Contents

- 1 Introduction
  - 1.1 How Does Precision Routing Work?
- 2 Precision Routing Configuration
- 3 Cisco Unified Contact Center Web Administration
  - 3.1 Signing in to CCE Web Administration
- 4 Attributes
  - 4.1 List of Attributes
  - 4.2 Create Attribute
  - 4.3 Edit Attribute
  - 4.4 Delete Attribute
- 5 Agents
  - 5.1 List of Agents
  - 5.2 Edit Agent
- 6 Precision Queues
  - 6.1 Limits
  - 6.2 List of Precision Queues
  - 6.3 Create Precision Queue
  - 6.4 Edit Precision Queue
  - 6.5 Delete Precision Queue
- 7 Scripting
  - 7.1 Precision Queue Script Node
    - 7.1.1 Queue Priority
    - 7.1.2 Configuring a Static Precision Queue
    - 7.1.3 Configuring a Dynamic Precision Queue
    - 7.1.4 Queuing Behavior of the Precision Queue node
- 8 Reporting
  - 8.1 Updated CUIC Report Templates
  - 8.2 New CUIC Report Templates
- 9 Other Unified CCE Gadgets
  - 9.1 Bucket Intervals
    - 9.1.1 List of Bucket Intervals
    - 9.1.2 Create Bucket Interval
    - 9.1.3 Edit Bucket Interval
    - 9.1.4 Delete Bucket Interval
  - 9.2 Configure Deployment
  - 9.3 Deployment Type
    - 9.3.1 Deployment Types
  - 9.4 Progger Deployment
- 10 Related topics

Introduction

Precision Routing is a feature available with Cisco Unified Contact Center Enterprise (Unified CCE), Release 9.0. Precision Routing enhances and can replace traditional routing. Traditional routing looks at all of the skills to which an agent belongs and defines the hierarchy of skills to map business needs. However, traditional routing is restricted by its single dimensional nature. Precision Routing provides multidimensional routing with simple configuration, scripting, and reporting. Agents are represented through multiple attributes with proficiencies so that the capabilities of each agent are accurately exposed, bringing more value to the business.

You can use a combination of attributes to create multidimensional precision queues. Using Unified CCE scripting, you can dynamically map the precision queues to direct a call to the agent that best matches the precise needs of the caller.

Note: Precision Routing is supported only on UCCE Communications Manager PG.

Note: Precision Routing is only supported by inbound Unified CCE agents.

How Does Precision Routing Work?

You can create multidimensional precision queues based on predefined business criteria. Agents automatically become members of these precision queues based on their attributes, dramatically simplifying configuration and scripting.

To implement Precision Routing, you create precision queues and implement in your call routing scripts.

A precision queue includes:

- Terms - A term compares an attribute against a value. For example, you can create the following term: English > 6
- Expressions - An expression is a collection of at least one or more terms. For example, if you require an agent who can speak English, is from Dallas and is proficient in sales, you can create the following expression: English > 6 AND Dallas == TRUE AND Sales > 6. You can create up to ten terms for each expression.
- Steps - A step is a collection of at least one or more expressions. When you create a precision queue, you must configure at least one step. You can configure up to ten steps. A step may also include wait time and a Consider If formula. Use wait time to assign a maximum amount of time for the system to wait for an available agent on a step. Use a Consider If formula to evaluate the step at runtime, for example, if the Caller is a Gold or Bronze level.

Precision Routing Configuration

To configure Precision Routing, you must complete the following tasks:

1. Create attributes.
2. Assign attributes to agents.
3. Create precision queues.
4. Create routing scripts.

Table of Contents

Cisco Unified Contact Center Web Administration

The CCE Web Administration application links to Precision Routing gadgets.

Signing in to CCE Web Administration

1.
From the AW desktop, double-click the **CCE Web Administration** shortcut.
OR
Copy the following URL into your browser:**https://distributor ip/cceadmin.**

1. On the Sign in page, from the **Domain** list, select your domain name.
2. In the **Username** text box, type your username.
3. In the **Password** text box, type your password.
4. Click **OK**. Upon successful sign in, the Homepage appears. If you enter an incorrect Domain, username, or password, an error message appears.

