

Troubleshoot Finesse Call Overlap Issue

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Introduction

This document describes how to troubleshoot Finesse call overlap issue that is closely related to Customer Voice Portal (CVP) unreachable table.

Prerequisites

Requirements

Cisco recommends that you have knowledge of these topics:

- CVP Call Server
- CVP Operations, Administration, Maintenance and Provisioning (OAMP)
- Cisco Unified Communications Manager (CUCM)

Components Used

This document is not restricted to specific software and hardware versions.

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, ensure that you understand the potential impact of any command.

Background Information

Cisco Finesse Not Ready - Call Overlap status is a very common issue seen on Finesse desktop. Agents miss two calls and they are put in Not Ready - Call Overlap status. This is likely related to CVP server and it is unreachable table mechanism. Cisco Unified Communications Manager (CUCM) server has a big role here as well.

Problem

When CVP receives specific Session Initiation Protocol (SIP) messages from CUCM (5XX and 4XX) or any other SIP endpoint, CVP deems the server is in trouble and stops to route calls to the SIP element. The

SIP element (in this case, CUCM) is placed into the unreachable table.

There can be multiple conditions that affect this behaviour:

1. Heartbeats are enabled on CVP SIP Server Group. Recovery can be faster than three minutes.
2. Heartbeats are not enabled (Cisco bug ID [CSCuy30406](#)). Recovery can take up to three minutes.
3. Cisco Unified IP Communicator (CIPC) registered with private IP (Cisco bug ID [CSCuy10282](#)).

In this example, if CVP receives SIP 503 Service Unavailable from any CUCM server, it blocks route calls to that endpoint as well as any other call related signal for the entire time the element is in the unreachable table.

Since Agent PG is successfully able to reserve the agent via Finesse, and agent phone does not receive call from CVP and CUCM, agent is seen in Call Overlap state after it misses two such calls.

CVP Call Server Log Analysis

CVP shows this error when the issue happens:

“Cannot connect to SIP server.”

```
46253: 10.38.249.20: Sep 25 2018 16:32:16.635 -0600: %_Connection-4-com.dynamicsoft.DsLibs.DsUALibs.DsS
```

CVP sent the call to 46003 (Agent extension) on CUCM

```
53137541.005 |18:07:17.797 |AppInfo |SIPTcp - wait_SdIReadRsp: Incoming SIP TCP message from 192.168.1.11  
[16836932,NET]  
INVITE sip:46003@UCCE-Cluster.cisco.com;transport=tcp SIP/2.0  
Via: SIP/2.0/TCP 192.168.1.10:5060;branch=z9hG4bKFxuPfAXH7ydZIttoxHcH6Ig~~1036543  
Max-Forwards: 69  
To: <sip:46003@UCCE-Cluster.cisco.com;transport=tcp>
```

CUCM sent the call to 192.168.1.11.

```
53137602.001 |18:07:17.805 |AppInfo |SIPTcp - wait_SdISPISignal: Outgoing SIP TCP message to 192.168.1.11  
INVITE sip:46003@192.168.1.11:5060 SIP/2.0  
Via: SIP/2.0/TCP 192.168.1.12:5060;branch=z9hG4bK3cff18401b2380
```

From: <sip:+18005550000@192.168.1.12>;tag=6266176~faa91654-786e-4b55-bb8e-f71e4b7d1200-52767741

To: <sip:46003@192.168.1.11>

Date: Mon, 29 Feb 2016 18:07:17 GMT

Call-ID: 43327e00-6d4188d5-2eb80e-5a0a2818@192.168.1.12

Supported: timer,resource-priority,replaces

Min-SE: 1800

User-Agent: Cisco-CUCM10.5

Allow: INVITE, OPTIONS, INFO, BYE, CANCEL, ACK, PRACK, UPDATE, REFER, SUBSCRIBE, NOTIFY

CSeq: 101

INVITE

Expires: 180

Allow-Events: presence

Supported: X-cisco-srtp-fallback,X-cisco-original-called

Call-Info: <urn:x-cisco-remotecc:callinfo>;x-cisco-video-traffic-class=MIXED

Cisco-Guid: 1127382528-0000065536-0000197816-1510615064

Session-Expires: 1800

P-Asserted-Identity: <sip:+18005550000@192.168.1.12>

Remote-Party-ID: <sip:+18005550000@192.168.1.12>;party=calling;screen=yes;privacy=off

Contact: <sip:+18005550000@192.168.1.12:5060;transport=tcp>

Max-Forwards: 68

Content-Type: application/sdp

Content-Length: 235

```
v=0
o=CiscoSystemsCCM-SIP 6266176 1 IN IP4 192.168.1.12
s=SIP Call
c=IN IP4 192.168.1.13
b=TIAS:64000
b=AS:64
t=0 0
m=audio 23092 RTP/AVP 0 101
a=ptime:20
a=rtpmap:0 PCMU/8000
a=rtpmap:101 telephone-event/8000
a=fmtp:101 0-15
```

192.168.1.11 replied back with 503 service unavailable.

