through Unified CCE.

This port needs to be entered manually after Cisco Interaction Manager has been started, and before the EAAS process and instance are started from the System Console. The port should match the corresponding value that is entered at the time of setting up Unified CCE.



Note: As a best practice we recommend that you use a port number greater than 2000.

- ▶ **Data type:** Integer
- ▶ **Default value:** 20,000
- ▶ **Options:** —

Application Instance

An application instance identifies a single and unique deployment of Cisco Interaction Manager in any of the supported deployment models, which are Single (or collocated), Split (or collocated), or Distributed. The application instance is automatically stored with the value that was selected at the time of running the integration wizard, in order to import data from Unified CCE.

If the integration wizard was not run right after installation, this value needs to be manually entered. This name can be obtained from the Application Instance list under the List explorer of ICM Configuration Manager on the Unified CCE server.

- ▶ **Data type:** String
- ▶ **Default value:** —
- ▶ **Options:** —

About the Partition Administrator role

Partition administrators manage the partitions in the system. They can carry out various tasks such as:

- ▶ Create partition level roles, users, and user groups
- ▶ Set partition level settings
- ▶ Set department settings at partition level
- ▶ Create departments
- ▶ Create department administrators

The partition administrator assigns permissions to partition-level as well as department-level users to perform various tasks.

The various actions assigned to the Partition Administrator role are listed in the table below.

Resource Name	Actions Permitted
Administration Console	View
Supervision Console	View
Reports Console	View
System Console	View
Knowledge Base Console	View
Tools Console	View
User	Create, Own, View, Edit, Delete
User Group	Create, Own, View, Edit, Delete
Role	Create, View, Edit, Delete
Access Links	Create, View, Edit, Delete
Usage links	Create, Own, View, Edit, Delete, Execute
System Attribute Profiles	View, Edit
User Attribute Profiles	Create, View, Edit, Delete
Screen Attributes Profiles	View, Edit
Category	Create, View, Edit, Delete
Customer	Create, View, Edit, Delete, Change
Contact Person	Create, Edit, Delete
Contact Details	Create, Edit, Delete
Association	Create, View, Edit, Delete
Inbox Folder	Create, Delete
Notes	View, Delete
Resolution Codes	Create, View, Edit, Delete
Customer Associations	Create, View, Edit, Delete
Macro	Create, View, Edit, Delete
Product Catalog	Create, View, Edit, Delete
Business Objects	Create, View, Edit, Delete
Activity	Create, Edit, Complete, Pin, Print, Unpin Others, Assign Classification
Case	Edit, Print, Close, Unarchive
Monitors	Create, Edit, Delete, Run
Reports	Create, Delete, View, Run, Edit, Schedule

Resource Name	Actions Permitted
Queue	Create, Own, View, Edit, Delete
Workflow	Create, View, Edit, Delete
Settings	Create, View, Edit, Delete
Shift Label	Create, View, Edit, Delete
Day Label	Create, View, Edit, Delete
Calendar	Create, View, Edit, Delete
Dictionary	Create, View, Edit, Delete
Global Search	Create, Edit, Delete
Service Levels	Create, Read, Edit, Delete
Personal Search	Create
Alias	Create, View, Edit, Delete
Blocked Addresses	Create, View, Edit, Delete
Delivery Exceptions	Create, View, Edit, Delete
Blocked File Extensions	Create, View, Edit, Delete
Email	Send
Blocked Attachment	Restore
Incoming Attachment	Delete

Actions assigned to the Partition Administrator role

Creating user roles

User roles are a collection of actions defined by the system. You can assign one or more roles to users in the system. The system provides one default user role, that of the Partition Administrator, at the partition level. You can also create roles for users at the partition level. User roles contain a standard set of predefined actions that can be performed by users.

See [“Creating user roles.” on page 44](#) for details of the procedure.



Important: User roles cannot be created in the Basic edition of Unified WIM and Unified EIM.

Creating user groups

As a partition administrator, you can create user groups in your partition. User groups enable you to assign similar user roles, actions and permissions to several users at once.

A user that belongs to a group automatically inherits the roles and the associated permissions that a particular group has been assigned. A user can be assigned to a group or may exist independently.

See [“Creating user groups” on page 45](#) for details of the procedure.

Creating users

As a partition administrator, you can create users in your partition. See [“Creating users” on page 47](#) for details of the procedure.

Assigning permissions

After you have created the user you need to assign permissions to them.

The following permissions can be given to the users:


- ▶ Permissions on departments:
 - Own
 - View
 - Edit
 - Administer
- ▶ Permissions on partitions
 - Own
 - View
 - Edit
 - Administer
- ▶ Permissions on reports
 - View
 - Run
 - Edit
 - Delete
 - Schedule
- ▶ Permissions on users
 - Own
 - View
 - Edit

- Delete
- ▶ Permissions on user groups
 - Own
 - View
 - Edit
 - Delete



Important: Permissions can be given only to the users and user groups who have appropriate actions assigned to them. When permissions are given to a user group, all users in that user group get those permissions automatically.

You can give permissions to the users in two ways:

- ▶ You can select each permission for each object individually.
- ▶ You can use the **Select all**  button to give a permission on all the objects in one go.

For example: If you have to give a user view permission on all the departments, instead of selecting each department, you can select the permission, and use the **Select all** button to give permission to all the departments.

3 Departments

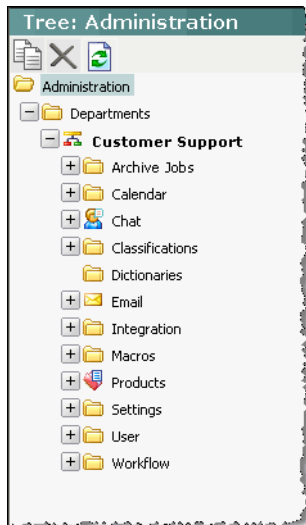
- ▶ [Available resources](#)
- ▶ [Creating departments](#)
- ▶ [Sharing department resources](#)
- ▶ [Copying departments](#)

Every organization needs to form various departments to meet their requirements, and divide their workforce accordingly. Departments enable you to form a mirror of the departments in your company. The departments, and department administrators are created by the partition administrator. All departments that are created will be formed under a Partition. Following the hierarchical pattern, a partition level user will be able to view all the departments under it. Whereas, a department level user can only view his own, and shared departments.

As a department administrator, you have the power to control, and manage your department. This is made possible via the resources available in each department.

Available resources

Each department has ten types of resources for use in your department. The Administration tree has an individual node for each type of resource.



The Administration Console tree

Archive jobs

Old activities can be archived by setting up scheduled or on-demand archive jobs. For more information, see [“Archive” on page 136](#).

Calendars

You can create a business calendar for your organization. It allows you to set up working and non working hours, and days for the employees in your department. To create your business calendar it is essential that you first create shifts and day labels.

- ▶ **Shift labels:** According to the working hours of your company, you can organize various shifts for the agents in your department. It also allows you to create shifts for holidays, and extra working hours.

- ▶ **Day labels:** You assign time slots in Day labels, to the shifts that you have created in the Shift label. You cannot create Day labels, if you have not created Shift labels first. You need not assign any time slot to holidays.
- ▶ **Calendars:** Based on shift and day labels, you can create a business calendar for your department. You can use the day labels to form a calendar for the work days in a week. You can also specify exceptional days, such as, holidays, or an extra working day. Please note that you can have only one active calendar for each department.

For more information, see [“Business calendars” on page 50](#).

Classifications

Classifications enable you to systematically categorize the incoming activities and knowledge base articles. There are two types of classifications available in this system:

- ▶ **Categories:** It enables you to categories incoming activities, using keywords or phrases. Thus, you can keep a track of all activities, and can easily find, sort, filter, or group them.
- ▶ **Resolution codes:** It enables you to categories knowledge base articles.

For more information, see [“Managing classifications” on page 84](#).

Dictionaries

Dictionaries refer to a list of words stored in the system for your reference. The system provides one default dictionary, on which the Spell checker application is based. Only one dictionary can be set as the default dictionary at a time. As a department administrator, you can change the default dictionary for your department as per your requirements. Users in our department can also create their own dictionaries, and save their own list of vocabulary in it.

For more information, see [“Managing dictionaries” on page 86](#).

Email infrastructure

All users in your department will require a contact point to correspond with the customers. Email enables you to create email addresses for the users in your department. It also restricts the types of emails or attachments a user is allowed to receive or send.

The following objects can be configured for emails:

- ▶ **Aliases:** Aliases are email addresses that you create for the users in your department.
- ▶ **Blocked Addresses:** To avoid spam mails, you can block certain email addresses.
- ▶ **Blocked File Extensions:** Many types of files can enter, or go out of your system in form of an attachment. You can block certain file extensions to stop certain types of files from either entering, going out of the system, e.g. files with.jpg extension.
- ▶ **Delivery Exceptions:** A delivery exception occurs when the system encounters problems either while receiving an email or while sending an email.

For more information, see [“Email infrastructure” on page 58](#).

Data links

You may need to access data from external sources, and data links enable you to perform this function. They act like bridges between Cisco Unified Web and E-Mail Interaction Manager, and external data sources. The data can be accessed through various mediums: phone, links, and data adapters.

Integration has two options available under data adapters:

- ▶ Data Access Links: Enables you to create links, to fetch data from external, or internal sources.
- ▶ Data Usage Links: Allows you to define the format in which you want to display the data fetched from external, or internal sources.

For more information, see [“Data links” on page 112](#).

Macros

Macros are shortcuts to perform oft-repeated tasks, such as, inserting customer names in emails, etc. Macros save the response time of the customer queries. Instead of repeatedly typing the frequently used sentences, or phrases, the users can simply add the appropriate macro. When the mail reaches the customer, the macro expands into the whole text. Macros are classified as business object macros and combination macros.

You can create business object macros for:

- ▶ Activity data
- ▶ Case data
- ▶ Chat session data
- ▶ Contact person data
- ▶ Contact point data
- ▶ Customer data
- ▶ Email address contact point data
- ▶ Phone address data
- ▶ Postal address data
- ▶ User data
- ▶ Website data

You can create combination macros with multiple definitions. That is, you can combine multiple macros within a single macro. Multiple macros can be selected from Business Objects macros to create a combination macro.

For more information, see [“Managing macros” on page 87](#).

Products

Products allow you to efficiently manage, and organize the list of company’s products. You can create a catalogue of all your products, and also attach files or web pages, and articles from the knowledge base. Thereby, providing more information regarding those products. This is helpful for agents, as they can use it to associate products with customers. This adds to the details of the customer, thereby enabling the agent to know and serve the customer better.

For more information, see [“Managing products” on page 89](#).

Settings

Settings allow a user to configure the features of the product according to their requirements. There are numerous settings that can be configured. The settings work at three different but interdependent levels in the product. These levels are:

- ▶ Partition Level
- ▶ Department Level
- ▶ User Level

The levels are hierarchical by design and settings configured at higher levels can propagate the same behavior to lower levels. However, settings allow the flexibility to configure the feature differently at a lower level, and thus, override the configuration at the higher level. To be able to do this, the setting should be permitted to be visible & modifiable at lower levels. Configuration of a setting by a user is dependent on the role of the user.

Users

You can create users, and user groups for your department. You can also assign various roles to your users, depending upon the tasks that they perform. Thus, if a user is performing more than one task, you can assign more than one role to that user. There are a set of default user roles already created for you. You can also create new user roles to suit your requirements.

For more information, see [“Users” on page 34](#).

Workflows

Workflows manage the flow of all incoming, and outgoing activities. They are rules which define the action that the system performs on all activities. You can graphically create these rules to suit the requirements of your organization, for example, assigning incoming activities to certain users, queues, or setting priority for activities that require an immediate response.

Workflows define the progression of an activity within the system. You can create a workflow to automate tasks, and ensure that the work is handled consistently and efficiently, resulting in improved business operations.

In Administration Console you can create:

- ▶ **Queues:** Queues are channels through which, all agents receive incoming activities. You can create queues for all users in your department. A single queue can also be shared by multiple users. Activities enter queues according to the rules specified in the workflow.
- ▶ **Service levels:** Some customers may be more valuable to your company than others. In order to provide good service, agents in your department need to know about the importance of every customer. For this, you can assign service levels to your customers and use them in your workflow. Service levels enable you to define the importance of a particular customer, thereby directing the agents to respond immediately to customers with high importance.
- ▶ **Workflows:** Allows you to create four types of workflows:
 - Alarm


- General
- Inbound
- Outbound

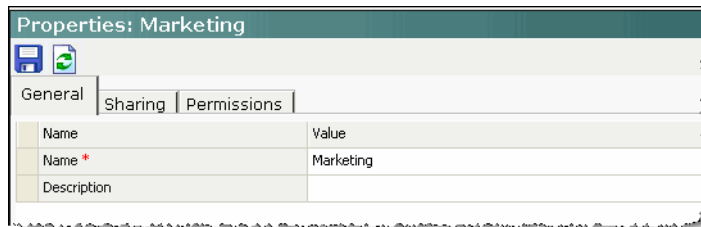
For more information, see [“Workflows” on page 91](#).

Creating departments

Only a partition administrator can create departments.

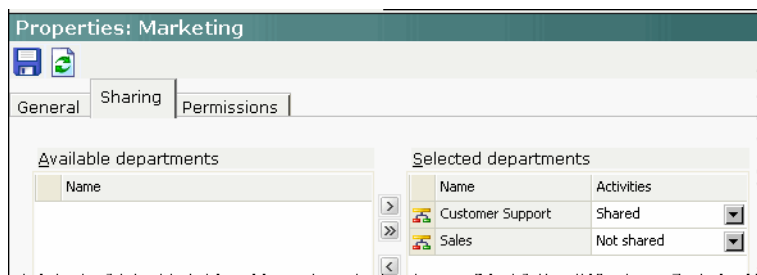
To create a department:

1. In the Tree pane, browse to **Administration > Departments**.
2. In the list pane toolbar, click the **New**  button.
3. In the Properties pane, on the General tab, provide the name and general description for the department.



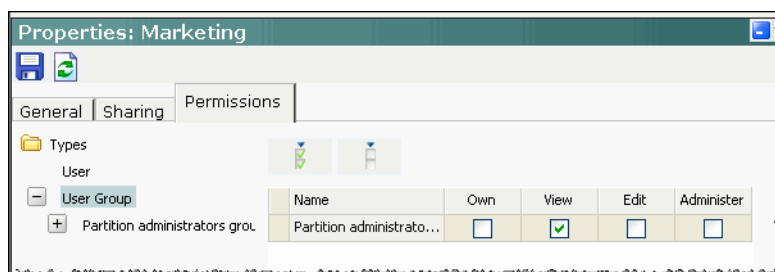
Set the general properties

4. On the Sharing tab, select the departments that you want to share resources with from the list of available departments. Activities are not shared unless specified. To share activities with a particular department, locate it in the **Selected departments** list and change the value of the **Activities** column to **Shared** for this department.




Share department resources with other departments

5. Lastly, on the Permissions tab, assign permissions to the users and user groups to own, view, edit, and administer the department that you have created.




Assign the permissions

6. Click the **Save**  button, to save the department you have created.

Sharing department resources

Resources can be shared with other departments.

To share your resources with other departments:


1. In the Tree Pane, browse to the department whose resources are to be shared.
2. Now go to the Properties Pane. On the Sharing tab, select the departments that you want to share resources with from the list of available departments. Activities are not shared unless specified. To share activities with a particular department, locate it in the **Selected departments** list and change the value of the **Activities** column to **Shared** for this department.
3. Click the **Save**  button.

Copying departments

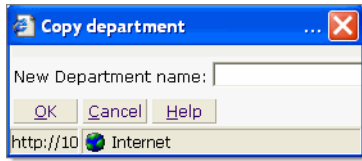
You can copy an existing department. By copying a department, you get a ready structure, and you can edit any of the resources available in the department according to your requirements. This is a time saver, and eases your task of creating multiple departments.

If you copy a department which is shared with another department, then the copied department will also get shared with it. For example, you copy a department A, and rename it as B. Department A is shared with Department C, then even the copied department B will be shared with department C. All objects that are copied will have the prefix 'copy' attached to them.

To copy a department:

1. In the Tree pane, browse to **Administration > Departments**.
2. In the Tree pane, select the department you want to copy.
3. In the Tree pane toolbar, click the **Copy**  button.

4. In the Copy department window that appears, provide the name of the new department and click **OK** to create a copy of the department.



Provide a name for the department

4 Users

- ▶ [About users, groups, roles, and actions](#)
- ▶ [Creating user roles.](#)
- ▶ [Creating user groups](#)
- ▶ [Creating users](#)

About users, groups, roles, and actions

Users

A user is an individual—an administrator, manager, or agent—who has a distinct identification using which he logs in to CIM to perform specific functions. Users are assigned roles and permissions, which enable them to perform various tasks. To make it easier to administer a large number of users, users can be organized into named groups.

User groups

A user group is a collection of users that share similar functions or roles in the system. Groups make it much easier to manage user accounts. A standard user group called **All Users in** *Department Name* is created in each department. Every new user in the department is automatically included in this group.



Important: Mapped users, who are managed through Unified CCE, are not included in this group.

User roles

Employees working in an organization have different work profiles. The tasks that they perform are dependent on the role that they play in that organization, or the post at which they are appointed. User roles refer to the post that the employee is designated. You can create user roles as per the needs of your organization, and assign these roles to your employees. By assigning roles you are creating various posts for your employees. To ease your task, we have created seven default user roles. You can use these, or if required, create your own user roles.

The seven default user roles are:

- ▶ **Administrator:** The administrator is the manager of the department, and has access to the Administration console. You will find that there are two types of administrators that the system allows you to create; Partition Administrator and Department Administrator. Let us see the difference between these two roles. A partition administrator has to be created while installing Unified WIM and Unified EIM. To know more about the role of a partition administrator, see the [“About the Partition Administrator role” on page 21](#).

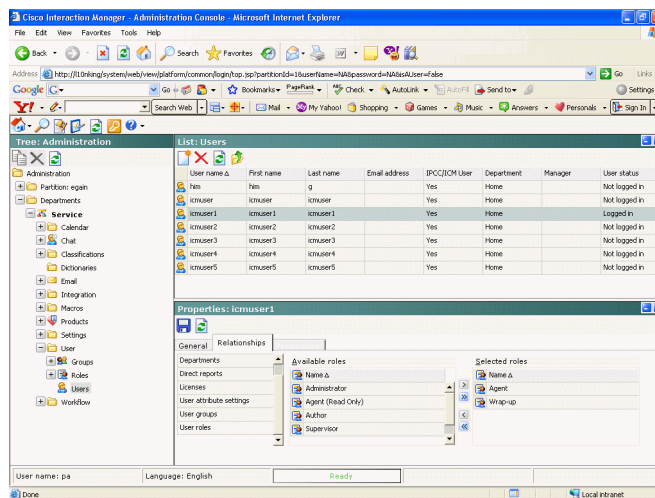
A department administrator is created by the partition administrator, and has the authority to create all the resources for the department he administers. For example, setting rules for incoming and outgoing activities through workflows, creating classifications, dictionaries, users, and assigning permissions to the users to perform various tasks.



Important: At least one department administrator must be a standalone (not integrated) user.

- ▶ **Agent:** An agent is a person who handles customer queries, who is directly in contact with the customer. He has access to the Agent console. Agents are created by the administrator of the department.
- ▶ **Agent (Read Only):** An agent (read only) will have access to the Agent console, but he will not be able to compose replies for the customer queries. He can only view them. This role can be assigned to the trainees.

- ▶ **Author:** An author is the writer of all the articles that the agent can use as replies for the customer queries. An author has access to the Knowledge Base Console, which is a store house for all company articles.
- ▶ **Supervisor:** A supervisor has access to the Supervision Console, and creates monitors for queues, user groups, and users in the department to run reports on them.
- ▶ **Supervisor (Read Only):** A user with supervisor (read only) role can create and run monitors. Such a user can't create reports, but can run the reports for which the user has view and run permissions.
- ▶ **Wrap-up:** Along with the agent role, assign the wrap-up role to the users or user groups that are mapped to agents and skill groups of Unified CCE. The agent with this role will go in wrap-up mode after they send and complete an activity. After completing the wrap-up tasks, the agents click the **End Wrap-up** button to complete the activity and change their mode to available.



Selecting user roles

Actions

When you create a user role, you need to specify the work that the person with that role can handle. Actions define this work. For example, you assign the role, agent, the actions to own, view, edit, and delete activities. Thus you can say that a role is a collection of permissible actions.

All default user roles have already been assigned certain actions. You can view these actions by clicking on any role.

What are the actions assigned to the default roles?

Now that you already know, every default role has a set of permissible actions assigned to them, you must be curious to find out what these actions are. To learn more about them look at the table given below for each default role.

Administrator

Resource Name	Actions Permitted
Administration Console	View
Supervision Console	View
Agent Console	View
Reports Console	View
System Console	View
Knowledge Base Console	View
Tools Console	View
User	Create, Own, View, Edit, Delete
Activities	Transfer, Pull
User Group	Create, Own, View, Edit, Delete
Role	Create, View, Edit, Delete
Access Links	Create, View, Edit, Delete
Usage links	Create, Own, View, Edit, Delete, Execute
System Attribute Profiles	View, Edit
User Attribute Profiles	Create, View, Edit, Delete
Screen Attributes Profiles	View, Edit
Category	Create, View, Edit, Delete
Customer	Create, View, Edit, Delete, Change
Contact Person	Create, Edit, Delete
Contact Details	Create, Edit, Delete
Association	Create, View, Edit, Delete
Inbox Folder	Create, Delete
Notes	View, Delete
Resolution Codes	Create, View, Edit, Delete
Customer Associations	Create, View, Edit, Delete
Macro	Create, View, Edit, Delete
Product Catalog	Create, View, Edit, Delete
Business Objects	Create, View, Edit, Delete
Activity	Create, Edit, Complete, Pin, Print, Unpin Others, Assign Classification

Resource Name	Actions Permitted
Case	Edit, Print, Close, Unarchive
Monitors	Create, Edit, Delete, Run
Reports	Create, Delete, View, Run, Edit, Schedule
Queue	Create, Own, View, Edit, Delete
Workflow	Create, View, Edit, Delete
Settings	Create, View, Edit, Delete
Shift Label	Create, View, Edit, Delete
Day Label	Create, View, Edit, Delete
Calendar	Create, View, Edit, Delete
Dictionary	Create, View, Edit, Delete
Global Search	Create, Edit, Delete
Service Levels	Create, Read, Edit, Delete
Personal Search	Create
Alias	Create, View, Edit, Delete
Blocked Addresses	Create, View, Edit, Delete
Delivery Exceptions	Create, View, Edit, Delete
Blocked File Extensions	Create, View, Edit, Delete
Email	Send
Blocked Attachment	Restore
Incoming Attachment	Delete

Actions assigned to the administrator role

Agent

Resource Name	Actions Permitted
Agent Console	View
User	View
Usage links	View, Execute
Category	View
Customer	Create, View, Edit, Delete, Change
Contact Person	Create, Edit, Delete
Contact Details	Create, Edit, Delete
Association	Create, View, Edit, Delete
Inbox Folder	Create, Delete
Notes	View, Add, Delete
Resolution Codes	View
Folder	View
Article	Suggest
Personal Folders	Manage
Macro	View
Product Catalog	View
Activity	Create, Edit, Complete, Pin, Print, Unpin Others, Assign Classification
Case	Edit, Print, Close
Queue	View
Personal Dictionary	Create
Personal Search	Create
Email	Send
Blocked Attachment	Restore
Incoming Attachment	Delete

Actions assigned to the agent role

Agent (Read Only)

Resource Name	Actions Permitted
Agent Console	View
User	View
Usage links	View, Execute
Category	View
Customer	View
Inbox Folder	Create, Delete
Notes	View
Resolution Codes	View
Folder	View
Article	Suggest
Macro	View
Product Catalog	View
Activity	Print
Case	Print
Queue	View

Actions assigned to the agent (read only) role

Author

Resource Name	Actions Permitted
Reports Console	View
Knowledge Console	View
User	View
Category	View
Notes	View, Add, Delete
Resolution Codes	View
Folder	Create, Own, View, Edit, Delete
Article	Create, Edit, Print, Delete, Suggest
Suggestions	Manage
Personal Folders	Manage
Bookmarks	Manage
Macro	View

Actions assigned to the author role

Supervisor

Resource Name	Actions Permitted
Supervision Console	View
Agent Console	View
Reports Console	View
User	View
Activities	Transfer, Pull
Usage links	View, Execute
Category	View
Customer	Create, View, Edit, Delete, Change
Contact Person	Create, Edit, Delete
Contact Details	Create, Edit, Delete
Association	Create, View, Edit, Delete
Inbox Folder	Create, Delete
Notes	View, Add, Delete
Resolution Codes	View
Folder	View
Article	Suggest
Personal Folders	Manage
Macro	View
Product Catalog	View
Activity	Create, Edit, Complete, Pin, Print, Unpin Others, Assign Classification
Case	Edit, Print, Close
Monitors	Create Edit, Delete, Run
Reports	Create, Delete, View, Run, Edit, Schedule
Queue	View
Personal Dictionary	Create
Personal Search	Create
Email	Send

Actions assigned to the supervisor role

Supervisor (Read Only)

Resource Names	Actions Permitted
Supervision Console	View
Agent Console	View
Reporting Console	View
User	View
Usage links	View, Execute
Customer	View
Association	View
Inbox Folder	Create, Delete
Notes	View
Resolution Codes	View
Folder	View
Article	Suggest
Macro	View
Product Catalog	View
Activity	Print
Case	Print
Monitor	Create, Edit, Delete, Run
Reports	View, Run
Queue	View

Actions assigned to the supervisor (read only) role

Wrap-up

Resource Names	Actions Permitted
Activity	Wrap Activity


Action assigned to the wrap-up role

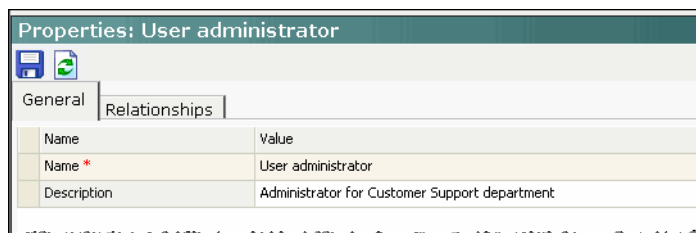
Creating user roles.