Attributes

Attributes identify a call routing requirement, such as language, location, or agent expertise. You can create two types of attributes: Boolean or Proficiency. Use Boolean attributes to identify an agent attribute value as true or false. For example, you can create a Boston attribute that specifies that the agent assigned to this attribute must be located in Boston. Use Proficiency attributes to establish a level of expertise in a range from 1 to 10, with 10 being the highest level of expertise. For a Spanish language attribute, for example, a native speaker would ideally have a higher proficiency rating.

When you create precision queues, you identify which attributes are part of that queue and then implement the queue in a script. When you assign an attribute to an agent, the agent is automatically associated with all precision queues that contain that attribute and matching criteria.

You can create a maximum of 10,000 attributes in the entire system.

List of Attributes

The Attribute List page lists all of the attributes available in the system. You can do the following:

- Filter the list of attributes by typing the search criteria in the Search field.
- Sort the list of attributes in ascending or descending order by clicking one of the available columns.

Create Attribute

There are two types of attributes: Proficiency and Boolean.

1. In the List of Attributes window, click New.
2. In the **Name** field, type a unique attribute name. For example, to create an attribute for mortgage insurance, type *mortgage*.
3. In the **Description** field, type a description.
4. From the **Type** drop-down list, select the type of attribute, which can be Boolean or Proficiency.

5. From the **Default** drop-down list, select the default of True or False for Boolean or a number for Proficiency.
6. Click **Save**.

Edit Attribute

1. In the List of Attributes window, click the link for attribute name you want to edit. This opens the *Edit Attribute* window.
2. Modify the **Name**, **Description** or **Default**. Note: You cannot modify an attribute type.
3. Click **Save**.

Delete Attribute

1. From the List of Attributes window, click the **X** icon for the attribute you want to delete.
2. Click Yes on the confirmation dialog box.

Table of Contents

Agents

A call center agent is a person who handles incoming or outgoing customer calls for a business. An agent:

- can be located in a call center or designated as a mobile agent who connects to the call center by phone and VPN
- can be configured as a Supervisor, which allows additional privileges and responsibilities such as the ability to generate reports and to assist agents on calls
- can belong to one agent team
- has a desk setting

List of Agents

Use the List page to view or edit agents.

There is a row on this page for each agent, showing the username, Peripheral, last name, first name, and a description for each agent, as well as allowed actions. Every agent username is a hyperlink that opens that agent record for editing.

Enter one or more characters (case-insensitive) in the Search field to limit the list to agents with Usernames and Descriptions that contain those characters.

The list can be sorted by username, last name, first name, and description.

The username maps to the login name in Agent Explorer.

Note: Creating or deleting agents is not supported in UCCE Web Administration gadgets. You can create or delete agents with the Agent Explorer tool found within the Configuration Manager.

Edit Agent

To edit an agent, click the agent username on the List of Agents to open the *Edit Agent* page.

Only Agent Attributes can be updated on this screen (via the **Attributes** tab). All other updates must be made through the Agent Explorer tool within the Configuration Manager.

Attributes shows the attributes associated with this agent and their current values. If the agent has none, the **Name** field shows *No Items Found* and *No Items*.

Click the magnifying glass to open a popup list of all attributes, showing the name and current default value for each. You can:

- Add attributes.
    - Click the attributes you want to add for this agent, up to a maximum of 50.
    - Change the attribute value as appropriate for this agent.
    - Click outside the popup to close it. The attributes you choose appear on the List of Attributes, as well as the total attributes (number of items) for this agent.
- Change the value of an existing attribute value by selecting a different value from the drop-down.
- Click either the **X** icon in the top-right corner of the popup or click outside the popup to return to the list.
- Click the **X** icon for each attribute to remove it from the agent's list.

Click Save to return to the List page, where a message confirms the successful update of the agent.

Table of Contents

Precision Queues

Precision queues are a combination of steps that include attributes, defined terms for the selected attributes, wait times, and Consider If formulas. A precision queue step is a time-based routing point within the precision queue. You must have at least one step and can have up to ten steps.

Within each step you can have:

- up to five unique attributes
- a different pool of agents
- a wait time (except in the last step)
- a Consider If formula (except in the last step)

A precision queue term compares an attribute against a value. For example, if you have an attribute for English (English) and assign it a value of > 7, the term is "English > 7".

Limits

The following limits are enforced:

- You can create a maximum of 2,000 precision queues in the entire system.
- You can create a maximum of 5,000 precision queue steps in the entire system.

