Cisco TelePresence System C/SX/EX/MX/Profile Series

Software release notes TC6

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Contents

Document revision history

Revision	Date	Description
12	November 21st 2013	Minor document update: adding open caveat and interoperability issues.
11	November 5th 2013	Minor document update: Chinese language support, corrected TAN numbers, typos.
10	October 31st 2013	Release of TC6.3.0, dot release
08	September 17th 2013	Release of TC6.2.1, maintenance release
07	July 18th 2013	Release of TC6.2.0, dot release
06	June 11th 2013	Release of TC6.1.2, maintenance release
05	May 7th 2013	Release of TC6.1.1, maintenance release
04	April 25th 2013	Update on MX-series camera preset bug (see open caveats 6.1.0) and announcement of TC6.1.1 maintenance release
03	April 19th 2013	Release of TC6.1.0, dot release
02	February 28th 2013	Release of TC6.0.1, minor release, document update
01	February 1st 2013	Release of TC6.0.0, main release

Introduction software version TC6

This release note describes the features and capabilities included in the Cisco TelePresence System C/MX/EX/SX/Profile series codec software version TC6.

Important notes and warnings relevant for this software version:

Do NOT set xConfiguration Logging Mode to Off.

In TC6.3 a new xConfiguration has been introduced that will cause the TelePresence to hang after a certain amount (66) of commands/configurations executed. This is due to a queue in memory getting filled up. To recover the system, perform a reboot and turn the Logging mode back to on. Bug Toolkit ID: CSCul12893.

Changes to the syslog configuration

Some changes have been made to the syslog configuration in TC6.3. The following API status and configuration are added:

*c xConfiguration Security Audit Server Port Assignment: <Auto/Manual>

*s xStatus Security Audit Server Port – shows the destination port number to the server.

The default value for port assignment is now Auto, which will use UDP port 514 for external unsecure communication and Tls (TCP) port 6514 for external secure communication. This is according to RFC5425. Prior to TC6.3, external unsecure syslog used TCP port 514 as the default port. This means that when upgrading to TC6.3, the syslog server needs to be configured to listen to UDP instead of TCP. If any port numbers other than the default port has been used, the port assignment xConfiguration must be set to from Auto to Manual after upgrading. This change has been made to be compliant with IANA. When using Manual assignment, the port is set by the Audit Server Port value. This will use UDP for unsecure and TCP for secure communication. A restart is no longer needed for changes made to the xConfiguration Security Audit settings.

Provisioning support

If using Cisco TMS to manage EX series endpoints, Cisco TMS 13.2.2 or later is highly recommended with TC6 or later. Cisco TMS 13.2.1 is unable to upgrade EX series endpoints to TC6. Due to a change in endpoint software, Cisco TMS 13.2.1 could only upgrade EX series endpoints to TE6.

When using CUCM provisioning, the endpoint cannot register to a VCS (SIP or H323) at the same time. This use-case is not supported by Cisco. When CUCM provisioning is active, H323 mode is disabled. Cisco recommends TelePresence customers to migrate from H323 to SIP.

DHCP option 150 – RequestTFTPServerAddress default configuration changed

In TC6.1 a new configuration was introduced to allow an endpoint, not using CDP (VLAN=Auto), to discover the DHCP option 150 to automatically detect the IP address of a CUCM. xConfiguration Network 1 DHCP RequestTFTPServerAddress: On; would request option 150 no matter if CDP was used or not.

In TC6.2 this configuration is enabled by default. This allows an un-configured system to automatically discover a CUCM in the network and automatically register with it without an intervention on the system itself.

When upgrading from TC6.1.x to TC6.2, a script will determine if the configuration should be preserved or not:

- If VLAN is set to Off, RequestTFTPServerAddress will be kept disabled.
- If VLAN is set to Auto, RequestTFTPServerAddress will be enabled after the upgrade.

Active Control and ICE

With the new features Active Control and ICE, interworking and trunking scenarios may break. Please see the details in the feature description or see the Administrator Guide, if you wish to enable these features. From TC6.3 ICE and Active control can be used at the same time when using VCS. CUCM will support ICE in a 10.x release.

System passwords

Due to the security enhancement in CSCud96071, it is impossible to log into the TC6.0 web interface with blank credentials when an empty password was set in TC6.1.x and TC6.2.x. A workaround is to execute the API command xCommand Systemunit AdminPassword Set Password: “”. Cisco does not recommend using an empty password, and any system without password set will display a warning on the screen. In a future TC software release, a system without password set will not be able to dial until the password is set.

Extended BFCP port range and Active Control ports

From TC6.2.0, UDP ports 5070 to 5077 are used for the BFCP connection when using SIP as dial protocol. Prior to TC6.2, only port 5070 was used. If a firewall or access list is denying traffic on these ports, it must be opened up to accommodate the new BFCP ports. The new ports are used because it is a requirement for using ICE. Active Control uses UDP ports 5170 to 5177. From TC7.0, BFCP and Active Control port will dynamically use ports from the RTP range instead of 5070-5077 and 5170-5177.

Hardware compatibility

Due to replacement of hardware components there are some constraints on running older software on newly manufactured endpoints and Touch 8 devices. This is due to end-of-life of some components and introduction of new components that require changes in the software. Executing the API command “xstatus SystemUnit Hardware Module CompatibilityLevel” will reveal if there are any constraints on the system. For a detailed list of compatibility levels and software constraints for the Cisco TelePresence systems please see the appendices in this document:

Cisco TelePresence Systems hardware dependencies

Cisco TelePresence Touch 8 hardware dependencies

A lock prevents the system from downgrading to unsupported versions on endpoints as well as Touch 8 devices. If a downgrade attempt fails it may be due to lack of endpoint support or lack of Touch 8 support in the old software.

New hardware revision of the Cisco TelePresence Codec C40

February 2013, Cisco started shipping a new hardware revision of the C40 Codec, which is only supported in TC4.2.4 and later, TC5.1.5 and later and all TC6 and later software releases. C40s with serial number F1AV**05F**nnnnn (05 = week 5 F = 2013) or higher and FTT**1705**nn (17=2013 05=week 5) are subject to this change. There are no changes in functionality between the new and the old revision.

New hardware revision of the Cisco TelePresence Quick Set SX20

August 2013, Cisco started shipping a new hardware revision of the SX20 Codec, which is not supported in older software versions than TC5.1.6. There are no changes in functionality between the new and the old revision.

Camera firmware

PrecisionHD 1080p 4x S2 and PrecisionHD 1080p 2.5x are only supported with the SX20. With C series codecs, the cameras will work as third party cameras. The C series codec software is not able to upgrade the camera and it is therefore not supported for usage with C-series codecs.

When upgrading from TC5.1.6 and older, the PrecisionHD 1080p 4x S2 will upgrade twice because of a change in the location of the camera software. Each upgrade may take approximately 10 minutes. The new firmware file used for upgrade is a7camera.pkg whereas the old package was nandi.pkg.

The camera recovery function that was removed in TC6.1.0 was re-introduced in the TC6.2.1/6.3.0 software versions.

If a PrecisionHD 1080p 4x is stuck in the boot loader and the camera needs to run the rescue script, please use TC6.0.1 or TC6.2.1/TC6.3.0 or later and execute the command systemtools camerarescue. Cisco does not expect to see this issue on cameras running newer software. The camera software fix with ID 20012 that was released in TC5.1.5 prevents this. The use of Cisco PrecisionHD 1080p 4xS2 and PrecisionHD 1080p 2.5x cameras as USB cameras is currently not supported. This will be supported for SX20 in a future release (target TC7.1).

Camera firmware TC6.3.0

Camera type	Hardware ID	Software	First released in
PrecisionHD 1080p 4x	52000000	S01752-2.0 FINAL ID:20012 Sangam.pkg	TC 5.1.5
PrecisionHD 1080p 2.5x	54000000	S01777-2-1 RC 1 ID:20020 A7camera.pkg	**TC6.3.0**
PrecisionHD 1080p 4x S2	53000000	S01777-2-1 RC 1 ID:20020 A7camera.pkg	**TC6.3.0**
PrecisionHD 1080p 12x	50000001 50000002 50000003 50000004	S01718-4.0 FINAL ID:40083 Rover.pkg	TC5.1.6

Camera firmware TC6.2.1, TC6.2.0, TC6.1.2 & TC 6.1.1

Camera type	Hardware ID	Software	First released in
PrecisionHD 1080p 4x	52000000	S01752-2.0 FINAL ID:20012 Sangam.pkg	TC 5.1.5
PrecisionHD 1080p 2.5x	54000000	S01777-2-0 FINAL ID:20012 A7camera.pkg	TC6.1.0
PrecisionHD 1080p 4x S2	53000000	S01777-2-0 FINAL ID:20012 A7camera.pkg	TC6.1.0
PrecisionHD 1080p 12x	50000001 50000002 50000003	S01718-4.0 FINAL ID:40083 Rover.pkg	TC5.1.6

Camera firmware TC6.1.0

Camera type	Hardware ID	Software	First released in
PrecisionHD 1080p 4x	52000000	S01752-2.0 FINAL ID:20012 Sangam.pkg	TC 5.1.5
PrecisionHD 1080p 4x S2	53000000	S01777-2-0 FINAL ID:20012 A7camera.pkg	**TC6.1.0**
PrecisionHD 1080p 12x	50000001 50000002 50000003	S01718-4.0 FINAL ID:40083 Rover.pkg	TC5.1.6

Camera firmware TC6.0.1

Camera type	Hardware ID	Software	First released in
PrecisionHD 1080p 4x	52000000	S01752-2.0 FINAL ID:20012 Sangam.pkg	TC 5.1.5
PrecisionHD 1080p 4x S2	53000000	S01777-2-0 FINAL ID:20011 A7camera.pkg	**TC5.1.7/TC6.0.1**
PrecisionHD 1080p 12x	50000002/50000003	S01718-4.0 FINAL ID:40083 Rover.pkg	TC5.1.6

Camera firmware TC6.0.0

Camera type	Hardware ID	Software	First released in
PrecisionHD 1080p 4x	52000000	S01752-2.0 FINAL ID:20012 Sangam.pkg	TC 5.1.5
PrecisionHD 1080p 4x S2	53000000	S01777-2-0 FINAL ID:20010 A7camera.pkg	**TC6.0.0**
PrecisionHD 1080p 12x	50000002/50000003	S01718-4.0 FINAL ID:40083 Rover.pkg	TC5.1.6

New features and functionality in TC6.3.0

- Extension mobility
- Language support and mapping on Touch 8 in TC6.3
- Persistent mode
- Hebrew and Arabic support on Touch
- Active Control (introduced in TC6.2) now has ICE support
- Input resolutions are not scaled before encoding
- Echo delay is automatically set
- Call history now includes call quality statistics
- Automated troubleshooting mode and log collection

New feature descriptions TC6.3.0

Support for CUCM Extension Mobility

Cisco Extension Mobility feature allows users to configure any Cisco Unified IP Phone or TelePresence Endpoint as their own, on a temporary basis, by logging in to that device. After a user logs in, the device adopts the individual user default device profile information, including line numbers, speed dials, services links, and other user-specific properties of a phone.

- For example, when user A occupies a desk and logs in to the endpoint, that user´s directory number(s), services, speed dials, and other properties appear on that device; but when user B uses the same desk at a different time, user B´s information is displayed. The Cisco Extension Mobility feature dynamically configures a phone according to the current user.
- For details on how to setup Extension Mobility, please refer to the Features and Services guide for CUCM: http://www.cisco.com/en/US/products/sw/voicesw/ps556/prod_maintenance_guides_list.html

Extension mobility allows a device profile to specify language. To be able to use the extension mobility feature, a CUCM device package needs to be installed to the CUCM. There are currently two supported versions:

8.6.2(24097 and later)

http://software.cisco.com/download/release.html?i=!y&mdfid=283782839&softwareid=282074299&release=8.6.2%2824097%29&os=

9.1(2.11006 and later)

http://software.cisco.com/download/release.html?i=!y&mdfid=284510097&softwareid=282074299&release=9.1%282.11006%29&os=

Language support and mapping on Touch 8 in TC6.3

Touch 8 now supports Arabic and Hebrew in addition to the previously supported languages. For Arabic languages, the Touch UI is mirrored to get right-to-left text so the elements on the Touch will appear on the wrong side (mirrored) – Bug ID CSCul12967.

For the touch panel, there is a mapping from a CUCM supported language to TelePresence Touch 8 supported languages:

Arabic (Algeria, Bahrain, Jordan, Kuwait, Lebanon, Morocco, Oman, Qatar, Saudi Arabia, Tunisia, United Arab Emirates, Yemen) = Arabic

Chinese (China) = ChineseSimplified

Chinese (Taiwan) = ChineseTraditional

Czech (Czech Republic) = Czech

Danish (Denmark) = Danish

Dutch (Netherlands) = Dutch

Finnish (Finland) = Finnish

French (France) = French

German (Germany) = German

Hebrew (Israel) = Hebrew

Hungarian (Hungary) = Hungarian

Italian (Italy) = Italian

Japanese (Japan) = Japanese

Korean (Korea Republic) = Korean

Norwegian (Norway) = Norsk

Polish (Poland) = Polish

Portugese (Brazil) = PortugeseBrazilian

Russian (Russia) = Russian

Spanish (Colombia) = Spanish

Spanish (Spain) = Spanish

Swedish (Sweden) = Swedish

Turkish (Turkey) = Turkish

All CUCM languages not on this list are mapped to English.