Important: User roles cannot be created in the Basic edition of Unified WIM and Unified EIM.

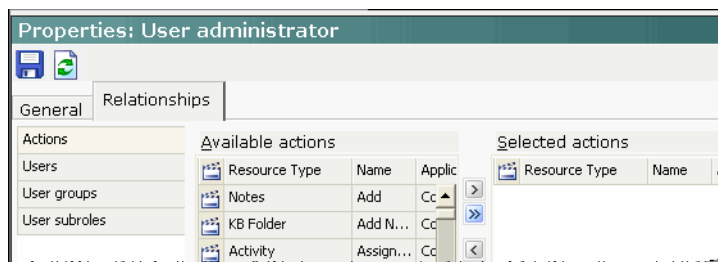
To create a user role:

1. In the Tree pane, browse to **Administration > Departments > *Your Department* > User > Roles**.
2. In the List pane toolbar, click the **New**  button.
3. In the Properties pane, on the General tab, provide the name and description for the user role.




Set the general properties

4. Next, go to the Relationships tab. Here, assign actions, users, user groups, and user subroles from the available list to the user role.



Select the actions, users, groups, and subroles

5. Click the **Save**  button to save the role that you have created.

The role that you create is displayed in the List pane. Similarly, you can create subroles for the user.

To create a subrole:

1. In the Tree pane, browse to **Administration > Departments > *Your Department* > User > Roles**.
2. Select the role for which you want to create a subrole.
3. The rest of the steps are similar to creating a user role. Follow from step 2 of creating user role.

Creating user groups

You might require a team consisting of few employees to perform a particular task. For example, you might need few agents to handle customer queries regarding your product, while few others to handle customer complains. You can create separate user groups for these teams, placing all the agents handling customer queries in one group, and all the agents handling customer complains in another. Once you have created a group, you can add, or delete users from that group, according to your requirements.

Create user groups from Cisco Interaction Manager and map them to skill groups in Unified CCE. An integrated user group is a Cisco Interaction Manager user group that is mapped to an ICM skill group, which could be of two types, namely:


- ▶ Unified CCE picks the agent (also known as an IPTA skill group)
- ▶ Cisco Interaction Manager picks the agent (also known as a Non-IPTA or NIPTA skill group)

For user groups that map to an IPTA skill group, the agent list for the skill group is administered and managed in Unified CCE. For user groups that map to NIPTA skill groups, the agent list for the skill group is administered and managed in Cisco Interaction Manager. When Cisco Interaction Manager is to route to an agent, a custom load-balancing algorithm on the users who belong to the user group mapped to the NIPTA skill group is used in determining an available agent within this user group.

Every time the user group administration console is loaded, the list of skill groups is dynamically retrieved from Unified CCE, and populated in the **Skill Group** list. When a skill group is selected, the **Media Routing Domain (MRD)** field is automatically populated with the name of the MRD to which the skill group belongs.

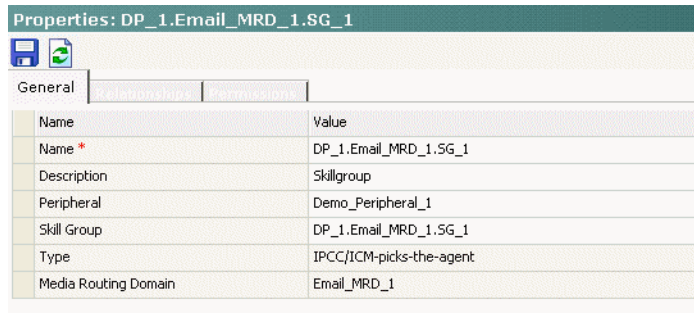
- ▶ If a Cisco Interaction Manager user group is mapped to an Unified CCE skill group, and the Unified CCE skill group is deleted, when the Cisco Interaction Manager user group is clicked, a warning appears indicating that the user group will be unmapped in Cisco Interaction Manager.
- ▶ If a Cisco Interaction Manager user group is mapped to an Unified CCE skill group, and the skill group attributes are modified in Unified CCE, when the Cisco Interaction Manager user group is clicked, the modifications are automatically retrieved and synchronized in Cisco Interaction Manager.

To create a user group:

1. In the Tree pane, browse to **Administration > Departments > *Your Department* > User > Groups**.
2. In the List pane toolbar, click the **New**  button.
3. In the Properties pane, on the General tab, provide the name and description for the user group. If you want to map user groups to skill groups in Unified CCE, provide the following additional details.
 - **Peripheral:** From the dropdown list, select the peripheral to which the skill group belongs.
 - **Skill group:** Select the skill group to which the user group should map. One skill group can be mapped to only one user group.

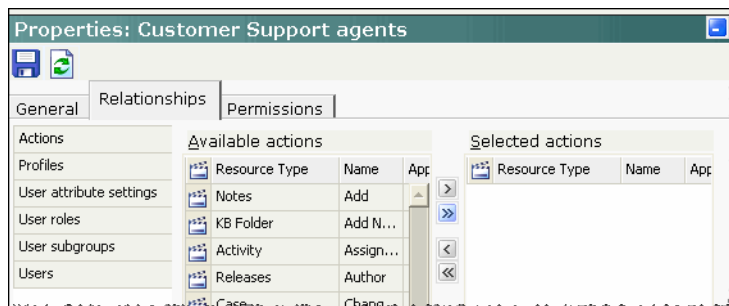
After selecting the skill group, click the **Save**  button.

- **Type:** The value in this field is set automatically and it can't be changed. If the user group is mapped to any peripheral, the type would be 'IPCC/ICM-picks-the-agent'. If the user group is not mapped to any peripheral, the type would be 'CIM-picks-the-agent'.




Set general properties

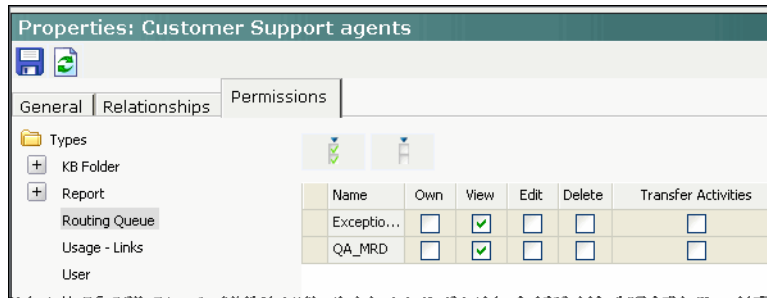
4. Next, on the **Relationships** tab, and configure the following properties.
 - a. First, go to the User roles section, and select the roles for the user group.
 - b. Next, go to the User attribute settings section and select the user profile for the user group.
 - c. Next, go to the Users section, and select the users you want to add to the user group.
 - d. Finally, go to the User subgroups section and add the subgroup to the group. All the users in the subgroups become a part of the group.



Select the actions, users, roles, and subroles

5. Click the **Save**  button.

Once you save the user group, the actions associated with the roles assigned to the user group automatically get assigned to the user group. In addition to these actions, if needed, you can also assign some explicit actions to the user group.
6. To assign explicit actions to the user group, in the Relationships tab, go to the Actions section. Assign actions to the user group. You can identify the explicit actions assigned to the user group by looking at the Grant field in the selected actions list.
7. Next, go to the Permissions tab and assign permissions to the user group to have access to the queues, Knowledge Base articles, links, and reports.




Assign the permissions

8. Click the **Save**  button to save the permissions you have assigned the user group.

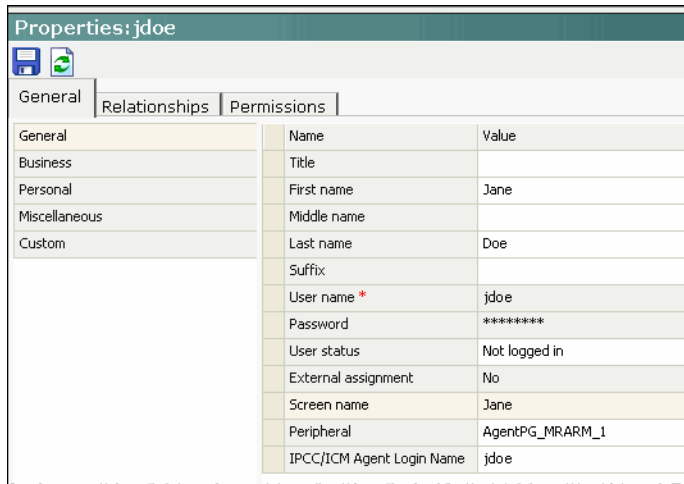
Creating users

- ▶ If a Cisco Interaction Manager user is mapped to an Unified CCE agent, and the Unified CCE agent is deleted, when the Cisco Interaction Manager user is clicked, a warning appears indicating that the user will be unmapped in Cisco Interaction Manager.
- ▶ If a Cisco Interaction Manager user is mapped to an Unified CCE agent, and the agent attributes are modified in Unified CCE, when the Cisco Interaction Manager user is clicked, the modifications are automatically retrieved and synchronized in Cisco Interaction Manager.

To create a user:

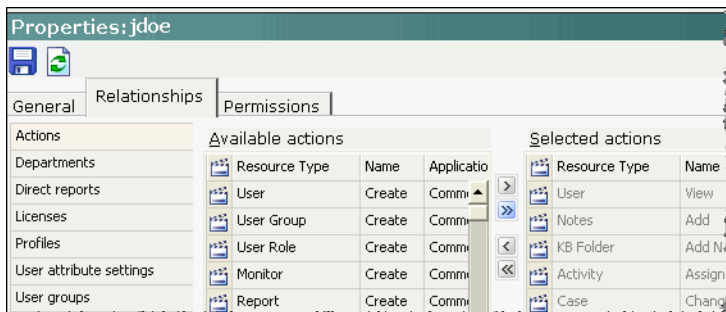
1. In the Tree pane, browse to **Administration > Departments > *Your Department* > User > Users**.
2. In the List pane toolbar, click the **New**  button
3. In the Properties pane, on the General tab, provide the name and description for the user group. If you want to map users to agents in Unified CCE, provide the following additional details.
 - **Peripheral:** From the dropdown list, select the Unified CCE peripheral to which the agent belongs. Every time the user administration screen is loaded, the peripheral list is dynamically populated with the current list of peripherals that exist in Unified CCE.
 - **IPCC/ICM Agent Login Name:** Select the agent to which the user should map. All Unified CCE agents that belong to the selected peripheral are dynamically retrieved from Unified CCE.

One agent can be mapped to only one user. After you configure the other properties of the user and save it, the name of the user changes to the agent login name to which the user is mapped. Also, you can't change the name of the user. An integrated user is a Cisco Interaction Manager user that is mapped to a Unified CCE agent and associated Unified CCE peripheral.




Set general properties

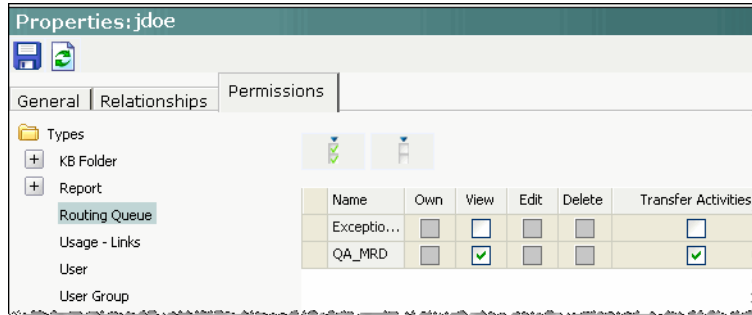
4. Next, on the Relationships tab, configure the following properties.
 - a. First, go to the Licenses section, and assign licenses to the user.
 - b. Next, go to the User roles section, and assign roles to the users.
 - c. Next, go to the User attribute settings section and assign the user profiles to the user.
 - d. Next, go to the User groups section and select the user group to which you want to add this user.
 - e. Next, in the Departments section, select the department with which you want to share this user.
 - f. Lastly, in the Direct reports section, select the users who report directly to this user.




Select the licenses, actions, groups, and roles

5. Click the **Save**  button.

Once you save the user, the actions associated with the roles assigned to the user automatically get assigned to the user. In addition to these actions, if needed, you can also assign some explicit actions to the user.
6. To assign explicit actions to the user, in the Relationships tab, go to the Actions section. Assign actions to the user. You can identify the explicit actions assigned to the users by looking at the Grant field in the selected actions list.
7. Next, go to the Permissions tab and assign permissions to the user to have access to the queues, Knowledge Base articles, links, and reports.



Set the permissions

8. Click the **Save**  button to save the permissions that you have assigned.



Business calendars

- ▶ [About business calendars](#)
- ▶ [Managing shift labels](#)
- ▶ [Managing day labels](#)
- ▶ [Managing business calendars](#)

This chapter will assist you in understanding business calendars and how to set them up according to your business requirements.

About business calendars

Calendars are used to map the working hours of the contact center in the application. Calendars are primarily used in:

- ▶ Setting due dates for activities routed through workflow. When activities are routed through a workflow having SLA node, due date is set according to the calendar.
- ▶ Reports: Calendars are used in reports. For example, reports like Email volume by queue, Email age by queue, and Email volume by alias.



Important: It is not mandatory to set a calendar in a department.

If not set, the system considers the agents work time as

24*7*365.

In a calendar, you set up the working and non-working time of the users. This enables the functioning of the service levels. Service levels are used for setting due dates on activities, cases, and tasks, and trigger alarms to the supervisors.

To configure a calendar you need to create the following.

- ▶ Shift labels: A shift label describes the type of shift, and whether the agents work in that shift or not. For example, you can create shift labels like:
 - Morning shift and Evening shift: When the agents work.
 - Lunch break, Holidays, and Weekends: When the agents don't work.
- ▶ Day labels: In day labels you can set the work time for each shift. Shift labels are used for creating the day labels. For example, you can create day labels like:
 - Weekday
 - 8 am to 12 pm: Morning shift
 - 12 pm to 1 pm: Lunch break
 - 1 pm to 5 pm: Evening shift
 - Holiday
 - 12 am to 11.59 pm: Holiday

Using the day labels, you can create the calendars.

Setting the time zone

Before you create the calendar for your department, determine in which time zone your agents work. Make sure that you select the appropriate time zone in the department setting, **Business calendar timezone**. If you


configure the calendar first, and then change the time zone setting, the start time and end time in the day labels get changed.

For example, you create a day label with the start time as 8am and end time as 4pm, and the time zone selected is (GMT -5:00) Eastern Standard Time (US and Canada). After creating the day label, you change the time zone setting to, (GMT -8:00) Pacific Standard Time (US and Canada). The day label start time changes to 5am, and end time changes to 1pm and the time zone changes to (GMT -8:00) Pacific Standard Time (US and Canada).



Important: It is recommended that you set the time zone first and then configure the calendars.

To change the time zone setting

1. In the Tree pane, browse to **Administration > Departments > *Your Department* > Settings > Department**.
2. In the List pane, select the department settings group.
3. In the Properties pane, go to the Attributes tab.
4. In the Attributes tab, select the setting, **Business calendar timezone**. And, from the available time zones, select the time zone in which your agents work.
5. Click the **Save**  button.

Daylight saving changes

When the changes in the day light saving occurs, you need to make the following two changes in the calendars.


- ▶ In the department setting, **Business calendar timezone**, change the time zone.
- ▶ In the day labels, in the Times tab, change the start times and end times for all the shifts.

Managing shift labels

Creating shift labels

A shift label describes the type of shift, and whether the agents work in that shift or not. For example, morning shift, afternoon shift, lunch break, Christmas holiday, etc. You can create the required shifts, holidays, etc., for your department. Once created, they are used in day labels.

To create a shift label

1. In the Tree pane, browse to **Administration > Departments > *Your Department* > Calendar > Shift Labels**.
2. In the List pane toolbar, click the **New**  button.

The Properties pane refreshes to show the properties of the new shift label.

3. In the Properties pane, in the General tab, provide the following details.

- **Name:** Type the name of the shift label.
- **Description:** Type a brief description.
- **Agents work this shift:** Specify if the agents work in this shift or not. By default **Yes** is selected. Select **No** if the agents don't work in this shift.

Name	Value
Name *	Morning shift
Description	
Agents work this shift	Yes

Set the general properties


4. Click the **Save**  button.

Deleting shift labels



Important: You cannot delete a shift label if it is used in any day label. First, remove the shift label from the day label, where it is used, and then delete the shift label.

To delete a shift label

1. In the Tree pane, browse to **Administration > Departments > *Your Department* > Calendar > Shift Labels**.
2. In the List pane, select the shift label you want to delete.
3. In the List pane toolbar, click the **Delete**  button.

Managing day labels


Creating day labels

In day labels you can set the work time for each shift. For example, you can divide the 24 hours available in a day into working shifts of eight hours each. Therefore, each day would have three shifts.



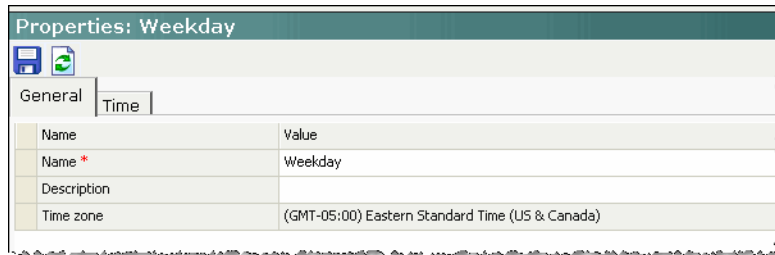
Important: Before creating the day labels you need to first create the shift labels.

To create a day label

1. In the Tree pane, browse to **Administration > Departments > *Your Department* > Calendar > Day Labels**.
2. In the List pane toolbar, click the **New**  button.

The Properties pane refreshes to show the properties of the new day label.

3. In the Properties pane, go to the General tab and provide the following details.
 - **Name:** Type the name of the day label.
 - **Description:** Type a brief description.
 - **Time zone:** It shows the time zone selected for the department. This field is disabled. If you want to change the time zone for your department, you can do it by changing the setting, **Business calendar timezone**. For details on how to change the setting, see, “Setting the time zone” on page 55.

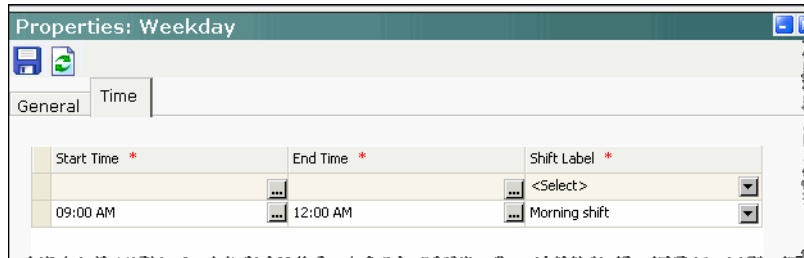


Name	Value
Name *	Weekday
Description	
Time zone	(GMT-05:00) Eastern Standard Time (US & Canada)

Set the general properties

4. Next, go to the Times tab and provide the following details.
 - **Start time:** Select the start time for the day label.
 - **End time:** Select the end time for the day label.
 - **Shift label:** From the dropdown list, select the shift label to be used.

Likewise specify the start time, end time, and shift labels for the whole day.



Start Time *	End Time *	Shift Label *
09:00 AM	12:00 AM	Morning shift

Set the start time and end time for the day label

5. Click the **Save**  button.


Deleting day labels



Important: You cannot delete a day label if it is used in any calendar. First, remove the day label from the calendar, where it is used, and then you can delete it.

To delete a day label

1. In the Tree pane, browse to **Administration > Departments > Your Department > Calendar > Day Labels**.

2. In the List pane, select the day label you want to delete.
3. In the List pane toolbar, click the **Delete**  button.

Managing business calendars

Setting the time zone


Before you create the calendar for your department, determine in which time zone your agents work. Make sure that you select the appropriate time zone in the department setting, **Business calendar timezone**. If you configure the calendar first, and then change the time zone setting, the start time and end time in the day labels get changed.

For example, you create a day label with the start time as 8am and end time as 4pm, and the time zone selected is (GMT -5:00) Eastern Standard Time (US and Canada). After creating the day label, you change the time zone setting to, (GMT -8:00) Pacific Standard Time (US and Canada). The day label start time changes to 5am, and end time changes to 1pm and the time zone changes to (GMT -8:00) Pacific Standard Time (US and Canada).



Important: It is recommended that you set the time zone first and then configure the calendars.

To change the time zone setting

1. In the Tree pane, browse to **Administration > Departments > *Your Department* > Settings > Department**.
2. In the List pane, select the department settings group.
3. In the Properties pane, go to the Attributes tab.
4. In the Attributes tab, select the setting, **Business calendar timezone**. And, from the available time zones, select the time zone in which your agents work.
5. Click the **Save**  button.

Daylight saving changes

When the changes in the day light saving occurs, you need to make the following two changes in the calendars.

- ▶ In the department setting, **Business calendar timezone**, change the time zone.
- ▶ In the day labels, in the Times tab, change the start times and end times for all the shifts.


Creating business calendars

You can create business calendars for your department. At a time, only one calendar can be active. You can set calendars for all the days of the week, and the exception days, like holidays, weekends etc.



Important: You need to create day labels before creating calendars.

To create a calendar


1. In the Tree pane, browse to **Administration > Departments > Your Department > Calendar > Calendars**.
2. In the List pane toolbar, click the **New**  button.

The Properties pane refreshes to show the properties of the new calendar.

3. In the Properties pane, go to the General tab, and provide the following details.
 - **Name:** Type the name of the calendar.
 - **Description:** Type a brief description.
 - **Effective start date:** Select the date on which the calendar becomes active. Two calendars in a department cannot have overlapping dates. Also, the start date should be greater than the current date.
 - **Effective end date:** Select the date on which the calendar becomes inactive. Two calendars in a department cannot have overlapping dates. Also, the end date should be greater than the start date.

On the set end date, the calendar becomes inactive. Once a calendar becomes inactive, the system considers the agents work time as 24*7*365, unless some other calendar becomes active automatically.

- **Time Zone:** It shows the time zone selected for the department. This field is disabled. If you want to change the time zone for your department, you can do it by changing the setting, **Business calendar timezone**. For details on how to change the setting, see, “Setting the time zone” on page 55.

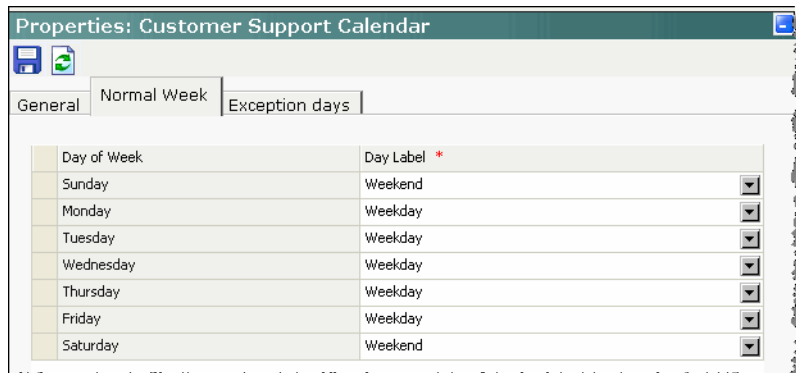


The screenshot shows the 'Properties: Customer Support Calendar' dialog box with the 'General' tab selected. The 'Normal Week' and 'Exception days' sub-tabs are also visible. The 'Name' field is 'Customer Support Calendar', 'Effective start date' is '3/1/2007', and 'Effective end date' is '3/1/2008'. The 'Time zone' is '(GMT-05:00) Eastern Standard Time (US & Canada)'.

