



# Contact Center Gateway with Unified CCE Deployment

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## Contact Center Gateway Setup Prerequisites

Before setting up your Cisco Contact Center Gateway, complete these prerequisite steps:

- 1 Install and configure a Unified CCE child system. See the *Cisco Unified Contact Center Enterprise Installation and Upgrade Guide* at <http://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-installation-guides-list.html> and the *Configuration Guide for Cisco Unified ICM/Contact Center Enterprise & Hosted* at <http://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-installation-and-configuration-guides-list.html> for detailed instructions.



### Note

To enable call transfers from a parent cluster to a child cluster, first satisfy the Unified Communications Manager IP Telephony requirements. For example, deploy a Device Trunk such as H.225 Trunk (Gatekeeper Controlled) or Intercluster Trunk (Non-Gatekeeper Controlled). For more information, see the *Cisco Unified Communications Manager* documentation at <http://www.cisco.com/c/en/us/support/unified-communications/unified-communications-manager-callmanager/tsd-products-support-series-home.html>.

- 2 Test your child Unified CCE system to verify that everything works correctly and that you can route calls.
- 3 Install and configure a Unified ICM parent system, which includes installing a redundant pair of Unified CCE Gateway PGs.
- 4 Collect the necessary configuration information. Although many elements are configured automatically, some elements require manual setup. For example, for the CTI Server, you need the host names or IP addresses and connection ports for Side A and Side B. You also need the Peripheral ID when setting up a system peripheral.

**Related Topics**

[Enterprise Gateway Autoconfiguration](#), on page 4

## Enable Application Routing on Child

**Procedure**

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- Step 1** In the Configuration Manager of the Unified CCE child, select **Tools > List Tools > Dialed Number/Script Selector List**.
- Step 2** In the **Attributes** tab, check **Permit Application Routing** for those route points on which you post route or translation route to the parent.  
Check this option for dialed numbers from the parent, for translation routing DNIS/Label for the parent, and for anything transferred from the parent by post routing.
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## Special Configuration for Unified CCE Child with Unified CVP

A Unified CCE child can use Unified CVP as its IVR.

A Unified CCE child system that uses Unified CVP requires the following:

- The Unified CCE VRU Peripheral Gateway is mapped to the Unified Communications Manager routing label.
- The Unified Communications Manager route pattern must be associated with the child Unified CVP.
- The SIP static route for Unified CVP must point to the child Unified Communications Manager.

For more information on configuring Unified CVP, see the *Configuration Guide for Cisco Unified Customer Voice Portal* at <http://www.cisco.com/c/en/us/support/customer-collaboration/unified-customer-voice-portal/products-installation-and-configuration-guides-list.html>.

## Configure the Unified CCE Gateway PG

**Procedure**

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- Step 1** Start the Configuration Manager on the Admin Workstation.
- Step 2** Follow the standard procedure for installing a PG with the following Unified CCE Gateway-specific settings:
- In the **Peripheral Gateway Properties** dialog, for **Client Type Selection**, select **Unified CCE Gateway** as your “switch” PG type.
  - You cannot also select VRU. If you attempt to add a VRU in this case, an error message appears.

- In the **Advanced** tab of the PG Explorer, ensure that **Agent autoconfiguration** is disabled for the Unified CCE Gateway PG to function properly.

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### What to Do Next

When you bring up the Gateway PG, the autoconfiguration takes place.

## Other Configuration on the Parent

Some autoconfiguration happens between the parent and child. You configure other elements manually in the Configuration Manager so that call flows work properly:

- Configure a Network Trunk Group and a Trunk Group on the Unified CCE Gateway PG. This task is used when configuring peripheral targets.
- Configure Routes, Peripheral Targets, and Labels for the routing clients for the autoconfigured Services (child call types). The routing clients are the Unified CCE Gateway PG and the parent IVR (either Unified CVP or Unified IP IVR). Configure corresponding route points that match the labels in Unified Communications Manager. Add the labels to the child as dialed numbers with Permit Application Routing enabled.
- Add the autoconfigured Skill Groups as Service Members. If you do not add these Service Members, you cannot use MED.
- To pass call context from the parent to the child, you must translation route all calls. Create translation routes, routes, peripheral targets, and labels for the Unified CCE Gateway PG and the parent routing clients.

See the *Configuration Guide for Cisco Unified ICM/Contact Center Enterprise & Hosted* at <http://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-installation-and-configuration-guides-list.html> for more information.

### Related Topics

[Translation Routing](#), on page 8

## Script to Verify Deployment

Create a script that can interact with the Unified CCE Gateway to verify your deployment. Be sure that the script targets a skill group, either directly or through a service. For example, you can create scripts for Longest Available Agent (LAA) for skill groups and Minimum Expected Delay (MED) for Services. If the script uses a translation route, create the translation route before you create the script.

For more information about scripting, see the *Scripting and Media Routing Guide for Cisco Unified ICM/Contact Center Enterprise & Hosted* at <http://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-user-guide-list.html>.

For instructions on creating a Translation Route, see *Configuration Guide for Cisco Unified ICM/Contact Center Enterprise & Hosted*. at <http://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-installation-and-configuration-guides-list.html>.

### Related Topics

- [Enterprise Gateway Routing, on page 5](#)
- [Translation Routing, on page 8](#)

## Unified ICM Service Startup

You start the Unified ICM Service for the Enterprise Gateway PG in the Unified ICM Service Control dialog. Select the Services name for the Enterprise Gateway PG and click Start.