- You can associate a maximum of 10 precision queue terms in a precision queue step.
- You can associate up to 5 unique attributes in a precision queue.
- An agent can be a member of a combination of up to 50 precision queues and skill groups.

List of Precision Queues

You can use the List of Precision Queues to:

- View a list of all precision queues.
- View the attributes that are in each precision queue.
- View the total number of configured agents that are assigned to each precision queue.
- Search for specific precision queues based on name or description.
- Create a precision queue.
- Edit a precision queue.
- Delete a precision queue.

Create Precision Queue

Before you create precision queues, ensure that you complete the following prerequisites:

- Create attributes.
- Assign attributes to agents.

Steps:

1. On the Precision Queue Summary page, click the **New** button. The page refreshes and a new page appears.

2. In the Name box, type a name for the precision queue.
   Note: You can enter a combination of up to 32 alphanumeric characters and underscores. Precision queue names are case-sensitive.

3. (Optional) In the Description box, type any useful information about the precision queue that you wish to note. You can use the description to note the logic behind your queue criteria or which call type(s) this queue is designed for.
   Note: You can enter a combination of alphanumeric characters and underscores only.

4. From the **Service Level Type** list, select the service level type to use for reporting on your service level agreement. The default value is **Ignore Abandoned Calls**.
   In the **Service Level Threshold** box, type the time in seconds that calls are to be answered based on your service level agreement.
   Note: The time entered in this box is used to report on service level agreements and does not impact how long a call remains in a precision queue. The length of time a call remains in a step is determined by each individual step wait time.

5. From the **Agent Order** list, select one of the following options to determine which agents receive calls from this queue:

- Longest Available Agent - This represents an agent that has been available the longest.
- Most Skilled Agent - This represents an agent that best matches the terms in a step. This is accomplished by totaling the agent?s proficiency attribute ratings for that step and selecting the agent with the highest value.
- Least Skilled Agent - This represents an agent that least matches the terms in a step. This is accomplished by totaling the agent?s proficiency attribute ratings for that step and selecting the agent with the lowest value.

  The default value is **Longest Available Agent**.

6. (Optional) Bucket Intervals. Select the **Bucket Interval** whose bounds are to be used to measure the time slot in which calls are answered. The field defaults to *Use System Default*. To select a different bucket interval:
   - Click the magnifying glass to display the Select Bucket Interval list.
   - Click the link to select a bucket interval and close the list.
   - Click the **X** icon to clear the selection and reapply *Use System Default*.

7. Click the numbered step builder link (?Step 1?, ?Step 2?, and so on). The Step Builder interface pops up. You must build at least one step before you can save the precision queue. Click the magnifying glass in the **Select Attribute** dialog box and select an attribute. The **Select Attribute** dialog will open with the list of Attributes on the system. You can sort and search through the Attributes. Click on an Attribute name to select it for that term. Click the **X** icon to clear your selection.

8. If you selected a Boolean attribute, from the value list select == (is equal to) or != (does not equal).
   OR
   If you selected a proficiency attribute, from the operator list, select one of the following operators:
   - **==** (is equal to)
   - **!=** (does not equal)
   - **<** (is less than)
   - **<=** (is less than or equal to)
   - **>** (is greater than)
   - **>=** (is greater than or equal to)

     Then, for either attribute type, select a value from the values list.

9. To add an additional term, click **Add Attribute** and return to step 7.
   OR
   To add an additional expression, click the drop down arrow and click **Add Expression** and return to step 7.
   OR
   Proceed to the next step.
   Notes:
   When you add an attribute, you can select **OR** or **AND** to specify the logic between the previous and current attributes. The default value is **AND**.
   When you add an expression, you can select **OR** or **AND** to specify the logic between the previous and current expressions. The default value is **OR**.
   You can add up to 10 expressions or up to 10 terms to a step.
   After you add 10 expressions or 10 terms to a step, the Add Attribute button is disabled.
   To delete a term, click the **X** icon.
   If you are not on the last step of the Precision Queue, then you can enter a Wait Time (in seconds). A call will queue at a particular step looking for an available agent matching the step criteria up until the time specified in the wait time field for that step. A blank (or zero) wait time indicates that the call will immediately proceed to the next step if there are no available agents matching the step criteria.
   If you are not on the last step of the Precision Queue, then you can enter a Consider If formula for

that step.