Name	Value
Name *	Customer Support Calendar
Description	
Effective start date *	3/1/2007
Effective end date *	3/1/2008
Time zone	(GMT-05:00) Eastern Standard Time (US & Canada)

Set the general properties

4. Now, go to the Normal Week tab, and select the day label to be used for each day of the week.



The screenshot shows the 'Properties: Customer Support Calendar' dialog box with the 'Normal Week' tab selected. The 'Day of Week' and 'Day Label' columns are visible, with dropdown menus for each day.

Day of Week	Day Label *
Sunday	Weekend
Monday	Weekday
Tuesday	Weekday
Wednesday	Weekday
Thursday	Weekday
Friday	Weekday
Saturday	Weekend

Configure the calendar for the normal week

5. Lastly, go to the Exceptions tab. Here you specify the day labels to be used for exception days, like holidays, weekends etc. Select the date on which there is some exception, and then select the day label to be used for that day.



Important: The exception dates should be between the effective start date and effective end date.


Date *	Day Label *
<Select>	<Select>
12/25/2007	Holiday

Configure the calendar for the exception days, like holidays

6. Click the **Save**  button.

Deleting business calendars

To delete a calendar

1. In the Tree pane, browse to **Administration > Departments > *Your Department* > Calendar > Calendars**.
2. In the List pane, select the calendar you want to delete.
3. In the List pane toolbar, click the **Delete**  button.



Email infrastructure

- ▶ [Creating aliases](#)
- ▶ [Configuring blocked addresses](#)
- ▶ [Configuring blocked file extensions](#)
- ▶ [Configuring delivery exceptions](#)

This chapter will assist you in understanding how to set up aliases and other email settings as per your business requirements. You will also learn of various mechanisms that help you optimize the system to ensure efficiency.

The email folder in the Administration Console comprises of four resources: Aliases, Blocked Addresses, Blocked File Extensions, and Delivery Exceptions. In this chapter, you will learn more about these resources and how you can use them to optimize system performance.


Creating aliases

Aliases are email addresses to which customers and other correspondents send messages to your company. Aliases usually have standard names such as `customerservice@yourcompany.com`.

The system monitors the specified aliases and retrieves emails from these aliases when they arrive in the email server.

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, etc. 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, etc. 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.

To create an alias

1. In the Tree pane, browse to **Administration > Departments > *Your Department* > Email > Aliases**.
2. In the List pane toolbar, click the **New**  button.
3. In the Properties pane, go to the General tab and provide the following details.
 - **Name:** Type the name of the alias. This is required information.
 - **Description:** Type a brief description of the alias.
 - **Email address:** Type the email address for the alias. This is required information.
 - **Status:** Select the status of the alias. The options available are:
 - **Active:** If set to active the application will send and pull email messages from this address.
 - **Inactive:** If set to inactive the application will not send and pull email messages from this address.
 - **Automatic BCC:** Type the email address to which you want to send a BCC copy of the email. You can give more than one address here.
 - **Send mail 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 mail 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 the workflows. Make sure that after testing the alias you make this field empty.
 - **Default alias:** Select **Yes** if you want this alias to be default alias for the department. You can edit this field only after you save the alias.



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

Name	Value
Name *	Customer support
Description	
Email address *	Customersupport@yourcompany.com
Status *	Active
Automatic BCC	
Send mail to	
Default alias *	No

Set the general properties

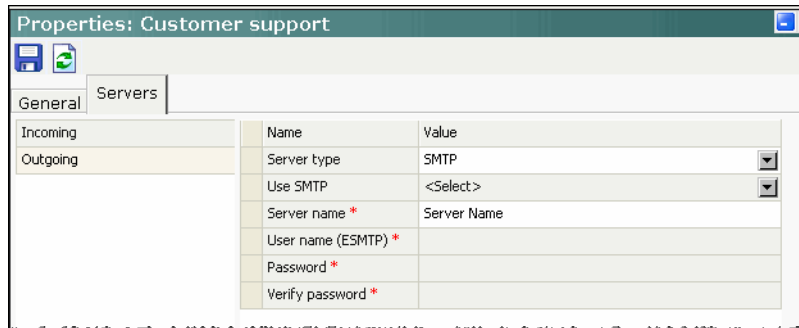
4. In the Properties pane, go to the Servers tab. On this tab, provide the details of the incoming and outgoing servers to be used for the alias.
 - In the Incoming section, provide the following details. All the fields are required in this section.
 - **Server type:** Select the server type you want 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.
 - **Password:** Type the password.
 - **Verify password:** Verify the password.

	Name	Value
Incoming	Server type	POP3
Outgoing	Server name *	Server name
	User name *	jdoe
	Password *	*****
	Verify password *	*****

Configure the incoming server for the alias

- 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 when:** If your server type is ESMTP, then you can optionally use the SMTP server when the ESMTP server authentication fails. Select **Never** if you don't want to use the SMTP server. The options available are **Never** and **When authorization fails**.
 - **Server name:** Type the name of the server.
 - **User name (ESMTP):** Type the user name.

- **Password:** Type the password.
- **Verify password:** Verify the password.




Configure the outgoing server for the alias

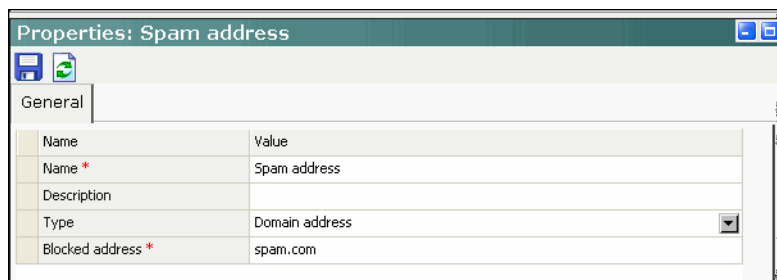
5. Click the **Save**  button.

Configuring blocked addresses

You can block certain email address or email domains. Any email from such a blocked address or domain is treated as spam and directly deleted or stored in a separate file. This way you can filter out all unwanted emails from the mainstream.

To configure a blocked addresses

1. In the Tree pane, browse to **Administration > Departments > Your Department > Email > Blocked Addresses**.
1. In the List pane toolbar, click the **New**  button.
2. In the Properties pane, on the General tab, provide the following details.
 - **Name:** Type the name for the blocked address.
 - **Description:** Type a brief description.
 - **Type:** Select the type of address you want to block. The options available are email address and domain address.
 - **Blocked address:** Specify the address you want to block. An example for an email address would be, `spam@spam.com` and for a domain address would be `spam.com`.



Set the general properties


3. Click the **Save**  button.

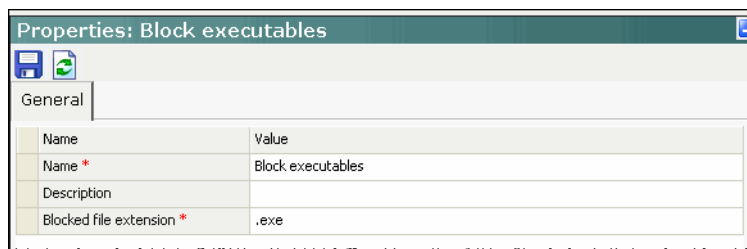
Configuring blocked file extensions

This is a security feature, which allows you to selectively block certain types of attachments. Most of the virus files have certain specific types of extension such as .exe, .vbs, .js, etc. Using this feature, you can block such attachment types from entering the system.

Using the settings for email attachments the system can be configured to block all attachments, block incoming and outgoing attachments, and delete or quarantine a blocked attachment.

To configure a blocked file extension

1. In the Tree pane, browse to **Administration > Departments > *Your Department* > Email > Blocked File Extensions**.
2. In the List pane toolbar, click the **New**  button.
3. In the Properties pane, on the General tab, and provide the following details.
 - **Name:** Type the name of the blocked file extension.
 - **Description:** Type a brief description.
 - **Blocked file extension:** Type the file extension you want to block such as .exe, vbs, js.



Set the general properties

4. Click the **Save**  button.

Configuring delivery exceptions


This feature allows you to handle bounced emails. You can set up different words and phrases for email subjects and email address of incoming email. Emails will be treated as bounced if any of these words and phrases are found in the subject or email address. Each of these words or phrases can be used to classify an email as a permanent bounce back or a temporary bounce back.

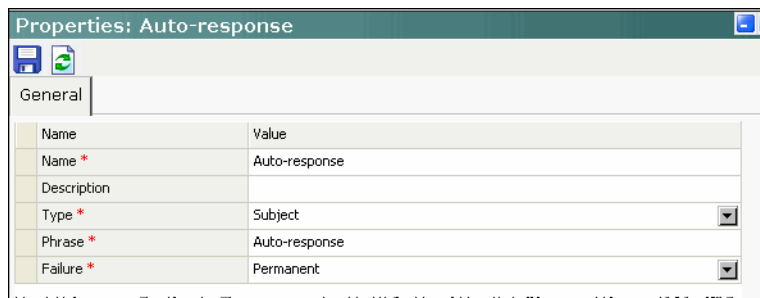
A permanent bounce back indicates that an irreparable reason (such as invalid email address) caused the email to bounce back. These are permanent failure conditions and any next emails sent to such email address would always bounce back.

A temporary bounce back indicates that a temporary reason (such as out of office reply, destination server down etc.) caused the email to bounce back. These being temporary conditions, if emails are sent again, there is a chance that they may not bounce back.

Cisco Unified Web and E-Mail Interaction Manager comes with default delivery exception instances. Should you need to create other instances of delivery exception you can easily do so.

To configure a delivery exception

1. In the Tree pane, browse to **Administration > Departments > *Your Department* > Email > Delivery Exceptions.**
2. In the List pane toolbar, click the **New**  button.
3. In the Properties pane, on the General tab, and provide the following details.
 - **Name:** Type the name of the delivery exception.
 - **Description:** Provide a brief description.
 - **Type:** Select the type from the dropdown list. The options available are address and subject.
 - **Phrase:** Type the phrase you want the system to check for.
 - **Failure:** Select the type of failure from the dropdown list. The options available are **Permanent** and **Temporary**.



Name	Value
Name *	Auto-response
Description	
Type *	Subject
Phrase *	Auto-response
Failure *	Permanent

Set the general properties

4. Click the **Save**  button.

In each of the above cases, you need to stop and restart the email Retriever instance from the System Console to update the system accordingly.

7 Chat infrastructure

- ▶ [Managing entry points](#)
- ▶ [Managing template sets](#)
- ▶ [Setting up quick links and responses in queues](#)
- ▶ [Mapping users to queues for routing chats](#)
- ▶ [Routing chats transferred from other departments](#)

This chapter will assist you in understanding how to set up web chat infrastructure according to your business requirements.

Managing entry points

An Entry point is the starting point for a customer to initiate a chat interaction. Every chat help link on a web site will be mapped to an entry point. Each entry point will in turn have a queue associated with it, so that any chat activity created when the user asks for chat assistance is routed to the queue. A Default Entry Point is provided with the application and it cannot be deleted.




Important: More than one chat help link on web sites can point to the same entry point.

Creating entry points

Before creating an entry point create a queue and template set to be used for the entry point.

To create an entry point


1. In the Tree pane, browse to **Administration > Departments > *Your Department* > Chat > Entry Points.**
2. In the List pane toolbar, click the **New**  button.
3. In the Properties pane, on the General tab, provide the following details.
 - **Name:** Type the name of the entry point. This is required information.
 - **Description:** Type a brief description.
 - **Active:** Select **Yes** to make the entry point active.



Important: For a customer to be able to chat, the entry point mapped to the chat help link should be made active, else the customer would be displayed a no service page.


- **Customer console - Start page:** This setting defines the first page which will be displayed in the customer's co-browse pane, when chat session starts. If it is left blank, the customer's co-browse pane will show the page from which chat was invoked. Type a URL of the page which you want to set as the customer console start page. For example: <http://www.mycompany.com>.
- **Customer console - Finish page:** Type a URL of the page which you want to set as the customer console finish page. For example: <http://www.mycompany.com>. This setting defines the page which will be displayed in the customer's co-browse pane, when the chat session is closed. If it is left blank, the co-browse pane will stay on the last page being browsed before the customer left the session.
- **Enable auto login:** Select **Yes** from the dropdown list if you want to enable auto login. By default **No** is selected. If **No** is selected, the log-in screen will be displayed irrespective of whether customer information has already been entered or not in the source page. If **Yes** is selected, customer information is passed on to the chat link form the source page. For example: When your customers start using your web site you authenticate them by using a login page. And while going through the web site if the customers click the chat help link and you want them to re-enter the same login information before

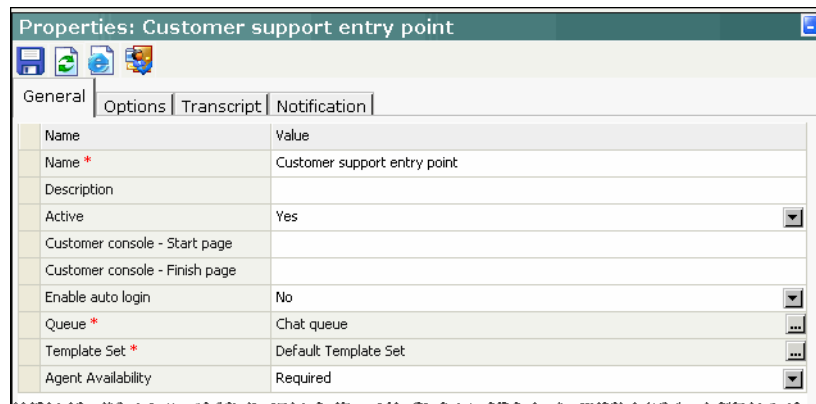
beginning the chat then select **No**. If you do not want the customers to re-enter the login information then select **Yes** - in this case the information of the customer will be passed from the source page.

- **Queue:** Select a queue to which the entry point will point. This is required information. To select a queue, click the **Assistance**  button. From the Select Queue window, select a queue. The queues available can be active or inactive. If the entry point is marked as active, then an active queue must be selected for the entry point.



Important: An active entry point cannot be mapped to an inactive queue.

- **Template:** Select a template set you want to map to the entry point. This is required information. To select a template, click the **Assistance**  button. From the Select Template Set window, select a template set.
- **Agent Availability:** With this option you can decide, if the agents availability is to be checked, when the customer initiate a chat session. There are two options available:
 - **Required:** The customer will be able to initiate a chat session only if the agents availability setting is set to Yes, i.e. the agent is available for chat. If no agent is available, the No Service message is shown to the customer.
 - **Not required:** The customer will be able to initiate a chat session even if the agents availability setting is not set to Yes. The customer is not shown the No Service message, even if no agent is available for chat.




Name	Value
Name *	Customer support entry point
Description	
Active	Yes
Customer console - Start page	
Customer console - Finish page	
Enable auto login	No
Queue *	Chat queue
Template Set *	Default Template Set
Agent Availability	Required

Set the general properties

4. Click the **Save**  button.

Deleting entry points

To delete an entry point

1. In the Tree pane, browse to **Administration > Departments > Your Department > Chat > Entry Points**.
2. In the List pane, select the entry point you want to delete.
3. In the List pane toolbar, click the **Delete**  button.

If you attempt to delete inactive and active entry points together, the inactive entry points get deleted, and a message appears telling that the active entry points cannot be deleted.




Important: Default entry point and active entry points cannot be deleted.

Viewing HTML code for entry points

You can view the HTML code, and use it for pointing the chat help hyperlinks and buttons on your website to open chat sessions. In a web page, chat help can be invoked from either a hyperlink or from a form button, the HTML window displays code to be used for both these cases. The HTML code will change if you change the customer console mode.

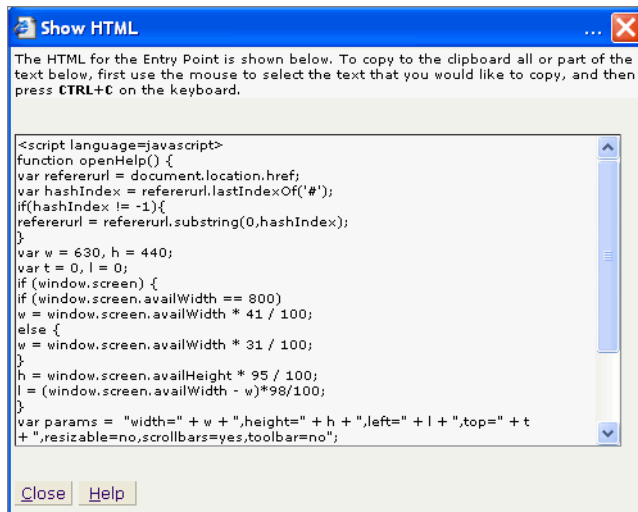
To view the HTML code of an entry point

1. In the Tree pane, browse to **Administration > Departments > Your Department > Chat > Entry Points**.
2. In the List pane, select an entry point.
3. In the Properties pane toolbar, click the **Show HTML**  button.

Show HTML window appears. Here you can view the HTML code of the entry point.



Important: You can only view or copy the HTML. It cannot be edited or deleted. If you are creating a new entry point and want to view its HTML, you have to first save it to enable the Show HTML button.




```
<script language=javascript>
function openHelp() {
var refererurl = document.location.href;
var hashIndex = refererurl.lastIndexOf('#');
if(hashIndex != -1){
refererurl = refererurl.substring(0,hashIndex);
}
var w = 630, h = 440;
var t = 0, l = 0;
if (window.screen) {
if (window.screen.availWidth == 800)
w = window.screen.availWidth * 41 / 100;
else {
w = window.screen.availWidth * 31 / 100;
}
h = window.screen.availHeight * 95 / 100;
l = (window.screen.availWidth - w)*98/100;
}
var params = "width=" + w + ",height=" + h + ",left=" + l + ",top=" + t
+ ",resizable=no,scrollbars=yes,toolbar=no";
}
</script>
```

View the HTML code

Testing entry points

After making an entry point you can test it immediately to see how the entry point looks like.

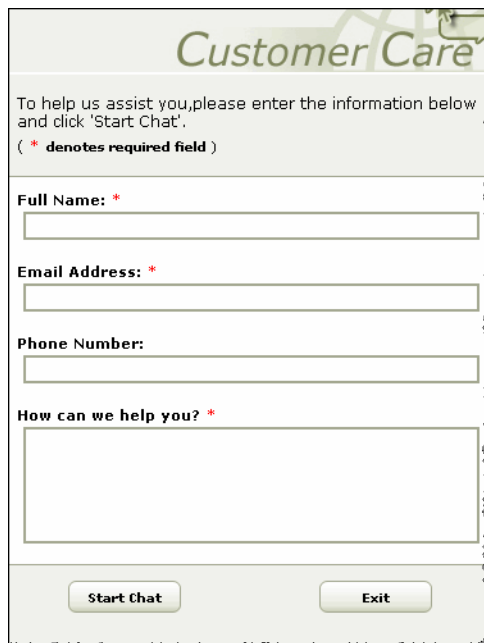
To test an entry point

1. In the Tree pane, browse to **Administration > Departments > *Your Department* > Chat > Entry Points**.
2. In the List pane, select an entry point.
3. In the Properties pane toolbar, click the **Test Entry Point**  button.

A web page opens showing how your entry point looks like.



Important: If you are creating a new entry point and want to test it, you have to save the entry point, to be able to test the entry point.



Customer Care

To help us assist you, please enter the information below and click 'Start Chat'.
(* denotes required field)

Full Name: *

Email Address: *

Phone Number:

How can we help you? *

A sample entry point

Enabling page pushing

By enabling page pushing you can allow the agents to push pages to customers.

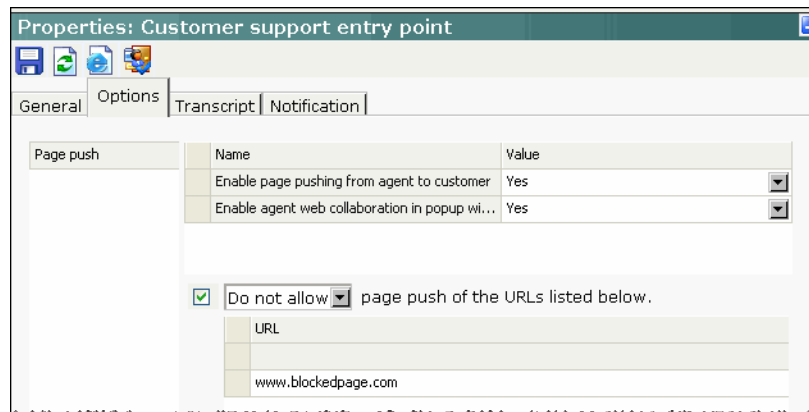
To enable page pushing

1. In the Tree pane, browse to **Administration > Departments > *Your Department* > Chat > Entry Points**.
2. In the List pane, select an entry point.
3. In the Properties pane, on the Options tab, go to the Page push section and provide the following details.

- **Enable page pushing from agent to customer:** Enabling this option allows the agents to send the current web page in their browser area to the customer. By default **Yes** is selected. Select **No** to disable it.
- **Enable agent web collaboration in popup window:** By default the web page opened using page pushing opens in the Web collaboration section of the Information pane of the Agent Console. But, if you want the web page to open in a popup window, then you can do that using this option. If the agent is handling multiple chats at a time, the popup windows show the names of corresponding customers. By default **No** is selected. Select **Yes** to enable it.



Important: When you change this setting, ensure that there are no active chats going on at that moment, else it can result in errors in page pushing.



Configure the page pushing settings

If you want you can also block the URLs that you don't want the agents to send to the customers. Or you can configure to allow a limited number of URLs for page pushing.

4. Select the **page push of the URLs listed below** option.
5. From the dropdown list, select the option you want to use. The following options are available.
 - **Do not allow:** The URLs listed will not be allowed for page pushing.
 - **Allow:** Only the listed URLs will be allowed for page pushing.
6. In the field type the URL. Press enter and type the next URL.

Setting up transcripts and notifications

If you want, you can email the transcript of the chat to the customer. Transcripts can be sent for both serviced chats and abandoned chats. Sending transcripts is very useful as once customers closes the chat window they will have no record of the information that was given to them. But if they have a transcript in the email they can refer back to it in future. Also if because of some problem at the customers end the chat closes then the customer will have information to refer to from the emailed transcript. It is recommended that on the exit page of the chat you put a message that a transcript of the chat session will be sent to the customer. It reflects good customer service.

Serviced chats: Serviced chats are those chat sessions where the agent joins the chat session at least once (activity substatus changes to 'In Progress') before the customer exits the session. Serviced chats also include the chats which were not completed successfully because of any reason.

Abandoned chats: Abandoned chats are those chat sessions where the customer exits the chat before the activity substatus changes to 'In Progress' at least once. That means the customers leave the chat before agents could attend them.



Important: In the transcript email sent, the Chat transcript will be placed between the greeting article and the signature article.


Sending serviced chat transcripts

To email transcripts of serviced chats

1. In the Tree pane, browse to **Administration > Departments > *Your Department* > Chat > Entry Points**.
2. In the List pane, select an entry point.
3. In the Properties pane, on the Transcript tab, go the Serviced chats section and provide the following details.
 - If you want to send a chat transcript select the **Send email chat transcript to the customer** option. If you select the **Do not email chat transcript to the customer** option, all other options will be disabled.
 - **From:** Type the email address which you want to show in the **From** field in the email sent to the customer. This is required information. Any reply sent by the customer, in response to the chat transcript email goes to the address specified in the **From** field. So you can configure a standard email address such as "support@mycompany.com" as the From email address, and configure it as the alias to which customer reply-emails will be sent.
 - **To:** The transcript email will be sent to the email ID provided by the customer while logging into the chat. If the customer has not provided an email ID, then the contact point will be picked up from the existing email field for the customer of the chat; if a customer has multiple email IDs, the last updated email ID of the customer will be considered. However, if no email ID is found at all, no transcript mail will be sent out.




Important: This field cannot be edited.

- **Subject:** Type subject of the email.
- **Header:** To select a header, click the **Assistance**  button. From the Select Article window that appears, select the header article you want to use.




Important: If there are no headers available go in the Knowledge Base Console and create some header articles.

- **Greeting:** To select a greeting, click the **Assistance**  button. From the Select Article window that appears, select the greeting article you want to use.




Important: If there are no greetings available go in the Knowledge Base Console and create some greeting articles.

- **Signature:** To select a signature, click the **Assistance**  button. From the Select Article window that appears, select the signature article you want to use.