Persistent mode

In non-persistent mode the system will not have any persistent settings, as all configurations are stored in RAM, and will be wiped at every shutdown.

To configure non-persistent mode an xCommand needs to be executed with a configuration selection for each component:

xCommand Security Persistency

Configurations: <NonPersistent/Persistent>

CallHistory: <NonPersistent/Persistent>

InternalLogging: <NonPersistent/Persistent>

LocalPhonebook: <NonPersistent/Persistent>

DHCP: <NonPersistent/Persistent>

ConfirmAndReboot: <Yes>

Example: xCommand security Persistency Configurations: NonPersistent CallHistory: NonPersistent InternalLogging: NonPersistent LocalPhonebook: NonPersistent DHCP: Persistent ConfirmAndReboot: Yes

Enabling or disabling only one of the settings is NOT possible; a choice must be made for every setting.

Persistent mode can easily be configured from the web interface in the Configuration → Security page in the Non-persistent Mode tab.

Hebrew and Arabic language support added to the Touch 8” panel

It is now possible to select Arabic and Hebrew from the touch panel.

Input resolutions are not scaled before encoding

In earlier TC software versions, input sources were scaled to the nearest possible pixel size divisible by 12 before encoded and transmitted to the far end.

From TC 6.3 on, input sources are fed directly in to the encoder and any scaling (if applicable to fit screen) is performed after decoding on far end.

This will result in better details on presentation sources that are not identical to the normally transmitted video resolutions (1080p, 720p) etc. As long as the resolution does not exceed 1920x1200, which is the maximum supported resolution (some endpoints only support 1920x1080), the input resolution should be sent as it is. If bandwidth restrictions apply, the resolution will be scaled nevertheless.

Active Control now has ICE support

Active Control (introduced in TC6.2) now has ICE support. This means that ICE and Active Control can be used at the same time when using VCS. CUCM will introduce ICE support in a 10.x release.

Echo delay is automatically set

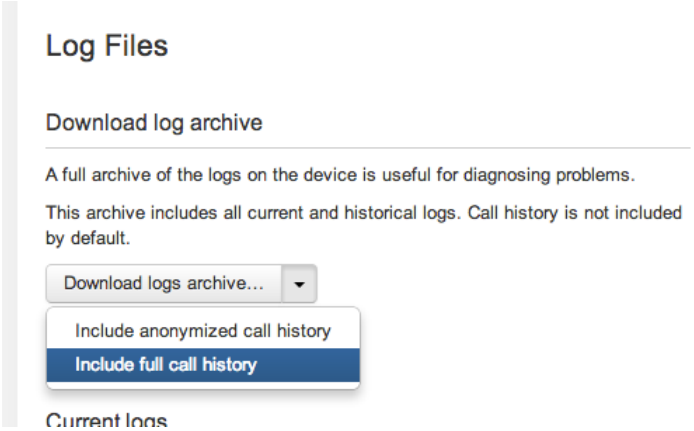
In earlier TC software versions, an experimental configuration (xConfiguration Experimental Audio ecReferenceDelay) could be used to adjust the time slot for echo cancellation. This is valuable when monitors with big delays are used for TelePresence. On integrated devices like EX and MX series, the systems have overall low latency so the echo cancellation is working correctly. When using high

latency monitors (typically consumer TV´s with image processing) using HDMI audio output, the delay in the output can be so great that it arrives outside the time envelope that the echo canceller is using and thus is not corrected. This causes an echo. An automatic echo reference delay detection mechanism has been implemented for SX20 and C series codecs except C20 in TC6.3, which replaces the earlier experimental configuration. Due to restricted CPU performance in the C20, the automatic detection feature is disabled and the value has to be manually set. The value is set by xConfiguration Audio EcReferenceDelay Mode. In the beginning of a call, any abnormal delay (more than 30-40 ms) will trigger this algorithm and move the time slot for the echo cancellation detection, to correct any issues with echo.

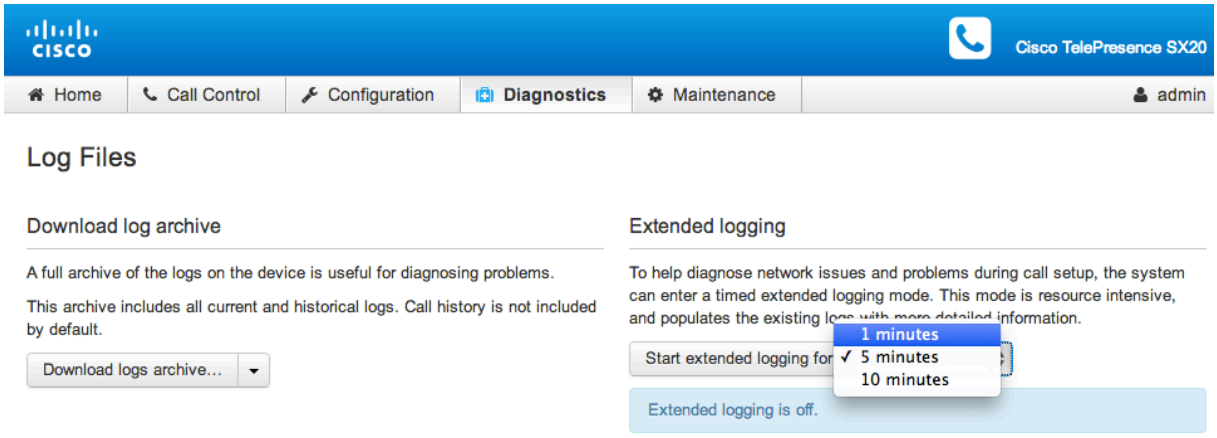
Call history now includes call quality statistics

TC software is now using the xCommand callhistory API commands to populate the call history. If the detail level is set to full, information about packet loss and jitter will be shown for each call in the history. E.g. xCommand Callhistory Get DetailLevel: Full

Statistics include packet loss, packet loss percent and maximum jitter for each audio and video stream in the call. It is also possible to get this information by downloading the current logs from the web interface and choosing to include call history in the logs. To do this select Diagnostics -> Log Files in the web interface navigation bar.



Automated troubleshooting mode and log collection



It is possible to enable debug logging from the web interface. This will turn on debug logging for a specified time interval. It is also possible to turn it off. This feature is useful in troubleshooting scenarios. The extended logging mode should be enabled before reproducing an issue and disabled afterwards since it will affect system performance. The logs can be collected on the same page (Download logs archive).

New features and functionality in TC6.2.1

- Support for new flash memory that will be introduced in new hardware revisions of the C-series codecs. This new memory will probably start shipping spring or summer 2014. More information about TAN numbers and compatibility levels will appear in a later release note.

Features that have been re-introduced or fixed in TC6.2.1:

- The camera rescue script has been re-introduced (CSCuc21521).
- It is again possible to control the EX series by the remote control which is required when FIPS mode is enabled. This feature was broken in TC6.1 and TC6.2.0 (CSCui41983 & CSCui73612).
- The login prompt for serial has been changed and will no longer include the system name in the second login attempt. This has been breaking integration with Crestron controllers (CSCuj12197).

For more information please see use the Bug toolkit.

New features and functionality in TC6.2.0

- Changed BFCP port range
- Video mute icon on EX series
- Camera tamper detection on PrecisionHD 1080p 12x
- Additional dialog added in “connect to other codec” message when Touch 8 is disconnected from codec
- Moveable PIP on EX series
- Improved web interface features
- Improved packet pacing on presentation channel
- Lync 2013 integration for point-to-point calls (Requires VCS x8)
- CUCM Improvements
  - CUCM Redundancy support: Failover, Fallback and Call Preservation
  - Improved Provisioning from CUCM
  - Encrypted configuration from CUCM
  - Support for auto discovery of the CUCM
- ICE support
- Active Control: Providing end users conference control with TelePresence Server
- New diagnostics warnings on web interface
- Change of dynamic payload types – Cisco CUCM standard is used
- Reduced support for HTML tags in message alert and message prompts on screen
- G.729 support for H323 calls
- VU meter on web interface for C series and SX20

New feature descriptions TC6.2.0

Changed BFCP port range

Due to the support for ICE and TURN in TC6.2, the BFCP port is now incrementing from UDP/TCP 5070 to 5077. If a firewall is blocking ports in this range, the presentation channel will not be established and the presentation will be sent in the main video channel. Please note that BFCP will only be sent over TCP as a fallback for interworking scenarios.

Video mute icon on EX series

An icon will be displayed on the OSD to indicate that the privacy shutter is closed.

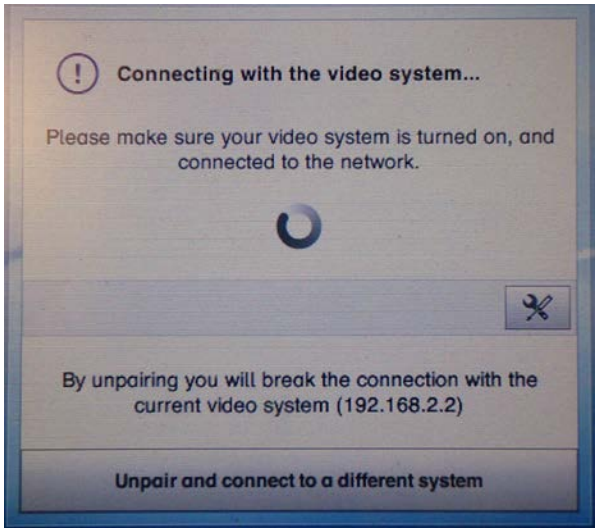
Camera tamper detection on PrecisionHD 1080p 12x

The following configuration will detect if camera is panned or tilted manually and will reset the camera position to the last known position. The default setting is off.

xConfiguration Cameras Camera 1 MotorMoveDetection: On

Additional dialog added in “connect to other codec” message when Touch 8 is disconnected from codec

The touch panel is now less prone to accidentally getting un-paired by a user when a paired codec is shut down or rebooting. When the touch panel is trying to pair, an indicator is shown and by tapping the toolbox icon a warning shows up, explaining that un-pairing will break the connection to the currently paired video system.



Moveable PIP on EX-series

Moveable PIP solves the problem of getting a video PIP in front of the PC view, or other important information when presenting or viewing PC. Click and drag to re-locate the PIP to pre-defined drop zones.

Improved web interface features

The System Recovery page has new information and improved layout. A more precise explanation of the alternatives and consequences of the different recovery options is provided. Software Recovery Swap (SelectSW) is now available on the web interface.

Improved packet pacing on presentation channel

Packet pacing has been improved on the presentation channel. Packet bursts on presentation channel caused issues with low bandwidth (~512kb) calls due to high data bursts. These are now lowered or shaped. CDETS reference CSCue91808.

Lync 2013 integration for point-to-point calls (Requires VCS x8)

Requires VCS version x8, which was released September 2013.

- See Lync 2013 users in TC endpoints phonebook
- Ability to dial between TC-endpoint and a Lync user and get high quality audio and 720p video. No support for separate presentation channel in this release
- HD quality at full frame rate – 720p30 (bidirectional)
- Ability to answer calls on either TC-endpoints or Lync 2013 clients when receiving an incoming call

Executing the following configuration enables Lync 2013 mode:

xConfiguration Conference 1 LyncCompatibility Mode: On

CUCM improvements

The CUCM features in this version require the installation of a device pack for CUCM 9.1.1 (or 8.6.2), which is released summer 2013.

CUCM redundancy support: Failover, fallback and call preservation

The TelePresence endpoints have CUCM redundancy support with failover and fallback. The TelePresence endpoint will automatically register to the next CUCM in the cluster if the connection to the active CUCM is lost. The re-registration to the primary CUCM will occur in the background during the call.

Call preservation

If the TelePresence endpoint loses its connection to the primary CUCM, the call is preserved. This provides greater resiliency and a better user experience. All actions (e.g. presentation, hold) on the touch panel will be greyed out except for “Hang Up” since call control is lost (connection to the CUCM). The next call will be handled by the secondary CUCM and all call features will be available. When the primary CUCM is back online, the endpoint will automatically register with the primary CUCM and de-register to the secondary CUCM.

Improved provisioning from CUCM

Several provisioning parameters have been added to TC6.2. For a detailed description please see “Administering TC endpoints on CUCM guide” for TC6.2.

