Provision of Unified CCX

RmCm Provider Configuration

The Unified CCX Resource Manager (RM) uses a Unified CM Telephony user (called the RmCm Provider) to monitor agent phones, control agent states, and route and queue calls. For information on adding Unified CM users, see section "Access Control Group Overview" section in the *Cisco Unified Communications Manager Administration Guide* available here:

https://www.cisco.com/c/en/us/support/unified-communications/unified-communications-manager-callmanager/products-maintenance-guides-list.html.

Note The RmCm user specified through Unified CCX Administration is updated automatically in Unified CM.

RmCm Provider Modification

Note This section only applies to Unified CCX deployments with Unified CM.

Caution While Unified CM supports Unicode characters in first and last names, those characters become corrupted in Unified CCX Administration web pages for RmCm configuration and real-time reporting .

The RmCm Provider web page is a read-only page that displays the latest configured information. To access this configuration area, choose **Subsystems** > **RmCm** > **RmCm Provider** from the Unified CCX Administration menu bar. The RmCm Provider web page opens, displaying the following read-only fields.

Field	Description
Primary RmCm Provider	The hostname or IP address of the server, running CTI Manager (Unified CM that runs CTI Manager). The RmCm subsystem registers with the CTI Manager so that it can observe an agent's device when the agent logs in. When the CTI Manager fails, the RmCm subsystem registers with the second CTI Manager, if there is one configured.
Secondary RmCm Provider	The hostname or IP address of the secondary RmCm Provider.
User ID	The RmCm user ID.

To modify the RmCm Provider, click **Modify RmCm Provider Information** icon in the tool bar in the upper, left corner of the window. The Cisco Unified CM Configuration web page opens.

Associating Agent Extensions with the RmCm Provider

Note This section only applies to Unified CCX Deployments with Unified CM.

For every agent/resource created in Unified CM, make sure that the agent phone is also associated with the RmCm Provider. You do this from the Unified CM User Page for the RmCm Provider. In other words, even though you *create* the RmCm User in Unified CCX Administration, you still need to use the Unified CM interface to *associate* the RmCm user with an agent phone. These phones are the same as those associated with each agent.

Note If you use Extension Mobility (EM), ensure that the IPCC extension is associated with the Extension Mobility (EM) User Device Profile (UDP) and not to the physical phone. The Extension Mobility (EM) profile needs to be associated with the RmCm user and the physical phones that the agents may be expected to use should not be associated to the RmCm user.

Related Topics

Modify Unified Communications Manager Telephony Information

Resource Groups

Resource groups are collections of agents that your CSQ uses to handle incoming calls. To use resource group-based CSQs, you must specify a resource group.

Create Resource Group

To create a resource group, complete the following steps.

Procedure

Step 1 From the Unified CCXAdministration menu bar, choose **Subsystems** > **RmCm** > **Resource Groups**.

The Resource Group web page opens with a list of configured resource groups (if any).

Step 2 Click **Add New** icon in the tool bar in the upper, left corner of the window or **Add New** button at the bottom of the window.

The Resource Group Configuration area opens.

Step 3 In the Resource Group Name field, enter a resource group name.

Enter a name that identifies the resource group to which you want to assign agents (for example, "Languages").

Step 4 Click **Add**.

The Resource Groups page opens displaying the resource group name in the Resource Group Name column.

Modify Resource Group Name

To modify a resource group name, complete the following steps.

Procedure

Step 1 From the Unified CCXAdministration menu bar, choose **Subsystems** > **RmCm** > **Resource Groups**.

The Resource Group web page opens.

Step 2 In the Resource Group Name column, click the resource group that you want to modify.

The Resource Group Configuration area opens.

Step 3 Type the name of the resource group in the Resource Group Name text field.

Step 4 Click **Update** to apply the modifications.

The Resource Groups area opens, displaying the modified resource group name in the Resource Group Name column.

Delete Resource Group

When you delete a resource group, the resource group is removed automatically if it is not associated with any agents and CSQs. If the resource group is associated with any agents or CSQs and if you click **Delete**,

you will be directed to another web page, where you can see a list of the associated CSQs and agents, and you are prompted to confirm whether you want to delete the same.

Tip To delete resource groups, you can use the following procedure or open a Resource Group and click the **Delete** icon or button in the Resource Group Configuration web page.

To delete a resource group, complete the following steps.

Procedure

Step 1 From the Unified CCXAdministration menu bar, choose **Subsystems** > **RmCm** > **Resource Groups**.

The Resource Group web page opens.

Step 2 Click **Delete** icon next to the name of the Resource Group that you want to delete.

A dialog box opens, warning that the resource group is about to be permanently deleted.

Step 3 Click **Continue**.

The resource group is deleted.

Skills Configuration

Skills are customer-definable labels assigned to agents. All the Unified CCX license packages can route incoming calls to agents who have the necessary skill or sets of skill to handle the call.

Create a Skill

To create a skill, complete the following steps.

Procedure

Step 1 From the Unified CCXAdministration menu bar, choose **Subsystems** > **RmCm** > **Skills**.

The Skills web page opens to display the Skill Name (customer-definable label assigned to an agent), if configured.

