



Release Notes for Cisco MGCP IP Phone 7940/7960 Release 7.3

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Contents

This document lists the known problems in Cisco Media Gateway Control Protocol (MGCP) IP Phone 7940/7960 Release 7.3 and contains information about the Cisco MGCP IP Phone 7940/7960 (hereafter referred to as the Cisco MGCP IP phone) that is not included in the most recent release of the phone documentation.

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New and Changed Information

New Software Features in Release 7.3

The following new software features are supported in Cisco IP Phone 7940/7960 Release 7.3.

MGCP NAT Support

The Cisco IP Phone 7940/7960 Release 7.3 supports Network Address Translator (NAT). In its simplest configuration, NAT operates on a router connecting two networks together; one of these networks (designated as inside) is addressed with either private or obsolete addresses that need to be converted into legal addresses before packets are forwarded onto the other network (designated as outside). The translation operates in conjunction with routing, so that NAT can simply be enabled on a customer-side Internet access router when translation is desired.

Use of a NAT device provides RFC 1631-style network address translation on the router platform. The goal of NAT is to provide functionality as if the private network had globally unique addresses and the NAT device was not present. RFC 1631 represents a subset of Cisco IOS NAT functionality.

Cisco IOS NAT supports “bidirectional translation” through the simultaneous use of “inside source” and “outside source” translations.

When NAT is enabled on the Cisco MGCP IP phone, MGCP messages are able to traverse NAT/firewall networks. The Session Description Protocol (SDP) message is modified to reflect the NAT parameters so that if NAT is enabled, the SDP message uses `nat_address` and a Realtime Transport Protocol (RTP) port between the `start_media` port and the `end_media_port` range. The UDP port for MGCP messages can be configured using parameter `voip_control_port`.

MGCP NAT Configuration Parameters

Use the following configuration parameters to add the NAT feature to your Cisco IP 7960G/7940G phone:

```
nat_enable 0 disabled(default); 1 enabled
If nat is enabled the SDP message uses nat_address and an RTP port between the start_media
port and the end_media_port range
nat_address IP address of the NAT or firewall server
voip_control_port UDP port used for MGCP messages when nat_enable = 1
```

Installation Notes

For Cisco MGCP IP phones, follow the instructions in the “Performing an Image Upgrade and Remote Reboot” section at the following URL:

http://www.cisco.com/univercd/cc/td/doc/product/voice/c_ipphon/english/ipp7960/addprot/mgcp/frmw rup.htm

For these instructions, use P023-07-3-00 as the image name for Release 7.3. You can find the current images at the following URL:

<http://www.cisco.com/cgi-bin/tablebuild.pl/mgcp-ip-phone7960>

Caveats

This section documents possible unexpected behavior by Cisco IP Phone 7940/7960 Release 7.x. This section lists only severity 1 and 2 caveats and select severity 3 caveats.

Open Caveats—Release 7.3

- **CSCef11018:** Digit followed by dial key press results in stuck DTMF

Symptom: When running a SIP load on the IP Phone 7960 or 7940 you can get into a situation where a pressed number gets stuck and you just hear its DTMF tone.

Conditions: This happens when you would do the following:

- Press the “NewCall” softkey
- Press the “Number” softkey if not already in number entry mode
- Press “0” and keep it held down
- Press the “Dial” softkey
- Release “0” - the DTMF tone for “0” will keep playing

Workaround: Avoid pressing this combination when possible until the problem is fixed.

Further Problem Description: This problem was not seen when running version 5.3 It was seen starting with 6.0 up to 7.1.

