

CUCM Troubleshooting

« Hunt Group with Queuing (</workbook/view/ccie-collaboration/task/hunt-group-with-queuing-MzA1OA%3D%3D>) | SCCP (Skinny) Phones Registration (TELEPHONY-SERVICE) (</workbook/view/ccie-collaboration/task/sccp-skinny-phones-registration-telephony-service-MzA2MA%3D%3D>) »

Last updated: November 10, 2017

Tasks

- On HQ cluster modify the existing route pattern for 88885555 to route to a new SIP Trunk pointing to 11.50.1.10 and it should use early offer without MTPs. You must route direct to this IP, and may not use CUBE.
- From HQ Phone 2 dial the pattern 88885555 and then from RTMT on Jabber1 desktop find and copy only the SIP message that describes why the call is failing and paste this in a notepad++ file and save it to your Jabber1 desktop and label it "PSTN SIP Call Fail.txt". Include a single line of text in your own words at the top of the file that describes why exactly the call is failing. Also in that file, include information that describes exactly what audio and video codecs were being offered from your UCM, along with RTP port numbers for each audio and video independently, and also include what DTMF types were supported and copy the lines from the SIP messages that show the DTMF types offered.

Note:

Once you have completed this task revert the route pattern 88885555 to point back to R1-CUBE Trunk and make sure the video call works

Configuration: [Click to expand](#)

HQ Publisher

Device > Device Settings > SIP Profile (Copy Standard SIP Profile)

SIP Profile Configuration

Save Delete Copy Reset Apply Config Add New

Status

- Information Status: Ready
- Information All SIP devices using this profile must be restarted before any changes will take affect.

SIP Profile Information

Name*

Early Offer support for voice and video calls (insert MTP if needed)

Device > Trunk

Trunk Configuration

Save Delete Reset Add New

Status
Status: Ready

Device Information

Product: SIP Trunk
 Device Protocol: SIP
 Trunk Service Type: None(Default)
 Device Name*: HQ-PSTN-SIP-TROUBLESHOOTING
 Description:
 Device Pool*: DP-R1-SIP

Destination

Destination Address is an SRV

	Destination Address	Destination Address IPv6	Destination Port
1*	11.50.1.10		5060

MTP Preferred Originating Codec*: 711ulaw
 BLF Presence Group*: Standard Presence group
 SIP Trunk Security Profile*: Non Secure SIP Trunk Profile
 Rerouting Calling Search Space: < None >
 Out-Of-Dialog Refer Calling Search Space: < None >
 SUBSCRIBE Calling Search Space: < None >
 SIP Profile*: SIP-Profile-TSHOOT

Call Routing > Route/Hunt > Route Pattern (Go to existing Route Pattern 88885555)

Route Pattern Configuration

Save Delete Copy Add New

Status
Status: Ready

Pattern Definition

Route Pattern*: 88885555
 Route Partition: PT-Common-Int
 Description:
 Numbering Plan: -- Not Selected --
 Route Filter: < None >
 MLPP Precedence*: Default
 Apply Call Blocking Percentage
 Resource Priority Namespace Network Domain: < None >
 Route Class*: Default
 Gateway/Route List*: HQ-PSTN-SIP-TROUBLESHOOTING

On Jabber 1 Desktop Launch RTMT. Make a call to 88885555 from HQ Phone 2 and then view traces as given below.