Step 2 Click **Add New** icon in the tool bar in the upper, left corner of the window or **Add New** button at the bottom of the window.

Note When the system reaches the maximum number of skills that can be created, the **Add New** icon or button no longer appears.

The Skill Configuration web page opens.

Step 3 In the Skill Name field, enter a description of a relevant skill (for example, French).

Note   Unified CCX does not support the following special characters for Skill name.

Table 1: Unsupported Characters in Skill and CSQ Name

Symbol	Description	Symbol	Description
`	apostrophe	~	tilde
!	exclamation mark	@	at sign
$	dollar	%	percent
^	circumflex	&	ampersand
*	asterix	()	parentheses
=	equals sign	[]	square brackets
{}	braces	;	semicolon
\	backslash	?	question mark
"	double quotes	<>	angle brackets
'	single quote	+	add
|	pipe	:	colon
.	period	/	forward slash
,	comma	#	hash

Step 4   Click **Add**.

The Skills web page opens, showing the skill in the Skill Name column and the total number of skills that exist in the system. You can add a maximum of 150 skills.

Modify a Skill Name

To modify a skill name, complete the following steps.

Procedure

Step 1   From the Unified CCXAdministration menu bar, choose **Subsystems** > **RmCm** > **Skills**.

The Skills web page opens.

Step 2   In the Skill Name column, click the skill that you want to modify.

The Skill Configuration web page opens.

Step 3   Modify the name of the skill in the Skill Name text field.

Note	Unified CCX does not support special characters for the skill name. To see the list of unsupported characters, see Table 1: Unsupported Characters in Skill and CSQ Name, on page 5.
	If you have upgraded to Unified CCX Release 12.5(1) and above and are facing errors when making changes to the Skill name, remove the special characters and modify the skill name.

Step 4 Click **Update** to apply the modifications.

The Skills Configuration summary opens, displaying the modified skill name in the Skill Name column.

Delete a Skill

When you delete a skill, the skill is removed automatically if it is not associated with any agents and CSQs. If the skill is associated with any agents or CSQs and if you click **Delete**, you are directed to another web page, where you can see a list of the associated CSQs and agents, and you are prompted to confirm whether you want to delete the same.

Tip	To delete a skill, you can use the following procedure or open a skill and click **Delete** icon or button in the Skills Configuration web page.

To delete a skill, complete the following steps.

Procedure

Step 1 From the Unified CCXAdministration menu bar, choose **Subsystems** > **RmCm** > **Skills**.

The Skills web page opens.

Step 2 Click the **Delete** icon next to the name of the skill that you want to delete.

A dialog box opens, warning that the skill is about to be permanently deleted.

Step 3 Click **Continue**.

The skill is deleted.

Agent Configuration

Once the end users in Cisco Unified Communications[1] are defined as agents, the list of agents and their associated Unified CCX devices are displayed in the **Subsystems** > **RmCm** > **Resources** page. These agents are also called resources. After you create a resource group, you can assign agents (resources) to that group.

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[1] Unified Communications users in a Unified CM deployment refers to a Unified CM user.

You can add skills to agents once the skills have been created. You can also select the competence level of agents in assigned skills. Competence level indicates agent level of expertise in that skill.

You can assign resource groups and skills to agents either individually or in bulk. The bulk option enables you to assign skills and resource groups to multiple agents at the same time.

Once you assign agents to resource groups and skills, you can create a CSQ.

Warning   After an agent is added, wait for 10 minutes for Unified CCX to automatically synchronize or force synchronization before the agent can sign in to Cisco Finesse.

The maximum allowed length of an agent's IPCC Extension is 15.

Special Characters

- Unified CM supports the use of special characters—square brackets ([ ]), dollar ($), ampersand (&), single quotes (' '), colon (:), angle brackets(< >), forward slash (/), question mark (?), backward slash (\), parentheses ({ }), double quotes(" "), hash(#), percent (%), semicolon (;), comma (,), pipe (|), tilde(~) and space in a user ID when you configure end users. However, Unified CCX restricts the use of these characters when you configure end users as agents or supervisors.

- Unified CCX does not support the use of special characters—square brackets ([ ]), dollar ($), ampersand (&), single quotes (' '), colon (:), angle brackets(< >), forward slash (/), question mark (?), backward slash (\), parentheses ({ }), double quotes(" "), hash(#), percent (%), semicolon (;), comma (,), pipe (|), tilde(~), period (.).

- With Cisco Finesse for Unified CCX, agent IDs (or usernames) are case-sensitive and can contain letters, numbers, hyphens (-), underscores (_), at (@), and periods (.) They cannot begin or end with a period or contain two periods in a row. Finesse agent usernames are restricted to 7-bit printable ASCII characters (any of the 94 characters with the numeric values from 33 to 126). They do not support double quotes (" "), forward slash (/), backward slash (\), square brackets ([ ]), colon (:), semicolon (;), pipe (|), equal to (=), comma (,), add (+), star (*), question mark (?), angle brackets (< >), hash (#), percent (%), SPACE and the characters restricted by Unified Communications Manager and Unified CCX.

- Finesse agent passwords are restricted to 7-bit printable ASCII characters (any of the 94 characters with the numeric values from 32 to 126). They do not support control characters (for example, Tab) or international characters.

