



# **User Guide for Cisco Unified Contact Center Domain Manager**

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# Preface

## Purpose

This document explains how to use the Unified Contact Center Domain Manager (Unified CCDM) to manage settings, services, security and your system using the Web Portal tool.

## Audience

This document is intended for all users of Unified CCDM, from high-level administrators to team supervisors. The reader needs no technical understanding beyond a basic knowledge of how to use computers.

## Organization

The sections of this guide are as follows:

Chapter 1	Getting Started	Provides basic information on the Unified CCDM environment and how to use the context-sensitive online help.
Chapter 2	Settings	Describes how users can change their settings, or the settings of others, such as email address, time-zone, or security privileges.
Chapter 3	Service Manager	Explains how supervisor users can use Unified CCDM for management of agents, teams, and skill groups.
Chapter 4	Information Notices	Explains how to view and edit information notices.
Chapter 5	Resource Manager	Describes the folder structure of Unified CCDM and explains how to set up and maintain agents, contacts, equipment, and other resources using Unified CCDM.

Chapter 6	System Manager Resource Guide	Provides detailed information about each provisionable resource type.
Chapter 7	Security Manager	Explains how to set up security settings for individual users by means of roles and tasks, and how users with the same permissions can be added to groups to simplify management.
Chapter 8	System Administration Tasks	Explains the main Unified CCDM administrative tasks.

## Related Documentation

Documentation for Cisco Unified ICM/Contact Center Enterprise & Hosted, as well as related documentation, is accessible from Cisco.com at:

<http://www.cisco.com/cisco/web/psa/default.html>.

- Related documentation includes the documentation sets for Cisco CTI Object Server (CTIOS), Cisco Agent Desktop (CAD), Cisco Agent Desktop - Browser Edition (CAD-BE), Cisco Unified Contact Center Management Portal, Cisco Unified Customer Voice Portal (CVP), Cisco Unified IP IVR, Cisco Unified Intelligence Center, and Cisco Support Tools.
- For documentation for these Cisco Unified Contact Center products, go to <http://www.cisco.com/cisco/web/psa/default.html>, click **Voice and Unified Communications**, then click **Customer Collaboration**, then click **Cisco Unified Contact Center Products** or **Cisco Unified Voice Self-Service Products**, then click the product/option you are interested in.
- For troubleshooting tips for these Cisco Unified Contact Center products, go to <http://docwiki.cisco.com/wiki/Category:Troubleshooting>, then click the product/option you are interested in.
- Documentation for Cisco Unified Communications Manager is accessible from: <http://www.cisco.com/cisco/web/psa/default.html>.
- Technical Support documentation and tools are accessible from: <http://www.cisco.com/en/US/support/index.html>.
- The Product Alert tool is accessible from (sign in required): <http://www.cisco.com/cgi-bin/Support/FieldNoticeTool/field-notice>.
- For information on the Cisco software support methodology, refer to Software Release and Support Methodology: ICM/IPCC available at (sign in required): [http://www.cisco.com/en/US/partner/products/sw/custcosw/ps1844/prod\\_bulletins\\_list.html](http://www.cisco.com/en/US/partner/products/sw/custcosw/ps1844/prod_bulletins_list.html).

- For a detailed list of language localizations, refer to the *Cisco Unified ICM/Contact Center Product and System Localization Matrix* available at the bottom of the following page:  
[http://www.cisco.com/en/US/products/sw/custcosw/ps1001/prod\\_technical\\_reference\\_list.html](http://www.cisco.com/en/US/products/sw/custcosw/ps1001/prod_technical_reference_list.html).

## Document Conventions

This document uses the following conventions:

Convention	Description
<b>boldface font</b>	<p>Boldface font is used to indicate commands, such as entries, keys, buttons, folders and submenu names. For example:</p> <ul style="list-style-type: none"> <li>• Choose <b>Edit &gt; Find</b></li> <li>• Click <b>Finish</b></li> </ul>
<i>italic font</i>	<p>Italic font is used to indicate the following:</p> <ul style="list-style-type: none"> <li>• To introduce a new term; for example: <i>A skill group</i> is a collection of agents who share similar skills</li> <li>• For emphasis; for example: <i>Do not</i> use the numerical naming convention</li> <li>• A syntax value that the user must replace; for example: IF (<i>condition, true-value, false-value</i>)</li> <li>• A title of a publication; for example: Refer to the <i>Cisco CRS Installation Guide</i></li> </ul>
window font	<p>Window font, such as Courier, is used for the following:</p> <ul style="list-style-type: none"> <li>• Text as it appears in code or that the window displays; for example: <code>&lt;html&gt;&lt;title&gt;Cisco Systems, Inc. &lt;/title&gt;&lt;/html&gt;</code></li> </ul>
< >	<p>Angle brackets are used to indicate the following:</p> <ul style="list-style-type: none"> <li>• For arguments where the context does not allow italic, such as ASCII output</li> <li>• A character string that the user enters but that does not appear on the window, such as a password</li> </ul>

## Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, using the Cisco Bug Search Tool (BST), submitting a service request, and gathering additional information, see What's New in Cisco Product Documentation, at:

<http://www.cisco.com/c/en/us/td/docs/general/whatsnew/whatsnew.html>

Subscribe to What's New in Cisco Product Documentation, which lists all new and revised Cisco technical documentation as an RSS feed and delivers content directly to your desktop using a reader application. The RSS feeds are a free service.

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# 1 Getting Started

## 1.1 The Basics

### 1.1.1 About Unified Contact Center Domain Manager

Unified Contact Center Domain Manager (Unified CCDM) is a browser-based contact center management and reporting application. It provides an unified view of the equipment in your contact center equipment, and allows you to monitor and control it using a single interface.

Unified CCDM allows you to manage the resources in your contact center (for example, agents and skill groups).

Unified CCDM partitions the contact center resources in folders. These folders can be secured using a sophisticated security structure that allows administrators to specify which users can perform which actions within which folders.

Unified CCDM supplies a number of tools that allow users to monitor and modify contact center resources:

- Provisioning tools allow you to manage the contact center resources. If you are a supervisor, you can manage and reskill the agents in your teams. If you have appropriate permissions, you can also partition, view and edit resources, and view the provisioning status.
- Security tools allow you to create and manage users and groups, allocate role-based permissions to users and groups, and apply folder-based permissions to the partitioned contact center resources
- Information notices allow you to display messages to users as required.

### 1.1.2 About Unified CCDM User Types

There are several types of Unified CCDM user:

- A **host administrator** is responsible for the whole platform and has a view across all the equipment, tenants and their resources.



- A **tenant administrator** is responsible for the administration of part of the system, usually the part that belongs to a single tenant.
- A **tenant user** has access only to the resources and tools assigned to them by the tenant administrator. Several classes of tenant user may be created by the tenant administrator using user groups and roles to achieve their business requirements.
- A **basic user** has limited access to the system to manage one or more agent teams.

When Unified CCDM is first installed, the host administrator configures the platform and creates the tenant administrators. Each tenant administrator configures the tenant area and creates the tenant users.

### **Host Administrator**

A host administrator is responsible for:

- Ensuring that the tenant equipment (peripherals) are correctly located in the tenant or shared folders.
- Creating a tenant administrator user for each tenant.
- Assigning any specific roles.

### **Tenant Administrator**

A tenant administrator is responsible for:

- Creating a resource folder structure that maps onto the tenant's business.
- Moving the tenant's resources into the appropriate location in the folder structure.
- Creating security groups to provide role based access to the subfolders.
- Creating tenant users and assigning them to security groups that are relevant to their role.

### **Tenant User**

A tenant user may have access to any or all of the Unified CCDM tools, depending on their role in the contact center and the privileges they have been assigned.

### **Basic User**

A basic user can be created by the tenant administrator or by a tenant user with sufficient privileges. Basic users have a restricted user interface that allows them to perform functions related to day-to-day team management only.

### 1.1.3 About Basic and Advanced Mode

Unified CCDM provides two user modes, basic mode and advanced mode.

- **Basic Mode** provides a simplified interface that allows supervisors to manage their teams. Basic mode users can perform a limited set of agent management functions, access information notices, and modify their own user settings. There is no access to advanced functions like resource or security management.
- **Advanced Mode** provides a more comprehensive interface with additional functionality. Depending on their security permissions, users may be able to:
  - manage resources (agent teams and skill groups)
  - manage security
  - manage folders
  - manage information notices

Advanced mode users can also switch between basic and advanced modes.

## 1.2 Accessing The Web Application

### 1.2.1 Logging In to Unified CCDM

To **login** to the system:

1. In your web browser, enter the address of the server that is running Unified CCDM. This will be in the format:  
`http://<Unified CCDMServer>/portal`  
For example: `http://webserver1/portal`.
2. The security access page containing the login message is displayed.

#### Tip

If you do not see the login message, then your system has probably been set up to use single sign on (see section 1.2.2 "Logging In Using Single Sign-On").

3. Click **Agree**.
4. The Login page displays.
5. Enter your username and password and click **Login**. If the login is successful, your home page displays.

**Notes**

- The password field is case sensitive. If your password is 'password1' and you type 'PASSWORD1' your login will fail. If you have difficulty logging in, make sure that you have not accidentally pressed the Caps Lock key.
- By default, you have a maximum of three attempts to log into the system. If, after three attempts, you have not logged in correctly, your user account may be locked. If this happens, contact the administrator responsible for re-enabling it.
- If the web page is already open when you want to login, click **Logout**. The system displays the normal login window.

**First Time Users**

The first time you access Unified CCDM you may be prompted to accept a security certificate. Accept this security certificate then proceed.

After you have logged in for the first time, you may have to change your password immediately. If prompted to change your password you must do so, otherwise further access will be denied.

**Automatic Logout**

You will be automatically logged out if:

- you close your web browser window
- you have not performed any action on the system for twenty minutes.

**1.2.2 Logging In Using Single Sign-On**

The administrator may have set up Unified CCDM so that it recognizes the Windows users who are able to access it. In this case, as long as you are logged into Windows as yourself, you should not need to log in to Unified CCDM at all.

The first time you access Unified CCDM using single-sign on (SSO) a dialog box may pop up, requesting your Windows username and password. To sign in automatically in future, you need to add the Unified CCDM website to your browser's list of local intranet sites.

Here are the instructions for doing this in some common browsers.

**Internet Explorer**

1. Click **Tools > Internet Options**, and select the **Security** tab.
2. Select the **Local intranet** zone and click the **Sites** button.
3. Click **Advanced** to add the Unified CCDM site to Internet Explorer's list of local intranet sites.

4. Enter the URL of the Unified CCDM website in **Add this website to the zone**, and click **Add**.
5. Click **OK** when prompted until you are returned to the browser window.

### Chrome

Late versions of Chrome will automatically accept the Unified CCDM site if both the server and client machines are on the same domain. Older versions of Chrome will need to be started with a version-specific command line option in order to accept the site. Please ask your network administrator for details.

### Firefox

The URL must be *whitelisted* (explicitly specified as allowed) using a Firefox configuration setting.

To change this setting:

1. In the Firefox address entry box, type **about:config**.
2. If you see a warning that this may be harmful, accept it.
3. Type **negotiate-auth** into the search filter to reduce the number of settings displayed.
4. Double-click **network.negotiate-auth.trusted-uris**.
5. In the **Enter String Value** dialog box, enter the URL of the Unified CCDM website. You can supply more than one URL in a comma-separated list if necessary. Click **OK**.

## 1.2.3 Using Online Help

To get help, click the drop-down arrow beside your user name on the menu bar, then in the **Other** section, click **Help** to view the online help.

The online help has the following sections:

- the **toolbar** which runs across the top. You can use the toolbar to move between topics, print topics, add a topic to your favorite topics and enter search text. Hover over a toolbar icon to see what it does (you may need to click on the toolbar first).
- the **right hand pane** which contains the help text
- the **left hand pane** which contains tabs for search and navigation. Click on a tab to open it in the left hand pane. The tabs are:
  - **Contents** to see and select the available help topics
  - **Search** to search for a help topics that include a specific word or phrase

- **Glossary** to see definitions of terms used by Unified CCDM.

When you first click Help, you will see help about your current task. There are several ways see other help topics.

- You can use the **Contents** or **Search** tabs in the left hand pane to choose another topic.
- You can use the **Back** and **Forward** icons on the toolbar to move backwards and forwards between the topics you have just displayed.
- You can use the **Previous Topic** and **Next Topic** icons on the toolbar to move backwards and forwards between the topics in the contents.

## 1.2.4 The Home Page

### 1.2.4.1 About the Home Page


After you have logged in, your personalized home page displays. Your home page is the launch pad for accessing the rest of the system.

If you are a **basic mode** user, your home page is your team management page.

If you are an **advanced mode** user, you will see your personalized gadgets page. You can also access the classic Unified CCDM tools.

### 1.2.4.2 The Menu Bar

The menu bar across the top of the screen allows you to access further functions, which may vary depending upon the system functions you are using and the permissions granted to you:

- **"Hamburger" icon** (). Click to show the tools menu. The tools you see will depend on whether you are a basic mode user or an advanced mode user, and the permissions you have.
- **Gadgets menu** (advanced mode users only). Click on the drop-down arrow to see the gadgets functions. For more information see section 1.3 "Introduction to Gadgets and Apps".
- **User menu**. This is on the far right of the menu bar, and shows the name of the logged in user. Click on your user name to
  - go to your home page (the team management page for basic mode users, and the gadgets home page for advanced users)
  - access help (see section 1.2.3 "Using Online Help")
  - assess settings (see section 2.1 "User Settings" and section 2.2 "System Settings")
  - access build and license information (see section 2.4 "About Page")
  - log out (see section 1.2.9 "Logging Out").


Other options may have been provided by your system administrator.

If you are an advanced mode user, when you are on the **gadgets** page and have an app open, the app name is shown on the menu bar below your user name.

### 1.2.4.3 Basic Mode Team Management Page

If you are a basic mode user, the following functions are available your team management page:

- **Agent Teams:** allows you to manage your agent teams.
- **Re-Skilling:** allows you to manage your skill groups.

You can click the "hamburger" icon (  ) at any time to access these tools directly, or return to your home page by clicking your user name on the menu bar, and selecting **Home** from the drop-down menu.

### 1.2.4.4 Gadgets

#### Note

Gadgets are only available to advanced mode users.

Gadgets are customizable components that can help you do various tasks, for example, run specific reports, reskill agents or view resources.

Your Unified CCDM home page shows a personalized gadget layout, where you can select and arrange the gadgets of your choice to help you carry out the tasks you do regularly.

#### Example

You may decide to add a resource management gadget showing your agents to the gadget layout on your home page. This gadget could be used to manage your agents.

Unified CCDM includes some standard gadgets located in the **/Shared** folder by default. You may also have custom gadgets that have been created to meet your specific business needs.

An arrangement of gadgets can be saved in a gadget app, which you can run on your home page. You can modify the gadgets in the app, and save it as a new app, or switch to a different app. You can specify a default app which opens automatically when you go to your home page.

#### Example

A reskilling app could contain a resource management gadget showing your agents, a resource management gadget showing your skill groups and a third resource management gadget showing your precision queues.

You could make this app your default app, so that it opens automatically when you go to your home page.

Gadgets and apps are Unified CCDM system resources. They can exist anywhere in the folder tree and can be accessed by anyone with suitable permissions.

For more information about gadgets and how to personalize your gadgets page, see section 1.3 "Introduction to Gadgets and Apps".

#### 1.2.4.5 Tools

If you are an advanced mode user, the following tools may be available, depending on your security permissions:

- **Agent Teams** allows you to view and manage your agent teams.
- **Reskilling** allows you to view and manage skill groups.
- **Information Notices** allows you to create and manage online notices to display information to Unified CCDM users.
- **Activity Monitor** allows you to view the current status of the provisioning queue and provides basic audit reporting for provisioned resources
- **Users** allows you to create and manage Unified CCDM users.
- **Groups** allows you to create and manage Unified CCDM groups.
- **Security** enables you to manage Unified CCDM users and groups and control the folders they are allowed to access.
- **Roles** enables you to create and manage global roles and folder roles.
- **Resource Manager** enables you to provision and manage the entire system.

You can click the "hamburger" icon (  ) at any time at any time to access these tools directly.

#### Note

If you think you should have access to some of these tools but cannot see them, contact your system administrator.

#### 1.2.5 Supported Browsers

The Unified CCDM web application supports the following browsers:

- Internet Explorer version 10 (Windows 7 only).
- Internet Explorer version 11 (Windows 7 or Windows 8.1)
- Mozilla Firefox versions 31 ESR (Windows 7, Windows 8.1, or Mac).

*Note.* The Unified CCDM web application may not work with virtual desktops or application virtualization technologies (for example, Citrix XenDesktop, Citrix XenApp, VMware Horizon View). You may use these technologies but we cannot provide support in the event of a problem, unless the issue can be replicated using one of the supported browser configurations.

## 1.2.6 Disabling Pop-up Blockers

The Unified CCDM web application may be affected by browser or third-party pop-up blocking utilities. If you have trouble viewing the Unified CCDM web application, you may need to disable pop-up blocking, or enable pop-ups for Unified CCDM only.

To disable pop-up blocking (in other words, to enable pop-ups):

- In Internet Explorer, click **Tools > Internet Options**.
- Select the **Privacy** tab.
- At the bottom of the window, make sure the **Block pop-ups** is cleared.
- Click **OK**.

To enable pop-ups for Unified CCDM only, use Unified CCDM normally until a message displays at the top of the browser window telling you a pop-up has been blocked. Click on this and choose to permanently allow pop-ups from Unified CCDM, while remaining protected against pop-ups from other sites.

## 1.2.7 Changing Your Language

For new users, Unified CCDM recognizes supported languages from Internet Explorer.

To change your language preferences in your web browser before you first login follow these steps:

1. Click **Tools > Internet Options**.
2. Click **Languages**.
3. Click **Add** to add a language to your list.
4. Use the **Move Up** and **Move Down** buttons to change a language's priority. For example, if you understand both English and French but prefer to read web pages in French, your list would contain both English and French (fr-FR), with French at the top.

To change the language settings for a user that has already accessed the system, go to the **Settings** section of the interface using the link available in the header. From there the user culture can be selected from the list of supported languages.



## 1.2.8 The Folder Tree

### 1.2.8.1 About the Folder Tree

The Unified CCDM folder tree defines the hierarchical structure of tenants and resources in the system. It is used by many of the tools. The folder tree allows users to move around the hierarchy, to view resources, and modify items, depending on the user permissions applied to the folder in the hierarchy.

Users with suitable privileges can:

- use Resource Manager to modify the structure and contents of the folder tree (see section 7.1.1 "About Resource Manager")
- use Security Permissions Manager to apply security settings to control access to sections of the folder tree (see section 10.1 "Security Permissions").

The following sections describe the general features of the folder tree. Unless otherwise stated, the features are available everywhere the folder tree appears.

#### Note

Most users cannot access everything in the folder tree. A user can only see and modify the folders and items allowed by their user permissions.

Usually, only host administrator users can see and modify the whole folder tree. Tenant administrator users can typically see and modify the items that belong to their tenant. Other users are likely to have greater restrictions.

### 1.2.8.2 Contents and Organization

The top of the folder tree is a root folder. This usually corresponds to the service provider. Beneath the root folder are the customers, their resources and the users who can access them.

The following types of folder can occur below the root folder:

- **Search folders.** These folders contain a number of predefined searches and are only visible to users with appropriate permissions. For more information, see section 7.6.1 "About System Search Folders".
- **System folders.** These folders can only occur immediately below the root folder:
  - **Shared system folder.** This is a single system folder that contains resources that may be shared across all tenants. This folder can only be accessed by the Host Administrator.

- **Unallocated system folder.** This is a single system folder that contains all the resources that are not allocated to a specific tenant or shared across all tenants. By default, this folder can only be accessed by the Host Administrator.
- **Tenant folders.** These folders can only occur immediately below the root folder. Each tenant has one top-level folder. The folder contains all the resources that belong to that tenant. Tenant folders are usually created by the Host Administrator when the system is first configured.
- **Resource folders (or resource filters),** containing resources of a single type. They provide quick access to all resources of that type in a folder. Some resource types can exist at a system level or below a tenant, but some resource types can only be associated with a tenant. For more information see section 7.4.1 "About Resources").
- **Other folders,** which may in turn contain any of the folder types in this section except system folders and tenant folders. These may occur anywhere in the hierarchy.

**Note**

Search folders and resource folders are only shown in the folder tree in Resource Manager. They are not shown in the other tools.

**1.2.8.3 Folder Order**

At each node in the folder tree, folders are ordered as follows:

- Search folders, in alphabetical order (Resource Manager only).
- System folders, in alphabetical order.
- Tenant folders, in alphabetical order.
- Other non-resource folders, in alphabetical order.
- Resource folders, in alphabetical order (Resource Manager only).

**1.2.8.4 Expanding and Collapsing Nodes**

Nodes in the folder tree can be expanded and collapsed.

- To expand a node, click ▸ beside an unexpanded node. The node is expanded and the icon changes to ▾.
- To collapse a node, click ▾ beside an expanded node. The node is collapsed and the icon changes to ▸.

### 1.2.8.5 Showing Child Folders

To improve performance, if there are many child folders below a parent folder, not all of them are shown when the parent folder is expanded. The number that are shown is user configurable (**Settings > User Settings > Folder Paging Size**, see ).

If a node contains more items than the folder paging size:

- If there are more items above the first item shown in an expanded folder, **Page Up** is shown at the top of the contents of the expanded node. Click **Page Up** to scroll one page further up the items.
- If there are more items below the last item shown in an expanded folder, **Page Down** is shown at the *top* of the contents of the expanded node. Click **Page Down** to scroll one page further down the items.

Each time the user clicks **Page Down** or **Page Up**, the items below the node scroll down or up by the folder paging size.

### 1.2.8.6 Selecting Multiple Folders

You can select multiple folders in the folder tree in one of the two ways:

- select several individual folders by selecting each folder with **CRTL + Click**
- select a range of consecutive folders by selecting the first one in the range using **Click** as usual, and the last one in the range using **SHIFT + Click**.

### 1.2.8.7 Shortcut Menus

You can right click on most folders in the folder tree to get a shortcut menu. The options shown on the shortcut menu depend on the type of folder you choose. The following options may be shown:

- **Create Folder**: Create new folder below the selected folder, if you have sufficient permissions. The folder is created with a default name of **New Node**, a blank description, and inherits the permissions of the parent folder. You cannot create a folder below the search folder or any of the predefined searches, or below a resource folder.
- **Delete Folder**: Delete the selected folder, if you have the permission to delete that folder. You will be asked to confirm the deletion. You cannot delete the root folder, the search folder, any of the predefined searches, the shared folder, the unallocated folder, or a resource folder.

- **Rename Folder:** Make the folder name available for editing. Any text you enter will overwrite the existing folder name. You cannot rename the root folder, the search folder, any of the predefined searches, the shared folder, the unallocated folder, or a resource folder.
- **Refresh:** Refresh the folder tree at the selected node to show the latest information. If there is an associated Items panel display, that is refreshed too.

#### Note

If there is no shortcut menu available for an item in the folder tree, right click does the same thing as left click. In particular, right clicking on **Page Up** scrolls up one page and right clicking on **Page Down** scrolls down one page.

### 1.2.8.8 Keyboard Shortcuts

You can use the following keyboard shortcuts in the folder tree:

- **LEFT ARROW:** if you are on an expanded node of the folder tree, collapse the node, otherwise move the selection one position up the folder tree.
- **DOWN ARROW:** move the selection one position down the folder tree.
- **UP ARROW:** move the selection one position up the folder tree.
- **RIGHT ARROW:** if the selection is on a collapsed node of the folder tree, expand the node. If not, move the selection one position down the folder tree.

### 1.2.8.9 Drag and Drop Operations

If you have suitable permissions, you can select one or more folders in the folder tree and move them to another location in the tree using your mouse to drag and drop the selected items to a new location.

While you are dragging the folders, if it is valid to drop them at the current location, you will see a green tick beside the folders you are dragging. If you cannot drop the folders at the current location, you will see a red cross beside the folders you are dragging.

While you are dragging the folders, if you pause with your mouse over a folder that is currently collapsed, it will expand so you can see the subfolders.

When the move operation starts, you will see a message saying the items in the folder are being moved. You will see another message confirming that the move has completed. Click **OK** when you see the confirmation message.

**Note**

When you use drag and drop to move folders and the items they contain, the usual rules for moving items of that type apply. For example, if you move some resources from one tenant to another, existing relationships may be broken, or existing resources deleted and new ones recreated. See section 7.4.8 "Purging Resources" for more details.

**Note**

To drag and drop folders in the folder tree, you need a global role that includes the **Folder Tree Management** task. See the *Security Guide for Cisco Unified Contact Center Domain Manager* for more information about security and global roles.

### 1.2.9 Logging Out

To log out of Unified CCDM, click the drop-down arrow beside your user name on the menu bar, then select **Logout** in the top menu.

After logging out, close your browser session to ensure that no other user can interfere with your account.

Alternatively, you are automatically logged out of Unified CCDM when you close your the web browser window .

## 1.3 Introduction to Gadgets and Apps

### 1.3.1 About Gadgets and Apps

#### 1.3.1.1 About Gadgets

##### Note

Gadgets are only available to advanced mode users.

Gadgets are customizable components that can help you do various tasks, for example, run specific reports, reskill agents or view resources.

Your Unified CCDM home page shows a personalized gadget layout, where you can select and arrange the gadgets of your choice to help you carry out the tasks you do regularly.

##### Example

You may decide to add a resource management gadget showing your agents to the gadget layout on your home page. This gadget could be used to manage your agents.

Unified CCDM includes some standard gadgets located in the **/Shared** folder by default. You may also have custom gadgets that have been created to meet your specific business needs.

#### 1.3.1.2 About Apps

An arrangement of gadgets can be saved in a gadget app, which you can run on your home page. You can modify the gadgets in the app, and save it as a new app, or switch to a different app. You can specify a default app which opens automatically when you go to your home page.

##### Example







A reskilling app could contain a resource management gadget showing your agents, a resource management gadget showing your skill groups and a third resource management gadget showing your precision queues.

You could make this app your default app, so that it opens automatically when you go to your home page.

### 1.3.2 Tasks Associated with Gadgets and Apps

#### 1.3.2.1 Customizing your Gadgets Page

Initially, your gadgets page shows a simple app containing the Resource Management gadget. You can customize this page to show the gadgets that help you carry out your daily tasks. To customize this page:

1. Click the **Gadgets** drop-down. If you are not on the gadgets page (that is, if you don't see the **Gadgets** drop-down menu beside your user name on the menu bar) go to your gadgets home page. To do this, click the drop-down beside your user name on the menu bar, then click **Home**. Select **Add Gadget** to see a list of the available gadgets.
2. Locate the gadget you want to add. You can type a name or partial name in the search box, then click **Search** to filter the list by name. Alternatively you can click **Filter by Folder** (  ) to select a folder to see the gadgets in that folder.
3. Click on a gadget to add it to your gadgets page.
4. Once you have added a gadget, you can:
  - drag it to the position you want
  - resize it by clicking and dragging the bottom right corner
  - expand it to fill your gadgets page using the **Maximize** button (  )
  - remove it from your gadgets page using the **Delete** button (  )
  - refresh the gadget contents using the **Refresh** button (  ) (refresh is only available for some gadgets)
  - enable it to receive input from other gadgets using the **Accept** button (  ) or disable it from receiving input from other gadgets using the **Ignore** button (  ) (accept and ignore are only available for some gadgets)
  - remove all the gadgets from your gadgets page by clicking **Clear Gadgets** in the **Gadgets** drop-down at the top right of your home page.


#### Note

To permanently apply the changes to your gadgets page, you also need to

- save your changes as an app (see "Saving your Gadgets Page as an App" on page 40)
- set this app as your default gadgets page (see "Setting your Default App" on page 41)

### 1.3.2.2 Opening an Existing App

To open an existing app in your gadgets page:

1. If you are not on the gadgets page (that is, if you don't see the **Gadgets** drop-down menu beside your user name on the menu bar) go to your gadgets home page. To do this, click the drop-down beside your user name on the menu bar, then click **Home**.
2. Click the **Gadgets** drop-down menu then select **Open App** to see a list of the available apps.
3. Locate the app you want to open. You can type a name or partial name in the search box, then click **Search** to filter by the name you specified. Alternatively you can click **Filter by Folder** (  ) to select a folder to see the apps in that folder. Click the app to open it in your gadgets page. The name of the app you have opened is shown on the menu bar.
4. If you want, you can customize the page further by adding, deleting and moving gadgets to meet your needs. You can also save your changes as a new app, or (if you have suitable permissions) update the existing app.

**Note**

When you open an app in your gadgets page, any existing gadgets on the page will be cleared and replaced with the gadgets from the new app.

### 1.3.2.3 Saving your Gadgets Page as an App

When you have created a useful gadget layout on your gadgets page, you can save it as an app. To save the gadget layout as an app:

1. If you created your gadget layout from the introductory Unified CCDM gadgets page follow these steps:
  - a. In your gadgets page, click the **Gadgets** drop-down menu then select **Save App As**.
  - b. Specify the **Name** for the app and the **Folder** where you want to save it.
  - c. Click **Save**. This app is now your current app, and the name of the app is shown on the menu bar.
2. If you created your gadget layout from an existing app, do one of the following:
  - To update the existing app with your changes, click the **Gadgets** drop-down menu then select **Save App**. Click **Yes** when prompted to confirm that you want to overwrite the existing app.
  - To create a new app click the **Gadgets** drop-down menu then select **Save App As**. Specify the **Name** for the app, the **Folder** where you want to save it and click **Save**.
3. The saved app is now available to anyone with suitable permissions.



### 1.3.2.4 Setting your Default App

Your default app is the one that opens automatically when you go to your gadgets home page. Initially, you will see the introductory Unified CCDM gadgets page as your default app.

To change your default app:

1. If you want to use your current gadget layout as your default app, ensure that you have previously saved it as an app (see "Saving your Gadgets Page as an App" on page 40).
2. Select the app that you want to use as your default app and open it in your gadgets page (see "Opening an Existing App" on page 39).
3. Click the **Gadgets** drop-down menu then select **Set Default App**. At the confirmation screen, click **Yes**. This app is now your default app and will be opened when you go to your gadgets home page.

#### Note

Setting the default app does not save any changes you may have made to the app layout in your gadgets page. If you have changed the app layout and want to include these changes in your default app, you must save these changes separately.

### 1.3.2.5 Deleting an App

To delete an existing app from the system:

1. Identify the app that you want to delete and open it in your gadgets page (see "Opening an Existing App" on page 39).
2. Click the **Gadgets** drop-down menu then select **Delete App**. At the confirmation screen, click **Yes**. The app will be deleted from the system. Your gadgets home page will show the default app,

#### Note

If your default app is deleted, your default app will revert to the introductory Unified CCDM gadgets home page.

### 1.3.2.6 Getting Help on Gadgets

For general help on gadgets, click the drop-down arrow beside your user name on the menu bar, then in the **Other** section, click **Help** to view the online help (this section). There are links to information about each of the standard Unified CCDM gadgets at the bottom of this section.

## 1.3.3 The Gadgets Menu

The gadgets menu is at the top right of the gadgets home page. It contains the following options:


### Open App

Open an app in your home page.

#### To filter the list by name

Type a name or partial name in the search box, then **Search**.

#### To filter the list by folder

Click the **Filter by Folder** button (  ) and select a folder to see the list of apps in that folder.

### Save App

Save the gadget layout in your home page as an app.

#### To save the gadget layout as an app

If the gadget layout on your home page was opened as an app, you will be asked if you want to update the existing app with the new layout. Select **Yes** to confirm.

If the gadget layout on your home page was built from the introductory Unified CCDM home page, you will be prompted to enter a **Name** for the new app, and the **Folder** where the app is to be created. Then click **Save**.

### Save App As

Save the gadget layout in your home page as a new app.

#### To save the gadget layout as a new app

Enter a **Name** for the new app, and the **Folder** where the app is to be created. Then click **Save**.

### Set Default App

Make the current app the default app for the current Unified CCDM user.

*Note.* If you have made changes to the current app, this command will not save them. You must save the changes separately if required.


### Add Gadget

Add a gadget to the gadget layout in your home page.

**To add a gadget to your home page**

Locate the gadget you want to add and click it.

To filter the list by name, type a name or partial name in the search box, then **Search**.

To filter the list by folder, click the **Filter by Folder** button (  ) and select a folder to see the list of gadgets in that folder.

**Clear Gadgets**

Clear all existing gadgets from the gadget layout in your home page.

**1.3.4 Security Requirements for Gadgets and Apps**

To use gadgets and apps, you need the following permissions:

- to browse gadgets and add them to your home page or run them from an app, a folder-based role that includes **Browse Gadgets**.
- to browse and open apps containing gadgets, a folder-based role that includes **Browse Apps**.

To manage gadgets and apps, you need:

- a folder-based role that includes **Manage Apps** to create, edit and move apps in a folder.
- a folder-based role that includes **Manage Gadgets** to create, edit and update gadgets.

**1.3.5 Standard Unified CCDM Gadgets**

Unified CCDM provides the following standard gadgets.

- Resource Manager (see "Resource Manager Gadget" on page 260). This gadget allows you remotely configure and administer the resources in the contact center system that you have permission to access.

**1.3.6 Buttons used by Standard Gadgets**

These buttons may appear in the title bar of standard gadgets.

**Accept (  )**

If this button is shown, the gadget is currently ignoring event inputs from other gadgets. Click to allow the gadget to accept event inputs. After this button is clicked, it toggles to the Ignore button.

**Ignore (  )**


If this button is shown, the gadget is currently accepting event inputs from other gadgets. Click to cause the gadget to ignore event inputs. After this button is clicked, it toggles to the Accept button.

**Refresh (  )**

Click to refresh the contents of the gadget.

**Maximize or Minimize (  )**

Click once to maximize the gadget to the full browser window. Click again to restore the gadget to the previously used dimensions.

**Delete (  )**

Click to remove the gadget from your home page.

## 2 Settings

### 2.1 User Settings

#### 2.1.1 Changing your password

To change your password:

1. Click the drop-down arrow beside your user name on the menu bar.
2. Select **Change Password** from the **Settings** section.
3. Follow the prompts to change your password. Your new password must comply with the password requirements for your system. For more information, consult your system administrator.

#### Note

If you use single sign on to log into Unified CCDM (see section 1.2.2 "Logging In Using Single Sign-On") then you will not be able to change your password from within Unified CCDM.

#### 2.1.2 Changing your other user settings

To change your other user settings:

1. Click the drop-down arrow beside your user name on the menu bar.
2. Select **User Settings** from the **Settings** section.
3. You can change the following user settings:
  - **First Name.** Your preferred first name.
  - **Last Name.** Your preferred last name.
  - **Email Address.** The email address for emails from Unified CCDM.
  - **Description.** A description of yourself or your role.
  - **Timezone.** Your local timezone. Select from the drop-down list.

- **Report Timezone.** The timezone used by reports (read-only). This setting is not used by Unified CCDM.
  - **Culture.** Your local language. Select from the drop-down list.
  - **User Home Folder.** The folder you work in by default. Click the folder icon to change your home folder. This must be a folder on which you have security permissions.
  - **Show Deleted Resources.** Whether deleted resources are shown. Select to view all deleted resources you have permission to see. Otherwise you will only see active and pending items.
  - **Show Default Parameter Set.** Select to view all available parameter sets of the correct type when you are viewing a report. This setting is not used by Unified CCDM.
  - **Data Paging Size.** The number of selected items to be displayed per page, for example, in the central Items panel of Resource Manager. We recommend a maximum data paging size of 100.
  - **Folder Paging Size.** The number of folders to be displayed at one time in an expanded node of the folder tree. Low numbers reduce the time taken to generate and display the folder tree.
  - **Advanced Mode.** (Advanced mode users only). Whether you are using the basic or advanced mode user interface. In advanced mode your home page shows your personalized gadget layout, which you can configure and customize with the gadgets of your choice to help you carry out the tasks you do regularly. In basic mode your home page shows a predefined set of reports if available, or, if not, your team management page.
  - **User Home Folder.** (Advanced mode users only). The folder you work in by default. This must be a folder on which you have security permissions.
  - **Show Deleted Resources.** (Advanced mode users only). Whether deleted items are included in resource lists.
4. Make your changes then click **Save** to save your settings.

## 2.2 System Settings

### 2.2.1 About System Settings

A user with sufficient permissions can change various system, provisioning and login settings.

## 2.2.2 Changing the System Settings

To change the system settings:

1. Click the drop-down arrow beside your user name on the menu bar.
2. Select **System Settings** from the **Settings** section.
3. Select the tab that corresponds to the type of setting you want to change:
  - select **Reporting** to change the reporting settings (see "System Settings" on page 46)
  - select **Provisioning** to change the provisioning settings (see "Provisioning Settings" on page 47)
  - select **Security** to change the security settings (see "Security Settings" on page 47)
  - select **System** to change the login settings (see "Login Settings" on page 49)
4. Make your changes then click **Save** to save your settings.

### Provisioning Settings

You can change the following provisioning settings:

- **Agent State Trace Enabled.** Whether the **State Trace** check box on the agent **Advanced** tab can be selected. When state trace is enabled for an agent, Unified CCE will capture details of every state transition made by the agent. This places an additional load on Unified CCE, so would not normally be selected.

### Security Settings

You can change the following security settings:

- **New Folder Inheritance Default.** Whether **Inherit Permissions** is selected by default when a new folder is created.
- **Password Format.** The required format for the password entered by a user. The options are:
  - **Custom.** A custom string defined by a regular expression. This is for system administrators only, and requires a knowledge of regular expressions.
  - **Low Security.** Any string of any length.
  - **Medium Security.** Any string between the minimum and maximum password length.

- **Medium/High Security.** Any string between the minimum and maximum password length, containing at least one lowercase value, one uppercase value and one numeric value.
- **High Security.** Any string between the minimum and maximum password length, containing at least one lowercase value, one uppercase value and one numeric value, and at least one of the following special characters: @ # \$ % ^ & + = !

#### Note

Not all the settings below apply to all password formats, but where a setting is available for a password format, it is independent of the password format. For example, you may specify that the password follows the Medium Security format, and that the minimum password length is 6 (instead of the default value of 8). If you later change the password format to High Security, the previously-set minimum password length of 6 will still apply to the new password format, unless you change it again.

- **Password Expression.** A regular expression defining the required password format. Only shown when the selected Password Format is Custom.
- **Minimum Password Length.** The lowest number of characters the system will accept as valid for a password. Only shown when the selected Password Format is one of Medium Security, Medium/High Security or High Security.
- **Maximum Password Length.** The highest number of characters the system will accept as valid for a password. Only shown when the selected Password Format is one of Medium Security, Medium/High Security or High Security.
- **Minimum Password Age (days).** The number of days a user must wait between password changes.
- **Password Expiry (days).** The number of days before the user is asked to change their password.
- **Number of previous passwords to check.** The number of previous passwords the user cannot reuse when choosing a new password.
- **Login attempts before lockout.** The number of times the user can enter the wrong password before being locked out of the system.
- **User Folder Default Role.** The default folder role that a new user is given on the user folder when the **Create a New Folder for This User** option is selected during user creation. This is a drop-down containing a list of the folder roles available in the system (for more information see section 9.3 "Roles"). Note that you will still need to give the user the correct global roles so that they can actually use these permissions (for more information see section 9.2 "Global Roles").



- **User Folder Suffix.** (Optional) The suffix which, when added to a user's name, becomes the name of the personal folder created when the **Create a new folder for this user** option is checked during user creation. This is disabled when using single sign on.
- **Groups to create when removing inheritance.** The groups that are automatically created when a folder becomes a policy root, and the roles and global roles that they will be assigned within that folder and its child folders. You can select a group and assign it a role and global role, or clear the group, so that is not created automatically when a policy root folder is created. If you clear the check box for all the specified groups, no groups will be created automatically. See section 9.1.1.2 "Inheritance and Policy Root Folders" for more information on policy roots.

### Login Settings

You can change the following login settings:

- **Product Name.** The name of the application. This is the name that is shown at the left of the top menu.
- **Set for language.** The language for which you are modifying the login settings. Select the language from the drop-down or select **(Default Entry)** to define the messages displayed for users of other languages. You can edit the following settings for each language.
  - **Login Message.** The message displayed to a user before the user logs into the system. You can use a plain text message or insert your own HTML tags to apply formatting. You can remove the message entirely by leaving this field blank.
  - **Message Agreement Link (Login Message).** The text to display on the button that the user clicks to proceed from the login message (if displayed) to the login page. This text should be no longer than 40 characters.
  - **Post Login Message.** The message displayed to a user after the user has logged into the system. You can use a plain text message or insert your own HTML tags to apply formatting. You can remove the message entirely by leaving this field blank.
  - **Message Agreement Link (Post Login Message).** The text to display on the button that the user clicks to proceed from the post login message (if displayed) to the application. This text should be no longer than 40 characters.

**Notes**

- When you have defined the messages for a language, click **Save** to save the settings for that language, before selecting another language from the **Set for language** drop-down. Otherwise your settings for that language will be lost.
- Ideally, the login and post login messages should not exceed six lines (about 500 characters) in the default 8 point font or three lines in 14 point font.
- The login and post login messages have a maximum limit of 2000 characters. This includes the HTML tags embedded in the plain text.
- When the system is first installed, the login message is set to a default message. This is pre-translated for the supported languages. For all other languages, the default login message is in English, although you may change it if you wish.
- When the system is first installed, the post login message is not set.

## 2.3 Custom Links

### 2.3.1 About Custom Links

You can add custom links to the user menu to provide quick access to useful applications and web pages.

**Note**

Custom links are system-wide and will be visible to all tenants.





### 2.3.2 Adding a Custom Link

To add a new custom link:

1. Click the drop-down arrow beside your user name on the menu bar.
2. Select **Custom Links** from the **Settings** section.
3. Enter the following:
  - **Name** The text to be shown for the link
  - **Link** The link URL. The box will go green if the link is valid. If the link is not valid, a warning displays.
4. Click **Add**. The new link is added to the **Existing editable menu-items** list.
5. When you have finished adding custom links, click **Submit** to save your changes.

### 2.3.3 Editing a Custom Link

To edit an existing custom link:

1. Click the drop-down arrow beside your user name on the title bar.
2. Select **Custom Links** from the **Settings** section.
3. Existing links are shown in the **Existing editable menu-items** list. Hover over the link you want to edit to see the **Edit** icon (  ) and the **Delete** (  ) icon for that link.
4. Click **Edit** and change the link details.
5. Click the **OK** icon (  ) to save your changes, or the **Cancel** icon (  ) to leave the link unchanged.
6. When you have finished, click **Submit** to save your changes.

## 2.4 About Page

### 2.4.1 Viewing the Product Version

To view the product version:

1. Click the drop-down arrow beside your user name on the menu bar.
2. Select **About** from the **Other** section. The product version is shown.

## 3 Agent Re-Skilling

### 3.1 About the Agent Re-Skilling Tool

The Agent Re-Skilling tool allows you to view and edit agent skill group memberships.

#### Note

Unified CCDM limits the number of skill groups to which an agent can belong, to avoid affecting performance.

### 3.2 Configuring a Unified CCDM User to Access the Re-Skilling Tool

In order to use the Agent Re-Skilling tool to the agents in an agent team, the Unified CCDM user must be associated with an agent who is a primary or secondary supervisor of the agent team.


To create a Unified CCDM user that can manage an agent team:

1. Ensure that the agent team exists and that a supervisor agent has been defined.
2. Sign in to Unified CCDM using an Administrator account.
3. Open **Resource Manager** and go to the folder containing the supervisor agent.
4. Open the supervisor agent and choose the **Person** tab.
5. Click **Edit Person** (green arrow).
6. Go to the **Portal** tab.
7. Select the Portal Account (this will display **None** if no user is mapped).
8. Select **Create User** to create a new user account.
9. Specify **User Name** and **Password** for the new Unified CCDM user.
10. In the group membership screen select the **Basic User** and **Supervisor** groups for default permissions at the required location.
11. Click **Save** to create the Unified CCDM user.

This Unified CCDM user will now be able to use the Agent Re-Skilling tool to re-skill the agents in their agent team or teams.


### 3.3 Opening the Agent Re-Skilling Tool

To open the Agent Re-Skilling tool:

1. Click the "hamburger" icon (  ) in the menu bar, to show the tools menu.
2. Select **Provisioning > Agent Re-Skilling**.

### 3.4 Viewing a Skill Group

To see a skill group, in the Agent Re-Skilling tool, click on the **Skillgroup** drop-down box and select the skill group you wish to work with. A list of the agents associated with the skill group will be shown below the box. A complete list of all the agents who can be associated with the skill group (those who are on the same peripheral as the skill group) is shown below that.

The agent list shows each agent's name, their status (such as Ready or Pending Active), and the date from which they are active in the system (an Active From Date in the future indicates an agent who has not yet started work). Clicking on the **Edit** icon (  ) allows you to edit the agent.

### 3.5 Adding an Agent to a Skill Group

To add an agent to a skill group:

1. In the Agent Re-Skilling tool, select a skill group for the agent or agents to belong to.
2. Select agents to belong to the skill group using the check boxes. Use the Selected Path drop-down to see agents in other folders.
3. You can type part of an agent's name into the search box, and then click **Search** to filter the list of agents by the specified search string.
4. Click **Add** to associate the agents with this skill group
5. Click **Save** to save your changes.

### 3.6 Removing an Agent from a Skill Group

To remove an agent from a skill group:

1. In the Agent Re-Skilling tool, select a skill group to remove an agent or agents from.

2. In the top list, select the agents to remove from the skill group using the check boxes.
3. You can type part of an agent's name into the search box, and then click **Search** to filter the list of agents by the specified search string.
4. Click **Remove** to remove the agents from this skill group.
5. Click **Save** to save your changes, or **Cancel** to leave the details as they were before you started.

## 4 Agent Team Manager

### 4.1 About the Agent Team Manager Tool

The Agent Team Manager tool allows supervisor agents to manage the Persons and Agents in their Agent Teams.

Each Agent must be associated with a Person, which represents an actual physical person who performs customer contact duties. A Person may be associated with more than one Agent. For example a person who alternates between two teams on different peripherals would need to be associated with two Agents, one on each peripheral. So John Smith, who uses voice equipment and email equipment will need:

- a person record for his details
- an associated agent record for his voice equipment
- an associated agent record for his email equipment.

### 4.2 Configuring a Unified CCDM User to Access the Agent Team Manager Tool

In order to use the Agent Team Manager tool to manage an agent team, the Unified CCDM user must be associated with an agent who is a primary or secondary supervisor of the agent team.

To create a Unified CCDM user that can manage an agent team:


1. Ensure that the agent team exists and that a supervisor agent has been defined.
2. Sign in to Unified CCDM using an Administrator account.
3. Open **Resource Manager** and go to the folder containing the supervisor agent.
4. Open the supervisor agent and choose the **Person** tab.
5. Click **Edit Person** (green arrow).
6. Go to the **Portal** tab.
7. Select the Portal Account (this will display **None** if no user is mapped).
8. Select **Create User** to create a new user account.
9. Specify **User Name** and **Password** for the new Unified CCDM user.

10. In the group membership screen select the **Basic User** and **Supervisor** groups for default permissions at the required location.
11. Click **Save** to create the Unified CCDM user.

This Unified CCDM user will now be able to use the Agent Team Manager tool to manage their agent team or teams.



### 4.3 Opening the Agent Team Manager Tool

To open the Agent Team Manager tool:

1. Click the "hamburger" icon (  ) in the menu bar, to show the tools menu.
2. Select **Provisioning > Agent Team Manager**.

### 4.4 Viewing an Agent Team

To see an agent team, in the Agent Team Manager tool, click on the **My Agent Team** drop-down box and select the team you wish to work with. A list of the agents in the team will be shown below the box.

The agent list shows each agent's name, their status within the system (such as Ready or Pending Active), and the date from which they have been active in the system (an **Active From Date** in the future indicates an agent who has not yet started work). There is also an agent details icon (  ) that allows you to view and edit agent details, and a copy icon (  ) that allows you to create a copy of an agent (for example, if you wish to add to your team a new agent who has exactly the same skills as an existing agent).

### 4.5 Viewing or Editing Agents

To view or edit an agent:

1. In the Agent Team Manager tool, select an agent team from the drop-down list.
2. Click on the agent details icon. The Edit the current Agent page will open, showing you the agent's details.
3. Make any changes to the agent. Selecting a different tab (such as Supervisor or Agent Teams) will show a different set of fields. You can always go back to previous tabs.
4. Click **Save** to save your changes or **Cancel** to leave the agent's details as they were before you started editing.



**Note**

You are unlikely to need to use the Advanced tab unless you are changing start or finish dates for an agent.