Consider If expression
You can use a Consider If expression to evaluate a call (within a step) against additional criteria. Each time a call reaches a step with a Consider If expression, the expression is evaluated. If the value for the expression returns as true, the call is considered for the step. If the value returns as false, the call moves to the next step. If no expression is provided for a step, the step is always considered for calls.
Note:You cannot add a Consider If expression to the last step.
To add a Consider If expression, you can type the expression into the Consider If box. Alternatively, you can use the Script Editor to build the expression and then copy and paste it into the Consider If box. Objects used in consider if expressions are case-sensitive. All Consider If expressions that you add to a precision queue must be valid. If you add an invalid expression, you cannot save the precision queue. To ensure that the expression is valid, it is recommended that you use Script Editor to build and validate the expression.
Note: It is possible that a valid Consider If expression can become invalid. For example, if you delete an object used in the expression after you create or update the precision queue, the expression is no longer valid.
Only the following scripting objects are valid in a Consider If expression:

- Call
- PQ
- Skillgroup
- ECC
- PQ Step
- Call Type
- You can use custom functions in a Consider If expression and you can create custom functions (in Script Editor).

Consider If expression examples

- PQ.PQ1.LoggedOn > 1 - Evaluates whether there is more than one agent logged into this queue.
- CallType.CallType1.CallsRoutedToday > 100 - Evaluates whether more than 100 calls of this call type were routed today.
- PQStep.PQ1.1.RouterAgentsLoggedIn > 1 - Evaluates whether there is more than one router agent logged into this queue for step 1.
- CustomFunction(Call.PeripheralVariable1) > 10 - Evaluates whether this expression using a custom function returns a value greater than ten.

1. Click **OK**. The step appears in the precision queue with the agent count. The agent count represents the number of configured agents that match the step criteria.
   Note: As a best practice it is recommended that for a particular step, an equal or greater number of agents are available to select from than in the previous step. If less agents are available to select from, a warning icon appears beside the agent count.

2. To add an additional step, click **Add Step** and then return to step.
   Notes:
   The **Add Step** button is disabled until you add at least one expression to the previous step.
   You can add up to 10 steps. After you reach 10 steps, the **Add Step** button is disabled.
   To delete a step, click the **X** icon.

3. 12.Click **Save**. A message appears indicating that the precision queue was successfully saved and the summary page reappears.

Edit Precision Queue

1. In the summary view, navigate or search for the precision queue to edit.
2. In the list, click the precision queue name. The page refreshes and the edit view appears.
3. Complete required changes and click Save. The page refreshes and the summary view appears. A message appears at the top of the page indicating whether or not the save was successful.

Delete Precision Queue

You cannot delete a precision queue that is referenced statically in any version of a saved script. Specifically, before you can delete a precision queue that is referenced statically in a script, you must remove the precision queue from every saved version of the script. If you reference a precision queue dynamically in a script and there are calls queued against the precision queue, you can delete the precision queue. Any calls queued against the deleted precision queue will be default routed.

NOTE: When deleting a precision queue that is referenced by a dynamic precision queue node, this precision queue's calls will be default routed.

1. On the Precision Queue Summary page, select the precision queue to delete.
2. Click the **X** icon. You receive a prompt to confirm that you want to delete the precision queue.
3. To delete the queue, click Yes. Otherwise, click No.

Table of Contents

Scripting

To implement Precision Routing in your contact center, you must create scripts.

You can create and use configured (static) and dynamic precision queue nodes in your scripts. Static precision queue nodes target a single, configured precision queue. When the script utilizes a single precision queue, use static precision queues. Dynamic precision queue nodes are used to target one or more previously configured precision queues. Use dynamic precision queues when you want a single routing script for multiple precision queues (for example, when the overall call treatment does not vary from one precision queue to another). Dynamic precision queues can simplify and reduce the overall number of routing scripts in the system.

Precision Queues are peripheral gateway (PG) agnostic. Precision queues do not care on which PG an agent resides.

Precision Queue Script Node

Use the Precision Queue script node to queue a call in Unified CCE based on caller requirements until an agent with desired proficiency become available. This node contains multiple agent selection criteria which are separated into steps.