- Agent Alias name now supports the use of SPACE in the name.

Implications of Deleting Agents in Unified CM

If you modify an agent's record in Unified CM (for example, changing the Unified CCX extension or deleting the agent), ensure to refresh the user page on Unified CCX Administration interface so that the agent information in the Unified CCX RmCm subsystem is updated. Choose **Subsystems** > **RmCm** > **Resources** option to update the Unified CCX information in the Unified CCXAdministration any time. If you change the Unified CCX extension of an agent who is currently logged in, the agent will continue to use the old extension until the agent logs off. The agent must log off and then log back in to the Cisco Finesse desktop to get the new extension. When Unified CCX performs an agent sync and detects that the agent no longer exists in Unified CM, the contact is marked as inactive in the **Resource** table of the Unified CCX Historical Reporting Database (db_cra). The resource is not deleted as the resource information is referenced for the HR reports.

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Caution   Deleting Inactive Agents removes the agent details and records from the Historical Reporting Database, and HR reports will not display historical information of these agents.

If Unified CM connection errors have occurred, all agents will not be visible to Unified CCX. In this case, Unified CCX interprets these agents as deleted agents. As a result, the Inactive Agents list will not be accurate. When the errors are resolved, click **Inactive Agents** again to see an accurate list.

Assign Resource Groups and Skills to One Agent

To assign a resource group and skills to an individual agent, complete the following steps.

Procedure

Step 1   From the Unified CCXAdministration menu bar, choose **Subsystems** > **RmCm** > **Resources**.

The Resources web page opens.

Note   Only agents or supervisors who have assigned Unified CCX extensions are displayed in the list of resources in the Resources area.

Step 2   Click the name of the agent in the Resource Name column.

The Resource Configuration web page opens.

Step 3   Specify the following fields.

Field	Description
Resource Name	Name of the agent (display only).
Resource ID	Unique identifying number of the agent (display only). This is the alpha-numeric user id assigned in the Unified CM End User Configuration page.
Unified CCX Extension	Unified CCX Extension assigned to the resource group (display only). This is the IP Phone extension assigned to the user from the Unified CM End User Configuration page as IPCC Extension.
Resource Group	A resource group with which to associate the agent (optional).
Automatic Available	Accept the default (**Enabled**) to automatically put the agent into the Available or Ready state after the agent finishes a call and disconnects.
	Note When a logged on agent in Ready, Not Ready, or Work state answers a call, the agent state is subject to the Automatic Available setting.

Field	Description
Assigned/Unassigned Skills	Select one or more skills from the Unassigned Skills list and click < to add the skills to the Assigned Skills List.
	Select one or more skills from the Assigned Skills List and click > to remove skills from the Unassigned Skills list.
	You can assign up to 50 skills to the agent.
Competence Level	Select a skill from the Assigned Skills list and choose a number from the Competence Level drop-down menu
	Changes the competence level of an assigned skill (1 = Beginner, 10 = Expert).
	Note You can change the competency level one skill at a time, only. You cannot change skill competency level as a bulk procedure.
Team	A group of agents who assign the team to which the resource belongs.
Agent Alias	Agent alias is the name used instead of the agent ID when an agent chats with a customer. This option is available only when Finesse is used by the chat agent.

Step 4   Click **Update** to apply the changes.

The Resources area of the RmCm Configuration summary web page opens, and the agent is now assigned to the resource group and skills (if skills were assigned).

Assign Resource Groups and Skills to Multiple Agents

To assign resource groups and skills to agents in bulk, complete the following steps.

Procedure

Step 1   From the Unified CCXAdministration menu bar, select **Subsystems** > **RmCm** > **Assign Skills**.

The Assign Skills summary web page opens.

Tip   Only agents or supervisors who have assigned Unified CCX extensions are displayed in the list of resources in the Resources area.

Step 2   In the Resource Name column, check the check box beside each agent to whom you want to assign set of same resource group and skills. In the Resource Name column, check the check box next to each agent you want to assign set of same resource group and skills.

Note   You can check the **Select All** check box to select all agents.

The Skill summary web page shows the total number of skills created.

Step 3   Click **Add Skill** icon that displays in the tool bar in the upper, left corner of the window or the **Add Skill** button that displays at the bottom of the window.

The Add Skill web page opens.

Step 4 Specify the following fields.

Field	Description
Resource Group	To assign a resource group to all the selected agents, choose a resource group from the Resource Group drop-down menu.
Skills to Add	Select one or more skills from the Skills list and click < to add the skills to the Skills to Add List. **Note** The Skills to Add list contains all skills, not just the skills that agents already have.
Skills	List of the available skills.
Competence Level	Select a skill from the Assigned Skills list and choosing a number from the Competence Level drop-down menu

Step 5 Click **Update** to apply the changes.

The Assign Skills area of the RmCm Configuration web page opens, and the agents are now assigned to the resource group and their skills (if skills were assigned).

Remove Skills from Agents

Note If a resource is not assigned a skill that you attempt to remove, the resource is not updated. However, the system will still generate a related message.

To remove skills from agents, complete the following steps.

