GLOBALCOM®.IP

Topic: Configuring a Trunk in Cisco Unified Call Manager v11.0 for GCK

Background

This document describes the steps necessary to configure Cisco Unified Call Manager (CUCM) version 11.0 in order to interface with AtlasIED GCK version 1.0 or higher running in Trunking Mode. In this mode, GCK acts like a series of softphones belonging to a separate SIP trunk, which can be set up to work with CUCM. This guide will also provide instructions for connecting GCK to a CUCM trunk and how to test the trunk.

This document assumes the following:

- The user has a functioning installation of CUCM.
- CUCM has enough license units available to allow a SIP trunk to be installed. Contact Cisco for licensing information.

Installation

The process of creating a new SIP trunk consists of the following steps:

1. Configuring a new Trunk Security Profile.
2. Adding a new SIP Profile.
3. Adding a new Trunk Device Profile.
4. Adding a new Route Group.
5. Adding a new Route List.
6. Adding a new Route Pattern.
7. Configuring GCK with CallManager trunking.
8. Testing.

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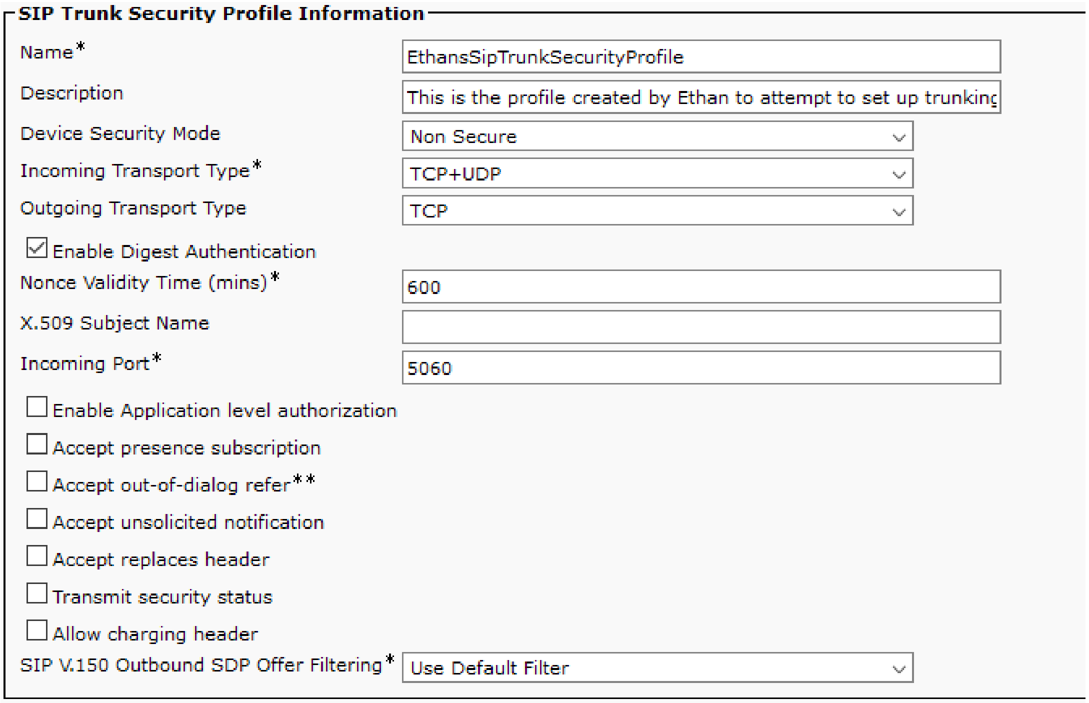
Configure the Trunk Security Profile

1. Navigate to System > Security > SIP Trunk Security Profile.
2. Click “Add New” to bring up the SIP Trunk Security Profile Configuration screen (Figure 1).