A single call can be queued on multiple precision queues. If an agent becomes available in one of the precision queues, the call is routed to that resource. You cannot reference multiple precision queues with a

single Precision Queue node. However, you can execute multiple Precision Queue nodes sequentially to achieve this.

The precision queue node includes a Priority field, which sets the initial queuing priority for the calls processed through this node versus other calls queued to the other targets using different nodes. The priority is expressed as an integer from 1 (top priority) to 10 (least priority). The default value is 5.

If more than one call is queued to a precision queue when an agent becomes available, the queued call with the lowest priority number is routed to the target first. For example, assume an agent in a Precision Queue becomes available and two calls are queued to that precision queue. If one call has priority 3 and the other has priority 5, the call with priority 3, the lower value, is routed to the Precision Queue while the other call continues to wait. If the priorities of the two calls are same, then the call queued first is routed first.

VRU script instructions are not sent to the VRU. If a call enters the Precision Queue node and no resource is available, the call is queued to the Precision Queue and the node transfers the call to the default VRU, if the call is not already on a VRU. The script flow then exits immediately through the success branch; the script should then continue with a Run External Script node to instruct the VRU what to do while holding the call until an agent becomes available. Typically, this invokes a Network VRU Script that plays music-on-hold, possibly interrupted on a regular basis with an announcement. The script flow can also use other queuing nodes to queue the same call to other targets, for example, Queue to SG and Queue to Agent.

Queue Priority

The Queue Priority node is fully supported for Precision Routing, and behaves the same as it does for skill groups. For more information, see the *Scripting and Media Routing Guide Cisco Unified ICM/Contact Center Enterprise & Hosted Release 9.0(1)*.

Configuring a Static Precision Queue

You can configure a static precision queue script node.

1. In the **Precision Queue Properties** dialog box, select the **Statically** option.
2. From the list, select a precision queue to which to route all calls that enter this node.
3. In the **Priority selection** box, select the initial queuing priority for calls processed through this node. You can select from 1 - 10. The default is 5.
4. Check the **Enable target requery** check box to enable the requery feature for calls processed through this node. The requery behavior for the Precision Queue node is to be determined.
5. To edit a precision queue, select a precision queue from the list, and then click **Edit Precision Queue**.

Configuring a Dynamic Precision Queue

You can configure a dynamic precision queue script node that selects a precision queue on a call-by-call basis based on a formula.

1. In the **Precision Queue Properties** dialog box, select the **Dynamically** option.
2. In the **Priority selection** section, select the initial queuing priority for calls processed through this node. You can select from 1 - 10. The default is 5.
3. Check the **Enable target requery** check box to enable the requery feature for calls processed through this node. The requery behavior for the Precision Queue node is to be determined.
4. To dynamically route calls that enter this node to a precision queue name, select the **Precision Queue Name** option.
   OR

To dynamically route calls that enter this node to a precision queue ID, select the **Precision Queue ID** option.

5. Click **Formula Editor** to create a formula that determines the precision queue name or ID to which to route calls.

Queuing Behavior of the Precision Queue node

Precision Queues internally are configured with one or more time-based steps, each with a configured wait time. After a call is queued, the first step begins and the timer starts. This occurs although the execution path of the script exited the success node and a new node may be targeted (for example, Run Ext. Script).

If the timer for the first step expires, control moves to the second step (assuming one exists), and so on. As long as the call remains in queue and there are steps left to execute, the call internally continues to move between steps regardless of the path the call takes after it leaves the Precision Queue node. If a call is queued to two or more Precision Queues, the call internally walks through the steps for each Precision Queue in parallel. After the call reaches the last step on a Precision Queue, it remains queued on that step until the call is routed, abandoned, or ended.

Table of Contents

Reporting

Reporting provides a complete view of all the queues in the system with both real time and historical metrics. You can use filtering to narrow down the view to specific attributes.

To run real-time or historical reports, you can use CUIC reporting templates. For more information about CUIC template reports, see the CUIC Template Reporting User Guide.

Updated CUIC Report Templates

The following existing CUIC Reporting Templates contain updates for Precision Routing:

- **Agent Real Time** - This report displays, for each agent, the active skill group or active precision queue, the state, and the call direction within each media routing domain into which the agent is logged.
- **Agent Team Real Time** - This report displays the current status for each selected agent team and displays the current state and the active skill group or active precision queue for each agent in the selected agent teams.
- **Call Type Queue Historical All Fields** - This report displays the summary statistics for skill groups and precision queues within Call Type ID.