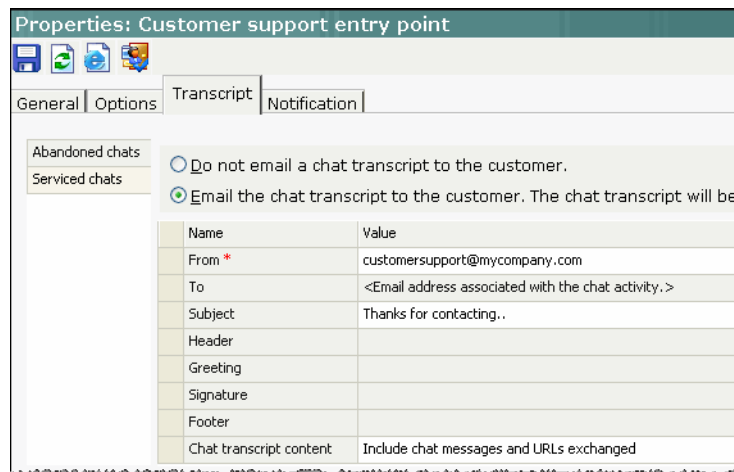
Important: If there are no signatures available go in the Knowledge Base Console and create some signature articles.

- **Footer:** To select a footer, click the Assistance  button. From the Select Article window that appears, select the footer article you want to use.



Important: If there are no footers available go in the Knowledge Base Console and create some footers articles.

- **Chat transcript content:** Specify what you want to include in the transcript. The following options are available.
 - **Include chat messages and URLs exchanged**
 - **Include only URLs exchanged**
 - **Include only chat messages exchanged**



Name	Value
From *	customersupport@mycompany.com
To	<Email address associated with the chat activity.>
Subject	Thanks for contacting..
Header	
Greeting	
Signature	
Footer	
Chat transcript content	Include chat messages and URLs exchanged

Configure the transcript option for serviced chats

4. Click the Save  button.

Sending abandoned chat transcripts

To email transcripts of abandoned chats


1. In the Tree pane, browse to **Administration > Departments > Your Department > Chat > Entry Points**.
2. In the List pane, select an entry point.
3. In the Properties pane, on the Transcript tab, go to the Abandoned chats section and provide the following details.
 - If you want to send a chat transcript select the **Send email chat transcript to the customer** option. If you select the **Do not email chat transcript to the customer** option, all other options will be disabled.
 - **From:** Type the email address which you want to show in the **From** field in the email sent to the customer. This is required information. Any reply sent by the customer, in response to the chat

transcript email will go to the address specified in the **From** field. So you can configure a standard email address such as "support@mycompany.com" as the **From** email address and configure it as the email alias to which customer reply emails will be sent.

- **To:** The transcript email will be sent to the email ID provided by the customer while logging into the chat. If the customer has not provided an email ID, then the contact point will be picked up from the existing email field for the customer of the chat; if a customer has multiple email IDs, the last updated email ID of the customer will be considered. However, if no email ID is found at all, no transcript mail is sent out.




Important: This field cannot be edited.

- **Subject:** Type subject of the email.
- **Header:** To select a header, click the **Assistance**  button. From the Select Article window that appears, select the header article you want to use.




Important: If there are no headers available go in the Knowledge Base Console and create some header articles.

- **Greeting:** To select a greeting, click the **Assistance**  button. From the Select Article window that appears, select the greeting article you want to use.




Important: If there are no greetings available go in the Knowledge Base Console and create some greeting articles.

- **Signature:** To select a signature, click the **Assistance**  button. From the Select Article window that appears, select the signature article you want to use.



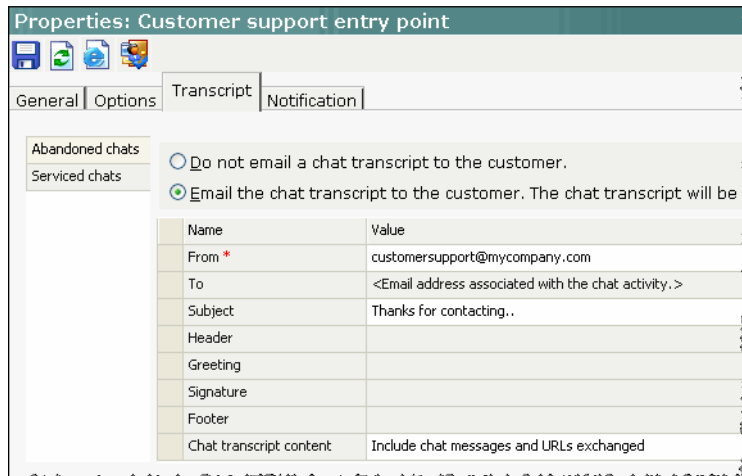
Important: If there are no signatures available go in the Knowledge Base Console and create some signatures articles.

- **Footer:** To select a footer, click the **Assistance**  button. From the Select Article window that appears, select the footer article you want to use.



Important: If there are no footers available go to the Knowledge Base Console and create some footer articles.

- **Chat transcript content:** Specify what you want to include in the transcript. The following options are available.
 - **Include chat messages and URLs exchanged**
 - **Include only URLs exchanged**
 - **Include only chat messages exchanged**



Configure the transcript option for abandoned chats

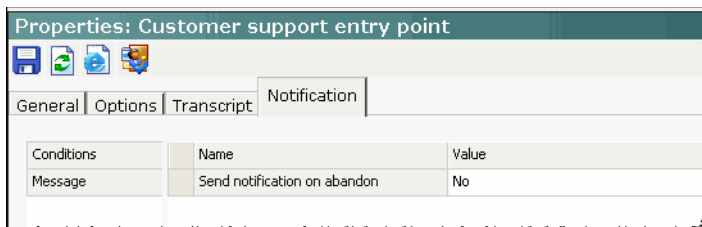
4. Click the **Save**  button.

Setting up notifications

Notifications are messages sent to internal users, using the messaging infrastructure. You can send a notification when a chat gets abandoned or an error occurs during a chat. Along with the notification, the transcript of the chat can also be sent. The notification can be sent to internal users as well as to external email addresses. The difference between transcript and notification is that transcript is sent to the customer with whom the chat session is held and notification is sent to internal users of the organization when a chat is abandoned or when an error occurs. You can create an entry point without selecting the option of sending transcript or notification.

To send a notification:

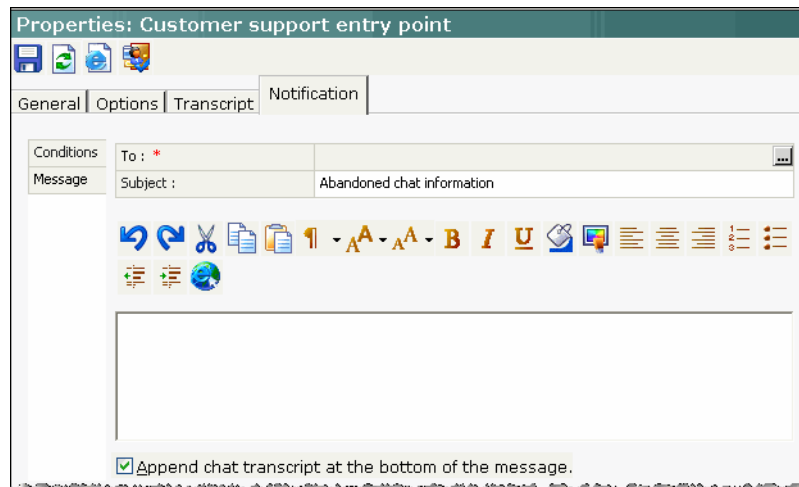
1. In the Tree pane, browse to **Administration > Departments > Your Department > Chat > Entry Points**.
2. In the List pane, select an entry point.
3. In the Properties pane, on the Notification tab, go the Conditions section and specify if you want to send notifications for abandoned chats.



Set the conditions for sending notifications

4. Next, on the Notification tab, go to the Message section, and provide the following details.
 - **To:** Select to whom you want to send the notifications. You can send notification to internal users and also to external email addresses. This is required information.
 - **Subject:** Type a subject for the notification to be sent.

- **Text box:** Type a message in the text box. You can use the text box toolbar to edit the text.
- **Append chat transcript at the bottom of the message:** Select this option if you want to send the chat transcript with the notification.





Set the message for sending notifications

5. Click the **Save**  button.

Turning off active entry points

You can temporarily turn off all the entry points for your department. This is useful when the agents are available for handling the chats for only limited hours of the day and you want that when they are not available you can turn off the entry points for the department.

To turn off active entry points:

1. In the Tree pane browse to **Department** > *Your Department* > **Chat** > **Entry Points**.
The List pane shows the list of entry points.
2. In the List pane toolbar, click the **Turn off entry points**  button.
All the active entry points are turned off.
3. Click the **Turn on entry points**  button, to turn on the entry points. When you click the button, it turns on the active entry points.

Managing template sets

A template set comprises a set of .jsp files used for different screens displayed at the customer's end. Each entry point must be mapped to a template set and multiple entry points can use the same template set. A default template set is shipped with the application and can readily be mapped to any number of entry points.




Important: The default template set cannot be deleted.

For every template set created, a directory with the same name is created in the file system. You can create a new template set and then customize the individual templates (.jsp files) for the desired look and feel.

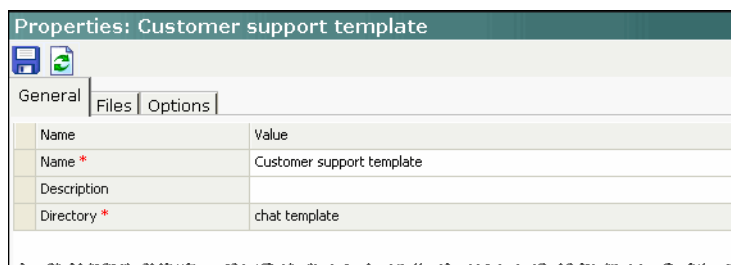
Creating template sets

To create a new template set:

1. In the Tree pane, browse to **Department** > *Your Department* > **Chat** > **Templates**.
2. In the List pane toolbar, click the **New**  button.
3. In the Properties pane, on the General tab, provide the following details.
 - **Name:** Type a name for the template set. This is required information.
 - **Description:** Type a brief description for the template set.
 - **Directory:** Type a name for the directory. This is required information.



Important: A directory with this name gets created in the file system. You cannot change the directory once you click the save button.



Name	Value
Name *	Customer support template
Description	
Directory *	chat template

Set the general properties

4. Click the **Save**  button.



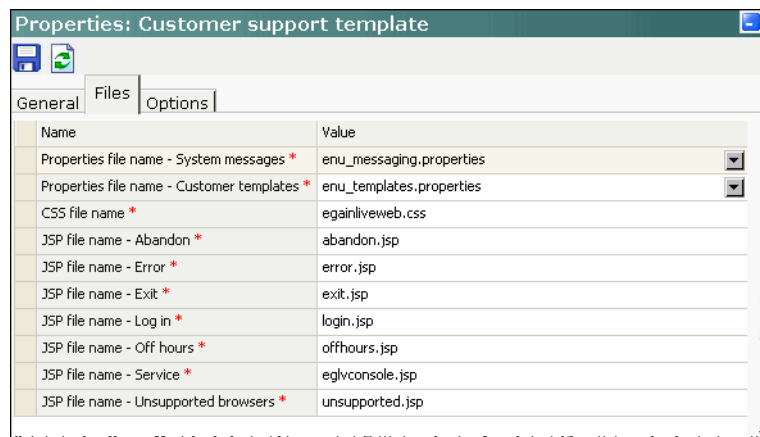
Important: The Options and Files tab are enabled only after you click the Save button.

5. Next, go to the Files tab and provide the following information.
 - **CSS file name:** This is required information. Type a valid CSS file name from the directory.
 - **JSP file name - Abandon:** This is required information. The default value is *abandon.jsp*. Type a valid JSP file name from the directory.

- **JSP file name - Error:** This is required information. The default value is *error.jsp*. Type a valid JSP file name from the directory.
- **JSP file name - Exit:** This is required information. The default value is *exit.jsp*. Type a valid JSP file name from the directory.
- **JSP file name - Login:** This is required information. The default value is *login.jsp*. Type a valid JSP file name from the directory.
- **JSP file name - Off hours:** This is required information. The default value is *offhours.jsp*. Type a valid JSP file name from the directory.
- **JSP file name - Service:** This is required information. The default value is *service.jsp*. Type a valid JSP file name from the directory.
- **JSP file name - Unsupported browsers:** This is required information. The default value is *unsupported.jsp*. Type a valid JSP file name from the directory.

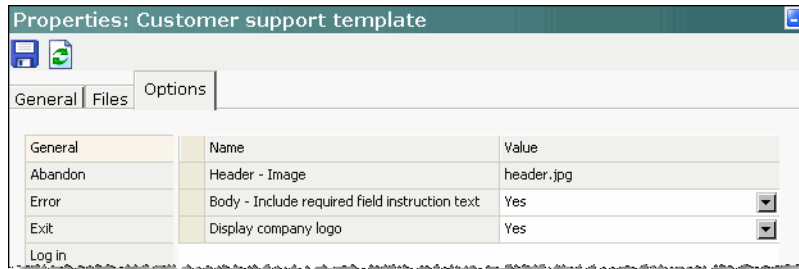


Important: The file names you give here should be present in the directory you are using for the template set. If you do not have these file names in the directory you are using for the template set, an error will appear.



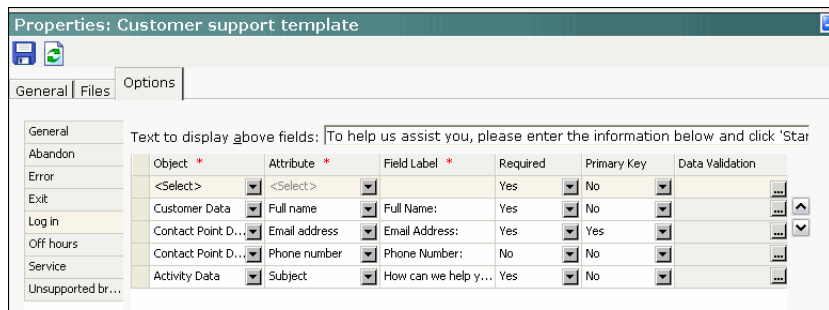
Provide the names of the files available in the template directory

6. Next, go to the Options tab. Here, you can configure the settings of the templates. For example you can decide what fields you want to show in the login page before the chat, how the messages should appear during the chat and what type of messages you want to show to the customers during off hours.
7. On the Options tab, go to the General section. These settings determine how the login page appears once the customer clicks the chat help button. Provide the following details.
 - **Header - Image:** The default value is *header.jpg*.
 - **Body - Include required field instruction text:** Specify if you want to show the required field instruction with the fields. By default **Yes** is selected. Select **No**, if you don't want to show the required field instruction text.
 - **Display company logo:** Select **Yes** if you want to show the Cisco logo on the various templates displayed to the users when they abandon or exit the chat.



Configure the general properties of the login page

8. Next, on the Options tab, go to the Abandon section. Type the message you want to show to the customers when they abandon the chat.
9. Next, on the Options tab, go to the Error section. Type the message you want to show to the customers when an error occurs during the chat.
10. Next, on the Options tab, go to the Exit section. Type the message you want to show to the customers when they exit the chat.
11. Next, on the Options tab, go to the Log in section. Here, you decide what login fields the customer should fill before starting the chat session. Provide the following details.




Configure the various properties of the fields to be displayed on the login page

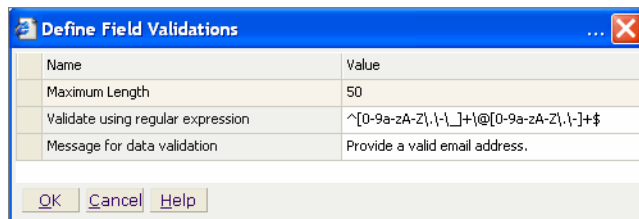
- **Text to display above fields:** Type the text you want to display above the fields. The default value is *To help us assist you, please enter the information below and click 'Start Chat'*.
- **Object:** From the drop down select an object. This is required information. The following options are available.
 - **Customer Data**
 - **Contact Point Data**
 - **Activity Data**
- **Attribute:** Select the attributes you want the customers to fill at the time of login. By default full name, phone number, email address, and subject are selected and email address is selected as primary key. Same attribute cannot be selected twice. This is required information. The following options are available.
 - **For Customer Data: Full name**
 - **For Contact Point Data: Email address and Phone number**
 - **For Activity Data: Subject**

- **Field Label:** Type the name of the field as to be shown on the login page. This is required information.
- **Required:** Select **Yes** if you want to make a fields as required on the login page.
- **Primary Key:** With this option you can decide which field is to be marked as the primary key. At least one attribute has to selected as primary key and the attribute which is selected as primary key should also be selected as Required. There are two options available are Yes and No.



Important: The attribute **Subject** cannot be selected as primary key.

- **Data validation:** Using this option you can validate the information provided by the customer in the login page. Click the **Assistance**  button. In the Define Field Validations window that appears, provide the following details.
 - **Minimum Length:** Type the number of minimum characters the customer needs to enter in the field.
 - **Maximum Length:** Type the number of maximum characters the customer needs to enter in the field.
 - **Validate using regular expression:** Provide the expression against which the information provided by the user is to be checked. For example, for phone number field you can give an expression like, `^\s*(\s*\d{3}\s*)?\s*[-.]\s*\d{3}\s*[-.]\s*\d{4}\s*$`. And for email field, `^[0-9a-zA-Z\.\-_]+\@[0-9a-zA-Z\.\-_]+\.`, this expression refers to a format X@Y. Z (john@mycompany.com).
 - **Message for data validation:** Type the message you want to show to the customer, when the information provided by the customer does not match the validation parameters set by you.
 - Click the **OK** button.



Define field validation properties

You can rearrange the order of the attributes as they will appear on the login page. By default the fields appear in the following order: Full name, Phone number, Email address and Subject. For example: you add the field First name to the form. By default the added fields appear in the end. But if you want the First Name field to appear below the Full name you can do that. To rearrange the fields, click on the left side of the row of the attribute you want to move. The row gets selected. Click the **Move up** or **Move down** button to move the attribute to the required position.

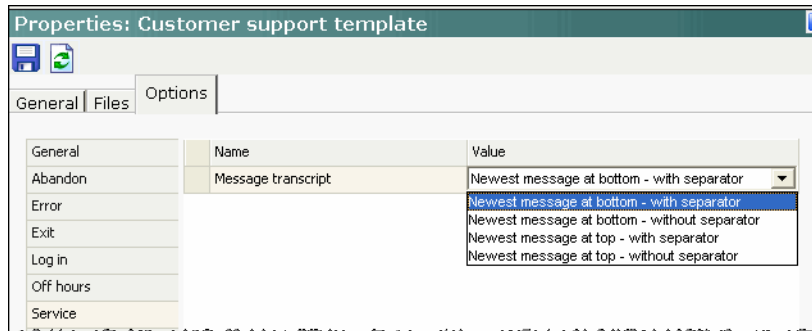
You can also remove any attribute from the login page. For example: Phone Number is selected by default to be shown on the login page, but if you don't want to show it you can remove it from the form. To remove an attribute, click on the left side of the row of the attribute you want to remove. The row will get selected. Press the Delete key on the keyboard. The field is removed.

12. Next, on the Options tab, go to the Off hours section. Type the message you want to show to the customers during the off hours, when no online chat is available.
13. Next, on the Options tab, go to the Service section. With this setting you can decide how the messages should appear. The following options are available.

- Newest message at bottom - with separator
- Newest message at bottom- without separator
- Newest message at top- with separator
- Newest message at top- without separator



Important: The separator is a text message, Newest message, used to differentiate the latest message sent and received, from the rest of the chat transcript.




Configure the display properties of the chat messages

14. Lastly, on the Options tab, go to the Unsupported browser section. Type the message you want to show to the customers when they try to chat from a browser which is not supported.

Deleting template sets

To delete a template set

1. In the Tree pane, browse to **Administration > Departments > Your Department > Chat > Templates**.
2. In the List pane, select the template set you want to delete.
3. In the List pane toolbar, click the **Delete**  button.

Setting up quick links and responses in queues

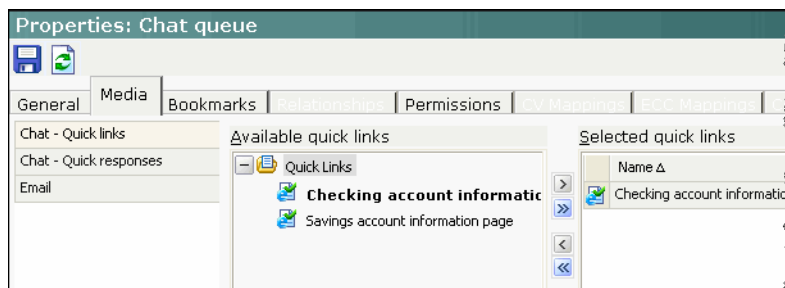
For each queue, you can configure the list of quick links and responses to be displayed for all chat sessions routed to the queue.

Configuring quick links

To configure the quick links

1. In the Tree pane, browse to **Department > Your Department > Workflow > Queues**.
2. Select the queue in the List pane.

3. In the Properties pane, go to the Media tab.
4. On the Media tab, go to the Chat - Quick links section.
5. In the Chat - Quick links section, from the available quick links select the quick links, and add them to the selected quick links list.



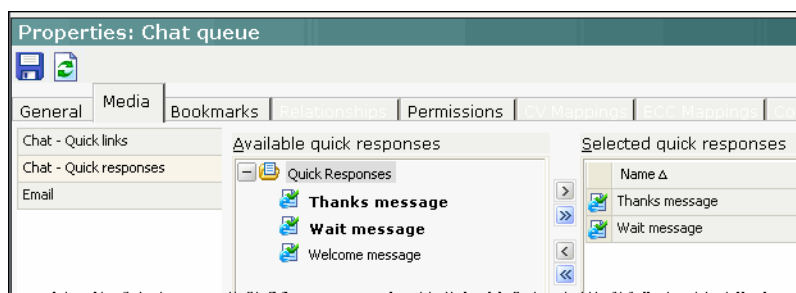
Select the quick links

6. Click the **Save**  button.

Configuring quick responses

To configure the quick responses

1. In the Tree pane, browse to **Department** > *Your Department* > **Workflow** > **Queues**.
2. Select the queue in the List pane.
3. In the Properties pane, go to the Media tab.
4. On the Media tab, go to the Chat - Quick responses section.
5. In the Chat - Quick responses section, from the available quick responses select the quick responses, and add them to the selected quick responses list.



Select the quick responses

6. Click the **Save**  button.

Mapping users to queues for routing chats

For each queue, you have to specify routing method to be used to push chats to agents, and select the agents to whom chats should be pushed.

To map users to queues

1. In the Tree pane, browse to **Department** > *Your Department* > **Workflow** > **Queues**.
2. In the List pane, select the queue you want to use to route the chats.



Important: Make sure you select a Cisco Interaction Manager type of queue for routing chats. Do not select an IPCC/ICM type of queue.

3. In the Properties pane, on the General tab, specify the push-routing method for chat. The following options are available.
 - **None:** If None is selected, chats will not be pushed from the queue to any users. Users will have to explicitly pull chats from the queue to service them.
 - **Load balanced:** If Load Balanced is selected, chats will get directly assigned to the user with the minimum number of open chat activities. In case there is a tie between two or more agents with the same number of chats, the user who has been waiting the longest since any chat was assigned to him will get priority over the others. If you select this option, you will have to select the list of users from the Relationships tab to whom the chats must be routed.

Properties: Chat queue	
Name	Value
Name *	Chat queue
Description	
Active	Yes
External assignment	No
Email push routing method	None
Chat push routing method	None
CTI link *	Load balanced
Default chat transfer queue	None
Type	Cisco Interaction Manager

Select the chat push routing method

4. Click the **Save**  button

Routing chats transferred from other departments


For every department you need to configure a queue, to which all the chats transferred from other departments get routed. A department can have only one queue as the default chat transfer queue.

The first queue you create in the department, other than the pre-defined exception queue, automatically gets selected as the default chat transfer queue. You can select any queue as the default chat transfer queue.



Important: Make sure you select a Cisco Interaction Manager type of queue for routing chats. Do not select an IPCC/ICM type of queue.

To select a queue for routing chats transferred from other departments

1. In the Tree pane, browse to **Department** > *Your Department* > **Workflow** > **Queues**.
2. In the List pane, select a queue.
3. In the Properties pane, go to the General tab.
4. In the **Default chat transfer queue** field, select **Yes**. All the chats transferred from other departments get routed to this queue. If a department already has a queue configured for routing chats transferred from other departments, then a message appears, asking to confirm that you want to change the default queue.
5. Click the Save  button. Once you save the queue, the **Default chat transfer queue** option becomes disabled. If you need to change the default queue you can select another queue as default and this queue gets de-selected automatically.

Other resources

- ▶ [Managing classifications](#)
- ▶ [Managing dictionaries](#)
- ▶ [Managing macros](#)
- ▶ [Managing products](#)

This chapter will assist you in understanding the various resources within a department. You need to configure the resources to help set up the system to function, according to your business requirements.

Managing classifications

Classification is a systematic arrangement of resources comprising of categories and resolution codes. You can create and assign classifications to incoming activities, or to knowledge base articles. Classifications are of two types:

- ▶ Categories
- ▶ Resolution Codes

Categories are normally associated with incoming activities, whereas resolution codes are associated with knowledge base articles.