SIP Trunk Security Profile Information

Name*	EthansSipTrunkSecurityProfile
Description	This is the profile created by Ethan to attempt to set up trunkinc
Device Security Mode	Non Secure
Incoming Transport Type*	TCP+UDP
Outgoing Transport Type	TCP
☑ Enable Digest Authentication	
Nonce Validity Time (mins)*	600
X.509 Subject Name	
Incoming Port*	5060
☐ Enable Application level authorization	
☐ Accept presence subscription	
☐ Accept out-of-dialog refer**	
☐ Accept unsolicited notification	
☐ Accept replaces header	
☐ Transmit security status	
☐ Allow charging header	
SIP V.150 Outbound SDP Offer Filtering*	Use Default Filter

Figure 1

3. Fill in the profile name.
4. Set the outgoing transport type to UDP.
5. Check the Enable Digest Authentication box.
6. Click Save.

Add New SIP Profile

1. Navigate to Device > Device Settings > SIP Profile.
2. Click Find to list all of the SIP Profiles and then click on Standard SIP Profile (Figure 2).

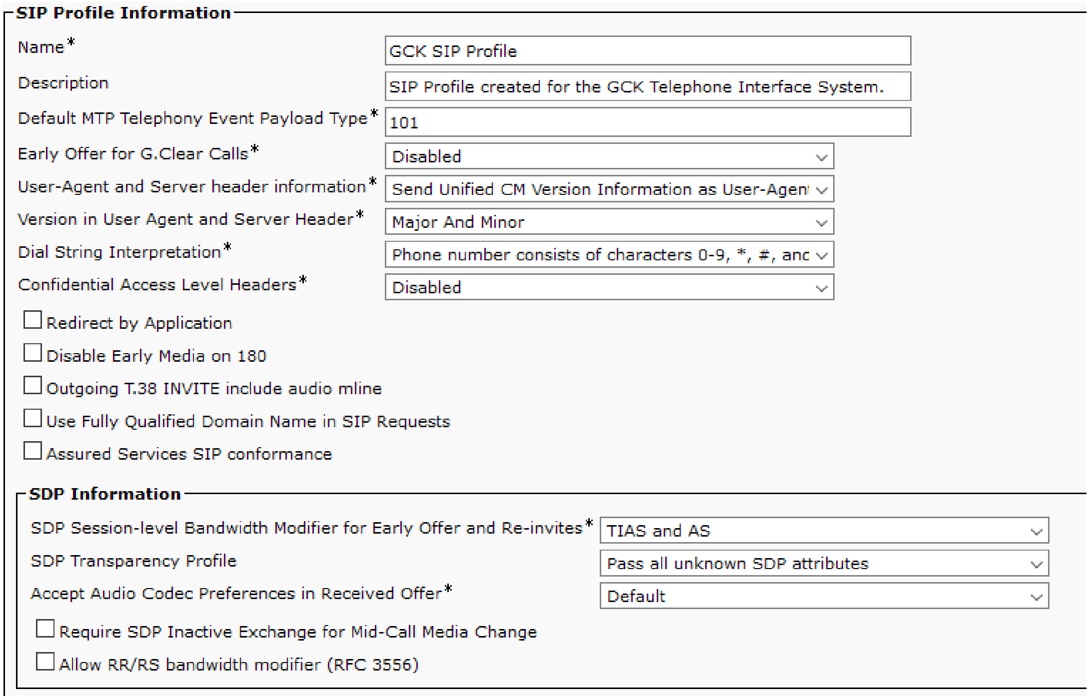


Figure 2

3. Click Copy.
4. Fill out the device name.
5. Fill out the device description.
6. Scroll down to the Trunk Specific Configuration section and select “Best Effort (no MTP inserted)” (Figure 3) from the Early Offer support for voice and video calls dropdown menu.