New CUIC Report Templates

The following CUIC Reporting templates are new for Precision Routing:

- **Agent Precision Queue Membership** - This report displays selected agents, the media routing domain into which the agent is logged, and the active precision queue with up to five associated attributes.
- **Precision Queue Real Time All Fields** - This report displays the current status of selected precision queues.
- **Precision Queue Historical All Fields** - This report displays interval data for consolidated call and precision queue statistics.

- **Agent Precision Queue Historical All Fields** - This report displays activity for selected agents for a selected interval, sorted by precision queue.

Other Unified CCE Gadgets

Bucket Intervals

Configure bucket intervals to report on how many calls are handled or abandoned during specific, incremental time slots. Each bucket interval has a maximum of nine configurable time slots, called Upper Bounds. Upper Bounds are measured in seconds to segment and capture call-handling activity. For each interval, reports show calls answered and calls abandoned.

For example, if your goal is to have calls handled within one minute, you might set up Upper Bounds intervals for 30 seconds, 60 seconds, 80 seconds, 120 seconds, 150 seconds, 180 seconds, and 240 seconds. Using these intervals, you can see if calls are being answered within one minute or if callers are waiting longer. The intervals also give you insight into how long callers are willing to wait before abandoning. Perhaps many callers do not abandon until they have waited for two minutes. This might indicate that your goal can be modified.

You can associate bucket intervals with Call Types, with Skill Groups, and with Precision Queues.

List of Bucket Intervals

Use the List page to view, search for, add, edit, or delete bucket intervals.

There is a row on this page for each bucket interval, showing the name, and upper bounds. Each bucket interval name is a hyperlink that opens that bucket interval for editing.

Enter one or more characters (case-insensitive) in the Search field to limit the list to bucket intervals with names that contain those characters.

Until you create a Bucket Interval, the List page shows only the *Default Bucket Intervals*. This is set in UCCE Configuration Manager in the System Information tool, and you can change it there.

Create Bucket Interval

Click **New** on the List of Bucket Intervals page to open the *New Bucket Interval* page.

Complete fields as follows:

Name* (Required) Enter a name, using a maximum of 32 alphanumeric characters. Periods (.) and underscores (_) are allowed. The first character must be alphanumeric. Internationalized characters are not allowed.

Upper Bound 1* (Required) Enter a value in the Upper Bound 1 field, using a number greater than 0 and less than 2147483647. This value is interpreted as seconds, and the beginning value for Upper Bound 1 is 0. For example, your entry of 10 in this field creates an Upper Bound 1 interval of 0 to 10 seconds.

Upper Bound 2 - Upper Bound 9 These fields are optional. If used, the beginning value for an Upper Bound must be later than the ending value of the previous Upper Bound. If you leave an Upper Bound field

blank, all remaining fields must be blank.

Example: To configure three intervals that span 10 seconds each and then have all other calls grouped into an interval that extends beyond your third defined interval, enter the following values:

- **Upper Bound 1 interval:** 10 This time slot is 0 to 10 seconds. Reports will show the total of calls answered and calls abandoned from 0 to 10 seconds.
- **Upper Bound 2 interval:** 20 This time slot is any time greater than 10 seconds and less than 20 seconds. Reports will show the total of calls answered and calls abandoned between 10 and 20 seconds.
- **Upper Bound 3 interval:** 30 This time slot is any time greater than 20 seconds and less than 30 seconds. Reports will show the total of calls answered and calls abandoned between 20 and 30 seconds.
- **All other blank (Upper Bound Intervals 4 to 9 are not set).** Reports will show the total of calls answered and calls abandoned after 30 seconds.

Save the bucket interval to return to the List page, where a message confirms the successful creation.

Edit Bucket Interval

Click the hyperlinked name of the bucket interval on the List of Bucket Intervals page to open the Edit Bucket Interval page.

On this page:

- You can edit the name.
- You cannot edit existing upper bound fields or add new upper bounds fields.

Save the change to return to the List page, where a message confirms that the change was saved successfully.

Delete Bucket Interval

To delete a bucket interval, open the List of Bucket Intervals page and click the **X** icon for that bucket interval name.

