

Hotline

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Hotline Overview

The Hotline feature extends the Private Line Automatic Ringdown (PLAR) feature, which allows you to configure a phone so that when the user goes off hook (or the NewCall softkey or line key gets pressed), the phone immediately dials a preconfigured number. The phone user cannot dial any other number from a phone that is configured for PLAR. Hotline adds the following additional restrictions and administrator controls for phones that use PLAR:

- Hotline devices (devices configured to use hotline) that receive calls will receive calls only from other hotline devices, and will reject non-hotline callers.
- You can configure a Hotline phone to call only, receive only, or both call and receive.
- You can restrict the features available on a Hotline phone by applying a softkey template to the phone.
- Analog hotline phones ignore inbound hookflash signals.

Route Class Signaling

Hotline uses route class signaling to allow Hotline phones to receive calls only from other Hotline phones. A route class is a DSN code that identifies the class of traffic for a call. The route class informs downstream devices about special routing or termination requirements. A Hotline phone can only accept calls from a Hotline phone with the same route class.

Call Screening

Hotline also provides Configurable Call Screening based on caller ID. Configurable Call Screening allows a receiving Hotline phone to screen calls based on caller ID information and allow only callers in a screening list to connect.

System Requirements for Hotline

The following hotline system requirements exist for Unified Communications Manager:

- Unified Communications Manager 8.0(1) or higher on each server in the cluster
- MGCP gateway POTS phones (FXS).
- SCCP gateway POTS phones (FXS).



Tip

Cisco Feature Navigator allows you to determine which Cisco IOS and Catalyst OS software images support a specific software release, feature set, or platform. To access Cisco Feature Navigator, go to http://cfn.cloudapps.cisco.com/ITDIT/CFN/.

You do not need a Cisco.com account to access Cisco Feature Navigator.

Hotline Configuration Task Flow

Procedure

	Command or Action	Purpose
Step 1	Generate a Phone Feature List	Log in to Cisco Unified Reporting and run a phone feature list report to determine which phones support Hotline.
Step 2	Create Custom Softkey Template, on page 2	Optional. If you want to restrict features on a Hotline phone, create a softkey template that allows only the features that you want.
Step 3	Configure Hotline on Phones, on page 3	Enable the phone as a Hotline device.
Step 4	Configure Route Class Signaling Task Flow, on page 4	Configure route class signaling to support the Hotline feature.
Step 5	Configure Hotline to Call Only or Receive Only Task Flow, on page 8	Optional . If you want to restrict a Hotline phone to either originating calls only or terminating calls only, configure call and receive settings.
Step 6	Configure Call Screening with a Calling Search Space, on page 10	Optional . Use calling search spaces and partitions to configure a call screening list for your Hotline phones.

Create Custom Softkey Template

When configuring Hotline, you can customize a softkey template to display only those features that you want to make available to a Hotline phone.

Unified Communications Manager includes standard softkey templates for call processing and applications. When creating custom softkey templates, copy the standard templates and make modifications as required.

Before you begin

Generate a Phone Feature List

Procedure

- **Step 1** Choose **Device** > **Device Settings** > **Softkey Template**.
- Step 2 Click Add New.
- **Step 3** From the drop-down list, select a softkey template and click **Copy** to create a new template.
- **Step 4** In the **Softkey Template Name** field, enter a unique name to identify the softkey template.
- Enter a description that describes the use of the template. The description can include up to 50 characters in any language, but it cannot include double-quotes ("), percentage sign (%), ampersand (&), backslash (\), or angle brackets (<>).
- **Step 6** To designate this softkey template as the standard softkey template, check the **Default Softkey Template** check box.
 - **Note** If you designate a softkey template as the default softkey template, you will not be able to delete this softkey template unless you first remove the default designation.
- Step 7 Click Save.

The softkey template gets copied, and the **Softkey Template Configuration** window redisplays.

- **Step 8** (Optional) Click the **Add Application** button.
- **Step 9** Configure the positions of the softkeys on the Cisco Unified IP Phone LCD screen.
- **Step 10** To save your configuration, click **Save**.

Configure Hotline on Phones

Use this procedure to enable the phone as a Hotline device.