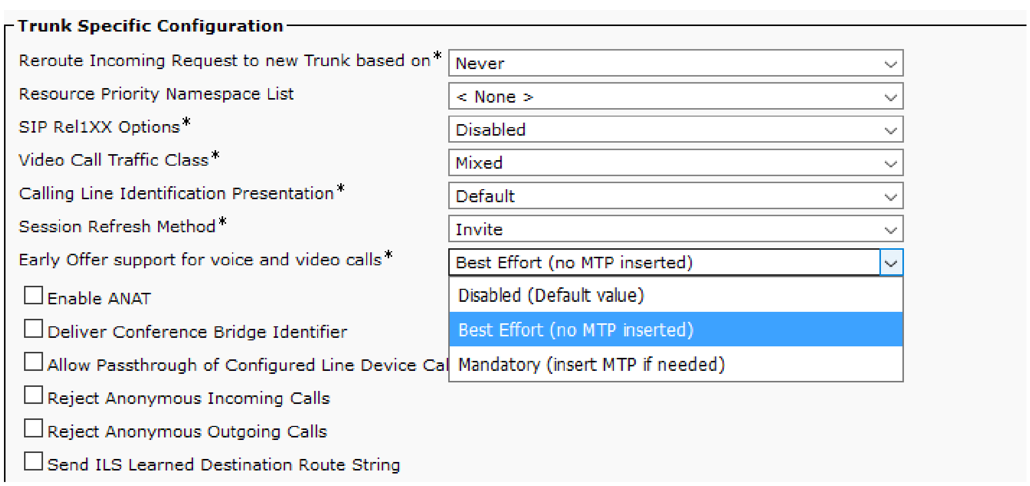


Figure 3

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7. Scroll down to the SDP Information section and check the checkbox for “Allow multiple codecs in answer SDP” (Figure 4).

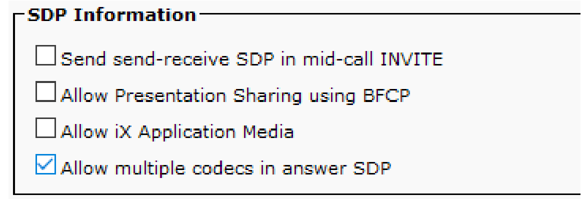

Figure 4

Add Trunk Device profile

1. Navigate to Device > Trunk.
2. Click “Add New” to bring up the Trunk Configuration screen .
3. Select SIP Trunk for the Trunk type and leave the rest of the settings at their default (Figure 5).