Procedure

Step 1 From the Unified CCXAdministration menu bar, choose **Subsystems** > **RmCm** > **Assign Skills**.

The Assign Skill summary web page opens.

Step 2 In the Resource Name column, click the check box next to the agent you want to remove skills from.

Note You can click **Select All** check box to select all agents.

Step 3 Click **Remove Skill** icon that displays in the tool bar in the upper, left corner of the window or the **Remove Skill** button that displays at the bottom of the window.

The Remove Skill Configuration web page opens.

Step 4   Remove skills by choosing one or more skills from the Skills list and clicking > to move the skills to the Skills to Remove list.

Step 5   Click **Update** to apply the changes.

The Assign Skills area of the RmCm Configuration web page opens, and the agents are no longer assigned to the skills.

Contact Service Queue Configuration

The Contact Service Queue (CSQ) controls incoming calls by determining where an incoming call should be placed in the queue and to which agent the call is sent.

After you assign an agent to a resource group and assign skills, you need to configure the CSQs.

You assign agents to a CSQ by associating a resource group or by associating *all* skills of a particular CSQ. Agents in the selected resource group or who have *all* the selected skills are assigned to the CSQ.

Skills within the CSQ can be *ordered*. This means, when resources are selected, a comparison is done based on the *competency* level (highest for "most skilled" and lowest for "least skilled") of the first skill in the list. If there is a "tie" the next skill within the order is used, and so on.

Skills within the CSQ can also be *weighted*. The weight value is an integer from 1 to 1000. Each competency level is multiplied by the skill's associated weight, and a final comparison is done on the sum of all the weighted skill competencies (highest value for "most skilled" and lowest value for "least skilled"). The maximum number of CSQs in the system depends on the type of server on which the engine is running.

For more information, see the Unified CCX Data Sheets at https://www.cisco.com/c/en/us/products/contact-center/unified-contact-center-express/datasheet-listing.html

Each agent can belong to up to 25 CSQs. To ensure that agents are not assigned to more than 25 CSQs, click **Resources** submenu option in the RmCm Configuration web page, and click **Open Resources Summary Report** icon. The report opens, listing each agent and the number of CSQs to which the agent belongs. If the agent belongs to more than 25 CSQs, modify the skills and resource groups to which the agent is assigned so that the agent does not belong to more than 25 CSQs.

Create a Contact Service Queue

To create a new CSQ and assign agents, complete the following steps.

Procedure

Step 1   From the Unified CCXAdministration menu bar, choose **Subsystems** > **RmCm** > **Contact Service Queues**.

The Contact Service Queues web page opens.

Use this web page to view the following fields:

Field	Description
Name	Name of the resource or skill group.

Field	Description
Contact Queuing Criteria	Algorithm used to order the queued calls (contacts).
Resource Pool Selection Model	The resource selection criteria chosen for this CSQ.
Resource Pool	The skills or resource group used for this CSQ.
CSQ Type	The type of the CSQ.
Delete	Deletes the selected CSQ.

Step 2 Click **Add New** icon that displays in the tool bar in the upper, left corner of the window or the **Add New** button that displays at the bottom of the window.

The Contact Service Queue Configuration web page opens.

Note If this link does not appear on the page, it means that the system has reached the maximum number of CSQs that can be created. The CSQ Summary page displays the total number of created CSQs.

Step 3 Use the Contact Service Queue Configuration web page to specify the various fields. For more information on the fields, see **Contact Service Queue Configuration Web Page**.

Step 4 Click **Next**.

The second Contact Service Queue Configuration area opens with the newly-assigned CSQ Name.

Step 5 Select an option from the Resource Selection Criteria drop-down menu.

Note The Resource Pool Selection Model settings determine the options available in this drop-down menu.

- **Longest Available**—Selects the agent who has been in the Available state for the longest amount of time.

- **Most Handled Contacts**—Selects the agent who has handled the most calls.

- **Shortest Average Handle Time**—Selects the agent who generally spends the least amount of time talking to customers.

- **Most Skilled**—Used for expert agent call distribution. Selects the agent with the highest total competency level. The total competency level is determined by adding the agent's competency levels for each of their assigned skills that are also assigned to the CSQ.

  - Example 1: If Agent1 is assigned Skill1(5), Skill2(6), and Skill3(7) and CSQ1 specifies Skill1(min=1) and Skill3(min=1), the total competency level for Agent1 for CSQ1 is 12.

  - Example 2: If Agent1 is assigned Skill1(5) and Skill2(6) and Skill3(7) and CSQ1 specifies Skill1(min=1), only, the total competency level for Agent1 for CSQ1 is 5.

- **Least Skilled**—Used for expert agent call distribution. Selects the agent with the lowest total competency level. The total competency level is determined by adding the agent's competency level in each assigned skill.

- **Most Skilled by Weight**— Used for expert agent call distribution. Selects the agent with the highest total competency level multiplied by the skill's associated weight.

- **Least Skilled by Weight**—Used for expert agent call distribution. Selects the agent with the lowest total competency level multiplied by the skill's associated weight.

- **Most Skilled by Order**— Used for expert agent call distribution. Selects the agent with the highest total competency level in the ordered list.