After the child and the parent Unified ICM establish a connection, the child configuration propagates to the parent Unified ICM Configuration Manager. Agent configuration information on the child propagates to the parent. The agent information is dimmed on the parent because you cannot modify or delete that information at the parent level.

For general information about Unified ICM Service Control, see the *Configuration Guide for Cisco Unified ICM/Contact Center Enterprise & Hosted* at <http://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-installation-and-configuration-guides-list.html>.

## Enterprise Gateway Autoconfiguration

Follow the same procedure as [Autoconfiguration with Enterprise Gateway](#).

## Autoconfiguration Maintenance

The following points provide help with autoconfiguration maintenance:

- You can find errors from the last run of the autoconfiguration dialog in the `AutoConfigError.txt` file. The file is in the main PG directory for a Unified CCE Gateway PG, for example, `C:\icm\cust1\PG1A\AutoConfigError.txt`. You can view the file with any text editor. The file contains the time and date and a brief error message as to why an element could not be configured. If this file does not exist, that means the last configuration run was clean.
- Periodically, manually delete entries in the Service, Agent, and Skill Group tables that allow deletion. An item that does not allow deletion shows a circle with a line through it next to the item. You can delete items on the parent after they are deleted on the child. When you delete an item on the child, the parent does not also delete that item automatically.
- Most autoconfiguration errors occur (in Enterprise cases) because of deleted records. Use the Deleted Objects tool in the parent to permanently delete any deleted records. You can access this tool in Configuration Manager by choosing **Tools > Miscellaneous Tools > Deleted Objects**. This task reduces the number of autoconfiguration errors. The fewer records that are marked for deletion that still exist, the smaller the chance that autoconfiguration gets duplicate errors when creating objects.



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**Note**

Do not confuse Contact Center Gateway autoconfiguration with Agent autoconfiguration. (Agent autoconfiguration is an option available on the Advanced tab in the PG Explorer.) Ensure that Agent autoconfiguration is disabled so that the Unified CCE Gateway PG can function properly.

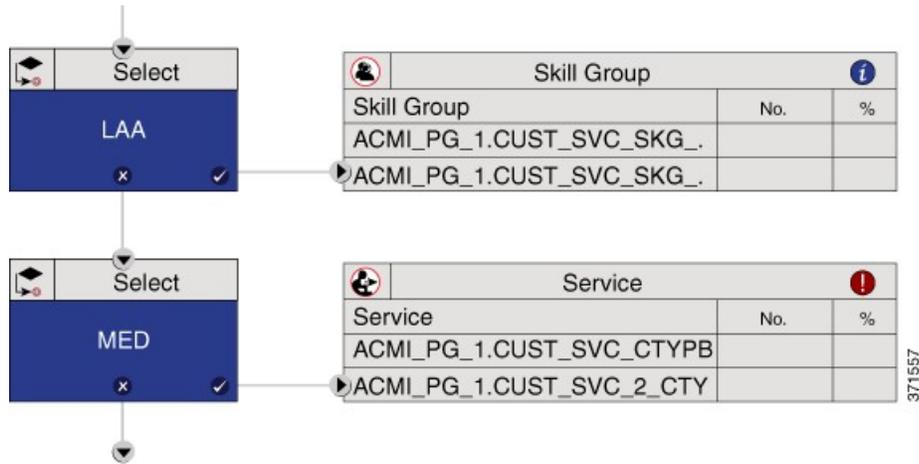
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# Enterprise Gateway Routing

The script on the Unified ICM parent interacts with the Unified CCE Gateway PG.

Ensure that all remotely handled route points (Application routing enabled) have default "local" scripts. The default "local" script runs in case no host (parent) is available. Include Post Route points in the scripts as well as translation route destinations.

The following simple routing script has an LAA node. That node selects the skill group with the longest available agent (if an agent is available) among skill groups on the same ACD or a different ACD. If no agents are available, then the script selects the Service with the Minimum Expected Delay (MED) among the services on the same or a different ACD.



**Note**

Scripting in a Contact Center Gateway deployment is no different than the scripting between Unified ICM and all other TDMs. Either skill groups or services are targeted, not agents.

## Routing Configuration

To Post-route a call from the child Unified CCE to the parent Unified ICM, you must:

- Create a transfer number on the child's Unified Communications Manager cluster as a CTI Route Point (a Unified Communications Manager object). When an agent on the child wants to post-route a callback through Unified ICM, the call transfers to that dialed number.
- Configure the transfer number in both the child and the parent. In the child, tag the number to allow application routing. Application routing means that the route request passes up to the parent for a response. In case the parent does not respond, the child also needs backup scripting to handle the call locally.



**Note**

You cannot use the DN for a CTI Route Point on a different CTI Route Point in another partition. Ensure that DNs are unique across all CTI Route Points on all partitions.

In the Parent, you must:

- Create the dialed number for the transfer CTI Route Point.
- Build a call type and associated script to perform the post-route in the parent Unified ICM.

The parent script can instruct the child system:

- To transfer the call to another child (through a translation route to the other child's skill group).
- To transfer the call to a destination on the same child.
- Or with Unified CVP, the script can instruct CVP to connect the callback to the network queue (provided the call came from there originally).

If CVP is present at the Parent, the Parent/Child design assumes that the parent CVP gets all the calls first and is the network queue point. That assumption does simplify the call delivery, RONA, and subsequent transfers.