Resolved Caveats—Release 7.3

- **CSCed72708:** Phone crashes when vcm dtmf debugs are on during dtmf press on conference.
Workaround: None
- **CSCed84163:** Loader may fail - Application Invalid
Symptom: When a phone is upgrade to release 6.0(1.0), from a 5.0 release, the upgrade may fail to complete. The Display will read “Application Invalid”
Conditions: This may occur if any of the following is true:
 - There is no option 150 Set on the DHCP server on the native VLAN
 - CDP on the Switch and Phone do not converge in a timely fashion.
 Workaround: Insure that if a DHCP server is configured on the native VLAN, that it’s option 150 information points to a known good call manager.
- **CSCee57045:** MGCP Phone load POM3-06-3-00 Cannot change Volume Setting
Symptom: The Customer when using MGCP Phone load POM3-06-3-00 is unable to change the volume control to a Callagent
Work around: Use older Phone loads, POM3-04-4-00 POM3-05-2-00
- **CSCee62556:** MGCP phone cant dial directory entries exceeding a line of display
Symptom: Directory entries, on MGCP 7960/40 phones running 6.3 firmware, longer than maximum number of characters of display can’t be dialed.
- Phone crashes when vcm dtmf debugs are on during dtmf press on conference.
- **CSCef11033:** MGCP 7960 stutter dialtone unavailable
Symptoms: Stutter tone not played.
Conditions: MGCP 7960 V7.1
Workaround: None
- **CSCef11614:** 7940/7960 SIP phones not handle out of order/mis-sequence packets
Symptom: 7940/7960 SIP phones do not handle out of order packets / mis-sequence packets.
Condition: This is SIP and customer is using the NS/RS Proxy. The mis-ordered packets are only from the Gateway to SIP Phone due to network routing. The latest phone load that experiencing these issues is POS3-07-1-00.
Workaround: None
- **CSCef33135:** 7960 struck with Booting Dsp alarm on its display
Symptom: The phone display the message “Booting DSP”
Condition: CCM failover
Workaround: Reset the phone from the CCM page, unpower and repower the phone or press “***#**”
- **CSCef33488:** 79x0 SIP: ACK to 407 Auth sent to incorrect IP addr. w/ outbound proxy
Symptom: 7940 / 7960 SIP phone sends SIP messages to an outbound proxy. The outbound proxy challenges the SIP messages from the phone and the phone sends ACK response to incorrect IP address and hence the response never reaches the outbound proxy.
Conditions: The SIP network must have two proxies, one acting as outbound proxy to the SIP phones and the phones be registered to the main proxy. Also, the proxy authentication must be turned on.

- Workaround: Remove outbound proxy and route SIP messages through main proxy
- **CSCef40058:** 79x0: DNS SRV/A record handling of Outbound Proxy results in reorder
Symptom: When Outbound Proxy configured with an A record the phone will not do a DNS lookup properly and fail the transaction.
Workaround: Change DNS entry to SRV, or configure Outbound Proxy with an IP address.
 - **CSCef41027:** 7940/7960 resets with Last=Initialized and no DebugDisplay
Symptoms: Intermittent phone resets with reason code Last=Initialized
Conditions: 7940/7960 phone load 6.0(4.2)
Workaround: None
 - **CSCef46202:** 7960 is not sending ARP request after getting DHCPACK message
Symptom: Cisco 7960 SIP IP Phone configured to use DHCP may not detect a duplicate IP Address assignment.
Condition: This problem was observed on a 7960 SIP IP Phone running 7.1 software version.
Work-around: None
 - **CSCef75275:** Symptom: Phones are intermittently stuck at Universal Application Loader. Phone Displays message “Configuring VLAN”
Condition: Phone load P0030700100. CDP used but no Voice VLAN (Aux VLAN) configured.
Workaround: Configure a Voice VLAN
 - **CSCef77597:** Crash Traceback is useless for SIP/MGCP/LA
If Cisco SIP Phone running 7.2 crashes due to an exception (for instance code dd04), the traceback generated by the **sh reset-log** may not give useful data to aid in the debugging of the crash.
Workaround: None
 - **CSCef87670:** 7960 requests files from invalid address
Symptom: Under rare circumstances, the Universal Application Loader may attempt to TFTP files from address 12.204.204.204, ignoring whatever has been set as the TFTP address.
Conditions: This is a rare situation, and seems to occur only in lightly-loaded networks, when using DHCP to supply the TFTP address, and when no voice VLAN is configured, and when upgrading from a 5.0(x) phone load.
Workaround: In most cases, the phone will eventually recover by itself. If a console cable is available, the condition can also be corrected by logging in to the phone, manually setting the TFTP address (i.e. set tftp-addr x.y.z.w), and the issuing the restart command. This will cause the phone to be set for alternate TFTP; after the phone has finished upgrading and has registered, the network configuration can be updated to turn alternate TFTP off again.
 - **CSCef90952:** MGCP Phone sends 510 response when SDP has session level attributes
Symptom: 7960 MGCP IP Phone may send 510 error response to an incoming CRCX/MDCX request if the SDP contains session-level attributes.
Condition: This problem was observed in 4.4, 6.0 and 7.2 version.
Work-around: None
 - **CSCef91521:** DHCP Option 66 is ignored
Symptom: The phone will ignore DHCP option 66 if it has previously resolved an address for TFTP.