Before you begin

Optional. If you want to create a custom softkey template to display only those features that you want to make available to a Hotline phone, see Create Custom Softkey Template, on page 2.

- **Step 1** From Cisco Unified CM Administration, choose **Device** > **Phone**.
- **Step 2** Click **Find** and select the phone that you want to enable as a Hotline device.
- **Step 3** Check the **Hotline Device** check box.

Step 4 If you have created a custom softkey template specifically for the Hotline phone, from the **Softkey Template** drop-down list, choose the softkey template.

Step 5 Click Save.

Note

You can also assign a softkey template to a Device Pool and then assign that Device Pool to the phone.

Configure Route Class Signaling Task Flow

Perform this task flow to configure route class signaling for Hotline calls.

Procedure

	Command or Action	Purpose
Step 1	Enable Route Class Signaling in the Cluster, on page 4	Set the route class signaling clusterwide defaults for trunks and gateways to enabled.
		Note The settings for individual trunks and gateways override the clusterwide defaults. If you use this service parameter to enable route class signaling across the cluster, route class signaling can still be disabled on an individual trunk or gateway.
Step 2	Enable Route Class Signaling on Trunks, on page 5	Enable route class signaling on an individual trunk.
Step 3	Enable Route Class Signaling on Gateways, on page 5	Enable route class signaling on an MGCP T1/CAS or MGCP PRI gateway.
Step 4	Configure Signaling Labels for the Hotline Route Class, on page 6	Configure SIP signaling labels for Hotline route classes.
Step 5	Configure the Route Class on Hotline Route Patterns, on page 7	Configure the route class on the route patterns that are routing your Hotline calls.
Step 6	Configure the Route Class on Hotline Translation Patterns, on page 7	Optional . If you use translation patterns on your Hotline calls, configure the route class on your translation patterns.

Enable Route Class Signaling in the Cluster

When you set the **Route Class Trunk Signaling Enabled** service parameter to **True**, the default route class signaling setting for all trunks or gateways in the cluster that support route class signaling is set to enabled.



Note

The settings for individual trunks and gateways override the clusterwide defaults. If you use this service parameter to enable route class signaling across the cluster, route class signaling can still be disabled on an individual trunk or gateway.

Procedure

- **Step 1** From Cisco Unified CM Administration, choose **System > Service Parameters**.
- Step 2 Set the Route Class Trunk Signaling Enabled service parameter to True.
- Step 3 Click Save.

What to do next

Use the following procedures to configure route class signaling on individual trunks or gateways.

Enable Route Class Signaling on Trunks, on page 5

Enable Route Class Signaling on Gateways, on page 5

Enable Route Class Signaling on Trunks

Use this procedure to enable route class signaling on an individual trunk. The configuration for individual trunks overrides the clusterwide service parameter setting.

Before you begin

Follow the Enable Route Class Signaling in the Cluster, on page 4 procedure to use a clusterwide service parameter to configure the default route class signaling settings for all trunks in the cluster.

Procedure

- **Step 1** From Cisco Unified CM Administration, choose **Device** > **Trunks**.
- Step 2 Click Find and select the SIP trunk on which you want to enable route class signaling.
- Step 3 From the Route Class Signaling Enabled drop-down list box, choose one of the following options:
 - Default—This trunk uses the setting from the Route Class Signaling Enabled service parameter.
 - Off—Route class signaling is disabled for this trunk.
 - On—Route class signaling is enabled for this trunk.
- Step 4 Click Save.

Enable Route Class Signaling on Gateways

Use this procedure to enable route class signaling on an individual MGCP PRI or MGCP T1/CAS gateway. The configuration for individual gateways overrides the clusterwide service parameter setting.

Before you begin

Follow the Enable Route Class Signaling in the Cluster, on page 4 procedure to use a clusterwide service parameter to set the default route class signaling setting for gateways in the cluster.

Perform the Enable Route Class Signaling on Trunks, on page 5 procedure to configure route class signaling for individual trunks.