To set an agent's starting or leaving date:

1. In the Agent Team Manager tool, select an agent team from the drop-down list.
2. Click on the agent icon for the agent you wish to edit. The Edit the current Agent page will open, showing you the agent's details.
3. To set or change an agent's starting date (Active From Date) or finishing date (Active To Date), select the **Advanced** tab. You can only change the Active From Date if it is in the future – otherwise it is greyed out. To change the Active To Date, first untick the Forever box, if it is ticked.
4. To change a date, you can:
  - either use the UP and DOWN arrow keys to adjust the date and time in the date/time box
  - or click on the calendar icon beside the Active From Date or Active To Date field. A calendar popup appears.
    - To change the year, click on the drop-down arrow to select the year you want.
    - To change the month, either click on the drop-down arrow to select the month you want, or click on **Prev** or **Next** to go backwards or forwards one month at a time.
    - Select the day of the month.
5. Use the UP and DOWN arrow keys to set the time on the selected date on which the agent is starting or finishing (for example, 17:00:00 for someone leaving at the end of business hours).
6. Click **Save** to save your changes or **Cancel** to leave the agent's details as they were before you started.

## 4.6 Changing an Agent's Team

To change an agent's team:

1. In the Agent Team Manager tool, select the agent team to which the agent belongs from the drop-down list.

2. Click on the agent details icon (not the copy icon beside it) for the agent you wish to edit. The Edit the current Agent page will open, showing you the agent's details.
3. Click on the Agent Teams tab. The agent's current team membership is shown.
4. Select the check box for the agent team and click **Remove**.
5. You may optionally select a team from the list below and click **Add** to add the agent to that team. You can add the agent either as a member of that team by checking the Member box, or as a primary or secondary supervisor if they are a supervisor agent.
6. Click **Save**.

## 4.7 Adding a New Agent

To add a new agent:

### Note

All agents must be associated with a person. If a person record for the new agent does not already exist on the system, you can create one as part of adding the new agent.

1. In the Agent Team Manager tool, click **New Agent** menu option. The Create a New Agent page displays.
2. Fill in the fields for each tab. All mandatory fields are marked with a red asterisk. These fields are on the Details tab. **Save** will not be enabled until all the required fields have been filled in.
3. On the **Details** tab:
  - Fill in the Agent's Name (such as BOates or Beth\_Oates).
  - Give a Description of the agent (such as a job title).
  - Select a Peripheral to create the agent on (this will usually be the same peripheral that you use).
  - Choose whether to associate the agent with an existing Person, or to create a new one. A Person can have more than one agent identity if all those agents are created on different peripherals
    - **Select Existing Person** Select a person from the drop-down list, or search for a specific person by typing a part of their name in

the Search box. The new agent will use the details specified in that Person's Peripheral Login box to log on to their Agent Desktop.

- **Create New Person** Enter the first name and last (or family) name for the person, and fill in the details they will use to login to the peripheral. The person will be automatically created and associated with the agent.

**Note**

Multiple Agents may be associated with a single Person, if all Agents involved are on different peripherals

4. In the **Supervisor** tab:
  - If the agent is to be a supervisor, check the Supervisor check box.
  - If the Supervisor box is checked, the agent must be associated with a Domain Account (the account they will use to log into a computer on the contact center network). Type in part of the account name, click Find and then select the correct account.

**Note**

You cannot set up a domain account from Unified CCDM. Contact your IT department if you are uncertain of the domain account to use.

5. In the **Agent Teams** tab:
  - Select an agent team for the agent to belong to. Agents may only be a member of a single team, but a supervisor can supervise multiple teams. Use the Selected Path drop-down to see agent teams in other folders.
  - Click **Add** to associate the team with this agent.
  - Check the Member box to make the agent a member of the team. Supervisors can supervise a team without being a member.
  - If the agent is a supervisor, select a primary or secondary supervisory role for any team they are to supervise. They may or may not also be a member of this team.
6. In the **Skill Groups** tab:
  - Select skill groups for the agent to belong to. Use the **Selected Path** drop-down to change folders.
  - Click **Add** to add the agent to the selected skill groups.
7. In the **Advanced** tab:

**Note**

You will probably only edit these settings to set an agent's start or finish date.

- **Enterprise Name** is the name the agent is known as within Unified CCDM
  - **Agent Extension** is the internal extension number for the agent
  - **Agent Desktop** allows you to specify the agent's desk settings (also called the Desk Setting)
  - **Check State Trace** if you wish to let the system track the agent's state, such as whether they are logged off or talking
  - Use the **Active From Date** box to set the agent's starting time and date (you may enter the date manually in day/month/year format, or select a date from the calendar)
  - Use the **Active To Date** box to set the agent's leaving date
8. Check the **Create Another** check box to create another agent whose settings are identical to this agent's except for their name and login details
  9. Click **Save** to create the agent, or **Cancel** to cancel agent creation and return to your home page.

## 4.8 Adding a New Person

To add a new person:


1. In the Agent Team Manager tool, click **Create Person** option.
2. All mandatory fields are marked with a red asterisk. These fields are on the Details tab. **Save** will not be enabled until all the required fields have been filled in
3. In the **Details** tab:
  - **Person's First Name** (such as Janet or John)
  - **Person's Last Name** or family name (such as Smith or Black)
  - **Description** of the Person (such as a job title)
  - **Login Name** they should use to log onto the Peripheral
  - **Password** they should use to log onto the Peripheral, and confirm it
4. In the **Portal** tab:

- Select the **None** option to present the Portal Account interface. When prompted select the **Create User** option to add a new Unified CCDM user mapped to this Person.
  - Fill in the **Login Name** they should use to log onto Unified CCDM.
  - Fill in the **Password** they should use to log onto Unified CCDM, and confirm it. Passwords may be required to be of a certain length, or to contain lower case letters, upper case letters and numbers. If you have difficulty supplying a valid password, contact your system administrator.
  - You may optionally add the user to any security groups you yourself are a member of, such as your company's Supervisors group if they will need to manage teams.
5. On the **Advanced** tab:
    - Use **Active From Date** box to set the person's starting time and date (you may enter the date manually in day/month/year format, or select a date from the calendar).
    - Use **Active To Date** box to set the person's leaving date.
  6. Check the **Create Another** check box to create another person after saving the current one.
  7. Click **Save** to create the person.

## 5 Information Notices


### 5.1 About Information Notices

Information notices (also sometimes called system notices) are similar to a notice board or *Message of the Day* feature. Information notices are a useful way to inform all contact center staff of general information in one action and in one location, rather than having to inform each staff member individually. Notices may typically include changes to agent assignments or important customer information.

Once you have logged in, if there are any current information notices that apply to you, you will see the Information Notice icon (  ) beside your user name in the menu bar.

### 5.2 Viewing Current Information Notices

To view an information notice:

1. Click the  icon beside your user name in the menu bar to see a list of information notices, and then click the notice you want to read.
2. Once you have finished reading the notice, click **Back**.

#### Note

The information notices panel only shows current notices. Notices which have expired (with a **Valid To** date in the past) or pending (with a **Valid From** date in the future) are not shown.


## 5.3 Advanced Mode Options

### 5.3.1 About Advanced Mode Options

Advanced mode users are able to create and edit information notices as well as view the current information notices.

### 5.3.2 Opening the Information Notices Tool

To open the Information Notices tool:

1. Click the "hamburger" icon (  ) in the menu bar, to show the tools menu.
2. Select **Information Notices**.

### 5.3.3 Creating an Information Notice

To create an information notice:

1. In the Information Notices tool, click **New**. The **New System Notice** page displays.
2. Select the folder containing the users who need to see the new notice. The folder name will be displayed at the top of the page. Then perform the following:
  - In the **Subject** field enter a title for the notice.
  - In the **Text** field enter the text. You can use a plain text message or insert your own HTML tags to apply formatting.
  - In the **Valid From** and **Valid To** fields, enter start and end dates to refine the lifetime of the notice, by clicking on the calendar icons and selecting the appropriate months and days.
  - Select **Create Another** to create another notice after this one is created.
3. Click **Save**.

### 5.3.4 Viewing Information Notices

When you select the **Information Notices** tool, the initial view shows a list of all information notices. This list includes all information notices, including expired information notices (with a **Valid To** date in the past) and pending information notices (with a **Valid From** date in the future).

### 5.3.5 Editing an Information Notice

To edit an information notice:

1. In the Information Notices tool, select the **Information Notices** tool and in the list of information notices, click the name of the notice to be modified. The notice displays.
2. Click **Edit**. The **Edit Information Notices** page displays.
3. Make the required modifications to the notice in the fields provided.
4. Click **Save** to save your changes.

### 5.3.6 Deleting an Information Notice

To delete one or more information notices from the list of information notices:

1. In the Information Notices tool, check the boxes by the notices you want to delete, and then click **Delete**.

To delete an information notice you are editing, select the **Delete** menu option.

### 5.3.7 Moving an Information Notice

To move an information notice:

1. In the Information Notices tool, in the list of information notices, check the box or boxes of the notice or notices to be moved. Click the **Move** button. The folder tree displays.
2. Select the folder to move the notice to and click **Save**.



## 6 Activity Monitor

### 6.1 About the Activity Monitor

**Note**

The Activity Monitor is only available to advanced mode users.

The Activity Monitor allows you to view the current status of the provisioning queue and provides basic audit reporting for provisioned resources.

The Activity Monitor is licensed separately and may not be available on your system.

### 6.2 Opening the Activity Monitor

To open the Activity Monitor:

1. Click the "hamburger" icon (  ) in the menu bar, to show the tools menu.
2. Select **Provisioning > Activity Monitor**.




### 6.3 Provisioning Queue Tab

**Resource Displays**

The Provisioning Queue tab provides two status monitors, showing a summary of provisioning information for:

- **Resources I Control:** the provisioning status of the remote resources that you are authorized to view or edit.
- **All Resources:** the provisioning status of all remote resources below the root folder, to help understand the state of the entire system.

The status monitors show real-time data that is updated every 20 seconds. Each status monitor shows:

- **Errors:** the number of resources that are currently in an error state. In the status display for Resources I Control, you can click on this number to view the details of the errors.
- **Provisioning:** the number of resources that are currently in the pending active state or awaiting deletion state. In the status display for Resources I Control, you can click on this number to view the details of these resources.
- **A performance indicator:** the overall system performance recently. This is to the right of the provisioning information and is one of the following symbols:
  - : the number of items in the provisioning queue is decreasing
  - : the number of items in the provisioning queue remains approximately constant
  - : the number of items in the provisioning queue is increasing.
- **The provisioning activity graph:** a graph showing the state of the provisioning queue at 20 second intervals over the last 15 minutes. At each time interval the items in the queue are color-coded as follows:
  - **Green:** this represents the number of items at the time of sampling that have been in the provisioning queue for less than the time specified by the *Provisioning Warn Threshold*
  - **Orange:** this represents the number of items at the time of sampling that have been in the provisioning queue for more than the time specified by the *Provisioning Warn Threshold* but less than the time specified by the *Provisioning Max Threshold*
  - **Red:** this represents the number of items that have been in the provisioning queue for more than the time specified by the *Provisioning Max Threshold*.

#### Note

The Provisioning Warn Threshold and Provisioning Max Threshold values are configurable using the ICE System Properties tool (see the *Administration Guide for Cisco Unified Contact Center Domain Manager*, section *System Properties Manager*). The default values are:

- Provisioning Warn Threshold: 5 minutes
- Provisioning Max Threshold: 10 minutes.

### Error and Provisioning Details

Click on the number of error or provisioning resources in the Resources I Control status display to see a list of resources in that state, and the details about each operation. Some of the fields in the list are hyperlinks, so you can click on these to get more information about the item. You can also click on some of the column headers to sort the items in the list by the values in that column.

The fields that are available are:

Field	Meaning	Hyperlink?	Sortable?
Date/Time	The date and time the event occurred, in the time zone of the current user.	No	Yes
Item Type	The type of resource affected by the event.	No	No
Name	The name of the resource affected by the event.	Yes	Yes
Path	The location of the item in the folder hierarchy.	No	Yes
Related Item Name	The name of the related resource associated with this event, if applicable.	Yes	Yes
Related Item Path	The location of the related item in the folder hierarchy, if applicable.	No	Yes
Last Modified by	The login name of user that last modified the item.	No	Yes
Status	The status of the event.	No	Yes
Internal Error (for Error Resources only)	A description of the error that occurred.	No	Yes

## 6.4 Audit Detail Tab

The Audit Detail tab shows an audit history report for provisioned resources.

The following filters are available to restrict the number of items shown in the report:

- **Path:** Click on the drop down arrow to choose the folder path for the resources you are interested in. The default folder path is your root folder.
- **Include Subfolders:** Select the check box to include items in subfolders in the audit history report.
- **Item Type:** Click the drop down arrow to see the available item types, then select the required items from the list. By default, no item types are selected.

- **Date from:** Select the date and time of the oldest events to display. The default value is midnight, one week ago.
- **Date to:** Select the date and time of the newest events to display. The default value is today and now.
- **Event Outcome:** Select the event outcome or outcomes you want to view. The default is to view events with both success and failure outcomes.

When you have selected your filters, click **View** to see the audit details. Some of the fields in the list are hyperlinks, so you can click on these to get more information about the item. You can also click on some of the column headers to sort the items in the list by the values in that column.

The fields that are shown are:

Field	Meaning	Hyperlink?	Sortable?
Date/Time	The date and time the event occurred, in the current user's time zone.	No	Yes
Event Description	The event details.	No	No
Item Type	The type of item affected by the event.	No	No
Name	The name of the resource affected by the event.	Yes	Yes
Path	The location of the resource in the folder hierarchy.	No	Yes
Related Item Name	The name of the related resource associated with this event, if applicable.	Yes	Yes
Related Item Path	The location of the related resource in the hierarchy, if applicable.	No	Yes
Related Item Type	The type of the related resource.	No	No
Equipment	The equipment the item is located on.	No	Yes
User	The login name of the user that initiated the event.	No	Yes
Event Outcome	The result of the event (success or failure)	No	Yes

## 7 Resource Manager

### 7.1 Introduction

#### 7.1.1 About Resource Manager

**Note**

Resource Manager is only available to advanced mode users.


Resource Manager creates resource folders and resources and allows the user to partition the resources in a hierarchical structure. This is achieved by the use of a Folder Tree panel located at the left hand side of the tool. The user may view the subfolders of specific folders by selecting them. Users with sufficient security permissions can access and manage the entire contents of the system via Resource Manager interface. The Unified CCDM web application lets you remotely configure and administer key aspects of your Unified CCE system including:

- agents, agent teams, skill groups and desktop settings
- dialed numbers and call types.

**Note**

You cannot use Resource Manager to manage security in Unified CCDM. To manage security, use the Security Permissions Manager (see section 10.1 "Security Permissions").

To start Resource Manager:

1. Click the "hamburger" icon (  ) in the menu bar, to show the tools menu.
2. Select **Provisioning > Resource Manager**.

## 7.1.2 Resource Manager User Interface

### 7.1.2.1 Overview

Resource Manager consists of the following panels:

- The standard toolbar, the breadcrumb trail (which shows the path by which the user accessed the current page) and the Information Management panels are displayed at the top of the browser.
- The *Folder Tree panel* displays on the left of the browser. It shows a hierarchical structure of all the resources the user is allowed to see based on their security permissions. There is a minimize bar containing two small arrowheads located on the right hand edge of the Folder Tree panel. Click on this bar to close the Folder Tree panel and give more screen space if the Folder Tree panel is not required.
- The *Items panel* displays in the middle of the browser. It shows the items contained in the currently selected folder. There is a minimize bar containing two small arrowheads located on the right hand edge of this panel. Click on this bar to give more screen space if the Items panel is not required.
- The *Details panel* displays on the right hand side of the browser. This panel displays the details of the most recent resource item selected in the Items panel. If you have sufficient security permissions, you can edit these details.

### 7.1.2.2 Folder Tree Panel

For general information about the folder tree see section 1.2.8 "The Folder Tree".

In Resource Manager, the Folder Tree panel also contains these buttons:

- **System:** allows you to create new system resource items
- **Resource:** allows you to create new remote resource items
- **Upload:** allows you to perform bulk uploads (for more information, see section 7.5.1 "About Bulk Upload").

#### **Caution!**

Ensure that no folder contains more than 1000 of any one type of resource. For example, a folder can contain 900 Agent resources and 900 Agent Desktop resources, but should not contain 1800 Agent resources.

### 7.1.2.3 Items Panel

#### Description

When you select an item in the Folder Tree panel, the Items panel displays the contents of that folder. Depending on what you have selected in the Folder Tree panel, the Items panel may show a *list view*, or a *summary view*.

- If the selected item is a resource folder, the Items panel is a *list view*. The list view show a list of each of the items of that resource type in the resource folder. Each item has a check box beside it to allow it to be selected for a move or delete operation. Click on the item itself to display the item details in the Details panel.
- If the selected item is any other sort of folder, the Items panel is a *summary view*. The summary view shows a summary list of each of the resource types in that folder, and the number of each resource type. When you click on a resource type in the summary list, the Items panel displays a list view containing each of the items of that resource type in the resource folder.

#### Note

In Unified CCDM 9.1 and later, the summary view in the Items panel does not have a separate summary list item for *tenants*. Tenants are included in the *folders* summary item.

#### List View Buttons

The Items panel (list view) contains the following buttons:

- **Move**: allows you to move selected items in the list view to another location.
- **Delete**: allows you to delete selected items from the database.

#### List View Pages


To improve performance, if there are many items to show in the Items panel list view, they will be shown in pages. You can use the page numbers or the arrows at the bottom left of the Items panel to move through the pages.


#### Note

You can change the number of items shown in each page of the Items panel, list view, using **Settings > User Settings > Data Paging Size**.

#### List View Display Options

To filter the list of items, type part of a resource name into the search box, and then click **Search** to show just the resource items that match that text.

To refresh the list of resource items click the Refresh icon (  ).

To toggle the display names between the user-entered names and the enterprise names click the Display icon (  ).

#### 7.1.2.4 Details Panel

##### Description

Use the Details panel to view or change the details and associations of the resource item that is currently selected in the Items panel (list view).

The Details panel contains a tabbed dialog, where each tab represents an operation to be performed. For a description of the tabs that are common to several resources, see section 7.1.3 "Common Details Panel Tabs".

##### Anchoring Resources

When you select a tab in the Details panel, and then change the selected item in the center Items panel (list view), the view is anchored by the Details panel so that the same tab will be viewed for the new item.

The reverse is also true: if you select an associated resource that is shown in the Details panel (for example, a Skill Group would be an associated resource shown for an Agent), the type of resources shown in the Items panel (list view) will also change.

#### 7.1.3 Common Details Panel Tabs

The following sections describe the contents of some tabs that are common to several resource types.

##### 7.1.3.1 Details Tab

The details tab is a form which contains a series of fields for information that belong to the resource, such as Name in the case of an Agent. Each field may be either mandatory, optional or read-only (that is, Unified CCDM fills it in automatically). Each field has a help text item to guide the user on its use and an indication as to whether it is mandatory or not.

##### 7.1.3.2 Associations Tabs

Depending on the type of resource there may be one or more association tabs that allow the user to associate other resources with this resource. For example, if a Skill Group has been selected then there will be an Agents tab to allow the user to specify which agents are to be associated with this skill group.



**Tip**

The associations can usually be modified from either side of the association. For example, to add an Agent to a Skill Group you can either select the skill group and use the agents tab or select the agent and use the skill groups tab.

Each association tab has two sub-panels, one above the other. The top sub-panel shows the resource items that are already associated with this resource, the bottom sub-panel shows the available resources that may be added. The contents of this available items sub-panel is filtered by the logged in user's security permissions and any other pertinent business rule. For example, if adding Agents to a Skill Group then the sub-panel will only show those agents who are on the same peripheral as the skill group.

The user can move resource items between the bottom and top panels to make and break associations as required.

To improve performance, if there are many items to show, they will be shown in pages. You can use the page numbers or the arrows at the bottom left of the panel to move through the pages.

**Note**

You can change the number of items shown in each page using **Settings > User Settings > Data Paging Size**.

**7.1.3.3 Advanced Tab**

Depending on the type of resource there may also be an advanced tab. This shows information that is normally set by the system but may be overridden by the user.

**7.1.3.4 History Tab****Note**

This tab is only shown for remote resources, and only after they have been created in Unified CCDM. It is not shown for a system resource, or when a remote resource is first created.

The history tab shows audit information for the resource.

Where an event involves another resource, for example adding an agent to a skill group, the resource is linked to in the description. If a drop-down arrow is shown beneath an event, you can click on it for more information (such as the user who performed the event). A *Request* event indicates a change made using Unified CCDM's user interface; an *Execution* event indicates that the requested changes were successfully made on Unified CCE. Success or failure of the event is shown by a green tick or red cross.

If the audit history for a resource is long, you can use the Edit Filter link to show only certain events, such as unsuccessful change attempts.

### 7.1.3.5 Custom Data Tab

Some remote resources have a custom data tab, which allows you to specify your own key fields and corresponding values for these keys.

Each resource can have a maximum of ten custom data keys.

If a resource has several custom data keys, you can type a key value into the key text box to quickly show that key and the corresponding key value.

An example of how custom data can be used is:

- to hold emergency contact numbers that the system can be configured to notify if the service level drops below a certain threshold.

## 7.2 Folders

### 7.2.1 About Folders

Unified CCDM uses folders to allow the user to partition resources in a hierarchical structure.

For more information about the folder tree and how to use it, see section 1.2.8 "The Folder Tree".

You can use Resource Manager to create, edit, rename, move and delete folders.

### 7.2.2 Creating a Folder

#### Method 1 – Specifying the Folder Properties

To create a folder and specify all the folder properties:

1. In **Resource Manager**, in the Folder Tree panel, select the folder where you want to create the new folder.
2. In the Folder Tree panel, click **System**, and then click **Folder**.
3. In the **Name** field enter a name for the new folder.
4. In the **Description** field enter any explanatory text for the folder, if required.
5. If required, uncheck the **Inherit Permissions** check box to turn this folder into a policy root that does not inherit security permissions from its parent folder.
6. Select the **Create Another** check box if you wish to create further folders at the same point in the tree structure.

7. Click **Save** to save the new folder in the tree.

### Method 2 – Using the Default Values for Folder Properties

To create a folder, using the default values for folder properties:

1. In **Resource Manager**, in the Folder Tree panel, select the folder where you want to create the new folder.
2. Create the folder in one of the following ways:
  - Right click at the position where you want to create the new folder and select **Create Folder**.
3. A new folder is created with the following default values:
  - **Name**: New followed by a unique number
  - **Description**: no value (left blank)
  - **Permission**: inherit permissions from the parent.
4. Enter a new name to replace the default name if required.

#### Notes

To change the security permissions for the folder, you need to use the Role Manager tool. For more information, see section 9.3 "Roles".

## 7.2.3 Renaming a Folder

You can rename a folder in one of the following ways:

- In **Resource Manager**, right click on the folder in the Folder Tree panel and select **Rename Folder**.

#### Tip

You can use either of these methods to rename tenants as well as folders.

## 7.2.4 Moving a Folder

To move a folder:

### Method 1 – Using Drag and Drop

1. In **Resource Manager**, in the Folder Tree panel, select the folder or folders you want to move (to learn how to select multiple folders, see section 1.2.8.6 "Selecting Multiple Folders").
2. Drag and drop the selected folders to the new location (for more information about drag and drop, see section 1.2.8.9 "Drag and Drop Operations").

### Method 2 – Using the Move Button

1. In **Resource Manager**, in the Folder Tree panel, select the folder that contains the folder or folders you want to move. The Items panel displays a list of the resource types contained in that folder.
2. In the Items panel click on **Folders**. The Items panel changes to a list view showing the folders in this location.
3. Check the box or boxes of the folder or folders to be moved.
4. Click the **Move** button.
5. The Move the Current Items page will be displayed, showing the folder tree.
6. In the folder tree, select the location to move the folder or folders to.
7. Click **Save**.

#### Note

If the folder is moved to a different tenant then any remote resources it contains will be marked as deleted and recreated under the new tenant. For more information about the effects of this, see section 7.4.9 "More About Moving Resources".

## 7.2.5 Deleting a Folder

#### Note

If the folder to be deleted contains resources, you must move them to another location before you can delete the folder. This includes deleted resources, which can be shown by selecting **Settings > User Settings > Show Deleted Resources**.

To delete a folder:

### Method 1 – Using the Folder Tree

1. In **Resource Manager**, in the Folder Tree panel, select the folder or folders you want to delete (to learn how to select multiple folders, see section 1.2.8.6 "Selecting Multiple Folders").
2. In the Folder Tree panel, **right click** to see the shortcut menu, and select **Delete Folder**.
3. In the Delete Folder dialog, select **OK**. The selected folders and any subfolders will be deleted.

### Method 2 – Using the Delete Button

1. In **Resource Manager**, in the Folder Tree panel, select the folder that contains the folder or folders you want to delete. The Items panel displays a list of the resource types contained in that folder.
2. In the Items panel click **Folders**. The Items panel changes to a list view showing the folders in this location.
3. Check the box or boxes of the folder or folders to be deleted.
4. Click **Delete**.
5. In the Delete folder dialog, select **OK**. The selected folders and any subfolders will be deleted.

#### Notes

You may receive the message “WARNING: This folder [/path] has a direct mapping to the remote equipment...”. Deleting the folder will result in a change to the importer’s logic surrounding the placement of new resources. Please ask an administrator or refer to the *Administration Guide for Cisco Unified Contact Center Domain Manager*, section *Equipment Mapped Folders*.

The folder may contain resources that are not visible to you. If so, you will be prompted to find an administrator to move these resources elsewhere.

## 7.2.6 Bulk Uploading Folders

In addition to creating folders one at a time, you can also bulk load folders previously output to a CSV (comma separated values) file. For more information see section 7.5.1 "About Bulk Upload".

## 7.3 Tenants and Prefix Rules

### 7.3.1 About Tenants and Prefix Rules

#### 7.3.1.1 Tenants

A tenant represents a real world organization which has been configured as a customer definition in Unified CCE. For each customer definition created in Unified CCE (a remote tenant), a corresponding tenant can be created in Unified CCDM. Just as Unified CCE enforces telephony isolation between tenants, visibility and management of tenants is controlled within Unified CCDM via the security model.

The isolation of each tenant within Unified CCDM means that a tenant folder does not inherit the permissions and properties of the Root folder. Each tenant folder has an individual set of security permissions and user groups. While users who are members of the customer organization that the tenant represents will need access to view and manage resources within a tenant, only system wide or host administrators should be given access to manage the tenants themselves.

**Note**

Tenants cannot be created or deleted in Unified CCDM. They are set up using the Integrated Configuration Environment (ICE) Cluster Configuration tool. See the *Installation and Configuration Guide for Cisco Unified Contact Center Domain Manager* for more details.

**7.3.1.2 Prefix Rules**

A prefix rule is a rule which is used by Unified CCDM to move remote resources to a specific folder based on a naming convention or taxonomy. Prefix rules are matched against the Internal Name (Enterprise Name) of an item.

When remote resources such as Agents, Call Types and Dialed Numbers are first imported into Unified CCDM they are placed in a default location based on the following rules:

- If Unified CCDM can determine the tenant which owns the item from information stored in Unified CCE then the item will be placed in the root of the owning tenant.
- If Unified CCDM cannot determine the tenant which owns the item from information stored within Unified CCE then the item will be placed in the corresponding 'equipment' folder under the Unallocated folder. The Unallocated folder contains an equipment folder for each Unified CCE which is configured for use with Unified CCDM.


Prefix rules automate the movement of remote resources which are imported into Unified CCDM from Unified CCE. They reduce the administrative overhead of manually moving items, which can be significant for large systems with complex folder structures.

The movement of items according to prefix rules is carried out by a scheduled process which runs overnight.

You can manually move a resource that matches a prefix rule to another location. If you do this, the resource will remain in the new location unless the new location is a sub-folder of the **/Unallocated** folder. In that case, the resource will be moved back to the location defined by the rule the next time the prefix management process runs, unless the rule is disabled or deleted.

### 7.3.2 Creating a Prefix Rule

To create a prefix rule for a tenant do the following:

1. In **Resource Manager**, in the Folder Tree panel, select the folder containing the tenant for which you want to create a prefix rule. The Items panel displays a list of the resource types contained in the folder.
2. Select **Folder** (at this level tenants are just another type of folder). The Items panel changes to a list view showing each of the folders and tenants at this location.
3. Click on the tenant. The tenant details are displayed in the Details panel.
4. Click the **Prefixes** tab. Any existing prefix rules associated with the selected tenant are displayed in a grid.
5. Click **Add New Row** (  ) to add a prefix rule.
6. Fill in the fields as follows:
  - **Prefix:** enter the prefix to match against the internal name (enterprise name) of each resource. Use ‘%’ to match zero or more occurrences of any character. The prefix must be unique for the resource type.

By default, prefix rules are not case sensitive, unless case sensitivity was enforced in the database management system when Unified CCDM was installed.

#### Example

The prefix ‘%.SAL.ENG.%**.ag**’ will match:

- **BOS.SAL.ENG.JohnSmith.ag**
- **CHI.SAL.ENG.SamirPatel.ag**
- **bos.sal.eng.JohnSmith.ag** (unless case sensitivity was enforced on installation).

It will not match:

- **BOS.SAL.SPA.JohnSmith.ag**
- **BOSSAL.ENG.JohnPatel.ag**

- **Type:** select the remote resource type the rule applies to.
- **Priority:** enter a numerical value between 0 and 9999 to define the priority for this rule. The priority must be unique for the resource type. If a resource matches more than one prefix rule, the rule with the numerically *lowest* priority value will take precedence.

#### Example

If there are two prefix rules for agents


- **%.SAL.ENG.%.ag** (with a priority value of 0)
- **%.%.ENG.%.ag** (with a priority value of 9)

the agent **BOS.SAL.ENG.JohnSmith.ag** will match both, but the first rule will be applied because a priority value of 0 takes precedence over a priority value of 9.

- **Enabled:** select to enable the prefix rule, clear to disable the prefix rule.
  - **Path:** click to show the folder tree, then select the destination folder where resources that match this rule will be placed on import.
7. Click **Submit** to create the prefix rule.

### 7.3.3 Editing a Prefix Rule

To edit a prefix rule for a tenant do the following:


1. In **Resource Manager**, in the Folder Tree panel, select the folder containing the tenant with the prefix rule you want to edit. The Items panel displays a list of the resources contained in the folder.
2. Select **Folder** (at this level tenants are just another type of folder). The Items panel changes to a list view showing each of the folders and tenants at this location.
3. Click on the tenant you want to edit. The tenant details are displayed in the Details panel.
4. Click the **Prefixes** tab. Any existing prefixes associated with the selected tenant display in a table.
5. Click on a prefix to select it.
6. Click **Edit selected row** (  ) at the bottom of the table to edit the selected prefix rule.
7. Amend the required field(s).
8. Click **Submit** to finish editing the rule.

### 7.3.4 Viewing a Prefix Rule

To view a prefix rule for a tenant do the following:


1. In **Resource Manager**, in the Folder Tree panel, select the folder containing the tenant with the prefix rule you want to view. The Items panel displays a list of the resources contained in the folder.



2. Select **Folder** (at this level tenants are just another type of folder). The Items panel changes to a list view showing each of the folders and tenants at this location.
3. Click on the tenant you want to edit. The tenant details are displayed in the Details panel.
4. Click the **Prefixes** tab. Any existing prefixes associated with the selected tenant display in a table.
5. Click on a prefix to select it.
6. Click **View selected row** (  ) at the bottom of the table to view the selected prefix rule.
7. If there is more than one prefix rule for the tenant, you can use the < and > symbols at the bottom left corner of the dialog box to view the other prefix rules.
8. Click **Close** to finish viewing the rule.

### 7.3.5 Deleting a Prefix Rule

To delete a prefix rule for a tenant do the following:

1. In **Resource Manager**, in the Folder Tree panel, select the folder containing the tenant with the prefix rule you want to delete. The Items panel displays a list of the resources contained in the folder.
2. Select **Folder** (at this level tenants are just another type of folder). The Items panel changes to a list view showing each of the folders and tenants in this location.
3. Click on the tenant you want to edit. The tenant details are displayed in the Details panel.
4. Click the **Prefixes** tab. Any existing prefixes associated with the selected tenant display in a table.
5. Click on a prefix to select it.
6. Click **Delete Selected Row** (  ) at the bottom of the table to delete the selected prefix rule.
7. Click **Delete** to confirm the deletion of the rule.

## 7.3.6 More About Tenants and Prefix Rules

### 7.3.6.1 Prefixes and Multi-tenanted Environments

When more than one tenant shares the same Unified CCE environment, resources may be shared between them. The host administrator must ensure that different prefix rules are used for each tenant that shares the same Unified CCE environment.

If a resource matches prefix rules on more than one tenant on the same Unified CCE equipment, the tenant that is ordered first alphabetically within Unified CCDM will 'own' that shared resource and the movement of that resource. Rules configured for subsequent tenants on the same equipment will not be applied.

If resources are moved between different tenants on the same Unified CCE equipment, any prefix rules that applied to the resource on the original tenant will not apply until the resource is moved back to the previous tenant or the Unallocated folder. This is because a prefix rule only applies within the scope of the tenant for which it is defined and the Unallocated folder.

## 7.4 Resources

### 7.4.1 About Resources

#### 7.4.1.1 Resource Types

Resources are the items in the contact center system which can be viewed and updated using Unified CCDM.

There are two types of resource, remote resources and system resources.

- **Remote resources** (sometimes called *dimensions*) are the resources that exist on the remote contact center equipment. Some remote resources can be created or edited in Unified CCDM and provisioned onto the remote equipment. Other remote resources can be viewed in Unified CCDM but cannot be created, edited or provisioned from Unified CCDM. All remote resources must be associated with a specific tenant. Agents, skill groups, dialed numbers, bucket intervals and route partitions are examples of remote resources. Agents, skill groups, and dialed numbers are provisionable remote resources. Bucket intervals and route partitions are non-provisionable.
- **System resources** (sometimes called *Unified CCDM resources*) are the resources that are local to Unified CCDM and are created and managed by Unified CCDM. They are not provisioned onto the remote contact center equipment. System resources may be associated with a tenant but they do not need to be. Users, groups and folders are examples of system resources.

### 7.4.1.2 System Resources

You can create and manage the following types of system resource:

- **Folder.** A placeholders in the system for related information. For more information see section 7.2.1 "About Folders".
- **Group.** A set of Unified CCDM users who share the same security permissions. For more information see section 9.5 "Groups".
- **Information Notice.** The 'Message Of The Day' facility. For more information see .
- **User.** The contact center members who are permitted to access Unified CCDM. For more information see section 9.4 "Users".

### 7.4.1.3 Remote Resources

You can create and manage the following types of remote resource:

- **Agent.** A person who handles customer contacts. For more information see section 8.2.1 "About Agents and Supervisor Agents".
- **Agent Desktop.** A set of permissions or settings for a particular agent, such as how much time is allocated to wrap up a call and what outbound calls can be made. For more information see section 8.3.1 "About Agent Desktops".
- **Agent Team.** A group of agents, managed by one or more supervisors. For more information see section 8.4.1 "About Agent Teams".
- **Attribute.** User-defined information that can be associated with an agent. It defines the agent's knowledge or experience in a particular area and the level of that knowledge or experience. For more information see section 8.16.1 "About Precision Attributes".
- **Call Type.** A category of incoming routable task. The call type determines the routing script that is run for the call. For more information see section 8.5.1 "About Call Types".
- **Department.** A way of grouping related resources according to user-defined business needs. For more information, see section 8.6.1 "About Departments".
- **Dialed Number.** The number dialed by the caller. This helps to determine the call type. For more information see section 8.7.1 "About Dialed Numbers".
- **Enterprise Skill Group.** A logical grouping of skill groups. These may be from different media routing domains. For more information see section 8.8.1 "About Enterprise Skill Groups".

- **Expanded Call Variable.** A variable used to pass information about calls. For more information see section 8.9.1 "About Expanded Call Variables".
- **IVR Application.** A voice XML (VXML) application that runs on a CVP IVR app server and is used to control call routing. For more information see section 8.10.1 "About IVR Apps".
- **Label.** A string that is passed to a routing client for each network target. For more information see section 8.11.1 "About Labels".
- **Media File.** A .wav file that is used by IVR to play back prompts and messages to callers. For more information see section 8.12.1 "About Media Files".
- **Network VRU Script.** A script used by the voice response unit to play a message to the caller. For more information see section 8.13.1 "About Network VRU Scripts".
- **Peripheral.** A connected system such as an ACD switch that routes customer phone calls to contact center staff. For more information see section 8.14.1 "About Peripherals".

**Note**

You cannot provision a peripheral through Unified CCDM, you can only change its associated user.

- **Person.** The representation of a physical person on the system. A person can be a user and/or one or more agents. For more information see section 8.15.1 "About Persons".
- **Precision Queue.** A mechanism to define how to route calls to agents depending on the agents' proficiency attributes and availability. Precision queues can be referenced in routing scripts to define how calls are routed. For more information see section 8.17.1 "About Precision Queues".
- **Service.** A Unified CCE Service, with associated Skill Groups and Peripherals. For more information see section 8.18.1 "About Services".
- **Skill Group.** A collection of agents with the same skills and assigned to a single media routing domain. For more information see section 8.19.1 "About Skill Groups".
- **User Variable.** A named object that holds a value - often used in routing scripts. For more information see section 8.20.1 "About User Variables".

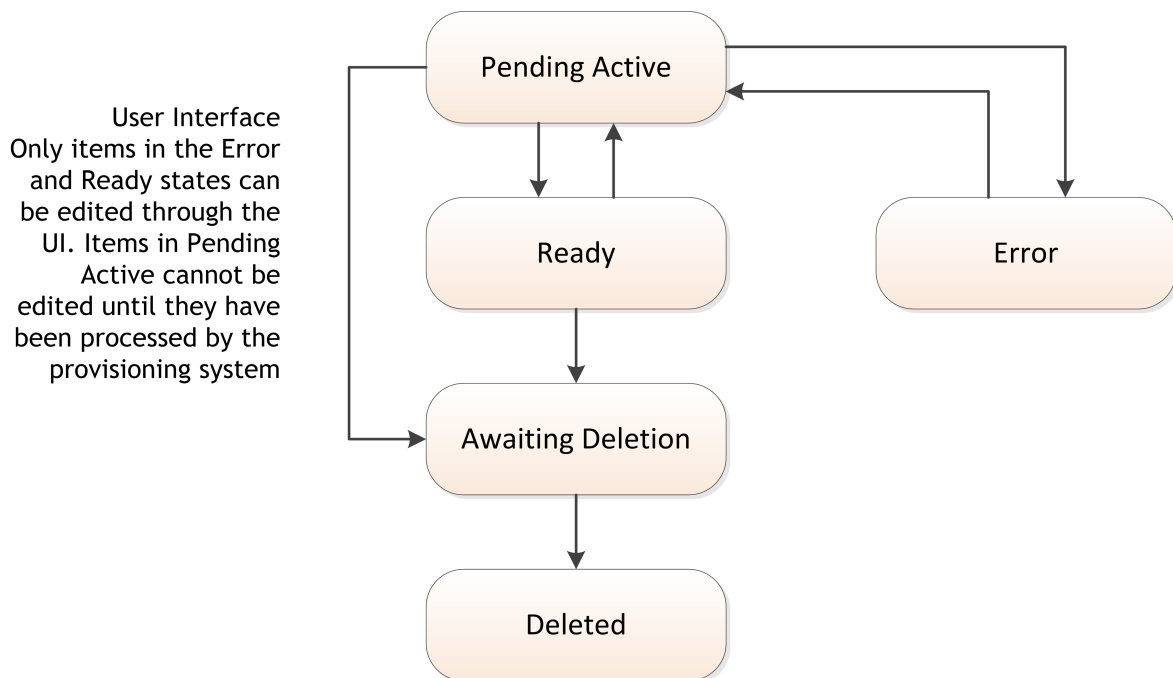
You can view the details of other remote resources that are provisioned through Unified CCE, such as media routing domains or scripts, but you cannot edit these.

**Note**

If your Unified CCDM deployment is connected to an HCS 500, 1000 or 4000 Agent Unified CCE configuration, then the predefined capacity limits of that deployment type will be enforced by Unified CCDM. An error message is displayed if you request a change that exceeds one of these capacity limits, for example, if you try to add a precision queue attribute to an agent that already has the maximum number of attribute memberships. You can see the capacity limits that are enforced by the application using the ICE System Properties tool, under the **Capacity Properties** tab (for more details about the ICE System Properties tool, see the *Administration Guide for Cisco Unified Contact Center Domain Manager*).

**7.4.1.4 Resource States**

Each provisionable remote resource in Unified CCDM can be in one of five states that indicate its stage in the resource life cycle.



**Figure 7.1 Resource Lifecycle States**

### Pending Active

When a resource is successfully created or changed using the Unified CCDM web application, its state is set to Pending Active (sometimes shortened to just Pending). This indicates that while it has been provisioned successfully within Unified CCDM, it has not yet been fully provisioned on the remote system. A resource can be deleted while it is in this state.

#### **Note**

A resource can be successfully provisioned in Unified CCDM even if it cannot be provisioned on the remote system. In this case it will remain in the Pending Active state.

### Ready

When a resource has been successfully provisioned in Unified CCDM and pushed to the remote system its state will be set to Ready. A resource will normally remain in this state until it is deleted.

### Error

Where Unified CCDM is unable to provision the resource on the remote system, it will enter the Error state. You can attempt to fix this either by editing the item, in which case its state will become Pending Active again, or you can delete it, in which case it will be set to Awaiting Deletion (also known as Delete Pending).

### Awaiting Deletion

When you delete a resource through the Unified CCDM web application (or when Unified CCDM automatically deletes a resource that has reached its Active to date) it enters the Awaiting Deletion state, which means that it has been successfully marked as deleted within Unified CCDM but has not yet been deleted from the remote system.

### Deleted

Once the resource has been successfully deleted from on the remote system it enters the state Deleted. Resources are never actually deleted from Unified CCDM, only set to the state Deleted, as their histories are kept for audit reporting purposes.

## 7.4.2 Creating a Resource

To create a new resource:

1. In **Resource Manager**, in the Folder Tree panel, select the folder where you want to create the new resource.
  - To create a System resource item, click on **System**, and then select the type of resource you want to create from the drop-down list.
  - To create a remote resource, click on **Resource**, and then select the type of resource you want to create from the drop-down list.
2. A new page will be displayed. The contents of this page depend on the resource that is being created. Fill in the details and press **Save** to confirm or **Back** to cancel the operation.
3. You will be returned to Resource Manager and the new resource item will appear in the resource item list in the Items panel.

For more information about resource properties, see the detailed description for each resource. For system resources see section 7.4.1.2 "System Resources" and for remote resources see section 7.4.1.3 "Remote Resources".

#### Note

System resources can be created anywhere in the folder tree, except below the Search Folders node, but remote resources must be created below a tenant.

### 7.4.3 Viewing and Editing Resources

#### Viewing and Editing Resources Using the Summary View in the Items Panel

You can view the resources of a particular resource type in a folder by selecting the resource type from the Items panel, summary view, as follows:

1. In **Resource Manager**, in the Folder Tree panel, click on the folder that contains the resources you want to view. The Items panel displays a summary view, showing a list of the resource types contained in the folder. If the Items panel was minimized then it will automatically be opened to display the summary view.
2. In the Items panel, click on the resource type you want to view. The Items panel changes to a list view showing a list of the resources of that type in this location.
3. To view the details for an individual resource, in the Items Panel, click on the resource you want to view. The resource details are displayed in the Details panel.
4. If you want to edit the resource, make the required changes and click **Save**.

### Viewing and Editing Resources Using a Resource Filter in the Folder Tree

You can also view the resources of a particular resource type in a folder by selecting the resource type filter from the Folder Tree panel, as follows:

1. In **Resource Manager**, in the Folder Tree panel, go to the folder that contains the resources that you want to view, and click on the resource filter for the type of resource you want to view. The Items panel displays a list view showing the resources of that type at that location. If the Items panel was minimized then it will automatically be opened to display the list view.
2. To view the details for an individual resource, in the Items panel, click on the resource you want to view. The resource details are displayed in the Details panel.
3. If you want to edit the resource, make the required changes and click **Save**.

### 7.4.4 Selecting Resources

There are two ways to select resources from a list view in the Items panel, depending on the action you want to take next.

- **To select one or more resources** to move or delete, select the check boxes to the left of the resource.
- **To view or edit the properties of a single resource**, click on the name of the resource. The properties of the resource will be shown in the Details panel.

For more details about the properties of a specific resource type, see the description for that resource. The location of the relevant information is listed in section 7.4.1.2 "System Resources" for system resources and section 7.4.1.3 "Remote Resources" for remote resources.

### 7.4.5 Viewing Resource Status

To see the current status of a resource:

1. View the resource details (see section 7.4.3 "Viewing and Editing Resources"). The resource status is shown as an icon at the bottom of the details panel. This is green if the resource is Ready, orange if the resource is Pending Active and red if the resource is in the Error state. You may also see information about the status of related resources and memberships.
2. If required, click the status icon to see the status dialog box, showing more information about the status of the resource and of any related resources or memberships. The status dialog box may also contain a Purge button if the



resource is in the Error state or appears to be stuck in the Pending Active state. You can click this to purge a stuck resource (see section 7.4.8 "Purging Resources").

**Note**

Status information is only available for provisionable remote resources (for example, agents, skill groups, precision queues). It is not available for Unified CCDM resources (for example, folders, users, groups) or for remote resources that cannot be provisioned using Unified CCDM (for example, media routing domains or scripts, or resources on systems where provisioning is not supported).

## 7.4.6 Moving Resources

1. In **Resource Manager**, in the Folder Tree panel, select the location that contains the resource or resources you want to move.
2. If you selected a resource filter from the Folder Tree panel then the Items panel shows a list view showing the resources of that type at that location.
3. If you selected any other folder from the Folder Tree panel, the Items panel shows a summary view, showing the resource types at that location. In this case, click on a resource type to see the list of resources of that type.
4. Check the box or boxes of the resource or resources to be moved.
5. Click the **Move** button.
6. The Move the Current Items page will be displayed, showing the folder tree.
7. In the folder tree, select the location to move the item or items to.
8. Click **Save** to begin the move operation.
9. A confirmation message is displayed. You will be returned to the main Resource Manager page automatically after 5 seconds, or you can click **OK** to return to the main Resource Manager page immediately.

**Note**

To move a resource, you need the appropriate permissions to manage the resource type, and to access the source and destination folders. The resource inherits the security defined for the new location.

When a remote resource is moved to a different tenant, the resource is marked as deleted at its old location and recreated under the new tenant. For more information about the effects of this, see section 7.4.9 "More About Moving Resources".

## 7.4.7 Deleting Resources

To delete one or more resources items:

1. In **Resource Manager**, in the Folder Tree panel, select the location that contains the resource or resources you want to delete.
2. If you selected a resource filter from the Folder Tree panel then the Items panel shows a list view showing the resources of that type at that location.
3. If you selected any other folder from the Folder Tree panel, the Items panel shows a summary view, showing the resource types at that location. In this case, click on a resource type to see the list of resources of that type.
4. Check the box or boxes of the resource or resources to be deleted.
5. Click the **Delete** toolbar button and a confirmation dialog will be displayed.
6. Click **OK** button to start the delete operation.

For more information about the effect of deleting a specific resource type, see the description for each resource. For system resources see section 7.4.1.2 "System Resources" and for remote resources see section 7.4.1.3 "Remote Resources".

## 7.4.8 Purging Resources

If a remote resource has been in the Pending Active state for a long time or is in the Error state (see section 7.4.1.4 "Resource States"), you can click **Purge** in the Status dialog (see section 7.4.5 "Viewing Resource Status") to delete the resource and break any relationships with other resources. The resource will be re-imported into Unified CCDM on the next import cycle.

## 7.4.9 More About Moving Resources

This section contains additional information for users who need to understand more about moving resources.

### Note

For detailed information about moving resources, see the information about equipment mappings in the *Administration Guide for Cisco Unified Contact Center Domain Manager*

### 7.4.9.1 Moving a Resource to a Different Tenant

When a resource is moved out of a tenant, the resource is no longer owned by that tenant. The original resource is deleted and a new resource is recreated at the new location. The user is asked whether related audit data should be moved with the resource, or remain with the deleted resource.

No changes are performed on the remote equipment during this change.

#### **7.4.9.2 Moving Remote Resources Owned by Remote Tenants**

In Unified CCE the following types of resource can belong to a Remote Tenant:

- Dialed Number
- Call Type
- Label
- Network VRU Script
- Scheduled Target
- Routing Script

Unified CCDM automatically manages which resources belong to which Remote Tenant according to where they are located in the folder tree. A resource which is located anywhere under a Remote Tenant mapped folder is associated with and belongs to that Remote Tenant.