Encrypted configuration from CUCM

TelePresence endpoints can be fully and securely provisioned from Cisco Unified CM with a simplified deployment. When the TelePresence endpoint has been setup with a secure connection (encrypted security profile) in the CUCM, the provisioning data from the CUCM to the endpoint is encrypted. The data will be transmitted over HTTPS. TC endpoints will only read admin password if the endpoint has been set up with an encrypted security profile. The password cannot be empty and the user name must be admin.

Support for auto discovery of the CUCM

The TelePresence endpoints now have support for auto discovery of the CUCM through option 150 without using CDP/VLAN. After a factory reset the endpoint will automatically register if the network provides a CUCM in DHCP Option 150. This is achieved by altering the default value for xConfiguration Network 1 DHCP RequestTFTPServerAddress to On (previously Off).

ICE support

ICE provides the optimal media path by sending peer to peer when possible:

- Enables cloud scenarios

Reduces bandwidth cost: No need to traverse cloud or enterprise servers

- Reduces traversal load of VCS
- Standardized IPv4/IPv6 dual stack solution
- Separates signaling and media

A signaling path must exist for ICE to work

Pre-requisites and requirements:

Both endpoints in the call need to be ICE enabled and configured with a valid TURN server and credentials to allocate a relay port. If TURN connection is missing, only the host port is offered.

- Active Control (IX) is not supported with ICE
- Not supported by CUCM until CUCM 10 (registration and calls without ICE will work but calls requiring ICE will fail)
- ANAT must be turned off, which is the default setting. (ANAT Applies to Dual Stack Call protocol mode. SDP will have both an IPv4 and IPv6 address. This feature should not be used yet.)
- Entities in the call flow that are not compatible or accepting the ICE signaling may cause these calls to be rejected or filter out the ICE media lines. If an ICE enabled endpoint is calling an endpoint without ICE support or ICE enabled, the media will most likely not pass through. This is because both endpoints are required to participate in the ICE negotiation to open a blocking NAT or firewall, and the ICE endpoint may present its non-reachable host address in the initial media offer. In a VCS scenario, the VCS will do a traversal call if it detects that one endpoint behind a NAT/firewall is not doing ICE.

Active Control: Providing end users conference control with TelePresence Server

Active control is a feature that helps conference participants to administer a conference on TelePresence Server through a Touch panel.

End users can interact with the TS to control the meeting experience. Each user can see the participant list, change video layout, disconnect participants, etc. from the touch interface.

Active Control Features in TC 6.2 (Phase 1):

- Participant lists → Friendly name and caller id.
- Change layout locally → Applies to Main video channel only. When presentation is active, the layout will only select where to put main video or presentation.
- Conference information → Name of the conference
- Mute remote participant → This feature will be added in TC6.3
- Disconnect remote participant
- See who is active speaker → An icon appears next to the speaker in the participant list
- See who is presenting → A PC icon appears next to the speaker in the participant list

Pre-requisites and requirements:

- Requires TelePresence Server 3.1 or later in remote management,
- Must be behind a Conductor (XC2.2 and later), not directly registered to VCS/CUCM
- CUCM version 9.1.2 or later
- VCS version X7 or later

- Requires TelePresence Touch 8, no support for Remote Control
- No TelePresence MCU support
- SIP only feature. H323 interworking scenarios are not supported.
- Requires that UDP port 5170-5177 is not blocked by any firewall
- Active Control is disabled by default. Enabling the features may cause problems with the call signaling. If an Active Control enabled call traverses a CUCM trunk with a CUCM version lower than 9.1.2, Active Control fails, as the CUCM will zero port the Active Control media lines. ICE and Active Control cannot be used simultaneously in TC6.2. To enable Active Control, execute xConfiguration Experimental Conference 1 ActiveControl Mode: On.

New diagnostics warning on web interface

The following diagnostics warnings have been added to the web interface diagnostics troubleshooting section in TC6.2:

- Warning that it will not be possible to make a call when sip listenport is «Off» and SIP outbound is disabled
- Warning when not registered on the protocol (SIP or H323) chosen as the default call protocol
- Warning if the SIP profile type is configured incorrectly
- Warning if registered to VCS and having TlsVerify On
- Notified when having a misconfigured static IP address
- Warned whenever the Speed/Duplex setting on the codec is not set to Auto
- Warning if the CDP provided Duplex setting of the neighboring switch is different than the reported duplex setting on the codec
- Warning through diagnostics if the system has a missing release key

Reduced support for HTML tags in message alert and message prompts on screen

For security reasons only <p> and
 HTML tags are supported in messages on screen (cf. Message Alert and Message Prompt commands). These tags will result in line breaks as normal. No other HTML tags will be interpreted; they will appear as text on the screen.

G.729 support for H323 calls

H323 now also supports the G.729 audio codec. G.729 has been supported for SIP from TC6.1.0.

VU meter on web interface for C40, C60, C90 and SX20

The VU (Volume Unit) meter found in the OSD, which shows a representation of the signal level on input sources is now available also from the web interface peripherals section. This feature is not available for C20, MX and EX series endpoints.

Change of dynamic payload types – Cisco CUCM standard is used

Dynamic Payload Numbers will follow Cisco CUCM standard if possible:

Codec	Value
H.263+	96
H.264 Base (Mode0)	97
H.264 Base (Mode1)	126
H.264 Base (Mode2)	127
H.264 Main (Mode1)	112
H.264 High (Mode1)	100
FEC	115
H.264 SVC	98
H.265	99
X-H.264UC	122
X-ULPFECUC	123
NSE	100
RFC 2833	101
L16	102
AAC-LD (mpeg4-generic)	96
G.722.1 32k	104
G.722.1 24k	99
AAC-LD (MP4A-LATM) 128k	122
AAC-LD (MP4A-LATM) 64k	123
AAC-LD (MP4A-LATM) 56k	100

Codec	Value
AAC-LD (MP4A-LATM) 48k	101
AAC-LD (MP4A-LATM) 32k	102
AAC-LD (MP4A-LATM) 24k	96

New features and functionality in TC6.1.2 & 6.1.1

6.1.1 and 6.1.2 are maintenance releases and have no new functionality, only bug fixes.

New features and functionality in TC6.1.0

- Self view and layouts behavior changes on EX series
- Reduced support for HTML tags in message alert and message prompts on screen
- Release key policy change and software upgrade management
- Password always prompted on Telnet and SSH
- Diagnostics logging
- G.729 audio codec support
- Voice mail support and message waiting indication
- Shared lines support in CUCM
- Ad-hoc conferencing in CUCM
- Support for call forwarding (Call Forward All) – EX series only
- Audio-driven microphone mute indication – EX series only
- Bluetooth headset support – EX series only
- CTI/JTAPI support (remote expert solution support)
- Touch 8” has now an encrypted file system
- New and improved web interface features
- Refined Touch user interface and new Touch features
- No encryption icon shown on screen on EX series
- API shows status of connected outputs

New feature descriptions TC6.1.0

Self view and layouts behavior changes on EX series

The following behavior changes (CSCug21387) have been made for EX series:

- Self-view will be turned off when disconnecting - outside call self view will always be in full screen if ON
- If self-view is ON when connecting, keep self view in full screen, bring up self view PIP when connected.
- Increased size of filmstrip, with maximum 3 frames possible.

Reduced support for HTML tags in message alert and message prompts on screen

For security reasons only <p> and
 HTML tags are supported in messages on screen (cf. Message Alert and Message Prompt commands). These tags will result in line breaks as normal. No other HTML tags will be interpreted; they will appear as text on the screen.

Release key policy change and software upgrade management

As from software version TC6.1, you do not need to install new release keys; it is sufficient that the video system has a valid release key for any earlier TC software version. This means that it is possible to upgrade from 6.1.0 to 7.x.x without entering a new release key. A caveat in TC5.1.x web interface does not allow installing TC6.1 without having a valid TC6.x release key. Other software upgrade methods will still work.

Due to this change, TC6.1 and later software releases cannot be downloaded from ftp.tandberg.com anymore.

TC6.1 and later will only be available for download at http://www.cisco.com, for users with a valid service contract assigned to a CCO (Cisco Online Connection) ID.

Password always prompted on Telnet and SSH

When signing into the video system using Telnet or SSH, the password will always be prompted. This applies even when the password is empty (not set). This may cause problems with automatic scripts following the TC5 behavior.

Diagnostics logging

You can use the Touch 8” panel to enable diagnostics logging of the video system. Diagnostics logging is meant for troubleshooting only, and will lower the system performance while switched on.

G.729 audio codec support for SIP

Support for the G.729 including Annex A and B audio codec is added in order to provide better IP phone interoperability. G.729 codec support is only implemented for the SIP protocol as of TC6.1.0.

Voice mail support and message waiting indication

Endpoints registered to a Cisco Unified Communications Manager (CUCM) can be assigned a voice mail profile. When receiving a Busy or No Answer signal from such an endpoint, the call is forwarded to voice mail.

You can access the voice mail from a Touch 8” panel by tapping the Messages icon. Also a message waiting notification will appear.

Shared lines support in CUCM

When registered to a Cisco Unified Communications Manager (CUCM) the endpoint may be part of a shared line. This means that several devices in the same partition share the same directory number. The different devices sharing the same number receive status from the other appearances on the line.

For example, you can set up a shared line so that many devices share the same number and the first available operator picks up the call (help desk). Assisted call handling, where an administrator manages the calls for an executive (forward, barge in) is another example. Also multiple devices belonging to one person can share the same line, thus allowing him/her to pick up a call on one device and resume it on another (single number reach).

You can find information about how to set up shared lines in the CUCM user documentation (Cisco Unified Communications Manager System Guide).

Ad-hoc conferencing in CUCM

Endpoints registered on Cisco Unified Communications Manager (CUCM) version 8.6.2 or later can invoke an ad-hoc conference. This requires that a conference bridge is added as an MCU on CUCM. Any endpoint can participate in the conference, regardless of where they are registered.

If the number of participants drops to two, the conference will de-escalate to a point-to-point call.

A CUCM device package is required to be able to configure the Multipoint mode from the CUCM to allow for ad-hoc conferencing using a media resource group list. If the multipoint mode configuration is not available in CUCM, ad-hoc conferencing must be configured manually using the following command: xConfiguration Conference 1 Multipoint Mode: CUCMMediaResourceGroupList.

CUCM 8.6(2.23071) device pack (requires CCO login):

http://software.cisco.com/download/release.html?mdfid=283782839&flowid=26422&softwareid=282074299&release=8.6(2.23071)&relind=AVAILABLE&rellifecycle=&reltype=latest

CUCM 9.1(1.21010) device pack (requires CCO login):

http://software.cisco.com/download/release.html?mdfid=284510097&flowid=37562&softwareid=282074299&release=9.1(1.21010)&relind=AVAILABLE&rellifecycle=&reltype=latest

This device pack is not available for CUCM 9.0.

Support for call forwarding (Call Forward All) – EX series only

When registered to a Cisco Unified Communications Manager (CUCM) call forwarding is supported. Call forwarding diverts calls to a specified number. When Call Forward All is activated, all incoming calls are diverted.

The target destination for diverted calls can be set from the Touch 8" panel, or provisioned by the Cisco Unified Communications Manager (CUCM). You can find information about call forwarding in the CUCM user documentation (Cisco Unified Communications Manager System Guide).

Audio-driven microphone mute indication – EX series only

When in a call, you will be notified if you start speaking while your microphone is muted. The notification - Your microphone is muted - will be displayed on the main display.

Bluetooth headset support – EX series only

The Bluetooth version 2.1 headset profile is supported. Bluetooth 3.0 is not supported. The following functions are included: answer, volume up, volume down and hang up. A Bluetooth headset icon appears in the audio selector on the Touch controller when a headset is paired with the video system. Only one headset can be paired at a time.

CTI/JTAPI support (remote expert solution support)

A Cisco Unified Communications Manager (CUCM) exposes call control of endpoints via a Java Telephony API (JTAPI). Cisco's JTAPI enables custom applications to monitor device availability and control calls remotely. The following features are supported: call, answer, disconnect, hold, resume, blind transfer, consultative transfer and consultative conference.

Endpoints registered to a Cisco Unified Communications Manager (CUCM) 9.0 or later support the Cisco Remote Expert Smart Solution (version 1.8).

Touch 8" has now an encrypted file system

- Factory reset is more secure as it now follows the same procedure as on the codecs: resetting the touch panel will securely delete the cryptographic key
- If you downgrade a codec from TC6.1 to an older version, the connection to the touch panel is lost and you must pair it again. This is required because the codec will not be able to communicate with a touch panel that has an encrypted file system. The codec requires new Linux kernel modules.