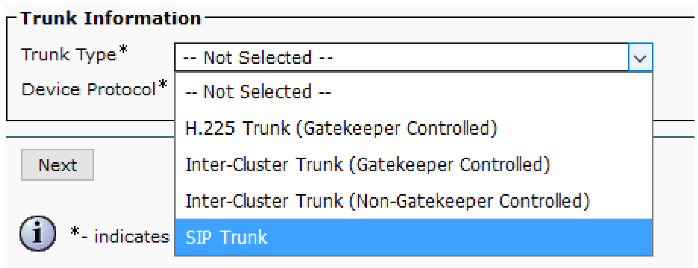

Figure 5

4. Click Next to open the Trunk Configuration window (Figure 6).

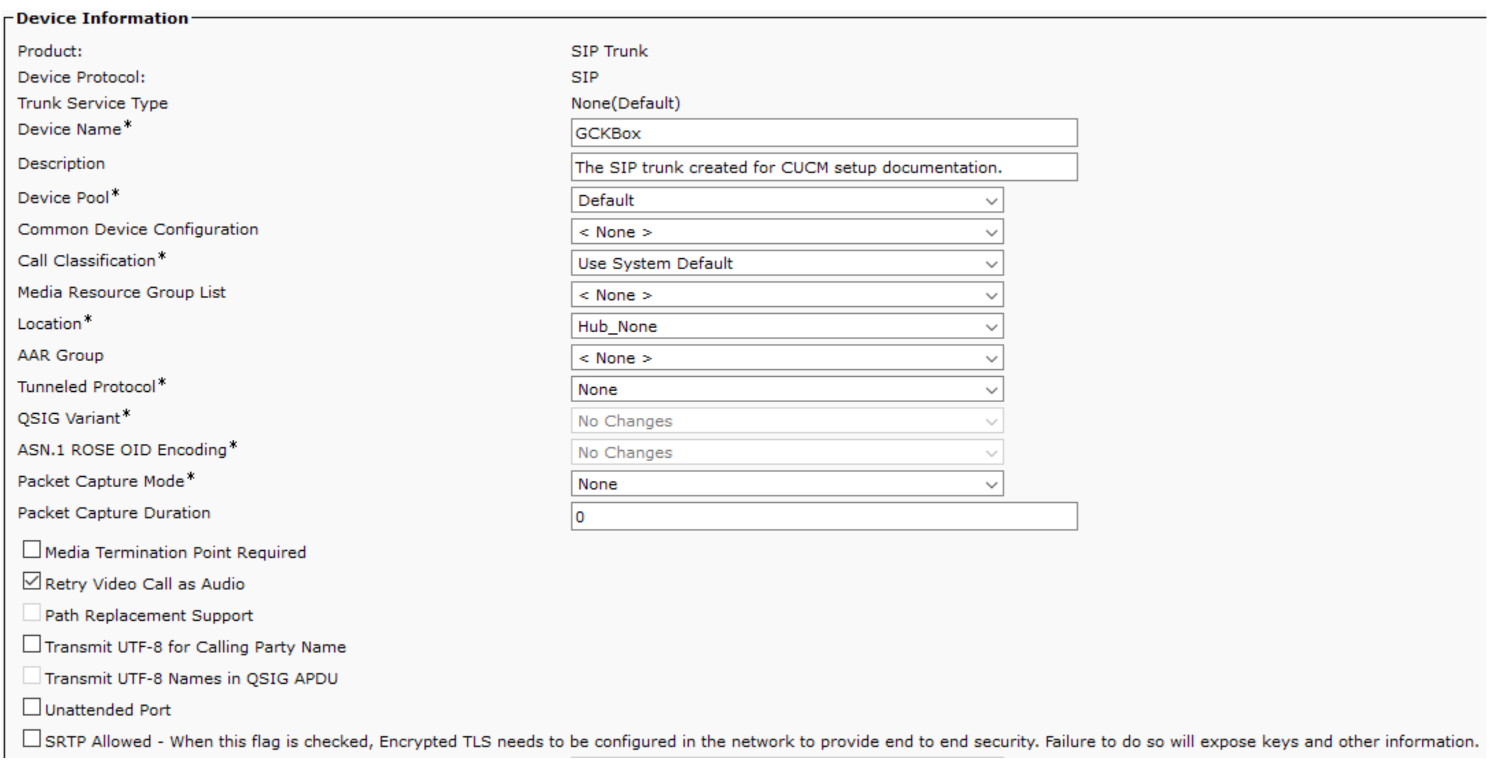

Figure 6

5. Fill in the Device Name.
6. Select a device pool from the Device Pool dropdown menu.

7.Scroll to the SIP Information section and fill in the Destination Address with the IP address of the GCK controller (Figure 7).

Figure 7

8.Set the Destination port to 5080.
9.Select a trunk security profile in the “SIP Trunk Security Profile” dropdown menu (Figure 8).

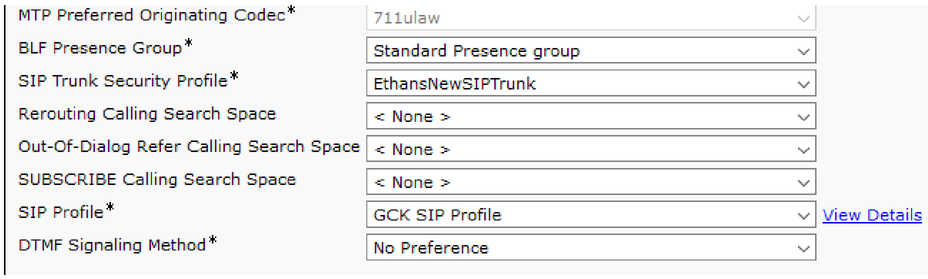

Figure 8

10. Select a sip profile “SIP Profile” dropdown menu.
11. Click Save.

Add a New Route Group

1.Navigate to Call Routing > Route/Hunt > Route Group.
2.Click “Add New” to open the Route Group Configuration screen (Figure 9).