If a resource is moved out of a Remote Tenant folder then the user is prompted for confirmation. If the user continues, the resource is disassociated from the Remote Tenant on the Unified CCE, and deleted and recreated at the new location. The user is asked whether related audit data should be moved with the resource, or remain with the deleted resource.

When a resource is moved into a Remote Tenant mapped folder, an association to that Remote Tenant is created on the Unified CCE.

If the resource is referenced by a customer-specific Unified CCE script or has a membership to any other items which have a Remote Tenant mapping then it cannot be moved to another Remote Tenant. For example, you cannot move a label out of a folder which has a Remote Tenant mapping if the label is referenced by a script which has a Remote Tenant association. To move the label, first remove it from the script or make the script visible to all customers using the Unified CCE Script Editor.

Provisioning of Scheduled Targets is not supported, so any move which requires a change of Remote Tenant will not be allowed. Likewise if a Routing Script move results in a change of Remote Tenant ownership and Script Provisioning is disabled in Cluster Configuration, the move operation will be aborted.

Resources owned by Remote Tenants that do not have a folder mapping will not have their Remote Tenant ownership changed unless they are moved under a folder with a Remote Tenant mapping.

### **7.4.9.3 Moving Resources Using AW tools**

If the ownership of a resource is changed outside Unified CCDM, by using the Admin Workstation (AW) and changing the Customer Definition ID, the change will be imported into Unified CCDM on the next import cycle.

This change will disable the resource at the old location and create a new instance of the resource under the new tenant.

The old resource instance will retain its historical audit data. Any new audit data since the change of ownership will be associated with the new resource instance.

## **7.5 Bulk Upload of Resources**

### **7.5.1 About Bulk Upload**

#### **7.5.1.1 The Bulk Upload Tool**

The bulk upload tool is used for importing large numbers of resource items into Unified CCDM. It is used to generate resources such as Agents or Skill Groups by filling in resource attributes using the standard CSV format.

All CSV files require headers that dictate where each value goes. These headers are provided by templates that can be downloaded from the appropriate Bulk Upload page in Unified CCDM.

#### **7.5.1.2 Resources That Can Be Bulk Uploaded**

You can bulk upload the following resources:

- Agents
- Agent desktops
- Agent teams
- Precision attributes
- Call Types
- Departments
- Dialed Numbers
- Enterprise Skill Groups
- Folders
- Labels
- Network VRU Scripts

- Persons
- Precision Queues
- Skill Groups
- Users
- User Variables

## 7.5.2 Editing CSV files

You can use Notepad or any other text-based editor to edit CSV files for use with bulk upload. Excel also offers support for CSV files so you can edit these in a familiar environment while maintaining the integrity of the CSV format.

### Note

Editing CSV files in Excel can cause missing commas.

## 7.5.3 Using the Bulk Upload Tool

### 7.5.3.1 Starting a Bulk Upload

To use the bulk upload tool:

1. Open the **Resource Manager** page.
2. Select the required folder.
3. Click on **Upload** in the Folder Tree panel and then select the item type you want to bulk upload from the drop-down list. The **Bulk Upload Control** page displays.
4. Select a template for your chosen resource. The template link is present in the horizontal toolbar near the top of the page. Once selected, a download box is presented allowing you to save this CSV file onto your machine.
5. Open the template in the editor you require (such as Notepad) and begin to enter your data or paste it from another source.
6. Return to the **Bulk Upload Control** page and make sure the path is set correctly.

### Note

This path will only be used if you have removed the Path column in the CSV file. This option is not available for folders.

7. Browse to the CSV file you have just entered the data into.
8. Click **Upload**.

A progress bar at the bottom of the screen displays the upload progress.

**Caution!**

Do not upload more than 500 items per CSV file.

### 7.5.3.2 Bulk Upload Errors

If something goes wrong during the bulk upload, you may want to pause the upload and check why an item failed. For more information about possible reasons for bulk upload failures, see section 7.5.3.3 "Reasons for Upload Failure".

If the upload tool encounters a problem that affects all rows and not just the current one, an alert box appears that describes the problem's description and returns you to the Bulk Upload Control page.

Once every row has been processed a summary dialog appears to inform you of how many rows failed and how many passed. Please note this dialog does not give you the result of provisioning these items onto the host system, only the result of uploading the items into Unified CCDM.

### 7.5.3.3 Reasons for Upload Failure

The table below details some reasons why an upload might fail.

Exception Type	Reason
No Capacity Left	The capacity limit has been reached.
Enterprise Name Already Exists	The enterprise name already exists.
Login Name Already Exists	The peripheral login name already exists.
SQL Exception	SQL error during upload, usually due to bad data.
Argument Exception	An attribute contains a bad value. This usually occurs when you have an empty string in the Path column when attempting to upload items which cannot be contained in the Root folder.
Security Exception	You do not have security permissions to upload to the folder.

Exception Type	Reason
Format Exception	Invalid data in a column.
No Identity Available	Identity not available.

## 7.5.4 Bulk Upload Data Types

Bulk upload uses the following data types:

- SNC means Standard Naming Convention. This is alphanumeric data with no exclamation marks or hyphens, although underscores ( `_` ) are permitted.
- BOOLEAN means one of the following values:
  - TRUE
  - FALSE
  - Empty field. Leaving these fields empty defaults the field to FALSE.
- Y/N is similar to Boolean however it can only contain the values Y or N.
- Date format is the universal date format `<Year>-<Month>-<Day>` for example 2006-08-30.
- CSS means a valid CSS (Cascading Style Sheet) style definition, for example `color:black; background-color: #e08000`
- CSS Styled List
- Any Data Type marked with a hyphen (-) means that there are no constraints on what you can put in the field (except for the constraints imposed by the native CSV format).

Where a column supports a list of values (for example, an agent may belong to multiple skill groups) separate each skill group with a semi-colon ( `;` ) character, for example `Skillgroup1; Skillgroup2; Skillgroup3`.

### Note

Make sure that the value you specify for each field is a valid value for that data type. The upload will fail with an error if any values are invalid.

## 7.5.5 Global Bulk Upload Columns

These columns are common to every bulk upload template file except where stated.

The **Required?** column in the tables below indicates whether the column must be present.

Column Name	Data Type	Required?	Description
Path	Path	No	Describes where in the tree the resource will be created. If you want to supply the path in the bulk upload screen, you must remove this column. Use the forward slash ("/") as a delimiter when specifying folders. For example, use / to specify the root folder, /MyTenant to specify a tenant folder and /MyTenant/MyFolder to specify a tenant subfolder. <i>Note. If you leave the column present and do not set a value, bulk upload will attempt to upload into the Root directory, which is valid for items such as folders, but not for resources such as Agent or Skill Group. Removing the column completely will upload the resources into the folder you were working in when you initiated the bulk upload.</i>
Name	SNC	Yes	The name of the resource in Unified CCDM. This must be a unique name. In most cases, this will not be provisioned.
Description	-	No	Describes the dimension being created. This is never provisioned.
EnterpriseName	SNC	No	The name for the resource being created. This field is provisioned and cannot be omitted. If you leave it blank an Enterprise name is generated for you.
EffectiveFrom	Date	No	The date from which the resource is active. The default is the current date. <i>Note. This date is not localized, and will be treated as a UTC date.</i>
EffectiveTo	Date	No	The date on which the resource becomes inactive. The default is forever. <i>Note. This date is not localized, and will be treated as a UTC date.</i>

### 7.5.6 Bulk Upload Agent Template

This table shows the columns required when bulk loading Agents.

Columns that are common to many resources are described in section 7.5.5 "Global Bulk Upload Columns".

**Settings > Provisioning Settings > Agent State Trace**



Column Name	Data Type	Required?	Description
DepartmentMember	Enterprise Name	No	The department that this item belongs to. This field is only valid if the tenant is associated with a Unified CCE instance running Unified CCE version 10.0 or later. Otherwise, an error will be reported if this field is present.
DefaultSkillGroup	Enterprise Name	No	The default skill group to be used when the skill group routing is not available. This skill group will be automatically included in the SkillGroupMember field if it is not already present.
PeripheralNumber	Numeric	Yes	The service number as known at the peripheral. Autogenerated if not supplied.
PeripheralName	SNC	No	The name identifying the agent on the associated peripheral.
Supervisor	Boolean	No	Indicates whether the agent is a supervisor. This will not create a Unified CCDM user, as this is a future feature, however it enables you to bind this agent to a domain login name.
AgentStateTrace	Boolean	No	Indicates whether the software collects agent state trace data for the agent. <i>Note. This field can only be set if the Agent State Trace provisioning setting has been selected (<b>Settings &gt; Provisioning Settings &gt; Agent State Trace</b>). The bulk load for the record will fail otherwise.</i>
DomainLoginName	NETBIOS Login Name	If Agent is a supervisor	The login name for the domain user this Agent is associated with. This will often be of the form <domain>\<username>
DomainUserName	NETBIOS Username	If Agent is a supervisor	The username of the domain user this Agent is associated with. In the above Domain Login example, this would be simply <username>
PeripheralMember	Enterprise Name	Yes	The Peripheral to assign this Agent to.
AgentDesktopMember	Enterprise Name	No	The Desktop this Agent will use.

Column Name	Data Type	Required?	Description
PersonMember	Login Name	Yes	The Person that this Agent represents.
AgentTeamMember	Enterprise Name	No	The team this agent belongs to. The team must be on the same Peripheral otherwise provisioning will fail. This column may also be subject to capacity limitations. For example, there may only be so many agents allowed in a team and that team has already reached its capacity.
SkillGroupMember	Enterprise Name	No	The skill group or skill groups this agent belongs to. The skill groups must be on the same Peripheral otherwise provisioning will fail. To specify multiple skill groups, separate each skill group with a semi-colon (;) character.
PrecisionAttributeMember	Enterprise Name and values	No	The attributes that this agent has and the values of each. Assign values using "=" and separate multiple attributes with a semi-colon (;). For example, Spanish=5; MortgageTraining=True for an agent with a proficiency of 5 in Spanish and who is trained in mortgages.

### 7.5.7 Bulk Upload Agent Desktop Template

This table shows the columns required when bulk loading Agent Desktops.

Columns that are common to many resources are described in section 7.5.5 "Global Bulk Upload Columns".

Column Name	Data Type	Required?	Description
DepartmentMember	Enterprise Name	No	The department that this item belongs to. This field is only valid if the tenant is associated with a Unified CCE instance running Unified CCE version 10.0 or later. Otherwise, an error will be reported if this field is present.
WrapupDataIncomingMode	Numeric	No	Indicates whether the agent is allowed or required to enter wrap-up data after an incoming call. <b>0:</b> Required <b>1:</b> Optional <b>2:</b> Not allowed <b>3:</b> Required with Wrap up Data If value is blank, defaults to 1.
WrapupDataOutgoingMode	Numeric	No	Indicates whether the agent is allowed or required to enter wrap-up data after an outgoing call. <b>0:</b> Required <b>1:</b> Optional <b>2:</b> Not allowed <b>3:</b> Required with Wrap up Data If value is blank, defaults to 1.
WorkModeTimer	Numeric	No	The amount of time in seconds (1-7200) allocated to an agent to wrap up the call. If not supplied, defaults to 7200.
RemoteAgentType	Numeric	No	Indicates how mobile agents are handled. <b>0:</b> No remote access <b>1:</b> Use call by call routing <b>2:</b> Use nailed connection <b>3:</b> Agent chooses routing at login <b>4:</b> Required with Wrap up Data If value is blank, defaults to 0.

### 7.5.8 Bulk Upload Agent Team Template

This table shows the columns required when bulk loading Agent Teams.

Columns that are common to many resources are described in section 7.5.5 "Global Bulk Upload Columns".

Column Name	Data Type	Required?	Description
DepartmentMember	Enterprise Name	No	The department that this item belongs to. This field is only valid if the tenant is associated with a Unified CCE instance running Unified CCE version 10.0 or later. Otherwise, an error will be reported if this field is present.
PeripheralMember	Enterprise Name	Yes	The peripheral to assign this Agent Team to.
DialedNumberMember	Enterprise Name	No	The dialed number to use for this Agent Team.

### 7.5.9 Bulk Upload Call Type Template

This table shows the columns required when bulk loading Call Types.

Columns that are common to many resources are described in section 7.5.5 "Global Bulk Upload Columns".

Column Name	Data Type	Required?	Description
DepartmentMember	Enterprise Name	No	The department that this item belongs to. This field is only valid if the tenant is associated with a Unified CCE instance running Unified CCE version 10.0 or later. Otherwise, an error will be reported if this field is present.
ServiceLevelType	Numeric	No	Indicates how the system software calculates the service level for the skill group. If this field is 0, Unified CCE uses the default for the associated Peripheral/MRD pair. Valid numbers are as follows: 0 or blank: Use Default 1: Ignore Abandoned Calls 2: Abandoned Call Has Negative Impact 3: Abandoned Call Has Positive Impact.
ServiceLevelThreshold	Numeric	No	The service level threshold, in seconds, for the service level. If this field is negative, the value of the Service Level Threshold field in the Peripheral table is used.

### 7.5.10 Bulk Upload Departments Template

There are no extra columns required when bulk loading Departments.

Columns that are common to many resources are described in section 7.5.5 "Global Bulk Upload Columns".

### 7.5.11 Bulk Upload Dialed Number Template

This table shows the columns required when bulk loading Dialed Numbers.

Columns that are common to many resources are described in section 7.5.5 "Global Bulk Upload Columns".

Column Name	Data Type	Required?	Description
DepartmentMember	Enterprise Name	No	The department that this item belongs to. This field is only valid if the tenant is associated with a Unified CCE instance running Unified CCE version 10.0 or later. Otherwise, an error will be reported if this field is present.
Dialednumber	SNC	Yes	The string value by which the Agent/IVR Controller identifies the Dialed Number.
RoutingClientMember	Enterprise Name	Yes	The name of the routing client (such as NIC or PG) that this number should use to submit routing requests to the Unified CCE.
MediaRoutingDomainMember	Enterprise Name	Yes	The name of the media routing domain.

### 7.5.12 Bulk Upload Enterprise Skill Group Template

This table shows the columns required when bulk loading Enterprise Skill Groups.

Columns that are common to many resources are described in section 7.5.5 "Global Bulk Upload Columns".

Column Name	Data Type	Required?	Description
DepartmentMember	Enterprise Name	No	The department that this item belongs to. This field is only valid if the tenant is associated with a Unified CCE instance running Unified CCE version 10.0 or later. Otherwise, an error will be reported if this field is present.
SkillGroupMember	Enterprise Name	No	The skill group or skill groups associated with this enterprise skill group. The skill groups must be on the same Peripheral otherwise provisioning will fail. To specify multiple skill groups, separate each skill group with a semi-colon (;) character.

### 7.5.13 Bulk Upload Folders Template

This table shows the columns required when bulk loading Folders.

Columns that are common to many resources are described in section 7.5.5 "Global Bulk Upload Columns"

#### Note

Folders do not use the EnterpriseName, EffectiveTo or EffectiveFrom global columns.

Column Name	Data Type	Required?	Description
Security	CSS Styled List	No	Allows you to set security on the folder you upload. See below for an example of the syntax for this field.

#### Security Field Example

DOS-styled syntax example:

```
<USERNAME>:<ROLENAME>;<USERNAME>:<ROLENAME>[:<MULTIPLEROLENAME>]
```

This is an example of what can be put into the Security field in the agent CSV file:

- A single user with a single role  
Administrator:Advanced Users
- A single user with more than one role  
Administrator:Advanced Users:Supervisors
- Multiple users

Administrator:Advanced Users:Supervisors;User1:Basic Users

Users are separated by semicolons. Users are separated from roles by colons. This is similar to CSS syntax except that a user can have multiple roles.

**Note**

Group permissions on a folder cannot be set during bulk upload.

### 7.5.14 Bulk Upload Label Template

This table shows the columns required when bulk loading Labels.

Columns that are common to many resources are described in section 7.5.5 "Global Bulk Upload Columns".

Column Name	Data Type	Required?	Description
Label	SNC	False	The name of the item on the associated equipment
RoutingClientMember	Enterprise Name	Yes	The name of the routing client (such as NIC or PG) that this number should use to submit routing requests to the Unified CCE.
LabelType	Numeric	False	The type of label: <b>0:</b> Normal <b>1:</b> DNIS override <b>2:</b> Busy <b>3:</b> Ring <b>4:</b> Post-Query <b>5:</b> Resource

### 7.5.15 Bulk Upload Network VRU Scripts Template

This table shows the columns required when bulk loading Network VRU Scripts.

Columns that are common to many resources are described in section 7.5.5 "Global Bulk Upload Columns".

Column Name	Data Type	Required?	Description
DepartmentMember	Enterprise Name	No	The department that this item belongs to. This field is only valid if the tenant is associated with a Unified CCE instance running Unified CCE version 10.0 or later. Otherwise, an error will be reported if this field is present.
VRUScriptName	SNC, plus commas (,)	Yes	Up to 39 characters. This is a composite string identifying the micro-application to run, the name of the associated media file (if applicable) and any options that need to be specified for that micro-application.
Timeout	Numeric	Yes	The number of seconds to wait for a response after the script starts executing.
NetworkVruMember	Enterprise Name	Yes	The network VRU to associate with this Network VRU Script.

### 7.5.16 Bulk Upload Person Template

This table shows the columns required when bulk loading Persons.

Columns that are common to many resources are described in section 7.5.5 "Global Bulk Upload Columns".



Column Name	Data Type	Required?	Description
DepartmentMember	Enterprise Name	No	The department that this item belongs to. This field is only valid if the tenant is associated with a Unified CCE instance running Unified CCE version 10.0 or later. Otherwise, an error will be reported if this field is present.
EquipmentName	SNC	No	The instance name of the Unified CCE you want this person added to. This will correspond directly with the equipment instance name that was specified when configured via the Unified CCDM ICE Cluster Configuration utility (see Administration Guide for Cisco Unified Contact Center Domain Manager). Omit this item or leave it blank to automatically add this Person to all available equipment. To add this Person to multiple equipment instances, specify each of the equipment instance names you want to add this person to, separating each equipment instance with a ";" (semi-colon) character.
FirstName	SNC	Yes	The first name of the person.
LastName	SNC	Yes	The last name of the person.
LoginName	SNC	Yes	The peripheral login name for the person.
PassPhrase	Password	Depends on setting on underlying equipment	The peripheral login password for the person. At least five characters long. Longer passwords, including numbers and other characters, may be required. Ask your system administrator for details.

### 7.5.17 Bulk Upload Precision Attributes Template

This table shows the columns required when bulk loading Precision Attributes.

Columns that are common to many resources are described in section 7.5.5 "Global Bulk Upload Columns".

Column Name	Data Type	Required?	Description
DepartmentMember	Enterprise Name	No	The department that this item belongs to. This field is only valid if the tenant is associated with a Unified CCE instance running Unified CCE version 10.0 or later. Otherwise, an error will be reported if this field is present.
AttributeDataType	Numeric	Yes	Type of data to associate with attribute. One of: <b>3:</b> boolean (true or false only) <b>4:</b> proficiency (a numeric range).
MinimumValue	Numeric	Yes, for proficiency data types only. Null otherwise.	Minimum value that the attribute can have. Must be between 1 and 10.
MaximumValue	Numeric	Yes, for proficiency data types only. Null otherwise.	Maximum value that the attribute can have. Must be between 1 and 10.
DefaultValue	Boolean or Numeric, according to AttributeDataType	No	Default value to be used when an attribute is assigned to an agent if no explicit value is specified.

### 7.5.18 Bulk Upload Precision Queues Template

This table shows the columns required when bulk loading Precision Queues.

Columns that are common to many resources are described in section 7.5.5 "Global Bulk Upload Columns".

Column Name	Data Type	Required?	Description
DepartmentMember	Enterprise Name	No	The department that this item belongs to. This field is only valid if the tenant is associated with a Unified CCE instance running Unified CCE version 10.0 or later. Otherwise, an error will be reported if this field is present.
Steps	-	Yes	Specification of the steps in this precision queue. See below for syntax of this field.
AgentOrdering	Numeric	Yes	The way to choose an agent to handle the call if more than one agent satisfies the precision queue criteria. One of: <b>1:</b> agent that has been available the longest <b>2:</b> most skilled agent <b>3:</b> least skilled agent
ServiceLevelThreshold	Numeric	Yes	The service level threshold, in seconds, for allocating the call to a suitable agent using the rules in the precision queue. 0 to 2147483647
ServiceLevelType	Numeric	No	Indicates how to handle abandoned calls in service level calculations. One of: <b>1:</b> ignore abandoned calls <b>2:</b> abandoned calls have negative impact (that is, exceed the service level threshold) <b>3:</b> abandoned calls have positive impact (that is, meet the service level threshold)

### 7.5.18.1 Syntax for Precision Queue Steps

The Precision Queue Steps field consists of one or more steps. Each step is broken down into several parts. The parts are

- The **ConsiderIf** Condition (optional). If present, this specifies the circumstances to which the step applies. For example, a step might only apply if there has been a higher than usual number of unanswered calls that day. Do not specify a ConsiderIf condition for the last step in a Precision Queue.
- The **condition expressions** (always required for each step). This specifies the attributes an agent must have to receive the call. It may be a simple comparison, or it may involve multiple comparisons linked by “and” or “or”. For example, the condition expressions might specify an agent who can speak Spanish, and is trained to sell mortgages and is based in London.

- The **WaitTime** (optional). Specifies the amount of time in seconds to wait before moving on to the next step if the conditions in this step cannot be met. For example, a wait time value of 20 would mean that if no agent matching the conditions for that step was available at the end of 20 seconds, the next step would be considered. If a wait time is not specified then a default of 0 is used. Do not specify a wait time for the last step in a Precision Queue.

To build the Steps field from these components, separate the parts of each step with a colon (:), and separate each step with a semi-colon (;). Do not add a semi-colon at the end of the last step.

The example below shows a Steps field with three steps. The first step has a **WaitTime** expression and the condition expression. The second has a **ConsiderIf** expression and a **WaitTime** expression as well as the condition expression. The third step is the last step, so can only have a condition expression.

### Step 1

Specify the time in seconds to wait for the conditions in the step to be met. This ends with a colon as it is part of the step.

```
WaitTime=10:
```

Specify the condition expression to be used. This ends with a semi-colon as it is the end of the step, and another step follows it.

```
Spanish >= 5 && MortgageTrained == True && Location == London;
```

### Step 2

Specify the circumstances to consider this step. This ends with a colon as it is part of the step. See the note below for the syntax for the ConsiderIf statement.

```
ConsiderIf=TestforSituation:
```

Specify the time in seconds to wait for the conditions in the step to be met. This ends with a colon as it is part of the step.

```
WaitTime=20:
```

Specify the condition expression to be used. This ends with a semi-colon as it is the end of the step, and another step follows it.

```
Spanish >= 5 && MortgageTrained == True;
```

### Step 3

Specify the condition expression to be used if the previous steps have all failed. This has no semi-colon at the end as it is the final step.

```
(Spanish >= 5) || (Spanish >=3 && MortgageTrained == True)
```

**Note**

This attribute must be the enterprise name of the precision attribute

**Notes**

In the example above the `Steps` field has been separated into sections so you can see how it is constructed. When used in a bulk upload script, enter it as a single string in the same record as the other Precision Queue fields.

The `ConsiderIf` part of the test is not parsed by Unified CCDM but is passed directly to Unified CCE. For more information about the syntax of `ConsiderIf` expressions, see the Unified CCE documentation at [http://docwiki.cisco.com/wiki/Precision\\_Routing\\_Release\\_9.0\(1\)](http://docwiki.cisco.com/wiki/Precision_Routing_Release_9.0(1)).

In the condition expression, you can use the following

- for joining conditions `&&` (AND) or `||` (OR)
- for comparisons of Boolean attributes `==` (is equal to) or `!=` (is not equal to)
- for comparisons of proficiency attributes, `==` (is equal to), `!=` (is not equal to), `<` (is less than), `<=` (is less than or equal to), `>` (is greater than) `>=` (is greater than or equal to).

### 7.5.19 Bulk Upload Skill Group Template

This table shows the columns required when bulk loading Skill Groups.

Columns that are common to many resources are described in section 7.5.5 "Global Bulk Upload Columns".

Column Name	Data Type	Required?	Description
DepartmentMember	Enterprise Name	No	The department that this item belongs to. This field is only valid if the tenant is associated with a Unified CCE instance running Unified CCE version 10.0 or later. Otherwise, an error will be reported if this field is present.
PeripheralNumber	Numeric	No	The service number as known at the peripheral. If not supplied, an auto-generated number is used.
PeripheralName	SNC	No	The name of the Peripheral as it is known on the site.

Column Name	Data Type	Required?	Description
AvailableHoldOffDelay	Numeric	No	The value for this Skill Group instead of using the one associated with this peripheral.
Priority	Numeric	No	The routing priority for the skill. This should be set to 0.
Extension	Numeric	No	The extension number for the service (used by Lucent DEFINITY ECS).
IPTA	Y/N	No	Indicates whether the Unified CCE picks the agent.
ServiceLevelThreshold	Numeric	No	The service level threshold, in seconds, for the service level. If this field is negative, the value of the Service Level Threshold field in the Peripheral table is used.
ServiceLevelType	Numeric	No	Indicates how the system software calculates the service level for the skill group. If this field is 0, Unified CCE uses the default for the associated Peripheral/MRD pair. Possible values: 0 = Use Default; 1 = Ignore Abandoned Calls; 2 = Abandoned Call Has Negative Impact; 3 = Abandoned Call Has Positive Impact.
DefaultEntry	Numeric	No	Normal entries are 0 (zero). Any records with a value greater than 0 are considered a default skill group for configuration purposes. Records having a value of 1 are used by Unified CCE as the default target skill group.
PeripheralMember	Enterprise Name	Yes	The peripheral to assign this skill group to.
RouteMember	SNC	No	The Routes associated with this skill group. To supply a list of routes, separate the routes in the list with a semi-colon (;). <i>Note. The specified route or routes must not already exist. They will be created as part of the bulk upload of the skill group.</i>
MediaRoutingDomainMember	Enterprise Name	Yes	The Media Routing Domain. This cannot be changed after skill group upload.

### 7.5.20 Bulk Upload User Variable Template

This table shows the columns required when bulk loading User Variables.

Columns that are common to many resources are described in section 7.5.5 "Global Bulk Upload Columns".

Column Name	Data Type	Required?	Description
ObjectType	Numeric	Yes	A number indicating the type of object with which to associate the variable. You may choose not to associate the user variable with an object by selecting <b>31</b> (User Variable). Valid numbers are as follows: <b>1</b> : Service <b>2</b> : Skill Group <b>7</b> : Call Type <b>8</b> : Enterprise Service <b>9</b> : Enterprise Skill Group <b>11</b> : Dialed Number <b>14</b> : Peripheral <b>16</b> : Trunk Group <b>17</b> : Route <b>20</b> : Master Script <b>21</b> : Script Table <b>29</b> : Application Gateway <b>31</b> : User Variable

### 7.5.21 Bulk Upload Users Template

This table shows the columns required when bulk loading Users.

Columns that are common to many resources are described in section 7.5.5 "Global Bulk Upload Columns".

#### Note

Users use only the Path and Description global columns from the Global Template.

Column Name	Data Type	Required?	Description
LoginName	SNC	Yes	The login name of the user that will be used for application logon.
Password	Password	Yes	The password for the new user account
AdvancedMode	Boolean	No	Determines if the user is advanced or not
FirstName	SNC	No	The first name of the user
LastName	SNC	No	The last name of the user

Column Name	Data Type	Required?	Description
ChangePasswordOnNextLogon	Boolean	No	Determines if after the initial logon the user should be prompted to reset their password
PasswordNeverExpires	Boolean	No	Determines if the password for this user will ever expire
HomeFolder	Path	No	The folder path to the folder which will be used as the users home folder
CreateNewUserFolder	Boolean	No	Determines whether a new folder should be created for the user home folder in the Home Folder location
Groups	Group Name(s)	No	A semi colon separated list of group names (including their path) to which the user will be added. Since group names are not unique the path must be also specified for example, /Folder1/Admins;/Folder2/Admins
InternetScriptEditorEnabled	Boolean	No	Whether the user is linked to a Unified CCE user that can access Cisco's Internet Script Editor. If true, the following apply: <ul style="list-style-type: none"> <li>• The login name must correspond to an existing Windows active directory use.</li> <li>• If the installation does not use single sign on, the specified password must match the password for the corresponding active directory user.</li> </ul>

## 7.6 System Search Folders

### 7.6.1 About System Search Folders

If you have a global role that includes the Browse Search Folders permission then you may be able to see search system folders containing predefined searches in the Folder Tree panel (more information about global roles, see section 9.2 "Global Roles"). System search folders may exist at root level, or in subfolders, or in both locations.

By default, Unified CCDM is configured with these predefined searches, located in **Search Folders**, immediately below the root folder:



- **Awaiting Deletion:** shows the user a flat list of all the items in the system that they have permission to see and are currently at Awaiting Deletion status.
- **Error:** shows the user a flat list of all the items in the system that they have permission to see and are currently at Error status.
- **Pending Active:** shows the user a flat list of all the items in the system that they have permission to see and are currently at Pending Active status.
- **Recently Modified:** shows the user a flat list of all the items in the system that they have permission to see and have been modified in the last hour.

**Note**

Depending on your system configuration, there may also be other search folders containing customized searches at other locations in the hierarchy.

### 7.6.2 Viewing Search Details

1. In the Folder Tree panel, click on **Search Folders**.
2. In the Items panel (summary view) you will see a single summary entry representing the searches in the folder. Click on the summary entry to show the list of searches in the Items panel (list view).
3. In the Items panel (summary view), click on a search to see the search details in the Detail panel.

### 7.6.3 Running a Predefined Search

1. To run a predefined search, in the Folder Tree panel, click on the + beside **Search Folders** to expand it, and then click on the search folder that contains the search you want to run. This runs the search.
2. The Items panel displays a summary list of the item types that match the search criteria. Click on an item type in the summary list to see the items of that type that match the search criteria.

### 7.6.4 Refreshing the Search Results

Right click on a search and select refresh to refresh the search results.

### 7.6.5 Moving or Deleting Searches

The searches are predefined. You cannot move or delete searches using the functionality in the Folder Tree panel or in the Items panel.

## 7.6.6 Viewing or Editing Search Results

To view or edit the items returned in a search:

1. In the Folder Tree panel, below Search Folders, identify the search you are interested in.
2. Next
  - either click on the search to see a summary view of the results in the Items panel, and then click on a resource type to see a list of the items of that type.
  - or click on a resource folder below the search to see a list view of the resource items of that type in the Items panel.
3. Click on an item in the Items panel to view the details for that item.
4. Optionally, edit the item details, as required, and then click **Save** to apply any changes, or **Cancel** to revert the changes.

### Note

If you edit the item, you are editing the actual item, not just the search result.

## 7.6.7 Moving Items in Search Results

To move one or more items returned in a search:

1. In the Folder Tree panel, below Search Folders, identify the search you are interested in.
2. Next,
  - either click on the search to see a summary view of the results in the Items panel, and then click on a resource type to see a list of the items of that type.
  - or click on a resource folder below the search to see a list of the items of that type in the Items panel.
3. Check the box or boxes of the item or items to be moved.
4. Click the **Move** button.
5. The Move the Current Items page will be displayed, showing the folder tree.
6. Select the location in the folder tree to move the folder or folders to.
7. Click **Save**.

**Notes**

If you move an item, you are moving the actual item, not just the search result.

**7.6.8 Deleting Items from Search Results**

To delete one or more items returned in a search:

1. In the Folder Tree panel, below Search Folders, identify the search you are interested in.
2. Next,
  - either click on the search to see a summary view of the results in the Items panel, and then click on a resource type to see a list of the items of that type.
  - or click on a resource folder below the search to see a list of the items of that type in the Items panel.
3. Check the box or boxes of the item or items to be deleted.
4. Click **Delete**.
5. At the confirmation message, click OK to start the deletion.

**Notes**

If you delete an item, you are deleting the actual item, not just the search result.

## **8 Resource Guide**

### **8.1 About Resource Types**

This chapter describes:

- each resource type
- how to create, edit and delete that resource type (as applicable)
- other operations that can be performed on that resource
- the fields that can be set for that resource, and what each field means.

## 8.2 Agents

### 8.2.1 About Agents and Supervisor Agents

#### Agents

An agent is a person who handles customer contacts on a particular peripheral. Each agent is associated with a Unified CCDM person. Multiple agents can be associated with a single person. For example, someone who provides cover for agent teams on different peripherals will be represented by a separate agent account on each peripheral.

Each agent can be a member of one or more skill groups, which are groups of agents that share a common set of skills. Agents can also be grouped into agent teams, each of which have a supervisor or supervisors.

#### Note

In order to use non-voice peripherals, agents must be enabled for non-voice use via the administration interfaces for these multi-channel applications. You can create all new agents using Unified CCDM, but to configure agents to use non-voice peripherals, you will need to use the administration interfaces of those peripherals.

#### Supervisor Agents

A supervisor agent is an agent, often with a user account on Unified CCDM, who can administer specific agents and agent teams. A supervisor agent does not have to be actually assigned as a supervisor to any agent team, but an agent must be a supervisor agent to supervise an agent team.

A team supervisor may be a *primary* or *secondary* supervisor. A team may have any number of secondary supervisors, but only one primary supervisor.

#### Notes

If an agent is a supervisor agent, and if the associated Person has a Unified CCDM user account, that user should be added to the Unified CCDM Supervisors security group. This allows Unified CCDM users to edit agents and agent teams.

If an agent is a supervisor agent, then the agent must be associated with a domain account before they can have precision attributes associated to them.

#### Example

ExampleCorp has ten agents in its New York contact center, and five in San Francisco. These agents are to be divided into three teams.

First, ExampleCorp creates two teams (Green and Blue) in New York, and one (Red) in San Francisco. Then it creates five persons in San Francisco and ten persons in New York, creates an agent associated with each, and adds each agent to a team.

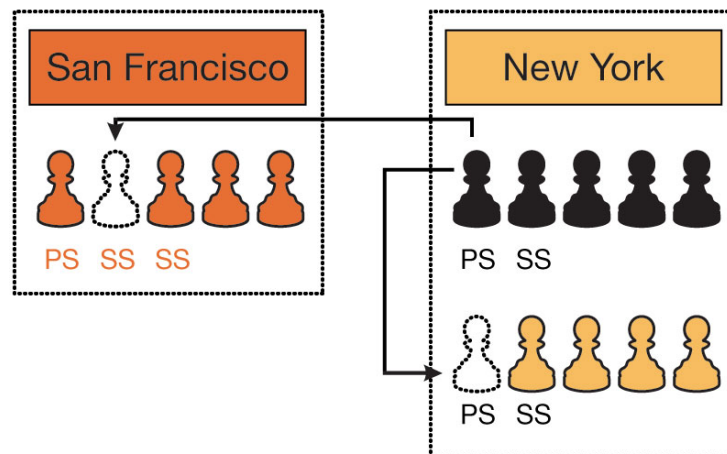
ExampleCorp wants the two teams in New York to be supervised by the same senior supervisor agent. ExampleCorp therefore edits this agent to make her into a supervisor agent, and adds her as a Primary Supervisor to both teams. An agent can only be a member of a single team, however this supervisor supervises the Blue Team without being a member of it.

The user account of the person associated with this supervisor agent is added to the ExampleCorp\_Supervisors user group.

A primary supervisor is also assigned to the Red Team.

ExampleCorp then assigns secondary supervisors. It decides that the senior supervisor agent in New York should also be a secondary supervisor of the Red Team in San Francisco. Since it is possible to have any number of secondary supervisors for each team, this does not prevent them assigning a San Francisco agent as secondary supervisor to this team as well.

See Figure 8.1 "Agent Teams Example" for a diagram of this scenario.



**Figure 8.1** Agent Teams Example

## 8.2.2 Creating an Agent

To create an agent:

1. In **Resource Manager**, in the Folder Tree panel, select the folder where you want to create the agent.
2. In the Folder Tree panel, click **Resource**, and then click **Agent**.
3. Enter a Name, and select a Peripheral and Person to associate the agent with. You can choose either to associate the agent with an existing Person, or to create a new Person for that agent as follows:
  - **Select Existing Person.** Select a person from the drop-down list, or search for a specific person by typing a part of their name in the Search box. The new agent will use the details specified in that Person's Peripheral Login box to log on to their Agent Desktop.
  - **Create New Person.** Enter the first name and last (or family) name for the person, and fill in the details they will use to login to the peripheral. The person will be automatically created and associated with the agent.
4. Complete the remaining fields as described in section 8.2.7 "Agent Fields". Active from and to dates can be set in the **Advanced** tab.
5. Click **Save**.

Once you've created an agent, you can assign that user as the member of an agent team, and to one or more skill groups.

### Note

Multiple agents may be associated with a single person, provided each agent is on a different peripheral.

The peripheral login details cannot be edited once the agent has been created.

## 8.2.3 Adding an Agent to a Team

You can use the Agent Teams tab to change the team an agent is a member of and, in the case of a supervisor agent, to set the agent as primary or secondary supervisor for one or more teams.

### Note

A supervisor agent does not need to be a member of a team to supervise it.

To add an agent to a team as either a supervisor or a member:

1. In **Resource Manager**, go to the folder containing the agent you want to update, and view the agents in that folder using the Items panel list view.

2. In the Items panel, click on the agent you want to add to a team. The details of this agent are displayed in the Details panel.
3. In the Details panel, click on the **Agent Teams** tab. The upper box shows a list of teams the agent is currently assigned to, and the lower box shows a list of teams available in the current folder. You can see the agent teams in other folders using the Selected Path drop-down folder list. The dates between which each team is active are displayed, as is the primary supervisor for that team.
4. Select teams in the lower box and click on the **Add** button to add the agent to them. They will automatically be moved into the upper box.
5. Check the **Member** box if the agent is to be a member of the team. This box should be checked in most cases.

**Note**

An agent cannot be a member of more than one team, though a supervisor can supervise multiple teams.

- If the agent is a supervisor agent, you may choose to assign them as a supervisor to that team. Select **Primary Supervisor** or **Secondary Supervisor** from the drop-down list. A team can have multiple secondary supervisors but only one primary supervisor.

**Note**

If you replace an existing primary supervisor, the replaced supervisor will automatically become a secondary supervisor for that team.

- You can remove the agent from a team by selecting the team (or teams) in the upper box and clicking **Remove**.

6. Click **Save**.

## 8.2.4 Editing an Agent

To edit an agent:

1. In **Resource Manager**, go to the folder containing the agent you want to edit, and view the agents in that folder using the Items panel list view.
2. In the Items panel, click on the agent you want to edit. The details of this agent are displayed in the Details panel.
3. In the Details panel, click on the appropriate tab and make the desired changes.



**Note**

If you select the person tab and edit the details for the associated person, then the existing person record is updated when the agent changes are saved.

4. Click **Save**.

## 8.2.5 Deleting an Agent

To delete one or more agents:

1. In **Resource Manager**, go to the folder containing the agent or agents you want to delete, and view the agents in that folder using the Items panel list view.
2. In the Items panel, check the box or boxes of the agent or agents to be deleted.
3. Click **Delete**.
4. In the Delete Agent dialog box, select **OK**. The agent or agents will be deleted.

**Notes**

Deleting an agent or agent supervisor will automatically remove that agent from any associated teams or skill groups, including multi-channel skill groups.

Deleting an agent or agent supervisor does not delete the associated person.

If an agent is logged in when they are deleted, the agent will move to an error state. To fix this, delete the agent again after they have logged out.

## 8.2.6 Bulk Uploading Agents

In addition to creating agents one at a time, you can also bulk load agent records previously output to a CSV (comma separated values) file. For more information see section 7.5.1 "About Bulk Upload".

## 8.2.7 Agent Fields

This table shows the tabs and fields available for agents.

For more information about tabs that are common to many resources, see section 7.1.3 "Common Details Panel Tabs".

Field	Description	Entry	Default	Required
<b>Details Tab</b>				
Name	A unique name for the entry. This may be the same as the login name, last name or first name fields. Your company may specify a convention for this field (such as <first name> <last name>) to make it easier to identify agents. <i>Note. This may not be the same as the name by which the item is known on the remote equipment (Enterprise Name on the Advanced tab). Changing this name will not change the enterprise name or the name on the remote equipment. Changes to the name on the remote equipment will be reflected in the enterprise name, but under some circumstances, may not change the name shown here.</i>	Unique. Up to 32 characters, letters, numbers, and underscore characters only. Must begin with letter or number.	Null	Yes
Description	A description of the agent.	Up to 255 characters.	Null	No
Path	Only shown when resource is first created. The location in the folder tree where the resource is to be created.	Click on the drop down arrow to show the folder tree, then select the required location.	Current location in folder tree	Yes
Peripheral	The peripheral to be used for the agent.	Select from list.	Default Peripheral	Yes

Field	Description	Entry	Default	Required
Create New Person or Select Existing Person option	Only shown when resource is first created. The kind of person to associate this agent with. <b>Create New Person:</b> The agent record is for a new employee, or one who has not previously existed as a Person within Unified CCDM. <b>Select Existing Person:</b> The person to be associated with this agent record already exists within the system, for example if the Person record for a new employee was created before it was clear which peripheral they would be using.	Select one of the options, and then complete the remaining fields for that option as shown below.	Create New Person	Yes
Create New Person > First Name	The person's first name.	Up to 32 characters.	Null	Yes
Create New Person > Last Name	The person's last name.	Up to 32 characters.	Null	Yes
Create New Person > Login Name	A unique login name for the person to allow them to login to the peripheral. <i>Note. The Unified CCE database is case-insensitive in determining whether a login name is unique - for example, it considers "joe smith" and "JOE SMITH" to be the same. Further, agent login to agent desktop software (such as CTI OS) is not case-sensitive.</i>	Unique. Up to 32 characters, letters, numbers, and underscore characters only. Must begin with letter or number.	Null	Yes
Create New Person > Password	The password that the person will use to log in to the system.	Unique. At least five letters long. Longer passwords, including numbers and other characters, may be required. Ask your system administrator for details.	Null	Yes

Field	Description	Entry	Default	Required
Create New Person > Confirm Password	Confirmation of the password.	The same as for the Password field. This ensures that the person is not prevented from logging in by typographical errors made when setting his or her password.	Null	Yes
Select Existing Person > List of persons	List of available persons, optionally filtered by the search field.	Select the person corresponding to this agent.	First person in list.	Yes
Select Existing Person > Search filter	Optional search field to filter results in list of persons.	Type a partial name to restrict the list of available persons to those which include that name.	None (complete list of persons shown).	No
<b>Person Tab (not shown when creating an agent)</b>				
First Name	The person's first name.	Up to 32 characters.	Null	Yes
Last Name	The person's last name.	Up to 32 characters.	Null	Yes
Description	The person's description	Up to 255 characters.	Null	No
Login Name	A unique login name for the person associated with this agent to allow them to login to the peripheral. <i>Note. The Unified CCE database is case-insensitive in determining whether a login name is unique - for example, it considers "joe smith" and "JOE SMITH" to be the same. Further, agent login to agent desktop software (such as CTI OS) is not case-sensitive.</i>	Unique. Up to 32 characters, letters, numbers, and underscore characters only. Must begin with letter or number.	Null	Yes
Login Enabled	Check this box to allow the person associated with the agent to log on to peripheral	Check box.	Checked.	No
Reset Password	Check this box to reset the password for the person associated with this agent.	Check box.	Unchecked.	No



Field	Description	Entry	Default	Required
Password	The new password that the person uses to log in to the system. Only shown if Reset Password is checked.	Unique. At least five letters long. Longer passwords, including numbers and other characters, may be required. Ask your system administrator for details.	Null	Yes
Confirm Password	Confirmation of the changed password. Only shown if Reset Password is checked.	The same as for the Password field. This ensures that the person is not prevented from logging in by typographical errors made when setting his or her password.	Null	Yes
<b>Supervisor Tab</b>				
Supervisor	Check this box if an agent is to be considered a supervisor agent. This does not require that they supervise a team.	Check box.	Unchecked	No
Associate with Domain Account	Associates a supervisor agent with an existing domain account (the account used to log onto the network and to WebView). <i>Note. The supervisor agent must be associated with a domain account before they can have attributes assigned to them.</i>	Check box.	Unchecked	No
Login Name	The domain login name to be used by the supervisor agent.	Existing domain login name. Select from list of possibilities by typing part of the login name.	Null	If Associate with Domain Account checked

Field	Description	Entry	Default	Required
<b>Agent Teams Tab</b>				
Agent Teams	The supervisory teams with which the agent is associated.	Select from lower list of available agent teams and click <b>Add</b> to include agent in the checked teams. To remove an agent from an existing agent team, select agent team from upper list and click <b>Remove</b> .	Null	No
<b>Skill Groups Tab</b>				
Skill Group	The skill group or groups of which the agent is a member. Changes to an agent's skill group membership take place immediately within the agent's current session.	Select from lower list of available skill groups and click <b>Add</b> to include the agent in the selected skill groups. To remove the agent from an existing skill group, select from upper list and click <b>Remove</b> .  To set the default skill group for the agent, firstly, ensure that the agent is in the required skillgroup as above, then select the <b>Default</b> check box beside the skill group. To revert the default skill group for this agent to the system default, clear the selected <b>Default</b> check box.	Null	No

Field	Description	Entry	Default	Required
<b>Attributes Tab</b>				
Attribute	<p>The attribute or attributes associated with the agent. Changes to an agent's attribute association take place immediately within the agent's current session.</p> <p><i>Note. If the agent is a supervisor agent, they must be associated with a domain account before they can have attributes assigned to them.</i></p>	<p>Select from lower list of available attributes and click <b>Add</b> to associate the agent with the checked attributes.</p> <p>To remove an agent association with an existing attribute, select from upper list and click <b>Remove</b>.</p> <p>To specify the value for an attribute associated with the agent, select the value from the drop down list in the value column.</p>	Null	No
<b>Advanced Tab</b>				
Enterprise Name	<p>The name used to identify the item on the remote equipment. Leave blank to auto-generate a unique name.</p> <p><i>Note. If the item is created by importing from the remote equipment, this name will match the Unified CCDM name (<b>Name</b> on the <b>Details</b> tab). Changes to the name on the remote equipment will be reflected here, but under some circumstances, will not affect the Unified CCDM name.</i></p>	<p>Unique. Up to 32 characters, letters, numbers, and underscore characters only. Must begin with letter or number.</p>	<p>Auto-generated from the agent name.</p> <p>The system reserves 5 characters for tenant, 5 characters for peripheral, 17 characters taken from the agent name, and 2 characters for dimension type, plus 3 separating dots.</p>	No

Field	Description	Entry	Default	Required
Department	(Only shown for tenants that are not small contact center tenants, and are associated with Unified CCE instances running Unified CCE version 10.0 or later). The department that this resource is associated with.	Select from the drop-down list of available departments.	None	No
Agent ID	The internal extension number that can be used to call the agent.	Up to 18 numbers.	Auto-generated.	No
Agent Desktop	The desktop settings to be associated with the agent.	Select from list of available agent desktops.	None	No
State Trace	Enables the system to track the agent's state transitions such as Available or Talking. This check box is dimmed by default and must be made available by a System Administrator before it can be used (using <b>System Settings &gt; Provisioning Settings &gt; Agent State Trace Enabled</b> ). <i>Note. Cisco state that tracking agent state data puts additional load on UCCE. Please consult the Cisco documentation before using this feature.</i>	Check box.	Unchecked	No
Active From Date	The date from which the agent will be active in the system.	Select date from calendar.	Current date	Yes
Active To Date	The date after which the agent should be deleted from the system.	Either leave <b>Forever</b> checked, or uncheck <b>Forever</b> and select date from calendar.	Forever	No



Field	Description	Entry	Default	Required
<b>Custom Data Tab</b>				
Key	The key for this custom data item.	Unique. Up to 50 characters, alphanumeric, period, and underscore characters only. Must begin with alphanumeric.	Null.	No
Value	The value to associate with this key.	Up to 500 characters. To add a new custom data key-value pair, complete both fields, and click <b>Add</b> . You can have a maximum of ten custom data key-value pairs. To edit an existing key-value pair, rest the mouse briefly on the entry, select the edit icon (  ) and make your changes. Then select the tick to confirm the change, or the cross to undo the change. To delete an existing key-value pair, rest the mouse briefly on the entry, select the delete icon (  ), then click <b>OK</b> to confirm the deletion.	Null	Yes.

## 8.3 Agent Desktops

### 8.3.1 About Agent Desktops

Agent desktops associate a set of permissions or characteristics with specific agents. The settings are comparable to Class of Service settings on a PBX or ACD.