You can assign categories to incoming activities in two ways:

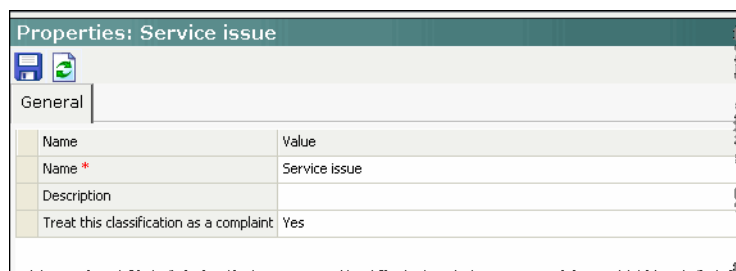
- ▶ From the Agent Console.
- ▶ By setting rules in workflow.

Creating categories

Categories are keywords or phrases, that help you keep track of the activities. So you can easily find, sort, filter, or group them. You can use categories to keep track of different types of activities.

To create a category

1. In the Tree pane, browse to **Administration > Department > *Your Department* > Classifications > Categories**.
2. In the List pane toolbar, click the **New**  button.
3. In the Properties pane, on the General tab, provide the following details.
 - **Name:** Type the name of the category.
 - **Description:** Provide a brief description.
 - **Treat the classification as a complaint:** Select **Yes** to create a complaint type category.




Name	Value
Name *	Service issue
Description	
Treat this classification as a complaint	Yes

Set the general properties

4. Click the **Save**  button.

Deleting categories


To delete a category

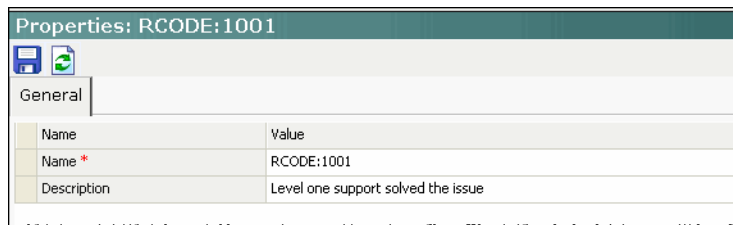
1. In the Tree pane, browse to **Administration > Department > *Your Department* > Classifications > Categories.**
2. In the List pane, select the category you want to delete.
3. In the List pane toolbar, click the **Delete**  button.

Creating resolution codes

You can assign Resolution Codes to knowledge base articles. Resolution codes help you to categorize and organize your knowledge base articles better.

To create a resolution code

1. In the Tree pane, browse to **Administration > Department > *Your Department* > Classifications > Resolution Codes.**
2. In the List pane toolbar, click the **New**  button.
3. In the Properties pane, on the General tab, provide the following details.
 - **Name:** Type the name of the resolution code.
 - **Description:** Provide a brief description.



The screenshot shows a 'Properties: RCODE:1001' dialog box with a 'General' tab. It contains a table with two columns: 'Name' and 'Value'. The 'Name' field is marked with an asterisk and contains 'RCODE:1001'. The 'Description' field contains 'Level one support solved the issue'.


Name	Value
Name *	RCODE:1001
Description	Level one support solved the issue

Set the general properties

4. Click the **Save**  button.

Deleting resolution codes

To delete a resolution code

1. In the Tree pane, browse to **Administration > Department > *Your Department* > Classifications > Resolution Codes.**
2. In the List pane, select the resolution code you want to delete.
3. In the List pane toolbar, click the **Delete**  button.

Managing dictionaries

Dictionaries refer to a list of words stored in the system for reference. The Spell checker application in the system is based on this list of words.

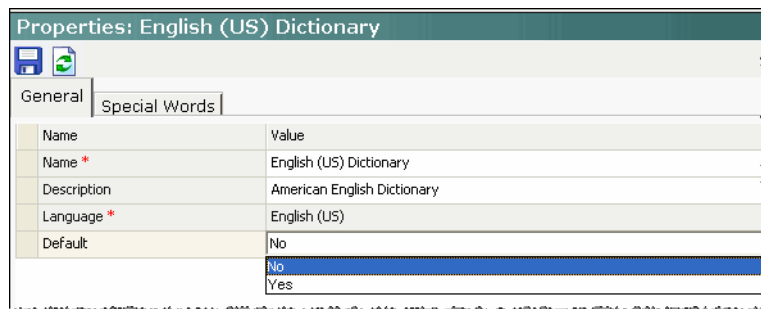
For example, a user may find the dictionary of immense value to check the spellings in outgoing email.

The system provides one default dictionary on which the Spell checker is based. The system also provides dictionaries in different languages. As a department administrator, you can change the default dictionary for your department as per your requirement. It is important to note that there can only be one default dictionary at a time in the system.

Choosing a default dictionary

To choose a default dictionary

1. In the Tree pane, browse to **Administration > Department > *Your Department* > Dictionaries**.
2. In the List pane, select a dictionary from the list of system provided dictionaries.
3. In the Properties pane, on the General tab, in the **Default** field, choose **Yes** from the drop down list.




Set a dictionary as the default dictionary for a department


4. Click the **Save**  button.

Creating dictionaries

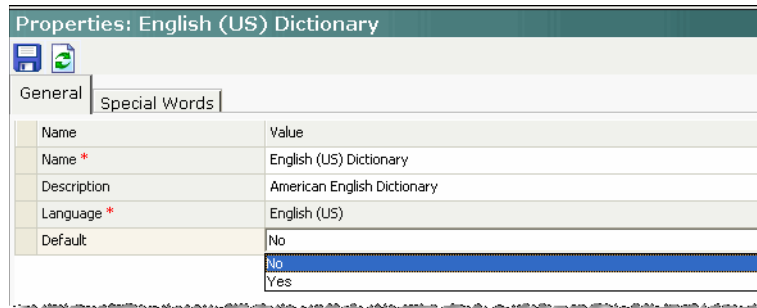
You can also create your own dictionary and store words in it. You can make this the default dictionary for your department.

To create a new dictionary

1. In the Tree pane, browse to **Administration > Department > *Your Department* > Dictionaries**.
2. In the List pane toolbar, click the **New**  button.
3. In the Properties pane, on the General tab, provide the following details.
 - **Name:** Provide the name of the dictionary.
 - **Description:** Provide a brief description.
 - **Language:** From the drop down list, select a language for the dictionary.

Click the **Save**  button to enable the **Default** field.

- **Default:** Select **Yes** to make this dictionary the default dictionary of the department.



Configure the general properties

4. Click the **Save**  button.

Managing macros

Macros are commands that fetch stored content. They are easy to use, and display the actual content, when expanded. Macros enable you to enter a single command to perform a series of frequently performed actions.


For example, you can define a macro to contain a greeting for email replies. Instead of typing the greeting each time, you can simply add this macro.



You can create two types of macros:

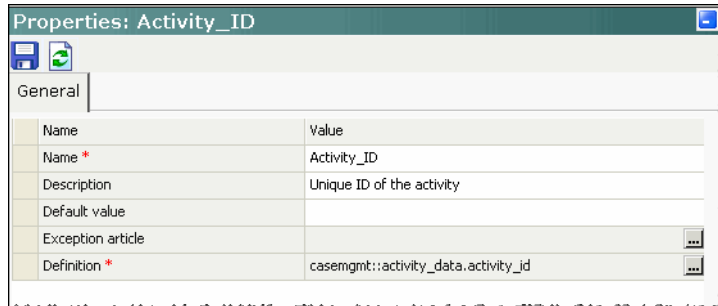
1. **Business Objects macros** - In Business Objects you can create macros for several objects. For example, Activity data, Customer data, User data, etc. You have to define an attribute to a macro from the list of system provided attributes. Please note that you can define only a single attribute for each macro.
2. **Combination macros** - In Combination Macros you can create macros with multiple descriptions. That is, you can combine multiple macros within a single macro. Multiple macros can be selected from both Business Objects and Combination macro types.

Creating business object macros

To create a business object macro

1. In the Tree pane, browse to **Administration > Department > *Your Department* > Macros > Business Objects > *Business Object Name***.
2. In the List pane toolbar, click the **New**  button.
3. In the Properties pane, on the General tab, provide the following details.
 - **Name:** Type the name of the macro.
 - **Description:** Provide a brief description.
 - **Default value:** Provide the default value for the macro.

- **Exception article:** Click the **Assistance**  button and from the Select Article window, select the exception article for the macro.
- **Definition:** Click the **Assistance**  button and from the Select Attribute window, select the attribute that defines this macro.






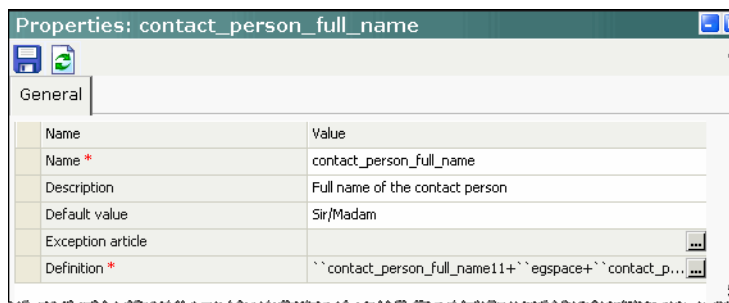
Set the general properties

4. Click the **Save**  button.

Creating combination macros

To create a combination macro

1. In the Tree pane, browse to **Administration > Department > *Your Department* > Macros > Combinations**.
2. In the List pane toolbar, click the **New**  button.
3. In the Properties pane, on the General tab, provide the following details.
 - **Name:** Type the name of the macro.
 - **Description:** Provide a brief description.
 - **Default value:** Provide the default value for the macro.
 - **Exception article:** Click the **Assistance**  button and from the Select Article window, select the exception article for the macro.
 - **Definition:** Click the **Assistance**  button and from the Select Definition window, select the attributes that define this macro.




Set the general properties

4. Click the **Save**  button.

Deleting macros

To delete a macro


1. In the Tree pane, browse to **Administration > Department > *Your Department* > Macros**.
2. Select the type of macro you want to delete.
3. In the List pane, select the macro you want to delete.
4. In the List pane toolbar, click the **Delete**  button.

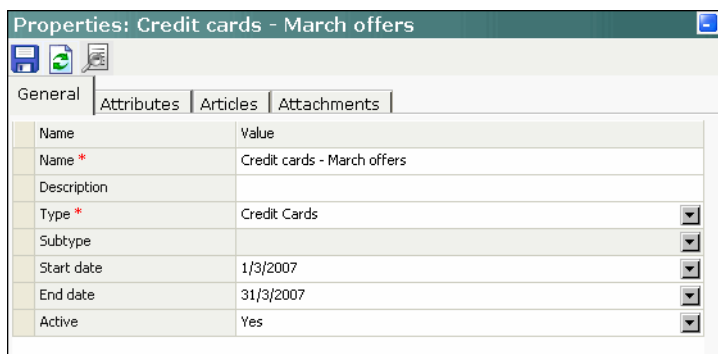
Managing products

You can associate products from the product catalog in the system with customers in a department. A product catalog enables you to have a handy reference of your products within the system. You can configure the system to list your product catalogs with customized articles and attachments. A product catalog is a complete enumeration of items (products) arranged systematically with descriptive details.

Creating product catalogs

To create a product catalog


1. In the Tree pane, browse to **Administration > Department > *Your Department* > Products**.
2. In the List pane toolbar, click the **New**  button.
3. In the Properties pane, on the General tab, provide a name and description for the product catalog.



The screenshot shows a 'Properties' dialog box titled 'Credit cards - March offers'. It has four tabs: 'General', 'Attributes', 'Articles', and 'Attachments'. The 'General' tab is active and contains a table with the following fields and values:


Name	Value
Name *	Credit cards - March offers
Description	
Type *	Credit Cards
Subtype	
Start date	1/3/2007
End date	31/3/2007
Active	Yes

Set the general properties

4. Click the Attributes tab to add more details about the product.
5. The Articles tab enables you to select an article from the Knowledge base.
6. The Attachments tab allows you to add attachments to the product catalog.
7. Click the **Save**  button.

Deleting product catalogs

To delete a product catalog

1. In the Tree pane, browse to **Administration > Department > *Your Department* > Products**.
2. In the List pane, select the product catalog you want to delete and click the **Delete**  button in the toolbar.



Workflows

- ▶ [Managing queues](#)
- ▶ [Managing service levels](#)
- ▶ [Managing workflows](#)

As an administrator, workflows are your biggest tools to assign work to the users in your department. The greatest advantage of creating workflows is that you do not have to manually assign incoming activities to your users. Each day, your company might be getting thousands of emails from the customers. In such a situation, it is physically impossible for you to assign every activity to the appropriate users and monitor whether the activity is handled. Workflows define the progression of an activity within the system. You can create a workflow to automate tasks, and ensure that the work is handled consistently, and efficiently, resulting in improved business operations.

Workflows manage the flow of all incoming and outgoing activities. They are rules which define the action that the system takes on all activities. You can graphically create these rules to suit the requirements of your organization. You can assign certain types of activities to specific users, or queues. You can also set priorities for activities that require an immediate response. There are many other things that you can do with the help of workflows.

This chapter will elaborate all the tasks that you can perform with workflows. To understand the concept of workflows, you should first know the concepts of queues and service levels. You can use queues and service levels to create workflows according to your requirements.

Managing queues

Note about integrated queues

An integrated queue is a Unified WIM and Unified EIM queue that belongs to a Unified CCE MRD.

- ▶ If a Cisco Interaction Manager queue is mapped to a Unified CCE MRD and script selector, and the Unified CCE MRD or script selector is deleted, when the Cisco Interaction Manager queue is clicked, a warning appears indicating that the queue will be unmapped in Cisco Interaction Manager.
- ▶ If a Cisco Interaction Manager queue is mapped to a Unified CCE MRD and script selector, and the MRD or script selector attributes are modified in Unified CCE, when the Cisco Interaction Manager queue is clicked, the modifications are automatically retrieved and synchronized in Cisco Interaction Manager.

Note about permissions to pull or transfer activities

1. Mapped agents cannot be given pull permissions to mapped queues, but can be given transfer permissions to mapped queues.
2. Mapped agents cannot be given pull or transfer permissions to other mapped agents.
3. Mapped agents cannot be given pull or transfer permissions to standalone agents.
4. Standalone agents cannot be given pull or transfer permissions to mapped agents.
5. Standalone agents can still be given transfer permissions to other standalone agents.
6. A standalone agent, on the other hand, can have both pull and transfer permissions to standalone queues, but not mapped queues.
7. Administrators have pull and transfer permissions for both standalone and mapped queues and users.

Creating queues

Queues hold incoming customer service activities such as emails and chat sessions that are waiting to be assigned to agents. A department can have any number of queues to map their business process. A single queue can hold multiple activity types like email, task, chat. The access to queues by agents are controlled by permissions. For example, a sports good company can have four types of issues coming into their system through emails, Orders, Replacements, Billing details and Shipment details. To map this process, Administrator can create four queues Orders, Replacements, Billing and Shipment in the system and using workflows route these issues to the respective queues. Using permissions, Administrator can control access of agents to work on issues in each queue. For example Shipment Agents can be given permission to work on shipment issues, but not Billing or Orders queue.

By default an exception queue is created in every department. While routing the activities if the workflow faces any error, it send the activities to the exception queue. Also, if the activities have any blocked words in them, those activities are sent to the exception queue.




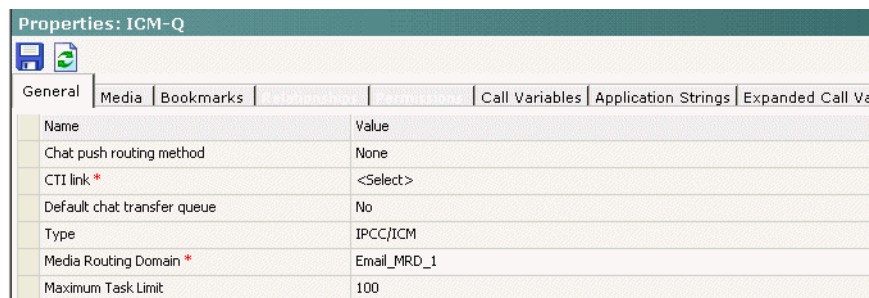
Important: The exception queue cannot be deleted or made inactive.

There are two methods in which activities are routed by queues:

- **Load-balanced:** Activities are routed from the queue, to available agents having least number of activities in their inbox.
- **Round-robin:** Activities are routed from the queue, to all available agents alternatively, irrespective of the number of activities in their inbox.

To create a queue:

1. In the Tree pane, browse to **Administration > Department > Your Department > Workflow > Queues.**
2. In the List pane toolbar, click the **New**  button,
3. In the Properties pane, on the General tab, provide the following details.



Name	Value
Chat push routing method	None
CTI link *	<Select>
Default chat transfer queue	No
Type	IPCC/ICM
Media Routing Domain *	Email_MRD_1
Maximum Task Limit	100

Set general properties

- **Name:** Type a name of the queue. This is required information.
- **Description:** Type a brief description.
- **Active:** When a queue is created, by default it is active. Select **No** to make it inactive. If you are using the queue in workflows or are intending to use it, it is advised that you don't make the queue inactive. If a queue is being used in the workflows and it is made inactive, no new incoming activities are routed to the queue. All the activities coming to the inactive queue are routed to the exception queue. Also, if the queue is being used in the workflows and agents have pull and transfer permissions on the queue,

they can pull and transfer activities to the inactive queues. If you want to restrict these actions, remove the pull and transfer permissions on the inactive queue.

- **Push-routing method:** From the dropdown list, select the method you want to use. There are three options available:
 - **None:** The activities don't get assigned to any agent. The activities stay in the queue, and the agents have to pull them from the queues.



Important: If you select the push-routing method for the queue as none, make sure that you give the users, pull and transfer permissions on the queue. If you don't give proper permissions on the queues, no user will be able to work on the activities coming in the queue.

- **Load balanced:** Activities are routed from the queue, to available agents having least number of activities in their inbox.
- **Round-robin:** Activities are routed from the queue, to all available agents alternatively, irrespective of the number of activities in their inbox.



Important: If you select the push-routing method as round-robin or load balanced, then you need to select the users to whom the activities are to be assigned. You can select the users in the Relationship tab.

- **Media Routing Domain:** Select from the list of MRDs dynamically retrieved from Unified CCE.
 - **Maximum Task Limit:** This is the maximum number of activities or tasks that can reside within the Unified CCE MRD at any point, and is also referred to as the Unified CCE queue depth or the Maximum calls per queue.
 - **Routing Priority:** The value chosen here determines the order in which activities are to be retrieved from the queue, and for which new new activity requests are to be sent for routing through Unified CCE.
 - **Queue Priority:** The queue priority can be High, Medium, or Low. The EAAS instance (see *Cisco Unified Web and E-Mail Interaction Manager System Console User's Guide* for more information) retrieves activities from the highest priority queues first, and the lowest priority queues last for routing through Unified CCE.
 - **Script Selector:** The script selector is an identifier to the Unified CCE script associated with the given MRD that needs to be executed in Unified CCE for an activity originating from the given queue. A single MRD may have multiple script selectors, but a queue can map to one script selector only.
4. Next, go to the Media tab, and in the Email section provide the following details.





Properties: Customer support queue		
General	Media	Bookmarks
Chat - Quick links	Name	Value
Chat - Quick responses	Header	Customer support header
Email	Greeting	Customer support greeting
	Signature	Customer support signature
	Footer	Customer support footer
	Include original message	Yes

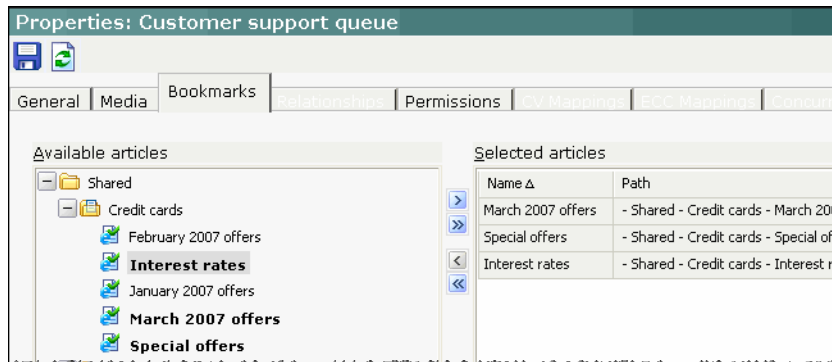
Configure the media settings

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, for quick access.



Important: You can create headers, footers, greetings, and signatures articles in the Knowledge Base Console. Only one greeting, header, footer, and signature can be associated with a queue.

- **Greeting:** To select a greeting, click the **Assistance**  button. In the Select Article window that appears, select a greeting article.
 - **Header:** To select a header, click the **Assistance**  button. In the Select Article window that appears, select a header article.
 - **Footer:** To select a footer, click the **Assistance**  button. In the Select Article window that appears, select a footer article.
 - **Signature:** To select a signature, click the **Assistance**  button. In the Select Article window that appears, select a signature article.
 - **Include original message:** Includes original message received from the customer, in replies sent for activities in the queue. By default this option is disabled. Select **Yes** to enable it.
5. Next, go to the Bookmarks tab and bookmark the articles to be associated with the queue. The bookmarked articles are available to the agents in the Reply pane for quick access. Select the articles from the available articles list, and add them to the selected articles list.



Configure bookmarks for the queue

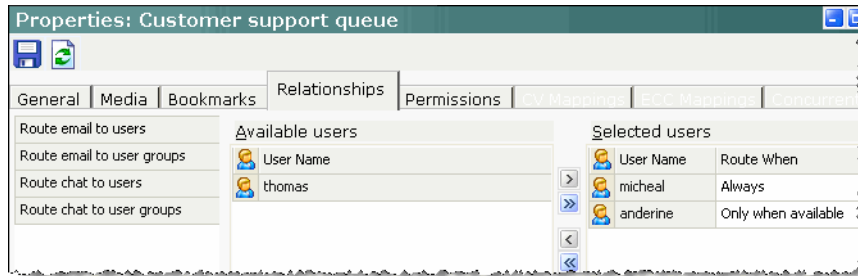
6. Next, go to the Relationships tab and assign the users and user groups to the queue to whom the activities are to be assigned from the queue.



Important: The Relationships tab is enabled only if in the General tab you have selected the Push-routing method as Round-robin or Load balanced.

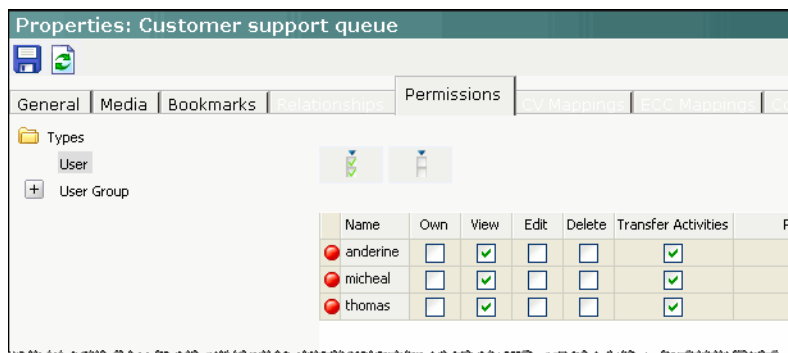
- In the Route to users section select the users from the available users list. In the selected users list, specify when the activities are to be routed to the users. The options available are:
 - **Always:** Activities are routed to agents irrespective of, if they are available to handle activities or not.
 - **Only when Available:** Activities are routed to agents only when they are available for handling activities.

- In the Route to user groups section select the user groups from the available user groups list. In the selected user groups list, specify when the activities are to be routed to the users in the user group. The options available are:
 - **Always:** Activities are routed to agents irrespective of, if they are available to handle activities or not.
 - **Only when Available:** Activities are routed to agents only when they are available for handling activities.



Select users for routing activities

7. Go to the Permissions tab and assign permissions to the users and user groups, on the queue. Permissions can be given only to the users and user groups who have the appropriate actions assigned to them. If the actions are not assigned to the users, then the permissions options against their name appear disabled. You can assign the following permissions to users and user groups.
 - **Own:** To own the queue. The user who has own permission on the queue can give permissions to other users, on the queue.
 - **View:** To view the queue.
 - **Edit:** To edit the queue.
 - **Delete:** To delete the queue.
 - **Transfer activities:** To transfer activities to the queue.
 - **Pull activities:** To pull activities from the queue.



Assign permissions to users

8. Go to the Concurrent Task Limit tab. For every integrated queue, set the maximum number of tasks that a given agent who belongs to a skill group associated with the Unified CCE MRD can handle. This value is also known as the maximum concurrent task limit for an agent.

User Name	Concurrent Task Limit
him	15
icmuser	15
icmuser1	50
icmuser2	50
icmuser3	50
icmuser4	1
icmuser5	1

Set maximum concurrent task limit for agents

- Go to the Call Variables tab. For every integrated queue, select call variables (Call Variable 1 through 10). Call variables can then be used in Unified CCE scripts to facilitate and influence routing. Call variables have a maximum length of 40 characters.