If you use Unified IP IVR to do the enterprise queuing at the parent Unified ICM, be aware of the following:

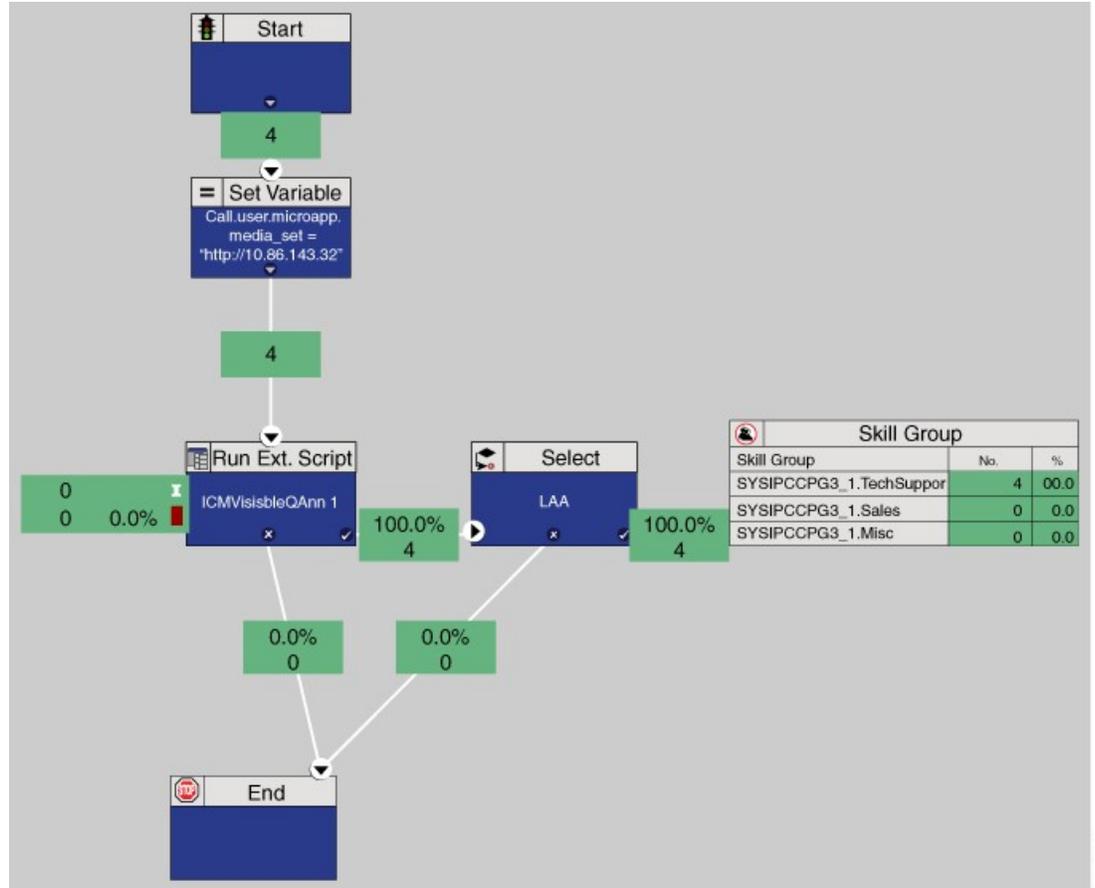
- There is no built-in RONA timeout for that model, like Cisco has with CVP. In the IP IVR case, you must script locally for RONA at the Child. In that script, you can reroute the call to the parent Unified ICM or hold the call in queue locally for the next local agent.
- For subsequent transfers between child systems, there is extra work to translation route the calls to the parent IP IVR in the parent post-routing script.

In the child, you must:

- Create the dialed number for the transfer CTI Route Point.
- Enable application routing and build backup treatment in case the parent does not respond. The call sits in a CTI Route Point that can timeout. So, you need a way to deal with that call when the Unified ICM does not return a route.

The following routing scripts show sample parent and child call flow configurations. The first script runs the external script, ICMVisibleQAnn1, that uses Unified CVP for network queuing in the Parent system:

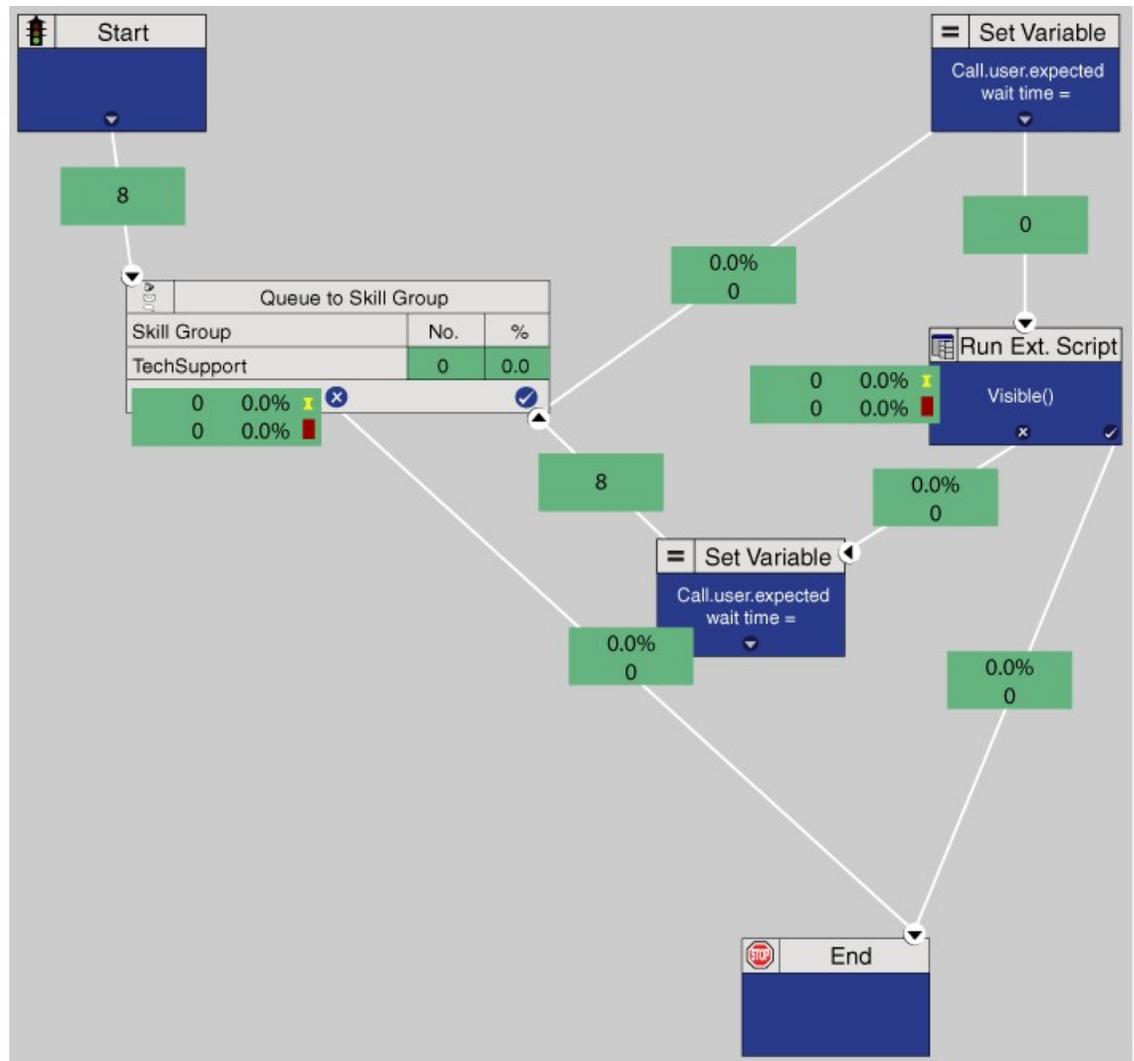
**Figure 1: Example Parent Call Flow Configuration**



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The second script runs an external script, VisibleQ, that uses Unified IP IVR for queuing in the Child system:

**Figure 2: Example Child Call Flow Configuration**



## Translation Routing

A translation route is a special destination for a call that allows you to deliver call information along with the call. Translation routing maintains the association between a call and its related data throughout the life of the call. Translation routing plays a significant role in the accuracy of reporting and allows for "cradle-to-grave" call tracking and reporting. Some reporting metrics for call types and skill groups are applicable only if calls are translation-routed.

The call is delivered first to the translation route. While the routing client processes the call, the Unified ICM delivers the final destination for the call to the PG with any other necessary information. The peripheral then works with the PG to reroute the call and the appropriate information to the ultimate target.

You can create a translation route with either the Translation Route Explorer or the Translation Route Wizard. If you create a translation route with the Wizard, you can later modify it through the Explorer. The Wizard is helpful when creating multiple translation routes. After you create the translation route, you create a translation route script.

## Create Translation Route with Translation Route Explorer

You can define translation routes in the Unified ICM Configuration Manager with the Translation Route Explorer. See the online help for information on the specific fields in the Explorer.

### Procedure

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- Step 1** In the Configuration Manager, select **Tools > Explorer Tools > Translation Route Explorer**. The **Translation Route Explorer** dialog appears.
  - Step 2** Set up a translation route associated with the peripheral.  
You do not need a separate translation route for each possible skill target at the site. But, you need at least one translation route for each peripheral that you want to target. For example, if Peripherals A and B both route only to Peripheral C, you only need translation routes on Peripheral C. You need labels for Peripheral A and Peripheral B as well.
  - Step 3** Set up one or more routes and associated peripheral targets for the translation route.  
Typically, all peripheral targets for a translation route refer to the same trunk group, but with different Dialed Number Identification Service (DNIS) values.
  - Step 4** Set up a label on the original routing client for the call to access each of the peripheral targets associated with the translation route.
  - Step 5** For each peripheral target that you want to access through a translation route, set up a label with the peripheral as the routing client.  
The online help guides you through completion of the fields in the Explorer. More detailed information can be found in the Configuration Guide for Cisco Unified ICM/Contact Center Enterprise & Hosted.
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## Create Translation Route with Translation Route Wizard

### Before You Begin

Before you begin creating the translation route, configure a Peripheral Gateway (PG), Network Trunk Group, Routing Clients, Trunk Groups, and Trunks.

Before using the **Translation Route Wizard**, go to **Tools > Explorer Tools > PG Explorer**. On the **Peripheral** tab, check the **Enable post routing** option. In the **Routing client** tab, name the routing client.



### Note

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This example procedure is for a relatively simple deployment model that has one parent, one child, and Unified CVP at the parent.