Respond to the confirmation message. This marks the bucket interval for deletion. You must delete it permanently from Configuration Manager.

A message confirms the successful deletion or indicates reasons why you cannot delete.

You cannot delete:

- the bucket interval named **Default_Bucket_Intervals**
- a bucket interval that is associated with a Call Type, Skill Group, or Precision Queue.

Configure Deployment

The system can support a defined call capacity based on deployment model. Exceeding the supported rate of incoming calls degrades performance and can result in late calls, dropped calls, the time out of requests, and potential system failures.

The Configure Deployment tool enforces limits to protect against overloading the system and establishes continuous monitoring of the incoming call rate according to the configured settings.

Exceeding the configured capacity restricts the delivery of new incoming calls. (Call transfers are permitted.)

Complete fields as follows; then click **Save** or **Revert** (to cancel changes).

Deployment Type (Required) This field shows the deployment type that is currently identified with your system and allows you to select a different one from the Deployment Type drop-down. Your selection triggers a check for conformance to that deployment type, which is reported in the System Validation and Capacity Info pages.

Congestion Control Enabled: This field is not visible for deployment types *Packaged CCE: CCE-PAC-M1* and *Packaged CCE: CCE-PAC-M1 Lab Only*. It is visible for all other deployment types, and checking it makes all other fields editable.

Congestion Treatment Mode: * For deployment types *Packaged CCE: CCE-PAC-M1* and *Packaged CCE: CCE-PAC-M1 Lab Only*, this field shows *Terminate with Dialog Fail/RouteEnd*.

For all other deployment types, it shows the treatment mode that is currently in place. You can make a selection from the drop-down menu options to indicate how congestion is to be handled and how the caller is to be treated. The first three options send the call to an external IVR. The last two options terminate the call.

- Treat call with DN Default Label
- Treat call with Routing client default label
- Treat call with System default label
- Terminate with Dialog Fail/RouteEnd
- Release Message to the Routing client

If you select *Treat call with DN Default Label*, or *Treat call with Routing client default label*, or *Treat call with System default label*, you see the message The target call treatment system should be outside of ICM/CCE system. This means that the call will be sent to an external VRU for IVR treatment.

System Default Label For deployment types *Packaged CCE: CCE-PAC-M1* and *Packaged CCE: CCE-PAC-M1 Lab Only*, this field is blank. For all other deployment types, this field is required when Treat call with System default label is the selection for Congestion Treatment Mode. Enter a label to used as the system default. This field allows a maximum of 32 characters.

Capacity Calls Per Second: This field displays the current value for maximum calls per second for the deployment. For all deployment types other than Packaged CCE, you can check the Override field and change to a different rate. The number cannot be 0 and must be less than or equal to the maximum calls per second per deployment type listed below.

Deployment Type	Maximum Calls Per Second
Not Specified	0
UCCE 12000 Agents Router/Logger	115
UCCE 8000 Agents Router/Logger	69
UCCE 4000 Agents Rogger	35
UCCE 450 Agents Progger	4
HCS-CC 1000 Agents	8
HCS-CC 500 Agents	5
ICM Rogger	58
ICM Router/Logger	115
NAM	300

NAM Rogger	150
Packaged CCE: CCE-PAC-M1	8
Packaged CCE: CCE-PAC-M1 Lab Only	8
IVR-ICM	300

Override This field is checked by default and shows the current value that is configured for Capacity Calls per Second. With the field checked, you can define a different Capacity Calls per Second. To restore the default capacity for the deploymen type, uncheck Override and click Save.

Deployment Type

This page opens when an administrator:

- initially signs in, before a deployment type has been established
- clicks the button next to the Deployment Type field in the Configure Deployment tool

At the initial sign-in, the Deployment Type field defaults to *Not Specified*. You must change the deployment type from *Not Specified*, but you cannot change back to *Not Specified*.

To configure your deployment type:

1. Select a deployment type from the drop-down.
2. Click **Save** to confirm that your system conforms to the specifications for that deployment type.

The system responds with a warning that explains the effects of implementing the change and requires your confirmation. Upon confirmation, you see one of the following:

- An error message that lists the Capacity Info and System Validation errors
- A congratulations message

Note that if your previous deployment type was anything other than Not Specified, your selection of Packaged CCE: CCE-PAC-M1 or Packaged CCE: CCE-PAC-M1 Lab Only will alter the tools that you see in Unified CCE Configuration Manager.