Call variables map to specific attributes of an activity (e.g., activity_id, activity_subject) that are defined by customers through a SQL script and selected here to be passed along with requests that originate for an activity in this queue.

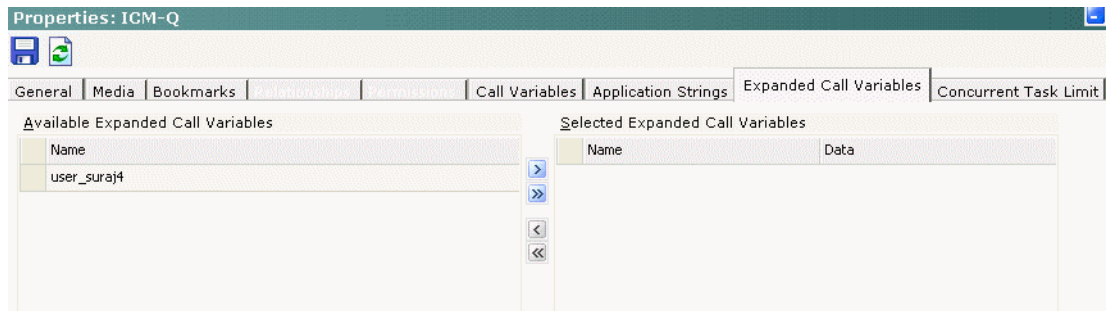
Available Call Variables	Selected Call Variables
Call Variable Data	Call Variable Data
	Callvariable1 activity_id

Select call variables

- Go to the Expanded Call Variables tab. For every integrated queue, select Expanded Caller Context (ECC) variables. ECC variables can then be used in Unified CCE scripts to facilitate and influence routing. ECC variables have a maximum length of 256 characters. Both Scalar and Array ECC variables are supported.

ECC variables point to unique name-value pairs that are defined by customers through a SQL script that creates ECC variables in the Unified WIM and Unified EIM database. For more information about the tables and columns to populate as part of the SQL script for defining ECC variables, see *Cisco Unified Web and E-Mail Interaction Manager Schema Guide* (for Unified CCE).

ECC variables must be created in Unified CCE before they are used to map object attributes in Unified WIM and Unified EIM, as the mapping must be registered in Unified CCE before the variables are sent with requests to Unified CCE.



Select expanded call variables

11. Click the **Save**  button.


Deleting queues

You can only delete a queue on which you have delete permissions. Also make sure that the queue you are deleting does not have any open activities stored in it.



Important: You cannot delete queues that have open activities or the queues that are being used in workflows.

To delete a queue:

1. In the Tree pane, browse to **Administration > Department > *Your Department* > Workflow > Queues**.
2. In the List pane, select the queue you want to delete. You can select multiple queues.
3. In the List pane toolbar, click the **Delete**  button.



Important: The delete button is enabled only if you have delete permissions on the queue.

Mapping queues to media routing domains

Create queues from Cisco Interaction Manager and map them to media routing domains in Unified CCE.



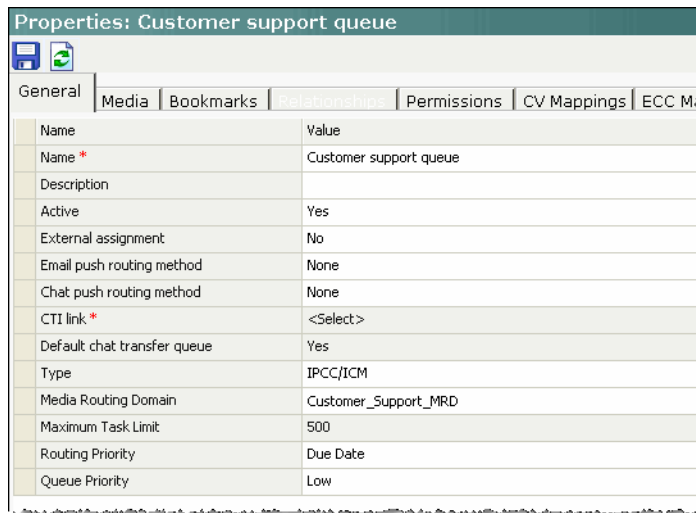
Important: If a standalone queue that has pending activities is mapped to a Unified CCE MRD and Script Selector, the activities that are in the queue will be retrieved by the EAAS instance, prior to sending new requests for these to Unified CCE.

To map queues to media routing domains


1. In the Tree pane, browse to **Department > *Your Department* > Workflow > Queues**.
2. In the List pane, select a queue.
3. In the Properties pane, on the General tab, provide the following details.
 - **Type:** Select the type of queue. The options available are **IPCC/ICM** and **Cisco Interaction Manager**.

You need to set the following options only for IPCC/ICM type of queues.

- **Media Routing Domain:** Select the MRD to which the queue should map. One MRD can be mapped to only one queue.
- **Maximum Task Limit:** The value in this field is set automatically and it can't be changed. Whatever value is set for the selected MRD it shows automatically in this field.
- **Routing Priority:** Select the routing priority for the activities waiting in the queue. 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 the queue, the priority of the queue is checked. If more than one queue has the same priority, than the queues are considered in alphabetic order. The options available are:
 - **Low**
 - **Medium**
 - **High**



Map the queue to a media routing domain


4. On the Call Variables (CV) Mappings tab, select any 10 call variables to be mapped to this queue.
5. On the Expanded Call Context (ECC) Mappings tab, select any two expanded call context variables to be mapped to this queue.
6. On the Concurrent Task Limit tab, specify the concurrent task limit for each user.
7. Click the **Save**  button.

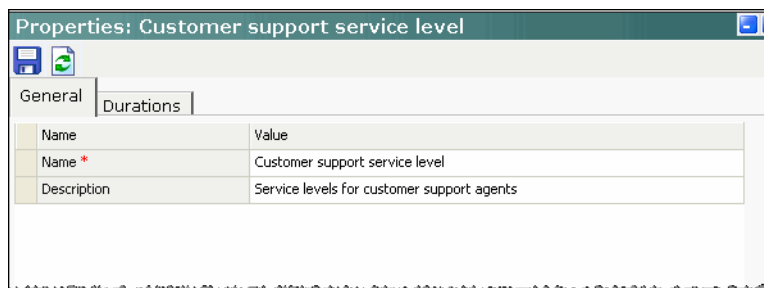
Managing service levels

Some customers may be more valuable to your company than others. In order to provide good service, agents in your department need to know about the importance of every customer. For this, you can assign service levels to

your customers and use them in your workflows. Service levels enable you to define the importance of a particular customer, thereby directing the agents to respond immediately to customers with high importance. The system provides you with five objects, on which you can create service levels.

To create service levels

1. In the Tree pane, browse to **Administration > Department > *Your Department* > Workflow > Service Levels**.
2. In the List pane toolbar, click the **New**  button
3. In the Properties pane, on the General tab, provide the following details.
 - **Name:** Type the name of the service level.
 - **Description:** Provide a brief description.

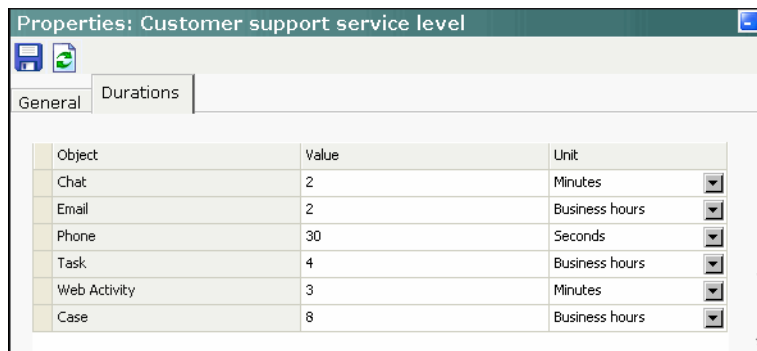


The screenshot shows the 'Properties: Customer support service level' window with the 'General' tab selected. It contains a table with the following data:

Name	Value
Name *	Customer support service level
Description	Service levels for customer support agents

Set the general properties

4. Next, go to the Durations tab and specify the service level for various type of work units. They are:
 - **Case:** Specify the service level in minutes or business hours.
 - **Chat:** Specify the service level in seconds, minutes, or business hours.
 - **Email:** Specify the service level in minutes or business hours.
 - **Phone:** Specify the service level in seconds, minutes, or business hours.
 - **Task:** Specify the service level in minutes or business hours.
 - **Web Activity:** Specify the service level in minutes or business hours.



The screenshot shows the 'Properties: Customer support service level' window with the 'Durations' tab selected. It contains a table with the following data:

Object	Value	Unit
Chat	2	Minutes
Email	2	Business hours
Phone	30	Seconds
Task	4	Business hours
Web Activity	3	Minutes
Case	8	Business hours

Set the service level for various type of work units

5. Click the **Save**  button.

Managing workflows



Important: The Basic edition of Unified WIM and Unified EIM does not include the ability to add custom rules, create outbound and general workflows, or manage tasks with workflows.

Workflow designer

The graphical workflow designer provides you with a canvas and a palette of nodes to create your workflows.

Start node



The start node is the starting point of workflows. If you create a new inbound workflow, this node helps you specify the email alias for activities to enter the system.

The system provides a default start node configuration for:

- ▶ Alarm workflows
- ▶ General workflows
- ▶ Outbound workflows

Queue node



This node helps you in adding an existing queue to your workflow. With the help of this node, you can direct activities to one of available queues within your department.

User node



This node helps you in adding an existing user to your workflow. With the help of this node, you can direct activities to any one of the users in your department. You can also direct activities to foreign users in your department.

Completion node



Through this node, you can specify a rule, where the status of an activity is changed to “Complete” after it is processed by the workflow.

Workflow node



You can add another workflow to further process an activity in the workflow that you create. This node helps you to do that.

Auto-acknowledgement node



Auto-acknowledgement is an interesting feature. Through this node, you can automatically send acknowledgements for incoming activities. Auto acknowledgements are replies that the system automatically picks, according to rules specified in the workflow, and sends them to customers. You have to create such auto-acknowledgements in the form of knowledge base articles in the Knowledge Base Console.

Auto-reply node



Through this node, you can automatically send auto-replies for incoming activities. Auto-replies are replies that the system automatically picks, according to rules specified in the workflow, and sends them to customers. Here, the system can pick up the knowledge base articles that you specify in the workflow, and send them as replies to activities. You have to create such auto-acknowledgements in the form of knowledge base articles in the Knowledge Base Console.

Auto-suggest node



This node allows you to automatically suggest responses to the agents for the emails coming in the system. Agents can view the suggested responses and pick the best response for sending to the customer.

Branch node



The Branch node is an important tool for you to use while creating workflows. Its functionality is based on true-false conditions. It is like a decision point where you decide what kind of work is to be routed to which resource. Using rules you can automatically route the work to the resources capable of handling it.

Classification node



This node allows you to add an existing classification to activities. You can create classifications in the Classification folder in Administration Console. While configuring this node, you do not need to specify the false condition.

Modify object node



This node also works on true-false conditions. Through this node, you can modify objects such as activities, cases, emails etc.

Create object node



This node also works on true-false conditions. This node aids you in creating new objects, such as macros or links, if the conditions that you specify are met.

Service level node



This node helps you add service levels to activities.

Custom rule node



You can create your own sets of rules according to your requirements. You can add these rules through this node in your workflow.

Objects available for setting conditions in alarm node

Case

Attributes	Values	Operators
Age days	—	==, !=, <, >, <=, >=
Age hours	—	==, !=, <, >, <=, >=
Age minutes	—	==, !=, <, >, <=, >=
Case status	Closed, Open, Ready for closure	==, !=
Count	—	==, !=, <, >, <=, >=
Count over due	—	==, !=, <, >, <=, >=
Days after due	—	==, !=, <, >, <=, >=
Days till due	—	==, !=, <, >, <=, >=
Hours after due	—	==, !=, <, >, <=, >=
Hours till due	—	==, !=, <, >, <=, >=

Attributes	Values	Operators
Minutes after due	—	==, !=, <, >, <=, >=
Minutes till due	—	==, !=, <, >, <=, >=
Percentage	—	==, !=, <, >, <=, >=
Percentage over due	—	==, !=, <, >, <=, >=

Activity

Attributes	Values	Operators
Activity status	Assigned, Assignment, Completed, New, Pre-completion, preworkflow, workflow	==, !=
Activity substatus	Assigned - New, Assigned - Pending, Assigned - Wrap up, Assigned - Error, Assigned - In progress, Assigned - Ready for internal assignment, Assigned - Ready for external assignment, Assignment - Error, Assignment - In progress, Assignment - Scheduled,	==, !=
Age days	—	==, !=, <, >, <=, >=
Age hours	—	==, !=, <, >, <=, >=
Age minutes	—	==, !=, <, >, <=, >=
Count	—	==, !=, <, >, <=, >=
Count over due	—	==, !=, <, >, <=, >=
Days after due	—	==, !=, <, >, <=, >=
Days till due	—	==, !=, <, >, <=, >=
Hours after due	—	==, !=, <, >, <=, >=
Hours till due	—	==, !=, <, >, <=, >=
Last action reason	Assigned by system, Forwarded, Redirected, Replied, Save draft, Assigned for supervision, Rejected, Waiting for approval, Save draft to supervise, Sent	==, !=
Minutes after due	—	==, !=, <, >, <=, >=
Minutes till due	—	==, !=, <, >, <=, >=
Percentage	—	==, !=, <, >, <=, >=
Percentage over due	—	==, !=, <, >, <=, >=

Objects available for setting conditions in rule nodes

Activity

Attributes	Values	Operators
Activity mode	Inbound, Outbound, None	==, !=
Activity priority	1 to 7	==, !=, <, >, <=, >=
Activity subtype	Email - General, Email - Webform, Email - secure, Email - Permanently undeliverable, Email - Temporary undeliverable, Email - Reply, Email - Forward, Email - Compose, Email - Auto reply, Email - Auto acknowledgement, Email - Group reply, Email - Redirect, Email - Undispatch, Email - Supervisory accept, Email - Supervisory reject, Email - Supervisory reattempt, Email - Transcript, Phone - General, Task - General	==, !=
Activity type	Email, Task,	==, !=
Case type	None, Existing, New	==, !=
Contact person ID	—	==, !=, <, >, <=, >=
Contact point ID	—	==, !=, <, >, <=, >=
Customer ID	—	==, !=, <, >, <=, >=
Description	—	Contains, Not contains, Matches, Not matches, Begins with, Not begins with
Language	English	==, !=
Last action reason	Assigned by system, Forwarded, Redirected, Replied, Save draft, Assigned for supervision, Rejected, Waiting for approval, Save draft to supervise, Sent	==, !=
Subject	—	Contains, Not contains, Matches, Not matches, Begins with, Not begins with

Case

Attributes	Values	Operators
Description	—	Contains, Not contains, Matches, Not matches, Begins with, Not begins with
Severity	Urgent, High, Medium, Low	==, !=
Solution description	—	Contains, Not contains, Matches, Not matches, Begins with, Not begins with
Subject	—	Contains, Not contains, Matches, Not matches, Begins with, Not begins with

Customer - common

Attributes	Values	Operators
Entitlements	—	Contains, Not contains, Matches, Not matches, Begins with, Not begins with
How referred	Website, Customer, Partner, Reseller	==, !=
Industry	Finance, Health care, Telecom	==, !=
Level	Gold, Platinum, Premium, Silver, Standard	==, !=
Marketing Segment	—	Contains, Not contains, Matches, Not matches, Begins with, Not begins with
Preferred agent	User names	==, !=

Customer - group

Attributes	Values	Operators
Customer name	—	Contains, Not contains, Matches, Not matches, Begins with, Not begins with
Group type	Association, Club, Household, Joint account, Membership, other	==, !=
No. of members	—	==, !=, <, >, <=, >=
Region	Asia Pacific, Europe, United States	==, !=

Customer - individual

Attributes	Values	Operators
Date of birth	Date	==, !=, <, >, <=, >=
Employment status	Part time, Full time, Temporary, Contract, Intern, Unemployed	==, !=
First name	—	Contains, Not contains, Matches, Not matches, Begins with, Not begins with
Gender	Male, Female	==, !=
Job title	—	Contains, Not contains, Matches, Not matches, Begins with, Not begins with
Last name	—	Contains, Not contains, Matches, Not matches, Begins with, Not begins with
Marital status	Married, Single, Separated, Divorced, Widowed	==, !=
Middle name	—	Contains, Not contains, Matches, Not matches, Begins with, Not begins with

Customer - organization

Attributes	Values	Operators
Customer name	—	Contains, Not contains, Matches, Not matches, Begins with, Not begins with
No. of employees	—	==, !=, <, >, <=, >=
Region	Asia Pacific, Europe, United States	==, !=
Sector type	—	Contains, Not contains, Matches, Not matches, Begins with, Not begins with

Email

Attributes	Values	Operators
Bcc email address	—	Contains, Not contains, Matches, Not matches, Begins with, Not begins with
cc email address	—	Contains, Not contains, Matches, Not matches, Begins with, Not begins with
Content	—	Contains, Not contains, Matches, Not matches, Begins with, Not begins with
Content type	.htm, .txt	==, !=
From email address	—	Contains, Not contains, Matches, Not matches, Begins with, Not begins with
Header	—	Contains, Not contains, Matches, Not matches, Begins with, Not begins with
Subject	—	Contains, Not contains, Matches, Not matches, Begins with, Not begins with
To email address	—	Contains, Not contains, Matches, Not matches, Begins with, Not begins with
To or cc email address	—	Contains, Not contains, Matches, Not matches, Begins with, Not begins with

Task

Attributes	Values	Operators
Content	—	Contains, Not contains, Matches, Not matches, Begins with, Not begins with

Queue

Available only in outbound workflows and alarm workflows.

Attributes	Values	Operators
Queue name	—	Contains, Not contains, Matches, Not matches, Begins with, Not begins with

User

Available only in outbound workflows and general workflows.

Attributes	Values	Operators
First name	—	Contains, Not contains, Matches, Not matches, Begins with, Not begins with
Last name	—	Contains, Not contains, Matches, Not matches, Begins with, Not begins with
Manager	Manager names	==, !=
User name	—	Contains, Not contains, Matches, Not matches, Begins with, Not begins with

Customizing workflow designer

From the Tools Console you can customize the following workflow designer screens:

- ▶ **Admin workflow alarm activity:** You can't remove the attributes selected by default and their order can't be changed. You can add new attributes.
- ▶ **Admin workflow alarm case:** You can't remove the attributes selected by default and their order can't be changed. You can add new attributes.
- ▶ **Admin workflow condition:** You can remove any attribute of any object. You can also add new objects and attributes.
- ▶ **Admin workflow create object:** You can remove any attribute of any object. You can also add new objects and attributes.
- ▶ **Admin workflow modify object:** You can remove any attribute of any object. You can also add new objects and attributes.

To customize the screens:

6. In the Tree pane, browse to **Tools > Departments > *Your department* > Business Objects > Attribute Settings > Screen.**
7. In the List pane select the screen you want to customize.
The Properties pane refreshes to show the properties of the selected screen.
8. In the Properties pane, go to the **Attributes** tab and make the required changes. For different screens you can make different changes. For details see the following list.

- **Admin workflow alarm activity:** You can't remove the attributes selected by default and their order can't be changed. You can add new attributes.
- **Admin workflow alarm case:** You can't remove the attributes selected by default and their order can't be changed. You can add new attributes.
- **Admin workflow condition:** You can remove any attribute of any object. You can also add new objects and attributes.

Workflow types

There are four kinds of workflows that you can create. They are:

- ▶ Alarm Workflows
- ▶ General Workflows
- ▶ Inbound Workflows
- ▶ Outbound Workflows.

Alarm workflows

You can configure alarm workflows to process activities in the system and perform actions such as notifications, escalations, reassignments, etc. depending on the specified conditions. Alarm workflows are typically used to provide customer service based on customer value.

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

General workflows

This workflow applies on activities that are in the Ready for General Workflow status, mainly on tasks and other generic (custom) activity types.

General workflows are meant to be used mainly during customization of a company's business process primarily when dealing with activities of types that do not fall into any of the normal customer interaction channels

Inbound workflows

Inbound workflows define the rules for all activities coming into the system. Inbound workflows are responsible for the transfer of activities between departments.

There are three default inbound workflows within the system. You can also create your own workflows. The three default workflows are as follow:

1. **Start workflow - Standard:** The activities that enter the system are processed according to the start workflow. This workflow does not look after the transfer of activities from one department to another.

The system provides a blank start workflow-standard. You can fill in the values and lay the workflow according to your requirements. If you do not want to use the start workflow-standard at all, you can create a customized inbound workflow that suits your requirements.

2. **Start workflow - Transfer:** This workflow is responsible for transferring activities from one department to another. You cannot transfer activities to other departments unless the transfer workflow is active.

The system provides a blank transfer workflow. You can fill in the values and lay the workflow according to your requirements.

3. **Finish workflow:** This is the last workflow applied on an activity. You can configure it to be always the last workflow to apply to an activity. It also applies to an activity if no user-defined inbound workflow is applied to it.

The system provides a blank finish workflow. You can fill in the values and lay the workflow according to your requirements. If you do not want to use the finish workflow at all, you can create a customized inbound workflow that suits your requirements.



Important: To apply any workflow to activities, you have to make its status active.

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. The primary reason for outbound workflows is to have a control on the quality of outbound email responses.

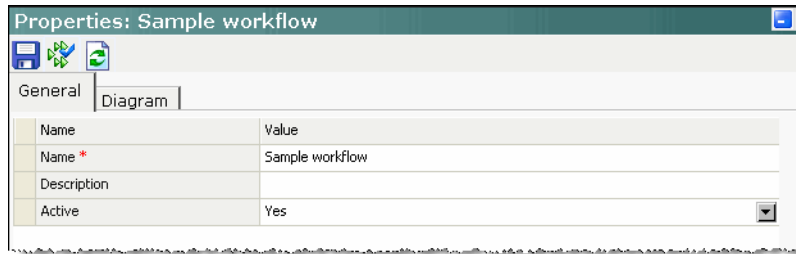
Outbound workflows are applied on outbound email responses generated by a configured set of users or user groups. An aggregation of objects of same type in the system. e.g. a group of users. Only objects of same type can belong to a group. Group has an attribute that indicates the type of objects it aggregates. The purpose of groups is to ease the management of entities in the system. 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 email forwarded from the system. This workflow is applied on users, user groups, and queues.

Creating workflows

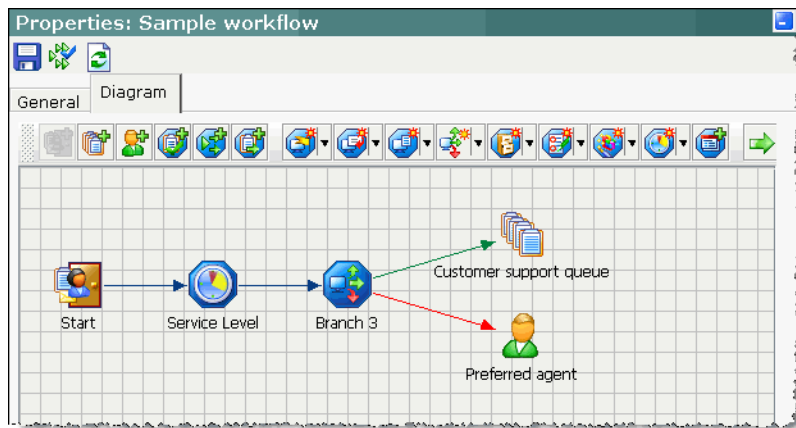
To create a workflow:

1. In the Tree pane, browse to **Administration > Department > *Your Department* > Workflow > Workflows > *Workflow Type***.
2. In the List pane toolbar, click the **New**  button.
3. In the Properties pane, on the General tab, provide the following details.
 - **Name:** Type the name of the service level.
 - **Description:** Provide a brief description.
 - **Active:** From the dropdown list, select **Yes** to make the workflow active.





Set the general properties

- Next, go to the Diagrams tab, and configure the workflow using the various nodes available in the Workflow Editor toolbar.



Layout the workflow

- Click the **Save**  button.
- Click the **Validate**  button to validate the workflow.

10

Data links

- ▶ [About data links](#)
- ▶ [Access links](#)
- ▶ [Usage links](#)
- ▶ [Usage link groups](#)
- ▶ [Creating DSN entries for JDBC links](#)

Data links provide you with easy ways to integrate with external sources of information within the enterprise or on the web. Data links to various information sources from the Cisco Unified Web and E-Mail Interaction Manager interface are easy to set up. The accessed data is then available through XML APIs for automated processing. Data links can also be used to extract and present Cisco Unified Web and E-Mail Interaction Manager information in external applications.

About data links

Data links provide a medium for you to access information from various other sources. They are a sophisticated integration tool for accessing data from external sources such as local or remote database, HTTP or HTTPS services, etcetera.