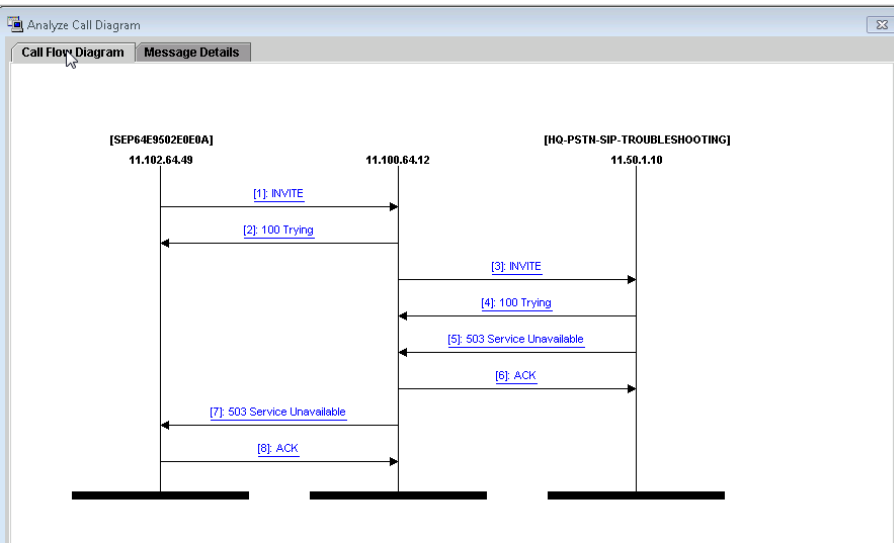
Real Time Monitoring Tool

Search Criteria

Calling Number URI: * Start Time: 2016-Jan-23 01:54:58
 Called Number URI: *88885555 Duration: 60 mins
 Time Zone: (GMT-8:00)Pacific Standard Time-America/Los...

Run

Start Time	Calling DN	Orig Called DN	Final Called DN	Calling Device Name	Called Device Name	Termination Cause Code
2016/01/23 02:24:33.391	85022002	88885555	88885555	SEP4E8902E0EDA	HQ-PSTN-SIP-TROUBLE	(1458617833) CCM_S...
2016/01/23 02:28:31.515	85022002	88885555	88885555	SEP4E8902E0EDA	HQ-PSTN-SIP-TROUBLE	(1458617833) CCM_S...



Analyze Call Diagram

Call Flow Diagram | Message Details

[View Message Details](#)
[View Detailed SIP Message](#)
[View Message in Log File](#)

Message Details

SENDER: [SEP64E9502E0E0A] 11.102.64.49
GUID: 64e9502e-0e0a0010-6b1eeb9e-7d8900bc@11.102.64.49
MSG_LABEL: INVITE
RECEIVER: 11.100.64.12
MAC_ADDRESS: SEP64E9502E0E0A
MSGTAG: 56802
MSG_TYPE: UCM_CTRACE
CORRELATIONID: 2,100,13,487,159*11.102.64.49**
TIMESTAMP: 2016/01/23 02:28:31.506

Detailed Sip Message

INVITE sip:88885555@11.100.64.12;user=phone SIP/2.0
Via: SIP/2.0/TCP 11.102.64.49:50610;branch=z9hG4bK11855ed5
From: "HQ Phone 2" < sip:2002@11.100.64.12>;tag=64e9502e0e0a00581e6df020-494c0be9
To: < sip:88885555@11.100.64.12>
Call-ID: 64e9502e-0e0a0010-6b1eeb9e-7d8900bc@11.102.64.49
Max-Forwards: 70
Date: Sat, 23 Jan 2016 10:28:31 GMT
CSeq: 101 INVITE
User-Agent: Cisco-CP9971/9.3.2
Contact: < sip:fc56688a-723e-fa9d-df3a-978b8a085f39@11.102.64.49:50610;transport=tcp>;video

Analyze Call Diagram

Call Flow Diagram | Message Details

[View Message Details](#)
[View Detailed SIP Message](#)
[View Message in Log File](#)

Message Details

SENDER: 11.100.64.12
GUID: b237700-6a3155cf-1f5-c40640b@11.100.64.12
MSG_LABEL: INVITE
RECEIVER: [HQ-PSTN-SIP-TROUBLESHOOTING] 11.50.1.10
MAC_ADDRESS: HQ-PSTN-SIP-TROUBLESHOOTING
MSGTAG: 56804
MSG_TYPE: UCM_CTRACE
CORRELATIONID: 2,100,13,1,1444**
TIMESTAMP: 2016/01/23 02:28:31.516

Detailed Sip Message

INVITE sip:88885555@11.50.1.10:5060 SIP/2.0
Via: SIP/2.0/TCP 11.100.64.12:5060;branch=z9hG4bK5392e32700a
From: "HQ Phone 2" < sip:85022002@11.100.64.12>;tag=25282-4218dece-2701-4bbd-82cd-e5d5d0cd21eb-40055319
To: < sip:88885555@11.50.1.10>
Date: Sat, 23 Jan 2016 10:28:31 GMT
Call-ID: b237700-6a3155cf-1f5-c40640b@11.100.64.12
Supported: timer,resource-priority,replaces
Min-SE: 1800
User-Agent: Cisco-CUCM9.1
Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