When you create an agent desktop definition, you specify the amount of non-active time after which an agent is automatically logged out, whether wrap-up is required following incoming and outbound calls, the amount of time allocated for wrap-up, and the method used for assist and emergency calls. You also specify settings for the **Re-route on No Answer** feature.

Unified CCE ships with a system default agent desktop. New agent records are automatically assigned this default unless you specify otherwise when creating an agent.

### 8.3.2 Creating an Agent Desktop

To create an agent desktop record:

1. In **Resource Manager**, in the Folder Tree panel, select the folder where you want to create the agent desktop.
2. In the Folder Tree panel, click **Resource**, and then click **Agent Desktop**.
3. Enter unique name of up to 32 characters for the record. This name can use alphanumeric characters, periods, and underscores.
4. Complete the remaining fields as described in section 8.3.6 "Agent Desktop Fields".
5. Click **Save**.

### 8.3.3 Editing an Agent Desktop

To edit the details of an agent desktop:

1. In **Resource Manager**, go to the folder containing the agent desktop you want to edit, and view the agent desktops in that folder using the Items panel list view.
2. In the Items panel, click on the agent desktop you want to edit. The details of this agent desktop are displayed in the Details panel.
3. In the Details panel, click on the appropriate tab and make the desired changes.

4. Click **Save**.

### 8.3.4 Deleting an Agent Desktop

#### Note

You cannot delete an agent desktop if it is being referenced by an agent record or if it is the default desktop.

To delete one or more agent Desktops:

1. In **Resource Manager**, go to the folder containing the agent desktops you want to delete, and view the agent desktops in that folder using the Items panel list view.
2. In the Items panel, check the box or boxes of the agent desktops to be deleted.
3. Click **Delete**.
4. In the Delete Folder dialog box, click **OK**. The agent desktops will be deleted.

### 8.3.5 Bulk Uploading Agent Desktops

In addition to creating agent desktops one at a time, you can also bulk load agent desktop records previously output to a CSV (comma separated values) file. For more information see section 7.5.1 "About Bulk Upload".

### 8.3.6 Agent Desktop Fields

This table shows the tabs and fields available for agent desktops.

For more information about tabs that are common to many resources, see section 7.1.3 "Common Details Panel Tabs".

Field	Description	Entry	Default	Required
<b>Details Tab</b>				
Name	A unique name for the record. <i>Note. This may not be the same as the name by which the item is known on the remote equipment (<b>Enterprise Name</b> on the <b>Advanced</b> tab). Changing this name will not change the enterprise name or the name on the remote equipment. Changes to the name on the remote equipment will be reflected in the enterprise name, but under some circumstances, may not change the name shown here.</i>	Unique. Up to 32 characters, alphanumeric, period, and underscore characters only. Must begin with alphanumeric.	Null	Yes
Description	A description of the desktop.	Up to 255 characters.	Null	No
Path	Only shown when resource is first created. The location in the folder tree where the resource is to be created.	Click on the drop down arrow to show the folder tree, then select the required location.	Current location in folder tree	Yes
Ring no answer time	The maximum number of seconds a call will to ring at the agent's station before being redirected. This can be from 1 to 120 seconds (2 minutes).	1 to 120	Null	No
Ring no answer dialed number	Identifies the dialed number for a new re-route destination in the case of a ring no answer. The selection list consists of the dialed numbers configured for the system.	Select from list	Null	No
Logout non-activity time	The number of seconds during which the agent has been in the not ready state and inactive that the system will wait before logging out the agent. A blank entry will disable the timer.	10 to 7200	Null	No
Incoming work mode	Indicates whether the agent is allowed or required to enter work mode after an incoming call.	Select from list.	Required	Yes
Outgoing work mode	Indicates whether the agent is allowed or required to enter work mode after an outgoing call.	Select from list.	Required	Yes



<b>Field</b>	<b>Description</b>	<b>Entry</b>	<b>Default</b>	<b>Required</b>
Wrap-up time	The amount of time in seconds allocated to an agent to wrap up the call.	1 to 7200	7200	Yes
Assist call method	Indicates whether to use a consultative call or a blind conference call for the supervisor assistance request.	Select from list.	None.	No
Emergency call method	Indicates whether to use a consultative call or a blind conference call for an emergency call request.	Select from list.	None	No
Recording Mode	Specifies whether calls are routed through the Peripheral Interface Manager (PIM)	Select from list	None	No

Field	Description	Entry	Default	Required
Remote Agent Type	Indicates how mobile agent call routing is handled.	Select from list. One of <ul style="list-style-type: none"> <li>• <b>Local Only:</b> mobile agent call routing is not required.</li> <li>• <b>Call by Call Routing:</b> the mobile agent is called individually for each call.</li> <li>• <b>Nailed Connection Routing:</b> the mobile agent is called at login and remains connected until log off.</li> <li>• <b>Agent Chooses At Login:</b> the mobile agent can choose the one of the two mobile agent call routing types at login.</li> </ul> For information about configuring mobile agents, see <i>Administration Guide for Cisco Unified Contact Center Domain Manager</i> .	Local Only	Yes
<b>Details Tab &gt; Miscellaneous</b>				
Auto answer	Indicates calls to the agent are automatically answered.	Checked or Unchecked	Unchecked	No
Idle reason required	Indicates the agent must enter a Not Ready reason before entering the Idle state.	Checked or Unchecked	Unchecked	No

Field	Description	Entry	Default	Required
Logout reason required	Indicates the agent must enter a reason before logging out.	Checked or Unchecked	Unchecked	No
Auto record on emergency	Specifies that a record request (a request to record the call) is automatically sent when an emergency call request starts.	Checked or Unchecked	Unchecked	No
Silent Monitor Audible Indication	Specifies whether to indicate that silent monitoring has begun by a click.	Checked or Unchecked	Unchecked	No
Silent Monitor Warning Message	Specifies whether to indicate that silent monitoring has begun with a message box on the agent's desktop.	Checked or Unchecked	Unchecked	No
Available after Incoming	Whether the agent is to be automatically considered available after handling an incoming call.	Checked or Unchecked	Unchecked	No
Available after Outgoing	Whether the agent is to be automatically considered available after handling an outgoing call.	Checked or Unchecked	Unchecked	No
Remote Login Without Desktop	Allows the agent to log in to the contact center without using an agent desktop	Checked or Unchecked	Unchecked	No
<b>Details Tab &gt; Outbound Access</b>				
Outbound Access	For deployments where agents can make outbound calls, determines the type of outbound calls they can make.	Select one or more from International, National, Local private network, Operator assisted, PBX, Agent to Agent, Non ACD Calls, Initiate Supervisor Calls Allowed.	Unchecked	No

Field	Description	Entry	Default	Required
<b>Agent Tab</b>				
Agents	The agents with which the desktop is associated.	Select from lower list of available agents and click <b>Add</b> to include the checked agents in this desktop. To remove existing agents from this desktop, select from upper list and click <b>Remove</b> .	Null	No
<b>Advanced Tab</b>				
Enterprise Name	The name used to identify the item on the remote equipment. Leave blank to auto-generate a unique name. <i>Note. If the item is created by importing from the remote equipment, this name will match the Unified CCDM name (Name on the <b>Details</b> tab). Changes to the name on the remote equipment will be reflected here, but under some circumstances, will not affect the Unified CCDM name.</i>	Unique. Up to 32 characters, letters, numbers, and underscore characters only. Must begin with letter or number.	Auto-generated from the name.	No
Department	(Only shown for tenants that are not small contact center tenants, and are associated with Unified CCE instances running Unified CCE version 10.0 or later). The department that this resource is associated with.	Select from the drop-down list of available departments.	None	No
Active From Date	The date from which the desktop will be active within the system.	Select date from calendar.	Current date	Yes
Active To Date	The date after which the desktop will be deleted from the system.	Either leave <b>Forever</b> checked, or uncheck <b>Forever</b> and select date from calendar.	Forever	No



Field	Description	Entry	Default	Required
<b>Custom Data Tab</b>				
Key	The key for this custom data item.	Unique. Up to 50 characters, alphanumeric, period, and underscore characters only. Must begin with alphanumeric.	Null.	No
Value	The value to associate with this key.	<p>Up to 500 characters.</p> <p>To add a new custom data key-value pair, complete both fields, and click <b>Add</b>. You can have a maximum of ten custom data key-value pairs.</p> <p>To edit an existing key-value pair, rest the mouse briefly on the entry, select the edit icon (  ) and make your changes. Then select the tick to confirm the change, or the cross to undo the change.</p> <p>To delete an existing key-value pair, rest the mouse briefly on the entry, select the delete icon (  ), then click <b>OK</b> to confirm the deletion.</p>	Null	Yes.

## 8.4 Agent Teams

### 8.4.1 About Agent Teams

An agent team is a group of individuals that can be managed by a supervisor. Agents are assigned to agent teams individually. When configuring agent teams, be aware of the following rules:

- An agent cannot be a member of more than one team.
- An agent team can have a single primary supervisor, or no primary supervisor.
- An agent team can have any number of secondary supervisors.
- A supervisor can be a secondary supervisor of any number of agent teams, but can only be the primary supervisor for a single agent team.
- A supervisor for an agent team may be a member of that agent team, but does not need to be a member.

### 8.4.2 Creating an Agent Team

To create an agent team:

1. In **Resource Manager**, in the Folder Tree panel, select the folder where you want to create the agent team.
2. In the Folder Tree panel, click **Resource**, and then click **Agent Team**.
3. Enter a unique name for the team.
4. Complete the remaining fields as described in section 8.4.6 "Agent Team Fields".
5. To assign agents to the team, check the boxes of one or more agents in the Agents tab, and click on **Add** above the list.

#### Note

The Selected Path drop-down opens up a folder tree so that you can also select agents from other folders to add to the team.

6. Once an agent is added to the team, you must also check their **Member** box to make them a member of the team. This is because it is possible to be involved with a team without being a member, by supervising it.
7. If an agent is a supervisor, a drop-down list appears in the right-hand column. You can use this to specify whether the agent has a supervisory role for this particular team.

**Note**

A team may have multiple secondary supervisors, but only one primary supervisor. If you replace an existing primary supervisor, the replaced supervisor will automatically become a secondary supervisor for that team.

8. Click **Save**.

### 8.4.3 Editing an Agent Team

To edit an agent team:

1. In **Resource Manager**, go to the folder containing the agent team you want to edit, and view the agent teams in that folder using the Items panel list view.
2. In the Items panel, click on the agent team you want to edit. The details of this agent team are displayed in the Details panel.
3. Click through the tabs and edit the fields you want to change.
4. To remove agents from a team, click on the **Agents** tab and check the boxes of the agents you wish to remove from the team. Click **Remove**.
5. Click **Save**.

### 8.4.4 Deleting an Agent Team

To delete one or more agent teams:

1. In **Resource Manager**, go to the folder containing the agent teams you want to delete, and view the agent teams in that folder using the Items panel list view.
2. In the Items panel, check the box or boxes of the agent teams to be deleted.
3. Click **Delete**.
4. In the Delete Agent Teams dialog box, click **OK**. The agent teams will be deleted.

### 8.4.5 Bulk Uploading Agent Teams

In addition to creating agent teams one at a time, you can also bulk load agent team records previously output to a CSV (comma separated values) file. For more information see section 7.5.1 "About Bulk Upload".



### 8.4.6 Agent Team Fields

This table shows the tabs and fields available for agent teams.

For more information about tabs that are common to many resources, see section 7.1.3 "Common Details Panel Tabs".

Field	Description	Entry	Default	Required
<b>Details Tab</b>				
Name	A unique name for the record. <i>Note. This may not be the same as the name by which the item is known on the remote equipment (<b>Enterprise Name</b> on the <b>Advanced</b> tab). Changing this name will not change the enterprise name or the name on the remote equipment. Changes to the name on the remote equipment will be reflected in the enterprise name, but under some circumstances, may not change the name shown here.</i>	Unique. Up to 32 characters, alphanumeric, period, and underscore characters only. Must begin with alphanumeric.	Null	Yes
Description	A description of the team.	Up to 255 characters.	Null	No
Path	Only shown when resource is first created. The location in the folder tree where the resource is to be created.	Click on the drop down arrow to show the folder tree, then select the required location.	Current location in folder tree	Yes
Peripheral	The peripheral to associate with the team.	Select from list.	Default peripheral	Yes
Supervisor script dialed number	The dialed number identifier for the agent team.	Select from list.	None	No
<b>Agents Tab</b>				
Agents	Individual agents associated with this team.	Select from lower list of available agents and click <b>Add</b> to include the checked agents in this agent team. To remove existing agents from this agent team, select from upper list and click <b>Remove</b> .	Null	No

Field	Description	Entry	Default	Required
<b>Advanced Tab</b>				
Enterprise Name	The name used to identify the item on the remote equipment. Leave blank to auto-generate a unique name. <i>Note. If the item is created by importing from the remote equipment, this name will match the Unified CCDM name (Name on the <b>Details</b> tab). Changes to the name on the remote equipment will be reflected here, but under some circumstances, will not affect the Unified CCDM name.</i>	Unique. Up to 32 characters, alphanumeric, period, and underscore characters only. Must begin with alphanumeric.	From Name and Peripheral	Yes
Department	(Only shown for tenants that are not small contact center tenants, and are associated with Unified CCE instances running Unified CCE version 10.0 or later). The department that this resource is associated with.	Select from the drop-down list of available departments.	None	No
Active From Date	The date from which this team must be active within the network.	Select date from calendar.	Current date	Yes
Active To Date	The date after which this team will be deleted from the system.	Either leave <b>Forever</b> checked, or uncheck <b>Forever</b> and select date from calendar.	Forever	No

Field	Description	Entry	Default	Required
<b>Custom Data Tab</b>				
Key	The key for this custom data item.	Unique. Up to 50 characters, alphanumeric, period, and underscore characters only. Must begin with alphanumeric.	Null.	No
Value	The value to associate with this key.	<p>Up to 500 characters.</p> <p>To add a new custom data key-value pair, complete both fields, and click <b>Add</b>. You can have a maximum of ten custom data key-value pairs.</p> <p>To edit an existing key-value pair, rest the mouse briefly on the entry, select the edit icon (  ) and make your changes. Then select the tick to confirm the change, or the cross to undo the change.</p> <p>To delete an existing key-value pair, rest the mouse briefly on the entry, select the delete icon (  ), then click <b>OK</b> to confirm the deletion.</p>	Null	Yes.

## 8.5 Call Types

### 8.5.1 About Call Types

A call type is a category of incoming routable task. Specific call types are associated with dialed numbers. In this association, each call type has a schedule that determines which routing script or scripts are active for that call type at any time.

#### Call Types and Dialed Number Associations

There are two classes of call type/dialed number associations:

- **Voice:** Voice call type/dialed number combinations such as phone calls are categorized by the dialed number (DN), caller-entered digits (CED), and calling line ID (CLID). The CED and CLID can be optional, depending on the call.
- **Non-voice:** Non-voice type/dialed number combinations (such as e-mail and text chat) are categorized by the Script Type Selector, Application String 1, and Application String 2. Application String 1 and Application String 2 can be optional, depending on the application.

#### Call Types and Routing Scripts

Because the call type determines which routing script is run for a call, the call type defines call treatment.

In routing scripts you can change the call type at specific points in the script to indicate that a transaction has been completed. For example, if the customer is calling a bank and successfully checks his or her account balance using a Self-Service script, you may want to change the call type to indicate that the account balance transaction has completed and a new transaction has begun. You can also change call type in a script to invoke a new routing script associated with that call type. For example, if a call is not answered at an agent's desktop, you can change the call type in the script to redirect the call to a different script designed for Redirection on No Answer. The Redirection on No Answer script assigns a different agent to handle the call.

### 8.5.2 Creating a Call Type

To create a call type:

1. In **Resource Manager**, in the Folder Tree panel, select the folder where you want to create the call type.
2. In the Folder Tree panel, click **Resource**, and then click **Call Type**.

3. Enter a unique name of up to 32 characters for the call type. This can contain alphanumeric characters, periods, and underscores only.
4. Complete the remaining fields as described in section 8.5.6 "Call Type Fields".
5. Click **Save**.

Once you have created a call type you can reference it in a dialed number configuration through Unified CCE.

### 8.5.3 Editing a Call Type

To edit the details of an agent desktop:

1. In **Resource Manager**, go to the folder containing the call type you want to edit, and view the call types in that folder using the Items panel list view.
2. In the Items panel, click on the call type you want to edit. The details of this call type are displayed in the Details panel.
3. In the Details panel, click on the appropriate tab and make the desired changes.
4. Click **Save**.

### 8.5.4 Deleting a Call Type

#### Note

You cannot delete the default call type.

To delete one or more call types:

1. In **Resource Manager**, go to the folder containing the call types you want to delete, and view the call types in that folder using the Items panel list view.
2. In the Items panel, check the box or boxes of the call types to be deleted.
3. Click **Delete**.
4. In the Delete Call Types dialog box, click **OK**. The call types will be deleted.

#### Note

Deleting a call type automatically removes it from any dialed number mappings in which it is referenced.



## 8.5.5 Bulk Uploading Call Types

In addition to creating call types one at a time, you can also bulk load call type records previously output to a CSV (comma separated values) file. For more information see section 7.5.1 "About Bulk Upload".



## 8.5.6 Call Type Fields

This table shows the tabs and fields available for call types.

For more information about tabs that are common to many resources, see section 7.1.3 "Common Details Panel Tabs".

Field	Description	Entry	Default	Required
<b>Details Tab</b>				
Name	A unique name for the record. <i>Note. This may not be the same as the name by which the item is known on the remote equipment (<b>Enterprise Name</b> on the <b>Advanced</b> tab). Changing this name will not change the enterprise name or the name on the remote equipment. Changes to the name on the remote equipment will be reflected in the enterprise name, but under some circumstances, may not change the name shown here.</i>	Unique. Up to 32 characters, alphanumeric, period, and underscore characters only. Must begin with alphanumeric.	Null	Yes
Description	An internal description of the record.	Up to 255 characters.	Null	No
Path	Only shown when resource is first created. The location in the folder tree where the resource is to be created.	Click on the drop down arrow to show the folder tree, then select the required location.	Current location in folder tree	Yes
Bucket Interval	The count of Answered or Abandoned calls that are used as intervals for the Call Type	Select from list	System Default	No
Service level threshold	Optionally, use to indicate whether this call type will use a service level threshold other than the system default.	Select from Use Global, None, and Use Specified. For Use specified, you must also enter a number in seconds between 0 and 2147483647.	Use global	No

Field	Description	Entry	Default	Required
Service level type	Optionally, use to indicate how abandoned calls should be factored in calculating service levels.	Select from Use global setting, Ignore Abandoned Calls, Abandoned Calls Have Negative Impact, and Abandoned Calls Have Positive Impact.	Use global setting	No
<b>Advanced Tab</b>				
Enterprise Name	The name used to identify the item on the remote equipment. Leave blank to auto-generate a unique name. <i>Note. If the item is created by importing from the remote equipment, this name will match the Unified CCDM name (Name on the <b>Details</b> tab). Changes to the name on the remote equipment will be reflected here, but under some circumstances, will not affect the Unified CCDM name.</i>	Unique. Up to 32 characters, alphanumeric, period, and underscore characters only. Must begin with alphanumeric.	Auto-generated from Name	No
Department	(Only shown for tenants that are not small contact center tenants, and are associated with Unified CCE instances running Unified CCE version 10.0 or later). The department that this resource is associated with.	Select from the drop-down list of available departments.	None	No
Active From Date	The date from which this Call Type should be active within the system	Select date from calendar.	Current date	Yes
Active To Date	The date after which this Call Type should be deleted from the system	Either leave <b>Forever</b> checked, or uncheck <b>Forever</b> and select date from calendar	Forever	No

Field	Description	Entry	Default	Required
<b>Custom Data Tab</b>				
Key	The key for this custom data item.	Unique. Up to 50 characters, alphanumeric, period, and underscore characters only. Must begin with alphanumeric.	Null.	No
Value	The value to associate with this key.	Up to 500 characters. To add a new custom data key-value pair, complete both fields, and click <b>Add</b> . You can have a maximum of ten custom data key-value pairs. To edit an existing key-value pair, rest the mouse briefly on the entry, select the edit icon (  ) and make your changes. Then select the tick to confirm the change, or the cross to undo the change. To delete an existing key-value pair, rest the mouse briefly on the entry, select the delete icon (  ), then click <b>OK</b> to confirm the deletion.	Null	Yes.

## 8.6 Departments

### 8.6.1 About Departments

A department is a grouping of related resources according to user-defined business needs. You can create a department, then add various resources to it, to reflect your particular organization.

The following resources can be added to a department:

- Agents

- Agent desktops
- Agent teams
- Precision attributes
- Call types
- Dialed numbers
- Enterprise skill groups
- Network VRU scripts
- Persons
- Precision queues
- Services
- Skill groups

For example, you may create a department called **Sales** then include in it all the agents, agent teams, call types, dialed numbers and skill groups that relate to the sales function. A resource can only be included in one department.

**Note**

Department resources can only be created on tenants that are associated with a Unified CCE instance running Unified CCE version 10.0 or later.

To add a resource to a department or remove a resource from a department, you must edit the resource you want to add or remove, not the department.

A resource created in a small contact center enabled tenant or folder is by default mapped to the associated small contact center department.

## 8.6.2 Creating a Department

To create a department:

1. In **Resource Manager**, in the Folder Tree panel, select the folder where you want to create the department.
2. In the Folder Tree panel, click **Resource**, and then click **Department**.
3. Enter a unique name of up to 32 characters for the department. This must consist of alphanumeric characters, periods, and underscores only.
4. Complete the remaining fields as described in section 8.6.6 "Department Fields".
5. Click **Save**.

### 8.6.3 Editing a Department

To edit a department:

1. In **Resource Manager**, go to the folder containing the department you want to edit, and view the departments in that folder using the Items panel list view.
2. In the Items panel, click on the department you want to edit. The details of this department are displayed in the Details panel.
3. Click through the tabs and edit the fields you want to change.
4. Click **Save**.

#### Note

To add a resource to a department or remove a resource from a department, you must edit the resource you want to add or remove, not the department.

### 8.6.4 Deleting a Department

#### Note

You cannot delete a department that has any resources associated with it. All resources must be removed from the department before it can be deleted.

To delete one or more departments:

1. In **Resource Manager**, go to the folder containing the departments you want to delete, and view the departments in that folder using the Items panel list view.
2. In the Items panel, check the box or boxes of the departments to be deleted.
3. Click **Delete**.
4. In the Delete Departments dialog box, click **OK**. The departments will be deleted.

### 8.6.5 Bulk Uploading Departments

In addition to creating departments one at a time, you can also bulk load department records previously output to a CSV (comma separated values) file. For more information see section 7.5.1 "About Bulk Upload".

### 8.6.6 Department Fields

This table shows the tabs and fields available for departments.

For more information about tabs that are common to many resources, see section 7.1.3 "Common Details Panel Tabs".

Field	Description	Entry	Default	Required
<b>Details Tab</b>				
Name	A unique name for the record. <i>Note. This may not be the same as the name by which the item is known on the remote equipment (<b>Enterprise Name</b> on the <b>Advanced</b> tab). Changing this name will not change the enterprise name or the name on the remote equipment. Changes to the name on the remote equipment will be reflected in the enterprise name, but under some circumstances, may not change the name shown here.</i>	Unique. Up to 32 characters, alphanumeric, period, and underscore characters only. Must begin with alphanumeric.	Null	Yes
Description	A description of the record.	Up to 255 characters.	Null	No
Path	Only shown when resource is first created. The location in the folder tree where the resource is to be created.	Click on the drop down arrow to show the folder tree, then select the required location.	Current location in folder tree	Yes
<b>Advanced Tab</b>				
Enterprise Name	The name used to identify the item on the remote equipment. Leave blank to auto-generate a unique name. <i>Note. If the item is created by importing from the remote equipment, this name will match the Unified CCDM name (<b>Name</b> on the <b>Details</b> tab). Changes to the name on the remote equipment will be reflected here, but under some circumstances, will not affect the Unified CCDM name.</i>	Unique. Up to 32 characters, alphanumeric, period, and underscore characters only. Must begin with alphanumeric.	From Name	Yes

Field	Description	Entry	Default	Required
Active From Date	The date from which the Department will be active in the system.	Select date from calendar.	Current date	Yes
Active To Date	The date after which the Department should be deleted from the system.	Either leave <b>Forever</b> checked, or uncheck <b>Forever</b> and select date from calendar.	Forever	No

## 8.7 Dialed Numbers

### 8.7.1 About Dialed Numbers

A dialed number is the number a caller dials to initiate a call. It is sent as part of the call detail information in the route request message sent from the routing client. The dialed number plays an integral role in routing calls. Dialed numbers are required pieces of call types, which are used to identify the appropriate routing script for each call. In addition to answered calls, dialed numbers also need to be set up for ring on no answer, dialed number plan entries, and for supervisor/emergency calls.

### 8.7.2 Creating a Dialed Number

To create a dialed number:

1. In **Resource Manager**, in the Folder Tree panel, select the folder where you want to create the dialed number.
2. In the Folder Tree panel, click **Resource**, and then click **Dialed Number**.
3. Enter unique name of up to 32 characters for the dialed number. This must consist of alphanumeric characters, periods, and underscores only.
4. For wild card dialed numbers, follow the pattern below:

#### Example

7xx

5. Complete the remaining fields as described in section 8.7.6 "Dialed Number Fields".
6. Click **Add** to specify the call types and other dialing information to be associated with this dialed number.

**Note**

The order of the entries in the dialed number mapping table reflects the order in which call types are processed for the dialed number.

7. Click **Save**.

### 8.7.3 Editing a Dialed Number

To edit the details of an agent desktop:

1. In **Resource Manager**, go to the folder containing the dialed number you want to edit, and view the dialed numbers in that folder using the Items panel list view.
2. In the Items panel, click on the call type you want to edit. The details of this dialed number are displayed in the Details panel.
3. In the Details panel, click on the appropriate tab and make the desired changes.
4. Click **Save**.

### 8.7.4 Deleting a Dialed Number

**Note**

You cannot delete a Dialed Number that is referenced in a script. This reference must be removed before the Dialed Number can be deleted.

To delete one or more dialed numbers:

1. In **Resource Manager**, go to the folder containing the dialed numbers you want to delete, and view the dialed numbers in that folder using the Items panel list view.
2. In the Items panel, check the box or boxes of the dialed numbers to be deleted.
3. Click **Delete**.
4. In the Delete Dialed Numbers dialog box, click **OK**. The dialed numbers will be deleted.

### 8.7.5 Bulk Uploading Dialed Numbers

In addition to creating dialed numbers one at a time, you can also bulk load dialed number records previously output to a CSV (comma separated values) file. For more information see section 7.5.1 "About Bulk Upload".





## 8.7.6 Dialed Number Fields

This table shows the tabs and fields available for dialed numbers.



For more information about tabs that are common to many resources, see section 7.1.3 "Common Details Panel Tabs".

Field	Description	Entry	Default	Required
<b>Details Tab</b>				
Name	A unique name for the record. <i>Note. This may not be the same as the name by which the item is known on the remote equipment (<b>Enterprise Name</b> on the <b>Advanced</b> tab). Changing this name will not change the enterprise name or the name on the remote equipment. Changes to the name on the remote equipment will be reflected in the enterprise name, but under some circumstances, may not change the name shown here.</i>	Unique. Up to 32 characters, alphanumeric, period, and underscore characters only. Must begin with alphanumeric.	Null	Yes
Description	A description of the record.	Up to 255 characters.	Null	No
Path	Only shown when resource is first created. The location in the folder tree where the resource is to be created.	Click on the drop down arrow to show the folder tree, then select the required location.	Current location in folder tree	Yes
Dialed Number	For voice MRD only, the string value by which the Agent/IVR Controller identifies this Dialed Number. This must be the value the Agent/IVR Controller uses for calls to this number. For example: 8005551212	Up to 32 characters.	Null	Yes
Permit Application Routing	Indicates whether Application Routing is allowed	Check box.	Disabled	No
Routing Client	The routing client (such as NIC or PG) that this number should use to submit routing requests to the Unified CCE	Drop-down list. <i>Note. Cannot be edited after dialed number has been created.</i>	First in list	Yes

Field	Description	Entry	Default	Required
Media Routing Domain	A description of how contact is made	Select from a drop-down list. <i>Note. Cannot be edited after dialed number has been created.</i>	Cisco_Voice	Yes
<b>Agent Desktops Tab</b>				
Agent Desktops	The Agent Desktops associated with this Dialed Number.	Select from lower list of available agent desktops and click <b>Add</b> to associate the checked agent desktops with this dialed number. To remove an agent desktop association from this dialed number, select from upper list and click <b>Remove</b> .	Null	No
<b>Agent Teams Tab</b>				
Agent Teams	The Agent Teams associated with this Dialed Number.	Select from lower list of available agent teams and click <b>Add</b> to associate the checked agent teams with this dialed number. To remove an agent team association from this dialed number, select from upper list and click <b>Remove</b> .	Null	No
<b>Labels Tab</b>				
Labels	The Labels associated with this Dialed Number.	Select from lower list of available labels and click <b>Add</b> to associate the checked labels with this dialed number. To remove a label association from this dialed number, select from upper list and click <b>Remove</b> .	Null	No

Field	Description	Entry	Default	Required
<b>Call Types Tab</b>				
Call Types	The Call Types associated with this Dialed Number. These specify onward routing for certain calls. The call types are listed in priority order.	<p>Either click:</p> <ul style="list-style-type: none"> <li>• <b>Add</b> to add a details for a new call type</li> <li>or select an existing call type from list and click:</li> <li>• <b>Edit</b> to edit existing call type details</li> <li>• <b>Remove</b> to delete existing call type details</li> </ul> <p>The Call Type dialog box is displayed.</p> <p><i>Note.</i> You can select a call type from the list then click <b>Up Arrow</b> () to move the call type up the priority list or click <b>Down Arrow</b> () to move the call type down the priority list.</p>	Null	No
<b>Call Types Tab &gt; Call Type dialog box</b>				
Call Type	The call type for this call type routing.	Select from list.	First in list	Yes
Calling Line ID	The calling line identification (CLID) to associate with this call type and routing.	<p>Select one of the options.</p> <p><b>All:</b> route all calls</p> <p><b>Region:</b> route all calls from specified region</p> <p><b>Prefix:</b> route all calls where number starts with this prefix</p> <p><b>Match:</b> route calls from this number only</p>	All	Yes

Field	Description	Entry	Default	Required
Caller Entered Digits	The caller entered digits (CED) to associate with this call type and routing.	Select one of the options. <b>All:</b> route all calls regardless of CED <b>None:</b> route calls with no CED. <b>CED:</b> route calls with this CED only. If you choose None, you can also optionally check one or both of: <b>None Required:</b> caller wasn't asked for any CED <b>None Entered:</b> caller was asked for CED but didn't respond	All	Yes
<b>Advanced Tab</b>				
Enterprise Name	The name used to identify the item on the remote equipment. Leave blank to auto-generate a unique name. <i>Note. If the item is created by importing from the remote equipment, this name will match the Unified CCDM name (Name on the Details tab). Changes to the name on the remote equipment will be reflected here, but under some circumstances, will not affect the Unified CCDM name.</i>	Unique. Up to 32 characters, alphanumeric, period, and underscore characters only. Must begin with alphanumeric.	From Name	Yes
Department	(Only shown for tenants that are not small contact center tenants, and are associated with Unified CCE instances running Unified CCE version 10.0 or later). The department that this resource is associated with.	Select from the drop-down list of available departments.	None	No
Active From Date	The date from which the Dialed Number will be active in the system.	Select date from calendar.	Current date	Yes
Active To Date	The date after which the Dialed Number should be deleted from the system.	Either leave <b>Forever</b> checked, or uncheck <b>Forever</b> and select date from calendar.	Forever	No

Field	Description	Entry	Default	Required
<b>Custom Data Tab</b>				
Key	The key for this custom data item.	Unique. Up to 50 characters, alphanumeric, period, and underscore characters only. Must begin with alphanumeric.	Null.	No
Value	The value to associate with this key.	<p>Up to 500 characters.</p> <p>To add a new custom data key-value pair, complete both fields, and click <b>Add</b>. You can have a maximum of ten custom data key-value pairs.</p> <p>To edit an existing key-value pair, rest the mouse briefly on the entry, select the edit icon (  ) and make your changes. Then select the tick to confirm the change, or the cross to undo the change.</p> <p>To delete an existing key-value pair, rest the mouse briefly on the entry, select the delete icon (  ), then click <b>OK</b> to confirm the deletion.</p>	Null	Yes.

**Note**

The Self Care tab is only shown for existing resources. It is not shown when the resource is first created.

## 8.8 Enterprise Skill Groups

### 8.8.1 About Enterprise Skill Groups

An enterprise skill group is a logical grouping of skill groups joined together for reporting purposes. Enterprise skill groups can include skill groups from different media routing domains.

### 8.8.2 Creating an Enterprise Skill Group

To create an enterprise skill group:

1. In **Resource Manager**, in the Folder Tree panel, select the folder where you want to create the enterprise skill group.
2. In the Folder Tree panel, click **Resource**, and then click **Enterprise Skill Group**.
3. Enter a unique name for the group.
4. Complete the remaining fields as described in section 8.8.5 "Enterprise Skill Group Fields".
5. To assign skill groups to the group, click the **Add** button below the Skill Groups box and select one or more skill groups.

#### Note

The Selected Path drop-down at the top allows you to select skill groups from other folders to add to the enterprise skill group.

6. Click **Save**.

### 8.8.3 Deleting an Enterprise Skill Group

To delete one or more enterprise skill groups:

1. In **Resource Manager**, go to the folder containing the enterprise skill groups you want to delete, and view the enterprise skill groups in that folder using the Items panel list view.
2. In the Items panel, check the box or boxes of the enterprise skill groups to be deleted.
3. Click **Delete**.
4. In the Delete Enterprise Skill Groups dialog box, click **OK**. The enterprise skill groups will be deleted.

### 8.8.4 Bulk Uploading Enterprise Skill Groups

In addition to creating enterprise skill groups one at a time, you can also bulk load enterprise skill group records previously output to a CSV (comma separated values) file. For more information see section 7.5.1 "About Bulk Upload".

### 8.8.5 Enterprise Skill Group Fields



This table shows the tabs and fields available for enterprise skill groups.

For more information about tabs that are common to many resources, see section 7.1.3 "Common Details Panel Tabs".

Field	Description	Entry	Default	Required
<b>Details Tab</b>				
Name	A unique name for the record. <i>Note. This may not be the same as the name by which the item is known on the remote equipment (<b>Enterprise Name</b> on the <b>Advanced</b> tab). Changing this name will not change the enterprise name or the name on the remote equipment. Changes to the name on the remote equipment will be reflected in the enterprise name, but under some circumstances, may not change the name shown here.</i>	Unique. Up to 32 characters, letters, numbers, periods, and underscore characters only. Must begin with letter or number.	Null	Yes
Description	A description of this enterprise skill group.	Up to 255 characters.	Null	No
Path	Only shown when resource is first created. The location in the folder tree where the resource is to be created.	Click on the drop down arrow to show the folder tree, then select the required location.	Current location in folder tree	Yes

Field	Description	Entry	Default	Required
<b>Skill Groups Tab</b>				
Skill Groups	Skill groups associated with this enterprise skill group.	Select from lower list of available agents and click <b>Add</b> to include the checked agents in this agent team. To remove existing agents from this agent team, select from upper list and click <b>Remove</b> .	Null	No
<b>Advanced Tab</b>				
Enterprise Name	The name used to identify the item on the remote equipment. Leave blank to auto-generate a unique name. <i>Note. If the item is created by importing from the remote equipment, this name will match the Unified CCDM name (Name on the <b>Details</b> tab). Changes to the name on the remote equipment will be reflected here, but under some circumstances, will not affect the Unified CCDM name.</i>	Unique. Up to 32 characters, letters, numbers, periods, and underscore characters only. Must begin with letter or number.	Auto generated	No
Department	(Only shown for tenants that are not small contact center tenants, and are associated with Unified CCE instances running Unified CCE version 10.0 or later). The department that this resource is associated with.	Select from the drop-down list of available departments.	None	No
Active From Date	The date from which the Enterprise Skill Group should be active in the system.	Select date from calendar.	Current date	No
Active To Date	The date from which the Enterprise Skill Group should be deleted from the system.	Either leave <b>Forever</b> checked, or uncheck <b>Forever</b> and select date from calendar.	Forever	No



Field	Description	Entry	Default	Required
<b>Custom Data Tab</b>				
Key	The key for this custom data item.	Unique. Up to 50 characters, alphanumeric, period, and underscore characters only. Must begin with alphanumeric.	Null.	No
Value	The value to associate with this key.	Up to 500 characters. To add a new custom data key-value pair, complete both fields, and click <b>Add</b> . You can have a maximum of ten custom data key-value pairs. To edit an existing key-value pair, rest the mouse briefly on the entry, select the edit icon (  ) and make your changes. Then select the tick to confirm the change, or the cross to undo the change. To delete an existing key-value pair, rest the mouse briefly on the entry, select the delete icon (  ), then click <b>OK</b> to confirm the deletion.	Null	Yes.

### 8.8.6 Editing an Enterprise Skill Group

To edit the details of an agent desktop:

1. In **Resource Manager**, go to the folder containing the enterprise skill group you want to edit, and view the enterprise skill group in that folder using the Items panel list view.
2. In the Items panel, click on the call type you want to edit. The details of this enterprise skill group are displayed in the Details panel.
3. In the Details panel, click on the appropriate tab and make the desired changes.

4. Click **Save**.

## 8.9 Expanded Call Variables

### 8.9.1 About Expanded Call Variables

An expanded call variable (ECC) is a named object which is used by a VRU script to exchange call information with the Unified CCE.

#### Note

You cannot edit default expanded call variables. You can only create and delete them. You can edit an expanded call variable which has been created from a CCDM web portal.

### 8.9.2 Creating an Expanded Call Variable

To create an expanded call variable:

1. In **Resource Manager**, in the Folder Tree panel, select the folder where you want to create the expanded call variable.
2. In the Folder Tree panel, click **Resource**, and then click **Expanded Call Variable**.
3. Complete the remaining fields as described in section 8.9.4 "Expanded Call Variable Fields". Active from and to dates can be set in the **Advanced** tab.
4. Click **Save**.

### 8.9.3 Deleting an Expanded Call Variable

To delete one or more expanded call variables:

1. In **Resource Manager**, go to the folder containing the expanded call variables you want to delete, and view the expanded call variables in that folder using the Items panel list view.
2. In the Items panel, check the box or boxes of the expanded call variables to be deleted.
3. Click **Delete**.
4. In the Delete Expanded Call Variables dialog box, click **OK**. The expanded call variables will be deleted.



### 8.9.4 Expanded Call Variable Fields

This table shows the tabs and fields available for expanded call variables.

For more information about tabs that are common to many resources, see section 7.1.3 "Common Details Panel Tabs".

Field	Description	Entry	Default	Required?
<b>Details Tab</b>				
Name	The name of the call variable.	Unique. Up to 27 characters, letters, numbers, and underscore characters only. Must begin with letter or number. Will be automatically prefixed with 'user.' by the system.	Null	Yes
Description	The description of the call variable	Up to 255 characters	Null	No
Path	Only shown when resource is first created. The location in the folder tree where the resource is to be created.	Click on the drop down arrow to show the folder tree, then select the required location.	Current location in folder tree	Yes
Maximum Length	The maximum length of the value of the call variable, in bytes.	A whole number between 1 and 210.	Null	Yes
Provided by Cisco	Whether the call variable provided by Cisco. This is normally determined by the system.	Check box.	Unchecked	No
Persistent	Whether the variable is written to the historical database with the TCD/RCD record	Check box.	Unchecked	No
Enabled	Whether the call variable is currently enabled	Check box.	Checked	No
ECC Array	Whether the variable is an array	Check box.	Unchecked	No

Field	Description	Entry	Default	Required?
Maximum Array Size	The maximum number of elements in the array represented by the call variable.	Up to 255.	Null	If ECC Array checked
<p><b>Note.</b> The total amount of space used by all expanded call variables on an instance must not exceed 2000 bytes. Each scalar (non-array) variable uses 5 + <b>Maximum Length</b> bytes. Each array variable uses 5 + (<b>Maximum Length</b> + 1) x <b>Maximum Array Size</b> bytes. The number of bytes used by a variable may be more than the number of characters or digits in the variable value. For example, a scalar variable may contain 10 characters, but occupy 15 bytes.</p>				
<b>Advanced Tab</b>				
Active From Date	The date from which the variable will be active in the system.	Select date from calendar.	Current date	No
Active To Date	The date after which the variable should be deleted from the system.	Either leave <b>Forever</b> checked, or uncheck <b>Forever</b> and select date from calendar.	Forever	No

Field	Description	Entry	Default	Required?
<b>Custom Data Tab</b>				
Key	The key for this custom data item.	Unique. Up to 50 characters, alphanumeric, period, and underscore characters only. Must begin with alphanumeric.	Null.	No
Value	The value to associate with this key.	Up to 500 characters. To add a new custom data key-value pair, complete both fields, and click <b>Add</b> . You can have a maximum of ten custom data key-value pairs. To edit an existing key-value pair, rest the mouse briefly on the entry, select the edit icon (  ) and make your changes. Then select the tick to confirm the change, or the cross to undo the change. To delete an existing key-value pair, rest the mouse briefly on the entry, select the delete icon (  ), then click <b>OK</b> to confirm the deletion.	Null	Yes.

## 8.10 IVR Apps

### 8.10.1 About IVR Apps

A IVR app is a voice XML (VXML) application that runs on a CVP IVR app server and is used to control call routing. IVR apps can be created using Cisco Unified Call Studio.

Unified CCDM allows you to upload an existing IVR app to a CVP IVR app server and to edit the IVR app details.

IVR apps are uploaded as zip files that contain the various application components. One zip file can contain more than one IVR app.

## 8.10.2 Creating an IVR App

### Note

This process creates a Unified CCDM IVR app resource and uploads the associated IVR app file to an IVR app server. The IVR app file must already exist and be formatted as a .zip file. The IVR app file may contain more than one IVR app, and if so, multiple Unified CCDM IVR app resources will be created.

To create (upload) an IVR app:

1. In **Resource Manager**, in the Folder Tree panel, select the folder where you want to create the IVR app resource. This folder must be located on a tenant that has a remote equipment mapping to a CVP Operations Console.
2. In the Folder Tree panel, click **Resource**, and then click **IVR App**. If the IVR App option is not available, then check that the selected folder is on a tenant that is mapped to a CVP Operations Console.
3. If you want to change the location in the Unified CCDM folder tree where the IVR app will be created, click the drop-down arrow beside **Path** and select the new location.
4. Select the IVR app server or servers where you want the IVR app to be uploaded to.
5. Click **Add Files** (may appear as **Browse** in some older browsers), select a .zip file containing one or more IVR apps to be uploaded and click **Open**. The selected file is added to the list of files to be uploaded. You can click **Add Files** (or **Browse**) again to add more files if required, or **Cancel** to remove a file from the list to be uploaded.
6. Click **Save** to upload the files to the selected IVR app servers. As each file is uploaded, you will see the upload status.
7. If an upload succeeds, the file is unzipped and each IVR app in the file is copied to the IVR app server. The corresponding resources or resources (one for each IVR app in the file) will be imported into Unified CCDM in the next import cycle. If an upload fails, you can rest the mouse briefly on the upload status to see more information.

## 8.10.3 Editing an IVR App

To edit an IVR app:

1. In **Resource Manager**, go to the folder containing the IVR app you want to edit, and view the IVR apps in that folder using the Items panel list view.

**Note**

IVR apps can only exist on tenants that have a remote equipment mapping to a CVP Operations Console.

2. In the Items panel, click on the IVR app you want to edit. The details of this IVR app are displayed in the Details panel.
3. Make your required changes, then click **Save**.

### 8.10.4 Deleting an IVR App

1. In **Resource Manager**, go to the folder containing the IVR apps you want to delete, and view the IVR apps in that folder using the Items panel list view.
2. In the Items panel, select the check boxes beside the IVR app or apps to be deleted.
3. Click **Delete**.
4. In the confirmation dialog box, click **OK**. The selected IVR apps will be deleted.

### 8.10.5 IVR App Fields

This table shows the tabs and fields available for IVR apps.

For more information about tabs that are common to many resources, see section 7.1.3 "Common Details Panel Tabs".

Field	Description	Entry	Default	Required
<b>Details Tab</b>				
Name	A unique enterprise name for the record.	Unique. Up to 100 characters.	Null	Yes
Description	A description of the IVR app.	Up to 255 characters.	Null	No

## 8.11 Labels

### 8.11.1 About Labels

In Unified CCE the label represents a string that is passed to a routing client for each network target. Unified CCDM will automatically create labels for many high level operations but the functionality is included for specific label creation such as blind transfers. The only supported label type is *normal* and the only supported network target is *device target*.

### 8.11.2 Creating a Label

To create a label:

1. In **Resource Manager**, in the Folder Tree panel, select the folder where you want to create the label.
2. In the Folder Tree panel, click **Resource**, and then click **Label**.
3. Enter a unique name of up to 32 characters for the label. This can only contain alphanumeric characters, periods and underscores.
4. Complete the remaining fields as described in section 8.11.5 "Label Fields".
5. Click **Save**.

### 8.11.3 Deleting a Label

To delete one or more labels:

1. In **Resource Manager**, go to the folder containing the labels you want to delete, and view the labels in that folder using the Items panel list view.
2. In the Items panel, check the box or boxes of the labels to be deleted.
3. Click **Delete**.
4. In the Delete Labels dialog box, click **OK**. The labels will be deleted.

### 8.11.4 Bulk Uploading Labels

In addition to creating labels one at a time, you can also bulk load label records previously output to a CSV (comma separated values) file. For more information see section 7.5.1 "About Bulk Upload".



### 8.11.5 Label Fields

This table shows the tabs and fields available for labels.

For more information about tabs that are common to many resources, see section 7.1.3 "Common Details Panel Tabs".



Field	Description	Entry	Default	Required
<b>Details Tab</b>				
Name	A unique name for the record. <i>Note. This may not be the same as the name by which the item is known on the remote equipment (<b>Enterprise Name</b> on the <b>Advanced</b> tab). Changing this name will not change the enterprise name or the name on the remote equipment. Changes to the name on the remote equipment will be reflected in the enterprise name, but under some circumstances, may not change the name shown here.</i>	Unique. Up to 32 characters, letters, numbers, periods, and underscore characters only. Must begin with letter or number.	Null	Yes
Description	A description of the record.	Up to 255 characters.	Null	No
Label	The string value used to identify the label by the routing client.	Up to 32 characters.	Null	Yes
Path	Only shown when resource is first created. The location in the folder tree where the resource is to be created.	Click on the drop down arrow to show the folder tree, then select the required location.	Current location in folder tree	Yes
Routing Client	The enterprise name of the routing client associated with this label	Select from the supplied list of routing clients that the logged in user has the security permissions to see.	Null	Yes
<b>Dialed Numbers Tab</b>				
Dialed Numbers	The Dialed Numbers to associate with this label	Select from lower list of available dialed numbers and click <b>Add</b> to associate the checked dialed numbers with this label. To remove a dialed number association from this label, select from upper list and click <b>Remove</b> .	Null	No
<b>Advanced Tab</b>				
Active From Date	The date from which this label should be active within the system	Select date from calendar.	Current date	Yes

Field	Description	Entry	Default	Required
Active To Date	The date after which this label should be deleted from the system	Either leave <b>Forever</b> checked, or uncheck <b>Forever</b> and select date from calendar.	Forever	No
Label type	The type of label.	Select from the drop-down	Normal	No
<b>Custom Data Tab</b>				
Key	The key for this custom data item.	Unique. Up to 50 characters, alphanumeric, period, and underscore characters only. Must begin with alphanumeric.	Null.	No
Value	The value to associate with this key.	<p>Up to 500 characters.</p> <p>To add a new custom data key-value pair, complete both fields, and click <b>Add</b>. You can have a maximum of ten custom data key-value pairs.</p> <p>To edit an existing key-value pair, rest the mouse briefly on the entry, select the edit icon (  ) and make your changes. Then select the tick to confirm the change, or the cross to undo the change.</p> <p>To delete an existing key-value pair, rest the mouse briefly on the entry, select the delete icon (  ), then click <b>OK</b> to confirm the deletion.</p>	Null	Yes.

**Note**

The Self Care tab is only shown for existing resources. It is not shown when the resource is first created.

### 8.11.6 Editing a Label

To edit the details of an agent desktop:

1. In **Resource Manager**, go to the folder containing the label you want to edit, and view the labels in that folder using the Items panel list view.
2. In the Items panel, click on the label you want to edit. The details of this label are displayed in the Details panel.
3. In the Details panel, click on the appropriate tab and make the desired changes.
4. Click **Save**.