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## Procedure

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- Step 1** In the Configuration Manager, select **Tools > Wizards > Translation Route Wizard**.  
The **Translation Route Wizard** appears.
- Step 2** Click **Next**.  
The **Select Configuration Task** page appears.
- Step 3** Select **Create New** and click **Next**.  
The **Define Translation Route** page appears. The left panel shows the entities that are defined while using the Translation Route Wizard.
- Step 4** Enter a long name for the translation route in the **Name**. Click **Next**.  
The **Short name** field automatically populates based on the long name. The short name is used in forming target names. You can also enter an optional **Description**.  
The **Select Configuration** page opens.
- Step 5** From the drop-down list, select **Single peripheral, multiple routing clients** and click **Next**.  
The **Select Peripheral Gateway, Peripherals, and Services** page opens.
- Step 6** Select the PG for the Unified CCE Gateway PG from the **Peripheral Gateway** list and the peripheral for that PG from the **Peripheral** list. Click **Next**.  
The service is the call type that propagated from the child to the parent.  
The **Select Routing Clients and Dialed Numbers** page opens.
- Step 7** Select routing clients from the **Post Routing Client** list for the Unified CCE Gateway PG and for Unified CVP. Do not select anything from the **Pre Routing Client** list. The **Dialed Number** list is dimmed, so you cannot select any dialed numbers. Click **Next**.  
The **Select Network Trunk Groups for Routing Clients** page opens.
- Step 8** Select the routing client for the Gateway PG and click **Add**. Then select the routing client for Unified CVP and click **Add**.  
The **Routing Client** and **Network Trunk Group** information appears at the bottom of the page.
- Step 9** Click **Next**.  
The **Configure DNIS** page opens.
- Note** The DNIS is the value the network returns to the Gateway or Unified Communications Manager to indicate the dialed number. If the DNIS is attached to a route, the route must have its Service field populated. You do not have to define the DNIS in the Unified ICM database.
- Step 10** Click **Add DNIS range** and enter a beginning DNIS (such as 1110000) and an ending DNIS (such as 1110010). Then, click **OK**.  
The DNIS list appears on the page with all the numbers in the range listed.
- Step 11** For simplicity, use the same DNIS and label, and click **Next**.  
The **Configure Label** page opens.
- Step 12** Click **Set prefix = DNIS** for each routing client.  
A **Set Prefix = DNIS** page opens.
- Note** The label does not always match the DNIS. Usually the label consists of a prefix (for example, 1800123), followed by the DNIS.
- Step 13** Select the **Include DNIS string as is** radio button, and click **OK**.  
The **DNIS**, **Label**, and **Prefix** lists populate with the numbers.
- Step 14** Click **Next**.  
The final page appears.
- Step 15** Click **Create Translation Route**.
- Step 16** After getting a success message, run a **Translation Route Configuration Report** and check the values.

For a Parent/Child deployment to work properly, the configuration of the Parent, Child, Unified Communications Manager, Unified CVP, and the IOS gateway must match. Add all the numbers in the translation route to the child Unified CCE (as Dialed Numbers with Permit Application Routing enabled) and Unified Communications Manager (as Route Points). Ensure that the numbers match across the deployment (parent, child, and Unified Communications Manager).

### Related Topics

[Enable Application Routing on Child, on page 2](#)

## Configure Unified IP IVR for Translation Routing

If you use Unified IP IVR instead of Unified CVP in a translation route, there are some extra configurations necessary in Unified IP IVR. You add a Unified ICM translation routing application, and then assign a JTAPI trigger to this application.



**Note** Before configuring a translation routing application, first upload the VRU scripts required by the application.

### Procedure

- Step 1** In Unified CCE Administration, select **Applications > Application Management**.
- Step 2** Click **Add a New Application**.
- Step 3** From the **Application Type** drop-down menu, select **Unified ICM Translation Routing**.
- Step 4** Enter the name of the Unified CCE translation routing script in the **Name** field.
- Step 5** Press Tab to automatically populate the **Description** field.
- Step 6** In the **ID** field, accept the ID, or enter a unique ID.  
This field corresponds to the service identifier of the call that was reported to the Cisco Unified ICM and configured in the Unified ICM translation route.
- Step 7** In **Maximum Number of Sessions** field, enter the maximum number of simultaneous sessions that the application can handle.
- Step 8** In the **Enabled** field, accept the default radio button **Yes**.
- Step 9** In the **Timeout** field, enter a value.  
This value is the maximum number of seconds that the system waits to invoke the application before rejecting a contact.
- Step 10** From the **Default Script** drop-down, choose the script to runs when a system error occurs or when the Unified ICM routes to the default treatment.
- Step 11** Click **Add**.  
A message confirms successful execution.
- Step 12** Click **OK**.
- Step 13** Click **Add New Trigger**.

The **Add a New Trigger** page opens.

- Step 14** From the **Trigger Type** drop-down menu, select **Unified CM/Unified CME Telephony** and click **Next**.
- Step 15** In Unified CCE Administration, select **Subsystems > Unified CM Telephony**.
- Step 16** On the **Unified CM Telephony Configuration** navigation bar, click the **Unified CM Telephony Triggers** hyperlink.  
The **Unified CM Telephony Trigger Configuration** summary web page opens.
- Step 17** Click **Add a New Unified CM Telephony Trigger**.  
The **Unified CM Telephony Trigger Configuration** web page opens.
- Step 18** Complete the fields on this page (see the online Help for additional information), then click **Add**.  
The **Unified CM Telephony Trigger Configuration** summary web page opens, displaying the new Unified CM Telephony trigger.
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## Call Flow Creation Tips

Before creating a call flow, consider the following:

- Network Consultative transfer is not supported with Unified CVP in a Parent/Child environment. Disable network transfer for the call flow to work.
- Use the IP address, not a name, when configuring SIP trunks on Cisco Unified CallManager.