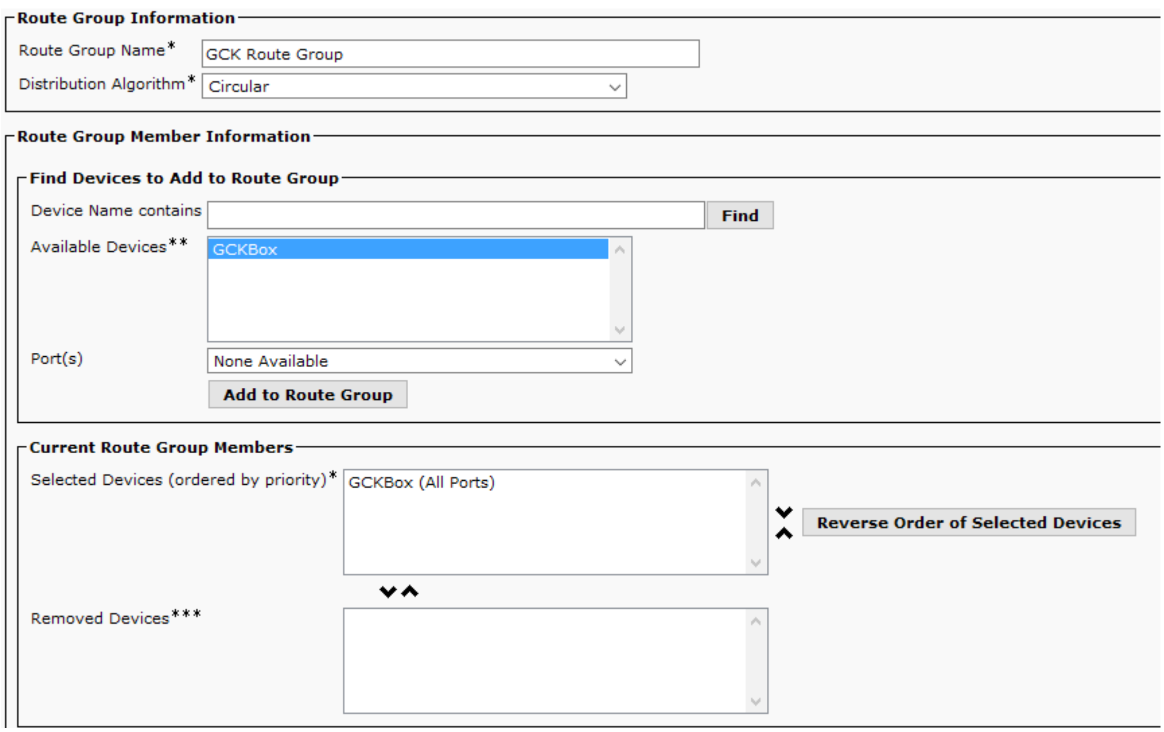

Figure 9

3.Fill in the Route Group Name.

4. In the “Find Devices to Add to Route Group” section, highlight the trunk you want to configure and click “Add to Route Group”.
5. Click Save.

Add a New Route List

1. Navigate to Call Routing > Route/Hunt > Route List.
2. Click Add new to bring up the Route List Configuration Screen (Figure 10).
3. Fill in the Name.

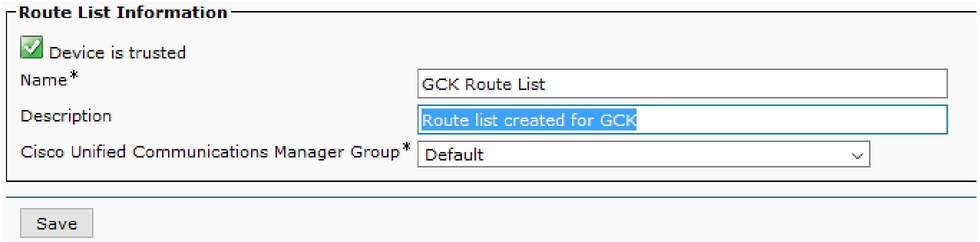

Figure 10

4. Select the appropriate manager group.
5. Click Save.
6. After clicking save, more settings will appear in the window. In the “Route List Member Information” section, click the “Add Route Group” button (Figure 11).