Condition: When the value of option 66 is changed, or the DNS address for the current option 66 value is changed, the phone will ignore the change and continue to use the old value.

Workaround: Allow the phone to boot, erase the current network configuration, and then power cycle the phone.

- **CSCuk52432:** Echo fades in and out when talking IP phone to IP phone

Symptom: Under some circumstances it is possible to have echo when talking between IP phones on handsets. We are still investigating the cause.

Workaround: None

- **CSCuk52433:** speaker phone volume too low on CCM 3.3 phone loads

Symptom: This is a duplicate of CSCee77604 for SIP/MGCP. The following is the SCCP description. Customer upgraded from CCM 3.2.2c and 7940/7960 load P00303020204, to CCM 3.3.4 and now all signed phones loads are significantly quieter on the speakerphone. Lab testing shows that max speakerphone volume on P003030204 load is much louder than the 5-0-4, 5-0-5, and 6-0-3 phone loads.

Workaround: None (cannot revert to unsigned load)

Related Documentation

- *Cisco MGCP IP Phone Administrator Guide, Release 7.2*
- *Cisco IP Phone 7960 and 7940 Series at a Glance*
- *Regulatory Compliance and Safety Information for the Cisco IP Phone 7960, 7940, and 7910 Series*
- *Installing the Wall Mount Kit for the Cisco IP Phone*

Obtaining Documentation

Cisco provides several ways to obtain documentation, technical assistance, and other technical resources. These sections explain how to obtain technical information from Cisco Systems.

Cisco.com

You can access the most current Cisco documentation on the World Wide Web at this URL:

<http://www.cisco.com/univercd/home/home.htm>

You can access the Cisco website at this URL:

<http://www.cisco.com>

International Cisco websites can be accessed from this URL:

http://www.cisco.com/public/countries_languages.shtml

Ordering Documentation

You can find instructions for ordering documentation at this URL:

http://www.cisco.com/univercd/cc/td/doc/es_inpk/pdi.htm

You can order Cisco documentation in these ways:

- Registered Cisco.com users (Cisco direct customers) can order Cisco product documentation from the Networking Products MarketPlace:

http://www.cisco.com/cgi-bin/order/order_root.pl

- Registered Cisco.com users can order the Documentation CD-ROM through the online Subscription Store:

<http://www.cisco.com/go/subscription>

- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco Systems Corporate Headquarters (California, U.S.A.) at 408 526-7208 or, elsewhere in North America, by calling 800 553-NETS (6387).

Documentation Feedback

You can submit e-mail comments regarding Cisco IOS software release notes and caveats documentation to relnote-feedback@cisco.com.

You can submit e-mail comments about technical documentation to bug-doc@cisco.com.

You can submit comments by using the response card (if present) behind the front cover of your document or by writing to the following address:

Cisco Systems
Attn: Customer Document Ordering
170 West Tasman Drive
San Jose, CA 95134-9883

We appreciate your comments.

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<http://www.cisco.com/warp/public/732/docsurvey/rtg/> to give us your feedback.

Obtaining Technical Assistance

For all customers, partners, resellers, and distributors who hold valid Cisco service contracts, the Cisco Technical Assistance Center (TAC) provides 24-hour-a-day, award-winning technical support services, online and over the phone. Cisco.com features the Cisco TAC website as an online starting point for technical assistance. If you do not hold a valid Cisco service contract, please contact your reseller.