- **Least Skilled by Order**— Used for expert agent call distribution. Selects the agent with the lowest total competency level in the ordered list.

Note   If two or more agents have equal competency level, the selection automatically defaults to **Longest Available** selection criteria.

Step 6   Specify the following settings, as necessary:

Note   The Resource Pool Selection Model setting determines the availability of these options.

a) Use the Select Skills list to highlight the skills you want; click the **Add** button next to the list.
b) Specify a Minimum Competence Level for the skills assigned to the CSQ. Depending on the Resource pool criteria you chose, specify a Weight value between 1 and 1000.
c) If the Resource Selection Criteria is Most Skilled by Order or Least Skilled by Order, use the arrow icons to order the skills by moving them up or down in the list.

Note   Use the **Delete** icon next to a skill to delete that skill from the Skills Required list.

Step 7   If you selected one of the Least/Most Skilled options as shown in the list below for the Resource Selection Criteria, you can view the agent order using **Show Resources** icon or button.

Note   The order of the agents determines the priority, with the agent at the top of the list having the highest priority.

To change the order of the agents belonging to the CSQ, you should modify the skill set of the agents. The Least/Most Skilled Resource Selection Criteria option comprises the following:

a) Most Skilled
b) Least Skilled
c) Most Skilled by Order
d) Least Skilled by Order
e) Most Skilled by Weight
f) Least Skilled by Weight

Step 8   If you selected *Resource Groups* as the Resource Pool Selection Model on the previous page, follow these steps:

a) Select an option from the Resource Selection Criteria drop-down menu.

- **Longest Available**—Selects the agent who has been in the Available state for the longest amount of time.

- **Linear**—Selects the next available agent with the highest priority, as determined by the agent order in the Resources list.

- **Circular**—Selects the next available agent with the highest priority, based on the last agent selected and the agent order in the Resources list.

- **Most Handled Contacts**—Selects the agent who has handled the most calls.

- **Shortest Average Handle Time**—Selects the agent who generally spends the least amount of time talking to customers.

b) Choose the resource group for this CSQ from the Resource Group drop-down menu.

c) Click **Show Resources** icon to show all agents who meet the specified criteria.

d) If you selected *Linear* or *Circular* as the Resource Selection Criteria, if necessary, rearrange the order of agents in the Resources list by highlighting an agent and using the up and down arrows to move the agent in the list.

e) Click **Add** to apply changes and update the system.

The new CSQ is now displayed, and all agents who belong to the resource group or all selected skill groups are now a part of this CSQ.

Related Topics

Contact Service Queue Configuration Web Page

Contact Service Queue Configuration web page:

Field	Description
Contact Service Queue Name	Enter a meaningful name that is concise, yet easy to recognize (for example, Language Experts). This is a mandatory field. **Note** Unified CCX does not support special characters for the Call Service Queue name. To see the list of unsupported characters, see Table 1: Unsupported Characters in Skill and CSQ Name, on page 5.
Contact Service Queue Type	Display only. Voice—Agents in this CSQ can handle inbound and outbound voice calls.
Contact Queuing Criteria	Display only. Displays the criteria used for queuing the contacts. For example, First In, First Out (FIFO).
Automatic Wrapup	Determines whether agents handling calls that are routed through this CSQ automatically enter the Wrapup state when a call ends. This field is mandatory. Options are: • Enabled—Agents associated to a CSQ that has the Automatic Wrapup option enabled, enter the Wrapup state automatically when on a call. CSQ ends. If agents are associated to a CSQ that has the Automatic Wrapup option disabled handle transferred calls that were originally delivered by a CSQ that has Automatic Wrapup enabled, they also enter the Wrapup state automatically when a call ends. • Disabled (default)—Agents enter Ready or Not Ready state when a call ends, depending on the Automatic Available setting.

Field	Description
Wrapup Time	Determines the length of the Wrapup state for this CSQ when a call ends. Options are: • Enabled button with Seconds field—The Seconds field specifies the length of the Wrapup state phase. • Disabled—No limit on how long the agent can stay in the Wrapup state.
Resource Pool Selection Model	Select one of the following options from the drop-down menu: • Resource Skills—To create a skills-based CSQ. • Resource Group—To create a resource group-based CSQ. This is a mandatory field.
Service Level	The target maximum number of seconds a call is queued before it is connected to an agent. This is a mandatory field.
Service Level Percentage	The target goal for percentage of contacts that meet the service level. This is a mandatory field. For example, a call center that has a service level of 20 and a service level percentage of 80 percent has a goal of answering 80 percent of its calls within 20 seconds.
Prompt	.wav prompt file to associate with the CSQ. You can retrieve the prompt file that you select from this **Prompt** drop-down list using the Create CSQ Prompt Step in the Unified CCX Editor. In the Unified CCX Editor, Create CSQ Prompt Step is one of the steps used to create scripts for the Unified CCX engine. In this step, you need to give the CSQ ID that is displayed as the last number in the AppAdmin address bar of the web page that is displayed when you click on an existing CSQ. For example, the CSQ ID will be 3 if the address bar of an existing CSQ Configuration web page ends with "&csdid=3". When the script executes, it will return the prompt associated with the specific CSQ ID. Use the Play Prompt Step within the script to play this prompt. See the *Cisco Unified CCX Editor Step Reference Guide* for detailed information on scripting. **Note** The Prompt field is available only if you have licensed the Cisco Unified CCX Enhanced or Premium product package.