Procedure

- **Step 1** From Cisco Unified CM Administration, choose **Device** > **Gateways**.
- **Step 2** Click **Find** and select the gateway on which you want to configure route class signaling.
- **Step 3** From the **Route Class Signaling Enabled** drop-down list box, choose one of the following options:
 - **Default**—This gateway uses the setting from the clusterwide Route Class Signaling Enabled service parameter.
 - Off—Route class signaling is disabled on this gateway.
 - On—Route class signaling is enabled on this gateway.
- **Step 4** If you want to encode voice route class for voice calls, check the **Encode Voice Route Class** check box.
- Step 5 Click Save.

Configure Signaling Labels for the Hotline Route Class

You must configure a SIP signaling label value for the Hotline route class that you want to use.

Before you begin

Enable route class signaling on your trunks and gateways. For details, see Enable Route Class Signaling in the Cluster, on page 4.

- **Step 1** From Cisco Unified CM Administration, choose **System > Service Parameters**.
- **Step 2** From the **Server** drop-down list, choose the server on which the CallManager service is running.
- **Step 3** From the **Service** drop-down list, choose **Cisco CallManager**.
- Step 4 Click Advanced.
- Step 5 In the SIP Route Class Naming Authority service parameter field, enter a value to represent the naming authority and context for the labels used in SIP signaling to represent route class. The default value is **cisco.com**.
- Step 6 In the SIP Hotline Voice Route Class Label service parameter field, enter a label to represent the Hotline Voice route class. The default value is hotline.
- Step 7 In the SIP Hotline Data Route Class Label service parameter field, enter a lable to represent the Hotline Data route class. The default value is ccdata.
- Step 8 Click Save.

Configure the Route Class on Hotline Route Patterns

This procedure describes call routing instructions that are specific to Hotline devices. For more information on how to configure route patterns and translation patterns in your network, see the System Configuration Guide for Cisco Unified Communications Manager.

For each route pattern that you expect to route a Hotline call, you must set the route class for that route pattern to **Hotline Voice** or **Hotline Data**.

Before you begin

Configure Signaling Labels for the Hotline Route Class, on page 6

Before you perform this procedure, it is expected that your network call routing is set up with route patterns.

Procedure

- **Step 1** From Cisco Unified CM Administration, choose **Call Routing > Route/Hunt > Route Patterns**.
- **Step 2** Click **Find** to display a list of route patterns in your network.
- **Step 3** For each T1/CAS route pattern that is used to route a Hotline call:
 - a) From the **Find and List Route Patterns** window, select the route pattern.
 - b) From the **Route Class** drop-down list box, choose either **Hotline Voice** or **Hotline Data** as the route class for this route pattern.
 - c) Click Save.

Configure the Route Class on Hotline Translation Patterns

Before you begin

Before you perform this procedure, it is expected that you have set up network call routing with route patterns and translation patterns.

Perform the Configure the Route Class on Hotline Route Patterns, on page 7 procedure.

- Step 1 From Cisco Unified CM Administration, choose Call Routing > Translation Pattern.
- **Step 2** Click **Find** to display the translation patterns in your cluster.
- **Step 3** For each translation pattern that you want to use on a Hotline number, perform the following steps:
 - a) From the Route Class drop-down list box, select either Hotline Voice or Hotline Data.
 - b) Click Save.

Configure Hotline to Call Only or Receive Only Task Flow

The configuration example in this task flow describes how to set up a Hotline phone to either place calls only or receive calls only.

Procedure

	Command or Action	Purpose
Step 1	Configure Partitions for Hotline Call Only Receive Only, on page 8	Create two partitions: one should be empty and the other will be assigned to a new CSS.
Step 2	Configure Calling Search Space for Hotline Call Only Receive Only, on page 8	Create a new calling search space and assign one of the new partitions to this CSS. This CSS will contain no other partition.
Step 3	Perform one of the following procedures: • Configure Call Only on Hotline Phone, on page 9 • Configure Receive Only on Hotline Phone, on page 9	If you want to configure call only, assign the empty partition to the phone line. If you want to configure receive only, assign the new CSS to the phone.

Configure Partitions for Hotline Call Only Receive Only

If you want to configure a Hotline phone to either place calls only, or to receive calls only you must create two partitions.