Analyze Call Diagram

Call Flow Diagram | Message Details

[View Message Details](#)
[View Detailed SIP Message](#)
[View Message in Log File](#)

Message Details

SENDER: [HQ-PSTN-SIP-TROUBLESHOOTING] 11.50.1.10
GUID: b237700-6a3155cf-1f5-c40640b@11.100.64.12
MSG_LABEL: 503 Service Unavailable
RECEIVER: 11.100.64.12
MAC_ADDRESS: HQ-PSTN-SIP-TROUBLESHOOTING
MSGTAG: 56806
MSG_TYPE: UCM_CTRACE
CORRELATIONID: 2,100,13,494,4^11.50.1.10**
TIMESTAMP: 2016/01/23 02:28:31.521

Detailed Sip Message

SIP/2.0 503 Service Unavailable
Via: SIP/2.0/TCP 11.100.64.12:5060;branch=z9hG4bK5392e32700a
From: "HQ Phone 2" < sip:85022002@11.100.64.12>;tag=25282-4218dece-2701-4bbd-82cd-e5d540cd21eb-40055319
To: < sip:88885555@11.50.1.10>;tag=217550289
Date: Sat, 23 Jan 2016 10:28:31 GMT
Call-ID: b237700-6a3155cf-1f5-c40640b@11.100.64.12
CSeq: 101 INVITE
Allow-Events: presence
Warning: 399 SME-UCM-PUB "Unable to find a device handler for the request received on port 52285 from 11.100.64.12"
Content-Length: 0

Cisco Unified Real Time Monitoring Tool (Currently Logged into: clus1-ucm-sub1.ine.com)

File System CallManager AnalysisManager Edit Window Application Help

Real Time Monitoring Tool

System Summary
System Summary
Server
CPU and Memory
Process
Disk Usage
Critical Services
Performance
Performance Log Viewer
Tools
Alert Central
Trace & Log Central

Trace & Log Central

- Remote Browse
- Collect Files
- Query Wizard
- Schedule Collector
- Local Browse
- Real Time Trace
- Collect Crash Dump
- Collect Install Logs
- Audit Logs

Collect Files

Select UCM Services/Applications

Select all Services on all Servers

Name	All Servers	clus1-ucm-pub.ine.com	clus1-ucm-sub1.i
Cisco AXL Web Service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Bulk Provisioning Service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco CAR Web Service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco CDR Agent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco CDR Repository Manager	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco CDR files on CM server	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco CDR files on Publisher Processed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco CTIManager	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco CTL Provider	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco CallManager	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