53137618.002 |18:07:18.783 |AppInfo |SIPTcp - wait_SdIReadRsp: Incoming SIP TCP message from 192.168.1.11 [16836936,NET]
SIP/2.0 503 Service Unavailable
Via: SIP/2.0/TCP 192.168.1.12:5060;branch=z9hG4bK3cff18401b2380
From: <sip:+18005550000@192.168.1.12>;tag=6266176~faa91654-786e-4b55-bb8e-f71e4b7d1200-52767741
To: <sip:46003@192.168.1.11>;tag=11566332~61d9dc41-d668-45b0-8140-083ab0d25e9d-72414340
Date: Mon, 29 Feb 2016 18:07:17 GMT
Call-ID: 43327e00-6d4188d5-2eb80e-5a0a2818@192.168.1.12
CSeq: 101 INVITE
Allow-Events: presence
Server: Cisco-CUCM10.5
Reason: Q.850; cause=41
Remote-Party-ID: <sip:46003@192.168.1.11;user=phone>;party=x-cisco-original-called;privacy=off
Content-Length: 0

CUCM sent 503 service unavailable back to CVP.

53137648.001 |18:07:18.786 |AppInfo |SIPTcp - wait_SdISPISignal: Outgoing SIP TCP message to 192.168.1.11 [16836938,NET]
SIP/2.0 503 Service Unavailable
Via: SIP/2.0/TCP 192.168.1.10:5060;branch=z9hG4bKFxuPfAXH7ydZItoxHcH6Ig~~1036543
From: +18005550000 <sip:+18005550000@192.168.1.10:5060>;tag=ds6ab6b28c
To: <sip:46003@UCCE-Cluster.cisco.com;transport=tcp>;tag=6266175~faa91654-786e-4b55-bb8e-f71e4b7d1200-52767741
Date: Mon, 29 Feb 2016 18:07:17 GMT
Call-ID: 187EB7FDDE4611E5BECDAA0ECF93A8A80-145676923777928840@192.168.1.10
CSeq: 1 INVITE
Allow-Events: presence
Server: Cisco-CUCM10.5
Reason: Q.850; cause=41
Content-Length: 0

Since CVP call server tracks down unreachable endpoints (In sip.properties, SIP.UseDsUnreachableDestinationTable = true), CVP added CUCM server into unreachable destination table and holds down any traffic to that server for 180 seconds. Once the servers in the sip server group gets 503 service unavailable, CVP no longer routes calls through that sip server group.

For CVP unreachable table, see Cisco bug ID [CSCuy30406](#). Unreachable table was disabled in CVP.

This is the entry in CVP logs that shows elements added to unreachable destination table:

6510: x.x.x.x: May 05 2020 05:04:12.726 +1000: %_ConnectionManagement-3-com.dynamicsoft.DsLibs.DsUALibs

Solution

Disable CVP Unreachable table:

[Disable the CVP Unreachable Destination Table Tracking](#)

Configure SIP Options Ping heartbeat on SIP Server Group:

[Configuration Guide for Cisco Unified Customer Voice Portal, Release 11.6\(1\)](#)

CVP 11.6 ES7 added parameters to further tweak unreachable destination table:

[CVP 11.6 ES7 Release Notes](#)

- When CVP receives a 503 Service Unavailable, it first checks reason header of this 503 based on values in SIP.System.ExcludedCauseCodeFromUnreachableTable =. If there is no match, then CVP puts destination to unreachable table.
- If there is a match, then CVP does not put destination to unreachable table.
- The values which in SIP.System.ExcludedCauseCodeFromUnreachableTable = purely depends on your environment. In another word, what kind of Q.850 cause code is generated in your environment. Cause code 47 is very common with CUCM that is related to media resources.

Based on the CVP log snippet, here is one example to tweak unreachable table parameters:

SIP.System.ExcludedCauseCodeFromUnreachableTable = 34,41,47

<#root>

SIP/2.0 503 Service Unavailable

Via: SIP/2.0/TCP 192.168.1.14:5060;branch=z9hG4bKdGDMWjvRtZecqdhIBRZLPw~~75244713

To: <sip:4170155@sip.cucm.cisco.com;transport=tcp>;tag=45652992~bc86a266-334e-4442-9a19-dc23b0bbb5f7-54

From: 0561714593 <sip:0561714593@192.168.1.14:5060>;tag=dse0b5c430

Call-ID: 2C87B293952911EAA6EFAB2EBAE6904A-158946732828459275@192.168.1.14<mailto:2C87B293952911EAA6EFAB

CSeq: 1 INVITE

Content-Length: 0

Date: Thu, 14 May 2020 14:51:06 GMT

Allow-Events: presence

Server: Cisco-CUCM11.5

Session-ID: 00000000000000000000000000000000;remote=60c552d91509577789316085283c3155

Reason: Q.850; cause=41