New and improved web interface features

- Several diagnostics checks have been added. Diagnostic checks may easily identify configuration errors
- Factory reset warnings have been improved
- Easier to download logs and configuration
- Easy to perform configuration backup and restore

Refined Touch 8” user interface and new Touch 8” features

- The merge button is no longer displayed when a user clicks on “Accept & Hold current”. To later merge the calls, select the active call, push “Add” and select the call on hold. The merge button is removed from the inactive call. This is to align with Cisco IP phones
- The Network section of the system information on Touch 8” will now include the network VLAN ID
- From TC6.1.0 it is no longer possible to transfer, hold or resume one of the participants in a multisite call. These functions are only available for a participant in a peer-to-peer call. This is to get a more unified experience across all conferencing methods. (CSCue59134)
- Call transfer is now attended/consultative; the touch panel no longer supports unattended transfer. A consultative transfer is one in which the transferring party can speak with the third party before connecting the caller to the other party.
- It is no longer possible to add a new call to an existing call without placing the existing call on hold.
- It is no longer possible to end a held call without resuming it first.
- TC6.1.0 has a call duration timer in the upper right corner of the touch panel
- Missed calls and message waiting indicators; direct access to voice mail
- Call Forward All is available by pushing in the status pane in the upper left corner
- New dial pad, soft keyboard and improved text selector

No encryption icon shown on screen for EX series

Encryption icon is no longer shown on the screen of an EX series system. If a call is encrypted, a padlock will be shown next to the call duration timer on the Touch panel. It is possible to enable a temporary OSD encryption indicator for all other systems by setting “xConfiguration Video OSD EncryptionIndicator: AlwaysOn”.

API shows status of connected outputs

Executing xstatus Video Output will return the status of connected outputs and their resolutions. This information can also be seen in the web interface under Configuration –> Peripherals.

Example:

*s Video Output HDMI 1 Resolution Height: 1080

*s Video Output HDMI 1 Resolution Width: 1920

*s Video Output HDMI 1 Resolution RefreshRate: 60

*s Video Output HDMI 1 Connected: True

Some connectors do not support hot plug detection, in this case the Connected status will be printed as unknown. Examples are DVI-A, composite and S-video. In these cases, the configured resolution for that interface is printed. Example:

*s Video Output DVI 2 Resolution Height: 768

*s Video Output DVI 2 Resolution Width: 1024

*s Video Output DVI 2 Resolution RefreshRate: 60

*s Video Output DVI 2 Connected: Unknown

New product description for Cisco TelePresence Profile 55

In TC6 the Cisco TelePresence Profile 55 system has changed product name, it is now called Cisco TelePresence Profile 52/55. This change is visible in the web interface.

New features and functionality in TC6.0.0

- Improved video layout control on Cisco TelePresence Touch 8
- Security warning when system password is not set
- New software release for Cisco TelePresence PrecisionHD 1080p 4x S2 Camera.
- Pairing support for Cisco ISDN Link
- Support for encryption on CUCM
- Support for encrypted CTMS calls
- New web interface features
- Certificate handling
- Down speeding in multisite
- 1080p60 support for SX20, newer C60´s and C90´s
- Localization for Touch
- Improved fan control for SX20
- New path for capturing User Interface screenshots from Touch 8
- New Endpoint upgrade API for TC6 and Cisco TMS 14.1 and later
- Behavior change: No disconnect confirmation when using OSD

New feature descriptions TC6.0.0

Improved video layout control on Cisco TelePresence Touch 8

The Touch 8 layout control has got the following improvements in TC6.0.0:

- Improved local layout control on Touch
  - Layout options available directly from stage
  - Icons reflecting the actual layouts
- Support for custom layouts on Touch
  - Custom layouts defined on TC Console 6.0
  - Icons will reflect the actual layouts also for custom layouts
- Support for full screen presentation with remote video in PIP
- Support for moving PIPs from Touch
- Self view / minimized presentation / remote video (when having full screen presentation)
- Predefined drop zones
- Support for changing video layout sent to remote sites when hosting a MultiSite conference
- Support for “lock speaker” in MultiSite from MultiSite host. Show the same participant in full screen mode for the entire call (no voice switching between participants).

Security warning when system password is not set

There will be an on screen warning in the lower right corner indicating that the system password is not set. The warning will also be displayed on the touch panel. The warning will disappear as soon as the password has been changed.

New software release for Cisco TelePresence PrecisionHD 4x S2 Camera

With the TC6.0.0 release, the PrecisionHD 1080p 4x S2 camera will automatically be upgraded to camera software release ID20010. This is a bug fix release.

Pairing support for Cisco ISDN Link

With TC6.0.0 and the ISDN Link IL1.1.0 release it is possible to pair the TelePresence system with a Cisco TelePresence ISDN link.

Please note that the encryption indicator (padlock) will indicate that the connection to the ISDN Link is secure, but does not guarantee the full end-to-end encryption as the ISDN Link does not have any way of determining full end-to-end encryption. Due to this the encryption padlock can be turned off with the xConfiguration "xConfiguration Video OSD EncryptionIndicator: <AlwaysOn/Auto/AlwaysOff>"

- Configuration can be done on the web interface
- Store ISDN contacts in the phone book
- Specify ISDN when placing calls
- For details on how to install the Cisco ISDN Link please refer to the Installation guide at:

  http://www.cisco.com/en/US/products/ps12504/prod_installation_guides_list.html
- For details on how to configure the Cisco ISDN Link please refer to the Administrator guide at: http://www.cisco.com/en/US/products/ps12504/prod_maintenance_guides_list.html

Support for encryption on CUCM

With TC6.0.0 encrypted calls can be made when registered to CUCM. Certificate Authority Proxy Function (CAPF) using Certificate Trust List (CTL) allows for Secure Real Time Protocol (sRTP) encryption.

- Enterprise level security
- Establish a trusting relationship between end-points and servers, and end-point to end-point
- Additional layers of security when compared to VCS registration
- For details on how to configure encryption for TC endpoints registered to CUCM please refer to the "Administering TC Endpoints on CUCM" guide at: http://www.cisco.com/en/US/partner/products/ps11422/prod_maintenance_guides_list.html

Support for encrypted CTMS calls

With TC6.0.0 encrypted calls can be made to CTMS. The TC6 TelePresence system must have a secure registration to VCS or CUCM to allow encrypted calls and CTMS encryption must be enabled – see "New API configurations 6.0.0" page 30.

New web interface features

Improved call application:

- Call, start/stop presentation
- Main source select
- Presentation source
- Volume control and microphone mute

- Camera control
- Layout control
- Diagnostics info
- Participant list
- Local phonebook support on Web interface
- It is possible to browse and search contacts
- Possibility to add contacts to local phone book (Favorites)

Functionality to show all connected peripherals

- Listing the connected input and output devices
- See supported resolutions and refresh rates
- Camera software
- Touch device
- Configuration of ISDN Link

Diagnostic test

- The system will run a set of tests to detect possible problems and provide links to resolve the issues
- The following tests are performed:
- Camera Software version
- System name is set
- SIP configuration
- H323 configuration
- Fan status
- Release key is installed
- Administrator password is set
- Pending diagnostic issues
- System temperature

Certificate handling

The Security (Configuration – Security) gives the possibility to upload Certificate Authorities (CA) in the PEM format (.pem) with one or more certificates in one file. It is possible to turn on and off the certificate for HTTPS, SIP and 802.1x.

The locations of these files on the codec are:

/config/certs/apps/8021x.pem

/config/certs/ca/default.pem

There is no key-file as the certificates are stored decrypted.

Down speeding in multisite

You can now choose the total bandwidth. You set the total bandwidth to 4 mbit. First call will connect at 2 mbit/s, next call will also connect at 2mbit. When calling the third participant, all calls will be down speeded to accommodate all three calls within 4 Mbit.

The API commands to set this are:

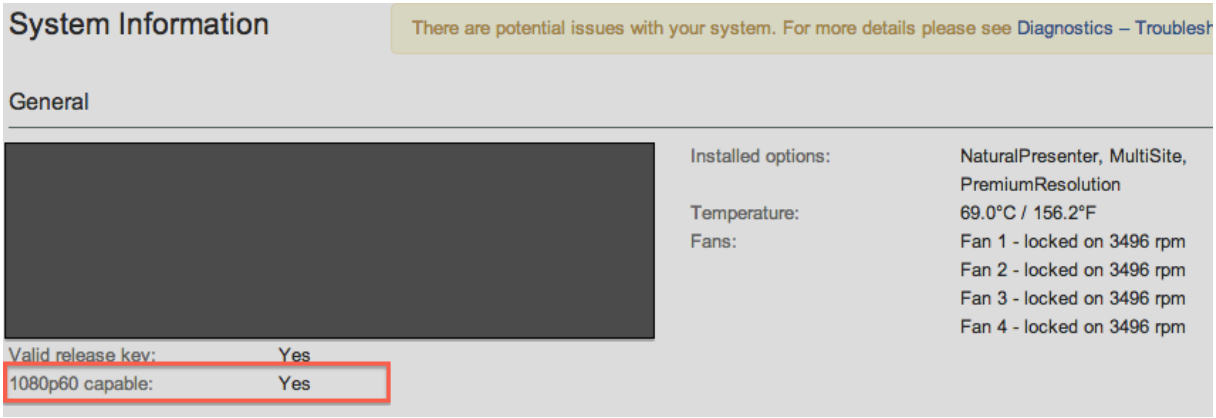
- xConfiguration Conference 1 MaxTransmitCallRate: 2000
- xConfiguration Conference 1 MaxReceiveCallRate: 2000
- xConfiguration Conference 1 MaxTotalTransmitCallRate: 4000
- xConfiguration Conference 1 MaxTotalReceiveCallRate: 4000

MaxTransmitCallRate (and receive) is per call bandwidth usage.

MaxTotalTransmitCallRate (and receive) is total bandwidth usage.

1080p60 support for SX20, newer C60´s and C90´s

- TC6 supports 1080p60 for C90, and some C60´s in addition to SX20.
- All C60´s and C90´s currently in sale support 1080p60
- C90 and C60 Codecs that support 1080p60 will show this on the System Information web page. If codec does not support 1080p60 there will be no line mentioning 1080p60.
- In TC6, 1080p60 is enabled by all C60 and C90 codecs that support it in hardware; no configuration needs to be changed.
- C60: With the newer mainboard revision G and later C60 will be able to encode/decode 1080p60.
- C90: All C90´s with Cisco branding do support 1080p60.



It is also possible to determine if 1080p60 is supported in the main.log as the following example shows:

Example: top of main.log of C60:

Mar 23 18:33:28 ppc main: CasperII → Must be Casper II (not Casper) = OK

Mar 23 18:33:28 ppc main: Main board: B → Main board must be G or later. = NOT OK

This codec does not support 1080p60 because the main board is too old.

Example main.log of C90:

Jan 16 11:45:17 ppc main: Saturn → Must be Saturn II (not Saturn) = NOT OK

Jan 16 11:45:17 ppc main: Main board: F → does not matter for C90

This codec does not support 1080p60 because the codec is too old.

Localization for Touch

New languages added to Cisco TelePresence Touch 8:

- Traditional Chinese
- Portugese Brazilian
- Turkish
- Czech
- Polish

Improved fan control for SX20

TC6 will reduce fan noise on SX20 by changing the fan control behavior:

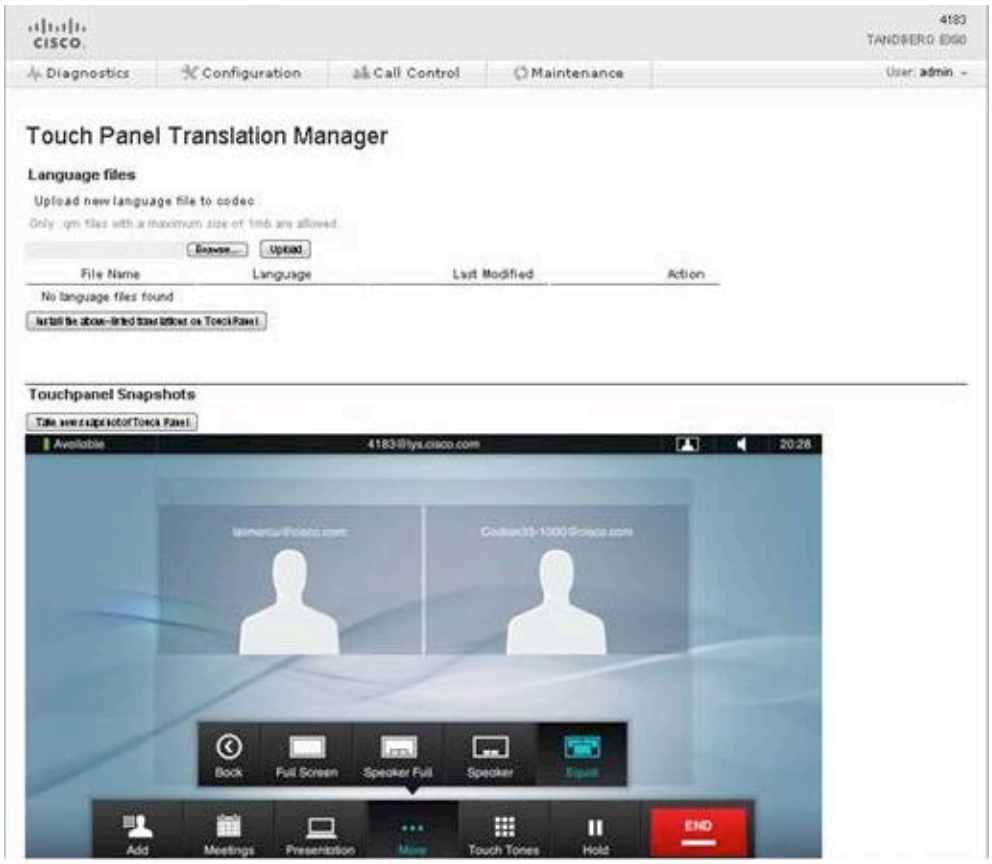
- New minimum fan speed is 1500rpm versus 2000rpm in TC5.1.5.
- The fan will stay at 0rpm, and not start until temperature is 50 degrees Celsius versus 45 degrees Celsius in TC5.1.5.

