

InformaCast integration with CUCM using CTI Route Point

This document explains the integration of InformaCast Paging Server with CUCM using CTI RP with an Example.

Scenario:

Directory Numbers in the CUCM are 1001, 1002, 1003 and 1004.

1003 will dial InformaCast number 1555 to broadcast live audio to 1001,1002 and 1004.

The region is configured to have G.711 μ Law between Informcast CTI RP and Phones.

Configuration Steps:

Step 1:

Create an SNMP public string in CUCM under Cisco Unified Serviceability/Snmp/V1V2/Community String.

Search Results		
<input type="checkbox"/>	Community String Name	Access Privileges
<input type="checkbox"/>	public	ReadNotifyOnly

Step 2:


Create CTI Route Point with Directory Number 1555.

Device is trusted

Device Name*	<input type="text" value="Informacast_RP"/>
Description	<input type="text" value="Informacast_RP"/>
Device Pool*	<input type="text" value="G711"/> View Details
Common Device Configuration	<input type="text" value=" < None >"/> View Details
Calling Search Space	<input type="text" value=" < None >"/>
Location*	<input type="text" value="Hub_None"/>
User Locale	<input type="text" value=" < None >"/>
Media Resource Group List	<input type="text" value=" < None >"/>
Network Hold MOH Audio Source	<input type="text" value=" < None >"/>
User Hold MOH Audio Source	<input type="text" value=" < None >"/>
Use Trusted Relay Point*	<input type="text" value="Default"/>
Calling Party Transformation CSS	<input type="text" value=" < None >"/>
Geolocation	<input type="text" value=" < None >"/>

Use Device Pool Calling Party Transformation CSS


Association

 [Line \[1\] - 1555 \(no partition\)](#)


Step 3:

Create an Access Control Group and assign Role "Standard AXL API Access" to it.

Access Control Group Configuration

 Save

Status

 Status: Ready

Access Control Group Information

Name* AXL_API_ACCESS_INFORMACAST

Role Assignment

Role	<input type="text" value="Standard AXL API Access"/>	<input type="button" value="Assign Role to Group"/>
		<input type="button" value="Delete Role Assignment"/>

Step 4:

Create an Application user with the following Access Control Groups and Select the created CTI Route Point in Controlled Devices.

- Standard AXL API Access Group (The one Created in Step 3)
- Standard CTI enabled
- Standard CTI Allow Control of Phones supporting Connected Xfer and conf,
- Standard CTI Allow Control of Phones supporting Rollover Mode,

Application User Configuration

Save Delete Copy Add New

User ID* [Edit Credential](#)

Password

Confirm Password

Digest Credentials

Confirm Digest Credentials

BLF Presence Group*

Accept Presence Subscription

Accept Out-of-dialog REFER

Accept Unsolicited Notification

Accept Replaces Header

Device Information

Available Devices

[Device Association](#)
[Find more Route Points](#)

Controlled Devices

Permissions Information

Groups [View Details](#)

Roles [View Details](#)

[Add to Access Control Group](#)
[Remove from Access Control Group](#)

Step 5:

Enter the Application user credential, IP address of the CUCM, SNMP community name etc as below in the InformaCast Webpage;

[Admin](#) | [Telephony](#) | [CUCM Cluster](#) | [Edit Telephony Configuration](#)

Telephony Configuration

Communications Manager Cluster Description:	<input type="text" value="CUCM"/>	(required)
Communications Manager Application User:	<input type="text" value="informacast"/>	(required)
Communications Manager Application Password:	<input type="password" value="●●●●●●●●"/>	
Confirm Application Password:	<input type="password" value="●●●●●●●●"/>	
	<input type="checkbox"/> Use Application User for AXL	
Communications Manager AXL User:	<input type="text" value="informacast"/>	(required)
Communications Manager AXL Password:	<input type="password" value="●●●●●●●●"/>	
Confirm AXL Password:	<input type="password" value="●●●●●●●●"/>	
AXL IP Address(es):	<input type="text" value="10.106.104.201"/>	
Communications Manager IP Address(es):	<input type="text" value="10.106.104.201"/>	(required)
SNMP Community Name:	<input type="password" value="●●●●●"/>	
Confirm SNMP Community Name:	<input type="password" value="●●●●●"/>	

Step 6:

Got to Recipients and do the “update”, this will pull the Phones those are registered to CUCM.

[Recipients](#) | [Edit Recipient Groups](#)

 **Discover current IP phone information from Communications Manager (may be time consuming).**

Step 7:

Create a Recipient Groups with the phones required to be part of the broadcast.

In this example, Group 1 for Directory Numbers 1001, 1002 and 1004.

Recipients | Edit Recipient Groups | Add Recipient Group

Name	<input type="text" value="Group1"/>	(required)
Tags	<input type="text"/>	Add A Tag ▾

Select Recipients

Individually EDIT

Cisco IP Phone: Auto 1004; DNs: 1004; SEPE8BA70FB6CA6

Cisco IP Phone: Auto 1002; DNs: 1002; SEP0CD9969019E6

Cisco IP Phone: Auto 1001; DNs: 1001; SEP0CD996901DDA

Step 8:

Go to Dial Cast and Configure the Dialing Pattern for the Group 1. Dialing Pattern nothing but the CTI RP Number created.

Admin | DialCast | Dialing Configurations

Broadcast dialing configuration changes saved.

InformaCast uses these dialing configurations to trigger broadcasts by matching the called DN to a dialing pattern and then initiating a broadcast that uses the configuration's recipients.

Dialing Pattern	Recipient Groups	Action
1555	Group1	ADD EDIT DELETE

Step 9:

This is an Important Step. InformaCast can send the commands for broadcast either using JTAPI or HTTP.