## 8.12 Media Files

### 8.12.1 About Media Files

A media file is a .wav file that is used by IVR to play back prompts and messages to callers. Media files are stored on CVP media servers.

Unified CCDM allows you to upload media files to CVP media servers in the Unified CCDM cluster, and to change the audio associated with an existing media files.

### 8.12.2 Creating a Media File

To create (upload) a media file:

1. In **Resource Manager**, in the Folder Tree panel, select the folder where you want to create the media file resource. This folder must be located on a tenant that has a remote equipment mapping to a CVP Operations Console.
2. In the Folder Tree panel, click **Resource**, and then click **Media File**. If the Media File option is not available, then check that the selected folder is on a tenant that is mapped to a CVP Operations Console.
3. If you want to change the location in the Unified CCDM folder tree where the media file will be created, click the drop-down arrow beside **Path** and select the new location.
4. Select the media file server or servers where you want to the media file to be uploaded to.
5. In the **Remote Path** field, specify the location where the files are be uploaded to. This is a folder location on the media file server. You may

include "/" characters to denote subfolders. If the folder does not exist, it will be created. Note that Unified CCDM does not validate this field, and if it is invalid, the upload will fail.

6. Click **Add Files** (may appear as **Browse** in some older browsers), select a .wav media file and click **Open**. The selected file is added to the list of files to be uploaded. You can click **Add Files** (or **Browse**) again to add more files if required, or **Cancel** to remove a file from the list to be uploaded.
7. Click **Save** to upload the media files to the specified location on the selected media file servers. As each media file is uploaded, you will see the upload status.
8. If an upload succeeds, the media file resource is available immediately in Unified CCDM and on the CVP server. If an upload fails, you can rest the mouse briefly on the upload status to see more information.

### 8.12.3 Editing a Media File

To edit a media file:

1. In **Resource Manager**, go to the folder containing the media file you want to edit, and view the media files in that folder using the Items panel list view.

#### Note

Media files can only exist on tenants that have a remote equipment mapping to a CVP Operations Console.

2. In the Items panel, click on the media file you want to edit. The details of this media file are displayed in the Details panel.
3. To change the name of the media file resource in Unified CCDM, in the **Details** tab, enter the new name in the **Name** field. You can view **File Name** (the file name on the media file server) and **Remote Path** (the path on the media file server) but cannot change them.
4. To change the media file associated with this resource, in the **Media** tab, click the drop-down by **Servers** and select the server or servers you want to upload the new media file to. Then click **Add Files** (may appear as **Browse** in some older browsers), locate the media file to upload, and click **Open**.
5. Click **Save** to replace the existing media file with the new one. After the upload completes, you will see the upload status.
6. If an upload fails, you can rest the mouse briefly on the upload status to see more information.

### 8.12.4 Deleting a Media File

To delete one or more media files:

1. In **Resource Manager**, go to the folder containing the media files you want to delete, and view the media files in that folder using the Items panel list view.
2. In the Items panel, select the check boxes beside the media file or files to be deleted.
3. Click **Delete**.
4. In the confirmation dialog box, click **OK**. The selected media files will be deleted.

### 8.12.5 Media File Fields

This table shows the tabs and fields available for media files. These fields are available when the media file is edited.

For more information about tabs that are common to many resources, see section 7.1.3 "Common Details Panel Tabs".

Field	Description	Entry	Default	Required
<b>Details Tab</b>				
Name	A unique enterprise name for the record.	Unique. Up to 100 characters.	The name of the uploaded media file. Changing this value after the media file is uploaded does not affect the file name of the media file on the media file server.	Yes
Description	A description of the media file.	Up to 255 characters.	Null	No
File Name	Not shown when resource is first created. The name of the media file on the media file server.	Read only.	The remote name of the uploaded media file.	Yes
Remote Path	The path on the media file server where the media file is stored.	Read only.	The remote location of the uploaded media file.	Yes

Field	Description	Entry	Default	Required
<b>Media Tab</b>				
Servers	The media file server or servers where the new media file is be uploaded to.	Select the media file server or servers from the list.	None	Yes
New audio file	The new media file to upload.	Click <b>Add Files</b> (or <b>Browse</b> ), select a media file to be uploaded and click <b>Open</b> .	None	Yes

## 8.13 Network VRU Scripts

### 8.13.1 About Network VRU Scripts

#### Overview

A network Voice Response Unit (VRU) script is a script that runs on a network VRU (a telecommunications computer that responds to voice or caller-entered touch-tone digits). One or more network VRU scripts may be called by a Unified ICME routing script to handle the interaction with the caller and route the call appropriately.

#### About Unified CVP Micro-Applications

Network VRU scripts invoke Unified CVP micro-applications which are used to provide prompts, collect user responses and play **.wav** files while callers are queuing. Network VRU scripts can invoke the following micro-applications.

- **Play Media (PM):** plays a message that is contained in a media file or streaming audio file. This may be used, for example, to play a welcome message, or to play music while the caller is in a queue.
- **Play Data (PD):** retrieves data from a storage area and plays it to the caller in a specific format, called a data play back type. This data may be, for example, information retrieved from a database, or information entered by the caller.

- **Get Digits (GD):** plays a media file and retrieves one or more digits from the caller. For example, this micro-application may be used to prompt a caller to enter a password.
- **Menu (M):** plays a menu media file and retrieves a single digit from the caller. This is similar to the Get Digits micro-application, but it only accepts a single digit, and also checks that it is valid. This micro-application may be used, for example, to offer the caller several options in a menu, and retrieve the option chosen by the caller.
- **Get Speech (GS):** collects voice or tone dialing (DTMF) input from the caller. This micro-application may be used, for example, to retrieve a spoken "Yes" or "No" response from the caller or to detect that the caller has pressed the # key.
- **Capture (CAP):** captures and stores data about the call at that point in the routing script. The data collected can be used for analysis purposes.

#### Note

Use the Capture micro-application sparingly. It places a heavy processing load on the system, and may capture a lot of data that is not required along with data that is useful. Overuse of the Capture micro-application may reduce the call handling capability of the system.

### About Network VRU Script Configuration

To define the network VRU script configuration you need to specify:

- **the network VRU script name**, a composite string containing the micro-application to run, the associated media file (if required by the micro-application) and any parameters required by the micro-application. The value specified for the network VRU script name is used to derive the name to be used for the media file when it is uploaded.
- **the configuration parameters** to be passed to the Network VRU Script when it runs. This is a string, and the format depends on the micro-application specified.
- **the audio file** to upload and associate with the Network VRU Script (where applicable). When the audio file is uploaded, it will be named with the media file name specified in the VRU script name string. If you specify an incorrectly formatted network VRU script name string, you will not be able to upload the audio file.

**Note**

The audio file cannot be specified when the network VRU script is first created. You must first create the network VRU script item, then edit it to specify the audio file.

For more information about the Unified CVP micro-applications, the corresponding VRU script name strings and the configuration parameters, see the *Feature Guide - Writing Scripts for Cisco Unified Customer Voice Portal*, downloadable from

[http://www.cisco.com/en/US/products/sw/custcosw/ps1006/tsd\\_products\\_support\\_series\\_home.html](http://www.cisco.com/en/US/products/sw/custcosw/ps1006/tsd_products_support_series_home.html) (link checked September 2015).

### 8.13.2 Creating a Network VRU Script

To create a network VRU script:

1. In **Resource Manager**, in the Folder Tree panel, select the folder where you want to create the network VRU script.
2. In the Folder Tree panel, click **Resource**, and then click **Network Vru Script**.
3. Enter a unique name of up to 32 characters for the network VRU script. This can only contain alphanumeric characters, periods and underscores.
4. Complete the remaining fields as described in section 8.13.7 "Network VRU Script Fields". You will not be able to upload an audio file when you first create the network VRU script.
5. Click **Save**.

### 8.13.3 Associating an Audio File with a Network VRU Script

To set or change the audio file associated with a network VRU script:

1. In **Resource Manager**, go to the folder containing the network VRU script you want to edit, and view the Network VRU scripts in that folder using the Items panel list view.
2. In the Items panel, click on the network VRU script you want to edit. The details of this script are displayed in the Details panel.
3. Select the **Audio** tab and click **Add Files(s)** (may appear as **Browse** in some older browsers). Go to the folder on your machine where the audio file is stored, select the audio file and click **Open**.
4. Click **Save** to upload the .wav file and save any other changes to the network VRU script.



**Notes**

1. If Save is not enabled, then either the VRU script name specified on the Details tab is incorrectly formatted or the associated micro-application does not require an audio file.
2. The audio file will be saved under the name specified for the media file in the VRU script name field, and will replace any previous audio file.
3. If an upload error is reported, contact your system administrator to ensure that Unified CVP Media File Upload has been correctly configured on your system (see the *Installation and Configuration Guide for Cisco Unified Contact Center Domain Manager* for more details).

### 8.13.4 Editing a Network VRU Script

To edit a network VRU script:

1. In **Resource Manager**, go to the folder containing the network VRU script you want to edit, and view the Network VRU Scripts in that folder using the Items panel list view.
2. In the Items panel, click on the network VRU script you want to edit. The details for this network VRU script are displayed in the Details panel.
3. In the Details panel, click on the appropriate tab and make the desired changes.
4. If you want to add or change the audio file associated with this network VRU script, select the **Audio** tab and click **Add Files(s)** (may appear as **Browse** in some older browsers). Go to the folder on your machine where the audio file is stored, select the audio file and click **Open**.
5. Click **Save**.

**Notes**

1. If Save is not enabled, then either the VRU script name specified on the Details tab is incorrectly formatted or the associated micro-application does not require an audio file.
2. If you change the audio file, it will be saved under the name specified for the media file in the VRU script name field, and will replace any previous audio file.
3. If an upload error is reported when you try to change the audio file, contact your system administrator to ensure that Unified CVP Media File Upload has been correctly configured on your system (see the *Installation and Configuration Guide for Cisco Unified Contact Center Domain Manager* for more details).

### 8.13.5 Deleting a Network VRU Script

To delete one or more network VRU scripts:

1. In **Resource Manager**, go to the folder containing the network VRU scripts you want to delete, and view the network VRU scripts in that folder using the Items panel list view.
2. In the Items panel, select the network VRU scripts to be deleted.
3. Click **Delete**.
4. In the Delete Network VRU Script dialog box, click **OK**. The selected network VRU scripts will be deleted.

### 8.13.6 Bulk Uploading Network VRU Scripts

In addition to creating network VRU scripts one at a time, you can also bulk load network VRU script records previously output to a CSV (comma separated values) file. For more information see section 7.5.1 "About Bulk Upload".

### 8.13.7 Network VRU Script Fields

This table shows the tabs and fields available for network VRU scripts.



For more information about tabs that are common to many resources, see section 7.1.3 "Common Details Panel Tabs".

Field	Description	Entry	Default	Required
<b>Details Tab</b>				
Name	A unique name for the record. <i>Note. This may not be the same as the name by which the item is known on the remote equipment (<b>Enterprise Name</b> on the <b>Advanced</b> tab). Changing this name will not change the enterprise name or the name on the remote equipment. Changes to the name on the remote equipment will be reflected in the enterprise name, but under some circumstances, may not change the name shown here.</i>	Unique. Up to 32 characters, alphanumeric, period, and underscore characters only. Must begin with alphanumeric.	Null	Yes
Description	A description of the record.	Up to 255 characters.	Null	No

Field	Description	Entry	Default	Required
Path	Only shown when resource is first created. The location in the folder tree where the resource is to be created.	Click on the drop down arrow to show the folder tree, then select the required location.	Current location in folder tree	Yes
Network VRU	The network VRU to associate with this Network VRU Script.	Select from list of available Network VRUs. If you do not have permission to access at least one Network VRU then you will not be able to create a Network VRU Script and will see a warning message instead.	Default Network VRU	Yes
VRU Script Name	The name of the VRU Script.	Up to 39 characters. This is a composite string identifying the micro-application to run, the name of the associated media file (if applicable) and any options that need to be specified for that micro-application.  The format of this string is specified in the <i>Configuration and Administration Guide for Cisco Unified Customer Voice Portal</i> , section "Writing scripts for Unified CVP".  The VRU Script name must be unique on the Network VRU.	Null	Yes

Field	Description	Entry	Default	Required
Configuration Parameter	A string to be passed to the Network VRU when the script runs to specify static options in the script.	Up to 255 characters. The contents of this string depend on the micro-application that is specified as part of the VRU Script Name field above.  The format of this string is specified in the <i>Configuration and Administration Guide for Cisco Unified Customer Voice Portal</i> , section "Writing scripts for Unified CVP".	Null	No
Timeout	The number of seconds to wait for a response after the script starts executing.	0 to 2147483647.	0	Yes
Interruptible	Whether the execution of the script can be interrupted.	Check box. Select if the script execution can be interrupted, for example, when an agent becomes free to handle a call.	Unselected	No
Overridable	Whether the script can override the interruptible status during execution.	Check box. Select if the script is allowed to make itself interruptible or non-interruptible while executing.	Unselected	No
<b>Audio Tab (not available when item is first created)</b>				
New Audio File	The file information of the audio file to associate with the VRU script.	Click <b>Add Files(s)</b> (or <b>Browse</b> ), and locate the required <b>.wav</b> file on your system. Click <b>Save</b> to upload the wav file to the server.	Null	No

Field	Description	Entry	Default	Required
<b>Advanced Tab</b>				
Enterprise Name	The name used to identify the item on the remote equipment. Leave blank to auto-generate a unique name. <i>Note. If the item is created by importing from the remote equipment, this name will match the Unified CCDM name (<b>Name</b> on the <b>Details</b> tab). Changes to the name on the remote equipment will be reflected here, but under some circumstances, will not affect the Unified CCDM name.</i>	Unique. Up to 32 characters, alphanumeric, period, and underscore characters only. Must begin with alphanumeric.	From Name	Yes
Department	(Only shown for tenants that are not small contact center tenants, and are associated with Unified CCE instances running Unified CCE version 10.0 or later). The department that this resource is associated with.	Select from the drop-down list of available departments.	None	No
Active From Date	The date from which the Network VRU Script will be active in the system.	Select date from calendar.	Current date	Yes
Active To Date	The date after which the Network VRU Script should be deleted from the system.	Either leave <b>Forever</b> checked, or uncheck <b>Forever</b> and select date from calendar.	Forever	No

Field	Description	Entry	Default	Required
<b>Custom Data Tab</b>				
Key	The key for this custom data item.	Unique. Up to 50 characters, alphanumeric, period, and underscore characters only. Must begin with alphanumeric.	Null.	No
Value	The value to associate with this key.	Up to 500 characters. To add a new custom data key-value pair, complete both fields, and click <b>Add</b> . You can have a maximum of ten custom data key-value pairs. To edit an existing key-value pair, rest the mouse briefly on the entry, select the edit icon (  ) and make your changes. Then select the tick to confirm the change, or the cross to undo the change. To delete an existing key-value pair, rest the mouse briefly on the entry, select the delete icon (  ), then click <b>OK</b> to confirm the deletion.	Null	Yes.

## 8.14 Peripherals

### 8.14.1 About Peripherals

A peripheral is a connected system such as an ACD switch that routes customer phone calls to contact center staff.

You can use Resource Manager to view and edit the properties of a peripheral.

**Note**

Unified CCDM only allows you to view the peripheral details, change the display name and the application user associated with it. You cannot create or delete a peripheral through Unified CCDM, or edit any other fields.

**8.14.2 Peripheral Fields**

This table shows the tabs and fields available for peripherals.

For more information about tabs that are common to many resources, see section 7.1.3 "Common Details Panel Tabs".

Field	Description	Entry	Default	Required
<b>Details Tab</b>				
Name	A unique display name for the peripheral. <i>Note. This may not be the same as the name by which the item is known on the remote equipment (<b>Enterprise Name</b> on the <b>Advanced</b> tab). Changing this name will not change the enterprise name or the name on the remote equipment. Changes to the name on the remote equipment will be reflected in the enterprise name, but under some circumstances, may not change the name shown here.</i>	Unique. Up to 50 characters, alphanumeric, period, and underscore characters only. Must begin with alphanumeric.	Name used by Unified CCE.	Yes
Description	An internal description of the peripheral.	You cannot change this value in Unified CCDM.		
<b>Advanced Tab</b>				
Enterprise Name	The name used to identify the item on the remote equipment. Leave blank to auto-generate a unique name. <i>Note. If the item is created by importing from the remote equipment, this name will match the Unified CCDM name (<b>Name</b> on the <b>Details</b> tab). Changes to the name on the remote equipment will be reflected here, but under some circumstances, will not affect the Unified CCDM name.</i>	You cannot change this value in Unified CCDM.		
Application User	A user on the Unified Communications Manager, with whom new phones will be associated.	Select from list.	Default application user.	Yes

Field	Description	Entry	Default	Required
Active From Date	The date from which the peripheral will be active in the system.	You cannot change this value in Unified CCDM.		
Active To Date	The date after which the peripheral should be deleted from the system.	You cannot change this value in Unified CCDM.		

## 8.15 Persons

### 8.15.1 About Persons

In Unified CCDM, each person item represents a single physical person who handles call center customer contacts. This person may optionally have a user account on Unified CCDM.

Each person is associated with one or more agents, and has one associated agent for each peripheral the person uses.

### 8.15.2 Creating a Person

To create a person:

1. In **Resource Manager**, in the Folder Tree panel, select the folder where you want to create the person.
2. In the Folder Tree panel, click **Resource**, and then click **Person**.
3. Enter a first name, last name, login name and password for the person. Names can be up to 32 characters long, and must consist of letters, numbers, underscores and periods only.
4. On the equipment tab select the **Unified CCEs** to which the person should be added, specifying any equipment specific configuration.
5. Complete the remaining fields as described in section 8.15.6 "Person Fields". Active from and to dates can be set in the **Advanced** tab.
6. Click **Save**.

#### Note

Once created, a person's Unified CCDM account details cannot be edited via the person. You must edit the user directly.



A person cannot be linked with an existing Unified CCDM user account.

### 8.15.3 Editing a Person

To edit a person's details:

1. In **Resource Manager**, go to the folder containing the person you want to update, and view the persons in that folder using the Items panel list view.
2. In the Items panel, click on the person you want to edit. The details of this person are displayed in the Details panel.
3. On the **Details** tab, check the **Reset Password** check box.
4. Enter a new password and confirm.
5. Click **Save**.

### 8.15.4 Deleting a Person

To delete one or more persons:

1. In **Resource Manager**, go to the folder containing the person or persons you want to update, and view the persons in that folder using the Items panel list view.
2. In the Items panel check the box or boxes of the person or persons to be deleted.
3. Click **Delete**.
4. In the Delete Person dialog box, select **OK**. The person or persons will be deleted.

#### Note

All agents associated with those persons will also be deleted.

### 8.15.5 Bulk Uploading Persons

In addition to creating agents one at a time, you can also bulk load person records previously output to a CSV (comma separated values) file. For more information see section 7.5.1 "About Bulk Upload".

### 8.15.6 Person Fields

This table shows the tabs and fields available for persons.


For more information about tabs that are common to many resources, see section 7.1.3 "Common Details Panel Tabs".

**Notes**

To associate a person with more than one agent, each agent must be on a different peripheral.



Persons may be created on multiple pieces of equipment. Common properties are inherited from those entered on the Details tab unless specifically over-written using the Equipment tab.

Field	Description	Entry	Default	Required
<b>Details Tab</b>				
Reset Details on All Equipment	Only shown (with informational message) if person details are not the same on all items of linked equipment. If shown, but not selected, First Name, Last Name, Description and Login Name fields are disabled, as there is no common value to show. <i>Note. This is not an error, although you may want to change this.</i>	Select to enable First Name, Last Name, Description and Login Name fields. Enter the required values then click <b>Save</b> . This allows you to quickly reset the details for all linked equipment to the details on this page.	Clear	No
First Name	The person's first name. Disabled if Reset check box is shown but not selected.	Up to 32 characters.	Null	Yes
Last Name	The person's last name. Disabled if Reset check box is shown but not selected.	Up to 32 characters.	Null	Yes
Description	A description of the person. Disabled if Reset check box is shown but not selected.	Up to 255 characters.	Null	No
Login Name	A unique login name for the person to allow them to login to the peripheral. Disabled if Reset check box is shown but not selected. Note: Peripheral login names are not case sensitive. For example, "joe smith" and "JOE SMITH" are the same. Also, login names for agent login to agent desktop software (such as CTI OS) are not case-sensitive either.	Unique. Up to 32 characters, letters, numbers, and underscore characters only. Must begin with letter or number.	Null	Yes

Field	Description	Entry	Default	Required
Password	The password that the person uses to log in to the system.	At least five characters long. Longer passwords, including numbers and other characters, may be required. Ask your system administrator for details.	Null	Depends on setting on underlying equipment
Confirm Password	The same as for the Password field. This ensures that the person is not prevented from logging in by typographical errors made when setting his or her password.		Null	Depends on setting on underlying equipment
Path	Only shown when resource is first created. The location in the folder tree where the resource is to be created.	Click on the drop down arrow to show the folder tree, then select the required location.	Current location in folder tree	Yes
<b>Equipment Tab</b>				
Unified CCE	Check this box to create the associated person onto an associated Unified CCE. Once selected you must choose the Unified CCE to add the person to.	Check box to select, and then check the required Unified CCE equipment. Click on the  icon to edit the login details for the equipment.	Checked	No
<b>Equipment Tab &gt; Equipment Fields Dialog Box</b>				
First Name	Person's first name on this equipment.	Up to 32 characters.	Same as First Name of Person	Yes
Last Name	Person's last name on this equipment.	Up to 32 characters.	Same as Last Name of Person	Yes
Description (UCCE Equipment only)	A description of the person.	Up to 255 characters.	Same as Description of Person	No

Field	Description	Entry	Default	Required
Login Name	Person's login name on this equipment.	Unique. Up to 32 characters, letters, numbers, and underscore characters only. Must begin with letter or number.	Same as Login Name of Person	Yes
Reset Password (UCCE only)	Select to reset password on this equipment.		Clear	No
Login Enabled (UCCE only)	Select to enable login on this equipment.		Clear	No
<b>Portal Tab</b>				
Portal Account	Click this link to show the Choose a User dialog box which can be used to associate the person with a Portal user account. It is advantageous for supervisors to have a Portal account in order to manage their teams.	Hyperlink	None	No
<b>Portal Tab &gt; Choose a User dialog box</b>				
Choose a User	The kind of user to associate the person with. Options are: <b>None:</b> no user is associated with this person. <b>Create User:</b> a new user is associated with this person. <b>Existing User:</b> an existing user is associated with this person.	Select one of the options.	None	Yes
Create User option > Login Name	The unique name of the Portal user account. This can be the same as the login name for WebView reporting, or that for the peripheral.	Unique. Up to 50 characters. Any Unicode character is valid, except single quote ('), double quote (") and Unicode characters in the "Symbol, Other" category.	Null	Yes

Field	Description	Entry	Default	Required
Create User option > Password	The password that the user will use to log in to the Portal.	Unique. At least five letters long. Longer passwords, including numbers and other characters, may be required. Ask your system administrator for details.	Null	If creating a new user.
Create User option > Confirm Password	The same as for the Password field. This ensures that the user is not prevented from logging in by typographical errors made when setting his or her password.	Enter password confirmation, and then >> to continue to User's Groups dialog box.	Null	If creating a new user.
Create User option > User's Groups Dialog box	Allows you to assign the user to one or more security groups, such as the Supervisors group. You can only assign a user to groups you have permission to modify.	If required, click <b>Add</b> then select security group from folder tree. Repeat to add user to more groups. Click <b>Save</b> to save details and create user.	None	No
Existing User option	Associates the person to a Portal user account that already exists.	Find and select the user in the folder tree that is displayed. Then click the >> button to continue to User's Groups dialog box.	None	If selecting an existing user.
Existing User > User's Groups dialog box	Allows you to assign the user to one or more security groups, such as the Supervisors group. You can only assign a user to groups you have permission to modify.	If required, click <b>Add</b> then select security group from folder tree. Repeat to add user to more groups. Click <b>Save</b> to save details and amend user's security groups.	None	No
<b>Advanced Tab</b>				
Department	(Only shown for tenants that are not small contact center tenants, and are associated with Unified CCE instances running Unified CCE version 10.0 or later). The department that this resource is associated with.	Select from the drop-down list of available departments.	None	No
Active From Date	The date from which the person will be active in the system.	Select date from calendar.	Current date	Yes

Field	Description	Entry	Default	Required
Active To Date	The date after which the person should be deleted from the system.	Either leave <b>Forever</b> checked, or uncheck <b>Forever</b> and select date from calendar.	Forever	No
<b>Custom Data Tab</b>				
Key	The key for this custom data item.	Unique. Up to 50 characters, alphanumeric, period, and underscore characters only. Must begin with alphanumeric.	Null.	No
Value	The value to associate with this key.	Up to 500 characters. To add a new custom data key-value pair, complete both fields, and click <b>Add</b> . You can have a maximum of ten custom data key-value pairs. To edit an existing key-value pair, rest the mouse briefly on the entry, select the edit icon (  ) and make your changes. Then select the tick to confirm the change, or the cross to undo the change. To delete an existing key-value pair, rest the mouse briefly on the entry, select the delete icon (  ), then click <b>OK</b> to confirm the deletion.	Null	Yes.

## 8.16 Precision Attributes

### 8.16.1 About Precision Attributes

A precision attribute (also referred to as an attribute) is some user-defined information that can be associated with an agent. It defines the agent's knowledge or experience in a particular area and the level of that knowledge or experience. A precision attribute has a *name*, which identifies the attribute, and a *value*, which indicates the level an agent has attained for that attribute.

Precision attribute values can be:

- *boolean* (the agent either has that attribute or does not have that attribute)
- graded according to *proficiency* (the agent has attained a specific grade of expertise in that attribute).

Precision attributes are used in precision queues to define rules for routing calls.

#### Note

Attributes can only be created on tenants that are associated with a Unified CCE instance running Unified CCE version 9.0 or later.

#### Examples

A precision attribute called `Mortgage_Training` may be defined with a boolean value to indicate whether an agent has been trained to sell mortgages. This attribute can then be associated with a number of agents, and for each agent, the value of the Mortgage Training attribute can be set to either True or False, depending on whether the agent has had the training or not.

Another example could be a precision attribute called `Spanish_Speaker` with a proficiency value to indicate how fluent the agent is in the Spanish language. If an agent does not speak Spanish, then this attribute can be set to 1 (the lowest possible proficiency value). If the agent is a native Spanish speaker, the attribute can be set to 10 (the highest possible proficiency value). If the agent knows some Spanish but is not very fluent, the attribute could be set to 5.

### 8.16.2 Creating a Precision Attribute

To create a precision attribute:

1. In **Resource Manager**, in the Folder Tree panel, select the folder where you want to create the precision attribute.
2. In the Folder Tree panel, click **Resource**, and then click **Precision Attribute**.
3. Enter a unique name for the precision attribute.
4. Complete the remaining fields as described in section 8.16.6 "Precision Attribute Fields".
5. To assign agents to the precision attribute, on the Agents tab check the boxes of one or more agents, and click on **Add** above the list. For each agent you add, click on the drop-down arrow in the Value column to select the value of that precision attribute for that agent.

**Notes**

1. The Selected Path drop-down at the top allows you to select agents from other folders to associate with the precision attribute.
2. If you change the precision attribute type on the Details tab after you have assigned precision attribute values to agents, a warning message will be displayed and all agent attribute values will be reset to the default value for the new precision attribute type.
6. Click **Save** to create the precision attribute and assign it to the specified agents.

### 8.16.3 Editing a Precision Attribute

To edit a precision attribute:

1. In **Resource Manager**, go to the folder containing the precision attribute you want to edit, and view the precision attributes in that folder using the Items panel list view.
2. In the Items panel, click on the precision attribute you want to edit. The details of this precision attribute are displayed in the Details panel.
3. Click through the tabs and edit the fields you want to change.
4. To remove a precision attribute from one or more agents, click on the **Agents** tab and check the boxes of the agents you wish to remove the precision attribute from. Click **Remove**.
5. To change the precision attribute value associated with an agent, click on the **Agents** tab, locate the agent you want modify, click on the drop down arrow beside the precision attribute value and select the new value.
6. Click **Save**.

### 8.16.4 Deleting a Precision Attribute

**Note**

You cannot delete a precision attribute that is included in a precision queue. This reference must be removed before the precision attribute can be deleted.

To delete one or more precision attributes:

1. In **Resource Manager**, go to the folder containing the precision attributes you want to delete, and view the precision attributes in that folder using the Items panel list view.
2. In the Items panel, check the box or boxes of the precision attributes to be deleted.



3. Click **Delete**.
4. In the Delete Attributes dialog box, click **OK**. The precision attributes will be deleted.

#### Note

Deleting a precision attribute automatically removes the attribute association from any agents that were associated with that precision attribute.

### 8.16.5 Bulk Uploading Precision Attributes

In addition to creating precision attributes one at a time, you can also bulk load precision attribute records previously output to a CSV (comma separated values) file. For more information see section 7.5.1 "About Bulk Upload".

### 8.16.6 Precision Attribute Fields



This table shows the tabs and fields available for precision attributes.

For more information about tabs that are common to many resources, see section 7.1.3 "Common Details Panel Tabs".

Field	Description	Entry	Default	Required
<b>Details Tab</b>				
Name	A unique name for the precision attribute. <i>Note. This may not be the same as the name by which the item is known on the remote equipment (<b>Enterprise Name</b> on the <b>Advanced</b> tab). Changing this name will not change the enterprise name or the name on the remote equipment. Changes to the name on the remote equipment will be reflected in the enterprise name, but under some circumstances, may not change the name shown here.</i>	Unique. Up to 50 characters, letters, numbers, periods, and underscore characters only. Must begin with letter or number.	Null	Yes
Description	A description of the attribute.	Up to 255 characters.	Null	No

Field	Description	Entry	Default	Required
Path	Only shown when resource is first created. The location in the folder tree where the resource is to be created.	Click on the drop down arrow to show the folder tree, then select the required location.	Current location in folder tree	Yes
Data Type	The data type of the attribute value.	Select from list. Values are: <ul style="list-style-type: none"> <li>• <b>Boolean:</b> the value can be True or False</li> <li>• <b>Proficiency:</b> the value can be a whole number between 1 and 10 (1 is least proficient and 10 is most proficient).</li> </ul>	Boolean	Yes
Default Value	The default value to be used when this attribute is associated with an agent.	Select from list	True (Boolean attributes) or 1 (proficiency attributes)	Yes
<b>Agents Tab</b>				
Agents	Agents associated with this attribute.	Select from lower list of available agents and click <b>Add</b> to associate this attribute with the selected agents. To remove this attribute from existing agents, select from upper list and click <b>Remove</b> . To specify the value for this attribute associated with a particular agent, select the value from the drop down list in the value column.	Null	No

Field	Description	Entry	Default	Required
<b>Advanced Tab</b>				
Enterprise Name	The name used to identify the item on the remote equipment. Leave blank to auto-generate a unique name. <i>Note. If the item is created by importing from the remote equipment, this name will match the Unified CCDM name (<b>Name</b> on the <b>Details</b> tab). Changes to the name on the remote equipment will be reflected here, but under some circumstances, will not affect the Unified CCDM name.</i>	Unique. Up to 32 characters, alphanumeric, period, and underscore characters only. Must begin with alphanumeric.	Autogenerated	Yes
Department	(Only shown for tenants that are not small contact center tenants, and are associated with Unified CCE instances running Unified CCE version 10.0 or later). The department that this resource is associated with.	Select from the drop-down list of available departments.	None	No
Active From Date	The date from which the attribute should be active in the system	Select date from calendar.	Current date	Yes
Active To Date	The date after which the attribute should be deleted from the system	Either leave <b>Forever</b> checked, or uncheck <b>Forever</b> and select date from calendar.	Forever	No

Field	Description	Entry	Default	Required
<b>Custom Data Tab</b>				
Key	The key for this custom data item.	Unique. Up to 50 characters, alphanumeric, period, and underscore characters only. Must begin with alphanumeric.	Null.	No
Value	The value to associate with this key.	Up to 500 characters. To add a new custom data key-value pair, complete both fields, and click <b>Add</b> . You can have a maximum of ten custom data key-value pairs. To edit an existing key-value pair, rest the mouse briefly on the entry, select the edit icon (  ) and make your changes. Then select the tick to confirm the change, or the cross to undo the change. To delete an existing key-value pair, rest the mouse briefly on the entry, select the delete icon (  ), then click <b>OK</b> to confirm the deletion.	Null	Yes.

## 8.17 Precision Queues

### 8.17.1 About Precision Queues

A precision queue is a mechanism that defines how to route calls to agents depending on each agent's proficiency attributes and availability. Precision queues can be referenced in routing scripts to define how calls are routed.

#### Note

Precision Queues can only be created on tenants that are associated with a Unified CCE instance running Unified CCE version 9.0 or later.

#### Precision Queue Steps

A precision queue contains one or more precision queue steps. Each step includes:

- some criteria defining a set of agent attributes that must be satisfied when choosing an agent to receive the call
- a time to wait for a suitable agent to become available, after which the criteria specified in the next step are considered instead (this feature is not available for the last step, since there is no next step after the last step).

Typically, the criteria specified in successive steps will get progressively less stringent. For example, the first step may specify that:

- the agent has been trained to sell mortgages (for example, Mortgage\_Training is True)
- the agent is an excellent Spanish speaker (for example, Spanish\_Speaker  $\geq$  8)
- the call will be held for up to 120 seconds waiting for an agent meeting these criteria to become available.

The next step is only considered if no agent becomes available in that time, and may specify that:

- the agent has been trained to sell mortgages (for example, Mortgage\_Training is True)
- the agent can speak Spanish (for example, Spanish\_Speaker  $\geq$  3)
- the call will be held for up to 300 seconds waiting for an agent meeting these criteria to become available.

The final step may specify that the call can be routed to any available agent who can speak Spanish at any level (for example, Spanish\_Speaker  $\geq$  1).

### Consider If Conditions

Any step except the last step can have a *Consider If* condition associated with it. A Consider If condition allows you to specify additional criteria about the call to determine whether the step is relevant for that category of call.

For example, a Consider If expression may be used to include a specific step only if more than 100 calls of a certain type have been received in the last 24 hours.

The Consider If expression is passed directly to Unified CCE and validated there. For more information about Consider If expressions, see the Unified CCE documentation in the Cisco Unified Contact Center Enterprise Features Guide.

### Expressions

Each step consists of:

- one or more expressions
- the rules for combining those expressions.

An expression defines a set of requirements an agent must satisfy in order to receive the call. Expressions in a step can be combined using *AND* (both the latest expression and the previous one must be satisfied) or *OR* (either the latest expression or the previous one, or both, must be satisfied).

For example, a step may have two expressions, one specifying some skills an agent may have, and the other specifying some qualifications an agent may have. If these two expressions are combined in a step using *AND*, calls will only be routed to agents that have both the specified skills and the specified training. But if the expressions are combined using *OR*, calls can be routed to agents with either the skills or the training or both.

### Attribute Comparisons

Each expression consists of:

- one or more attribute comparisons
- the rules for combining those attribute comparisons.

An attribute comparison is an attribute, a value and a rule for the comparison. Some typical attribute comparisons are:

- Spanish\_Speaker >= 8
- Mortgage\_Training = True.

Like expressions in a step, attributes in an expression can be combined using *AND* or *OR*.

### Tip for Constructing Steps, Expressions and Attribute Comparisons

**Tip**

To keep your steps and expressions simple, you may like to:

- group your **attribute comparisons** into **expressions** using **AND** (for example, an expression is made up of *AttributeComparison1 AND AttributeComparison2 AND AttributeComparison3*)
- group your **expressions** into **steps** using **OR** (for example, a step is made up of *Expression1 OR Expression2 OR Expression3*)

### 8.17.2 Creating a Precision Queue

To create a precision queue:

1. In **Resource Manager**, in the Folder Tree panel, select the folder where you want to create the precision queue.
2. In the Folder Tree panel, click **Resource**, and then click **Precision Queue**.
3. Enter a unique name for the precision queue.
4. Complete the remaining fields as described in section 8.17.6 "Precision Queue Fields".
5. Click **Save** to create the precision queue.

### 8.17.3 Editing a Precision Queue

To edit a precision queue:

1. In **Resource Manager**, go to the folder containing the precision queue you want to edit, and view the precision queue in that folder using the Items panel list view.
2. In the Items panel, click on the precision queue you want to edit. The details of this attribute are displayed in the Details panel.
3. Click through the tabs and edit the fields you want to change.
4. Click **Save**.

### 8.17.4 Deleting a Precision Queue

**Note**

You cannot delete a precision queue that is referenced in a routing script. This reference must be removed before the precision queue can be deleted.

To delete one or more precision queues:

1. In **Resource Manager**, go to the folder containing the precision queues you want to delete, and view the precision queues in that folder using the Items panel list view.
2. In the Items panel, check the box or boxes of the precision queues to be deleted.
3. Click **Delete**.
4. In the Delete Precision Queue dialog box, click **OK**. The precision queue will be deleted.

### 8.17.5 Bulk Uploading Precision Queues

In addition to creating precision queues one at a time, you can also bulk load precision queue records previously output to a CSV (comma separated values) file. For more information see section 7.5.1 "About Bulk Upload".

### 8.17.6 Precision Queue Fields

This table shows the tabs and fields available for precision queues.

For more information about tabs that are common to many resources, see section 7.1.3 "Common Details Panel Tabs".

Field	Description	Entry	Default	Required
<b>Details Tab</b>				
Name	A unique name for the precision queue. <i>Note. This may not be the same as the name by which the item is known on the remote equipment (<b>Enterprise Name</b> on the <b>Advanced</b> tab). Changing this name will not change the enterprise name or the name on the remote equipment. Changes to the name on the remote equipment will be reflected in the enterprise name, but under some circumstances, may not change the name shown here.</i>	Unique. Up to 50 characters, letters, numbers, periods, and underscore characters only. Must begin with letter or number.	Null	Yes
Description	A description of the precision queue.	Up to 255 characters.	Null	No



Field	Description	Entry	Default	Required
Path	Only shown when resource is first created. The location in the folder tree where the resource is to be created.	Click on the drop down arrow to show the folder tree, then select the required location.	Current location in folder tree	Yes
Agent Order	The agent to allocate to a call if more than one agent satisfies the criteria in the precision queue.	Select from list. Values are: <ul style="list-style-type: none"><li>• <b>Longest Available Agent</b></li><li>• <b>Most Skilled Agent</b></li><li>• <b>Least Skilled Agent</b></li></ul>	Longest Available Agent	Yes

Field	Description	Entry	Default	Required
Service Level Type	Optionally, use to indicate how to handle abandoned calls in service level calculations.	Select from: <ul style="list-style-type: none"> <li>• <b>Ignore Abandoned Calls:</b> do not include abandoned calls in the calculation</li> <li>• <b>Abandoned Calls have Negative Impact:</b> abandoned calls count as having exceeded the service level threshold.</li> <li>• <b>Abandoned Calls have Positive Impact:</b> abandoned calls count as having been promptly answered</li> </ul>	Ignore Abandoned Calls	No
Service Level Threshold	The service level threshold, in seconds, for allocating the call to a suitable agent using the rules in the precision queue.	0 to 2147483647.	Null	Yes

Field	Description	Entry	Default	Required
<b>Steps Tab</b>				
Add Step	Button to add a new precision step to the precision queue. A step consists of one or more conditional expressions.	Click to add another step to the list of steps. You can also change the order of steps by clicking on a step name and dragging the step to a new position in the list. <i>Note. If you rearrange the steps, the steps in the sequence are renumbered starting with Step 1.</i>	Null	Yes
Wait Time	The time in seconds to wait before moving on to the next step if the criteria in this step cannot be satisfied.	0 to 2147483647. <i>Note. Not applicable to last step in sequence.</i> <i>Note. If the steps are reordered as above, and the last step changes, the wait time is removed from the new last step, and the old last step is given a wait time of 0.</i>	0 (Not applicable to last step)	Yes, if precision queue has more than one step.

Field	Description	Entry	Default	Required
Step<n>	The name and definition of the nth step in the list.	<p>The definition shows the details of the step and the number of agents that currently meet the criteria for that step. A warning is shown if fewer agents meet the criteria for a step than met the criteria for the previous step.</p> <p>Click on the name of a step to display a dialog box to edit the conditional expressions in that step.</p> <p>When you have finished editing the expressions in that step, click <b>OK</b> to save the step.</p>	Null	Yes

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Field	Description	Entry	Default	Required
<b>Steps Tab &gt; Add Step</b>				

Field	Description	Entry	Default	Required
Consider If	Criteria that determines whether the step is executed	<p>Optionally, enter a scripting condition that will be evaluated to determine whether this step is considered for the call. If the condition is present but not satisfied by the call, the call passes to the next step in the precision queue. The scripting condition is validated by the remote equipment.</p> <p>Only the following scripting objects are valid in a Consider If expression:</p> <ul style="list-style-type: none"> <li>• Call</li> <li>• PQ</li> <li>• Skillgroup</li> <li>• ECC</li> <li>• PQ Step</li> <li>• Call Type</li> <li>• custom functions.</li> </ul> <p>For more information about Consider If expressions, see the Cisco Unified</p>	Null	No

Field	Description	Entry	Default	Required
		Contact Center Enterprise Features Guide.		

Field	Description	Entry	Default	Required
Add Expression	Button to add a new expression to the precision step. An expression consists of one or more attribute comparisons.	<p>Create an expression containing one or more attribute comparisons. The first attribute comparison is ready to complete. Click <b>Add Attribute</b> to optionally add more attribute comparisons. For each attribute comparison, complete the fields as described for Add Attribute. For each expression except the first, also click on the drop down beside the expression number to choose how this expression contributes to the results of the step:</p> <ul style="list-style-type: none"> <li>• <b>AND</b> – the step will be satisfied if an agent is found that satisfies this expression and also satisfies</li> </ul>	Null	Yes



Field	Description	Entry	Default	Required
		<ul style="list-style-type: none"><li>• the previous expressions in the step</li><li>• <b>OR</b> (default) – the step will be satisfied if an agent is found that satisfies this expression even if that agent does not satisfy the previous expressions in the step.</li></ul> Click <b>X</b> to remove the expression from the step.		



Field	Description	Entry	Default	Required
Add Attribute	Button to add a new attribute comparison to the expression. An attribute comparison consists of an attribute, a comparison type and a comparison value.	<p>Click to add a new attribute comparison as follows:</p> <ul style="list-style-type: none"> <li>• Click in the first box and start typing some characters to see a list of attributes that contain those characters.</li> <li>• Choose the attribute you want from the drop-down list</li> <li>• Move to the next box and choose the comparison type from the following: <ul style="list-style-type: none"> <li>== : equal to this value</li> <li>!= : not equal to this value</li> <li>&lt; : less than this value</li> <li>&lt;= : less than or equal to this value</li> <li>&gt; : greater than this value</li> </ul> </li> </ul>	Null	Yes

Field	Description	Entry	Default	Required
		<ul style="list-style-type: none"> <li>• <math>\geq</math> : greater than or equal to this value</li> <li>• Move to the final box and choose the value you want to compare against.</li> </ul> <p><i>Note. The last four comparison types above are only valid for proficiency attribute types.</i></p> <p>For each attribute in the expression except the first, also click on the drop down to the left of the attribute to choose how this attribute comparison contributes to the results of the expression:</p> <ul style="list-style-type: none"> <li>• <b>AND</b> (default) – the expression will be satisfied if an agent is found that satisfies this</li> </ul>		

Field	Description	Entry	Default	Required
		<ul style="list-style-type: none"> <li>• attribute comparison and also satisfies the previous attribute comparisons in the expression</li> <li>• <b>OR</b> – the expression will be satisfied if an agent is found that satisfies this attribute comparison even if that agent does not satisfy the previous attribute comparisons in the expression.</li> </ul> <p>Click <b>X</b> to remove the attribute comparison from the expression.</p>		
<b>Advanced Tab</b>				
Enterprise Name	<p>The name used to identify the item on the remote equipment. Leave blank to auto-generate a unique name.</p> <p><i>Note. If the item is created by importing from the remote equipment, this name will match the Unified CCDM name (<b>Name</b> on the <b>Details</b> tab). Changes to the name on the remote equipment will be reflected here, but under some circumstances, will not affect the Unified CCDM name.</i></p>	Unique. Up to 32 characters, alphanumeric, period, and underscore characters only. Must begin with alphanumeric.	Autogenerated	Yes

Field	Description	Entry	Default	Required
Department	(Only shown for tenants that are not small contact center tenants, and are associated with Unified CCE instances running Unified CCE version 10.0 or later). The department that this resource is associated with.	Select from the drop-down list of available departments.	None	No
Bucket Interval	The count of Answered or Abandoned calls that are used as intervals for the Call Type	Select from list of available bucket intervals	System Default	No
Active From Date	The date from which the precision queue should be active in the system	Select date from calendar.	Current date	Yes
Active To Date	The date after which the precision queue should be deleted from the system	Either leave <b>Forever</b> checked, or uncheck <b>Forever</b> and select date from calendar.	Forever	No

Field	Description	Entry	Default	Required
<b>Custom Data Tab</b>				
Key	The key for this custom data item.	Unique. Up to 50 characters, alphanumeric, period, and underscore characters only. Must begin with alphanumeric.	Null.	No

Field	Description	Entry	Default	Required
Value	The value to associate with this key.	<p>Up to 500 characters.</p> <p>To add a new custom data key-value pair, complete both fields, and click <b>Add</b>. You can have a maximum of ten custom data key-value pairs.</p> <p>To edit an existing key-value pair, rest the mouse briefly on the entry, select the edit icon (  ) and make your changes. Then select the tick to confirm the change, or the cross to undo the change.</p> <p>To delete an existing key-value pair, rest the mouse briefly on the entry, select the delete icon (  ), then click <b>OK</b> to confirm the deletion.</p>	Null	Yes.

## 8.18 Services

### 8.18.1 About Services

A service is a particular type of call processing required by the user, which is associated with a specific peripheral. Skill groups may be associated with one or more services. For example, a Customer Support service might be associated with a Customer Support skill group.

### 8.18.2 Creating a Service

To create a service:

1. In Resource Manager, in the Folder Tree panel, select the folder where you want to create the service.
2. In the Folder Tree panel, click **Resource**, and then click **Service**.
3. Enter a unique name of up to 32 characters for the service. This can only contain alphanumeric characters, periods and underscores.
4. Complete the remaining fields as described in section 8.18.4 "Service Fields".
5. Click **Save**.

### 8.18.3 Deleting a Service

To delete one or more services:

1. In **Resource Manager**, go to the folder containing the services you want to delete, and view the services in that folder using the Items panel list view.
2. In the Items panel, check the box or boxes of the services to be deleted.
3. Click **Delete**.
4. In the Delete Services dialog box, click **OK**. The services will be deleted.

### 8.18.4 Service Fields

This table shows the tabs and fields available for services.



For more information about tabs that are common to many resources, see section 7.1.3 "Common Details Panel Tabs".



