

# InformaCast integration with CUCM over SIP

This document explains the integration of InformaCast Paging Server with CUCM over SIP 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  $\mu$ Law between Informcast SIP Trunk 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"/>	<a href="#">public</a>	ReadNotifyOnly

## Step 2:


Create a SIP Trunk. Manage the destination IP address as InformaCast IP address.

	Name ^	Description	Calling Search Space	Device Pool	Route Pattern	Partition	Route Group	Priority	Trunk Type	SIP Trunk Status	SIP Trunk Duration	SIP Trunk Security Profile
	<a href="#">SIPTRUNK_Informacast</a>	SIPTRUNK_Informacast		G711	1555				SIP Trunk	Unknown - OPTIONS Ping not enabled		<a href="#">Non Secure SIP Trunk Profile</a>

## 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

## Step 4:

Create an Application user with the following Access Control Groups;


- 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

---

#### Status

 Update successful

---

#### Application User Information

User ID\*

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

---

#### Permissions Information

Groups   
Standard CTI Allow Control of Phones supporting Co  
Standard CTI Allow Control of Phones supporting R  
Standard CTI Enabled

[View Details](#)

Roles   
Standard CTI Allow Control of Phones supporting Conne  
Standard CTI Allow Control of Phones supporting Rollov  
Standard CTI Enabled

[View Details](#)

## Step 5:

Create a Route pattern to reach InformaCast and associate the SIP trunk created. In this example, Route Pattern number is 1555.

**Find and List Route Patterns**

**Status**

1 records found

**Route Patterns (1 - 1 of 1)**

Find Route Patterns where Pattern begins with

<input type="checkbox"/>	Pattern ^	Description	Partition	Route Filter	Associated Device
<input type="checkbox"/>	1555				<a href="#">SIPTRUNK_Informacast</a>

## Step 6:

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:  (required)

Communications Manager Application User:  (required)

Communications Manager Application Password:

Confirm Application Password:

Use Application User for AXL

Communications Manager AXL User:  (required)

Communications Manager AXL Password:

Confirm AXL Password:

AXL IP Address(es):

Communications Manager IP Address(es):  (required)

SNMP Community Name:

Confirm SNMP Community Name:

### Step 7:

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 8:


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	Group1	(required)
Tags		Add A Tag ▾

### Select Recipients

Individually 

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 9:

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

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	<a href="#">ADD +</a> <a href="#">EDIT</a> <a href="#">DELETE</a>

**Step 10:**

Allow SIP access in InformaCast.

Controls access of inbound SIP calls to InformaCast.

Click to restore to default settings [RESTORE](#)

Allow  Deny incoming SIP calls

[ADD +](#) a host exception

[CANCEL](#)

[UPDATE](#)

**Step 11:**

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](#)

**Secured Phone URL Parameters**

[Secured Authentication URL](#)

By completing the all 11 Steps above, User 1003 can dial InformaCast number 1555 then broadcast live audio to all phones in the Group 1.

# Logs to Troubleshoot

- CTI Manager and Call Manager Logs from CUCM
- SIP Stack log/ SIP Stack debug Log, Summary Log and 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.

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>
```