Here below explains both the methods, "Option A" for JTAPI and "Option B" for HTTP.

Customers can select either Option A or B. Prefer configuring "Option A" because it doesn't need any changes in the enterprise parameters.

Option A - JTAPI METHOD

- Check the “Send Commands to Phones by JTAPI”

Admin | Broadcast Parameters

Send Commands to Phones By JTAPI:

Starting Multicast IP Address: (required)

Ending Multicast IP Address: (required)

See <<http://www.iana.org/assignments/multicast-addresses>>.

Multicast TTL: (required)

- Associate role “Standard CTI allow control for all Devices” to the application user created in step 4.

Roles
Standard AXL API Access
Standard CTI Allow Control of All Devices
Standard CTI Allow Control of Phones supporting Conn
Standard CTI Allow Control of Phones supporting Rollov
Standard CTI Enabled

Option B - HTTP Method

- Enable Web access for supported IP Phones and reset phones.
- Configure the URL “http://<InformaCast IP>:8081/InformaCast/phone/auth” for Secured Authentication URL and URL Authentication under CUCM Enterprise Parameters Configuration.

Phone URL Parameters	
URL Authentication	<input type="text" value="http://10.106.104.226:8081/InformaCast/phone/auth"/>

Secured Phone URL Parameters

[Secured Authentication URL](#)

http://10.106.104.226:8081/InformaCast/phone/auth

By completing the all 9 Steps above, User 1003 can dial InformaCast number 1555 then broadcast live audio to all phones in the Group 1.

Troubleshooting

- Verify the CTI Route Point shows IN_SERVICE and the CTI RP is registered in CUCM.

Device Name	Description	Device Pool	Calling Search Space	Partition	Extension	Status	IPv4 Address
Informacast_RP	Informacast_RP	G711			1555	Registered with cucm11.adfs.uccs.com	10.106.104.226

Admin | Overview

Welcome to the InformaCast configuration overview page. For specific configuration tasks, please use the "Admin" menu.

InformaCast Server

Version	9.1.1 - 378 Basic Paging license
Start Time	2015-09-15 01:07:06
Current Time	2015-09-15 13:28:08
Application Mode	Stand-alone

Backup

Backup Activated	false
Next Scheduled Backup	
Backup Location	

Cisco Unified Communications Manager

Cluster Version	CUCM 11.0.1.20000-2
JTAPI Version	Cisco Jtapi version 3.1(3.7) Release
Send Commands to Phones By JTAPI	false

Phone Updates

Last Attempted Phone Rebuild	2015-09-15 13:10:00
Last Successful Phone Rebuild	2015-09-15 13:10:01
Last Attempted Phone Refresh	never
Last Successful Phone Refresh	never
Number of Phones Retrieved	4
Number of Phones Used / Licensed	3 / 50
Next Phone Rebuild	2015-09-15 14:10:00
Phone Refresh Interval (minutes)	disabled

CTI Route Points

Name	DN	State
Informacast_RP	1555	IN_SERVICE

SIP User Agent Status

User Agent is running

SIP Calls

There are no SIP calls.

- To see the active calls;

InformaCast - Calling Terminal Diagnostics

CTI Ports

NAME	TERMINAL STATE	REGISTERED ON	MARKED FOR DELETION	DN	ACTIVE CALLS	USER DESCRIPTION
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CTI Route Points

NAME	DN	STATE	ACTIVE CALLS
Informacast_RP	2555	IN_SERVICE	Call ID : 11121/1 Calling : 2005 Called : 2555

Logs :-

- CTI Manager and Call Manager Logs from CUCM
- Summary Log, Performance Log from InformaCast

Help | Support

Your version of help is dependent on your version of Communications Manager. InformaCast Basic Paging requires that your version of Communications Manager be 8.5 or later.

If you have Communications Manager 8.5 or later, you can contact Cisco directly for help: <http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html> or click the **Help** icon and view InformaCast's installation and user guide.

If you have a version of Communications Manager previous to 8.5, you have the following options:

- Click the **Try** icon to start your 60-day free trial of InformaCast Advanced Notification
- Click the **Buy** icon to obtain a demonstration, subscription, or purchased license for InformaCast Advanced Notification

Support links

- [Calling Terminal Diagnostics](#)
- [Log Tool](#) Collects and analyzes Singlewire log files for errors.
- [Summary Log](#)
- [Performance Log](#)
- [SIP Stack Log](#) (used when detailed logging is inactive)
- [SIP Stack Debug Log](#) (used when detailed logging is active)

- Packet Capture from Informacast:

Here below the procedure to collect the packet capture from InformaCast.

- Connect to the CLI of the InformaCast over SSH.
- To start the Capture Enter the command "sudo capturePackets <File Name>"
- Use Ctrl+C to stop the capture.
- To transfer the file to the SFTP;
sftp <username>@<IP address of the SFTP Server>
Put <filename>

Example:

```
admin@singlewire:~$ sudo capturePackets siptest.cap  
tcpdump: listening on eth0, link-type EN10MB (Ethernet), capture size 1500 bytes
```

```
admin@singlewire:~$ ls  
siptest.cap  
admin@singlewire:~$
```

```
admin@singlewire:~$ sftp cisco@10.106.104.247  
Authenticated with partial success.  
cisco@10.106.104.247's password:  
Hello, I'm freeFTPd 1.0Connected to 10.106.104.247.  
sftp> put siptest.cap  
Uploading siptest.cap to /siptest.cap  
siptest.cap          100% 4226      4.1KB/s   00:00  
sftp>
```