New web path for capturing User Interface screenshots from Touch 8

With TC6, it is possible to capture screenshots from the Touch interface by entering the following URL:

http://<codec IP address>/web/translation.

Capturing screen shots from the Touch 8 is only supported on systems with a directly connected Touch panel: MX-series and EX-series endpoints or C40, C60 and C90 when using Ethernet Port 2.



New Endpoint upgrade API for TC6 and Cisco TMS 14.1 and later

Cisco endpoints running software version TC 6.0 have a new API for use in software upgrades. Endpoints with earlier TC software use the previous upgrade API.

It is now the endpoint that retrieves the software package from Cisco TMS. The upgrade will start when the endpoint initiates it. The user will be prompted to upgrade or postpone when an upgrade is ready. After completion the endpoint sends a success message to TMS and the upgrade will appear finalized in TMS. The previous API had some flaws where TMS could detect an upgrade as failed although it was successful. The new upgrade method is faster than the previous method.TMS versions prior to 12.5 are now no longer supported. Cisco recommends TMS 14.1 or later for use with TC6.1.

The **System Upgrade Status** page in Cisco TMS 14.1 has been improved. The endpoint itself sends continuous feedback throughout the process. To see the upgrade status, see **Systems > System Upgrade > System Upgrade Activity Status**.

Behavior change: No disconnect confirmation when using OSD

With TC6, there is no longer a disconnect confirmation dialog when pushing the disconnect button on the remote control.

New, changed and removed API commands, configurations and statuses

The API commands, configurations and statuses are documented in the Cisco API Reference Guides available for download at:
http://www.cisco.com/en/US/partner/products/ps11422/prod_command_reference_list.html

The full list of API changes from TC5 to TC6 can be found in the section “xAPI Changes TC6” in the end of this document.

Open and resolved caveats in TC6

Using the Bug Search Tool

You can use the Bug Search Tool to find information about caveats (bugs) for this release, including a description of the problems and available workarounds. The Bug Search Tool lists both open and resolved caveats. Not all bugs that are fixed or open are shown in the release notes. Bugs that are not deemed relevant are left out, but can be found in the Bug Search Tool.

To use the Bug Search Tool, follow these steps:

Step 1 *Access the Bug Search Tool by navigating to* *http://www.cisco.com/cisco/psn/bssprt/bss*

Step 2 Log in with your Cisco.com user ID and password.

Step 3 To look for information about a specific problem, enter the bug ID number in the 'Search for bug ID' field, then click 'Go'.

Resolved caveats in TC6.3.0

Link to TC6.3.0 open caveats

API

Reference ID	Summary
CSCui72188	Codec looses the ability to control the far end camera when changing the following setting:"xConfiguration Conference 1 Presentation Policy: From "LocalRemote" to "LocalOnly"
CSCui66926	Customer is unable to Push Configuration Templates to EX60s located behind a firewall. Firewall is allowing the communication out; this has been verified via packet captures. Endpoint set to behind firewall in TMS with Status as Active.

Application

Reference ID	Summary
CSCuj13986	TC endpoints except EX60 (without Premium option key) do not display presentation sent from any CTS endpoint in a CTMS conference.
CSCuh38547	Clearpath not working correctly between TelePresence Server 3.1 and TC endpoint if TC endpoint is initiating the conference.
CSCui28178	When switching codec from one network to another, the endpoint will pull the correct DNS information from the DHCP offer, but still use the previously applied DNS information. In the xStatus you can see the correct DNS information, but all DNS

Reference ID	Summary
	lookups are done using the previous networks DNS servers which can be seen in the xConfiguration.
CSCuh65923	Monitor Roles set to wrong default values after factory reset on C60 Profile 52 (standard C60 is not affected)
CSCtw93401	New feature: call statistics should be available in Call History.
CSCui49305	Wrong time zone set at endpoint when provision from CUCM - America/Lima
CSCui00434	Wrong time zone set at endpoint when provision from CUCM
CSCuh04746	Self-view has to be manually moved to the selected monitor specified by xConfiguration Video SelfviewDefault OnMonitorRole.
CSCuf74115	When not in a call, the full screen self-view on the second display (dual display mode) is not re-instated after presentation button is pressed in a dual monitor set up.

Audio

Reference ID	Summary
CSCuj41150	Experimental Audio EcReferenceDelay setting is lost after boot. This will no longer be a problem in TC6.3 due to automatic setting of this configuration.
CSCui33116	After calling into a voice conference bridge from an SX20 DTMF tones are not always correctly detected.

Camera

Reference ID	Summary
CSCue50474	EX60 camera image is black upon return from standby. Toggling camera brightness from auto to manual resolves the issue.
CSCui34520	EX90 camera does not work if it comes out of standby with camera lid closed.

OSD UI

Reference ID	Summary
CSCuh25858	When placing audio only call long distance with a TC software endpoint and endpoint is prompted for a PIN number via secondary dial tone also known as ringback tone, endpoint fails to send DTMF.
CSCuh37716 / CSCuh37718	Enabling Do Not Disturb is implemented in different ways on OSD and Touch. On Touch it will automatically be turned off after x minutes defined by xConfiguration Conference 1 DoNotDisturb DefaultTimeout. Using the remote control it will be enabled until turned off.

Platform

Reference ID	Summary
CSCui79481	When a system is upgraded the current logs are not stored. After the upgrade, only the historical logs will be available, not the logs from the time of the upgrade.
CSCuj58020	When codec is in standby and PC is in sleep/standby, waking the PC does not wake up the codec even if PresentationSelection is set to Automatic. Disconnecting and reconnecting the PC will wake up the codec. Waking up the PC should be enough.
CSCug37656	Fan status in system information on web might be misinterpreted. Although it may report fans not running or “Can't match [RPM] rpm", it does not mean that the system is faulty or that there is a problem with the fans. If the system is operating within the temperature specification, customer or TAC should take no action. The diagnostic messages and system information statuses will be improved.

Protocol

Reference ID	Summary
CSCuh75104	Placing or receiving calls via ISDN Link from a TC6.2 system registered to VCS with ICE enabled results in no media at the far end ISDN system.
CSCui97579	Cisco TC based TelePresence codec may not show correction SIP registration status.
CSCts62709	TC software not compliant to RFC 3550 causing wrong latency reports to other endpoints.
CSCuj56282	If an endpoint that is not behind a NAT is set up to use the reflexive address as default candidate, it will answer all INVITEs with connection lines 0.0.0.0, because the rflx address is identical to the host address. This will trigger re-invite from TC endpoints, and after a new answer with 0.0.0.0 the call will end up on hold on both ends.

Touch 8

Reference ID	Summary
CSCui43224	TC6.1.x Touch 8 sometimes uses the default call rate and not the call rate specified in the TMS phonebook.
CSCug58614	Network paired Touch 8 loses pairing from time to time and does not automatically reconnect. Cisco touch displays: "Connect to other codec", even though a valid pairing configuration exists.
CSCuh38655	When ending a multisite conference, the "disconnect all participants" button is not translated to Japanese.
CSCuj49688	When the Touch is reading large amounts of data, the non-blocking output to stdout would sometimes fail, causing pairing to the codec to be dropped.

Reference ID	Summary
CSCui06221	The Touch 8 controller on endpoints running TC6.2 displays a button to change the layout of remote participants in ad hoc, Multiway, and rendezvous conferences. This button has no effect and is only relevant in multisite conferences.

Video

Reference ID	Summary
CSCui37865	EX90 is not detecting the presentation input Source 2 DVI when Macbook Pro Retina is used.
CSCui34688	Occasionally, no video is transmitted from endpoint in TelePresence Server call.
CSCui40418	Video corruption and high latency from EX series in low bandwidth calls with TelePresence Server 3.1.
CSCue55134	P2P call between TC endpoint and CTS EP. Video corruption can be observed after 1 or 2 minutes into the call. The artifacts can be zebra pattern, color off, blockiness does not smooth out. Corruption clears up with I-frame. This may also cause high jitter value reports on the CTS side.

Web

Reference ID	Summary
CSCuc34648	It should be possible to enable debug mode (diagnostics mode) of the most relevant system logs from the Touch 8 and 10 and the web interface (extended logging).
CSCuj58039	When xConfiguration NetworkServices HTTPS VerifyClientCertificate is turned on, lighttpd is not starting up HTTPS (although HTTP still works).
CSCuh20985	TC6.2.x we are not getting the option to activate preset from the web interface.
CSCuh31883	When a system goes into maintenance mode, the user gets instructions to access the codec via the web browser. The message does not tell the user what to do so people suppose the issue is hardware and ask for a replacement unit. The codec should prompt users to contact TAC and in the meantime, collect the logs from the codec.

Resolved caveats in TC6.2.1

Application

Reference ID	Summary
CSCui94908	Endpoints behind a firewall are not added by TMS due to changes in the TmsDocumentPost XML file sent from the endpoint in TC6.1.x and onward. The TMS post function for status and history is broken in TC6.1.x and TC6.2.0.
CSCui58858	TC 6.2 does not give option for Standby control for MX 200: • Standby WakeupAction • Standby BootAction • StandbyAction
CSCui00434	Wrong time zone set at endpoint when provision from CUCM. Set timezone to for example Africa/Harare in CUCM which does not have DST time.
CSCui49305	Wrong time zone set at endpoint when provision from CUCM - America/Lima

Camera

Reference ID	Summary
CSCui68816	Presets are not working properly when using Sony HD-1
CSCui64189	C60 codec TC 6.2 connected with 2 Precision HD 720p or Sony cameras in daisy chain showing 2nd camera not connected .

OSD

Reference ID	Summary
CSCua42948 / CSCui11511	When using custom layouts and presenting on C-series codecs, no layout options are available in the layout menu when the resolution of the presentation source is set to certain values. The configured layouts appear in the menu as expected when the resolution is not set to those values.
CSCui58504	A touch panel remains in "Connecting" state, unable to re-pair automatically in networks with heavy packet loss.
CSCue29288 / CSCui73612	When FIPS mode is enabled on an EX60 or EX90 it appears to enter maintenance mode. It loses connection with the touch panel and puts up a message that it lost connection with control device. This message must be removed when OSD is disabled for those users who want to use FIPS on EX with remote control. This mode is only supported for usage with FIPS mode enabled and is generally NOT recommended. The steps required to disable the Touch panel and enable remote control:

Reference ID	Summary
	1. Login to the codec with ssh admin@ipaddress 2. Disconnect the Touch 8 device from the EX series system 3. xCommand System Unit FactoryReset Confirm: Yes TrailingAction: Restart 4. xConfiguration Experimental SystemUnit MenuType: Full 5. xConfiguration SystemUnit IrSensor:On 6. The remote control is enabled after 60 seconds

Protocol

Reference ID	Summary
CSCui63564	It is currently not possible to disable IPv6 functionality, which is required for DoD UC APL certification.
CSCui72627	Currently in FIPS mode, use of the MD5 algorithm is not allowed, however it is required for SIP authentication to various call control agents. MD5 sent in the clear is not permitted per FIPS certification requirements, but is allowed over TLS connections. MD5 hashing needs to be permitted over TLS connections, satisfying FIPS requirements and other interoperability requirements.
CSCuh50078	No incoming audio from Polycom RMX 7.8 when encryption is used. Happens for previous and later versions as well. Tested with TC5, TC6.0.1 TC6.1 and TC6.2 with same result. The optional MKI byte in the SRTP is not handled correctly by Cisco and results in corrupt audio when played out.
CSCuh32320	Polycom RMX sends encrypted media that fails to decrypt and decode because TC software is not handling the MKI byte in the SRTP correctly.
CSCui47228	TC6.2.0 fails to send OLC ack to MCU intermittently. This causes no video and audio received from the MCU.
CSCui49305	Wrong time zone set at endpoint when provision from CUCM - America/Lima

Platform

Reference ID	Summary
CSCuj12197	Connect to codec via serial and make sure login for serial is on. On 1st connection codec prompts correctly: login: If you after this enter an invalid password it will INCORRECTLY form the prompt with system name and a blank: <my systemname> login: This is critical for integration with Crestron. Crestron have customers complain about systems failing to connect after upgrading to TC 6.1.