Procedure

- Step 1 From Cisco Unified CM Administration, choose Call Routing > Class of Control > Partitions.
- Step 2 Click Add New.
- **Step 3** Create a new partition.
- **Step 4** Enter a unique name and description for the partition. For example, **IsolatedPartition**.

Note This partition will not be assigned to any CSS.

- Step 5 Click Save
- **Step 6** Repeat steps 2-5 and create a second partition. For example, **EmptyPartition**.

Note This partition will not be assigned to any phone line, but it will be assigned to the NoRouteCSS.

Configure Calling Search Space for Hotline Call Only Receive Only

You must create a calling search and assign one of the two partitions that you've created to the calling search space.

Before you begin

Configure Partitions for Hotline Call Only Receive Only, on page 8

Procedure

- **Step 1** From Cisco Unified CM Administration, choose **Call Routing > Class of Control > Calling Search Space**.
- Step 2 Click Add New.
- **Step 3** Enter a **Name** and **Description** for the calling search space.
- **Step 4** From the **Available Partitions** list box, use the arrows to select the **EmptyPartition** partition.

Note Make sure that the partition is assigned to only this calling search space and to no phone lines.

Step 5 Click Save

What to do next

Perform one of the following procedures:

- Configure Call Only on Hotline Phone, on page 9
- Configure Receive Only on Hotline Phone, on page 9

Configure Call Only on Hotline Phone

If you have set up your partitions and calling search spaces, perform these steps to configure the Hotline phone to place calls only.

Before you begin

Configure Calling Search Space for Hotline Call Only Receive Only, on page 8

Procedure

- **Step 1** From Cisco Unified CM Administration, choose **Call Routing > Phone**.
- **Step 2** Click **Find** and select the Hotline phone.
- **Step 3** From the left navigation pane, click the phone line.

The Directory Number Configuration window displays.

- **Step 4** From the **Route Partition** drop-down list, select the empty partition that you created.
- Step 5 Click Save.

Configure Receive Only on Hotline Phone

If you have created your calling search space and partitions already, perform these steps to configure the Hotline phone to receive calls only.

Before you begin

Configure Calling Search Space for Hotline Call Only Receive Only, on page 8

Procedure

- **Step 1** From Cisco Unified CM Administration, choose **Device** > **Phone**.
- **Step 2** Click **Find** and select the Hotline phone.
- **Step 3** From the **Calling Search Space** drop-down list, select the new CSS that you created in the previous procedure.
- Step 4 Click Save.

Configure Call Screening with a Calling Search Space

Configure call screening for any intraswitched (line to line) Hotline calls by assigning a unique CSS where the Hotline phones that are in the partitions are only those Hotline phones that you want to be able to call each other.



Note

You can also configure call screening by creating translation patterns where each pattern matches each number pattern that you want to either allow or screen.

Procedure

	Command or Action	Purpose
Step 1	Configure Partitions for Hotline Call Screening, on page 10	Create any new partitions for your Hotline phone lines.
Step 2	Create Calling Search Space for Hotline Call Screening, on page 11	Create a new CSS for the screening list. The CSS must include partitions with only those Hotline numbers that you want to allow.
Step 3	Configure Hotline Phones for Call Screening, on page 12	Assign the new CSS and partition to the Hotline phone.

Configure Partitions for Hotline Call Screening

To configure call screening in Hotline phones using a calling search space, you must set up partitions where the only Hotline numbers are those that you want to allow.

Perform the following procedure if you need to create a new partition for your Hotline call screening list.

- **Step 1** From Cisco Unified CM Administration, choose **Call Routing > Class of Control > Partition**.
- **Step 2** Click **Add New** to create a new partition.

- Step 3 In the Partition Name, Description field, enter a name for the partition that is unique to the route plan.

 Partition names can contain alphanumeric characters, as well as spaces, hyphens (-), and underscore characters

 (_). See the online help for guidelines about partition names.
- Enter a comma (,) after the partition name and enter a description of the partition on the same line.

 The description can contain up to 50 characters in any language, but it cannot include double quotes ("), percentage sign (%), ampersand (&), backslash (\), angle brackets (<>), or square brackets ([]).