Cisco TAC Website

The Cisco TAC website provides online documents and tools for troubleshooting and resolving technical issues with Cisco products and technologies. The Cisco TAC website is available 24 hours a day, 365 days a year. The Cisco TAC website is located at this URL:

<http://www.cisco.com/tac>

Accessing all the tools on the Cisco TAC website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a login ID or password, register at this URL:

<http://tools.cisco.com/RPF/register/register.do>

Opening a TAC Case

Using the online TAC Case Open Tool is the fastest way to open P3 and P4 cases. (P3 and P4 cases are those in which your network is minimally impaired or for which you require product information.) After you describe your situation, the TAC Case Open Tool automatically recommends resources for an immediate solution. If your issue is not resolved using the recommended resources, your case will be assigned to a Cisco TAC engineer. The online TAC Case Open Tool is located at this URL:

<http://www.cisco.com/tac/caseopen>

For P1 or P2 cases (P1 and P2 cases are those in which your production network is down or severely degraded) or if you do not have Internet access, contact Cisco TAC by telephone. Cisco TAC engineers are assigned immediately to P1 and P2 cases to help keep your business operations running smoothly.

To open a case by telephone, use one of the following numbers:

Asia-Pacific: +61 2 8446 7411 (Australia: 1 800 805 227)

EMEA: +32 2 704 55 55

USA: 1 800 553-2447

For a complete listing of Cisco TAC contacts, go to this URL:

<http://www.cisco.com/warp/public/687/Directory/DirTAC.shtml>

TAC Case Priority Definitions

To ensure that all cases are reported in a standard format, Cisco has established case priority definitions.

Priority 1 (P1)—Your network is “down” or there is a critical impact to your business operations. You and Cisco will commit all necessary resources around the clock to resolve the situation.

Priority 2 (P2)—Operation of an existing network is severely degraded, or significant aspects of your business operation are negatively affected by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.

Priority 3 (P3)—Operational performance of your network is impaired, but most business operations remain functional. You and Cisco will commit resources during normal business hours to restore service to satisfactory levels.

Priority 4 (P4)—You require information or assistance with Cisco product capabilities, installation, or configuration. There is little or no effect on your business operations.

Obtaining Additional Publications and Information

Information about Cisco products, technologies, and network solutions is available from various online and printed sources.

- The Cisco Product Catalog describes the networking products offered by Cisco Systems, as well as ordering and customer support services. Access the Cisco Product Catalog at this URL:
http://www.cisco.com/en/US/products/products_catalog_links_launch.html
- Cisco Press publishes a wide range of networking publications. Cisco suggests these titles for new and experienced users: Internetworking Terms and Acronyms Dictionary, Internetworking Technology Handbook, Internetworking Troubleshooting Guide, and the Internetworking Design Guide. For current Cisco Press titles and other information, go to Cisco Press online at this URL:
<http://www.ciscopress.com>
- Packet magazine is the Cisco quarterly publication that provides the latest networking trends, technology breakthroughs, and Cisco products and solutions to help industry professionals get the most from their networking investment. Included are networking deployment and troubleshooting tips, configuration examples, customer case studies, tutorials and training, certification information, and links to numerous in-depth online resources. You can access Packet magazine at this URL:
<http://www.cisco.com/go/packet>
- iQ Magazine is the Cisco bimonthly publication that delivers the latest information about Internet business strategies for executives. You can access iQ Magazine at this URL:
<http://www.cisco.com/go/iqmagazine>
- Internet Protocol Journal is a quarterly journal published by Cisco Systems for engineering professionals involved in designing, developing, and operating public and private internets and intranets. You can access the Internet Protocol Journal at this URL:
http://www.cisco.com/en/US/about/ac123/ac147/about_cisco_the_internet_protocol_journal.html
- Training—Cisco offers world-class networking training. Current offerings in network training are listed at this URL:
<http://www.cisco.com/en/US/learning/index.html>

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