## Call Flow with Unified CVP at Parent

Typically, a parent Unified ICM system (including Cisco Unified Customer Voice Portal, VXML, and PSTN gateways) is located in a different location than a child Cisco Unified Contact Center Enterprise system. This section describes a sample Parent/Child call flow; the components and the configuration were tested and verified in this contact center test environment.



### Note

This call flow information was taken from the Cisco Tested Call Flows page at [http://www.cisco.com/c/en/us/td/docs/voice\\_ip\\_comm/uc\\_system/UC8-0-2/cc\\_system\\_arch/ch4\\_flow.html?dtdid=ossdc000283](http://www.cisco.com/c/en/us/td/docs/voice_ip_comm/uc_system/UC8-0-2/cc_system_arch/ch4_flow.html?dtdid=ossdc000283). See that site for additional information about the necessary configuration and scripting for these call flows.

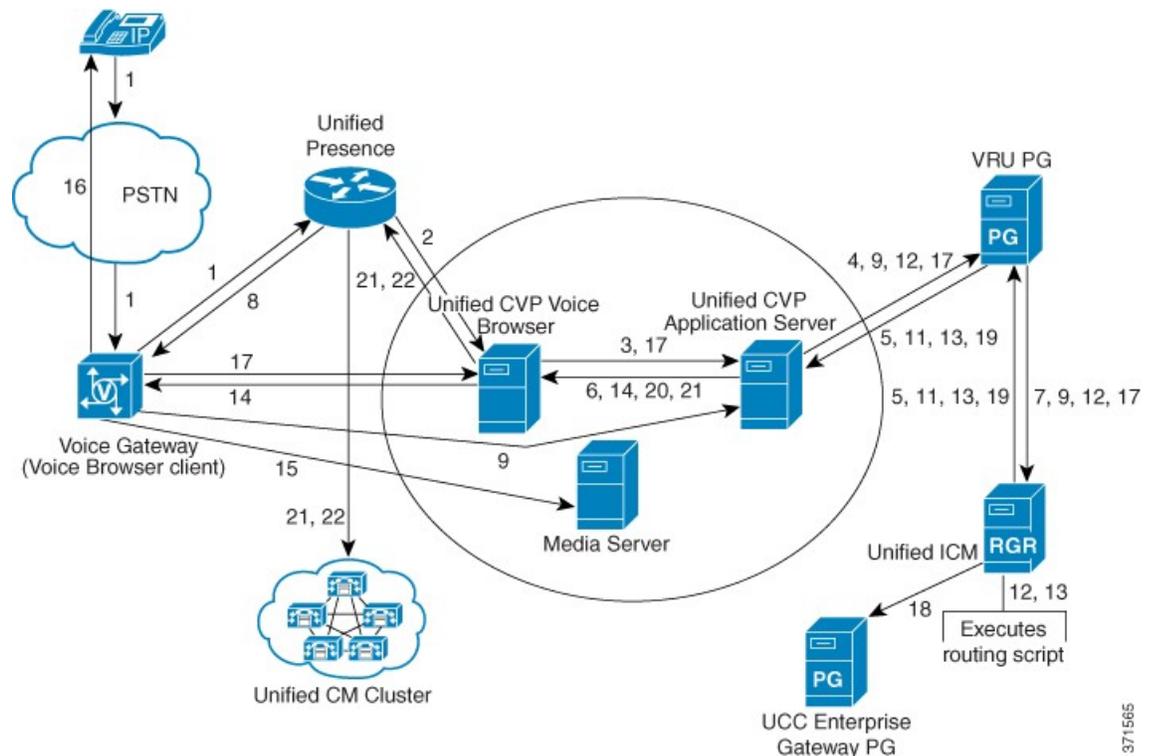
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### Note

In this call flow, the CVP Application Browser, CVP SIP subsystem service, and Media Server are represented as separate entities. However, they are all on the same CVP call control server.

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The call flow on the Parent system works as follows:

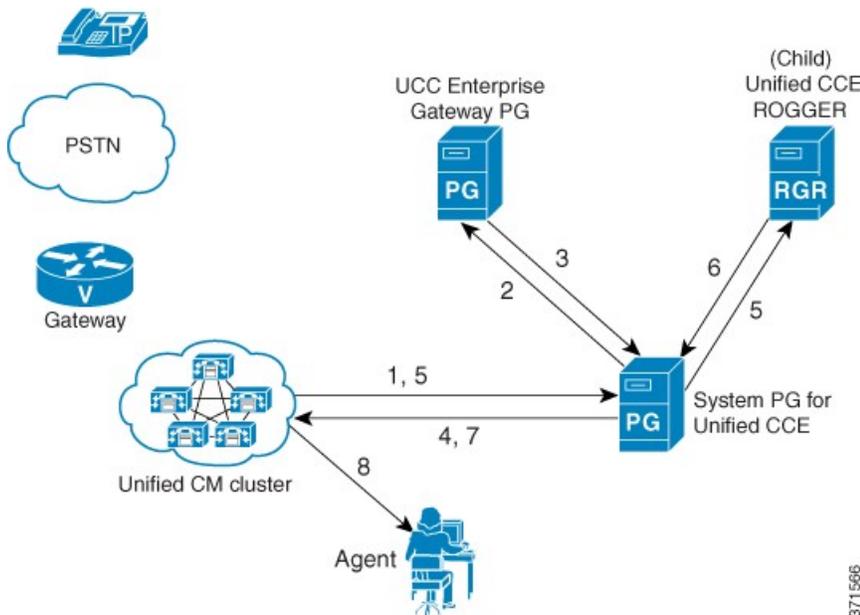
- 1 The call comes from the PSTN into an IOS SIP Gateway that originates a SIP call to Cisco Unified Presence.
- 2 Cisco Unified Presence sends the SIP call to the CVP SIP subsystem service.
- 3 The Unified CVP SIP subsystem service sends the details of the call to the Unified CVP Call Server using HTTP.
- 4 The Unified CVP Call Server sends a NEW\_CALL event to the Unified ICM.
- 5 Unified ICM, upon receipt of the NEW\_CALL event, sends a temporary Connect label to connect a VRU to the Unified CVP Call Server.
- 6 The Unified CVP Call Server sends the label with a correlation ID to the CVP SIP subsystem service.
- 7 The Unified CVP SIP subsystem service sends the label to Cisco Unified Presence.
- 8 Cisco Unified Presence sends the call to the VXML gateway.
- 9 The VRU functionality of the PSTN Gateway sends a message to the appropriate Unified CVP Call Server. The Call Server, in turn, sends a REQUEST\_INSTRUCTION message to Unified ICM.
- 10 Unified ICM uses the correlation ID. The correlation ID was relayed to Unified ICM, with the call that it processed earlier, as a part of the REQUEST\_INSTRUCTION message.
- 11 Unified ICM, upon receipt of the REQUEST\_INSTRUCTION message, also sends a CONNECT\_TO\_RESOURCE event back to the Unified CVP Call Server.
- 12 The Unified CVP Call Server acknowledges Unified ICM with a RESOURCE\_CONNECTED event. Then, Unified ICM executes the routing script that is enabled for that call.
- 13 Upon execution of the routing script by Unified ICM, the Unified CVP Call Server gets a RUN\_SCRIPT\_REQ event from Unified ICM.
- 14 The Unified CVP Call Server runs the script and sends instructions to the Unified CVP SIP subsystem client (PSTN GW) by HTTP (VXML) to play the media file.

- 15 The Unified CVP SIP subsystem client sends HTTP requests to the HTTP Media Server to get the media file. The client then plays the media file out to the caller.
- 16 The contents of the media file request the caller to respond to the prompts in the recording.
- 17 The Unified CVP SIP subsystem client detects the response or caller-entered digits (CED). The client sends the response to the Unified CVP Call Server which then forwards the response to Unified ICM.
- 18 Unified ICM does the following:
  - Receives the CED and determines the appropriate child system to handle the call by returning a label for the peripheral target. In this example, the peripheral is the child Unified ICM.
  - Sends a PRE\_ROUTE message to the Unified CCE Gateway.
- 19 Unified ICM instructs the Unified CVP Call Server, with a CONNECT event, to start setting up the IP Transfer to the peripheral target. In this example, the label for the peripheral target is defined as a CTI route point on the Unified Communications Manager in the child system.
- 20 The Unified CVP Call Server sends a VXML Transfer to the Unified CVP SIP subsystem service to start call setup to the peripheral target.
- 21 The Unified CVP SIP subsystem service sends several SIP messages to Cisco Unified Presence to:
  - Open and close the appropriate RTP path to the originating PSTN Gateway and the VRU.
  - Set up the call to the child Unified Communications Manager.

The call arrives at the translation route destination on the child system.

## Agent Available on Child

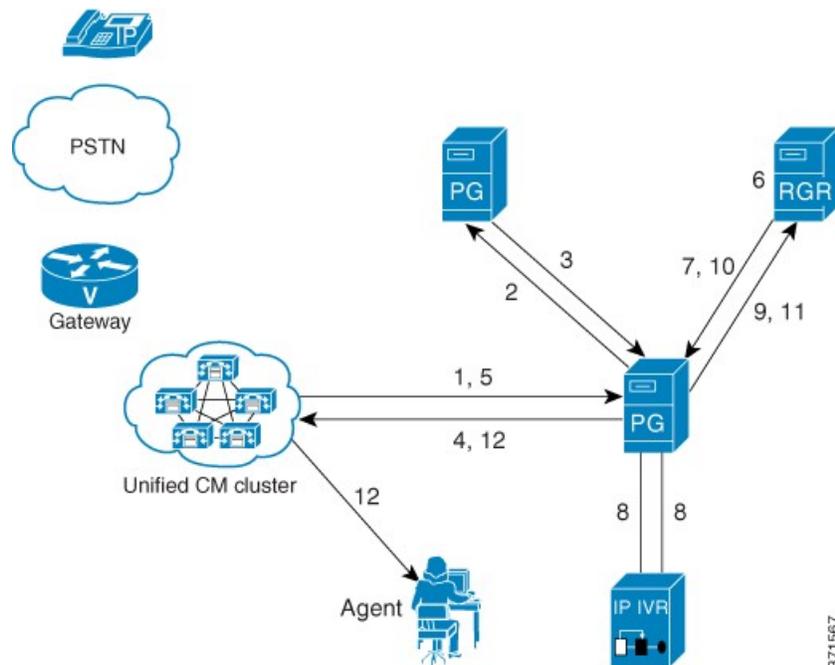
After the call arrives in the Child System, the call flow works as follows if an agent is available:



- 1 The call comes to the CTI route point on the Unified Communications Manager of the child system. Unified Communications Manager sends a ROUTE\_REQUEST message (to determine that the Gateway PG is registered for control of this route point) to the System PG for Unified CCE.
- 2 The System PG for Unified CCE recognizes that the route point is registered by the parent Gateway PG. The System PG then sends a ROUTE\_REQUEST message to the Unified CCE Gateway PG.
- 3 The Unified CCE Gateway PG matches up the DNIS on the route point (translation route). The PG then responds with a ROUTE\_SELECT (and a label), which is a CTI route point on the child Unified Communications Manager and also a configured DN on the child.
- 4 The System PG for Unified CCE sends the ROUTE\_RESPONSE to the child Unified Communications Manager.
- 5 Because the response is a configured DN, the System PG sends a NEW\_CALL to the child Unified CCE Rogger.
- 6 The CallRouter runs a script, selects an available agent, and returns a Connect for the label of that agent device.
- 7 The System PG for Unified CCE returns a ROUTE\_RESPONSE to the Unified Communications Manager.
- 8 The call reaches an available agent.