Field	Description	Entry	Default	Required
<b>Details Tab</b>				
Name	A unique name for the record. <i>Note. This may not be the same as the name by which the item is known on the remote equipment (<b>Enterprise Name</b> on the <b>Advanced</b> tab). Changing this name will not change the enterprise name or the name on the remote equipment. Changes to the name on the remote equipment will be reflected in the enterprise name, but under some circumstances, may not change the name shown here.</i>	Unique. Up to 32 characters, alphanumeric, period, and underscore characters only. Must begin with alphanumeric.	Null	Yes
Description	A description of the record.	Up to 255 characters.	Null	No
Path	Only shown when resource is first created. The location in the folder tree where the resource is to be created.	Click on the drop down arrow to show the folder tree, then select the required location.	Current location in folder tree	Yes
Peripheral	The peripheral to associate this service with.	Select from drop-down.	Null	Yes
Peripheral Name	The name to be specified for this service at the peripheral	Up to 32 characters.	Null	Yes

Field	Description	Entry	Default	Required
Service Level Type	How the service level is calculated	Select from drop-down: <b>Default</b> Use the default specified for the peripheral <b>Ignore Abandoned Calls</b> Do not include abandoned calls in the calculation <b>Abandoned Calls have Negative Impact</b> Abandoned calls count as exceeding the service level threshold <b>Abandoned Calls have Positive Impact</b> Abandoned calls count as having been promptly answered <i>Note. For services associated with a Communications Manager, this will always be Ignore Abandoned Calls.</i>	Default	Yes
Service Level Threshold	The acceptable time limit in seconds during which a call should be answered.	0 to 1000000, or blank, to disable service level calculation and force the router to use the service level threshold of the associated MRD peripheral.	Null	Yes
<b>Skill Groups Tab</b>				
Skill Groups	The Skill Groups to associate with this service	Select from lower list of available skill groups and click <b>Add</b> to associate the checked skill groups with this label. To remove a skill group's association from this service, select from upper list and click <b>Remove</b> .	Null	No

Field	Description	Entry	Default	Required
<b>Advanced Tab</b>				
Enterprise Name	The name used to identify the item on the remote equipment. Leave blank to auto-generate a unique name. <i>Note. If the item is created by importing from the remote equipment, this name will match the Unified CCDM name (Name on the <b>Details</b> tab). Changes to the name on the remote equipment will be reflected here, but under some circumstances, will not affect the Unified CCDM name.</i>	Unique. Up to 32 characters, alphanumeric, period, and underscore characters only. Must begin with alphanumeric.	From Name	Yes
Department	(Only shown for tenants that are not small contact center tenants, and are associated with Unified CCE instances running Unified CCE version 10.0 or later). The department that this resource is associated with.	Select from the drop-down list of available departments.	None	No
Peripheral Number	The number to be specified for this service at the peripheral.	0 to 999999999.	Null	Yes
Media Routing Domain	The media routing domain associated with this service.	Select from list.	Null	Yes
Active From Date	The date from which this service should be active within the system	Select date from calendar.	Current date	Yes
Active To Date	The date after which this service should be deleted from the system	Either leave <b>Forever</b> checked, or uncheck <b>Forever</b> and select date from calendar.	Forever	No

Field	Description	Entry	Default	Required
<b>Custom Data Tab</b>				
Key	The key for this custom data item.	Unique. Up to 50 characters, alphanumeric, period, and underscore characters only. Must begin with alphanumeric.	Null.	No
Value	The value to associate with this key.	Up to 500 characters. To add a new custom data key-value pair, complete both fields, and click <b>Add</b> . You can have a maximum of ten custom data key-value pairs. To edit an existing key-value pair, rest the mouse briefly on the entry, select the edit icon (  ) and make your changes. Then select the tick to confirm the change, or the cross to undo the change. To delete an existing key-value pair, rest the mouse briefly on the entry, select the delete icon (  ), then click <b>OK</b> to confirm the deletion.	Null	Yes.

### 8.18.5 Editing a Service

To edit the details of an agent desktop:

1. In **Resource Manager**, go to the folder containing the service you want to edit, and view the services in that folder using the Items panel list view.
2. In the Items panel, click on the service you want to edit. The details of this service are displayed in the Details panel.
3. In the Details panel, click on the appropriate tab and make the desired changes.

4. Click **Save**.

## 8.19 Skill Groups

### 8.19.1 About Skill Groups

A skill group is a collection of agents that share a common set of skills that enable them to handle a particular type of task. For example, a skill group could define a group of agents who are proficient at providing technical support for a particular product. Agents are assigned one or more skills by associating the agent with the desired skill groups.

Each skill group is associated with a specific media routing domain such as voice, chat, or e-mail.

#### Note

Unified CCDM does not support sub-skill groups (skill groups defined as a subset of a parent skill group).

### 8.19.2 Creating a Skill Group

To create a skill group:

1. In **Resource Manager**, in the Folder Tree panel, select the folder where you want to create the skill group.
2. In the Folder Tree panel, click **Resource**, and then click **Skill Group**.
3. Enter a unique name for the group.
4. Complete the remaining fields as described in section 8.19.6 "Skill Group Fields".
5. To assign agents to the skill group, on the Agents tab, check the boxes of one or more agents, and click on **Add** above the list.

#### Note

The Selected Path drop-down at the top allows you to select agents from other folders to add to the skill group.

6. To create a route and assign it to the skill group, on the Routes tab, specify the name of the route, and an optional description, then click **Add**. A new route will be created and associated with the skill group when the skill group is saved.
7. Click **Save**.

### 8.19.3 Editing a Skill Group

To edit a skill group:

1. In **Resource Manager**, go to the folder containing the skill group you want to edit, and view the skill groups in that folder using the Items panel list view.
2. In the Items panel, click on the skill group you want to edit. The details of this skill group are displayed in the Details panel.
3. Click through the tabs and edit the fields you want to change.
4. To remove agents from a skill group, click on the **Agents** tab and check the boxes of the agents you wish to remove from the team. Click **Remove**.
5. To remove a route association from a skill group, on the Routes tab, click **Delete** beside the route you want to remove. The route will be deleted, and the association with the skill group will be removed when the changes to the skillgroup are saved.
6. To edit the details of an existing route that is associated with a skill group, click **Edit** beside the route, make the required changes, then click **Update** to confirm the changes. The route details will be changed when the changes to the skill group are saved.
7. Click **Save**.

### 8.19.4 Deleting a Skill Group

#### Note

You cannot delete a skill group that is referenced in a script. This reference must be removed before the skill group can be deleted.

To delete one or more skill groups:

1. In **Resource Manager**, go to the folder containing the skill groups you want to delete, and view the skill groups in that folder using the Items panel list view.
2. In the Items panel, check the box or boxes of the skill groups to be deleted.
3. Click **Delete**.
4. In the Delete Skill Groups dialog box, click **OK**. The skill groups and any routes associated with them will be deleted.

**Note**

Deleting a skill group automatically removes it from any enterprise skill groups in which it is referenced.

**8.19.5 Bulk Uploading Skill Groups**

In addition to creating skill groups one at a time, you can also bulk load skill group records previously output to a CSV (comma separated values) file. For more information see section 7.5.1 "About Bulk Upload".

**8.19.6 Skill Group Fields**

This table shows the tabs and fields available for skill groups.



For more information about tabs that are common to many resources, see section 7.1.3 "Common Details Panel Tabs".

Field	Description	Entry	Default	Required
<b>Details Tab</b>				
Name	A unique enterprise name for the record. <i>Note. This may not be the same as the name by which the item is known on the remote equipment (<b>Enterprise Name</b> on the <b>Advanced</b> tab). Changing this name will not change the enterprise name or the name on the remote equipment. Changes to the name on the remote equipment will be reflected in the enterprise name, but under some circumstances, may not change the name shown here.</i>	Unique. Up to 32 characters, letters, numbers, periods, and underscore characters only. Must begin with letter or number.	Null	Yes
Description	A description of the skill group.	Up to 255 characters.	Null	No
Path	Only shown when resource is first created. The location in the folder tree where the resource is to be created.	Click on the drop down arrow to show the folder tree, then select the required location.	Current location in folder tree	Yes
Peripheral	The peripheral to be used for the agents in the skill group.	Select from list.	Default Peripheral	Yes

Field	Description	Entry	Default	Required
Media Routing Domain	A description of how contact is made	Select from list	Cisco_Voice	No
Contact Center Picks The Agent (IPTA)	A tick-box indicating whether Unified CCE selects the Agents within the Skill Group to receive calls	Check box.	Checked	No
Service Level Type	Optionally, use to indicate how abandoned calls should be factored in calculating service levels.	Select from Default, Ignore Abandoned Calls, Abandoned Calls Have Negative Impact, and Abandoned Calls Have Positive Impact. <i>Note. The default is Ignore Abandoned Calls.</i>	Use Default	No
Service Level Threshold	The threshold, in seconds, for the Unified CCE service level.	0 to 2147483647.	Null	No
<b>Agents Tab</b>				
Agents	Agents associated with this skill group.	Select from lower list of available agents and click <b>Add</b> to include the checked agents in this skill group. To remove existing agents from this skill group, select from upper list and click <b>Remove</b> . To make this skill group the default skill group for an agent, check the <b>Default</b> box beside the agent. To revert the default skill group for this agent to the system default, uncheck the box.	Null	No



Field	Description	Entry	Default	Required
<b>Routes Tab</b>				
Route Name	The name of the route.	Unique. Up to 32 characters, letters, numbers, periods, and underscore characters only. Must begin with letter or number.	Null	Yes
Route Description	A description of the route.	Up to 255 characters.	Null	No
<b>Advanced Tab</b>				
Enterprise Name	The name used to identify the item on the remote equipment. Leave blank to auto-generate a unique name. <i>Note. If the item is created by importing from the remote equipment, this name will match the Unified CCDM name (Name on the Details tab). Changes to the name on the remote equipment will be reflected here, but under some circumstances, will not affect the Unified CCDM name.</i>	Unique. Up to 32 characters, alphanumeric, period, and underscore characters only. Must begin with alphanumeric.	From Name and Peripheral	Yes
Department	(Only shown for tenants that are not small contact center tenants, and are associated with Unified CCE instances running Unified CCE version 10.0 or later). The department that this resource is associated with.	Select from the drop-down list of available departments.	None	No
Peripheral Number	The number to be used on the peripheral for the Skill Group	0 to 16777215.	Generated automatically	No
Active From Date	The date from which the Skill Group should be active in the system	Select date from calendar.	Current date	Yes
Active To Date	The date after which the Skill Group should be deleted from the system	Either leave <b>Forever</b> checked, or uncheck <b>Forever</b> and select date from calendar.	Forever	No

Field	Description	Entry	Default	Required
<b>Custom Data Tab</b>				
Key	The key for this custom data item.	Unique. Up to 50 characters, alphanumeric, period, and underscore characters only. Must begin with alphanumeric.	Null.	No
Value	The value to associate with this key.	Up to 500 characters. To add a new custom data key-value pair, complete both fields, and click <b>Add</b> . You can have a maximum of ten custom data key-value pairs. To edit an existing key-value pair, rest the mouse briefly on the entry, select the edit icon (  ) and make your changes. Then select the tick to confirm the change, or the cross to undo the change. To delete an existing key-value pair, rest the mouse briefly on the entry, select the delete icon (  ), then click <b>OK</b> to confirm the deletion.	Null	Yes.

## 8.20 User Variables

### 8.20.1 About User Variables

A user variable is a named object which can hold a value up to 40 characters long. User variables are used in routing scripts.

**Note**

You cannot edit user variables. You can only create and delete them.

## 8.20.2 Creating a User Variable

To create a user variable:

1. In **Resource Manager**, in the Folder Tree panel, select the folder where you want to create the user variable.
2. In the Folder Tree panel, click **Resource**, and then click **User Variable**.
3. Complete the remaining fields as described in section 8.20.5 "User Variable Fields". Active from and to dates can be set in the **Advanced** tab.

**Note**

Unified CCE requires that all user variable names begin with the string `user`. The Code Text will therefore automatically be prefixed with this string on saving. For example, if you enter a Code Text of `Temp`, the resulting user variable will be called `userTemp`.

4. Click **Save**.

## 8.20.3 Deleting a User Variable

To delete one or more user variables:

1. In **Resource Manager**, go to the folder containing the user variables you want to delete, and view the user variables in that folder using the Items panel list view.
2. In the Items panel, check the box or boxes of the user variables to be deleted.
3. Click **Delete**.
4. In the Delete User Variables dialog box, click **OK**. The user variables will be deleted.

## 8.20.4 Bulk Uploading User Variables



In addition to creating user variables one at a time, you can also bulk load user variable records previously output to a CSV (comma separated values) file. For more information see section 7.5.1 "About Bulk Upload".

## 8.20.5 User Variable Fields

This table shows the tabs and fields available for user variables.

For more information about tabs that are common to many resources, see section 7.1.3 "Common Details Panel Tabs".

Field	Description	Entry	Default	Required
<b>Details Tab</b>				
Code Text	The name of the user variable.	Up to 28 characters, consisting of letters, numbers, periods and underscores only. Will be automatically prefixed with 'user' by the system upon saving	Null	Yes
Object Type	The type of object with which to associate the variable. You may choose not to associate the user variable with an object by selecting OT_USER_VARIABLE.	Select from list	Null	Yes
Data Type	The data type for the variable.	Select from list	Long	Yes
Persistent	Whether the user variable retains value across Central Controller restarts.	Check box.	Checked	No
Description	A description of the variable and how it should be used.	Up to 255 characters.	Null	No
Path	Only shown when resource is first created. The location in the folder tree where the resource is to be created.	Click on the drop down arrow to show the folder tree, then select the required location.	Current location in folder tree	Yes
<b>Advanced Tab</b>				
Active From Date	The date from which the variable will be active in the system.	Select date from calendar.	Current date	No
Active To Date	The date after which the variable should be deleted from the system.	Either leave <b>Forever</b> checked, or uncheck <b>Forever</b> and select date from calendar.	Forever	No

Field	Description	Entry	Default	Required
<b>Custom Data Tab</b>				
Key	The key for this custom data item.	Unique. Up to 50 characters, alphanumeric, period, and underscore characters only. Must begin with alphanumeric.	Null.	No
Value	The value to associate with this key.	<p>Up to 500 characters.</p> <p>To add a new custom data key-value pair, complete both fields, and click <b>Add</b>. You can have a maximum of ten custom data key-value pairs.</p> <p>To edit an existing key-value pair, rest the mouse briefly on the entry, select the edit icon (  ) and make your changes. Then select the tick to confirm the change, or the cross to undo the change.</p> <p>To delete an existing key-value pair, rest the mouse briefly on the entry, select the delete icon (  ), then click <b>OK</b> to confirm the deletion.</p>	Null	Yes.

## **9 Security**

### **9.1 Security Features**

#### **9.1.1 About Security**

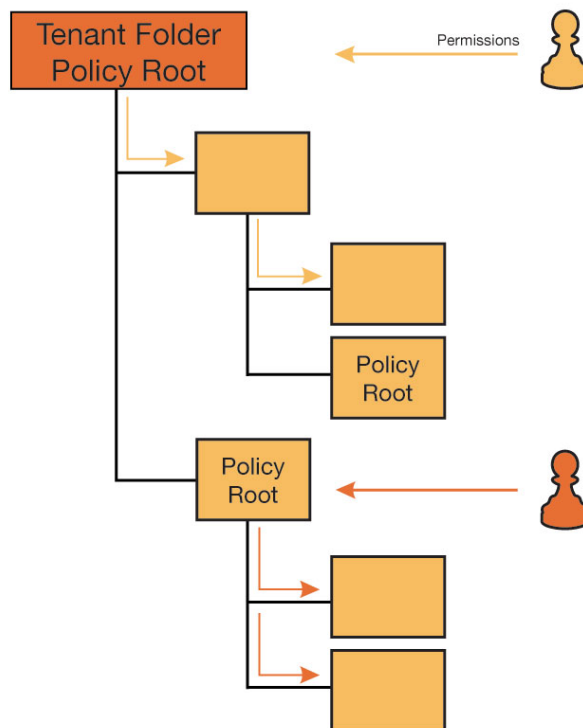
##### **9.1.1.1 Security and the Folder Structure**

Security management in Unified CCDM is folder based, and therefore a basic folder structure needs to be in place before security can be set up. Users are granted permissions to perform certain tasks within specified folders, and these permissions are inherited by the child folders and on down through the folder tree.

##### **9.1.1.2 Inheritance and Policy Root Folders**

By default, all folders except the tenant folder inherit the permissions of their parent. The tenant folder is therefore considered the root folder for a single security policy.

This inheritance link can be broken for individual folders, allowing separate permissions to be applied to them. These folders become policy roots, with their child folders inheriting their permissions.



**Figure 9.1 Folders and Security Policies**

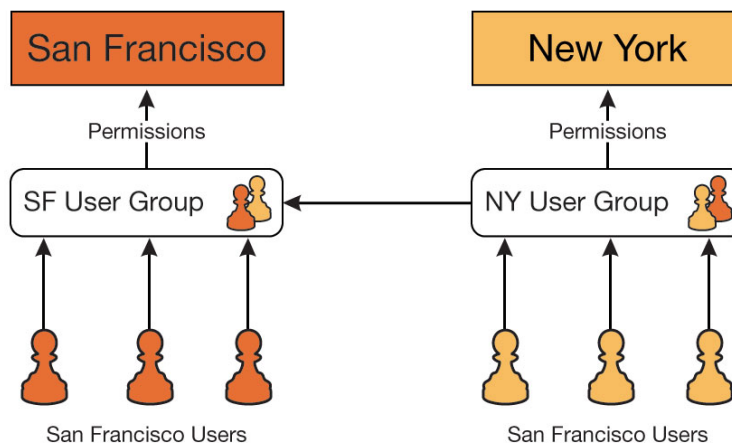
**Note**

When changing a user's permissions on a folder, checking the **Change permissions for sub-folders** box forces the system to propagate the changes into any policy roots below it in the tree.

### 9.1.2 About Users and Groups

Users can belong to groups of users that have the same permissions. The permissions assigned to that group apply to all members of that group.

Groups may be members of other groups. For example, if you wanted users with permissions over the San Francisco policy root to have permissions only within the San Francisco tree, but users with permissions within the New York policy root to have permissions within both New York and San Francisco, you could create a group for each policy which had permissions only within that policy, and then make the New York group a member of the San Francisco group.



**Figure 9.2 Groups and Security Policies Example**

Both users and groups may be members of more than one group.

Users and groups are created, moved, edited and deleted using the User Manager (see section 9.4 "Users") and the Group Manager (See section 9.5 "Groups").

### 9.1.3 About Default Groups

When you break the inheritance link for a folder, you create a new policy root folder. This automatically creates a number of default user groups within the policy root folder, with permissions over that policy. The default groups that are created, and the permissions they are assigned on folders, are set in the security settings (see section 2.2.2 "Changing the System Settings").

Two default groups are also present in the Root folder. These are:

- **Everyone:** allows users to browse the Shared and Unallocated folders. When a user is created they are automatically assigned to this group.
- **Administrators:** provides the host administrator with full permissions throughout the system.

The details of these two groups cannot be changed, although users and groups may be assigned to them or removed from them as normal.

### 9.1.4 About Permissions

Individual permissions (or tasks), such as creating agents or viewing resources, are gathered together into roles. Permissions for users and groups are then granted by means of these roles. There are two kinds of role used to grant permissions:



- **Global roles** globally ‘switch on’ the ability to perform certain kinds of action within the system, such as the ability to access the Security Permissions Manager tool (see section 9.2 "Global Roles" for more information about global roles).
- **Folder roles** specify the tasks which may be performed within individual folders, for example the ability to manage security within a specific tenant folder (see section 9.3 "Roles" for more information about folder roles).

For example, to manage security for a folder, a user needs a global role granting security management permissions, and a folder role granting permission to manage security within that folder.

### 9.1.5 About Default Roles

A number of default roles are provided with the system. These roles are shown below.

Default global roles:

- **Global Basic:** allows a user to perform basic provisioning and management functions.
- **Global Advanced:** allows a user to perform advanced provisioning and management functions, including all those allowed by the Global Basic global role.
- **Global Host:** allows a user to perform all licensed functions.

Default folder roles:

- **Supervisor:** allows a user to manage users and most resources in the specified folder.
- **Basic:** allows a user to browse most resources in the specified folder.
- **Advanced:** allows a user to browse and access to most resources in the specified folder, including all those allowed by the Basic folder role and the Supervisor folder role.
- **Full Permissions:** allows a user to perform all licensed functions in the specified folder.

### 9.1.6 About Security Management Tools

Unified CCDM provides the following functions to manage security.

Function	Usage
Global Roles	Allows you to create and manage global roles, and to assign these global roles to users and groups. See section 9.2 "Global Roles".
Roles	Allows you to create and manage folder roles. See section 9.3 "Roles". <i>Note.</i> Use <i>Security Permissions Manager</i> to assign folder roles to users or groups for specific folders.
Users	Allows you to create and manage users, and to view the folder roles and global roles they have. See section 9.4 "Users").
Groups	Allows you to create and manage groups, and to view the folder roles and global roles they have. See section 9.5 "Groups".
Security Permissions Manager	Allows you to view and edit (but not create) folder roles, assign folder roles to users and groups, change folder security inheritance and view and edit users and groups. See section 10.1 "Security Permissions". <i>Note.</i> Use <i>Global Roles</i> to assign global roles to users and groups.

## 9.2 Global Roles

### 9.2.1 About The Global Role Manager

#### Note

The Global Role Manager is only available to advanced mode users.

The Global Role Manager allows you to create and manage global roles, and to assign these global roles to users and groups.

### 9.2.2 About Global Roles

Global roles are collections of tasks that specify the permissions a user has the potential to perform within the system. For example, a user assigned a global role that includes the 'Resource Manager' task has the potential to access Resource Manager if they are assigned folder roles that require this. Global roles are not contained within individual folders, but exist throughout the system and can be applied to any user or group.

The roles that are needed in Unified CCDM are determined by the requirements of the different categories of user who will be working within that system.


**Note**

If some roles appear disabled and marked as unlicensed following an install or an upgrade, it may be that you need a license upgrade to access those features. Contact your reseller for further information.

Global roles can normally only be managed by host administrators, but it is possible to allow tenant administrators to grant users and groups global permissions without assigning them full global security permissions by setting up global permissions groups in each tenant root, each of which has been uniquely assigned a particular global role.

### 9.2.3 Starting the Global Role Manager

To start the Global Role Manager:

1. Click the "hamburger" icon (  ) in the menu bar, to show the tools menu.
2. Select **Security > Roles**. This starts the Role Manager, which manages folder-based roles.
3. In the Role Manager menu bar, click **Global Roles**.

### 9.2.4 Creating a Global Role

To create a global role:


1. In the **Global Role Manager**, click **New**.
2. Give the new role a name reflecting the permissions it grants or the category of user it is intended for.
3. Add a description if necessary, such as a summary of the permissions granted.
4. Select the tasks to be included in this global role.
5. Click **Save**.

### 9.2.5 Assigning a Global Role

To grant or remove global permissions:

1. In the **Global Role Manager**, click the global role to be assigned to users or groups. The properties of the global role are displayed.
2. Click the **Members** tab.

To remove a user or group from this global role:

1. Click the **Delete** icon (  ) by the member, and then click **Confirm**.

To add a user or group to this global role:

1. Click the **Add Members** button. A dialog box will open.
2. Go to the folder containing the users or groups to be assigned this global role. You can use the fields at the top to filter this view to show only users or only groups, or to search for specific names.
3. Select the required members. You can select users and groups from multiple folders. Then click **OK**.
4. **Close and Save.**

## 9.2.6 Editing a Global Role

To edit a global role:

1. In the **Global Role Manager**, click the global role to be edited.
2. Click the **Details** tab and change the details if required.
3. On the **Tasks** tab select the tasks you want to add to the global role, and clear the tasks you want to remove from the global role.
4. Click **Save** to save your changes.

## 9.2.7 Deleting a Global Role

To delete a global role:

1. In **Global Role Manager**, select the global role you want to delete and click **Delete**.
2. Click **OK** to confirm the deletion.

### Note

You will not be able to delete a global role that still has members.

## 9.3 Roles

### 9.3.1 About The Role Manager

### Note

The Role Manager is only available to advanced mode users.

The Role Manager allows you to create and manage folder roles.

**Note**

You cannot use the Role Manager to assign folder roles to users and groups. Use the Security Permissions Manager to assign folder roles to users or groups for specific folders.

### 9.3.2 About Folder Roles

Folder roles are sets of permissions that users and groups may be granted on specific folders. They are not contained within individual folders, but exist throughout the system and can be applied to any user or group for any folder.

The roles that are needed in Unified CCDM are determined by the requirements of the different categories of user who will be working within that system. For each folder role created there should be a global role which provides all the global permissions necessary to allow performance of the tasks specified. A global role with more permissions than needed can normally be safely used instead.


For example, if a folder role contains the task 'Manage Dimensions', there should also be a global role containing the 'Resource Manager' task along with tasks like 'Provision Agent', 'Provision Agent Desktop', depending on which resources the folder role allows users to manage.

**Notes**

- By default, only host administrators can manage folder roles.
- To grant users roles on specific folders, use the Security Permissions Manager instead (see section 10.1 "Security Permissions").
- If some roles appear disabled and marked as unlicensed following an install or an upgrade, it may be that you need a license upgrade to access those features. Contact your reseller for further information.

### 9.3.3 Starting the Role Manager

To start the Role Manager so you can manage folder-based roles:

1. Click the "hamburger" icon (  ) in the menu bar, to show the tools menu.
2. Select **Security > Roles**.

### 9.3.4 Creating a Folder Role

To create a folder role:

1. In the **Role Manager**, click **New**.
2. Give the new role a name reflecting the permissions it grants or the category of user it is intended for.

3. Add a description if necessary, such as a summary of the permissions granted or a list of the global roles that are suitable for use with this folder role.
4. Select the tasks to be included in this role.
5. Click **Save**.

### 9.3.5 Assigning a Folder Role

To assign a folder role to a folder, use the **Security Permissions Manager** tool (see section 10.1 "Security Permissions").

### 9.3.6 Editing a Folder Role

To edit a folder role:

1. In **Role Manager**, click the folder role you want to edit.
2. Select the tasks you want to add to the folder role, and clear the tasks you want to remove from the folder role.
3. Click **Save** to save your changes.

### 9.3.7 Deleting a Folder Role

To delete a folder role, in **Role Manager**, select the folder role you want to delete, click **Delete**, and then **OK**.

#### Note

You will not be able to delete a folder role that is still being used.

## 9.4 Users

### 9.4.1 About Users

Unified CCDM allows advanced mode users with appropriate permissions to create and manage users, and to view the folder roles and global roles they have.

Unified CCDM treats user accounts similarly to resources. That is, each user account must be contained within a specific folder, and users with appropriate permissions on that folder can change the properties of that user (for example, the password) or move or delete the user account.


#### Notes

- The folder that contains a user account does not affect the permissions of that user.

- To change the permissions (folder roles) a user has on specific folders, use Security Permissions Manager (see section 10.1 "Security Permissions").

## 9.4.2 Starting the User Manager

To start the User Manager:

1. Click the "hamburger" icon (  ) in the menu bar, to show the tools menu.
2. Select **Security > Users**.

## 9.4.3 Creating a User

To create a user:

1. In **User Manager**, select the folder in which to create the new user.
2. Click the **New** option. The **Create a New User** page will open.
3. Enter the following details:
  - In the **Login Name** field enter the name for the new user account. The user will use this name to login to Unified CCDM.

### Note

There are specific requirements on the format of the login name for:

- all users in installations that use single sign-on (SSO)
- ISE-enabled users (see ) in all installations, whether SSO is in use or not.

The login name must correspond to an existing Windows Active Directory user, and must be formatted as **<username>@<domain-name>**, where **<username>** is the Windows username and **<domain-name>** is the fully qualified Windows domain name. An example is **user1@testdomain.local**. The login name must exactly match the details in the corresponding Active Directory entry.

For users in installations that use SSO, the older *down-level logon name* format (for example **testdomain\user1**) can still be used, but it is recommended that all new Unified CCDM SSO users are created in the **<username>@<domain-name>** format. ISE-enabled users must be created in this format.

- In the **Password** field enter the password for the new user. This field is not preset in installations that use SSO.

### Notes

The user's password cannot be the same as their login name, and must meet any password restrictions that are specified by the system administrator in **Settings > Security Settings**.

Additionally, for an ISE-enabled user the password must match the password for the corresponding Windows active directory user.

- In the **Confirm Password** field re-enter the selected password.
- In the **First Name** and **Last Name** fields enter the user's details.
- In the **Email** field enter the email address (if any) of the new user.
- In the **Description** field, optionally enter any explanatory text, such as a job title.
- Enter the **User Home Folder** that the user will start in when they log in. If you leave this blank, it will automatically be set to the folder the user is created in.
- If required, select **Create a new folder for this user**, to create a new folder for the user below the user home folder. The name of the new folder will be the user's login name followed by the default folder suffix specified in **Settings > Security Settings > User Folder Suffix**.

#### Note

Basic users will only be able to view their home folder.

4. Select any of the following check boxes which are applicable:

- Select the **Advanced Mode** check box if the user is to be assigned global roles that allow them to access advanced mode tools such as Resource Manager.

#### Note

The number of advanced users should be limited as far as is practical.

- Select the **Account Enabled** check box to ensure that the user is live in the system. If unchecked the new user account will be saved in the system, but the user will not be able to login.
- Select the **User must change password at next Logon** check box to prompt the new user to change their password after their first login.
- Select the **Password Never Expires** check box to assign the password to the new user indefinitely.
- Select the **User cannot change password** check box to prevent the new user from changing their own password (it can still be changed by administrators).



- Select the **Internet Script Editor Enabled** check box to specify that this user is ISE-enabled (see section 9.4.11 "About ISE Enabled Users"). This also creates a linked Unified CCE user that can access Cisco's Internet Script Editor using Unified CCDM security partitioning.

**Note**

If you select **Internet Script Editor Enabled** you must also ensure that:

- the Login Name is in the format specified above for ISE-enabled users
- the user has the **Browse Dimensions** permission on the folders containing the scripts and resources that the linked Unified CCE user needs to be able to access in Cisco's Internet Script Editor.

5. If you wish to create more than one user, select the **Create Another** check box to remain on the Create a new user page after you have created this user.
6. Click **Save**.

**Note**

You can also create a user in **Resource Manager** (in the Folder Tree panel, select **System > User**).

#### 9.4.4 Editing User Details

To edit user details in User Manager:

1. In **User Manager**, select the folder containing the user to be edited.
2. Click on the user. A page showing the user details opens.
3. Edit details as desired. The user's password can be changed from the **Password** tab, and the user can be added or removed from groups using the **Groups** tab.

**Note**

You can also edit a user in **Resource Manager** by clicking on the user in the Items panel (list view).

#### 9.4.5 Moving a User

To move a user in User Manager:

1. In **User Manager**, select the folder containing the user to be moved.

2. Select the check box beside the user to be moved.
3. Click the **Move** option. The Move a user page will open.
4. Go to the folder you want to move the user to.
5. Click **Save**.

**Note**

You can also move a user in **Resource Manager** by selecting the check box beside the user in the Items panel (list view) and clicking **Move**.

### 9.4.6 Deleting a User

To delete a user:

1. In **User Manager**, select the folder containing the user to be deleted.
2. Select the check box beside the user to be deleted.
3. Click the **Delete** option and confirm the deletion when prompted.

**Note**

You can also delete a user in **Resource Manager** by selecting the check box beside the user in the Items panel (list view) and clicking **Delete**.

### 9.4.7 Copying a User

To copy a user thus copying all of the user's settings, group memberships and roles:

1. In **User Manager**, select the folder containing the user to be copied.
2. Click on the user. A page showing the user details will open.
3. Click on the **Copy** option. A dialog displaying empty user fields will be displayed.
4. Fill in the details of the new user.
5. Click the **Copy** button on the dialog.

### 9.4.8 Viewing User Permissions

To see a user's permissions (folder roles and global roles):

1. In **User Manager**, select the folder containing the user.
2. Click on the user. A page showing the user details will open.
3. Click on the **Access** option. You can see the folders the user can access, the roles the user can perform on each folder and the global roles the user has.

**Note**

The Access option does not show whether these permissions have been assigned directly to the user or through group memberships.

If there is an asterisk (\*) beside a folder role or global role in the list, then that permission is not currently active. This can happen if the user inherits the permission by being a member of a group that has the permission, but the group is not enabled.

### 9.4.9 Changing User Permissions

To change the permissions (folder roles) a user has in a folder, use the Security Permissions Manager tool (see section 10.1 "Security Permissions").


To change the global roles that a user has, use the Global Role Manager (see section 9.2 "Global Roles").

**Note**

For ease of maintenance, it is recommended that you assign user permissions to groups, not to individual users.

### 9.4.10 Changing the Groups a User Belongs To

To change the groups a user belongs to, use the Groups tab:

1. In **User Manager**, select the folder containing the user to be updated.
2. Click on the user. A page showing the user details will open.
3. Select the **Groups** tab.
4. From the Groups tab, you can remove the user from groups by clicking on the **Delete** icon (  ) beside each group.
5. You can add the user to new groups, as follows:
  - Click the **Add to Group** button. A dialog box opens.
  - Go to the folder containing the group the user is to be added to.
  - Select the check box of the group or groups. You can select groups from multiple folders.
6. Click **Close** and **Save**.

### 9.4.11 About ISE Enabled Users

ISE enabled users are Unified CCDM users that are linked to Unified CCE users. When the linked Unified CCE user runs Cisco's Internet Script Editor (ISE), Unified CCDM security is applied to the scripts and resources shown. So the

Unified CCE user is only able to access the ISE scripts and resources that the linked Unified CCDM user is able to access.

There are two ways to create a linked Unified CCE and Unified CCDM user so that Unified CCDM security can be applied to ISE scripts and resources. Normally, you will create the user in Unified CCDM, specify that it is ISE-enabled, and Unified CCDM will automatically create the linked Unified CCE user (see section 9.4.3 "Creating a User"). But if a suitable user already exists in Unified CCE, Unified CCDM will automatically import it. You can then configure the user as ISE-enabled in Unified CCDM.

For more information about configuring ISE to use Unified CCDM security and creating ISE enabled users, see *Administration Guide for Cisco Unified Contact Center Domain Manager*, chapter Remote Resource Provisioning, section Partitioned Internet Script Editor.

### 9.4.12 Configuring Imported UCCE Users for ISE Integration

Existing Unified CCE administrator users are automatically imported into Unified CCDM in a format which supports Internet Script Editor (ISE) partitioning. These Unified CCDM users need to be configured before the corresponding Unified CCE users can use the ISE for partitioned editing.

To configure an imported Unified CCE user for partitioned ISE access:

1. In **User Manager** or **Resource Manager**, locate the user to be edited. The user name will be formatted as `<username>@<domainname>`, where `<username>` is the Windows user name and `<domainname>` is the fully qualified Windows domain name. An example of an imported user name could be `iseuser1@testdomain.local`. The imported user will be in your default import location unless you have moved the user after the import.
2. Click the user to view the details.
3. On the **Details** tab, select **Account Enabled** to enable the user.
4. Give this user **Browse Dimensions** permission on the Unified CCE folders and resources that they need to access using the Cisco Internet Script Editor. You can do this in one of the following ways:
  - Select the **Groups** tab and add the user to a group that already has the required permissions.
  - Alternatively, after you have finished the remaining steps in this section, in **User Manager** select the check box beside the user, then click **Change Permissions**. Identify a suitable folder role that includes **Browse Dimensions**, and assign it to this user for each of the folders containing the scripts and resources you want this linked user to be able to access.

5. Click **Save** to update the user details for the linked Unified CCDM user.
6. If your Unified CCDM installation does not use single sign on, then before this user can be used to access ISE, you must log in to Unified CCDM as this user, and supply a password when prompted. This password must be the same as the password for the corresponding Windows active directory user. If your Unified CCDM installation uses single sign on, this step is not required.

#### Note

For more info about ISE enabled users, see section 9.4.11 "About ISE Enabled Users" and *Administration Guide for Cisco Unified Contact Center Domain Manager*, Chapter Remote Resource Provisioning, section Partitioned Internet Script Editor.

## 9.4.13 User Fields

### 9.4.13.1 Fields Available When Creating a User

Field	Description	Entry	Default	Required
Login Name	A unique login name for the Portal user.	Unique. Up to 50 characters. Any Unicode character is valid, except single quote ('), double quote (") and Unicode characters in the "Symbol, Other" category.  Additionally, for ISE-enabled users, and all users in installations that use SSO, the following applies. The login name must correspond to an existing Windows Active Directory user, and must be formatted as <b>&lt;username&gt;@&lt;domain-name&gt;</b> , where <b>&lt;username&gt;</b> is the Windows username and <b>&lt;domain-name&gt;</b> is the fully qualified Windows domain name. An example is <b>user1@testdomain.local</b> . The login name must exactly match the details in the corresponding Active Directory entry.	Null	Yes
First Name	The first name of the Portal user.	Up to 50 characters.	Null	No
Last Name	The last name of the Portal user.	Up to 50 characters.	Null	No
Email	The user's email address	Up to 255 characters. Must be a valid email address in the format name@domain.extension.	Null	No

Field	Description	Entry	Default	Required
Culture	The language and location setting for this user.	Select from the drop-down list	Culture setting of the user creating the new user	Yes
Description	A description of the Portal user.	Up to 255 characters.	Null	No
Advanced Mode	Indicates whether this user has advanced mode functionality.	Check this box to specify whether the user has advanced mode functionality.	Null	No
Account Enabled	Indicates whether this user is currently active on the system.	Check this box to specify that the user is currently active. If this box is not checked then this user will not be able to log on to the Portal web application.	Selected	No
User must change password at next login	Indicates whether this password is only valid for a single log in.	Check this box to force the user to change their password the next time they log in.	Null	No
Password never expires	Indicates whether the password will never expire.	Check this box to specify that the user's password never expires. If this box is not checked, the user's password will expire after the number of days specified in Settings > Security Settings > Password Expiry.	Null	No
User cannot change password	Indicates whether the user cannot change their password.	Check this box to specify that the user cannot change their password. If this box is not checked, the user can change their password using Settings > Change Password.	Null	No
User Home Folder	The user's home folder.	From the folder tree, select the location of the home folder that the user will be taken to on login.	/	Yes

Field	Description	Entry	Default	Required
Internet Script Editor Enabled	Indicates whether the user is linked to a Unified CCE user.	Check this box to create a linked Unified CCE user that can access Cisco's Internet Script Editor using the security settings of this Unified CCDM user. In this case, the following apply: <ul style="list-style-type: none"> <li>The login name must correspond to an existing Windows active directory user.</li> <li>If the installation does not use single sign on, the specified password must match the password for the corresponding active directory user.</li> </ul>	Cleared	No
Create a new folder for this user	Indicates whether to create a new folder for this user.	Check this box to create a new folder for the user below the User Home Folder. The name of the new folder will be the user's Login Name followed by the default folder suffix specified in Settings > Security Settings > User Folder Suffix.	Cleared	No
Password	The password that the user will use to log in to the system.	Only required if the installation does not use single sign on. The user's password cannot be the same as their Login Name, and must meet any password restrictions that are specified by the system administrator in Settings > Security Settings. Additionally, for an Internet Script Editor enabled user, the password must match the password for the corresponding Windows active directory user.	Null	Yes
Confirm Password	The same as for the Password field. This ensures that the user is not prevented from logging in by typographical errors made when setting his or her password.	Only required if the installation does not use single sign on. Enter password confirmation. This must match the value specified in the Password field.	Null	Yes

#### 9.4.13.2 Fields Available When Editing a User

Field	Description	Entry	Default	Required
<b>Details Tab</b>				
Login Name	A unique login name for the Portal user.	Unique. Up to 50 characters. Any Unicode character is valid, except single quote ('), double quote (") and Unicode characters in the "Symbol, Other" category. Additionally, for an Internet Scrip Editor enabled user, the login name must correspond to an existing Windows active directory user. This name must be formatted as <b>&lt;username&gt;@&lt;domainname&gt;</b> , where <b>&lt;username&gt;</b> is the Windows username and <b>&lt;domainname&gt;</b> is the fully qualified Windows domain name, for example, <b>iseuser1@testdomain.local</b>	Current value	Yes
First Name	The first name of the Portal user.	Up to 50 characters.	Null	No
Last Name	The last name of the Portal user.	Up to 50 characters.	Null	No
Email	The user's email address	Up to 255 characters. Must be a valid email address in the format name@domain.extension	Null	No
Description	A description of the Portal user.	Up to 255 characters.	Null	No
User Home Folder	The user's home folder	From the folder tree, select the location of the home folder that the user will be taken to on login.	/	Yes
Advanced Mode	Indicates whether this user has advanced mode functionality.	Check this box to specify whether the user has advanced mode functionality.	Null	No
Account Enabled	Indicates whether this user is currently active on the system.	Check this box to specify that the user is currently active. If this box is not checked then this user will not be able to log on to the portal web application.	Selected	No



Field	Description	Entry	Default	Required
Internet Script Editor Enabled	Indicates whether the user is linked to a Unified CCE user	Check this box to create a linked Unified CCE user that can access Cisco's Internet Script Editor using the security settings of this Unified CCDM user. In this case, the following apply: <ul style="list-style-type: none"> <li>The login name must correspond to an existing Windows active directory use.</li> <li>If the installation does not use single sign on, the specified password must match the password for the corresponding active directory user.</li> </ul>	Cleared	No
<b>Password Tab (only present if the installation does not use single sign on)</b>				
Reset Password	Whether to reset the password for this user.	Check this box to reset the user's password.	Null	No
Password	Only shown if Reset Password is checked. The new password for this user.	The user's password cannot be the same as their Login Name, and must meet any password restrictions that are specified by the system administrator in Settings > Security Settings. Additionally, for an Internet Script Editor enabled user, the password must match the password for the corresponding Windows active directory user.	Null	Yes
Confirm Password	Only shown if Reset Password is checked. The same as for the Password field.	Enter password confirmation. This must match the value specified in the Password field.	Null	Yes
User exceeded maximum login attempts	Set by the system if the user has been locked out of the system because the maximum number of login attempts has been exceeded.	Clear this box to re-enable the user if the user has been locked out for exceeding the maximum number of login attempts. The user will not be able to log on to the portal until this box has been cleared.	Null	No
Password never expires	Indicates whether password will never expire.	Check this box to specify that the user's password never expires. If this box is not checked, the user's password will expire after the number of days specified in Settings > Security Settings > Password Expiry.	Null	No

Field	Description	Entry	Default	Required
User cannot change password	Indicates whether the user cannot change their password.	Check this box to specify that the user cannot change their password. If this box is not checked, the user can change their password using Settings > Change Password.	Null	No
User must change password at next login	Indicates whether this password is only valid for a single log in.	Check this box to force the user to change their password the next time they log in.	Null	No
<b>Groups Tab</b>				
Groups	Add this user to a group or remove this user from a group.	To add user to a group, click <b>Add to Group</b> , go to the folder that contains the group, then select the group and click OK. To remove a user from a group, click the <input type="checkbox"/> beside the group you want to remove the user from.	Null	No

## 9.5 Groups

### 9.5.1 About Groups

Unified CCDM allows advanced mode users with appropriate permissions to create and manage groups, and to view the folder roles and global roles they have.


Unified CCDM treats groups similarly to resources. That is, each group must be contained within a specific folder, and any user with appropriate permissions on that folder can change the properties of the group.

#### Notes

- The folder that contains a group does not affect the permissions of that group.
- To change the permissions (folder roles) a group has on specific folders, use Security Permissions Manager (see section 10.1 "Security Permissions").

### 9.5.2 Starting the Group Manager

To start the User Manager:

1. Click the "hamburger" icon (  ) in the menu bar, to show the tools menu.
2. Select **Security > Groups**.

### 9.5.3 Creating a Group

To create a group:

1. In **Group Manager**, select the folder in which to create the new group.
2. Click the **New** option. The **Create a new group** page opens.
3. Enter the following details:
  - In the **Name** field enter the name for the new group. Groups in different folders may have the same name.
  - In the **Description** field enter a description for the group, such as a summary of its permissions or the categories of users it is intended for.
  - If you want to create more than one group, select the **Create Another** check box to remain on the Create a new group page after you have created this group.
4. Click **Save**.

#### Note

You can also create a group in Resource Manager (in the Folder Tree panel, select **System > Group**).

### 9.5.4 Editing Group Details

To edit group details:

1. In **Group Manager**, select the folder containing the group to be edited.
2. Click on the group. A page showing the group details opens.
3. Edit details as desired. Members of the group can be added or removed using the **Members** tab, and the group itself can be added to or removed from other groups using the **Groups** tab.

#### Note

You can also edit a group in **Resource Manager** by clicking on the group in the Items panel (list view).

### 9.5.5 Moving a Group

To move a group:

1. In **Group Manager**, select the folder containing the group to be moved.
2. Select the check box beside the group to be moved.
3. Click **Move**. The Move a group page opens.

4. Go to the folder you want to move the group to.
5. Click **Save**.
6. Alternatively, click on the group name and click the **Move** option from the details page.

**Note**

You can also move a group in **Resource Manager** by selecting the check box beside the group in the Items panel (list view) and selecting **Move**.

### 9.5.6 Deleting a Group

To delete a group:

1. In **Group Manager**, select the folder containing the group to be deleted.
2. Check the group's check box.
3. Click the **Delete** option and confirm the deletion when prompted.

**Note**

You can also delete a group in Resource Manager by checking the box beside the group in the Items panel (list view) and selecting **Delete**.

### 9.5.7 Viewing Group Permissions

To view the permissions of a group (folder roles and global roles):

1. In **Group Manager**, select the folder containing the group.
2. Click on the group. A page showing the group details will open.
3. Click on the **Access** option. You can see the folders that members of this group can access, the roles that they can perform on each folder and the global roles the user has.

**Note**

The Access option does not show whether these permissions have been assigned directly to the group or are inherited through membership of other groups.

If there is an asterisk (\*) beside a folder role or global role in the list, then that permission is not currently active. This may be:

- because the folder role or global role is not enabled
- because the group has inherited the permission by being a member of a larger group that has the permission, but the larger group is not enabled
- because the group is not enabled.


### 9.5.8 Changing Group Permissions

To change the permissions (folder roles) members of a group have in a folder, use the Security Permissions Manager (see section 10.1 "Security Permissions").

To change the global roles that members of a group have, use the Global Role Manager (see section 9.2 "Global Roles").

### 9.5.9 Changing the Members in a Group

To change the members of a group, use the **Members** tab:


1. In **Group Manager**, select the folder containing the group.
2. Click on the group. A page showing the group details will open.
3. Select the **Members** tab.
4. From the **Members** tab, you can remove members by clicking on the Delete (  ) icon beside their names.
5. From the **Members** tab, you can add members as follows:
  - Click the **Add Members** button. A pop-up will open.
  - Go to the folder containing the users or groups to be added to the current group. You can use the fields at the top to filter this view to show only users or only groups, or to search for specific names.
  - Check the check. box of the new members. You may select users and groups from multiple folders.
6. Click **Close** and **Save**.

#### Note

You can also change the members in a group in **Resource Manager** by clicking on the group in the Items panel (list view).

### 9.5.10 Changing the Groups a Group Belongs To

To change the groups that a group belongs to, use the **Groups** tab:

1. In **Group Manager**, select the folder containing the group to update.
2. Click on the group. A page showing the group details opens.
3. Select the **Groups** tab.
4. From the **Groups** tab, you can remove the group from other groups it is a member of click the **Delete** icon (  ) by the group.
5. From the **Groups** tab, you can add the group to other groups as follows:

- Click the **Add to Group** button. A dialog box will open.
  - Go to the folder containing the group the current group is to be added to.
  - Check the check box of the group or groups. You may select groups from multiple folders.
6. Click **Close** and **Save**.

**Note**

You can also change the groups a group belongs to in **Resource Manager** by clicking on the group in the Items panel (list view).

**9.5.11 Group Fields****9.5.11.1 Fields Available When Creating a Group**

Field	Description	Entry	Default	Required
Name	A unique name for the group.	Unique. Up to 50 characters, letters, numbers, and underscore characters only. Must begin with letter or number.	Null	Yes
Description	A description of the group.	Up to 255 characters.	Null	No

**9.5.11.2 Fields Available When Editing a Group**

Field	Description	Entry	Default	Required
<b>Details Tab</b>				
Name	A unique name for the group.	Unique. Up to 50 characters, letters, numbers, and underscore characters only. Must begin with letter or number.	Null	Yes
Description	A description of the group.	Up to 255 characters.	Null	No
Enabled	Indicates whether this group is currently active on the system.	Check this box to specify that the group is currently active. If this box is not checked then any access that has been granted to users through this group is not available.	Selected	No

Field	Description	Entry	Default	Required
<b>Members Tab</b>				
Members	Add members to this group or remove members from this group.	To add one or more members to this group, click <b>Add Members</b> , go to the folder that contains the users to add, then select the user or users and click OK.  To remove a user member from this group, click <input type="checkbox"/> beside the user you want to remove from the group.	Null	No
<b>Groups</b>				
Groups	Add this group to another group or remove this group from another group.	To add this group to another group, click <b>Add to Group</b> , go to the folder that contains the group you want to add this group to, then select the group and click OK.  To remove this group from another group, click <input type="checkbox"/> beside the group you want to remove this group from.	Null	No

## 10.1 Security Permissions

### 10.1.1 About Security Permissions

Unified CCDM allows advanced mode users with appropriate permissions to:


- view the folder-based roles assigned to users and groups for a particular folder
- assign folder-based roles to users and groups for a particular folder
- change the folder role inheritance for a folder
- view and edit the permissions available in a folder-based role
- view and edit users
- view and edit groups.

#### Note

You cannot use the Security Permissions Manager to assign global roles to users and groups. Use the Global Role Manager to assign global roles to users and groups.

### 10.1.2 Starting the Security Permissions Manager

To start the Security Permissions Manager:

1. Click the "hamburger" icon (  ) in the menu bar, to show the tools menu.
2. Select **Security > Permissions**.

### 10.1.3 Viewing Folder Roles Assigned to a Folder

To see the folder roles that users and groups have on a particular folder, select that folder from the folder tree on the left. All the folder roles that users or groups have on the selected folder are shown in the **Permissions** tab.