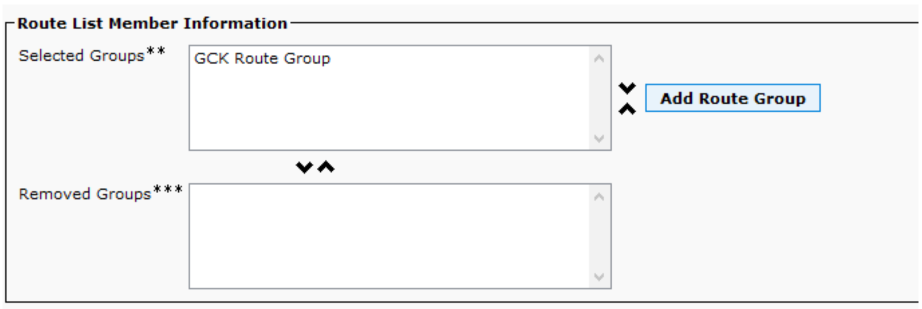

Figure 11

7. In the Route List Detail Configuration window (Figure 12) Select the route group you created from the Route Group dropdown menu.

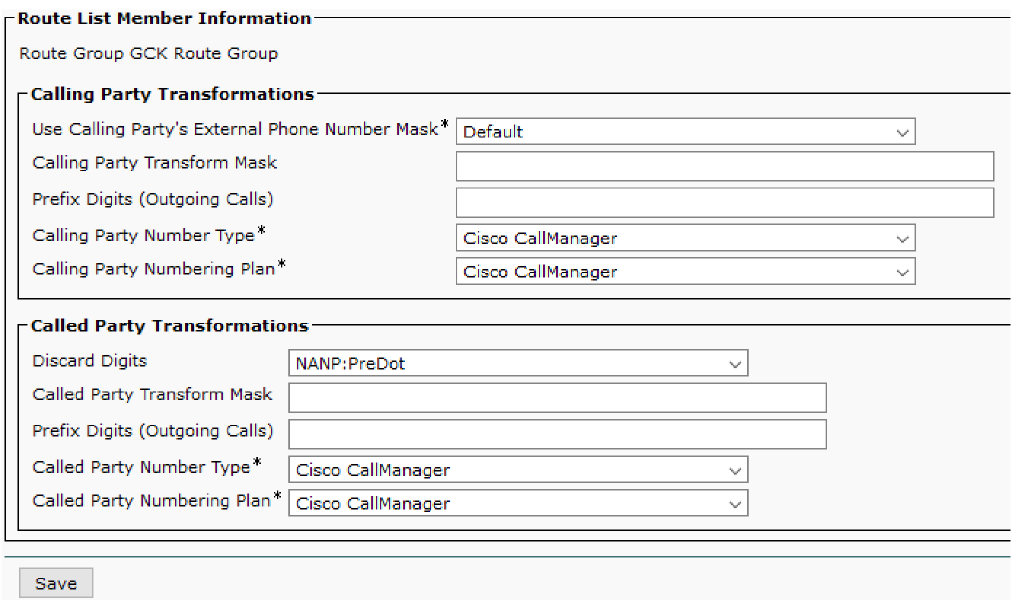

Figure 12

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8. Select “NANP.PreDot” from the Discard Digits dropdown menu.
9. Click Save.

Add a New Route Pattern

1. Navigate to Call Routing > Route/Hunt > Route Pattern.
2. Click “Add New” to bring up the Route Pattern Configuration screen (Figure 13).