Web

Reference ID	Summary
CSCuj28178	Signing in to the web interface using client certificate does not work.
CSCui41456	Presentation statistics are not available in the Web UI for the sender.

Resolved caveats in TC6.2.0

Application

Reference ID	Summary
CSCue29288	Dialling numbers with # does not work when using the remote control.
CSCuf74115	Full screen selfview issue in a dual monitor set up: When selfview is in full screen on monitor two, it will end up as a pip after local presentation has been started and stopped.
CSCua76593	Users are not able to change the layout via the layout menu on the OSD or the API.
CSCug48377	When setting a monitor to: * PresentationOnly in all monitor roles * Second in DualPresentationOnly the background/wallpaper needs to be displayed.
CSCuf59880	When audit is enabled on SX20 it shows the login attempts from users, but it does not contain any trace of the commands the user executed.
CSCuh03066	When using composited layouts resolution cannot be 1080p at 30fps at 1472 with optimal definition profile set to high. Same call without composited inputs will result in 1080p30.

Audio

Reference ID	Summary
CSCug37410	G.729 is not implemented for H323, only for SIP.
CSCuf44626	When covering the handset microphone on EX series, far end hears echo when speaking.

Camera

Reference ID	Summary
CSCuf04455	If a camera used on TC software is moved physically, the software does not detect the movement and no change is made in xstatus camera n position. Because of this, if we issue a xcommand Camera PositionReset or a pantiltreset, the camera does not reset to the default position because the camera is not aware of how far off from the default position it is.

OSD

Reference ID	Summary
CSCug76672	The encryption padlock does not appear when encryption is set to on. It does not help to set the GUI EncryptionIndicator to “Always On”. The functionality used to be like this: If Encryption is set to “On” then always display the padlock in call.
CSCuf89568	It is possible that another party changes the font/color of some element during a call. This is due to the fact that some HTML tags are interpreted by the functions that display information. This defect is open to harden the product and prevented this situation. No script injection is possible as only few html tags are allowed to be interpreted.

Platform

Reference ID	Summary
CSCuc73501	Codec doesn’t use the statically configured DNS server IP address when the DNS server IP address is not received from DHCP server through domain server option.
CSCug77052	Admin Password applies to SX20 Serial Port in TC6 and TC6.1. Because the VX Tactical and VX Clinical Assistant 1.2 requires serial port access without login, communication with the buttons on the VX Tactical or VX Clinical Assistant will fail when upgrading to TC6.x.x or TC6.1.x. .. Hence, TC6.0 and TC6.1 could not be used with the buttons of the VX Tactical if a password has been set. From TC6.2, if SerialPort LoginRequired is set to off - a system password can still be set without breaking the serial port communication to a VX Tactical or VX Clinical Assistant 1.2. TC5 does not require login on serial port. In TC6.x.x and TC6.1.x the workaround is to remove the system password.

Protocol

Reference ID	Summary
CSCuh78102	A system may lose its H323 registration after boot.
CSCuh25060	TC6.1 endpoint calling via H.323 through VCS to an MXP fails to connect due to “master slave negotiation failure”.
CSCuh11244	The TC side releases BFCP connection between Jabber Video and TC endpoint. This drops the presentation, so it has to be restarted. Does not occur in TC-TC or JV-JV calls. On the session refresh the TC endpoint should answer with floor status (GRANTED) instead of RELEASED.
CSCuh50086	H323 Multiway Accept & Merge fails in 6.1.0, 6.1.1 and 6.1.2.
CSCug13548	The remote service supports the use of medium strength SSL ciphers.
CSCug13558	The remote host supports the use of anonymous SSL ciphers. While this enables an administrator to set up a service that encrypts traffic without having to generate and configure SSL certificates, it offers no way to verify the remote host’s identity and renders the service vulnerable to a man-in-the-middle attack.
CSCue55239	Ghost call. It appears that the codec is calling itself automatically. Placing a codec on a public IP will cause calls from SIP scanners. These scanners (e.g. SipVicious) are used to detect possibilities for exploiting PSTN trunks. To avoid this perform the two configuration changes: xConfiguration SIP ListenPort: Off and xConfiguration SIP Profile 1 Outbound: On. Disabling ListenPort stops the endpoint from listening on port 5060/5061. Enabling outbound means that all incoming and outgoing call will re-use the connection open from the endpoint to the VCS from the initial SIP REGISTER message.
CSCuf06723	After the first hold/resume an H.323 endpoint may no longer see shared content.
CSCue59199	When a SIP authentication challenge is received that has both, digest should be preferred over NTLM.

Touch 8

Reference ID	Summary
CSCue78225	Presentation dialog defaults to secondary camera instead of PC input when presentation is pressed when PC is default presentation source.
CSCug56211	Touch panel loses pairing when “Connect to other codec” is pushed. This may happen if the codec is not powered on or haven´t fully booted yet. When pairing is lost, credentials are required to pair again.

Reference ID	Summary
CSCub67676	Endeavour fails to authenticate endpoints, which may allow an attacker to impersonate the endpoint, and cause Endeavour to install any TT software package.
CSCtx02583	The call/add button on the Cisco Touch sometimes has the wrong label for systems without MultiSite. In certain circumstances, it will be labelled as “Add” when it should be “Add (Audio)” or labelled as “Add (Audio)” when it should be “Call”. This only affects the label of the button, and doesn’t change the functionality. So while it may be labelled as “Add”, it will connect as audio only. And while it may be labelled as “Add (Audio)”, it still connects with video.
CSCug64208	A touch panel running TT6.1.0 release (TC6.1.0 on paired codec) shows 2 screens superimposed on each other. One is the “Default Backgrounds” screen. The other is a prompt to “Enter Menu Password”.
CSCuh11389	When viewing PC on EX during a call, video is minimized to the top center position of the display and it is not possible to move the PIP to different locations. This causes a lot of frustration when trying to accessing tabs / areas underneath the PIP.
CSCug09690	Reverse DNS lookup for SSH may take a very long time to succeed with a bad DNS configuration, which may cause a time out the SSH pairing between touch and endpoint. Solution is to increase time out and remove reverse DNS lookup when doing SSH.

Video

Reference ID	Summary
CSCuh85487	C90/C60 HDMI input 3 source is not detected when DVI-3 input is connected at the same time (TC6.x).
CSCue91808	Presentations made from TC based Cisco TelePresence codecs may not be visible by remote participants due to the presentation channel spiking outside of QoS boundaries in a cyclic manner.

Web

Reference ID	Summary
CSCuh77884	Restoring a configuration from the web interface requiring a restart of lighthttpd will abort the rest of the restore process. This is only a problem if any of the affected configurations (4) differs from the default configuration.
CSCuh63012	Factory reset from web interface does not work in maintenance mode.
CSCuh41626	Attempting to change a users password through the web interface on a codec configured in Strong Security Mode to a value that does not meet the password

Reference ID	Summary
	complexity requirements results in an HTTP 500 error.

Resolved caveats in TC6.1.2

Application

Reference ID	Summary
CSCug70644	Codec prints message “Stack smashing from rxFecCountMissingPackets” and reloads or goes into maintenance mode when in call with Jabber Video due to FEC error.

Video

Reference ID	Summary
CSCud91075	Workaround is in place after being removed in TC6.1.0: During a call you will see that the encoded video will get more and more video artefacts that is not caused by packet loss. In many instances it will look like zebra stripes. When the unit is connected to a system that does not support ClearPath, the unit will send a Gradual Decode Refresh (GDR) after a period of time to clear the video artefacts.
CSCue45963	Cisco TelePresence TC software based codec may crash when presenting a source with 1600x1200 resolution.

Protocol

Reference ID	Summary
CSCuh03190	Ex90 intermittently crash when in call with Jabber Video 4.6 used on Windows Tablet. (Jabber Video is not supported with Windows Tablets).
CSCuh32673	Touch may crash and system may enter maintenance mode when user selects “Accept & End current” option when receiving a call when already in a call.

System

Reference ID	Summary
CSCug85711	The all.log file contains error messages when static IP address is set on the codec. This problem does not cause any other issues.

Resolved caveats in TC6.1.1

Application

Reference ID	Summary
CSCug03464	Encryption icon is not shown on Touch and OSD although the call is encrypted.

Camera

Reference ID	Summary
CSCug56483	Camera pre-sets are not returning to the saved location on MX series. Instead the camera is moving to the privacy position.

System

Reference ID	Summary
CSCug47392	When an SX20 running TC6 is placed in a VLAN with a static IP address the unit will not be reachable on the network.

Touch 8

Reference ID	Summary
CSCug56502 / CSCug59371	Touch UI: Need easy way to enter dot (.) from the dial pad for IP address dialling. From TC6.1.1 a dot can be entered by holding down the * key.

Resolved caveats in TC6.1.0

API

Reference ID	Summary
CSCue14684	When troubleshooting codec issues, the ability to display a timestamp in an xStatus output can be helpful when correlating output collected to other log files. Implemented: xStatus Time SystemTime: “2013-01-21T09:31:55Z”
CSCue08216	xConfiguration monitor role “Dual” serves no purpose and should be removed from value space on EX, MX and C20.

Application

Reference ID	Summary
CSCue42649	Self-view will not go back to fullscreen mode once presentation has executed. To bring the SelfView back to FullScreen, you need to disable "SelfviewDefault" -> "FullscreenMode" and enable.
CSCue04708	Every time the EX90 is power cycled, the sound output defaults to the ‘headset’, as opposed to ‘speaker’.
CSCue04601	Wrong handling of the RTCP reception report may in some cases result in reported packet loss more than 100%.
CSCua73240	When closing the privacy cover on EX60 and EX90, the unit does not stop sending video.
CSCud79324	TC5x: In a point-to-point call, the remote video is shown in the first output display (composite output). When presentation is started, the remote video is being replaced at first output display (composite output) with the presentation content; the second monitor (DVI output) also shows the presentation content.

Audio

Reference ID	Summary
CSCue89381	C40 with release TC5.1.6: when upgrading to release TC6.0.0 audio over HDMI is lost because of EDID CRC calculation error. The same monitor worked fine in previous release.
CSCue08042	G.711 Audio received from 3rd party device clips/saturated when audio goes out from TC codec.

Camera

Reference ID	Summary
CSCue78324	The image output of the PrecisionHD 1080p4x S2 camera is hazy/foggy.

Protocol

Reference ID	Summary
CSCue00022	TC software not able to send Media toward OCS due to problem with xConfiguration Video Layout RemoteLayoutFamily: PresentationSmallSpeaker
CSCuc89556	Cisco TC (C, EX, SX20, MX) based TelePresence codec may take longer than

Reference ID	Summary
	expected time to register to a SIP registrar server.
CSCub87346	When changing from IPv6 to IPv4, the endpoints continue to be SIP registered on IPv6.
CSCub16191	TC endpoint unable to re-register to outbound proxy after VCS failure. Endpoint registers for VCS1 as primary and VCS2 as secondary using outbound registration. VCS1 goes to maintenance mode. When VCS1 comes back online, the endpoint is still registered to VCS2.
CSCtz67530	DHCP assignment is only valid for IPv4 stack. Changing the API configuration to reflect this. Old: xConfiguration Network 1 Assignment: DHCP New: xConfiguration Network 1 IPv4 Assignment: DHCP
CSCug18202	Support for IPv6 audit server. xConfiguration Security Audit Server Address must be given in as an IPv4 or IPv6 address. Host names are not supported. This setting is only relevant when Security Audit Logging Mode is set to External or ExternalSecure.

System

Reference ID	Summary
CSCud08102	SX20 USB port intermittently ends up in a bad state. Re-plug USB (or reboot the unit if remotely) to get the USB-serial communication back up.
CSCud17924	If the remote control has low battery, it sends two messages when pushing the ‘ok’ / ‘V’ button. This can be observed by enabling self view and point the remote towards the camera to see the IR pulses. If the camera is used for IR, the codec interprets the first message correctly as ‘ok’, but the second message is interpreted as volume down.
CSCud96071	If a password for a user/admin is set to an empty string, the web portal will allow that user/admin to log in with arbitrary data in the password field. If an attacker can change the password to an empty string, then a user entering their correct password into the web portal would not detect the change. Password checks should be an exact match, including empty passwords.
CSCub20957	DHCP option 150 is not requested unless CDP is enabled. CDP is enabled by setting xConfiguration Network 1 VLAN Voice Mode: Auto.
CSCuc83851	There exist executables on the endpoints running TC software that are compiled without built-in object size checking (BOSC) and stack smashing protections.