Creating data links involves:

- ▶ Creating the data access links which fetch data from external sources.
- ▶ Using the data access links, you create data usage links, which are made available to users to extract the data from the external sources.
- ▶ Using the usage links you can create the usage link groups.

Where are links used?

Once the links are created, they can be used in the following places.

Workflows

- ▶ Usage Links can be used in workflows to utilize external data to make routing decisions.
- ▶ Data retrieved from Usage Links can be used in “IF Conditions” in Workflows and to update object attributes.

Knowledge base

- ▶ Usage links can be embedded in Knowledge Base articles.
- ▶ External information is retrieved and placed in the article body when the article is used by workflow for auto-replies or by agents when they compose response.
- ▶ Similar to Knowledge Base articles, Usage Links also support Macros or keyboard short cuts.

Agent Console

- ▶ Links section in the Agent Console Information pane, lists the Usage links that can be executed by an agent.
- ▶ Multiple Usage Links can be grouped into one display using Group Usage Links.
- ▶ Agents can add output of Usage Links to the reply by clicking Add to Reply, or by typing the macro name for the Usage Link in the Reply pane.

Access links

About access links



Important: Only JDBC data links are available in the basic edition of Unified WIM and Unified EIM.

Working on access links involves:

- ▶ **Creating access links:** Creating access links is the first step in creating data adapters. Access links extract the data from the source.
- ▶ **Testing access links:** After creating the access links you can test them to ensure that they are working properly.

Data Access links are of five types:

- ▶ **HTML link:** The HTML Link provides the mechanism to fetch data in HTML format from a web site using HTTP or HTTPS protocol. To configure an HTML link you need to have the URL from where you want to get information, login name, password, special character sets which may exist in the URL, Regular Expression to parse the HTML content and the request type of the URL. The main purpose of HTML links is to access websites and extract data or display information that can be used as part of the agent communications and daily processes. Fetched data can be converted to structured form using regular expression matching or can be returned as it is.
- ▶ **XML link:** The XML Link provides the mechanism to fetch data in XML format from a file or web applications using the HTTP or HTTPS protocol. To configure XML link you need to have the URL from where you want to get information, login name, password, special character sets that may exist in the URL, and the request type of the URL (Post/Get).
- ▶ **Java link:** The Java Link provides a mechanism for custom data extraction and integration logic. This is a composite bridge with very broad functionality of data extraction implemented possibly via an EJB or Java object. The Java link provides the capability to execute any Java code, which can be used for fetching data or taking some action.

Using Java links, Cisco applications can integrate with any third party applications. The only condition being that the third party has to have some Java classes so as to use this link.

- ▶ **JDBC link:** The JDBC Link connects to database to extract or to update data. This database can also be a third party database. To connect to a database it requires general information like DataSourceId, Max data to be extracted from this database and SQL Query to work on that data which can be either simple extraction or can be an upgrade of the current data.
- ▶ **Web Service link:** The Web Service link provides the mechanism to connect to a Web Service. To get information on connecting to the web service, a Web Service Description Language (WSDL) document is required, which acts as an interface to impart information about operations and the respective input/output parameters to execute those operations.

Creating access links

Creating HTML links

The HTML Link provides the mechanism to fetch data in HTML format from a web site, using HTTP or HTTPS protocol. To configure an HTML link you need to have the URL from where you want to get information, login name, password, special character sets which may exist in the URL, Regular Expression to parse the HTML content, and the request type of the URL. The main purpose of HTML links is to access websites and extract data or display information that can be used as part of the agent communications and daily processes. Fetched data can be converted to structured form using regular expression matching or can be returned as it is.

To create an HTML Link:

1. In the Tree pane, select Administration > Department > < department name > > Integration > Adapters > Data > Access > Links.
 2. In the List Pane toolbar, click the New button.
 3. In the Properties pane, click the General tab.
 4. In the General tab:
 - Name: Type the name of the HTML link.
 - Description: Type a brief description.
 - Type: Select the type as HTML link.
- Important:** Once you save the HTML link, its type can't be changed.
- Subtype: Select the subtype. The two options available are:
 - Post
 - Get
 5. In the Properties pane, click the Input tab.
 6. In the Input tab:
 - URL: Type the URL from where you want to extract data.
 - URL authentication: Provide the user name and password if required.
 - Post data: Specify where you want the extracted data to be kept This option is available only if you choose the subtype as Post.
 7. In the Properties pane, click the Output tab.
 8. In the Output tab:
 - Phrase: Type a regular expression phrase to parse the data required. Regular Expressions (jakarta-oro) are used for parsing the HTML data, to extract the information. For detailed document on the same, click the link: <http://jakarta.apache.org/oro/api/index.html>
 - Internal Field name: Type the display name for the field in which the data is to be extracted.
 - Decoding: Data extracted can be decoded for security purposes.
 9. Click the Save button.

Testing HTML links

After creating the data access links you can test them to see if they are created properly. It is highly recommended that you test your access links after creating them.

To test the data access link:

1. In the Tree pane, select Administration > Department > < department name > > Integration > Adapters > Data > Access > Links.
2. In the List pane select the HTML link you want to test.
3. In the Properties pane toolbar, click the Test data access link button.
4. Test Data Access Link window appears, where you enter the values for the input parameters of the link.

Important: The Test Data Access Link window appears only if any input parameter needs to be provided.

The Result pane is enabled and here you can view the results. If there is anything wrong with the access link an error message is shown.

Examples of HTML link

Example one

In this example, we will see how to extract the stock rates information from a website, using HTML data access link.

1. In the Tree pane, select Administration > Department > < department name > > Integration > Adapters > Data > Access > Links.
2. In the List Pane toolbar, click the New button.
3. In the Properties pane, click the General tab.
4. In the General tab:
 - Name: Type the name as *Stock rates*.
 - Type: Select the type as HTML link.
 - Subtype: Select the subtype as Get.
5. In the Properties pane, click the Input tab.
6. In the Input tab:
 - URL: Type the URL `http://finance.yahoo.com/q?s=<%ticker_sym%>`
The `<%variable%>` sets up the dynamic variable that needs a value every time this access link is executed.
7. Click the Save button.
8. Click the Test data access link button. Test Data Access Link window appears.
9. In the Test Data Access Link window, type the ticker_sym as *IBM*.
10. In the Result tab you will see the yahoo finance website showing the stock rate of IBM.



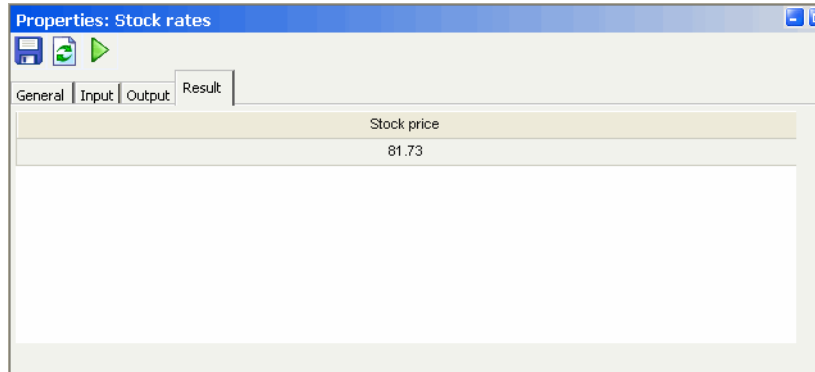
Example two

Now we will see how to extract data from the HTML of the page by creating a regular expression phrase to parse the data required. In order to create a proper regular expression-matching phrase you have to look at the HTML of the page from where you are trying to extract the data. In the Result tab, right click on the Yahoo Finance page, and from the menu select View Source. In the HTML, search for the price of the stock, and look for the one, which seems simpler to create a regular expression matching. In this example we will use `</small><big>81.72</big>`.

So we create a regular expression `</small><big>(\S*)</big>`, which will extract the price of the stock and assign it to an Internal Field Name, and display in a tabulated format.

We will continue with *example one*.

1. Select the *Stock rates* data access link that you created in Example one.
2. In the Properties pane click the Output tab.
3. In the Output tab:
 - Phrase: Type the phrase `</small><big>(\S*)</big>`.
 - Internal Field Name: Type the name as *Stock price*.
4. Click the Save button.
5. Click the Test data access link button. Test Data Access Link window appears.
6. In the Test Data Access Link window, type the ticker_sym as *IBM*.
7. In the Result tab you will see the stock price extracted from the website.



Example Three

In this example we will see how to extract multiple data from the HTML.

We will continue with *example one*.

1. Select the *Stock rates* data access link that you created in *Example one*.
2. In the Properties pane click the Output tab.
3. In the Output tab:
 - Phrase: Type the phrase:


```
Last Trade:</td><td class="yfnctabledat1"><big><b>(d*Sd*). *Trade Time:</td><td class="yfnctabledat1">(d*Sd*S*). *s. *Volume:</td><td class="yfnctabledat1">(d*S*d*S*d).
```
 - Internal Field Name: Type the names in the order:
 - Stock price
 - Trade time
 - Volume
4. Click the Save button.
5. Click the Test data access link button. Test Data Access Link window appears.
6. In the Test Data Access Link window, type the ticker_sym as *IBM*.

In the Result tab you will see the stock price, trade time, and volume, extracted from the website.



Creating XML links

An XML link is a URL that returns an XML document. The URL can either be in the form of a get or a post, and the URL can include parameterized values. Information contained in the returned XML document is parsed using XPath expressions.

To create an XML Link:

1. In the Tree pane, select Administration > Department > < department name > > Integration > Adapters > Data > Access > Links.
 2. In the List Pane toolbar, click the New button.
 3. In the Properties pane, click the General tab.
 4. In the General tab:
 - Name: Type the name of the XML link.
 - Description: Type a brief description.
 - Type: Select the type as XML link.
- Important:** Once you save the XML link, its type can't be changed.
- Subtype: Select the subtype. The two options available are:
 - Post
 - Get
 5. In the Properties pane, click the Input tab.
 6. In the Input tab:
 - URL: Type the URL from where you want to extract data.
 - URL authentication: Provide the user name and password if required.
 - Post data: Specify where you want the extracted data to be kept. This option is available only if you choose the subtype as Post.
 7. In the Properties pane, click the Output tab.
 8. In the Output tab:
 - Type: Select the type from the dropdown list. There are two options available:
 - Extraction
 - Filtering
 - XPATH: Type the XPATH for the query. For more information on XPath Expressions, please visit the website: <http://www.w3.org/TR/xpath>
 - Internal Field Name: Type the display name for the field in which the data is to be extracted. This field is disabled for type Filtering.
 - Field Order: Specify the order in which you want the results to appear.
 - Decoding: The data extracted can be decoded for security purposes.
 9. Click the Save button.

Testing XML links

After creating the data access links you can test them to see if they are created properly. It is highly recommended that you test your access links after creating them.

To test the XML link:

1. In the Tree pane, select Administration > Department > < department name > > Integration > Adapters > Data > Access > Links.
2. In the List pane select the XML link you want to test.
3. In the Properties pane toolbar, click the Test data access link button.
4. Test Data Access Link window appears, where you enter the values for the input parameters of the link.

Important: The Test Data Access Link window appears only if any input parameter needs to be provided.

The Result pane is enabled and here you can view the results. If there is anything wrong with the access link an error message is shown.

Example of XML link

In this example, we will see how to create an XML data access link.

1. In the Tree pane, select Administration > Department > < department name > > Integration > Adapters > Data > Access > Links.
2. In the List Pane toolbar, click the New button.
3. In the Properties pane, click the General tab.
4. In the General tab:
 - Name: Type the name as *XML example*.
 - Type: Select the type as XML link.
 - Subtype: Select the subtype as Get.
5. In the Properties pane, click the Input tab.
6. In the Input tab:
 - URL: Type the URL *http://server_name/Cisco/address_book.xml*

The Xml file has the following data:

```
<address_book>
<person first_name="Joseph" last_name="Siegel" nationality="American">
<contact_details email="jsiegel@siegel.xyz" phone="(123)456-7890">
</contact_details>
</person>
<person first_name="David" last_name="North" nationality="British">
<contact_details email="dnorth@north.xyz" phone="(234)567-8901">
</contact_details>
</person>
<person first_name="Jennifer" last_name="Stone" nationality="Swedish">
```

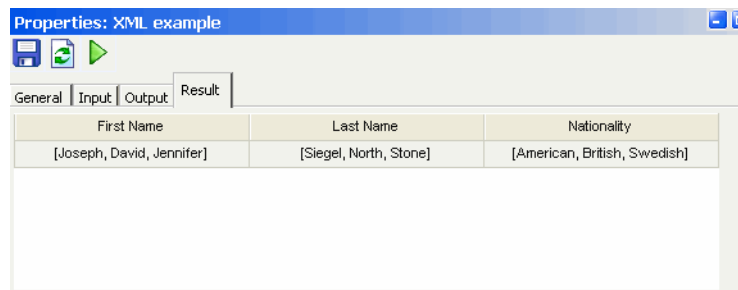
```

<contact_details email="jstone@stone.xyz" phone="(345)678-9012">
</contact_details>
</person>
</address_book>

```

7. Click the Output tab.
8. In the Output tab:
 - Select the type as Extraction. Type the XPATH as //person/@first_name and Internal field name as, First name and specify the order in which it should appear.
 - Select the type as Extraction. Type the XPATH as //person/@last_name and Internal field name as, Last name and specify the order in which it should appear.
 - Select the type as Extraction. Type the XPATH as //person/@nationality and Internal field name as, Nationality and specify the order in which it should appear.
9. Click the Save button.
10. Click the Test data access link button.

In the Result tab you will see the result extracted for the XML file.



Creating Java links

The Java Link provides a mechanism for custom data extraction and integration logic. This is a composite bridge with very broad functionality of data extraction implemented possibly via an EJB or Java object. The Java link provides the capability to execute any Java code, which can be used for fetching data or taking some action.

Using Java links, Cisco applications can integrate with any third party applications. The only condition being that the third party has to have some Java classes so as to use this link.

To create a Java link:

1. In the Tree pane, select Administration > Department > < department name > > Integration > Adapters > Data > Access > Links.
2. In the List Pane toolbar, click the New button.
3. In the Properties pane, click the General tab.
4. In the General tab.
 - Name: Type the name for the Java link.
 - Description: Type a brief description.
 - Type: Select the type as Java link.

Important: Once you save the java link, its type can't be changed.

- Subtype: This option is disabled for java link type.
- 5. In the Properties pane, click the Input tab.
- 6. In the Input tab:
 - Class name: Type the class name.
 - Input parameter: Specify the input parameters.
- 7. In the Properties pane, click the Output tab.
- 8. In the Output tab:
 - External Field Name: Type the external field name.
 - Internal Field Name: Type the display name for the field in which the data is to be extracted.
 - Decoding:
- 9. Click the Save button.

Testing java links

Java links can't be tested.

Example of java link

1. In the Tree pane, select Administration > Department > < department name > > Integration > Adapters > Data > Access > Links.
2. In the List Pane toolbar, click the New button.
3. In the Properties pane, click the General tab.
4. In the General tab:
 - Name: Type the name for the Java link.
 - Type: Select the type as Java link.
5. In the Properties pane, click the Input tab.
6. In the Input tab:
 - Class name: Type the class name as *EncodeURL*.
 - Input parameter: Specify the input parameters as *String*.
7. In the Properties pane, click the Output tab.
8. In the Output tab:
 - External Field Name: Type the external field name.
 - Internal Field Name: Type the display name for the field in which the data is to be extracted.
 - Decoding:
9. Click the Save button.

Creating JDBC links

This data adapter uses SQL queries or stored procedures to update or extract the data from a database. Query to be executed can be generated at runtime using application specific input fields. The raw data fetched will typically be in a Results Set or can optionally be put in XML format. This type of data adapter can access information residing in any jdbc compliant data store.

To create a JDBC link:

1. In the Tree pane, select Administration > Department > < department name > > Integration > Adapters > Data > Access > Links.
2. In the List Pane toolbar, click the New button.
3. In the Properties pane, click the General tab.
4. In the General tab:
 - Name: Type the name for the JDBC link.
 - Description: Type a brief description.
 - Type: Select JDBC query from the dropdown list.
 - Subtype: Select the subtype. The three options available are:
 - Select
 - Stored procedure
 - Update

Important: Once you save the JDBC link, its type and subtype can't be changed.

5. In the Properties pane click the Input tab.
6. In the Input tab:
 - DSN: The data source name (DSN), provides all the connection information (server name, port number, username, password, driver) to successfully connect to the database. From the dropdown select the DSN. The options available are:
 - customer_db
 - master_db
 - mail_db
 - archive_db
 - archive_app_db
 - knowledge_db

These are the data source names that the installation program creates as part of the deployment. You can add DSN entries to this list. For details, See “Creating DSN entries” on page 161.

- Maximum number of rows: Specify the maximum number of rows the query should extract.

Important: This option is available for select type of JDBC query only.

- Query: Type the JDBC query to be used for retrieving the data.

7. In the Properties pane click the Output tab.

Important: The output tab is disabled for update type of JDBC query.

8. In the Output tab:

- External Field Name: Type the exact names of the columns in the database table.
- Field Type: Specify the Field type. The options available are:
 - String
 - Integer

Important: This option is available only for the stored procedure type of JDBC query.

- Internal Field Name: Type the display name for the field in which the data is to be extracted.
 - Decoding: Data extracted can be decoded for security purposes.
9. Click the Save button.

Testing JDBC links

After creating the data access links you can test them to see if they are created properly. It is highly recommended that you test your access links after creating them.

Important: Only the Select type of JDBC link can be tested. You can't test the Update and Stored procedure types of JDBC links.

To test the JDBC link:

1. In the Tree pane, select Administration > Department > < department name > > Integration > Adapters > Data > Access > Links.
2. In the List pane select the JDBC link you want to test.
3. In the Properties pane toolbar, click the Test data access link button.
4. Test Data Access Link window appears, where you enter the values for the input parameters of the link.

Important: The Test Data Access Link window appears only if any input parameter needs to be provided.

The Result pane is enabled and here you can view the results. If there is anything wrong with the access link an error message is shown.

Example of JDBC link

1. In the Tree pane, select Administration > Department > < department name > > Integration > Adapters > Data > Access > Links.
2. In the List Pane toolbar, click the New button.
3. In the Properties pane, click the General tab.
4. In the General tab:
 - Name: Type the name for the JDBC link.
 - Type: Select the type as JDBC query.
 - Subtype: Select the subtype as Select.
5. In the Properties pane click the Input tab.
6. In the Input tab:
 - DSN: From the dropdown select the data source name as customer_db.
 - Maximum number of rows: Specify the maximum number of rows the query should extract.

- Query: Specify the SQL query to retrieve the data.
*select * from egpl_user where user_name = '<%username%>'*

This query retrieves all columns in the user table, for a specified user.

7. In the Properties pane click the Output tab.
8. In the Output tab: Give the following External Field names and Internal Field Names.
 - user_name, User Name
 - first_name, First Name
 - middle_name, Middle Name
 - last_name, Last Name
 - email_address_primary, Email Address
9. Click the Save button.
10. Click the Test data access link button. Test Data Access Link window appears.
11. In the Test Data Access Link window, type your user name.
12. In the Result tab you will see the detailed user information.

The screenshot shows a window titled 'Properties: JDBC query' with a 'Result' tab selected. The table displays the following data:

Last name	First name	eMail Address	Middle name	User name
Mathew	John	john@egain.com	Smith	john

Creating web service links

The Web Service link provides the mechanism to connect to a Web Service. To get information on connecting to the web service, a Web Service Description Language (WSDL) document is required, which acts as an interface to impart information about operations and the respective input and output parameters to execute those operations.

To create a web service link:

1. In the Tree pane, select Administration > Department > < department name > > Integration > Adapters > Data > Access > Links.
2. In the List Pane toolbar, click the New button.
3. In the Properties pane, click the General tab.
4. In the General tab:
 - Name: Type the name for the web service link.
 - Description: Type a brief description.
 - Type: Select Web service link from the dropdown list.

- Subtype: This option is disabled for Web service link type.
5. In the Properties pane, click the Input tab.
 6. In the Input tab:
 - WSDL document: Type the path for the Web Service Description Language document you want to refer to.
 - Operation Name: Select the Operation you want to perform.
 - Depending on your selection from the Operation Name field, Input Parameters and Input Parameter Type are displayed. Select the parameter you want to pass.
 7. In the Properties pane, click the Output tab.
 8. In the Output tab:
 - The External Field Name and External Field Type are displayed based on the operation selected from the WSDL document. For each field returned by the link, you can enter the field name and an associated field name to be used within the Cisco solution.
 9. Click the Save button.

Testing web service links

Don't know if this can be tested or not.

Deleting access links

To delete an access link:

1. In the Tree pane, select Administration > Department > < department name > > Integration > Adapters > Data > Access > Links.
 2. In the List pane, select an access link.
 3. In the List pane toolbar, click the Delete button.
 4. A message appears asking to confirm the deletion. Click Yes to delete the usage link group.
- Important:** If the access link is being used in a usage link it will not get deleted. To be able to delete it, first remove it from the usage link.

Usage links

About usage links

After you have created access links, you can define the display format of the fetched data, in Usage. There are two types of links in Usage: Usage Links and Usage Link Groups.

One or more Access Links of same or different types can be used in one Usage Link. For example, “Customer Value” can be accessed through a Web Services Link, “Number of Open Orders” can be accessed through JDBC

Link and “Number of Purchases over last five years” can be accessed through XML Link. Information collected from these three links of different types, then can be displayed through one Usage link. Customer Identification will be passed as a run-time parameter to all three Access Links.

Creating usage links

To create a usage link:

1. In the Tree pane, select Administration > Department > < department name > > Integration > Adapters > Data > Usage > Links.
2. In the List Pane toolbar, click the New button.
3. In the Properties pane, click the General tab.
4. In the General tab:
 - Name: Type the name of the usage link.
 - Description: Type a brief description.
5. In the Properties pane, click the Data Access Links tab.
6. In the Data Access Links tab:
 - From the available data access links add the links in the selected data access links list.
7. In the Properties pane, click the Input tab.
8. In the Input tab: It shows all the input parameters of all of the selected data access links from the previous tab. Here you can pre-determine values for some or all available parameters. You can create different usage links from the same access link, and just change the value of the input parameters here, to get different answers.

Important: [need more info here](#)

9. In the Properties pane, click the Output tab.
10. In the Output tab:
 - Data Access Link: Select the data access link from the dropdown.
 - Field Name: Select Field name to configure.
 - Display Name: Type the display name for the field in which the data is to be extracted.
 - Field Width: Specify the width of the field.
 - Hyperlink:
11. In the Properties pane, click the Permissions tab.
12. In the Permissions tab: You can assign the following permissions to the users and user groups:
 - Own
 - View
 - Edit
 - Delete
 - Execute: The users with execute permissions are the only ones who can use the usage links. You must give this permission to all the users who should have access to the usage links.

13. Click the Save button.

Configuring the display of results

After you have created the usage link, you can configure how the results should appear in the Agent Console.

To configure the display of results:

1. In the Tree pane, select Administration > Department > < department name > > Integration > Adapters > Data > Usage > Links.
2. In the List Pane toolbar, select a usage link.
3. In the Properties pane, click the Formatting tab.
4. In the Formatting tab:
 - Header: Specify a header for the results.
 - Footer: Specify a footer for the results.
 - Include column headers in response: With this option you can specify that when the agents adds the results of a usage link to the Reply pane, the header and footer of the result will be added to the response or not. By default it is disabled. Select Yes to enable it.
 - Display in new window: If you want that when the agent executes a usage link, the results should be displayed in a popup window, select Yes.
 - Title: Specify the title of the popup window.
 - New window - Left
 - New window - Top
 - New window - Width
 - New window - Height

Testing usage links

After creating the usage links you can test them to see if they are created properly. It is highly recommended that you test your links after creating them.

To test the usage link:

1. In the Tree pane, select Administration > Department > < department name > > Integration > Adapters > Data > Usage > Links.
2. In the List pane select the usage link you want to test.
3. In the Properties pane toolbar, click the Test data usage link button.
4. Test Data Usage Link window appears, where you enter the values for the input parameters of the link.
Important: The Test Data Usage Link window appears only if any input parameter needs to be provided.

The Result pane is enabled and here you can view the results.

Creating macros

To create a macro:

1. In the Tree pane, select Administration > Department > < department name > > Integration > Adapters > Data > Usage > Links.
2. In the List Pane , select a usage link.
3. In the Properties pane, click the General tab.
4. In the General tab:
 - Macro name: Type a name for the macro.

Important: Macro name cannot contain spaces, or any of the following characters: < ` , . ? : ; & " ' !

- Macro default value:
- Macro exception article: If any error occurs while expanding the macro, the exception article is used. It ensures that if for any reason the macro doesn't expand, the customer is shown some alternate text, and not an error message.

To select a macro exception article:

- In the Macro exception article field, click the Assistance button. Select Article window appears.
- In the Select Article window, select the exception article.
- Click the OK button.