Related Topics

Wrap-Up Reasons

Modify a Contact Service Queue

Note Changes take effect when all agents affected by the changes have left the Ready state. Emails Contact Service Queues cannot be modified. It is for display only.

To modify an existing CSQ, complete the following steps.

Procedure

Step 1 From the Unified CCXAdministration menu bar, choose **Subsystems** > **RmCm** > **Contact Service Queues**.

The Contact Service Queues web page opens.

Step 2 In the Name list, click the CSQ that you want to modify.

The Contact Service Queue Configuration page opens.

Step 3 Modify the Contact Service Queue Configuration information as necessary.

Note If you change an existing CSQ name, the old name still exists in the HR reports and the CSQ is not removed even if all the data is purged.

Step 4 Click **Next** icon that displays in the tool bar in the upper, left corner of the window or the **Next** button that displays at the bottom of the window to view and update the remaining fields.

Step 5 Click **Update** icon in the top of the window or the **Update** button that displays at the bottom of the window to apply the modifications.

Note Ensure that the **Resource Selection Criteria** is changed only when there are no agents signed in. If there are active agents, these changes take effect only when all the active agents sign out and sign in again.

Delete a Contact Service Queue

When you delete a CSQ, any skills or resource groups assigned to that CSQ are automatically removed from the CSQ, and any application using that CSQ can no longer access it. Before deleting the CSQ, change the applications to use a different CSQ. If the application is using a CSQ when the CSQ is deleted, new incoming calls will get an error and existing queued calls will not be routed to agents.

Note • Existing Email Contact Service Queues can be deleted.

To delete a CSQ, complete the following steps.

Procedure

Step 1 From the Unified CCXAdministration menu bar, choose **Subsystems** > **RmCm** > **Contact Service Queues**.

The Contact Service Queues web page opens.

Step 2 Click the **Delete** icon next to the name of the CSQ that you want to delete.

Note	You can also delete a CSQ from its Contact Service Queue Configuration page using the Delete icon or button.

Resource Pool Selection Criteria: Skills and Groups

The resource selection criteria available for CSQs with Resource *Skills* is different from that of CSQs with Resource *Groups*.

Example—In a banking application with two skills (Banking and CreditCard) and one Resource Group (General Queries), assume that the following agents, skills, and resource groups are defined:

Agent ID	Assigned Skills	Resource Group
Agent1	Banking (Competence Level 10) CreditCard (Competence Level 6)	GeneralQueries
Agent2	Banking (Competence Level 5) CreditCard (Competence Level 10)	GeneralQueries
Agent3	None	GeneralQueries

In addition, suppose you had the following Contact Service Queue information defined:

Table 2: Agent Skill and Resource Group Settings

CSQ Name	Resource Pool Selection Model	Resource Selection Criteria	Skill/Competence	Available Agents
CSQ1	Resource Skills	Most Skilled	BankingMinimum competency: 5	Agent1 Agent2
CSQ2	Resource Skills	Most Skilled	CreditCardMinimum competency: 5	Agent1 Agent2
CSQ3	Resource Group	Longest Available	GeneralQueries	Agent1 Agent2 Agent3

In this scenario, if a caller calls with a question about CreditCard information and there are no CSQs currently available with CreditCard skills (that is, Agent1 and Agent2), there is a possibility for Agent3—who has no CreditCard skill—to get selected as the Longest Available Agent.

To avoid such a situation, you could design the script to always look into CSQ2 for available agents since it has the highest competency of 10 for CreditCard, and agent selection here is based on most skilled.

Note	If two or more agents have equal competency level, the selection automatically defaults to **Longest Available** selection criteria.

Resource Skill Selection Criteria within a Contact Service Queue

Resource selection *within* a CSQ is based on the resource competency levels of the skills associated to the CSQ. You can choose between the most and least skilled.

The Unified CCX system defines a Level 10 competency to be the highest skill level, while a Level 1 denotes the lowest skill level. When more than one skill is involved, each skill is given the same weight, meaning no preference is given to any skill. A comparison is performed on the sum of all the competency levels for the associated skills. (Skills assigned to resources but not associated to the CSQ are ignored.) In the case of a tie when skill competencies are equal, the resource that has been ready for the longest amount of time will be chosen.

The following table provides examples of how Unified CCX selects resources within a CSQ.