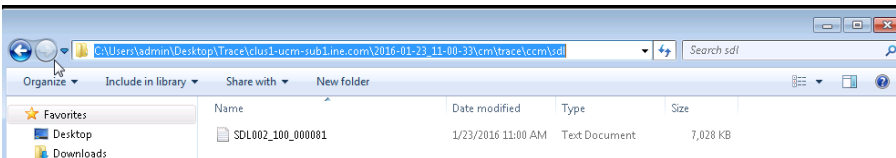
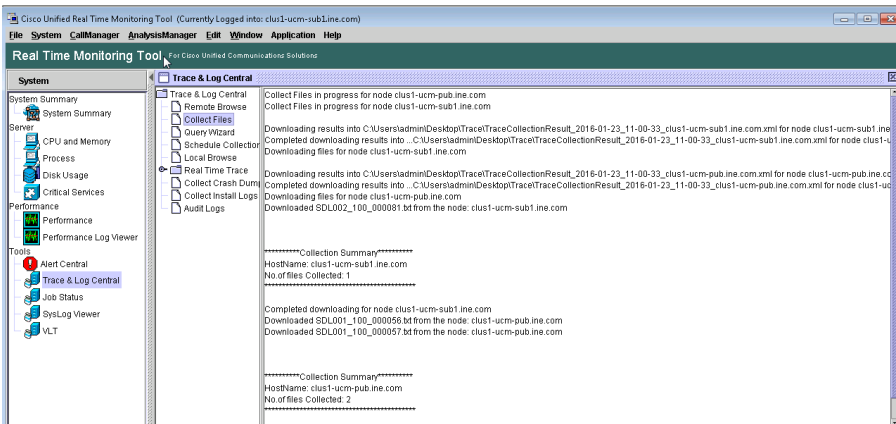
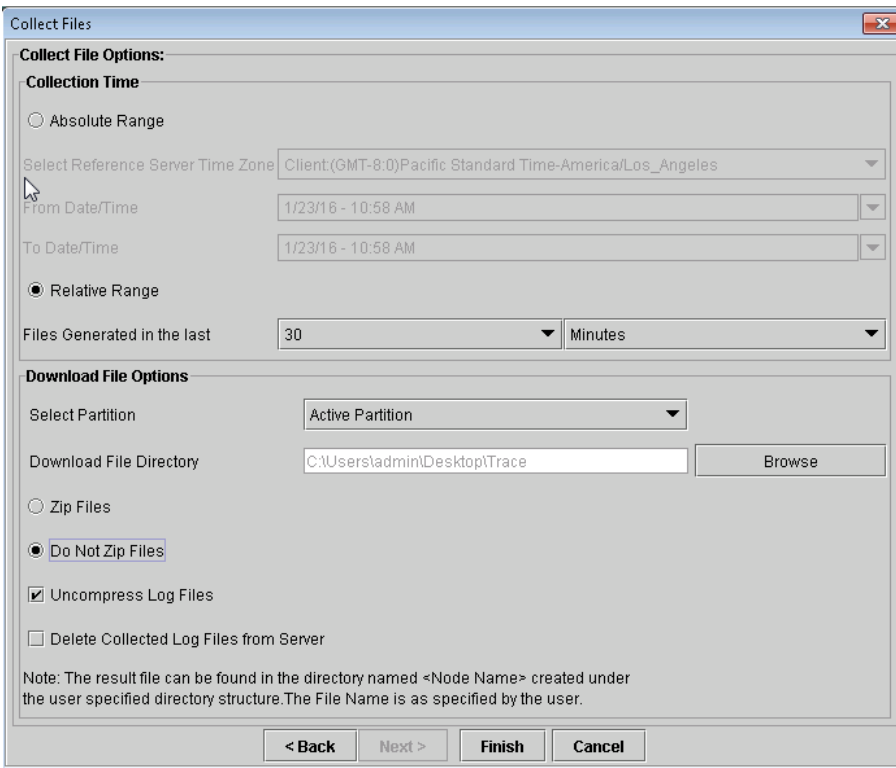
Collect Files

Select System Services/Applications

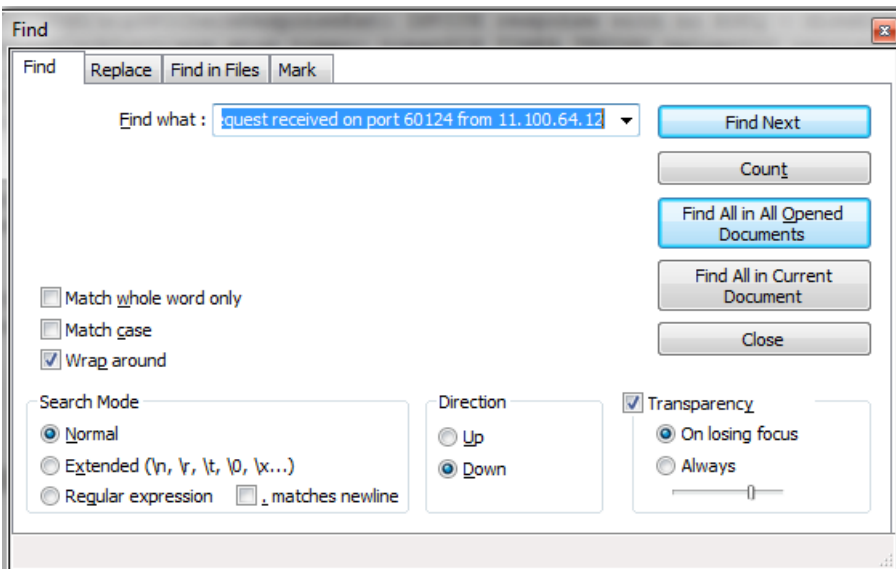
Select all Services on all Servers

Name	All Servers	clus1-ucm-pub.ine.com	clus1-ucm-sub1.i
Boot Logs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco AMC Service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco AMC Service AlertLog	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco AMC Service CallLog	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco AMC Service DeviceLog	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco AMC Service PPRLog	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco AMC Service ServerLog	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco AMC Service ServiceLog	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Abort Transaction Spooling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Audio Translator App	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Audit Event Service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Audit Logs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco CCM DBL Web Library	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco CCM NCS Web Library	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco CCM PD Web Service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco CCMAdmin Web Service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco CCMRealm Web Service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco CCMService Web Service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco CCMUser Web Service	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco CDP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco CDP Agent	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Called Party Tracing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Common User Interface	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco ControlCenter CLI	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco Corefile Recovery Tool	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco DRF Local	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cisco DRF Master	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