Assigning permissions on usage links

After creating the data usage links, the next most important step is to give permissions to the users to access the data usage links. The user who creates the data usage link doesn't get the execute and delete permissions automatically. You have to assign these permissions to yourself to be able to execute or delete the data usage link. If you need to add the usage links as macros to other usage links, you need to have the execute permissions.

To assign permissions:

1. In the Tree pane, select Administration > Department > < department name > > Integration > Adapters > Data > Usage > Links.
2. In the List pane select the usage link on which you want to give permissions.
3. In the Properties pane, click the Permissions tab.
4. In the Permissions tab: You can assign the following permissions to the users and user groups:
 - Own
 - View
 - Edit
 - Delete
 - Execute: The users with execute permissions are the only ones who can use the usage links. You must give this permission to all the users who should have access to the usage links.
5. Click the Save button.

Deleting usage links

To delete a usage link:

1. In the Tree pane, select Administration > Department > < department name > > Integration > Adapters > Data > Usage > Links.
2. In the List pane, select a usage link.
3. In the List pane toolbar, click the Delete button.

Important: The Delete button is enabled only if you have delete permissions on the usage link group.

4. A message appears asking to confirm the deletion. Click Yes to delete the usage link group.

Important: If the usage link is being used in a usage link group it will not get deleted. To be able to delete it, first remove it from the usage link group.

Usage link groups

Creating usage link groups

Link Groups are a combination of one or many Usage Links.

To create a link group:

1. In the Tree pane, select Administration > Department > < department name > > Integration > Adapters > Data > Usage > Link Groups.
2. In the List pane toolbar, click the New button.
3. In the Properties pane, click the General tab.
4. In the General tab:
 - Name: Type the name of the usage link group.
 - Description: Type a brief description.
5. In the Properties pane, click Data Usage Links tab.
6. In the Data Usage Links tab:
 - From the available data usage links add the links in the selected data usage links list.
7. In the Properties pane, click the Permissions tab.
8. In the Permissions tab: You can assign the following permissions to the users and user groups:
 - Own
 - View
 - Edit
 - Delete
 - Execute: The users with execute permissions are the only ones who can use the usage link groups. You must give this permission to all the users who should have access to the usage link groups.
9. Click Save in the toolbar.

Configuring the display of results

After you have created the usage link group, you can configure how the results should appear in the Agent Console.

To configure the display of results:

1. In the Tree pane, select Administration > Department > < department name > > Integration > Adapters > Data > Usage > Link Groups.
2. In the List Pane toolbar, select a usage link group.
3. In the Properties pane, click the Formatting tab.
4. In the Formatting tab:
 - Number of rows:
 - Number of columns:
 - Orientation:
 - Header: Specify a header for the results.
 - Footer: Specify a footer for the results.
 - Include column headers in response: With this option you can specify that when the agents adds the results of a usage link to the Reply pane, the header and footer of the result will be added to the response or not. By default it is disabled. Select Yes to enable it.
 - Display in new window: If you want that when the agent executes a usage link, the results should be displayed in a popup window, select Yes.
 - Title: Specify the title of the popup window.
 - New window - Left
 - New window - Top
 - New window - Width
 - New window - Height

Assigning permissions on usage link groups

After creating the data usage link groups, the next most important step is to give permissions to the users to access the data usage link group. The user who creates the data usage link group doesn't get the execute and delete permissions automatically. You have to assign these permissions to yourself to be able to execute or delete the data usage link group.

To assign permissions:

1. In the Tree pane, select Administration > Department > < department name > > Integration > Adapters > Data > Usage > Link Groups.
2. In the List pane select the usage link group on which you want to give permissions.
3. In the Properties pane, click the Permissions tab.
4. In the Permissions tab: You can assign the following permissions to the users and user groups:
 - Own
 - View

- Edit
 - Delete
 - Execute: The users with execute permissions are the only ones who can use the usage link groups. You must give this permission to all the users who should have access to the usage link groups.
5. Click the Save button.

Deleting usage link groups

To be able to delete the usage link group, you need to have delete permissions on it. The user who creates the usage link doesn't get this permission automatically. You have to give delete permissions to yourself, to be able to delete the usage link group. For information on how to give permissions see section on, See "Assigning permissions on usage link groups" on page 160..

To delete a usage link group:

1. In the Tree pane, select Administration > Department > < department name > > Integration > Adapters > Data > Usage > Link Groups.
2. In the List pane, select a usage link group.
3. In the List pane toolbar, click the Delete button.

Important: The Delete button is enabled only if you have delete permissions on the usage link group.

4. A message appears asking to confirm the deletion. Click Yes to delete the usage link group.

Creating DSN entries for JDBC links

This section tells about how to add a new DSN entry for use in JDBC links. The DSN can't be created from the UI, you need to modify the application connection pooling configuration file.

- ▶ **Name of the file to be modified:** egpl_ds_connpool_map.xml
- ▶ **Location of the file:** <installroot>\config\dataaccess directory

In this XML file, we need to make changes to two types of objects. They are:

- ▶ Connection pool list: The connection pool list for every partition in the system contains the UI names of the connection pool data sources. It looks like this:

```
<partition name="default" id="0">
  <app_conn_pool>
    <ds name="customer_db">
      <connpool name="Master_MSSQL_Pool"/>
    </ds>
    <ds name="master_db">
      <connpool name="Master_MSSQL_Pool"/>
    </ds>
    <ds name="knowledge_db">
```

```

    <connpool name="Knowledge_MSSQL_Pool"/>
</ds>
<ds name="mail_db">
    <connpool name="Platform_MSSQL_Pool"/>
</ds>
<application name="knowledge">
    <connpool name="Platform_ORACLE_Pool" type="PRIMARY"/>
    <connpool name="Platform_MSSQL_Pool" type="PRIMARY"/>
    <connpool name="Platform_ORACLE_Pool" type="LOGGING"/>
</application>
<application name="live">
    <connpool name="Platform_MSSQL_Pool"/>
</application>
<custom_conn_pool>
</custom_conn_pool>
</app_conn_pool>
</partition>

```

- Connection pool data sources list: It is a list of connection pool data sources that are used by all different partitions. In this connection pool list, you have connection pool objects, and they look like this:

```

<connpool name="Platform_MSSQL_Pool" active="y">
<Type>basic</Type>
<CapacityIncrement>2</CapacityIncrement>
<DriverName>com.microsoft.jdbc.sqlserver.SQLServerDriver</DriverName>
<InitialCapacity>1</InitialCapacity>
<MaxCapacity>30</MaxCapacity>
<User>USERNAME</User>
<Password>ENCRYPTED_PASSWORD</Password>
<Url>jdbc:microsoft:sqlserver://SERVERNAME:1433</Url>
<Targets></Targets>
<Vendor>MSSQL</Vendor>
<DriverVendor></DriverVendor>
<TableName>egpl_uap_info</TableName>
</connpool>

```

Where:

- Name: The name of the connection pool. It needs to match the name in the partition object.
- Type: For data adapters it needs to be basic.
- CapacityIncrement: When it needs more connections to the database, the number to increment by.
- DriverName: The jdbc driver to use.

- InitialCapacity: The number of connections to the database.
- MaxCapacity: The maximum number of connection to the database.
- User: Valid username which can access the database.
- Password: Encrypted password for the user. For steps on how to encrypt the password see the section on, Encrpting the password.
- Url: The URL to the database sever.
- Targets:
- Vendor:
- DriverVendor:
- TableName: Name of a table which exists in the database being connected to. This is used by the system to validate that it is connecting to the valid database, by making sure that this table exists in the database.

Encrypting password

To encrypt the password:

1. Run the following java command:

```
java -classpath
<installroot>\lib\int\egpl_application_server.jar;<installroot>\lib\int\platfor
m\egpl_tools.jar;<installroot>\lib\ext\platform\gnu-regexp-
1.0.8.jar;<installroot>\lib\ext\platform\xerces.jar;<installroot>\lib\ext\platf
orm\jaxp.jar com.egain.tools.platform.password.EncryptPasswdsForConnPool
installroot password
```

Where:

- *installroot* is the Cisco Unified Web and E-Mail Interaction Manager root installation directory
- *password* is the password we want to encrypt

When you run this command you will get the encrypted password that you need to add in the connection pool object. Add this password to the connection pool object.

To create a new DSN entry:

- ▶ Location of the connection pooling configuration file: \<installroot>\config\dataaccess directory
 - ▶ Name of the file: egpl_ds_connpool_map.xml
1. Open this file in a text editor.
 2. In the partitions list, locate the partition in which you want to add the DSN entry. Insert the following lines, just above the line, *</partition>*, in the object for the partition. If *<custom_conn_pool>* section already exists, then just add the *<ds>* object into it.

```
<custom_conn_pool>
    <ds name="myDBConnection">
        <connpool name="myDBConnection_Pool"/>
    </ds>
</custom_conn_pool>
```

3. Search for `</conn_pool_list>` and insert the connection pool data sources for `<myDBConnection_Pool>`.
4. Save the file.
5. Stop and restart the Cisco Unified Web and E-Mail Interaction Manager services. The newly added DSN now can be used for creating the JDBC data access links.

11 Archive

- ▶ [About archives](#)
- ▶ [Managing archive jobs](#)
- ▶ [Managing job runs](#)
- ▶ [Purging archived data](#)

About archives

Data is stored in the active database. With time, the size of the data usually increases to a point where it begins to affect the performance of the system. 20 GB should be considered the maximum limit for the size of the active database, after which we recommend archiving to avoid performance issues. Hence, it is important that data that is not in use anymore is stored somewhere other than the active database.

Archiving is a systematic process which moves the data from the active database to the archive database. Periodic archiving helps to keep the size of the active database within prescribed levels, thereby improving the performance of the system.

What can you archive?

You can archive cases and activities. However, attachments of activities are not archived.

Once archived, a case or activity cannot be “unarchived.” If a customer replies to an archived case, a new case gets created.

About archive jobs

An archive job is a process that runs automatically at a scheduled time and archives data based on the specified criteria (such as, the age of the data and the queue to which it belongs). You can create multiple archive jobs in a department, but two jobs can't have overlapping schedules. A job runs only when it is in active state.

When a job is run, the archiving of the data happens in batches. Each archive job is broken into batches of 5000 cases. For example, if a job is scheduled to archive 22000 cases, it processes them in batches of 5000 cases. To archive 22000 cases, it will run four batches of 5000 cases and the fifth batch of 2000 cases. Breaking of a job into batches ensures that if an error occurs while archiving the data, or if the archive process is stopped and restarted, only a small piece of data has to be processed again.

Every batch completes archiving in two steps:

- ▶ First, it inserts the data from the active database to the archive database.
- ▶ After successfully inserting the data in the archive database, it deletes the data from the active database.



Important: For archive jobs to work, the Scheduler and Archive services should be running.

Who can manage archive jobs?

Only users with appropriate permissions can manage archive jobs. The actions required for managing archive jobs are:

- ▶ View archive jobs: For viewing the archive folder and the archive jobs in the folder
- ▶ Edit archive jobs: For editing jobs
- ▶ Create archive jobs: For creating jobs
- ▶ Delete archive jobs: For deleting jobs

- ▶ Purge archive jobs: For deleting archived data

Partition administrators have all these actions assigned to them by default, but these actions have to be given explicitly to department administrators. Since archiving is a very sensitive process, discretion should be used while assigning archiving actions to users.

Archive criteria

While creating archive jobs, you can specify two criteria.

1. The relative age of the activities and cases to be archived: You need to specify the relative age of the cases and activities that should be picked up for archive. The age can be given in days, weeks, or months.

For example: You set the job to archive the closed cases and completed activities that were closed or completed one month before the date on which the archive job runs. It means the job will archive:

- All completed activities that belong to the cases that were closed one month before the job run.
- All completed activities that do not have any case association and were completed one month before the job run.
- All cases that were closed one month before the job run.



Important: Since activities belonging to a case can be present in multiple departments, archiving checks if the first activity of a case belongs to the department in which the job is run. If it is, only then that case and its associated activities are archived.

2. The queues to which the completed activities and closed cases belong: When you specify a queue, the job archives only the cases and activities that belong to that queue.

Important things to note are:

- If the last activity of a closed case belongs to the queue specified in the filter, then the case with all its constituent activities is archived.
- If there are activities that belongs to the queue specified in the filter, with no case association, then those activities are archived.
- If the last activity in a closed case does not belong to any queue, the case and all its constituent activities don't get archived.

Planning the schedule of archive jobs

When an archive job runs, it puts additional load on the system. To ensure that the productivity of the agents is not effected by the archive jobs running on the system, you can plan the schedule of the archive jobs in a way that they don't run at peak business hours.

While scheduling the jobs you can specify two things. They are:

- ▶ The days of the week when the archive jobs will run.
- ▶ The time of the day when the jobs will run. In this you can select between two options. They are:
 - Set the job to run throughout the day

For example, if your call center is closed on Saturday and Sunday, you can schedule the archive jobs to run throughout the day, on Saturday and Sunday.

- Set the job to run between specified start and end time.

For example, if your call centre runs 24/7, and has less load from 10 pm to 6 am on Monday and Tuesday, then you can schedule the archive jobs to run from 10 pm to 6 am, on Monday and Tuesday.

Two active jobs in a department cannot be scheduled for the same or overlapping time. For example you cannot have a job scheduled from 4 pm to 6pm, and another job scheduled from 5 pm to 7 pm on the same day.

However you can have one job scheduled from 4 pm to 6pm, and another from 6pm to 8pm on the same day.

About job runs

A job run is a record that indicates the time at which the archive job started and ended, the status of the job, whether it is running, completed, or failed, and the number of cases and activities handled by the archive job. Every time the system runs an archive job, a new job run is created. For example if an archive job is scheduled to run from Monday to Friday between 6 am and 9 am, and the job runs successfully every day, then there will be six job runs for the archive job. You can view all the job runs for an archive job in the History tab in the Properties pane.

A job run can have one of the following status:

- ▶ Running: The archive job is running and is in progress.
- ▶ Completed: The job run was completed when:
 - The time allotted for the job to run is over
- Or
 - There is no more data left for archiving
- ▶ Failed: The job encountered some problem while archiving and couldn't run successfully.



Important: If a job fails, no other scheduled job can run in the system, till the failure of the job is resolved and the failed job is restarted manually.

The reason of failure can be one of the following.

- Network connection is down
 - Application database or archive database is down
 - Archive database storage is full
 - Internal error in the archive process
- ▶ Stopped: The job has been stopped manually while it was running.

About purging

As the archive jobs run on the system, they keep moving the data from the active to the archive database, and the data size on the archive database increases. At sometime the need will arise to delete the archived data. Purge is a process which helps you to systematically delete the data from the archive database. Once purged, the information is lost permanently and can't be recovered. The data can be purged job run wise and you can purge

only those job runs that have completed successfully. You can't purge a job run that is in a running state or has failed because of some error. Purge also deletes the attachments associated with the activities being purged.



Important: Once you start purge it cannot be stopped, and the purged data is lost and cannot be recovered.

When a job run is purged, it can have one of the following status:

- ▶ Purge started: The job run has been queued for purge
- ▶ Purge completed: Purge completes successfully
- ▶ Purge failed: Purge fails because of some errors

Managing archive jobs

Creating archive jobs

An archive job is a process that runs automatically at a scheduled time, and archives data based on the specified criteria (such as, the age of the data and the queue to which it belongs). You can create multiple archive jobs in a department, but two jobs can't have overlapping schedules. A job runs only when it is in active state.

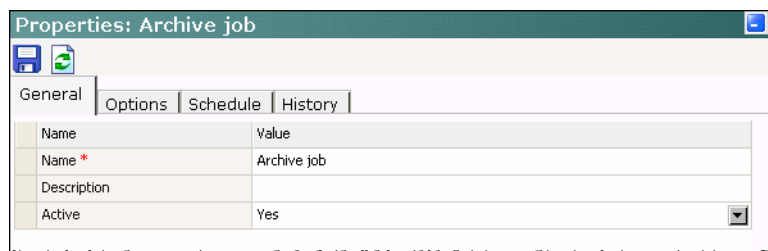
After you create a job, it runs automatically on the scheduled date and time. You cannot start the job manually. However when a job starts running you can stop and restart it.

To create an archive job

1. In the Tree pane, browse to **Administration > Departments > Your Department > Archive Jobs**.
2. In the List pane toolbar, click the **New**  button.

The Properties pane refreshes to show the attributes of the new job.

3. In the Properties pane, on the General tab, provide the following details.
 - **Name:** Type the name of the archive job. This is required information.
 - **Description:** Type a brief description.
 - **Active:** By default the status of the job is not active. Select **Yes** to make it active. A job can run only when it is in active state.

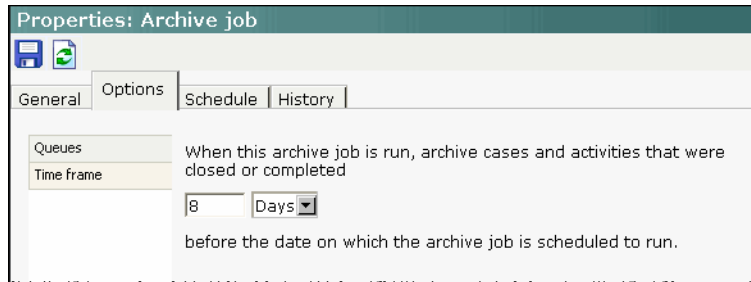


Name	Value
Name *	Archive job
Description	
Active	Yes

Set the general properties

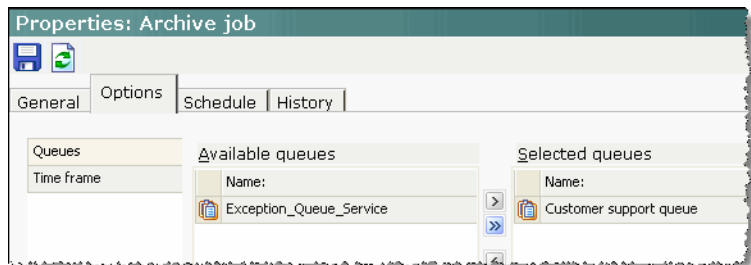
4. Next, go to the Options tab. Here you set the criteria for the archive job.

- In the Timeframe section, specify that when this archive job is run, archive the closed cases and completed activities that were closed or completed n days before the date on which the archive job runs. Select the relative time frame in days, weeks or months. For example, if you want to archive the cases and activities which were completed two months before the date on which the archive job runs, then select two months.



Set the time frame option

- In the Queues section, select the queues on which the archive job is to run.



Select the queues

5. Next, go to the Schedule tab. Here you specify the days and time when the archive job is to run.
 - Select the days on which the archive job should run.
 - Specify the time of the day when the archive job should run. There are two options available.
 - **Archive throughout the day:** For example, you can schedule the archive job to run on Saturday and Sunday throughout the day.
 - **Archive only between the specified start and end time:** For example, you can schedule the archive job to run on Saturday and Sunday from 8pm to 11 pm.
 - Select the duration for which you want to schedule the archive job.

Properties: Archive job

General | Options | **Schedule** | History

Select the days on which the archive job should run.

Available days	Selected days *
Name:	Name:
Monday	Friday
Thursday	Saturday
Wednesday	Sunday

On the days that the archive job runs:

Archive through the day.

Only archive between:

Start Time: * 09:00:00 PM

End Time: * 08:59:59 PM

Set a duration for this schedule.

Start date: * 3/19/2007

End date: * 3/31/2007

Configure the schedule for the archive job

6. Click the **Save**  button.



Important: The History tab is enabled only after you save the job.


On the History tab you can view the list of job runs. If you are creating a new job, the list will be empty. You can also stop, restart, and purge the job runs from the History tab.

Deleting archive jobs



Important: A job cannot be deleted if it has job runs that haven't been purged. Before you can delete the archive job, you have to purge the data archived by that job.

To delete an archive job

1. In the Tree pane, browse to **Administration > Departments > Your Department > Archive Jobs**.
2. In the List pane, select the archive job you want to delete.
3. In the List pane toolbar, click the **Delete**  button.
4. A message appears asking to confirm the deletion. Click **Yes** to delete the archive job.

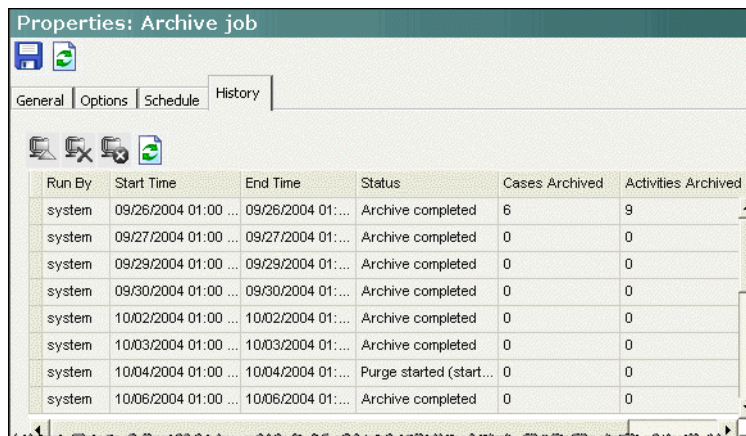
Managing job runs

Viewing job runs

Every time the archive job runs a record is created indicating the start and end time of the job, if the job is in running state, if it completed successfully or it failed, and the number of cases and activities archived by that job. Each record is called a Job run, and all the job runs for an archive job can be viewed from the History tab.

To view a job run

1. In the Tree pane, browse to **Administration > Departments > *Your Department* > Archive Jobs**.
2. In the List pane, select an archive job.
3. In the Properties pane, go to History tab. Here you see a list of job runs. You can see the following details about the job run.
 - **Start time:** Time when the job run started.
 - **End time:** Time when the job run ended.
 - **Status:** Status can be running, completed, or failed.
 - **Cases archived:** Number of cases archived.
 - **Activities archived:** Number of activities archived.



Run By	Start Time	End Time	Status	Cases Archived	Activities Archived
system	09/26/2004 01:00 ...	09/26/2004 01:...	Archive completed	6	9
system	09/27/2004 01:00 ...	09/27/2004 01:...	Archive completed	0	0
system	09/29/2004 01:00 ...	09/29/2004 01:...	Archive completed	0	0
system	09/30/2004 01:00 ...	09/30/2004 01:...	Archive completed	0	0
system	10/02/2004 01:00 ...	10/02/2004 01:...	Archive completed	0	0
system	10/03/2004 01:00 ...	10/03/2004 01:...	Archive completed	0	0
system	10/04/2004 01:00 ...	10/04/2004 01:...	Purge started (start...	0	0
system	10/06/2004 01:00 ...	10/06/2004 01:...	Archive completed	0	0

View the history of the archive job


Stopping job runs



Important: A job can be stopped only if it is in a running state.

To stop a job

1. In the Tree pane, browse to **Administration > Departments > *Your Department* > Archive Jobs**.
2. In the List pane, select an archive job.

3. In the Properties pane, go to the History tab and select the job run you want to stop.
4. Click the **Stop**  button.

Restarting job runs


You will need to restart a job if:

- ▶ You stopped the job manually: If you are restarting the job within its scheduled time, it will run till the end of the schedule. If the restart happens outside the scheduled time, then it will only complete the batch it was archiving at the time you stopped the job.
- ▶ The job failed while running: In case of a failure, if the job is restarted within the scheduled time, it runs till the end of the schedule. And, if the restart happens outside the schedule time, it will only complete the batch it was archiving at the time of failure.



Important: If a job run fails and its schedule expires, such a job run can also be restarted. On restart it will only complete the batch it was archiving at the time of failure.

To restart a job

1. In the Tree pane, browse to **Administration > Departments > *Your Department* > Archive Jobs**.
2. In the List pane, select an archive job.
3. In the Properties pane, go to the History tab and select the job run you want to restart.
4. Click the **Restart**  button.

Purging archived data

As the archive jobs run on the system, they keep moving the data from the active to the archive database, and the data size on the archive database increases. At sometime the need will arise to delete the archived data. Purge is a process which helps you to systematically delete the data from the archive database. Once purged, the information is lost permanently and can't be recovered. The data can be purged job run wise, and you can purge only those job runs that have completed successfully. You can't purge a job run that is in a running state or has failed because of some error. Purge also deletes the attachments associated with the activities being purged.



Important: Once you set up a job run for purge it cannot be stopped, and the purged data is lost and cannot be recovered.


When a job run is purged, it can have one of the following status.

- Purge started: The job run has been queued for purge
- Purge completed: Purge has completed successfully
- Purge failed: Purge failed because of some errors



Important: Purge of the archived data does not start immediately. The data is purged at the purge interval defined at the time of installing the application and it cannot be changed.

To purge archived data

1. In the Tree pane, browse to **Administration > Departments > *Your Department* > Archive Jobs**.
2. In the List pane, select an archive job.
3. In the Properties pane, go to the History tab and select the job run you want to purge.
4. Click the **Purge**  button.

The status of the job run changes to Purge started, and it shows the name of the user who started the purge and the time at which the purge started.