Troubleshoot No Audio Calls on CVP with Error "38 - Network out of order, typically a TCL script abnormal disconnect"

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Introduction

This document describes intermittent call drop issue on Cisco Customer Voice Portal (CVP) shortly after Cisco Unified Contact Center Enterprise (UCCE) script is executed with error "38 - Network out of order".

Prerequisites

Requirements

Cisco recommends that you have knowledge of these topics:

- Cisco CVP
- Cisco UCCE
- Cisco VoiceXML gateways

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

As the error says, it is a network issue and this document tries to explain and fix one possible solution for this problem.
Problem: Intermittent Call Drop Issue With No audio.

Caller calls the Contact Center number and experience no audio and call would disconnect in 7 seconds.
The error "38 - Network out of order, typically a TCL script abnormal disconnect" can frequently be seen in CVP logs.

Output from CVP Call Server logs:

Error: 44009961: 192.0.2.10: Mar 03 2017 09:19:39.948 +0000: %CVP_10_5_SIP-3-SIP_CALL_ERROR: CALLGUID = 3ED27D5CF2911E6926BD4RB5055BF16 LEGID = 3F6BB004-F2911E6-9271D46D-B055BF16 - [INBOUND] - ABNORMALLY ENDING - SIP code [200], Reason Hdr [Q.850;cause=38] Q850 Reason [38 - Network out of order, typically a TCL script abnormal disconnect.], GW call using SURV TCL flag [true], NON NORMAL flag [true], DNIS [9876], ANI [123456789] with AGE (msecs) 49730 and Call History : 7777777777187|-1; [id:5004]

For the problematic calls you can see the HTTP PING request comes from the VXML Gateway and CallServer Responds back with SubmitBack.template

26152269: 192.0.2.10: Mar 03 2017 16:23:52.274 +0000: %CVP_10_5_IVR-7-CALL: {Thrd=http-processor26} VBServlet:service: HTTP Request from 10.27.2.160: {
RECOVERY_VXML=flash:recovery.vxml, VERSION=CVP_10_5_1_0_0_0_189, CALL_DNIS=7777777777223, CALL_UUI=, MSG_TYPE=PING, CALL_ID=B352D0D8FF6211E6878CE0934A123, ERROR_CODE=NONE(0), CLIENT_TYPE=IOS, CALL_LEGID=B352D0D8FF6211E6878CE0934A123-1488558223247608192.0.2.10, CALL_ANI=sip:123456789@192.0.2.10:5060 }
26152270: 192.0.2.10: Mar 03 2017 16:23:52.274 +0000: %CVP_10_5_IVR-7-CALL: {Thrd=http-processor26} VXXMLManager:generateVXML: CALLGUID=B352D0D8FF6211E6878CE0934A123 Generated VXML from template 'SubmitBack.template' for client: 10.27.2.160 clientType: IOS

After some time since you don't see anymore messages and call fails with this error

43793322: 192.0.2.10: Mar 03 2017 16:24:01.291 +0000: %CVP_10_5_SIP-3-SIP_CALL_ERROR: CALLGUID = B352D0D8FF6211E6878CE0934A123 LEGID = B3EC0380-FF6211E6-87ED80CE-934A123 - [INBOUND] - ABNORMALLY ENDING - SIP code [200], Reason Hdr [Q.850;cause=38] Q850 Reason [38 - Network out of order, typically a TCL script abnormal disconnect.], GW call using SURV TCL flag [true], NON NORMAL flag [true], DNIS [9876], ANI [123456789] with AGE (msecs) 9079 and Call History : 7777777777223|-1; [id:5004]

From the VXML Gateway Analysis, you could see HTTP CALL_NEW message is sent to CVP, But CVP never received i, Since there is a Fetchtimeout of 7 seconds, Gateway sends a BYE message

Solution

Step 1: Run the **NETSTAT** command on the CVP Call Servers Windows Command Prompt. Output shows more than 34000 TCP session in TCP_WAIT state on 8000 port and there were few other ports in same status as well.

Step 2: Review Microsoft Article talks about the issue with Windows 2008 Server with hung TCP_WAIT sessions after 497 days from the system startup

All the TCP/IP ports that are in a TIME_WAIT status are not closed after 497 days from system startup in Windows Vista, in Windows 7, in Windows Server 2008 and in Windows Server 2008 R2

Step 3: Check CVP Server uptime in Task Manager. In this case, it was 498 days.

Step 4: **Reboot** the CVP server. It clears all the hung TCP_WAIT sessions. Hotfix is available on Microsoft website.