### 10.1.4 Assigning Folder Roles to Users and Groups

To use **Security Permissions Manager** to assign folder roles to users or groups:

1. In **Security Permissions Manager** select the folder that contains the users or groups you want to assign folder roles to. Then:
  - either click on the **Users** tab to see the users in that folder
  - or click on the **Groups** tab to see the groups in that folder.
2. Check the box or boxes beside the users or groups that you want to edit the permissions for.
3. Click **Change Permissions** to change the folder roles for the selected users or groups.
4. If you see a message telling you that the current folder is inheriting permissions, and you want to break the inheritance and set different permissions for this folder, click **Edit Item Security** then **OK** to confirm the action. **Cancel** if you do not want to break the inheritance.
5. If you are continuing to set folder roles, in the **Folder Permissions** dialog box, select a folder location from the folder tree on the left hand side of the screen, and one or more folder roles from the right hand side of the screen.
6. Check the **Change Permissions for Subfolders** if you want to copy the changed permissions to the subfolders of the selected folder also.
7. Click **Save** to see a summary of the folder roles that will be changed.
8. Click **Confirm** to apply the new folder roles.

#### Note

When assigning folder roles, be aware that, in some cases, to modify an item, users may need browse permissions on related items as well as needing permissions to modify the item itself. For example, in order to modify Agent and/or Skill Group configuration, a user must be able to see the Peripheral that they belong to.

### 10.1.5 Changing the Inheritance for a Folder

To change a folder's inheritance rule:

1. In **Security Permissions Manager** select the folder to change the inheritance for.
2. In the **Permissions** tab, clear the **Inherit permissions from parent** check box to break the inheritance with the parent (or select it to reapply inheritance).

3. Click **OK** to confirm.
  - If you break the inheritance, the initial permissions will be set to those that currently exist on the folder. These can then be changed if necessary.
  - If you recreate the inheritance, the security settings for the folder will be replaced with those of its parent folder.

### 10.1.6 Viewing and Editing Folder Roles

To view the folder tasks that are included in a folder role:

1. In **Security Permissions Manager**, select a folder and click the **Permissions** tab to view the folder roles that apply to the selected folder.
2. Click on the folder role that you want to view or edit, to see a list of tasks that could be included in this folder role.
3. Check the tasks you want to add to the folder role, and uncheck the tasks you want to remove from the folder role.
4. Click **Save** to save your changes.

#### Note

You can also use the **Role Manager** tool to view or edit the folder tasks included in a folder role (see section 9.3.6 "Editing a Folder Role").

### 10.1.7 Editing User Details

To edit user details in Security Permissions Manager:

1. In **Security Permissions Manager**, select the folder that contains the user you want to edit. Click the **Users** tab to see the users in that folder.
2. Edit the user details as described in section 9.4.4 "Editing User Details".
3. Click **Save**.

### 10.1.8 Editing Group Details

To edit group details in Security Permissions Manager:

1. In **Security Permissions Manager** select the folder that contains the group you want to edit. Click the **Groups** tab to see the groups in that folder.
2. Edit the group details as described in section 9.5.4 "Editing Group Details".
3. Click **Save**.

# 11 Standard Gadgets Guide

## Note

Gadgets are only available to advanced mode users.

## 11.1 CVP Resource Upload Gadget

### 11.1.1 About the CVP Resource Upload Gadget

The CVP Resource Upload gadget allows you xxx.

### 11.1.2 Tasks Associated with CVP Resources

#### 11.1.2.1 XXXing the YYY

zzz.

#### How to xxx

1. yyy.
2. .

#### 11.1.2.2 XXXing the YYY

zzz.

#### How to xxx

1. yyy.
2. .

### 11.1.3 Security Requirements for the CVP Resource Upload Gadget

To use gadgets and apps, you need the following permissions:

- to browse gadgets and add them to your home page or run them from an app, a folder-based role that includes **Browse Gadgets**.
- to browse and open apps containing gadgets, a folder-based role that includes **Browse Apps**.

To use the CVP Resource Upload gadget you need:

- a folder-based role that includes xxx to xxx.
- the xxxglobal role.

## 11.2 Resource Manager Gadget

### 11.2.1 About the Resource Manager Gadget

The Resource Manager gadget is the default gadget that is displayed on your home page when you first log on to Unified CCDM.

The Resource Manager gadget allows you to remotely configure and administer the resources in your contact center system that you have permission to access.

There are two views:

- the *resource grid* view, which lists the resources available and some of their properties. This view can be filtered by resource type or by folder location, or both.
- the *resource detail* view, which shows the details for an individual resource. Users with suitable permissions can also update resources.

Initially the Resource Manager gadget opens in a resource grid view showing the skill groups in your home folder. On subsequent logins, you will see the resource grid that you last viewed.

*Note.* The current release of the Resource Manager gadget does not support the resource detail view for all resource types. You can still use the classic Resource Manager (previously called System Manager) to view and edit all resources.

### 11.2.2 About Resources

Resources are the items in the contact center system which can be viewed and updated using Unified CCDM.

There are two types of resource, remote resources and system resources.

- **Remote resources** (sometimes called *dimensions*) are the resources that exist on the remote contact center equipment. Some remote resources can be created or edited in Unified CCDM and provisioned onto the remote equipment. Other remote resources can be viewed in Unified CCDM but cannot be created, edited or provisioned from Unified CCDM. All remote resources must be associated with a specific tenant. Agents, skill groups, dialed numbers, bucket intervals and route partitions are examples of remote resources. Agents, skill groups, and dialed numbers are provisionable remote resources. Bucket intervals and route partitions are non-provisionable.
- **System resources** (sometimes called *Unified CCDM resources*) are the resources that are local to Unified CCDM and are created and managed by Unified CCDM. They are not provisioned onto the remote contact center equipment. System resources may be associated with a tenant but they do not need to be. Users, groups and folders are examples of system resources.

## 11.2.3 Tasks Associated with Resources

### 11.2.3.1 Viewing Resources in the Resource Grid


In the resource grid, you can

- apply a resource type filter to show only resources of a single type
- apply a folder filter to show only resources in a single folder and subfolders
- apply a search filter containing a name or partial name to reduce the number of resources shown in the list and make it easier to locate the resource you require.
- sort the resources by any of the listed properties.
- create, delete, rename, and move folders.

#### How to apply a resource type filter

1. Click the drop-down arrow beside **Filter**, and select the resource type you want to use for the filter.
2. To view resources of all types, select **Show All**. The filter text is updated to show the resource type you selected, and the resource grid is updated to show only those resources.

#### How to apply a folder filter

1. Click  and select the folder you want to use for the filter. The folder location is updated to show the folder you selected. If you want to include items in subfolders as well, select **Search children and subfolders**. The resource grid is updated to show only the items in the folder that you specified.
2. If you select a folder that is itself a resource type filter (for example, **/Tenant1/Boston/Agent Team** is an agent team filter in the **/Tenant1/Boston** folder) the resource type filter is also updated to show the resource type you selected.
3. Click anywhere in the resource grid to close the folder tree and reactivate the resource grid. You will not be able to do anything else in the resource grid until the folder tree has been closed.

#### How to apply a search filter


1. In the search box at the top of the grid on the right, type a name or partial name, followed by **Enter**. The resource grid is updated to show only the items that match the name or partial name.

*Note.* To clear the search filter, click in the search box, click **X** to clear the field, then click **Enter**.

### How to sort the resources

1. Click on a column heading in the resource grid to sort the resource grid by the values in that column.
2. Click on a column again to reverse the sort order.

### How to manage folders

1. To create a folder, right-click where you want to create the new folder, and select **Create Folder**. Enter a name for the new folder.
2. To delete a folder, right click on the folder you want to be deleted, and select **Delete Folder**. A dialog box opens, prompting you to review changes. Click **Confirm** to continue.
3. To rename a folder, right click on the folder you want to rename, and select **Rename Folder**. Type in the new name for the folder.
4. To move a folder, select the folder you want to move, and drag it to where you want to move it to. When  appears you can drop the folder into position.

#### 11.2.3.2 Viewing And Editing Resource Details and Status

You can use the resource grid to select a resource to view or edit.

#### How to view or edit a resource

1. Click on the resource in the resource grid. The resource grid is replaced with a tabbed view showing the details for the selected resource. The title of the resource manager gadget changes to show the name of the selected resource.
2. Click on each tab to see the properties of the resource. The tabs and the details shown will depend on the resource type.
3. If you want to edit the resource, make your changes.
4. To return to the resource grid and save your changes, click **Save**.
5. To return to the resource grid without saving your changes, click **Cancel** at the bottom of the resource form.

#### How to view resource status information

You can view resource status information in one of two ways.

- To see the current status of a resource, view the resource as described above. The current status of the resource is shown at the bottom of the gadget.
  - If more than one resource may contribute to the status (for example a person and the associated agents each have their own status), the least successful status is shown.

- If the resource has an error status, you can hover over the status icon to see the details of the error. If errors in multiple resources have contributed to the error status, up to three errors are shown.
- To see the complete status history for the resource, select the **History** tab. You can filter the details by date and event type. For some resource types, there may be other filter options too.

### 11.2.3.3 Creating Resources

You can create a new resource from the resource grid view. Optionally, you can create several resources of the same type one after the other, either from a blank form each time, or from a pre-populated form where the common details from the previous resource are already completed for you.

#### How to create a resource

1. In the resource grid, make sure that the resource type filter is one of **Show All** (if not in proxy mode) or the resource type that you want to create.
2. Click **New**. If the resource type filter is **Show All**, choose the resource type you want to create from the list provided. You will see a tabbed form where you can supply the details for the new resource.
3. Click on each tab in turn and complete the details on that tab. The tabs and the details required will depend on the resource type.
4. Click **Save** to save the resource. The resource is created and the resource grid is displayed.


#### How to create several similar resources

1. Create the first resource as described above, but instead of selecting **Save**, select click the drop-down beside **Save**, and select one of
  - **Save and Reset Form** to save the resource and stay in the resource creation dialog. All fields will be blank. Complete the fields as required.
  - **Save and Copy** to save the resource and stay in the resource creation dialog. Unique fields will be blank (for example, Name, Enterprise Name, First Name and Last Name for a person) but common fields will be pre-populated with the values you specified for the previous resource. Complete the unique fields and change any other fields as required.
2. Click one of **Save**, **Save and Reset Form** or **Save and Copy**, depending on what you want to do after this resource is saved.

### 11.2.3.4 Moving Resources

You can use the resource grid to select one or more resources to move to a different folder.


### How to move resources

1. Make sure that the resource or resources you want to move are shown in the resource grid.
2. Select the check box beside the resource or resources that you want to move. You can select the check box in the column heading to select all resources in the grid.
3. Click , then click the drop-down arrow beside the folder location and select the folder you want to move the resource or resources to. Click **OK**.
4. You will see a dialog box showing the progress of the move. It will display **Item(s) Moved** when the move is complete. To close it, click **X**.

### 11.2.3.5 Deleting Resources

You can use the resource grid to select one or more resources to delete.

### How to delete a resource

1. Make sure that the resource or resources you want to delete are shown in the resource grid.
2. Select the check box beside the resource or resources that you want to delete. You can select the check box in the column heading to select all resources in the grid.
3. Click , then click **OK**.
4. You will see a dialog box showing the progress of the deletion. It closes automatically when the deletion is complete.

## 11.2.4 Entering Data in Resource Manager Fields

The Resource Manager gadget uses some common field types for entering data.

### 11.2.4.1 Search Filter



A search filter input field consisting of a text box and a button labeled "Search".

The search filter appears in many places where a list of resources is shown. It allows you to specify a name or partial name to reduce the number of resources shown in the list and make it easier to locate the resource you require.

You may also be able to apply a folder filter to restrict the number of resources shown to those in a particular folder.




**To filter the list of resources by name**

Type a name or partial name in the search box, then click **Search** to see only the matching items.

**To filter the list of resources by folder**

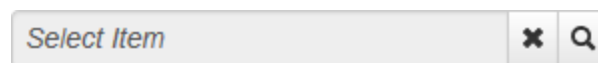
Click the drop-down (where available) and select the folder you want to use for the filter. Only the items available in that folder will be shown.

**To choose extra filters**

Click the new filter icon  to filter by column. You can either choose options from the drop-down, or enter the filter manually. Apply the filter. A yellow indicator appears to show that the filter is active, and the grid displays the filtered results.


**To clear the filter and show all items**

Click in the search box, click **X** to clear the field, then click **Search** again.

**11.2.4.2 Resource Selector**


The resource selector allows you to select a resource from a list of resources. You must follow these instructions to select a resource. You cannot enter text directly in the field.

**To select a resource**

Click  to open a new dialog box showing a list of items. If the list is long, there will be a search filter so you can restrict the number of items shown. Select the item you require from the list. This populates the resource selector with your choice.

**To clear a resource selection**

Click the  beside the value.

*Note.* Occasionally, the resource selector is used to select a mandatory field. In that case, the  is not shown, as it is not valid to leave the selection empty.

**11.2.4.3 Association Grid**

The association grid allows you to associate resources of one type with resources of another type, for example, to associate agents with agent teams. In some cases, you may also be able to specify information about the association. For example,

when you associate a precision attribute with an agent, you can specify the value of the attribute for that agent.

**To choose an item to associate**

Click **Show Available** to see the items that are available to add, and select the required item. The item is added to the items in the association grid.

**To delete an existing association**

Click the **X** beside the item in the list of associated items.

**To refresh the list of available items**

If you delete an item from the association grid, it will not appear in the list of available items immediately. If you deleted the item by mistake, and want to select it again, you can click **Refresh** to update the list of available items.

*Note.* Refresh is only shown when the list of available items may be out of date. If you do not see it, then the list of available items is up-to-date.

**To restrict the number of items shown in the associations grid or in the list of available items**

Type a name or partial name in the search filter (where provided), then click **Search**.

The list of available items may also include a resource type filter or a folder filter or both. Click on the drop-down arrow beside the filter to view the available options and to select the resource type or folder to use to restrict the list of available items.


**To close the list of available items when you have finished**

Click **Hide Available**.

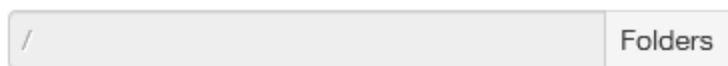
**To specify information about the association (only available in some grids)**

In the grid, click the value you want to set, then enter or select the required value. Values that you cannot change are shaded.

**To choose extra filters**



Click the new filter icon  to filter per column. You can either choose options from the drop down, or enter the filter manually. Once you have applied the filter, a yellow indicator appears to show that the filter is active, and the grid displays the filtered results.

**11.2.4.4 Folder Tree**

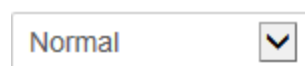


The folder tree allows you to select a folder in the file structure. You must follow these instructions to select a folder. You cannot enter text directly in the field.

#### To select a folder

Click the drop-down arrow to show the folder tree in a new dialog box, and view the tenants (  ) and folders (  ) in it. If necessary, click ▶ to expand subfolders, or ▲ to collapse them. Click the tenant or folder you require.

### 11.2.4.5 Drop-Down List



The drop-down list allows you to select a single item from a predefined list of items. You must follow these instructions to select an item. You cannot enter text directly in the field.

#### To select an item from the list

Click anywhere the drop-down list field to show the list of items. Click on the item you require. If you start typing a name in the list, that item will be selected automatically.

## 11.2.5 Security Requirements for the Resource Manager Gadget

To use gadgets and apps, you need the following permissions:

- to browse gadgets and add them to your home page or run them from an app, a folder-based role that includes **Browse Gadgets**.
- to browse and open apps containing gadgets, a folder-based role that includes **Browse Apps**.

To use the Resource Manager gadget you need:

- a folder-based role that includes **Browse Dimensions** to list remote resources in the resource grid and to view their details.
- a folder-based role that includes **Manage Dimensions** to edit or delete remote resources.
- a global role that includes the appropriate **Provision** tasks to edit or delete remote resources. For example, to edit agents, you need a global role that includes **Provision Agents**.

## 11.2.6 Supported Resources

The Resource Manager gadget supports the following resources.

- Agents (see section 11.2.7 "Agents").
- Agent desktops (see section 11.2.8 "Agent Desktops").
- Agent teams (see section 11.2.9 "Agent Teams").
- Call types (see section 11.2.10 "Call Types").
- Categories (see section 11.2.11 "Categories").
- Departments (see section 11.2.12 "Departments").
- Dialed numbers (see section 11.2.13 "Dialed Numbers").
- Enterprise skill groups (see section 11.2.14 "Enterprise Skill Groups").
- Expanded call variables (see section 11.2.15 "Expanded Call Variables").
- Labels (see section 11.2.16 "Labels").
- Network VRU scripts (see section 11.2.17 "Network VRU Scripts").
- Persons (and agents) (see section 11.2.18 "Persons and Agents").
- Precision attributes (see section 11.2.19 "Precision Attributes").
- Precision queues (see section 11.2.20 "Precision Queues").
- Services (see section 11.2.21 "Services").
- Skill groups (see section 11.2.22 "Skill Groups").
- Users (see section 11.2.23 "Users").
- User variables (see section 11.2.24 "User Variables").

## 11.2.7 Agents

Agents are created and edited using the Peripheral tab on the person resource. See section 11.2.18 "Persons and Agents".

## 11.2.8 Agent Desktops

### 11.2.8.1 About Agent Desktops

Agent desktops associate a set of permissions or characteristics with specific agents. The settings are comparable to Class of Service settings on a PBX or ACD.

When you create an agent desktop definition, you specify the amount of non-active time after which an agent is automatically logged out, whether wrap-up is required following incoming and outbound calls, the amount of time allocated for wrap-up, and the method used for assist and emergency calls. You also specify settings for the **Re-route on No Answer** feature.

Unified CCE ships with a system default agent desktop. New agent records are automatically assigned this default unless you specify otherwise when creating an agent.

### 11.2.8.2 Agent Desktop Properties

#### Details Tab

Shows the item details.

#### Folder

Only shown when the item is first created. The folder in which to create the item.

#### Name

The name used to identify the item in Unified CCDM.

*Note. This may not be the same as the name by which the item is known on the remote equipment. Changing this name will not change the name on the remote equipment.*

#### Description

A description of the item.

#### Ring no answer time

The number of seconds before a call is redirected if not answered.

#### Ring no answer dialed number

A resource selector (see section 11.2.4.2 "Resource Selector") showing the dialed number for a new re-route destination if there is no answer. The selection list consists of the dialed numbers configured for the system.

#### Logout non-activity time

The number of seconds the system will wait before logging out an inactive agent in the not ready state. Leave blank to disable the timer.

**Incoming work mode**

Indicates whether the agent can enter work mode after an incoming call.

One of:

- **Optional:**
- **Required:**
- **Not Allowed:**
- **Optional with Wrap-Up Data:**

**Outgoing work mode**

Indicates whether the agent can enter work mode after an outgoing call. One of:

- **Optional:**
- **Required:**
- **Not Allowed:**

**Wrap-up time**

The amount of time in seconds allocated to an agent to wrap up the call.

**Assist call method**

Indicates the type of call to use for a supervisor assistance call.

**Emergency call method**

Indicates the type of call to use for an emergency call.

**Recording Mode**

Specifies whether calls are routed through the Peripheral Interface Manager (PIM)

**Remote Agent Type**

Indicates how mobile agent call routing is handled. One of

- **Local Only:** mobile agent call routing is not required.
- **Call by Call Routing:** the mobile agent is called individually for each call.
- **Nailed Connection Routing:** the mobile agent is called at login and remains connected until log off.
- **Agent Chooses At Login:** the mobile agent can choose one of the two mobile agent call routing types at login.

For information about configuring mobile agents, see *Administration Guide for Cisco Unified Contact Center Domain Manager*.

### Miscellaneous

Select as many of following options as required

- **Auto answer:** Calls to the agent are automatically answered.
- **Idle reason required:** The agent must enter a Not Ready reason before entering the Idle state.
- **Logout reason required:** The agent must enter a reason before logging out.
- **Auto record on emergency:** A request to record the call is automatically sent when an emergency call request starts.
- **Silent Monitor Audible Indication:** Specifies whether to indicate that silent monitoring has begun by a click.
- **Silent Monitor Warning Message:** A message box is displayed on the agent's desktop when silent monitoring begins.
- **Available after Incoming:** The agent is automatically available after handling an incoming call.
- **Available after Outgoing:** The agent is automatically available after handling an outgoing call.
- **Remote Login Without Desktop:** The agent can log in to the contact center without using an agent desktop.

### Outbound Access

If agents can make outbound calls, specifies the type of outbound calls they can make. Select zero, one or more of:

- **International**
- **National**
- **Local private network**
- **Operator assisted**
- **PBX**
- **Agent to Agent**
- **Non ACD Calls**
- **Initiate Supervisor Calls Allowed.**

### Agents Tab

Shows the agents that are associated with this agent desktop.

**Agents**

A list of agents associated with this agent desktop. This is an association grid (see section 11.2.4.3 "Association Grid").

**Advanced Tab**

Shows the advanced properties.

**Enterprise Name**

The name used to identify the item on the remote equipment. Leave blank to auto-generate a unique name.

**Active From Date**

The date from which the item will be active within the system.

**Active To Date**

The date after which the item will be deleted from the system. Either leave **Forever** selected, or clear **Forever** and select a date from calendar.

**Department**

The department that the item is associated with. Select from the drop-down list. Only shown for tenants that are not small contact center tenants, and are associated with Unified CCE instances running Unified CCE version 10.0 or later.

**History Tab**

Shows the event history for this item. Not shown when the item is first created.

**Date from**

The date of the earliest events to include in the list.

**Date to**

The date of the most recent events to include in the list.

**Type**

The type of event to include in the list. Select from the drop-down list.

**To change the event history display**

Enter the date range and type of events you are interested in, then click **Search** to see the selected events.

**Custom Data Tab**

Shows the custom data.

**Key**

The key for this custom data item.



**Value**

The value to associate with this key.

**To add a new custom data key-value pair**

Complete both fields, and click **Add**. A resource can have a maximum of ten custom data key-value pairs.

**To edit a custom data value**

Click the value you want to change, and enter the new value.

**To delete a key-value pair**

Click the **X** beside the entry, then click **OK** to confirm the deletion.

## 11.2.9 Agent Teams

### 11.2.9.1 About Agent Teams

An agent team is a group of individuals that can be managed by a supervisor. Agents are assigned to agent teams individually. When configuring agent teams, be aware of the following rules:

- An agent cannot be a member of more than one team.
- An agent team can have a single primary supervisor, or no primary supervisor.
- An agent team can have any number of secondary supervisors.
- A supervisor can be a secondary supervisor of any number of agent teams, but can only be the primary supervisor for a single agent team.
- A supervisor for an agent team may be a member of that agent team, but does not need to be a member.

### 11.2.9.2 Agent Team Properties

**Details Tab**

Shows the item details.

**Folder**

Only shown when the item is first created. The folder in which to create the item.

**Name**

The name used to identify the item in Unified CCDM.

*Note.* This may not be the same as the name by which the item is known on

*the remote equipment. Changing this name will not change the name on the remote equipment.*

**Description**

A description of the item.

**Peripheral**

The peripheral to associate with this agent team. This field cannot be edited after the agent team is created.

**Supervisor script dialed number**

A resource selector (see section 11.2.4.2 "Resource Selector") showing the dialed number identifier for this agent team.

**Supervisors Tab**

Shows the supervisor agents that are associated with this agent team.

**Primary Supervisor**

The primary supervisor for this agent team. An agent team can only have one primary supervisor, although it may not have a primary supervisor at all. This is a resource selector (see section "Resource Selector" on page 265).

**Secondary Supervisors Grid**

A list of secondary supervisors for this agent team. An agent team can have many secondary supervisors. This is an association grid (see section 11.2.4.3 "Association Grid").

**Agents Tab**

Shows the agents that are associated with this agent team.

**Agents**

A list of agents associated with this agent team. This is an association grid (see section 11.2.4.3 "Association Grid").

**Advanced Tab**

Shows the advanced properties.

**Enterprise Name**

The name used to identify the item on the remote equipment. Leave blank to auto-generate a unique name.

**Active From Date**

The date from which the item will be active within the system.

**Active To Date**

The date after which the item will be deleted from the system. Either leave **Forever** selected, or clear **Forever** and select a date from calendar.

**Department**

The department that the item is associated with. Select from the drop-down list. Only shown for tenants that are not small contact center tenants, and are associated with Unified CCE instances running Unified CCE version 10.0 or later.

**History Tab**

Shows the event history for this item. Not shown when the item is first created.

**Date from**

The date of the earliest events to include in the list.

**Date to**

The date of the most recent events to include in the list.

**Type**

The type of event to include in the list. Select from the drop-down list.

**To change the event history display**

Enter the date range and type of events you are interested in, then click **Search** to see the selected events.

**Custom Data Tab**

Shows the custom data.

**Key**

The key for this custom data item.

**Value**

The value to associate with this key.

**To add a new custom data key-value pair**

Complete both fields, and click **Add**. A resource can have a maximum of ten custom data key-value pairs.

**To edit a custom data value**

Click the value you want to change, and enter the new value.

**To delete a key-value pair**

Click the **X** beside the entry, then click **OK** to confirm the deletion.

**11.2.10 Call Types****11.2.10.1 About Call Types**

A call type is a category of incoming routable task. Specific call types are associated with dialed numbers. In this association, each call type has a schedule that determines which routing script or scripts are active for that call type at any time.

**Call Types and Dialed Number Associations**

There are two classes of call type/dialed number associations:

- **Voice:** Voice call type/dialed number combinations such as phone calls are categorized by the dialed number (DN), caller-entered digits (CED), and calling line ID (CLID). The CED and CLID can be optional, depending on the call.
- **Non-voice:** Non-voice type/dialed number combinations (such as e-mail and text chat) are categorized by the Script Type Selector, Application String 1, and Application String 2. Application String 1 and Application String 2 can be optional, depending on the application.

**Call Types and Routing Scripts**

Because the call type determines which routing script is run for a call, the call type defines call treatment.

In routing scripts you can change the call type at specific points in the script to indicate that a transaction has been completed. For example, if the customer is calling a bank and successfully checks his or her account balance using a Self-Service script, you may want to change the call type to indicate that the account balance transaction has completed and a new transaction has begun. You can also change call type in a script to invoke a new routing script associated with that call type. For example, if a call is not answered at an agent's desktop, you can change the call type in the script to redirect the call to a different script designed for Redirection on No Answer. The Redirection on No Answer script assigns a different agent to handle the call.

**11.2.10.2 Call Type Properties****Details Tab**

Shows the item details.

**Folder**

Only shown when the item is first created. The folder in which to create the item.

**Name**

The name used to identify the item in Unified CCDM.

*Note.* This may not be the same as the name by which the item is known on the remote equipment. Changing this name will not change the name on the remote equipment.

**Description**

A description of the item.

**Bucket Interval**

The count of answered or abandoned calls that are used as intervals for the call type.

**Service Level Type**

How abandoned calls should be factored in calculating service levels. One of:

- **Use Global Setting:** the default is to ignore abandoned calls.
- **Ignore Abandoned Calls:** do not include abandoned calls in the calculation.
- **Abandoned Call has a Negative Impact:** abandoned calls count as exceeding the service level threshold.
- **Abandoned Call has a Positive Impact:** abandoned calls count as having been promptly answered.

*Note.* For resources associated with a Communications Manager, this will always be Ignore Abandoned Calls.

**Service Level Threshold**

Whether this call type will use a service level threshold other than the system default. One of:

- **Use Global Setting:**
- **None:**
- **Use Specified:** use the value specified in Service Level Threshold Value.

**Service Level Threshold Value**

Only shown when Service Level Threshold is Use Specified. The value in seconds to use for the service level threshold.

**Advanced Tab**

Shows the advanced properties.

**Enterprise Name**

The name used to identify the item on the remote equipment. Leave blank to auto-generate a unique name.

**Active From Date**

The date from which the item will be active within the system.

**Active To Date**

The date after which the item will be deleted from the system. Either leave **Forever** selected, or clear **Forever** and select a date from calendar.

**Department**

The department that the item is associated with. Select from the drop-down list. Only shown for tenants that are not small contact center tenants, and are associated with Unified CCE instances running Unified CCE version 10.0 or later.

**History Tab**

Shows the event history for this item. Not shown when the item is first created.

**Date from**

The date of the earliest events to include in the list.

**Date to**

The date of the most recent events to include in the list.

**Type**

The type of event to include in the list. Select from the drop-down list.

**To change the event history display**

Enter the date range and type of events you are interested in, then click **Search** to see the selected events.

**Custom Data Tab**

Shows the custom data.

**Key**

The key for this custom data item.

**Value**

The value to associate with this key.

**To add a new custom data key-value pair**

Complete both fields, and click **Add**. A resource can have a maximum of ten custom data key-value pairs.

**To edit a custom data value**

Click the value you want to change, and enter the new value.

**To delete a key-value pair**

Click the **X** beside the entry, then click **OK** to confirm the deletion.

**11.2.11 Categories****11.2.11.1 About Categories**

A category is a mechanism that can be used to define groups of related items.

**11.2.11.2 Category Properties****Details Tab**

Shows the item details.

**Folder**

Only shown when the item is first created. The folder in which to create the item.

**Name**

The name used to identify the item in Unified CCDM.

**Description**

A description of the item.

**Type**

The category type.

**Resources Tab**

Shows the resources that are associated with this category.

**Resources**

A list of resources associated with this category. This is an association grid (see section 11.2.4.3 "Association Grid").

**Advanced Tab**

Shows the advanced properties.

**Active From Date**

The date from which the item will be active within the system.

**Active To Date**

The date after which the item will be deleted from the system. Either leave **Forever** selected, or clear **Forever** and select a date from calendar.

**Department**

The department that the item is associated with. Select from the drop-down list. Only shown for tenants that are not small contact center tenants, and are associated with Unified CCE instances running Unified CCE version 10.0 or later.

**History Tab**

Shows the event history for this item. Not shown when the item is first created.

**Date from**

The date of the earliest events to include in the list.

**Date to**

The date of the most recent events to include in the list.

**Type**

The type of event to include in the list. Select from the drop-down list.

**To change the event history display**

Enter the date range and type of events you are interested in, then click **Search** to see the selected events.



## 11.2.12 Departments

### 11.2.12.1 About Departments

A department is a grouping of related resources according to user-defined business needs. You can create a department, then add various resources to it, to reflect your particular organization.

The following resources can be added to a department:

- Agents
- Agent desktops
- Agent teams
- Precision attributes
- Call types
- Dialed numbers
- Enterprise skill groups
- Network VRU scripts
- Persons
- Precision queues
- Services
- Skill groups

For example, you may create a department called **Sales** then include in it all the agents, agent teams, call types, dialed numbers and skill groups that relate to the sales function. A resource can only be included in one department.

#### Note

Department resources can only be created on tenants that are associated with a Unified CCE instance running Unified CCE version 10.0 or later.

To add a resource to a department or remove a resource from a department, you must edit the resource you want to add or remove, not the department.

A resource created in a small contact center enabled tenant or folder is by default mapped to the associated small contact center department.

### 11.2.12.2 Department Properties

#### Details Tab

Shows the item details.

**Folder**

Only shown when the item is first created. The folder in which to create the item.

**Name**

The name used to identify the item in Unified CCDM.

*Note.* This may not be the same as the name by which the item is known on the remote equipment. Changing this name will not change the name on the remote equipment.

**Description**

A description of the item.

**Advanced Tab**

Shows the advanced properties.

**Enterprise Name**

The name used to identify the item on the remote equipment. Leave blank to auto-generate a unique name.

**Active From Date**

The date from which the item will be active within the system.

**Active To Date**

The date after which the item will be deleted from the system. Either leave **Forever** selected, or clear **Forever** and select a date from calendar.

**History Tab**

Shows the event history for this item. Not shown when the item is first created.

**Date from**

The date of the earliest events to include in the list.

**Date to**

The date of the most recent events to include in the list.

**Type**

The type of event to include in the list. Select from the drop-down list.

**To change the event history display**

Enter the date range and type of events you are interested in, then click **Search** to see the selected events.

## 11.2.13 Dialed Numbers

### 11.2.13.1 About Dialed Numbers

A dialed number is the number a caller dials to initiate a call. It is sent as part of the call detail information in the route request message sent from the routing client. The dialed number plays an integral role in routing calls. Dialed numbers are required pieces of call types, which are used to identify the appropriate routing script for each call. In addition to answered calls, dialed numbers also need to be set up for ring on no answer, dialed number plan entries, and for supervisor/emergency calls.

### 11.2.13.2 Dialed Number Properties

#### Details Tab

Shows the item details.

#### Folder

Only shown when the item is first created. The folder in which to create the item.

#### Name

The name used to identify the item in Unified CCDM.

*Note. This may not be the same as the name by which the item is known on the remote equipment. Changing this name will not change the name on the remote equipment.*

#### Description

A description of the item.

#### Dialed Number

For voice MRD only, the string value by which the Agent/IVR Controller identifies this Dialed Number. This must be the value the Agent/IVR Controller uses for calls to this number. For example: 8005551212.

#### Permit Application Routing

Indicates whether application routing is allowed.

#### Routing Client

The routing client (such as NIC or PG) that this dialed number should use to submit routing requests to the Unified CCE. Cannot be edited after the dialed number is created.

#### Media Routing Domain

A description of how contact is made. Cannot be edited after the dialed number is created.

**Agent Desktops Tab**

Shows the agent desktops that are associated with this dialed number.

**Agent Desktops**

A list of agent desktops associated with this dialed number. This is an association grid (see section 11.2.4.3 "Association Grid").

**Agent Teams Tab**

Shows the agent teams that are associated with this dialed number.

**Agent Teams**

A list of agent teams associated with this dialed number. This is an association grid (see section 11.2.4.3 "Association Grid").

**Labels Tab**

Shows the labels that are associated with this dialed number.

**Labels**

A list of labels associated with this dialed number. This is an association grid (see section 11.2.4.3 "Association Grid").

**Call Types Tab**

Shows the call types that are associated with this dialed number.

**Call Types**

A list of call types associated with the dialed number. This is an association grid (see section 11.2.4.3 "Association Grid").

**Advanced Tab**

Shows the advanced properties.

**Enterprise Name**

The name used to identify the item on the remote equipment. Leave blank to auto-generate a unique name.

**Active From Date**

The date from which the item will be active within the system.

**Active To Date**

The date after which the item will be deleted from the system. Either leave **Forever** selected, or clear **Forever** and select a date from calendar.

**Department**

The department that the item is associated with. Select from the drop-down list. Only shown for tenants that are not small contact center tenants, and are associated with Unified CCE instances running Unified CCE version 10.0 or later.

Shows the event history for this item. Not shown when the item is first created.

**Date from**

The date of the earliest events to include in the list.

**Date to**

The date of the most recent events to include in the list.

**Type**

The type of event to include in the list. Select from the drop-down list.

**To change the event history display**

Enter the date range and type of events you are interested in, then click **Search** to see the selected events.

Shows the custom data.

**Key**

The key for this custom data item.

**Value**

The value to associate with this key.

**To add a new custom data key-value pair**

Complete both fields, and click **Add**. A resource can have a maximum of ten custom data key-value pairs.

**To edit a custom data value**

Click the value you want to change, and enter the new value.

**To delete a key-value pair**

Click the **X** beside the entry, then click **OK** to confirm the deletion.

**11.2.14 Enterprise Skill Groups**

### 11.2.14.1 About Enterprise Skill Groups

An enterprise skill group is a logical grouping of skill groups joined together for reporting purposes. Enterprise skill groups can include skill groups from different media routing domains.

### 11.2.14.2 Enterprise Skill Group Properties

#### Details Tab

Shows the item details.

#### Folder

Only shown when the item is first created. The folder in which to create the item.

#### Name

The name used to identify the item in Unified CCDM.

*Note.* This may not be the same as the name by which the item is known on the remote equipment. Changing this name will not change the name on the remote equipment.

#### Description

A description of the item.

#### Skill Groups Tab

Shows the skill groups that are associated with this enterprise skill group.

#### Skill Groups

A list of skill groups associated with this enterprise skill group. This is an association grid (see section 11.2.4.3 "Association Grid").

#### Advanced Tab

Shows the advanced properties.

#### Enterprise Name

The name used to identify the item on the remote equipment. Leave blank to auto-generate a unique name.

#### Active From Date

The date from which the item will be active within the system.

#### Active To Date

The date after which the item will be deleted from the system. Either leave **Forever** selected, or clear **Forever** and select a date from calendar.

**Department**

The department that the item is associated with. Select from the drop-down list. Only shown for tenants that are not small contact center tenants, and are associated with Unified CCE instances running Unified CCE version 10.0 or later.

**History Tab**

Shows the event history for this item. Not shown when the item is first created.

**Date from**

The date of the earliest events to include in the list.

**Date to**

The date of the most recent events to include in the list.

**Type**

The type of event to include in the list. Select from the drop-down list.

**To change the event history display**

Enter the date range and type of events you are interested in, then click **Search** to see the selected events.

**Custom Data Tab**

Shows the custom data.

**Key**

The key for this custom data item.

**Value**

The value to associate with this key.

**To add a new custom data key-value pair**

Complete both fields, and click **Add**. A resource can have a maximum of ten custom data key-value pairs.

**To edit a custom data value**

Click the value you want to change, and enter the new value.

**To delete a key-value pair**

Click the **X** beside the entry, then click **OK** to confirm the deletion.

**11.2.15 Expanded Call Variables**

### 11.2.15.1 About Expanded Call Variables

An expanded call variable (ECC) is a named object which is used by a VRU script to exchange call information with the Unified CCE.

#### Note

You cannot edit default expanded call variables. You can only create and delete them. You can edit an expanded call variable which has been created from a CCDM web portal.

### 11.2.15.2 Expanded Call Variable Properties

#### Details Tab

Shows the item details.

#### Folder

Only shown when the item is first created. The folder in which to create the item.

#### Name

A unique name for the item. Will be automatically prefixed with "user." when the item is saved.

#### Description

A description of the item.

#### Maximum Length

The maximum length of the value of the expanded call variable, in bytes.

#### Provided by Cisco

Whether the expanded call variable is provided by Cisco. This is normally determined by the system.

#### Persistent

Whether the expanded call variable is written to the historical database with the TCD/RCD record.

#### Enabled

Whether the expanded call variable is currently enabled.

#### ECC Array

Whether the expanded call variable is an array.

#### Maximum Array Size

Only shown if ECC Array is selected. The maximum number of elements in the array represented by the expanded call variable.



*Note.* The total amount of space used by all expanded call variables on an instance must not exceed 2000 bytes. Each scalar (non-array) variable uses 5 + **Maximum Length** bytes. Each array variable uses 5 + (**Maximum Length** + 1) x **Maximum Array Size** bytes. The number of bytes used by a variable may be more than the number of characters or digits in the variable value. For example, a scalar variable may contain 10 characters, but occupy 15 bytes.

### **Advanced Tab**

Shows the advanced properties.

#### **Active From Date**

The date from which the item will be active within the system.

#### **Active To Date**

The date after which the item will be deleted from the system. Either leave **Forever** selected, or clear **Forever** and select a date from calendar.

### **History Tab**

Shows the event history for this item. Not shown when the item is first created.

#### **Date from**

The date of the earliest events to include in the list.

#### **Date to**

The date of the most recent events to include in the list.

#### **Type**

The type of event to include in the list. Select from the drop-down list.

#### **To change the event history display**

Enter the date range and type of events you are interested in, then click **Search** to see the selected events.

### **Custom Data Tab**

Shows the custom data.

#### **Key**

The key for this custom data item.

#### **Value**

The value to associate with this key.

#### **To add a new custom data key-value pair**

Complete both fields, and click **Add**. A resource can have a maximum of ten custom data key-value pairs.

**To edit a custom data value**

Click the value you want to change, and enter the new value.

**To delete a key-value pair**

Click the **X** beside the entry, then click **OK** to confirm the deletion.

**11.2.16 Labels****11.2.16.1 About Labels**

In Unified CCE the label represents a string that is passed to a routing client for each network target. Unified CCDM will automatically create labels for many high level operations but the functionality is included for specific label creation such as blind transfers. The only supported label type is *normal* and the only supported network target is *device target*.

**11.2.16.2 Label Properties****Details Tab**

Shows the item details.

**Folder**

Only shown when the item is first created. The folder in which to create the item.

**Name**

The name used to identify the item in Unified CCDM.

**Description**

A description of the item.

**Label**

The string value used the routing client to identify the label.

**Routing Client**

The enterprise name of the routing client associated with this label. Cannot be edited after the Label is created.

**Dialed Numbers Tab**

Shows the dialed numbers that are associated with this label.

**Dialed Numbers**

A list of dialed numbers associated with this label. This is an association grid (see section 11.2.4.3 "Association Grid").

**Advanced Tab**

Shows the advanced properties.

**Active From Date**

The date from which the item will be active within the system.

**Active To Date**

The date after which the item will be deleted from the system. Either leave **Forever** selected, or clear **Forever** and select a date from calendar.

**Label Type**

The label type. Select from the drop-down list. One of:

- **Normal**: Maps to a trunk group and DNIS or announcement defined by the routing client.
- **DNISOverride**: Sends a value along with the label that overrides the DNIS value of the routing client.
- **Busy**: Plays a busy signal for the caller.
- **Ring**: Plays a busy signal for the caller.
- **PostQuery**: Specifies a re-entry point in the network routing plan. The routing client begins processing the routing plan from that point.

**History Tab**

Shows the event history for this item. Not shown when the item is first created.

**Date from**

The date of the earliest events to include in the list.

**Date to**

The date of the most recent events to include in the list.

**Type**

The type of event to include in the list. Select from the drop-down list.

**To change the event history display**

Enter the date range and type of events you are interested in, then click **Search** to see the selected events.

**Custom Data Tab**

Shows the custom data.

**Key**

The key for this custom data item.

**Value**

The value to associate with this key.

**To add a new custom data key-value pair**

Complete both fields, and click **Add**. A resource can have a maximum of ten custom data key-value pairs.

**To edit a custom data value**

Click the value you want to change, and enter the new value.

**To delete a key-value pair**

Click the **X** beside the entry, then click **OK** to confirm the deletion.

## 11.2.17 Network VRU Scripts

### 11.2.17.1 About Network VRU Scripts

#### Overview

A network Voice Response Unit (VRU) script is a script that runs on a network VRU (a telecommunications computer that responds to voice or caller-entered touch-tone digits). One or more network VRU scripts may be called by a Unified ICME routing script to handle the interaction with the caller and route the call appropriately.

#### About Unified CVP Micro-Applications

Network VRU scripts invoke Unified CVP micro-applications which are used to provide prompts, collect user responses and play **.wav** files while callers are queuing. Network VRU scripts can invoke the following micro-applications.

- **Play Media (PM):** plays a message that is contained in a media file or streaming audio file. This may be used, for example, to play a welcome message, or to play music while the caller is in a queue.
- **Play Data (PD):** retrieves data from a storage area and plays it to the caller in a specific format, called a data play back type. This data may be, for example, information retrieved from a database, or information entered by the caller.
- **Get Digits (GD):** plays a media file and retrieves one or more digits from the caller. For example, this micro-application may be used to prompt a caller to enter a password.
- **Menu (M):** plays a menu media file and retrieves a single digit from the caller. This is similar to the Get Digits micro-application, but it only accepts a single digit, and also checks that it is valid. This micro-application may be used, for example, to offer the caller several options in a menu, and retrieve the option chosen by the caller.
- **Get Speech (GS):** collects voice or tone dialing (DTMF) input from the caller. This micro-application may be used, for example, to retrieve a spoken "Yes" or "No" response from the caller or to detect that the caller has pressed the # key.
- **Capture (CAP):** captures and stores data about the call at that point in the routing script. The data collected can be used for analysis purposes.

**Note**

Use the Capture micro-application sparingly. It places a heavy processing load on the system, and may capture a lot of data that is not required along with data that is useful. Overuse of the Capture micro-application may reduce the call handling capability of the system.

**About Network VRU Script Configuration**

To define the network VRU script configuration you need to specify:

- **the network VRU script name**, a composite string containing the micro-application to run, the associated media file (if required by the micro-application) and any parameters required by the micro-application. The value specified for the network VRU script name is used to derive the name to be used for the media file when it is uploaded.
- **the configuration parameters** to be passed to the Network VRU Script when it runs. This is a string, and the format depends on the micro-application specified.
- **the audio file** to upload and associate with the Network VRU Script (where applicable). When the audio file is uploaded, it will be named with the media file name specified in the VRU script name string. If you specify an incorrectly formatted network VRU script name string, you will not be able to upload the audio file.

**Note**

The audio file cannot be specified when the network VRU script is first created. You must first create the network VRU script item, then edit it to specify the audio file.

For more information about the Unified CVP micro-applications, the corresponding VRU script name strings and the configuration parameters, see the *Feature Guide - Writing Scripts for Cisco Unified Customer Voice Portal*, downloadable from

[http://www.cisco.com/en/US/products/sw/custcosw/ps1006/tsd\\_products\\_support\\_series\\_home.html](http://www.cisco.com/en/US/products/sw/custcosw/ps1006/tsd_products_support_series_home.html) (link checked September 2015).

**11.2.17.2 Network VRU Script Properties****Details Tab**

Shows the item details.

**Folder**

Only shown when the item is first created. The folder in which to create the item.

**Name**

The name used to identify the item in Unified CCDM.

*Note.* This may not be the same as the name by which the item is known on the remote equipment. Changing this name will not change the name on the remote equipment.

**Description**

A description of the item.

**Network VRU**

The network VRU to associate with this Network VRU Script. If you do not have permission to access at least one Network VRU then you will not be able to create a Network VRU Script and will see a warning message instead. Cannot be edited after Network VRU Script is created.

**VRU Script Name**

The name of the VRU Script. This is a composite string identifying the micro-application to run, the name of the associated media file (if applicable) and any options that need to be specified for that micro-application.

The format of this string is specified in the *Configuration and Administration Guide for Cisco Unified Customer Voice Portal*, section "Writing scripts for Unified CVP". The VRU script name must be unique on the Network VRU.

**Configuration Parameter**

A string to be passed to the network VRU when the script runs to specify static options in the script. The contents of this string depend on the micro-application that is specified as part of the VRU script name field above.

The format of this string is specified in the *Configuration and Administration Guide for Cisco Unified Customer Voice Portal*, section "Writing scripts for Unified CVP".

**Timeout**

The number of seconds to wait for a response after the script starts executing.

**Interruptible**

Whether the execution of the script can be interrupted (for example, when an agent becomes free to handle a call).

**Overridable**

Whether the script can override the interruptible status during execution (that is, the script is allowed to make itself interruptible or non-interruptible while executing).

**Audio Tab**

Shows the audio file associated with the VRU script. Not shown when the item is first created.

**Audio File**

The audio file to upload and associate with this network VRU script.

**To upload an audio file**

Click **Add Files(s)** (or **Browse**), and locate the required **.wav** file on your system. Click **Save** to upload the file to the server.

**Advanced Tab**

Shows the advanced properties.

**Enterprise Name**

The name used to identify the item on the remote equipment. Leave blank to auto-generate a unique name.

**Active From Date**

The date from which the item will be active within the system.

**Active To Date**

The date after which the item will be deleted from the system. Either leave **Forever** selected, or clear **Forever** and select a date from calendar.

**Department**

The department that the item is associated with. Select from the drop-down list. Only shown for tenants that are not small contact center tenants, and are associated with Unified CCE instances running Unified CCE version 10.0 or later.

**History Tab**

Shows the event history for this item. Not shown when the item is first created.

**Date from**

The date of the earliest events to include in the list.

**Date to**

The date of the most recent events to include in the list.



**Type**

The type of event to include in the list. Select from the drop-down list.

**To change the event history display**

Enter the date range and type of events you are interested in, then click **Search** to see the selected events.

**Custom Data Tab**

Shows the custom data.

**Key**

The key for this custom data item.

**Value**

The value to associate with this key.

**To add a new custom data key-value pair**

Complete both fields, and click **Add**. A resource can have a maximum of ten custom data key-value pairs.

**To edit a custom data value**

Click the value you want to change, and enter the new value.

**To delete a key-value pair**

Click the **X** beside the entry, then click **OK** to confirm the deletion.

**11.2.18 Persons and Agents****11.2.18.1 About Persons**

In Unified CCDM, each person item represents a single physical person who handles call center customer contacts. This person may optionally have a user account on Unified CCDM.

Each person is associated with one or more agents, and has one associated agent for each peripheral the person uses.

**11.2.18.2 About Agents and Supervisor Agents****Agents**

An agent is a person who handles customer contacts on a particular peripheral. Each agent is associated with a Unified CCDM person. Multiple agents can be

associated with a single person. For example, someone who provides cover for agent teams on different peripherals will be represented by a separate agent account on each peripheral.

Each agent can be a member of one or more skill groups, which are groups of agents that share a common set of skills. Agents can also be grouped into agent teams, each of which have a supervisor or supervisors.