Touch 8

Reference ID	Summary
CSCue59134	From TC6.1.0 it is no longer possible to transfer, hold or resume one of the participants in a multisite call. These functions are only available for a participant in a peer-to-peer call. This is to get a more unified experience across all conferencing methods.
CSCue60191	The Touch 8” fails to encrypt its read-write file systems allowing sensitive information to be recovered after a factory reset has been performed. For example, a touch panel paired with an endpoint over the network will store administrative credentials and an SSH key providing access to the paired endpoint. Recovered credentials could be used to obtain administrative access to previously paired endpoints.
CSCtu29812	From TC6.1.0 it is possible to enter a release key directly on the Touch panel.
CSCug24292	Touch panel behaviour change. “Merge” button is not displayed when the user clicks on “Accept & Hold current” option. To merge the calls, select the active call, push “Add” and select the call on hold. The merge button is removed from the inactive call. This is to align with Cisco IP phones.
CSCug24043	A Cisco TelePresence Touch 8” looses connection and does not retry when network is restored after repowering when using static IP. Bug has only been partly fixed in CSCuc68224.
CSCue25312	A Cisco TelePresence Touch 8” panel does not populate the field “DNS Domain Name” when checking the Administrator -> Network Settings -> IP & VLAN menu
CSCud33338	Touch panel (Endeavour) frozen when changing IP address from DHCP to static IP

Video

Reference ID	Summary
CSCug70665	SX20 crashes with the following signature: VCODEC: H.264 Enc timeout on icont(s).
CSCuf17354	Similar to ghosting issue in CSCuc40011. Ghosting is experienced on a SX20 running TC5.1.5. It generally happens 45 minutes into point-to-point calls.
CSCtz59250	TX9000 may show zebra stripes in call with C series endpoints after approximately 10 minutes

Web

Reference ID	Summary
CSCue52815	Web server does not start up and hence does not allow any HTTP or HTTPS connections if the endpoint is configured to verify the CA without any CA list uploaded.
CSCue65698	Loading a previously backed up configuration from web browser shows error. “xConfiguration Video AllowWebSnapshots: On” is not restorable.

Resolved caveats in TC6.0.1

Audio

Reference ID	Summary
CSCub87545	G729 audio codec support in TC software: G729, G729A and G729AB.

Application

Reference ID	Summary
CSCue46463	EX90 hosting a multisite call with two participants will transmit its own connected presentation source for 1-2 seconds to participant 1 when participant 2 starts presentation.

OSD

Reference ID	Summary
CSCue29288	Dialling numbers with # does not work when using the remote control.

Protocol

Reference ID	Summary
CSCud81796	Issues when system is receiving calls from other subscriber when registered to CUCM.

System

Reference ID	Summary
CSCue70613	Upgrade from SSL 1.0.1c to 1.0.1d. Includes several security fixes.
CSCue14696	Cisco non-immersive TelePresence codec cannot add user initiated messages into the system log files

Video

Reference ID	Summary
CSCue70860	Issues with H.264 decoding concealment in SX20 multisite conference.

Resolved caveats in TC6.0.0

Audio

Reference ID	Summary
CSCue08042	TC codec - Outgoing audio clips/saturated when receiving G.711 from 3rd party device.
CSCtz62973	Noise is amplified to an unacceptable level when a presentation source is connected to the SX20 via the supplied DVI-VGA/audio cable. New cable available CPN: 74-10160-02

Camera

Reference ID	Summary
CSCud95689	Cisco TelePresence PrecisionHD 1080p4x S2 camera may fail after upgrade. The power LED is up but no remote control and no video is coming from the camera.
CSCuc21521	Script to upload PrecisionHD 1080p4x firmware image to camera to recover from CSCua44699 - Camera fails to boot due to checksum validation failure.
CSCty38897	Camera image intermittently disappears because initialization fails after reboot on EX90 and EX60.

OSD

Reference ID	Summary
CSCty36557	Russian time zone displayed incorrectly as GMT+3 instead of GMT+4. The time itself is correct.
CSCtz08306	If non-standard rate is set for default call rate, different rate is used instead of that set for when dialling via web or remote
CSCty30567	Once a C series codec that is connected to a Cisco LCD 110L PRO 47 goes into standby and the monitor itself goes to standby it is unable to receive a call (without auto answer).
CSCtt13560	Not possible to store a contact for direct IPv6 dialling.
CSCua85783	When receiving presentation from MXP, no layouts are available in OSD UI.

Protocol

Reference ID	Summary
CSCud96538	When Panasonic Endpoint KX-VC600 makes a point to point SIP call to C20 (version TC5.1.4, TC5.1.5), the C20 hangs without the call being connected.
CSCud61578	EX60/90 endpoints registered to CUCM in SIP mode do not encode “#” / “*” in SIP messages that are constructed.
CSCub01162	TC/TE based TelePresence codecs configured for SIP may not register to the expected SIP proxy server.
CSCua84565	BFCP interoperability no longer working with Jabber for Windows.
CSCtr32298	To use SIP verified, a CA list must be uploaded to the /user folder using SCP (root user must be enabled). The CA list must be named sipcalist.pem and be in DER format.
CSCub27043	Not possible to dial via directory.
CSCtz87452	MX, EX, E20, C and SX series endpoints cannot use CUCM phone books with numbers including spaces.
CSCty80153	A SIP request using TCP should be responded to on the IP port where it was received.
CSCtq72699	The Codenomicon SIP UAS test suite configured to send malformed INVITE messages caused the C20 to reboot repeatedly.
CSCtu20888	The system registers on H323 with System Unit name or Mainboard ID.
CSCua32997	Codec crashes with error message: (none) main: Received signal SIGSEGV (11) in thread 0x48269480, TID 2416.
CSCtz91531	Black video received because RTP is not decoded until we process the SIP ACK.
CSCtz78809	In some call scenarios, dual stream will not work in a C series multisite call involving MXP (VCS registered) and CUCM registered endpoints such as CTS/C series.
CSCua84373	C series receive dual channel as part of main video when MCU H.239 minimum bit rate set as 512kbps.
CSCuc69143	When TE6 is completing attended SIP transfer, E20 is receiving a second call.
CSCue16781	When dialling an MCU or other BFCP server-only endpoints after first making a calltype: audio call, BFCP negotiation will fail because the endpoint offers s-only which the MCU will reject.
CSCtz20817	NTP over IPv4 is not marked with DSCP (QoS) values.
CSCua75897	NTP over IPv6 is not supported.

Provisioning

Reference ID	Summary
CSCua92105	A TelePresence codec may get into a state where phone queries fail.
CSCtz75092	After C60 codecs reboot, TMS sets codecs “Behind Firewall” because of the 14 seconds delay responds from codecs to TMS http request “systemunit.xml”
CSCtz53254	Sometimes the C20 does not send its IP address in boot event to TMS via HTTP/XML.

System

Reference ID	Summary
CSCuc60271	Enable cryptography (except media encryption) in no-crypto software. This allows usage of Touch panel on Non Crypto systems (TCNC)
CSCue10525	Timestamps in logs does not have same time zone. Logs from arms (expect osd) seem to be logged with UTC, while ppc log entries are formatted according to local time zone.
CSCuc64359	When a corrupt config.db is loaded onto a TC5 or TC6 system, the codec will not fully boot and system will not load to a fully operational state.
CSCub82639	SX20 fan occasionally makes a loud noise.
CSCuc41943	Enhancement: Add MTR package to TC software.
CSCub85502	SX20 unexpectedly reboots due to abort in ConferenceControl.
CSCub67683	A stack based buffer overflow vulnerability is present in the facilities handling package extraction. Successful exploitation of this vulnerability can allow an attacker to execute arbitrary code with elevated privileges, and can be leveraged to forge software packages.
CSCub67672	It may be possible for an attacker to overwrite arbitrary files on the system, by getting an authenticated administrator to extract a specially crafted package file.
CSCub67663	A locally authenticated administrator may execute arbitrary commands via the pkgextract utility using specially crafted package files.
CSCuc09826	The maintenance shell does not always kick in when the unit gets into a cyclic reboot. If system crashed less than 4 minutes ago it will enter maintenance mode rather than going into a reboot.
CSCua98636	Time on OSD and Touch 8” panel are different on SX20.
CSCuc09419	Codec at TC5.1 cannot be downgraded directly to TC3.1.x
CSCtt44610	TC software executables are not compiled as position-independent executables, providing limited address space layout randomization support.
CSCtx09955	Logs fill up with IPV6 DHCPClient error message.
CSCtx84402	Endpoint should start DHCP discovery and negotiate new address, not re-use address from VLAN less environment.
CSCtz78119	When log ctx RTPStatistics debug x is turned on, RTP statistics should appear in the application.log
CSCua00135	Factory reset from codec CLI or web does not reset the layouts to factory settings.
CSCtz99399	TC console does not work with TC Non-Cryptographic software.
CSCty53353	Ringing did not stop after call is connected and even after call is disconnected.
CSCub84833	Tshell crashes when executing xFeedback register * and then clicking layout button on the remote control.
CSCub54863	SX20 reboots when making or receiving a SIP call when system clock set to 1936.
CSCua02850	SX20 date set to 2038 causes restart when placing a call.
CSCub03016	The output of the xStatus Ethernet duplex setting on an EX90 when running TC5.x as well as latest TE6 alpha release is incorrect. When it is configured for half it still shows full.

Reference ID	Summary
CSCtx65144	If the config.db file is corrupted the system will go into a constant reboot.
CSCub18097	Not possible to downgrade EX90 with “hardware Compatibility = 2” below TC5.1.1.

Touch 8

Reference ID	Summary
CSCub43575	C90 loses connection with Touch panel when layout button is pushed in a three-screen scenario with a custom layout.
CSCtt25399	When static IP is selected, the NTP server needs to be set explicit as well. OBTP (One Button To Push) will not work.
CSCua26789	If microphone is muted during a call, the icon turns red, and stays red after the call is disconnected.
CSCtu42290	API Request: Pairing command set for external Touch panels
CSCua05967	When re-powering a Touch panel that has been used in direct mode (EX/MX) in a LAN mode setting using a power brick, the Touch panel gets stuck in a state where it displays “upgrading software”.
CSCtz86298	802.1x is not handled correctly on unit with PC port and/ or Touch.

Video

Reference ID	Summary
CSCtr32331	A C20 participating in a MultiSite will not be able to send the following video formats in its main video channel: 1280*768, 1280*800 and 1440*900.
CSCub85220	EX90 reboots randomly due to an overflow of vsource interrupts when a PC is connected via HDMI/DVI. This causes VPE1 to stop responding and system will boot on heartbeat failure.
CSCud26674	SX20 may in some situations, typically when sending 720p60 to Movi/JabberVideo stop encoding video.
CSCud36545	C60 crashes when adding or removing layouts from a layout controller (CDC) box.
CSCtz77758	SX20: 1680x1050 VGA input is displayed as 1400x1050, providing a very bad image quality.
CSCty19431	When you display your PC on SX20 only, the resolution is 1080p60. But when you duplicate your PC to both laptop LCD and SX20, the resolution is GTF 1600x900. Only DMT and CEA formats are supported by SX20.
CSCty35577	Random video blackouts in point-to-point calls with packet loss.

Web

Reference ID	Summary
CSCty83605	Cannot control daisy chained camera from Web UI.
CSCtz45254	With the introduction of SX20/s52010, and later when moving EX to TE

Reference ID	Summary
	software it is important that a descriptive message is written to the console.log when the wrong package is used in an attempt to upgrade.

xAPI

Reference ID	Summary
CSCtz93477	xStatus command does not show correct PTZ Values.

Open caveats in TC6.3.0

Link to TC6.3.0 resolved caveats

For open caveats regarding other endpoints/vendors, see the interoperability section.