 If you do not enter a description, Cisco Unified Communications Manager automatically enters the partition name in this field.
- **Step 5** To create multiple partitions, use one line for each partition entry.
- **Step 6** From the **Time Schedule** drop-down list, choose a time schedule to associate with this partition.

 The time schedule specifies when the partition is available to receive incoming calls. If you choose **None**, the partition remains active at all times.
- **Step 7** Select one of the following radio buttons to configure the **Time Zone**:
 - Originating Device—When you select this radio button, the system compares the time zone of the calling device to the **Time Schedule** to determine whether the partition is available is available to receive an incoming call.
 - **Specific Time Zone**—After you select this radio button, choose a time zone from the drop-down list. The system compares the chosen time zone to the **Time Schedule** to determine whether the partition is available is available to receive an incoming call.
- Step 8 Click Save.

Create Calling Search Space for Hotline Call Screening

Perform the following procedure to create a new calling search space for the Hotline phones in the call screening list. Make sure that the only Hotline numbers in the partitions that you select for this CSS are those Hotline numbers that you want to allow in the call screening list. No Hotline numbers that you want to screen out should be included in the partitions for this CSS.

Before you begin

Configure Partitions for Hotline Call Screening, on page 10

Procedure

- Step 1 From Cisco Unified CM Administration, choose Call Routing > Class of Control > Calling Search Space.
- Step 2 Click Add New.
- **Step 3** In the **Name** field, enter a name.

Ensure that each calling search space name is unique to the system. The name can include up to 50 alphanumeric characters and can contain any combination of spaces, periods (.), hyphens (-), and underscore characters ().

Step 4 In the **Description** field, enter a description.

The description can include up to 50 characters in any language, but it cannot include double-quotes ("), percentage sign (%), ampersand (&), back-slash (\), or angle brackets (<>).

- **Step 5** From the **Available Partitions** drop-down list, perform one of the following steps:
 - For a single partition, select that partition.
 - For multiple partitions, hold down the **Control** (**CTRL**) key, then select the appropriate partitions.
- **Step 6** Select the down arrow between the boxes to move the partitions to the **Selected Partitions** field.
- **Step 7** (Optional) Change the priority of selected partitions by using the arrow keys to the right of the **Selected Partitions** box.
- Step 8 Click Save.

Configure Hotline Phones for Call Screening

If you have already configured calling search spaces and partitions for Hotline call screening, perform this procedure to assign the calling search spaces and partitions to your Hotline phones.

Before you begin

Create Calling Search Space for Hotline Call Screening, on page 11

Procedure

- **Step 1** From Cisco Unified CM Administration, choose **Device** > **Phone**.
- **Step 2** Click **Find** and select the Hotline phone.
- **Step 3** From the **Calling Search Space** drop-down list, select the new calling search space that you created for the Hotline call screening list.
- Step 4 Click Save.
- **Step 5** From the left navigation pane, click the phone line that you want to use for Hotline calls. The Directory Number Configuration window displays.
- **Step 6** From the **Route Partition** drop-down list, select a partition that is included in the calling search space that you set up.
- Step 7 Click Save.

Hotline Troubleshooting

The following table provides troubleshooting information for cases where hotline calls do not dial correctly.

Table 1: Troubleshooting Hotline—Calls Do Not Dial Correctly

Problem	Solution
Dial tone	Check PLAR configuration.
Reorder tone or VCA (intracluster call)	Check PLAR configuration. Verify that the phones on both ends are configured as hotline phones.

Problem	Solution
Reorder tone or VCA (intercluster or TDM call)	 Check PLAR configuration. Verify that the phones on both ends are configured as hotline phones. Verify that route class signalling is enabled on trunks. Check the configuration of route class translations on CAS gateways.

The following table provides troubleshooting information for cases where call screening based on caller ID does not work.

Table 2: Troubleshooting Hotline—Call Screening Based on Caller ID Problems

Problem	Solution
Call not allowed	Check Caller ID. Add pattern to screen CSS.
Call allowed	Remove pattern from screen CSS.

Hotline Troubleshooting