< Back Next > Finish Cancel



Search for the reason for call getting failed



```

01709920.002 |01:26:47.257 |AppInfo |SIPTop - wait_SdlReadRep: Incoming SIP TCP message from 11.50.1.10 on port 5060 index 136 with 515 bytes:
[56383,NET]
SIP/2.0 503 Service Unavailable
Via: SIP/2.0/TCP 11.100.64.12:5060;branch=29HG4bK5326c5ba7b2
From: "HQ Phone 2" <sip:85022002@11.100.64.12>;tag=25114-4218dece-2701-4bbd-82cd-esd5d0cd21eb-40055313
To: <sip:88885555@11.50.1.10>;tag=1835039019
Date: Sat, 23 Jan 2016 09:26:47 GMT
Call-ID: 6b61eb00-6a314757-1f0-c40640b@11.100.64.12
CSeq: 101 INVITE
Allow-Events: presence
Warning: 399 SME-UCM-PUB "Unable to find a device handler for the request received on port 60124 from 11.100.64.12"
Content-Length: 0

```

Copy and paste the above output and include information for audio/video/dtmf capabilities.

```

PSTN SIP Call Fail - Notepad
File Edit Format View Help
SIP/2.0 503 Service Unavailable
Via: SIP/2.0/TCP 11.50.1.15:5060;branch=29HG4bK6072763c54a59c58e7ce2f2ffalbaad5198566;rport
From: <sip:11.50.1.15>;tag=acl8203da4f8648b
To: <sip:11.100.64.12:5060>;tag=8527279warning: 399 SME-UCM-PUB " unable to find a device handler for the request received on port 52285 from 11.100.64.12
Date: Sat, 23 Jan 2016 09:37:29 GMT
Call-ID: 84f1276e5c795c00@11.50.1.15
CSeq: 31884 OPTIONS
Warning: 399 clus1-ucm-sub1 "unable to find a device handler for the request received on port 25185 from 11.50.1.15"
Content-Length: 0

AS WE CAN SEE FROM THE ABOVE SIP MESSAGE THE BACKBONE IS SENDING A 503 SERVICE UNAVAILABLE MESSAGE INDICATING THERE IS NO TRUNK FROM BACKBONE TO HQ CLUSTER

BELOW ARE THE AUDIO/VIDEO/DTMF CAPABILITIES FROM HQ UCM TO BACKBONE

m=audio:28624 RTP/AVP 116 18 101
a=rtpmap:116 1LBC/8000 >> codec 1LBC <<
a=ptime:20
a=maxptime:20
a=rtpmap:18 g729/9000 >> codec g729 <<
a=ptime:20
a=rtpmap:101 telephone-event/8000 >> dtmf rtp-nte <<
a=ptime:101 0-15

m=video:21896 RTP/AVP 126 97
b=TIAS:368000 >> Video capabilities <<
a=rtpmap:126 H264/90000
a=rtpmap:97 H264/90000 >> Video capabilities <<
a=rtpmap:126 profile-level-id=42801E;packetization-mode=1;level-asymmetry-allowed=1
a=rtpmap:97 H264/90000 >> Video capabilities <<
a=rtpmap:97 profile-level-id=42801E;packetization-mode=0;level-asymmetry-allowed=1
a=imagesattr:=" recv [x=640,y=480,q=0.50]
a=content:main

```

AFTER YOU HAVE DONE WITH THE TASK REVERT THE ROUTE PATTERN TO POINT IT BACK TO THE R1 CUBE

« Hunt Group with Queuing (/workbook/view/ccie-collaboration/task/hunt-group-with-queuing-MzA10A%3D%3D) | SCCP (Skinny) Phones Registration (TELEPHONY-SERVICE) (/workbook/view/ccie-collaboration/task/sccp-skinny-phones-registration-telephony-service-MzA2MA%3D%3D) »