Deployment Types

Deployment Type
Not Specified
HCS-CC 1000 Agents
HCS-CC 500 Agents
ICM Rogger
ICM Router/Logger
IVR-ICM
NAM
NAM Rogger
Packaged CCE: CCE-PAC-M1
Packaged CCE: CCE-PAC-M1 Lab Only
UCCE 12000 Agents Router/Logger
UCCE 4000 Agents Rogger
UCCE 450 Agents Progger

UCCE 8000 Router/Logger

Table of Contents

Progger Deployment

Beginning with Unified CCE Release 9.0(1), Progger deployment types are deprecated. For configurations with less than 1000 agents, Packaged Contact Center Enterprise is the suggested deployment type. For more information about Packaged Contact Center Enterprise, see the *Packaged Contact Center Enterprise Administration Guide Release 9.0(1)*.

Table of Contents

Related topics

For an explanation of errors you might see, see Troubleshooting help.

Table of Contents

COPYRIGHT

THE SPECIFICATIONS AND INFORMATION REGARDING THE PRODUCTS IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE. ALL STATEMENTS, INFORMATION, AND RECOMMENDATIONS IN THIS MANUAL ARE BELIEVED TO BE ACCURATE BUT ARE PRESENTED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. USERS MUST TAKE FULL RESPONSIBILITY FOR THEIR APPLICATION OF ANY PRODUCTS.

THE SOFTWARE LICENSE AND LIMITED WARRANTY FOR THE ACCOMPANYING PRODUCT ARE SET FORTH IN THE INFORMATION PACKET THAT SHIPPED WITH THE PRODUCT AND ARE INCORPORATED HEREIN BY THIS REFERENCE. IF YOU ARE UNABLE TO LOCATE THE SOFTWARE LICENSE OR LIMITED WARRANTY, CONTACT YOUR CISCO REPRESENTATIVE FOR A COPY.

The Cisco implementation of TCP header compression is an adaptation of a program developed by the University of California, Berkeley (UCB) as part of UCBs public domain version of the UNIX operating system. All rights reserved. Copyright 1981, Regents of the University of California.

NOTWITHSTANDING ANY OTHER WARRANTY HEREIN, ALL DOCUMENT FILES AND SOFTWARE OF THESE SUPPLIERS ARE PROVIDED "AS IS" WITH ALL FAULTS. CISCO AND THE ABOVE-NAMED SUPPLIERS DISCLAIM ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THOSE OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OR ARISING FROM A COURSE OF DEALING, USAGE, OR TRADE PRACTICE.

IN NO EVENT SHALL CISCO OR ITS SUPPLIERS BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR LOSS OR DAMAGE TO DATA ARISING OUT OF THE USE OR INABILITY TO USE THIS MANUAL, EVEN IF CISCO OR ITS SUPPLIERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to http://www.cisco.com/go/trademarks

CCVP, the Cisco logo, and Welcome to the Human Network are trademarks of Cisco Systems, Inc.; Changing the Way We Work, Live, Play, and Learn is a service mark of Cisco Systems, Inc.; and Access Registrar, Aironet, Catalyst, CCDA, CCDP, CCIE, CCIP, CCNA, CCNP, CCSP, Cisco, the Cisco Certified Internetwork Expert logo, Cisco IOS, Cisco Press, Cisco Systems, Cisco Systems Capital, the Cisco Systems logo, Cisco Unity, Enterprise/Solver, EtherChannel, EtherFast, EtherSwitch, Fast Step, Follow Me Browsing, FormShare, GigaDrive, HomeLink, Internet Quotient, IOS, iPhone, IP/TV, iQ Expertise, the iQ logo, iQ Net Readiness Scorecard, iQuick Study, LightStream, Linksys, MeetingPlace, MGX, Networkers, Networking Academy, Network Registrar, PIX, ProConnect, ScriptShare, SMARTnet, StackWise, The Fastest Way to Increase Your Internet Quotient, and TransPath are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the United States and certain other countries. Any Internet Protocol (IP) addresses used in this document are not intended to be actual addresses. Any examples, command display output, and figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses in illustrative content is unintentional and coincidental.

Third-party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)

Copyright 2011 Cisco Systems, Inc. All rights reserved.