**Note**

In order to use non-voice peripherals, agents must be enabled for non-voice use via the administration interfaces for these multi-channel applications. You can create all new agents using Unified CCDM, but to configure agents to use non-voice peripherals, you will need to use the administration interfaces of those peripherals.

**Supervisor Agents**

A supervisor agent is an agent, often with a user account on Unified CCDM, who can administer specific agents and agent teams. A supervisor agent does not have to be actually assigned as a supervisor to any agent team, but an agent must be a supervisor agent to supervise an agent team.

A team supervisor may be a *primary* or *secondary* supervisor. A team may have any number of secondary supervisors, but only one primary supervisor.

**Notes**

If an agent is a supervisor agent, and if the associated Person has a Unified CCDM user account, that user should be added to the Unified CCDM Supervisors security group. This allows Unified CCDM users to edit agents and agent teams.

If an agent is a supervisor agent, then the agent must be associated with a domain account before they can have precision attributes associated to them.

**Example**

ExampleCorp has ten agents in its New York contact center, and five in San Francisco. These agents are to be divided into three teams.

First, ExampleCorp creates two teams (Green and Blue) in New York, and one (Red) in San Francisco. Then it creates five persons in San Francisco and ten Persons in New York, creates an agent associated with each, and adds each agent to a team.

ExampleCorp wants the two teams in New York to be supervised by the same senior supervisor agent. ExampleCorp therefore edits this agent to make her into a

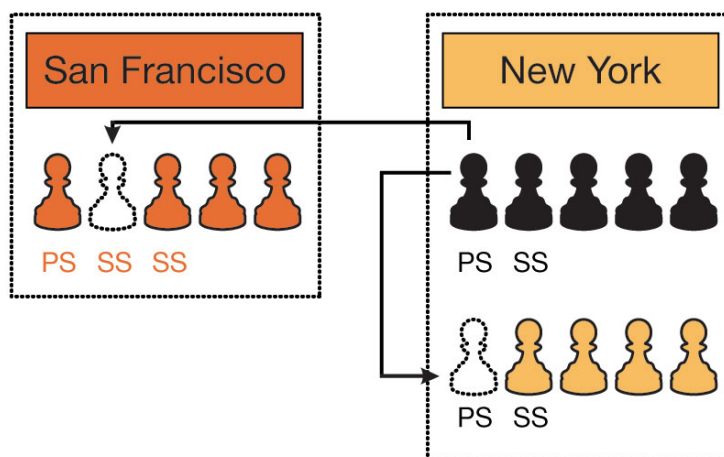
supervisor agent, and adds her as a Primary Supervisor to both teams. An agent can only be a member of a single team, however this supervisor supervises the Blue Team without being a member of it.

The user account of the person associated with this supervisor agent is added to the ExampleCorp\_Supervisors user group.

A primary supervisor is also assigned to the Red Team.

ExampleCorp then assigns secondary supervisors. It decides that the senior supervisor agent in New York should also be a secondary supervisor of the Red Team in San Francisco. Since it is possible to have any number of secondary supervisors for each team, this does not prevent them assigning a San Francisco agent as secondary supervisor to this team as well.

See Figure 11.1 "Agent Teams Example" for a diagram of this scenario.



**Figure 11.1 Agent Teams Example**

### 11.2.18.3 Person and Agent Properties

#### Person Details Tab

Shows the person details.

#### Folder

Only shown when the item is first created. The folder in which to create the item.

#### First Name

The first name of the person.

**Last Name**

The last name of the person.

**Description**

A description of the item.

**Login Name**

A unique login name for the person to use to log in to peripherals. When editing an existing person, disabled if **Reset Password** not selected.

*Note. Peripheral login names are not case sensitive. For example, "joe\_smith" and "JOE\_SMITH" are the same. Also, login names for agent login to agent desktop software (such as CTI OS) are not case-sensitive either.*

**Reset Password**

Not shown when person is first created. Select to specify a new password for the person.

**Password**

The password the person uses to log into the peripheral. When editing an existing person, only shown if **Reset Password** is selected.

**Confirm Password**

Must be the same as **Password**. When editing an existing person, only shown if **Reset Password** is selected.

**Portal Account**

The Unified CCDM user account associated with this person, if required. This is a resource selector (see section "Resource Selector" on page 265).

**Peripherals Tabs****About the Peripherals Tabs**

Shows the details for an agent on a peripheral. There is one tab for each peripheral. The name of the tab is the name of the peripheral.

Each peripheral tab corresponds to an agent which is associated with the person. Each tab has a number of sub-tabs containing the details for the agent on that peripheral.

**Tasks Associated with Peripherals****To add a new agent and peripheral**

Click the drop-down arrow beside **Equipment**, and from the list of available peripherals, select the peripheral you want to associate with the agent. A peripheral tab for the new agent is added to the person record.

This tab has several sub-tabs containing the agent details. Complete the details as required, and when you are satisfied, click **Save** to save your changes and return to the Resource Manager grid.

**To edit an existing agent**

In the person item, click on the tab corresponding to the peripheral the agent is located on. Select the sub-tab that contains the fields you want to edit. Make your change as required, and when you are satisfied, click **Save** to save your changes and return to the Resource Manager grid.

**To delete an existing agent.**

Click **x** on the tab for the peripheral corresponding to the agent you want to delete. The agent details on that peripheral are deleted, although the deletion is not finalized until you save your changes (if you add the peripheral again before saving your changes, the existing details will still be present). Click **Save** to save your changes and return to the Resource Manager grid.

Note that if an agent is logged in when they are deleted, the agent will move to an error state. To fix this, delete the agent again after they have logged out.

**Equipment Details Sub-Tab**

Shows the equipment and agent details for the peripheral.

**Agent Name**

The name of the agent on this peripheral. If the name fields for the associated person have been supplied when the agent is added, the agent name is generated by the system as the first name of the person, followed by an underscore ( \_ ), followed by the last name of the person. You can change the auto-generated value if you wish.

**Agent ID**

The identifier of the agent on this peripheral. Leave blank to auto-generate a value. For voice peripherals, this is the internal extension number used to call this agent.

**Enterprise Name**

The name used to identify the agent within the system.

**Description**

A description of the agent.

**Agent Desktop**

The agent desktop associated with this agent. This is a resource selector (see section "Resource Selector" on page 265).

**Agent Team**

The agent team associated with this agent. This is a resource selector (see section "Resource Selector" on page 265).

**Skill Groups Sub-Tab**

Shows the skill group details for the agent on this peripheral.

**Default Skill Group**

The skill group to be used for reporting when the skill group routing is not available. This is a resource selector (see section "Resource Selector" on page 265).

**Skill Groups**

A list of skill groups associated with this agent. This is an association grid (see section 11.2.4.3 "Association Grid").

**Precision Attributes Sub-Tab**

Shows the precision attribute details for the agent on this peripheral.

**Precision Attributes**

A list of precision attributes associated with this agent. This is an association grid (see section 11.2.4.3 "Association Grid").

You can set the following option for each precision attribute associated with the agent:

**Value**

The value of the precision attribute for this agent.

**Supervisor Sub-Tab**

Shows the supervisor details for the agent on this peripheral.

**Supervisor**

Select to make this agent a supervisor on this peripheral.

**Associate with Domain Account**

(Only available if the Supervisor option is selected). Select to associate the supervisor with an existing domain account (the account used to log onto the network and to WebView).

*Note.* The supervisor agent must be associated with a domain account before they can have precision attributes assigned to them.

**Login Name**

(Only available if the Supervisor option is selected). The domain login name to be used by the supervisor agent. Type a name or part of a name, click **Find**, then select the required name from the list.

**Agent Teams**

(Only available if the Supervisor option is selected). If the agent is a supervisor, the agent teams they supervise, and the role they have in each. This is an association grid (see section 11.2.4.3 "Association Grid").

You can set the following options for each associated agent team.

**Supervisory Role**

The supervisory role the agent has in this team. Select from

- **Primary.** The agent is the primary supervisor of the agent team. A team can only have one primary supervisor. If the selected team already has a primary supervisor, you will be asked to confirm that you want to change the primary supervisor.
- **Secondary.** The agent is a secondary supervisor of the agent team. An agent team may have several secondary supervisors.

**Advanced Tab**

Shows the advanced properties.

**Active From Date**

The date from which the item will be active within the system.

**Active To Date**

The date after which the item will be deleted from the system. Either leave **Forever** selected, or clear **Forever** and select a date from calendar.

**Department**

The department that the item is associated with. Select from the drop-down list. Only shown for tenants that are not small contact center tenants, and are associated with Unified CCE instances running Unified CCE version 10.0 or later.

**History Tab**

Shows the event history for this item. Not shown when the item is first created.

**Date from**

The date of the earliest events to include in the list.

**Date to**

The date of the most recent events to include in the list.

**Type**

The type of event to include in the list. Select from the drop-down list.

**Resource**

The resource to show the history for. Select the person to show the history for the person, or select a specific associated agent to show the history for that agent. Note that selecting the person just shows events related to the person, and does not include events for the associated agents.

**To change the event history display**

Enter the date range, type of events and resource type you are interested in, then click **Search** to see the selected events.

**Custom Data Tab**

Shows the custom data.

**Key**

The key for this custom data item.

**Value**

The value to associate with this key.

**To add a new custom data key-value pair**

Complete both fields, and click **Add**. A resource can have a maximum of ten custom data key-value pairs.

**To edit a custom data value**

Click the value you want to change, and enter the new value.

**To delete a key-value pair**

Click the **X** beside the entry, then click **OK** to confirm the deletion.



## 11.2.19 Precision Attributes

### 11.2.19.1 About Precision Attributes

A precision attribute (also referred to as an attribute) is some user-defined information that can be associated with an agent. It defines the agent's knowledge or experience in a particular area and the level of that knowledge or experience. A precision attribute has a *name*, which identifies the attribute, and a *value*, which indicates the level an agent has attained for that attribute.

Precision attribute values can be:

- *boolean* (the agent either has that attribute or does not have that attribute)
- graded according to *proficiency* (the agent has attained a specific grade of expertise in that attribute).

Precision attributes are used in precision queues to define rules for routing calls.

#### Note

Attributes can only be created on tenants that are associated with a Unified CCE instance running Unified CCE version 9.0 or later.

#### Examples

A precision attribute called `Mortgage_Training` may be defined with a boolean value to indicate whether an agent has been trained to sell mortgages. This attribute can then be associated with a number of agents, and for each agent, the value of the Mortgage Training attribute can be set to either True or False, depending on whether the agent has had the training or not.

Another example could be a precision attribute called `Spanish_Speaker` with a proficiency value to indicate how fluent the agent is in the Spanish language. If an agent does not speak Spanish, then this attribute can be set to 1 (the lowest possible proficiency value). If the agent is a native Spanish speaker, the attribute can be set to 10 (the highest possible proficiency value). If the agent knows some Spanish but is not very fluent, the attribute could be set to 5.

### 11.2.19.2 Precision Attribute Properties

#### Details Tab

Shows the item details.

#### Folder

Only shown when the item is first created. The folder in which to create the item.

**Name**

The name used to identify the item in Unified CCDM.

*Note.* This may not be the same as the name by which the item is known on the remote equipment. Changing this name will not change the name on the remote equipment.

**Description**

A description of the item.

**Data Type**

The data type of the attribute value. One of:

- **Boolean:** the value can be True or False
- **Proficiency:** the value can be a whole number between 1 and 10 (1 is least proficient and 10 is most proficient).

Cannot be edited after the precision attribute is created.

**Default Value**

The default value to be used when this attribute is associated with an agent.

**Agents Tab**

Shows the agents that are associated with this precision attribute.

**Agents**

A list of agents associated with this precision attribute. This is an association grid (see section 11.2.4.3 "Association Grid").

You can set the following option for each agent that has this precision attribute:

**Value**

The value of this precision attribute for the agent.

**Advanced Tab**

Shows the advanced properties.

**Enterprise Name**

The name used to identify the item on the remote equipment. Leave blank to auto-generate a unique name.

**Active From Date**

The date from which the item will be active within the system.

**Active To Date**

The date after which the item will be deleted from the system. Either leave **Forever** selected, or clear **Forever** and select a date from calendar.

**Department**

The department that the item is associated with. Select from the drop-down list. Only shown for tenants that are not small contact center tenants, and are associated with Unified CCE instances running Unified CCE version 10.0 or later.

**History Tab**

Shows the event history for this item. Not shown when the item is first created.

**Date from**

The date of the earliest events to include in the list.

**Date to**

The date of the most recent events to include in the list.

**Type**

The type of event to include in the list. Select from the drop-down list.

**To change the event history display**

Enter the date range and type of events you are interested in, then click **Search** to see the selected events.

**Custom Data Tab**

Shows the custom data.

**Key**

The key for this custom data item.

**Value**

The value to associate with this key.

**To add a new custom data key-value pair**

Complete both fields, and click **Add**. A resource can have a maximum of ten custom data key-value pairs.

**To edit a custom data value**

Click the value you want to change, and enter the new value.

**To delete a key-value pair**

Click the **X** beside the entry, then click **OK** to confirm the deletion.

## 11.2.20 Precision Queues

### 11.2.20.1 About Precision Queues

A precision queue is a mechanism that defines how to route calls to agents depending on each agent's proficiency attributes and availability. Precision queues can be referenced in routing scripts to define how calls are routed.

#### Note

Precision Queues can only be created on tenants that are associated with a Unified CCE instance running Unified CCE version 9.0 or later.

#### Precision Queue Steps

A precision queue contains one or more precision queue steps. Each step includes:

- some criteria defining a set of agent attributes that must be satisfied when choosing an agent to receive the call
- a time to wait for a suitable agent to become available, after which the criteria specified in the next step are considered instead (this feature is not available for the last step, since there is no next step after the last step).

Typically, the criteria specified in successive steps will get progressively less stringent. For example, the first step may specify that:

- the agent has been trained to sell mortgages (for example, Mortgage\_Training is True)
- the agent is an excellent Spanish speaker (for example, Spanish\_Speaker >= 8)
- the call will be held for up to 120 seconds waiting for an agent meeting these criteria to become available.

The next step is only considered if no agent becomes available in that time, and may specify that:

- the agent has been trained to sell mortgages (for example, Mortgage\_Training is True)
- the agent can speak Spanish (for example, Spanish\_Speaker >= 3)
- the call will be held for up to 300 seconds waiting for an agent meeting these criteria to become available.

The final step may specify that the call can be routed to any available agent who can speak Spanish at any level (for example, Spanish\_Speaker >= 1).

#### Consider If Conditions

Any step except the last step can have a *Consider If* condition associated with it. A Consider If condition allows you to specify additional criteria about the call to determine whether the step is relevant for that category of call.

For example, a Consider If expression may be used to include a specific step only if more than 100 calls of a certain type have been received in the last 24 hours.

The Consider If expression is passed directly to Unified CCE and validated there. For more information about Consider If expressions, see the Unified CCE documentation in the Cisco Unified Contact Center Enterprise Features Guide.

## Expressions

Each step consists of:

- one or more expressions
- the rules for combining those expressions.

An expression defines a set of requirements an agent must satisfy in order to receive the call. Expressions in a step can be combined using *AND* (both the latest expression and the previous one must be satisfied) or *OR* (either the latest expression or the previous one, or both, must be satisfied).

For example, a step may have two expressions, one specifying some skills an agent may have, and the other specifying some qualifications an agent may have. If these two expressions are combined in a step using *AND*, calls will only be routed to agents that have both the specified skills and the specified training. But if the expressions are combined using *OR*, calls can be routed to agents with either the skills or the training or both.

## Attribute Comparisons

Each expression consists of:

- one or more attribute comparisons
- the rules for combining those attribute comparisons.

An attribute comparison is an attribute, a value and a rule for the comparison. Some typical attribute comparisons are:

- Spanish\_Speaker >= 8
- Mortgage\_Training = True.

Like expressions in a step, attributes in an expression can be combined using *AND* or *OR*.

## Tip for Constructing Steps, Expressions and Attribute Comparisons

### Tip

To keep your steps and expressions simple, you may like to:

- group your **attribute comparisons** into **expressions** using **AND** (for example, an expression is made up of *AttributeComparison1 AND AttributeComparison2 AND AttributeComparison3*)
- group your **expressions** into **steps** using **OR** (for example, a step is made up of *Expression1 OR Expression2 OR Expression3*)

## 11.2.20.2 Precision Queue Properties

### Details Tab

Shows the item details.

### Folder

Only shown when the item is first created. The folder in which to create the item.

### Name

The name used to identify the item in Unified CCDM.

*Note.* This may not be the same as the name by which the item is known on the remote equipment. Changing this name will not change the name on the remote equipment.

### Description

A description of the item.

### Agent Order

The agent to allocate to a call if more than one agent satisfies the criteria in the precision queue. One of:

- **Longest Available Agent:** use the agent that has been free the longest.
- **Most Skilled Agent:** use the agent with the highest proficiency value.
- **Least Skilled Agent:** use the agent with the lowest proficiency value.

### Service Level Type

How abandoned calls should be factored in calculating service levels. One of:

- **Use Global Setting:** the default is to ignore abandoned calls.
- **Ignore Abandoned Calls:** do not include abandoned calls in the calculation.
- **Abandoned Call has a Negative Impact:** abandoned calls count as exceeding the service level threshold.
- **Abandoned Call has a Positive Impact:** abandoned calls count as having been promptly answered.

*Note.* For resources associated with a Communications Manager, this will

*always be Ignore Abandoned Calls.*

### Service Level Threshold Value

The value in seconds to use for the service level threshold. Leave blank to disable service level calculation and force the router to use the service level threshold of the associated MRD peripheral.

### Steps Tab

Shows the steps in this precision queue.

#### Steps

An ordered list of the steps in this precision queue and their contents. A precision queue must have at least one step and may have up to ten steps. Each step can contain one or more expressions, each containing one or more attribute comparisons.

#### To add a new precision queue step

Click **Add**. A new step is added with a single expression and a single attribute comparison containing some default values. You will probably want to change some of these values, so click the step to edit it as described below.

#### To delete a precision queue step

Click the delete button beside the step, then click **OK** to confirm the deletion. You will not be able to delete the last step in a precision queue.

#### To reorder precision queue steps

Hover over the step you want to move, and drag it to a new position in the precision queue steps grid.

*Note. If you reorder the steps, the steps in the sequence are renumbered sequentially. If you reorder the steps so that a different step becomes the last step, the wait time is removed from new last step, and set to 0 for the previous last step, if applicable.*

#### To edit a precision queue step

Click the step you want to change. The step dialog box is shown. Complete the fields as described below.

### The Step Dialog Box

Shows the expressions in the precision queue step, and the attribute comparisons in each expression.



**Consider If**

Optional. The criteria that determine whether the step is executed. If a Consider If condition is present but not satisfied by the incoming call, the call passes to the next step in the precision queue.

The Consider If expression is passed directly to Unified CCE and validated there. For more information about Consider If expressions, see the Unified CCE documentation in the Cisco Unified Contact Center Enterprise Features Guide.

**Wait Time**

Optional. The time in seconds to wait before moving on to the next step if the criteria in this step cannot be satisfied. Not applicable to the last step in the sequence.

**Add Expression**

Click to add an expression containing a single attribute comparisons. You will need to edit this expression (see below) to meet your requirements.

**Add Attribute**

Click to add an attribute comparison to an expression. You will need to edit this attribute comparison (see below) to meet your requirements.

**To edit an attribute comparison in an expression**

Click in the first text box and start typing some characters to see a list of attributes that contain those characters.

Choose the attribute you want from the list.

Move to the next box and choose the comparison type from the following:

== : equal to this value

!= : not equal to this value

< : less than this value (proficiency attribute types only)

<= : less than or equal to this value (proficiency attribute types only)

> : greater than this value (proficiency attribute types only)

>= : greater than or equal to this value (proficiency attribute types only)

Move to the final box and choose the value you want to compare the attribute against.

**To link attribute comparisons in an expression**

For each attribute comparison in the expression, except the first, also click on the drop-down on the far left of the comparison to choose how this comparison contributes to the results of the expression:

**AND:** the expression will be satisfied if an agent is found that satisfies this comparison and also satisfies the previous comparisons in the expression

**OR:** the expression will be satisfied if an agent is found that satisfies this comparison even if that agent does not satisfy the previous comparisons in the expression.

#### **To link expressions in a step**

For each expression in the step, except the first, also click on the drop-down beside the expression number to choose how this expression contributes to the results of the step:

**AND:** the step will be satisfied if an agent is found that satisfies this expression and also satisfies the previous expressions in the step

**OR:** the step will be satisfied if an agent is found that satisfies this expression even if that agent does not satisfy the previous expressions in the step.

#### **To delete an attribute comparison from an expression**

Click **X** beside the attribute comparison.

#### **To delete an expression from a step**

Click **X** beside the each attribute comparison in the expression you want to delete. When the last attribute comparison in the expression is deleted, the expression is also deleted.

#### **Advanced Tab**

Shows the advanced properties.

#### **Enterprise Name**

The name used to identify the item on the remote equipment. Leave blank to auto-generate a unique name.

#### **Bucket Interval**

The bucket interval to associate with the queue.

#### **Active From Date**

The date from which the item will be active within the system.

#### **Active To Date**

The date after which the item will be deleted from the system. Either leave **Forever** selected, or clear **Forever** and select a date from calendar.

**Department**

The department that the item is associated with. Select from the drop-down list. Only shown for tenants that are not small contact center tenants, and are associated with Unified CCE instances running Unified CCE version 10.0 or later.

**History Tab**

Shows the event history for this item. Not shown when the item is first created.

**Date from**

The date of the earliest events to include in the list.

**Date to**

The date of the most recent events to include in the list.

**Type**

The type of event to include in the list. Select from the drop-down list.

**Resource**

The resource to show the history for. Select the precision queue to show the history for the precision queue, or select a specific associated precision queue step to show the history for that step. Note that selecting the precision queue just shows events related to the precision queue, and does not include events for the associated steps.

**To change the event history display**

Enter the date range, type of events and resource type you are interested in, then click **Search** to see the selected events.

**Custom Data Tab**

Shows the custom data.

**Key**

The key for this custom data item.

**Value**

The value to associate with this key.

**To add a new custom data key-value pair**

Complete both fields, and click **Add**. A resource can have a maximum of ten custom data key-value pairs.

**To edit a custom data value**

Click the value you want to change, and enter the new value.

**To delete a key-value pair**

Click the **X** beside the entry, then click **OK** to confirm the deletion.

**11.2.21 Services****11.2.21.1 About Services**

A service is a particular type of call processing required by the user, which is associated with a specific peripheral. Skill groups may be associated with one or more services. For example, a Customer Support service might be associated with a Customer Support skill group.

**11.2.21.2 Service Properties****Details Tab**

Shows the item details.

**Folder**

Only shown when the item is first created. The folder in which to create the item.

**Name**

The name used to identify the item in Unified CCDM.

*Note.* This may not be the same as the name by which the item is known on the remote equipment. Changing this name will not change the name on the remote equipment.

**Description**

A description of the item.

**Peripheral**

The peripheral to associate this service with.

**Peripheral Name**

The name to be specified for this service at the peripheral

**Peripheral Number**

The number to be specified for this service at the peripheral.

**Media Routing Domain**

The media routing domain associated with this service.

### Service Level Type

How abandoned calls should be factored in calculating service levels. One of:

- **Use Global Setting:** the default is to ignore abandoned calls.
- **Ignore Abandoned Calls:** do not include abandoned calls in the calculation.
- **Abandoned Call has a Negative Impact:** abandoned calls count as exceeding the service level threshold.
- **Abandoned Call has a Positive Impact:** abandoned calls count as having been promptly answered.

*Note.* For resources associated with a Communications Manager, this will always be Ignore Abandoned Calls.

### Service Level Threshold Value

The value in seconds to use for the service level threshold. Leave blank to disable service level calculation and force the router to use the service level threshold of the associated MRD peripheral.

### Skill Groups Tab

Shows the skill groups that are associated with this service.

#### Skill Groups

A list of skill groups associated with this service. This is an association grid (see section 11.2.4.3 "Association Grid").

### Advanced Tab

Shows the advanced properties.

#### Enterprise Name

The name used to identify the item on the remote equipment. Leave blank to auto-generate a unique name.

#### Active From Date

The date from which the item will be active within the system.

#### Active To Date

The date after which the item will be deleted from the system. Either leave **Forever** selected, or clear **Forever** and select a date from calendar.

#### Department

The department that the item is associated with. Select from the drop-down list. Only shown for tenants that are not small contact center tenants, and are associated with Unified CCE instances running Unified CCE version 10.0 or

later.

**History Tab**

Shows the event history for this item. Not shown when the item is first created.

**Date from**

The date of the earliest events to include in the list.

**Date to**

The date of the most recent events to include in the list.

**Type**

The type of event to include in the list. Select from the drop-down list.

**To change the event history display**

Enter the date range and type of events you are interested in, then click **Search** to see the selected events.

**Custom Data Tab**

Shows the custom data.

**Key**

The key for this custom data item.

**Value**

The value to associate with this key.

**To add a new custom data key-value pair**

Complete both fields, and click **Add**. A resource can have a maximum of ten custom data key-value pairs.

**To edit a custom data value**

Click the value you want to change, and enter the new value.

**To delete a key-value pair**

Click the **X** beside the entry, then click **OK** to confirm the deletion.

## 11.2.22 Skill Groups

### 11.2.22.1 About Skill Groups

A skill group is a collection of agents that share a common set of skills that enable them to handle a particular type of task. For example, a skill group could define a group of agents who are proficient at providing technical support for a particular product. Agents are assigned one or more skills by associating the agent with the desired skill groups.

Each skill group is associated with a specific media routing domain such as voice, chat, or e-mail.

#### Note

Unified CCDM does not support sub-skill groups (skill groups defined as a subset of a parent skill group).

### 11.2.22.2 Skill Group Properties

#### Details Tab

Shows the item details.

#### Folder

Only shown when the item is first created. The folder in which to create the item.

#### Name

The name used to identify the item in Unified CCDM.

*Note. This may not be the same as the name by which the item is known on the remote equipment. Changing this name will not change the name on the remote equipment.*

#### Description

A description of the item.

#### Contact Center Picks The Agent (IPTA)

Indicates whether Unified CCE selects the Agents within the Skill Group to receive calls.

#### Peripheral

The peripheral to be used for the agents in this skill group.

#### Media Routing Domain

A description of how contact is made.

### Service Level Type

How abandoned calls should be factored in calculating service levels. One of:

- **Use Global Setting:** the default is to ignore abandoned calls.
- **Ignore Abandoned Calls:** do not include abandoned calls in the calculation.
- **Abandoned Call has a Negative Impact:** abandoned calls count as exceeding the service level threshold.
- **Abandoned Call has a Positive Impact:** abandoned calls count as having been promptly answered.

*Note.* For resources associated with a Communications Manager, this will always be Ignore Abandoned Calls.

### Service Level Threshold

Whether this call type will use a service level threshold other than the system default. One of:

- **Use Global Setting:**
- **None:**
- **Use Specified:** use the value specified in Service Level Threshold Value.

### Service Level Threshold Value

Only shown when Service Level Threshold is Use Specified. The value in seconds to use for the service level threshold.

### Agents Tab

Shows the agents that are associated with this skill group.

*Note.* To set the default skill group for an agent using the Resource Manager gadget, select the agent and go to the Skill Groups tab.

#### Agents

A list of agents associated with this skill group. This is an association grid (see section 11.2.4.3 "Association Grid").

### Routes Tab

Shows the routes associated with this skill group.

#### Name

The name of the route.



**Description**

A description of the route.

**To add a route**

Complete the fields and click **Add**.

**To delete a route**

Click the **X** beside the entry, then click **OK** to confirm the deletion.

**Advanced Tab**

Shows the advanced properties.

**Enterprise Name**

The name used to identify the item on the remote equipment. Leave blank to auto-generate a unique name.

**Active From Date**

The date from which the item will be active within the system.

**Active To Date**

The date after which the item will be deleted from the system. Either leave **Forever** selected, or clear **Forever** and select a date from calendar.

**Department**

The department that the item is associated with. Select from the drop-down list. Only shown for tenants that are not small contact center tenants, and are associated with Unified CCE instances running Unified CCE version 10.0 or later.

**History Tab**

Shows the event history for this item. Not shown when the item is first created.

**Date from**

The date of the earliest events to include in the list.

**Date to**

The date of the most recent events to include in the list.

**Type**

The type of event to include in the list. Select from the drop-down list.

**Resource**

The resource to show the history for. Select the skill group to show the history for the skill group, or select a specific associated route to show the history for that route. Note that selecting the skill group just shows events related to the skill group, and does not include the events for the associated routes.

**To change the event history display**

Enter the date range, type of events and resource type you are interested in, then click **Search** to see the selected events.

**Custom Data Tab**

Shows the custom data.

**Key**

The key for this custom data item.

**Value**

The value to associate with this key.

**To add a new custom data key-value pair**

Complete both fields, and click **Add**. A resource can have a maximum of ten custom data key-value pairs.

**To edit a custom data value**

Click the value you want to change, and enter the new value.

**To delete a key-value pair**

Click the **X** beside the entry, then click **OK** to confirm the deletion.

**11.2.23 Users****11.2.23.1 About Users**

A user is a Unified CCDM portal user with a Unified CCDM login. A user may be associated with a person resource but it does not need to be.

**11.2.23.2 User Properties****Details Tab**

Shows the item details.

**Folder**

Only shown when the item is first created. The folder in which to create the item.

**Login Name**

A unique login name for the Portal user. Any Unicode character is valid, except single quote ('), double quote (") and Unicode characters in the "Symbol, Other" category.

Additionally, for an Internet Scrip Editor enabled user, the login name must correspond to an existing Windows active directory user. This name must be formatted as <username>@<domainname>, where <username> is the Windows username and <domainname> is the fully qualified Windows domain name, for example, **iseuser1@testdomain.local**

**First Name**

The first name of the Unified CCDM portal user.

**Last Name**

The last name of the Unified CCDM portal user.

**Email**

The user's email address. Must be a valid email address in the format **name@domain.extension**.

**Description**

A description of the item.

**Culture**

The language and location setting for this user.

**User Home Folder**

The user's home folder. The user is positioned here when they log on.

**Create a new folder for this user**

Only shown when user is first created. Select to create a new folder for the user below the specified **User Home Folder**. The name of the new folder will be the specified **Login Name** followed by the default folder suffix specified in **Settings > Security Settings > User Folder Suffix**.

**Advanced Mode**

Indicates whether this user has advanced mode functionality.

**Account Enabled**

Indicates whether this user is currently active on the system. The user will not be able to log in to Unified CCDM if this is not set.

**Internet Script Editor Enabled**

Indicates that the user can access Cisco's Internet Script Editor using the security settings of this Unified CCDM user.

*Note.* The following fields are only shown on the **Details** tab when a user is first created. For existing users, they are shown on a separate **Password** tab.

**User must change password at next logon**

Indicates that this password is only valid for a single login. If set the user will be forced to change their password the next time they log in to Unified CCDM.

**Password Never Expires**

Indicates that the password will never expire. If not set, the password will expire after the number of days specified in **Settings > Security Settings > Password Expiry**.

**User cannot change password**

Indicates that the user cannot change their password. If not set, the user can change their password using **Settings > Change Password**.

**Password**

The password for this user. The password cannot be the same as **Login Name** and must meet any password restrictions that are specified by the system administrator in **Settings > Security Settings**.

Additionally, for an Internet Script Editor enabled user, the password must match the password for the corresponding Windows active directory user.

**Confirm Password**

Must be the same as for **Password**.

**Password Tab**

Shows the password details for this user. This tab is not shown when a user is first created (the required information is shown on the Details tab). This tab is not shown at all if the installation uses single sign-on.

**Reset Password**

Select to reset the user's password to a value of your choice, for example, if the user has forgotten their password or been locked out of the system because they have entered their password incorrectly several times. If you set this, you may also want to set **User must change password at next logon** to force the user to choose a new password when they next log in.

**Password**

Only shown if **Reset Password** is selected.

**Confirm Password**

Must be the same as for **Password**.

**User Exceeded Maximum Login Attempts**

Set if the user has exceeded the number of incorrect login attempts specified in **Settings > Security > Login attempts before lockout**.

**Password Never Expires**

Indicates that the password will never expire. If not set, the password will expire after the number of days specified in **Settings > Security Settings > Password Expiry**.

**User cannot change password**

Indicates that the user cannot change their password. If not set, the user can change their password using **Settings > Change Password**.

**User must change password at next logon**

Indicates that this password is only valid for a single login. If set the user will be forced to change their password the next time they log in to Unified CCDM.

**Groups Tab**

Shows the groups that are associated with this user.

**Groups**

A list of groups associated with this user. This is an association grid (see section 11.2.4.3 "Association Grid").

**11.2.24 User Variables****11.2.24.1 About User Variables**

A user variable is a named object which can hold a value up to 40 characters long. User variables are used in routing scripts.

**Note**

You cannot edit user variables. You can only create and delete them.

**11.2.24.2 User Variable Properties****Details Tab**

Shows the item details.

**Folder**

Only shown when the item is first created. The folder in which to create the item.

**Code Text**

The name of the user variable. Will be automatically prefixed with "**user**" when the item is saved.

**Description**

A description of the item.

**Persistent**

Whether the user variable retains its value across Central Controller restarts.

**Object Type**

The type of object with which to associate the variable. Choose `OT_USER_VARIABLE` to not associate the user variable with an object. Cannot be edited after the user variable is created.

**Data Type**

The data type for the variable. Cannot be edited after the user variable is created.

**Advanced Tab**

Shows the advanced properties.

**Active From Date**

The date from which the item will be active within the system.

**Active To Date**

The date after which the item will be deleted from the system. Either leave **Forever** selected, or clear **Forever** and select a date from calendar.

**History Tab**

Shows the event history for this item. Not shown when the item is first created.

**Date from**

The date of the earliest events to include in the list.

**Date to**

The date of the most recent events to include in the list.

**Type**

The type of event to include in the list. Select from the drop-down list.

**To change the event history display**

Enter the date range and type of events you are interested in, then click **Search** to see the selected events.

**Custom Data Tab**

Shows the custom data.

**Key**

The key for this custom data item.

**Value**

The value to associate with this key.

**To add a new custom data key-value pair**

Complete both fields, and click **Add**. A resource can have a maximum of ten custom data key-value pairs.

**To edit a custom data value**

Click the value you want to change, and enter the new value.

**To delete a key-value pair**

Click the **X** beside the entry, then click **OK** to confirm the deletion.

## 12 System Administration Tasks

### 12.1 About Administrator Tasks

This section identifies the main tasks that users with tenant administrator permissions perform in Unified CCDM. Tasks do not need to be performed in the order shown below, however, this order reflects the dependency of certain item types on the existence of others.

**Note**

Users with System Administrator permissions can also perform all of the tasks in this section.

### 12.2 Agent and Group Related Tasks

The tasks listed below pertain to agent record creation and agent groupings.



<b>Task</b>	<b>Description</b>	<b>Where</b>
Create Agent Desktops	An Agent Desktop associates a set of permissions or characteristics with specific agents, such as how and when calls to these agents are redirected, how and when they enter various works states, and whether they can make outbound calls. You can create a Default Desktop that is the set of permissions automatically assigned to all new agents unless overridden.	Manage Agent Desktops page
Create Agents and Agent Supervisors. Assign desk settings to agents.	In order to use the back-end system, all prospective agents first need an account which includes a login name and password. You can designate certain agents as supervisors, allowing them to be later designated as supervisors of agent teams. You can assign different desk settings to different agents based on their needs, and, as necessary, temporarily suspend their login permissions or turn on Agent State Trace, which allows you to track their transition through various states of readiness.	Manage Agents page
Create Skill Groups and assign agents to skill groups.	A skill group is a collection of agents that share a common set of skills. Skill groups are one of the primary devices for call routing. An agent can be associated with multiple skill groups and each skill group is associated with a specific media routing domain (MRD) such as voice, chat, or e-mail.	Manage Skill Groups page
Create Agent Teams. Assign agents and supervisors to teams.	Agent teams allow you to associate a set of agents with a specific supervisor. This association allows Unified CCE to determine which supervisor to route an agent's Supervisor Assist requests to.	Manage Agent Teams page
Optionally, create Enterprise Skill Groups. Assign skill groups to enterprise skill groups.	An enterprise skill group is a logical grouping of skill groups, and can include skill groups from different MRDs. Unlike the Skill Groups page, the Enterprise Skill Groups page can display skill groups from all MRDs.	Manage Enterprise Skill Groups page

### 12.3 Contact Routing Tasks

The tasks listed below relate to contact (voice and non-voice) routing configuration.

Task	Description	Where
Create Call Types.	<p>A call type is a category of incoming routable task. Specific call types are associated with Dialed Numbers. In this association, each call type has a schedule that determines which routing script(s) are active for that call type at any time. Because the call type determines which routing script is run for a call, the call type defines call treatment in a Unified CCE system.</p> <p>There are two classes of call type/dialed number associations: voice and non-voice.</p>	Manage Call Types page
Create Dialed numbers. Map Call Types to Dialed Numbers.	<p>You set up a Dialed Number List, which identifies all of the phone numbers in your contact center that customers can dial to initiate contact. Dialed numbers are mapped to call types; this mapping is used to identify the appropriate routing script for each call.</p> <p>A typical call center requires a number of dialed number definitions. In addition to answered calls, dialed numbers also need to be set up for ring on no answer, dialed number plan entries, and for supervisor/emergency assist calls.</p>	Manage Dialed Numbers page

# Glossary

## A

### **Activity Monitor**

A tool that shows the current status of the provisioning queue and provides basic audit reporting for provisioned resources.

### **Advanced Mode**

A CCDM operation mode that provides access to all CCDM functionality and tools that a user is allowed to access. Compare with Basic Mode.

### **Agent**

Any contact center operative dealing with customers, usually by answering incoming phone calls. Each agent is associated with a peripheral and can be a member of one or more skill groups.

### **Agent Desktop**

The phone settings for an enterprise or Unified CCE agent. Agent Desktops can be associated with each Unified CCE agent or with a Unified CCE peripheral.

### **Agent Team**

A functional grouping of agents. An agent team is generally served by the same peripheral and has a common business focus such as a specific aspect of technical support.

### **Attribute**

Some user-defined information that can be associated with an agent. It defines the agent's knowledge or experience in a particular area and the level of that knowledge or experience.

**Available**

A call state in which the logged in agent is ready to accept calls. The equipment will not route a call to an agent unless they are available. This is a key metric monitored by supervisors to ensure the readiness of their team to accept calls. A careful balance is required to ensure that there are enough Agents available to accept calls without overstaffing or understaffing.

**B****Basic Mode**

A CCDM operation mode that provides a simple user interface for supervisors to manage agent teams and skills. Compare with Advanced Mode.

**Breadcrumb Trail**

A trail of links indicating the user's current location in a folder hierarchy or a set of related pages. You can usually click on a link in the breadcrumb trail to go directly to that location.

**C****Call Type**

A category of incoming call, associated with one or more dialed numbers.

**CCDM Resource**

A resource that is created and managed by CCDM. These resources are local to CCDM, and not provisioned onto the remote equipment, for example, folders, users, groups. A CCDM resource may or may not be associated with a tenant. Also known as a System Resource. See also Resource. Compare with Remote Resource.

**Cisco Unified Communications Manager (Unified CM)**

A computer platform that provides the facilities of a traditional private branch exchange telephony system (PBX) to packet devices such as Voice over IP (VoIP) gateways.

**Cisco Unified Contact Center Enterprise (Unified CCE)**

Cisco call routing platform.

**Cisco Unified Customer Voice Portal (Unified CVP)**

A telephone system that allows callers to use touchtone signals or their own voice to request self-service information.

**Comma Separated Variable (CSV)**

A method of representing a spreadsheet using a text file. The values are separated by commas, and each record is ended by a line break. The column headers are contained in the first record.

**CSV**

See Comma Separated Variable.

**D****Department**

A grouping of related resources according to user-defined business needs.

**Dialed Number**

The telephone number dialed by the calling party.

**Dimension**

Another name for a resource.

**Drill down, Drill up**

To navigate through trees or data hierarchies. Drill down to view child folders or data in finer detail and drill up to view parent folders or summarized data values.

**E****Enterprise Service**

An organizational grouping of agents within a company, perhaps spanning several contact centers and served by different peripherals, providing a specific customer service, such as technical support.

**Enterprise Skill Group**

Organizational association of contact center agents within a company, perhaps spanning several contact centers and served by different peripherals. Agents in a skill group share common talents such as technical or language abilities, or skills in dealing with complaints.

**Exception**

A value which falls outside set parameters. Exceptions may be highlighted for ease of identification. See Thresholds.

**Expanded Call Variable**

A named object used by a Network VRU script to exchange call information with the Unified CCE.

**Extensible Markup Language (XML)**

A markup language used to create special-purpose markup languages. It allows data to be shared across different systems, particularly systems connected via the Internet.

**Extension (filenames)**

The characters that end a filename, and which identify the type of data in that file, and hence which program or programs that can access it.

**Extension (telephone)**

Either a telephone number that is local to the switch or a telephone station served by a PBX.

**F****Folder Role**

A collection of folder-based security tasks that a user or group is able to do. A user or group that has a specific folder role on a specific folder is able to perform all the tasks in that folder role on that folder. They can also perform those tasks in any subfolders that inherit their security permission from that parent folder. In some cases, access to a folder role task is controlled by a Global Role task that allows access to the required functionality. For example, a Supervisor folder role may be defined which allows various supervisor tasks like managing users and information notices. A user or group that has the Supervisor folder role assigned to a folder will be able to do these tasks in that specific folder. See also Role, Global Role, Task.

**G****Global Role**

A collection of global tasks that a user or group is allowed to perform. A user or group that has a specific global role is able to do the tasks in that global role. For example, a global role called Basic User may be defined, which allows basic functionality like accessing information notices and modifying their own user settings. A user or group that has the Basic User global role will be able to do these tasks, provided they have an appropriate Folder Role in any related folder. See also Role, Folder Role, Task.

**Group**

A collection of one or more users who share the same security roles. See also Roles, User.

**H****HCS**

See Hosted Collaboration Solution.

**Hosted Collaboration Solution (HCS)**

A unified communications and collaboration platform for service providers and partners who want to offer Cisco collaboration technologies using hosted and managed models.

**HTML**

See Hypertext Markup Language.

**Hypertext Markup Language (HTML)**

A markup language used to build web pages and other information that can be viewed in a web browser.

**I****Information Notice**

A notice used to inform contact center staff of general information or new announcements.

**Interactive Voice Response (IVR)**

See Voice Response Unit.

**Internal in**

An internal (non-customer) call received by an agent.

**Internal out**

An internal (non-customer) call initiated by an agent.

**IVR**

See Voice Response Unit.

**IVR App**

A voice XML (VXML) application that runs on a CVP IVR app server and is used to control call routing. IVR apps can be created using Cisco Unified Call Studio.

**L****Label**

An identifier, usually a destination number, which is associated with a specific peripheral target or with a specific network target used for call routing purposes.

**Login Name**

The name that a user uses to log on to CCDM. Sometimes called User Name.

**M****Media File**

A .wav file that is used by IVR to play back prompts and messages to callers. Media files are stored on CVP media servers.

**Media Routing Domain (MRD)**

A collection of skill groups and services associated with a particular contact medium, such as voice or email.

**Micro-application**

A VRU function that can be invoked from a Network VRU Script, to communicate with the caller, for example, to play a message to the caller, or to retrieve digits that the caller has entered on the keypad.

**MRD**

See Media Routing Domain.

**N****Network VRU**

See Voice Response Unit.



**Network VRU Script**

A script that runs on a Network VRU. One or more Network VRU scripts may be called by a Unified ICME routing script to handle the interaction with the caller and hence route the call appropriately.

**Not Ready**

A call state in which the logged in agent is not involved in call activities but is also not ready to accept calls.

**P****Peripheral**

A device or switch that routes customer phone calls to contact center staff. The term peripheral is also used to describe parts of a contact center enterprise that receive calls from the device (see also Peripheral Agent, Peripheral Service and Peripheral Skill Group).

**Peripheral Gateway (PG)**

Software developed by Cisco Systems that enables the Unified CCE to communicate with other network devices such as an ACD, IVR or PBX.

**Peripheral Service**

A group of contact center agents that receive calls routed from the same peripheral device and provide a specific customer service, such as technical support.

**Peripheral Skill Group**

See Skill Group.

**Person**

The representation of a physical person on the contact center system. A person may be linked to a CCDM Login Name and to one or more Agents. See also Agent, Login Name.

**PG**

See Peripheral Gateway.

**Precision Attribute**

See Attribute.

**Precision Queue**

A mechanism that defines how to route calls to agents depending on the agents' proficiency attributes and availability. Precision queues can be referenced in routing scripts to define how calls are routed. A precision queue consists of one or more precision queue steps.

**Precision Queue Step**

See Precision Queue.

**Prefix**

A character or characters added to a folder to specify where to place imported resources.

**Prefix Rule**

A rule that specifies where to locate imported items that have a specified prefix.

**R****Ready (agent state)**

An agent state where an agent is logged in and available to receive a call.

**Ready (resource state)**

A resource state where a resource is active in the system and has no pending edits to be applied.

**Remote Resource**

A resource that exists on the remote equipment. Some remote resources can be created or edited in CCDM and provisioned onto the remote system. Other remote resources can be accessed by CCDM but cannot be created, edited or provisioned in CCDM. A remote resource is always associated with a tenant. See also Resource, CCDM Resource.

**Remote Tenant**

A tenant that exists on remote equipment.

**Reserved**

A call state in which an agent is waiting for a specific call and is unavailable to take general incoming calls.

**Resource**

An entity that represents an asset belonging to a customer, for example, a dialed number, an agent, a call route. Resources are stored in folders. Also see Remote Resource or CCDM Resource.

**Role**

A collection of tasks that are commonly performed by the same group of people (for example, defined by their business role or position). A role can be a Global Role (defining a collection of general tasks) or a Folder Role (defining a collection tasks that are associated with folders). See also Folder Role, Global Role and Task.

**S****Script**

A program that performs a specific simple, repeated task such as determining where to route a call.

**Service**

A particular type of call processing required by the user, which is associated with a specific peripheral. Skill Groups may be associated with one or more services. For example, a Customer Support service might be associated with a Customer Support Skill Group.

**Skill Group**

An organizational association of contact center agents sharing common talents (for example, technical or language abilities). Skill groups are associated with a particular peripheral and allow the Unified CCE to route calls to the most appropriate available agent. Several skill groups at different contact centers are served by different peripherals and may be collectively combined in an Enterprise Skill Group.

**State (resource)**

The provisioning status of a resource. There are five states: Pending Active, Error, Ready, Delete Pending and Deleted.

**Supervisor**

A person responsible for a team of agents. A supervisor can add and remove agents and view statistics for the team that they supervise. A supervisor may also be an agent. See also Agent Team.

**System Administrator**

The highest level of user in the management system. The System Administrator is responsible for creating more users and granting user permissions and access permissions.

**System Resource**

See CCDM Resource.

**T****Task**

An action that a user may or may not be able to perform, depending on the security permissions they have been assigned. The task may be a global task (for example, running the Security Manager tool, provisioning an agent) or a task that is associated with a folder (for example, creating a user in a specific folder, managing information notices in a specific folder). Tasks are collected together to create Roles. See also Folder Role, Global Role and Role.

**Tenant**

The CCDM representation of a real world organizational unit. Tenants are used to group contact center resources in isolation, providing customers with a security partitioning mechanism.

**Tenant Folder**

A folder exclusive to a particular tenant. It is the same as a system folder except that a tenant folder does not inherit the security permissions of a parent folder and is a stand-alone entity. Compare with Folder.

**Toolbar**

In the CCDM GUI, a row of one or more buttons at the top of a panel that shows a list of functions or options. These buttons are used to access the various functions and options available to the user.

**Top Menu**

In the CCDM GUI, the options shown at the top right of all pages. These commonly include Home, Tools, Help, Settings and Logout, and may be customized.

**Transfer**

A call forwarded to an agent.

**Trunk**

A collection of telephone lines associated with a single peripheral and usually used for a common purpose.

**U****Unified CCE**

See Cisco Unified Contact Center Enterprise.

**Unified CM**

See Cisco Unified Communications Manager.

**Unified CVP**

See Cisco Unified Customer Voice Portal.

**User**

A CCDM user, identified by a Login Name.

**User Variable**

A named object which can hold a value. User variables are used in routing scripts.

**V****Voice Response Unit (VRU)**

A device capable of automatically routing a call using a customer's replies to a series of prompted messages. A VRU may respond directly to a customer's voice or to a sequence of caller entered digits. Also called Interactive Voice Response Unit (IVR).

**VRU**

See Voice Response Unit.

**X****XML**

See Extensible Mark-up Language.