Table 3: Resource Skill Selection Criteria

Example	CSQ Skills	Agent Competency Levels	Sequence Agents Become Ready	Selection Order
Most skilled resource selection model	Technical Support	Agent A = 10 Agent B = 10 Agent C = 5	A, B C	A, B, C
			C, A, B	A, B, C
			A, C, B	A, B, C
			C, B, A	B, A, C
Least skilled resource selection model	Technical Support	Agent A = 10 Agent B = 10 Agent C = 5	A, B, C	C, A, B
			C, A, B	C, A, B
			A, C, B	C, A, B
			C, B, A	C, B, A
Note	The ordering in the two examples above are not opposite because the selection criteria has changed from most to least skilled—when competency levels are equal, both selection models choose the resources that have been available for the longest time.			
Most skilled resource selection model	SalesSupport	Agent A = Sales (10) Support (5) Agent B = Sales (5), Support (10) Agent C = Sales (5) Support (1)	A, B, C	A, B, C
			C, A, B	A, B, C
			A, C, B	A, B, C
			C, B, A	B, A, C

Example	CSQ Skills	Agent Competency Levels	Sequence Agents Become Ready	Selection Order
Least skilled resource selection model	SalesSupport	Agent A = Sales (10) Support (5) Agent B = Sales (5), Support (10) Agent C = Sales (5) Support (1)	A, B, C	C, A, B
			C, A, B	C, A, B
			A, C, B	C, A, B
			C, B, A	C, B, A

Configure Agent-Based Routing

Agent-based routing provides the ability to send a call to a *specific* agent, rather than any agent available in a CSQ.

Use the Agent Based Routing Settings web page to configure system-wide parameters to be used in an agent-based routing application.

Procedure

Step 1 From the Unified CCXAdministration menu bar, choose **Subsystems** > **RmCm** > **Agent Based Routing Settings**. The Agent Based Routing Settings area opens.

Note The Agent Based Routing Settings are available only if you are using Unified CCX Enhanced or Premium license packages.

Step 2 Specify the following fields:

Field	Description
Automatic Wrapup	Determines whether agents handling calls that are routed through this CSQ automatically enter the Automatic Wrapup state when a call ends. • Enabled—Agents associated to a CSQ that has the Automatic Wrapup option enabled enter the Wrapup state automatically when on a call. If agents are associated to a CSQ that has the Automatic Wrapup option disabled handle transferred calls that were originally delivered by a CSQ that has Automatic Wrapup enabled, they also enter the Wrapup state automatically when a call ends. • Disabled (default)—Agents enter Ready or Not Ready state when a call ends, depending on the Automatic Available setting.

Field	Description
Wrapup Time	Determines if agents automatically enter Wrapup when a call ends. • Enabled button with seconds field—Controls how long the agent can stay in the Wrapup state if Automatic Wrapup is enabled. The seconds field specifies the Wrapup time length. • Disabled (default)—No limit of how long the agent can stay in the Wrapup state if Automatic Wrapup is enabled.

Step 3 Click **Save** icon that displays in the tool bar in the upper, left corner of the window or the **Save** button that displays at the bottom of the window to apply changes.

Wrap-Up Data Usage

Contact centers use wrap-up data to track the frequency of activities or to identify the account to which a call is charged, and other similar situations. Like reason codes, wrap-up data descriptions are set up by your system administrator to reflect the needs of your contact center. By default this feature is disabled.

Teams Configuration

A *team* is a group of agents who report to the same Supervisor. A team can have one primary Supervisor and optional secondary Supervisors. A Supervisor can also monitor CSQs that are assigned to the team being supervised.

Barge-in is when a Supervisor joins an existing call between an agent and a customer.

Intercept is when the Supervisor joins a call and drops the agent from the call.

A *default team* is automatically created by the system and cannot be deleted. If agents are not assigned to any team, they belong to the default team. When an agent is assigned to a team, the team Supervisor can barge-in and intercept any call being handled by the agent.

Note Before creating a team, you must set up Supervisors using the User Management page.

Note The Advanced Supervisor Capability of Queue Management is removed when:

• Supervisor is not associated to any team.

• Supervisor is not the primary or secondary Supervisor of any team.

• There are no CSQs assigned to the teams associated to the Supervisor.

Note   A team that accesses Live Data reports is limited to 50 agents.

Assign Supervisor Privilege to a User

Perform the following procedure to assign supervisor privilege to a user.

Procedure

Step 1	From the Unified CCX Administration menu, choose **Tools > User Management > User View**.
	The User Configuration page displays the list of all users.
Step 2	Click the user to whom you want to assign supervisor capability.
	The User Configuration page displays information about that user. In the Capabilities section, the left pane displays the list of assigned capabilities and the right pane displays the list of capabilities.
Step 3	Using the left arrow, assign Supervisor capability.
Step 4	Click **Update** to save your changes.

Agents, who have logged in must logout and login again to use supervisor specific features.

For agents with chat or email skill, who have logged in, it may take maximum of 30 mins to reflect the change.

Create Teams

Use the Teams area of the RmCm Configuration web page to create or associate teams with various agents, CSQs, and supervisors.

Procedure

Step 1	From the Unified CCXAdministration menu bar, choose **Subsystems** > **RmCm** > **Teams**.
Step 2	Click **Add New** icon that displays in the tool bar in the upper left corner of the window or the **Add New** button at the bottom of the window.
	The Team Configuration page appears.
Step 3	Enter the **Team Name**.
Step 4	Select the **Primary Supervisor** from the drop-down list.
Step 5	(Optional) Select the secondary supervisor name from the **Available Supervisors** list and use the arrow icon to move it into the **Secondary Supervisors** list.
Step 6	(Optional) To add an agent to this team, select an agent name in the **Available Resources** list and use the arrow icon to move it into the **Assigned Resources** list.
Step 7	(Optional) Select the CSQ name in the **Available CSQs** list and use the arrow icon to move it into the **Assigned CSQs** list to add the CSQ to this team.