## Agent Unavailable on Child

After the call arrives in the Child System, the call flow works as follows if an agent is not available:



- 1 The call comes to the CTI route point on the Unified Communications Manager of the child system. Unified Communications Manager sends a ROUTE\_REQUEST message (to determine that the Gateway PG is registered for control of this route point) to the System PG for Unified CCE.
- 2 The System PG for Unified CCE recognizes that the route point is registered by the parent Gateway PG. The System PG then sends a ROUTE\_REQUEST message to the Unified CCE Gateway PG.

- 3 The Unified CCE Gateway PG matches up the DNIS on the route point (translation route). The PG then responds with a ROUTE\_SELECT (and a label), which is a CTI route point on the child Unified Communications Manager and also a configured DN on the child.
- 4 The System PG for Unified CCE sends the ROUTE\_RESPONSE to the child Unified Communications Manager.
- 5 Because the response is a configured DN, the System PG sends a NEW\_CALL to the child Unified CCE Router.
- 6 The script determines the skill group that can best answer the call and checks for agent availability. Since an agent is unavailable to answer the call, the Unified CCE script places the call in a queue for the specific skill group.
- 7 The Unified CCE Router returns a CONNECT message with a label to the Unified Communications Manager. The label allows the call to route to the Unified IP IVR. For Unified IP IVR, the dialed number is a CTI route point that the Unified IP IVR user owns.

**Note**


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On Unified IP IVR, this CTI route point is defined as a JTAPI Trigger. Unified IP IVR is in the same Unified Communications Manager cluster as the call.

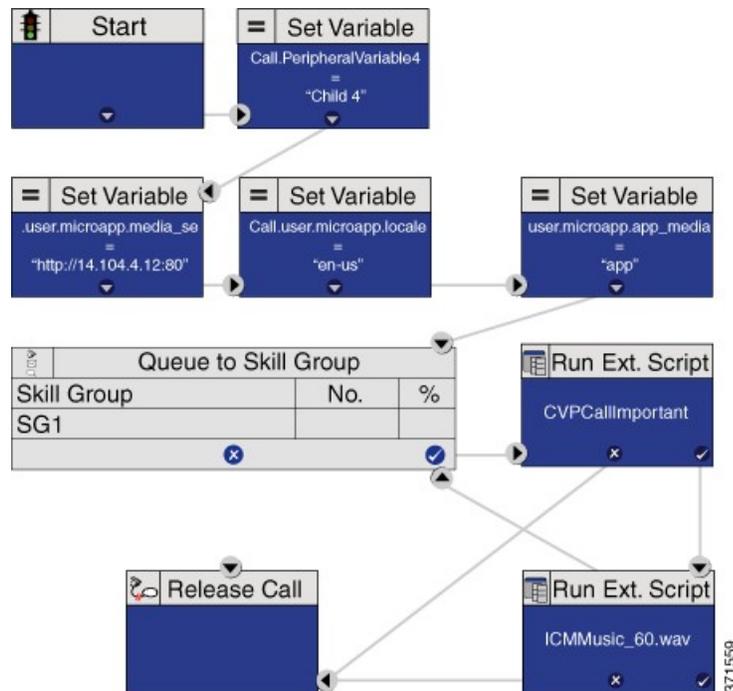
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- 8 When the call arrives, the JTAPI link on Unified Communications Manager informs Unified IP IVR, which in turn informs the System PG for Unified CCE.
- 9 When the System PG for Unified CCE receives the incoming call arrival message, the System PG sends a REQUEST\_INSTRUCTION to the Unified CCE Router.
- 10 Unified CCE instructs Unified IP IVR, through the System PG, to play the queue messages for the caller with a RUN\_SCRIPT. The queue messages continue until an agent is available to take the call.
- 11 Once an agent becomes available, Unified CCE then does the following:
  - Sends a PRE\_CALL message to the System PG for Unified CCE with call context information. The System PG reserves the agent and waits for the call to arrive at the agent phone.
  - Instructs Unified IP IVR to redirect the call from the agent queue to the available agent through the System PG.
- 12 Unified IP IVR then sends the call to the Unified Communications Manager. The call then continues through the call flow for an available agent.

## Call Flow with Translation Route

The following routing script uses a translation route. The routing script supports a call flow where the call originates at the child Unified CVP and no agent is available. The call is then queued locally until an agent becomes available to answer the call.

**Figure 3: Translation Routing Script**



### Queue to Unified CVP on Child

#### Procedure

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- Step 1** Populate the following **Set Variable** nodes (used with Unified CVP):
- `call.user.microapp.media_server = <voice_browser_address>`
  - `call.user.microapp.locale = en-us`
  - `call.user.microapp.app_media_lib = app`
- Step 2** Add a **Queue to Skill Group** and call it SG1.
- Step 3** Add **Run External Script** nodes that run the `CVPCallImportant` script.
- Step 4** Save the script and activate it.
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