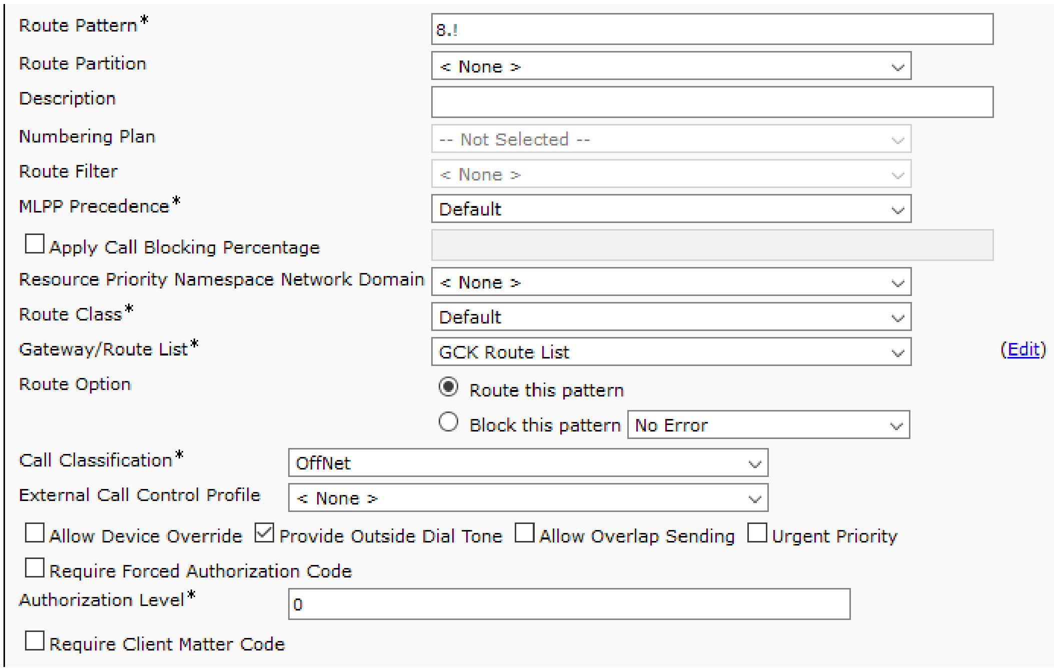

Figure 13

3. Fill in the Route Pattern. We recommend using 8.! to set the route pattern to call to the GCK box when 8 is dialed in front of the extension.
4. In the Gateway/Route List dropdown menu, select the route list that was created above.
5. Click Save.

Configuring GCK with CallManager Trunking

1. Log in to GCK as an admin.
2. Navigate to the Configuration tab.
3. Navigate to the Telephone sub-tab.
4. Select “External via Trunking” from the SIP Configuration Mode dropdown menu (Figure 14).

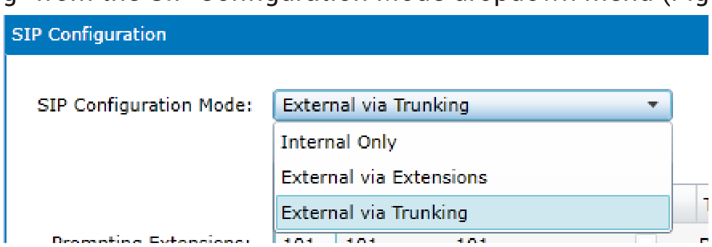

Figure 14

Testing

1. Add a new direct extension to the system by clicking the "+" button above Direct Extensions.
2. Fill in the Ext, SIP User, and SIP Password fields (we recommend using the same value in each field if possible).
3. Click "Edit" in the action performed field to bring up the action details configuration window (Figure 15).

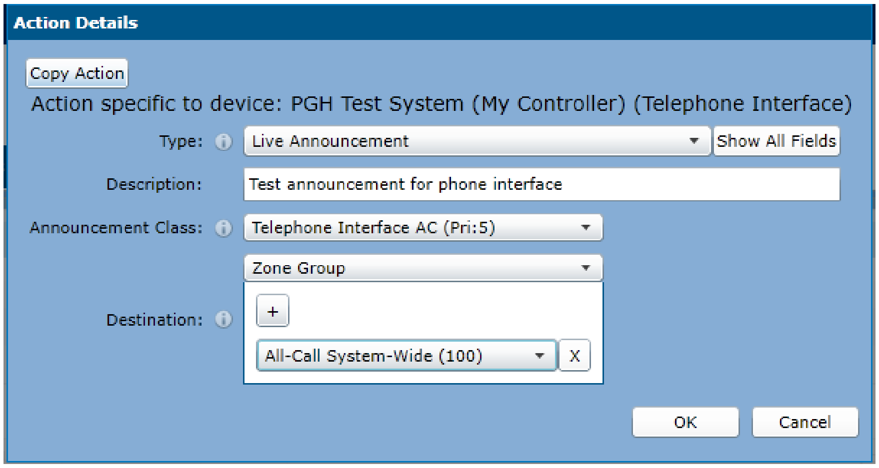

Figure 15

4. Select Live Announcement for the type.
5. Select All-Call as the destination for the announcement (This is assuming you have created an all-call destination in your controller).
6. Dial the extension number preceded by an 8 and verify that you can hear audio coming through the speakers.

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