Step 8   In the **Team Settings** section, specify the following information:

Parameter Name	Parameter Value	Global Settings
Change Agent State to Not Ready when Agent Busy on Non ACD Line	Radio button that enables the agent state to change from the Ready state to the Not Ready state when the monitored Non ACD lines are used for Incoming or Outgoing calls. The options are: • Enable—Enables the state change of the agent in the team. • Disable (default)—Disables any state change of the agent in the team. • Allow team settings to override global settings—A check box to override the global settings. The global settings is available at **System** > **System Parameters** > **Agent Settings**. **Note** When you select the check box, a popup message reminds you that your team settings are different from the global settings. Click **OK** to proceed or **Cancel** to discard the changes. When you click OK, the team level settings override the global settings.	Displays the global settings.
Auto Answer	Enables the incoming calls to be auto answered. The options are: • Enable with Zip tone—For agents, belonging to the team, all the incoming calls to the IPCC extension is auto answered provided the agent is in the Ready state in the Cisco Finesse desktop. A zip tone plays to alert the agent. • Enable without Zip tone—For agents, belonging to the team, all the incoming calls to the IPCC extension is auto answered provided the agent is in the Ready state in the Cisco Finesse desktop. The zip tone does not play to alert the agent. • Disable (Default)—Auto answer is not enabled.	

Note   • To configure **Change Agent State to Not Ready when Agent Busy on Non ACD Line** at a team level, you must install UCCX 12.5(1) SU1 ES01.

• This functionality is applicable only for the agents and not for the supervisors of the team.

Step 9   Click **Save** to apply changes or **Cancel** to exit.

Modify Teams

Use the Teams area to modify the supervisors, agents, CSQs, or auto answer configuration on an existing Team.

Procedure

Step 1 From the Unified CCXAdministration menu bar, choose **Subsystems** > **RmCm** > **Teams**.

Step 2 Click a name in the **Team Name** column.

The Team Configuration page appears.

Step 3 Select the **Primary Supervisor** from the drop-down list.

Step 4 (Optional) Select the secondary supervisor name from the **Available Supervisors** list and use the arrow icon to move it into the **Secondary Supervisors** list.

To remove the secondary supervisor name from this team, select the supervisor name in the **Secondary Supervisors** list and use the arrow icon to move it into the **Available Supervisors** list. This supervisor now belongs to the default team.

Step 5 (Optional) Select an agent name in the **Available Resources** list and use the arrow icon to move it into the **Assigned Resources** list to add an agent to this team.

To remove an agent from this team, select an agent name in the **Assigned Resources** list and use the arrow icon to move it into the **Available Resources** list. This agent now belongs to the default team.

Step 6 (Optional) Select the CSQ name in the **Available CSQs** list and use the arrow icon to move it into the **Assigned CSQs** list to add the CSQ to this team.
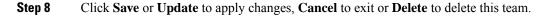
To remove a CSQ from this team, select a CSQ name in the **Assigned CSQs** list and use the arrow icon to move it into the **Available CSQs** list. This CSQ now belongs to the default team.

Step 7 In the **Team Settings** section, specify the following information:

Parameter Name	Parameter Value	Global Settings
Change Agent State to Not Ready when Agent Busy on Non ACD Line	Radio button that enables the agent state to change from the Ready state to the Not Ready state when the monitored Non ACD lines are used for Incoming or Outgoing calls. The options are: • Enable—Enables the state change of the agent in the team. • Disable (default)—Disables any state change of the agent in the team. • Allow team settings to override global settings—A check box to override the global settings. The global settings are available at **System** > **System Parameters** > **Agent Settings**. **Note** When you select the check box, a popup message reminds you that your team settings are different from the global settings. Click **OK** to proceed or **Cancel** to discard the changes. When you click OK, the team level settings override the global settings.	Displays the global settings.
Auto Answer	Enables the incoming calls to be automatically answered. The options are: • Enable with Zip tone—For agents, belonging to the team, all the incoming calls to the IPCC extension is auto answered provided the agent is in the Ready state in the Cisco Finesse desktop. A zip tone plays to alert the agent. • Enable without Zip tone—For agents, belonging to the team, all the incoming calls to the IPCC extension is auto answered provided the agent is in the Ready state in the Cisco Finesse desktop. The zip tone does not play to alert the agent. • Disable (Default)—Auto answer is not enabled.	

Note To configure **Change Agent State to Not Ready when Agent Busy on Non ACD Line** at a team level, you must install UCCX 12.5(1) SU1 ES01.

Step 8 Click **Save** or **Update** to apply changes, **Cancel** to exit or **Delete** to delete this team.

Delete a Team

Use the Teams area of the RmCm Configuration web page to delete an existing Team.

Procedure

Step 1	From the Unified CCXAdministration menu bar, choose **Subsystems** > **RmCm** > **Teams**. The Teams web page opens.
Step 2	Click the **Delete** icon beside the Team Name icon you want to delete. The system prompts you to confirm the delete.
Step 3	Click **OK**.