Reference ID	Endpoint / Device	Versions affected	Fix Target	Summary
CSCul32675	Touch 8	6.3.0 7.0.0	7.0.1	xcommand Phonebook Search does not respect Offset/Limit parameters. This means that you will only display 50 entries in the phone book at a time. If you search you will only see the first 50 matches of the search, so the searches would need to be more specific if the contact does not appear.
CSCul17511	All	6.3.0	7.0.0	Maintenance web is broken in TC6.3. The maintenance mode web interface is partly broken in TC6.3 if the codec is booting into maintenance mode. Reboot/shutdown commands do not work. Reading logs and software upgrade works.
CSCul12893	All	6.3.0	7.0.0	TC codecs hang when xConfiguration Logging Mode is set to Off due to the queue it is writing to goes full. Eventually the codec will become unresponsive and it has to be manually rebooted to recover.
CSCul12967	Touch 8	6.3.0	7.0.0	Touch UI layout stage is mirrored when Arabic menu language is selected. This causes selfview PIP, monitors etc to appear mirrored.
CSCuj16288	All TC endpoints	All	7.0.1	Multiway failed when codec registered to SIP proxy 2. SIP outbound on with VCS redundancy configuration in proxy 1 and proxy 2. When proxy 1 is available, multiway is ok. But when proxy 1 is down, calls can be make via proxy 2 but multiway does not work.
CSCuj93939	Touch 8	All	7.x	Support of entering Polish Special Characters from Touch
CSCue58498	Touch 8	TC6.x	7.x	Codec not displaying Polish special character correctly when on English language.
CSCue05564	C20	All	7.0.0	C20 endpoint sending black video to MCU conference when entering a Pin enabled conference when dialling over VPN.
CSCul02181	Touch 8	All	7.0.0	Ntpd is sometimes losing the time sync causing the Touch time to drift. This may cause problems with

Reference ID	Endpoint / Device	Versions affected	Fix Target	Summary
				e.g. OBTP meetings.
CSCuj93934	TC Console	TC Console 6.2.0 and lower	TC Console 6.3	The xConfiguration Video Monitors: Triple is meant for future use. When the setting is enabled, TC Console v6.2 will no longer be able to connect to administer the layout.
CSCuj59881	MX200/MX300 EX60	5.x 6.x	7.0.x	An active call is established on MX200, MX300 or EX60 at 1080p30. When second audio call is added, maximum resolution supported is 720p.
CSCui06180	Touch 8	6.2.x 6.3.0	7.1.x	When having one H323 call on hold and one active H323 call there is no button appearing on the touch panel to merge the call.
CSCub01177	VCS registered TC endpoints	5.x 6.x	7.1.x	We should send the RPID header when registered to a VCS. Currently this is only done when SIP is set to CISCO (CUCM) mode.
CSCuc64777	All TC endpoints	5.1.x 6.x	7.1.x	Confusing call setup for p2p OBTP meetings. For the second participant joining, the answer button will change from Join Meeting to Incoming Call. When button is clicked a new message appear with two options; “join meeting and end current” or dismiss.
CSCug06492	All TC endpoints using 802.1x	5.x 6.x	7.1.x	A switch is configured with a default data VLAN on a switch port. It tags all packets, also EAP packets with the DATA VLAN. When xConfiguration Network 1 VLAN Voice Mode is set to Off we can read this packet even though it is tagged with VLAN. When we set VLAN mode to auto or manual we discard any packet that is not tagged with our VLAN.
CSCug06474	All TC endpoints	5.x 6.x	7.1.x	When using 802.1x and VLAN and the same time, we tag the EAP packets with a VLAN tag. The switch does not accept packets tagged with VLAN, hence 802.1x authentication fails.
CSCul13056	Any TC endpoint	6.3.0	7.0.0	If an extension mobility enabled endpoint is not SIP registered and you try to sign in, it will timeout and show error dialog.
CSCuj14268	TC endpoints	6.x	7.0.0	Peer SSL certificates are not validated for incoming calls even if TLS verification is enabled. While the calls are encrypted, no authentication of the originating endpoint is performed.

Open caveats in TC6.2.1

For open caveats regarding other endpoints/vendors, see the interoperability section.

Reference ID	Endpoint / Device	Versions affected	Fix Target	Summary
CSCuh04746	TC endpoints using remote control	6.1.x 6.2.x	6.3.0	Self-view has to be manually moved to the selected monitor specified by xconfiguration Video SelfviewDefault OnMonitorRole.
CSCui06221	Touch 8	6.2.0	6.3.0	The Touch 8 controller on endpoints running TC6.2 displays a button to change the layout of remote participants in ad hoc, Multiway, and rendezvous conferences. This button has no effect and is only relevant in multisite conferences.
CSCui06180	Touch 8	6.2.0	6.3.0	When having one H323 call on hold and one active H323 call there is no button appearing on the touch panel to merge the call.
CSCue50474	EX60	6.0.x 6.1.x 6.2.0	6.3.0	EX60 camera image is black upon return from standby. Toggling camera brightness from auto to manual fixe resolves issue. Fixed in TC5.1.8.
CSCuh65923	Profile 52 (C60)	6.1.x 6.2.x	6.3.0	Monitor Roles set to wrong default values after factory reset on C60 Profile 52 (standard C60 is not affected).
CSCuh75104	TC software used with ISDN link	6.2.0	6.3.x	Placing or receiving calls via ISDN Link from a TC6.2 system registered to VCS with ICE enabled results in no media at the far end ISDN system.
CSCtq44757	All TC endpoints	5.x 6.x	7.0.x	The TC software is configured with the default SNMP community strings. This is needed for “plug and play” functionality, but SNMP community strings should be treated as “credentials” and therefore this must be changed after initial configuration.
CSCub01177	VCS registered TC endpoints	5.x 6.x	7.0.x	We should send the RPID header when registered to a VCS. Currently this is only done when SIP is set to CISCO (CUCM) mode.
CSCuc64777	All TC endpoints	5.1.x 6.x	6.3.0	Confusing call setup for p2p OBTP meetings. For the second participant joining, the answer button will change from Join Meeting to Incoming Call. When button is clicked a new message appear with two options; “join meeting and end current” or dismiss.
CSCug89221	Touch 8	6.x	7.x	Touch panel running release TT6.1.1 keeps on sending DHCPREQUESTS every 10 seconds.
CSCug58614	Touch 8	5.x 6.x	6.3.x	Network paired endeavour loses pairing from time to time and does not automatically reconnect
CSCuh37718	TC endpoints using remote control	5.x 6.x	6.3.0	Enabling Do Not Disturb is implemented in different ways on OSD and Touch. On Touch it will automatically be turned off after x minutes defined by xConfiguration Conference 1 DoNotDisturb DefaultTimeout. Using the Remote it will be enabled until turned off.

Reference ID	Endpoint / Device	Versions affected	Fix Target	Summary
CSCug37656	All TC endpoints	6.x	6.3.0	Fan status in system information on web might be misinterpreted. Although it may report “fans not running” or “can’t match [RPM] rpm” it does not mean that the system is faulty or that there is a problem with the fans. If the system is operating within the temperature specification, customer or TAC should take no action. The diagnostic messages and system information statuses will be improved.
CSCue62562	All TC endpoints	6.0.x	7.x	When a login is required for the OSD (xConfiguration Video OSD LoginRequired: on), only a username and PIN are required to log into the OSD. Thus, if no PIN is configured, non-admin users can log into the OSD as admin, giving them access to admin-level system configuration. No password is required.
CSCug06492	All TC endpoints using 802.1x	5.x 6.x	6.3.x	A switch is configured with a default data VLAN on a switch port. It tags all packets, also EAP packets with the DATA VLAN. When xConfiguration Network 1 VLAN Voice Mode is set to Off we can read this packet even though it is tagged with VLAN. When we set VLAN mode to auto or manual we discard any packet that is not tagged with our VLAN.
CSCug06474	All TC endpoints	5.x 6.x	6.3.x	When using 802.1x and VLAN and the same time, we tag the EAP packets with a VLAN tag. The switch does not accept packets tagged with VLAN, hence 802.1x authentication fails.
CSCui79481	TC endpoints	All	7.x	When a system is upgraded the current logs are not stored. After the upgrade, only the historical logs will be available, not the logs from the time of the upgrade.

Open caveats in TC6.2.0

For open caveats regarding other endpoints/vendors, see the interoperability section.

Reference ID	Endpoint / Device	Versions affected	Fix Target	Summary
CSCuh04746	TC endpoints using remote control	6.1.x 6.2.x	6.3.0	Self-view has to be manually moved to the selected monitor specified by xconfiguration Video SelfviewDefault OnMonitorRole.
CSCui06221	Touch 8	6.2.0	6.3.0	The Touch 8 controller on endpoints running TC6.2 displays a button to change the layout of remote participants in ad hoc, Multiway, and rendezvous

Reference ID	Endpoint / Device	Versions affected	Fix Target	Summary
				conferences. This button has no effect and is only relevant in multisite conferences.
CSCui06180	Touch 8	6.2.0	6.3.0	When having one H323 call on hold and one active H323 call there is no button appearing on the touch panel to merge the call.
CSCue50474	EX60	6.0.x 6.1.x 6.2.0	6.3.0	EX60 camera image is black upon return from standby. Toggling camera brightness from auto to manual fixe resolves issue. Fixed in TC5.1.8.
CSCuh65923	Profile 52 (C60)	6.1.x 6.2.x	6.3.0	Monitor Roles set to wrong default values after factory reset on C60 Profile 52 (standard C60 is not affected).
CSCuh75104	TC software used with ISDN link	6.2.0	6.3.x	Placing or receiving calls via ISDN Link from a TC6.2 system registered to VCS with ICE enabled results in no media at the far end ISDN system.
CSCtq44757	All TC endpoints	5.x 6.x	7.0.x	The TC software is configured with the default SNMP community strings. This is needed for “plug and play” functionality, but SNMP community strings should be treated as “credentials” and therefore this must be changed after initial configuration.
CSCub01177	VCS registered TC endpoints	5.x 6.x	7.0.x	We should send the RPID header when registered to a VCS. Currently this is only done when SIP is set to CISCO (CUCM) mode.
CSCuc64777	All TC endpoints	5.1.x 6.x	6.3.0	Confusing call setup for p2p OBTP meetings. For the second participant joining, the answer button will change from Join Meeting to Incoming Call. When button is clicked a new message appear with two options; “join meeting and end current” or dismiss.
CSCua42948	C60 C90	5.x 6.x	6.3.x	When using custom layouts and presenting on C-series codecs, no layout options are available in the layout menu when the resolution of the presentation source is set to certain values. The configured layouts appear in the menu as expected when the resolution is not set to those values.
CSCug89221	Touch 8	6.x	7.x	Touch panel running release TT6.1.1 keeps on sending DHCPREQUESTS every 10 seconds.
CSCug58614	Touch 8	5.x 6.x	6.3.x	Network paired endeavour loses pairing from time to time and does not automatically reconnect
CSCuh37718	TC endpoints using remote control	5.x 6.x	6.3.0	Enabling Do Not Disturb is implemented in different ways on OSD and Touch. On Touch it will automatically be turned off after x minutes defined by xConfiguration Conference 1 DoNotDisturb DefaultTimeout. Using the Remote it will be enabled until turned off.
CSCug37656	All TC endpoints	6.x	6.3.0	Fan status in system information on web might be misinterpreted. Although it may report “fans not running” or “can’t match [RPM] rpm” it does not

Reference ID	Endpoint / Device	Versions affected	Fix Target	Summary
				mean that the system is faulty or that there is a problem with the fans. If the system is operating within the temperature specification, customer or TAC should take no action. The diagnostic messages and system information statuses will be improved.
CSCue62562	All TC endpoints	6.0.x	6.2.x/7.x	When a login is required for the OSD (xConfiguration Video OSD LoginRequired: on), only a username and PIN are required to log into the OSD. Thus, if no PIN is configured, non-admin users can log into the OSD as admin, giving them access to admin-level system configuration. No password is required.
CSCug06492	All TC endpoints using	5.x 6.x	6.3.x	A switch is configured with a default data VLAN on a switch port. It tags all packets, also EAP packets with the DATA VLAN. When xConfiguration Network 1 VLAN Voice Mode is set to Off we can read this packet even though it is tagged with VLAN. When we set VLAN mode to auto or manual we discard any packet that is not tagged with our VLAN.
CSCug06474	All TC endpoints	5.x 6.x	6.3.x	When using 802.1x and VLAN and the same time, we tag the EAP packets with a VLAN tag. The switch does not accept packets tagged with VLAN, hence 802.1x authentication fails.

Open caveats in TC6.1.2

For open caveats regarding other endpoints/vendors, see the interoperability section.

Reference ID	Endpoint / Device	Versions affected	Fix Target	Summary
CSCtq44757		5.x 6.x	7.0.x	The TC software is configured with the default SNMP community strings. This is needed for “plug and play” functionality, but SNMP community strings should be treated as “credentials” and therefore this must be changed after initial configuration.
CSCub01177	VCS registered TC endpoints	5.x 6.x	7.0.x	We should send the RPID header when registered to a VCS. Currently this is only done when SIP is set to CISCO (CUCM) mode.
CSCuc64777	All TC endpoints	5.1.x 6.x	6.3.x	Confusing call setup for p2p OBTP meetings. For the second participant joining, the answer button will change from Join Meeting to Incoming Call. When button is clicked a new message appear with two options; “join meeting and end current” or dismiss.
CSCua42948	C60 C90	5.x 6.0.x 6.1.x	6.3.x	When using custom layouts and presenting on C-series codecs, no layout options are available in the layout menu when the resolution of the presentation source is set to certain values. The configured layouts appear in the menu as expected when the resolution is not set to those values.
CSCug89221	Touch 8	6.1.1	6.3.x	Touch panel running release TT6.1.1 keeps on sending DHCPREQUESTS every 10 seconds.
CSCug58614	Touch 8	5.x 6.0.x 6.1.x	6.3.x	Network paired endeavour loses pairing from time to time and does not automatically reconnect
CSCuh50086	All TC endpoints	6.1.x	6.2.0	H323 Multiway Accept&Merge fails in 6.1.x
CSCug76672	All TC endpoints when using VCS	6.0.x 6.1.x	6.2.0	The encryption padlock does not appear when encryption is set to ON. It does not help to set the GUI EncryptionIndicator to “Always On”. The functionality used to be like this: If Encryption is set to “On” then always display the padlock in call.
CSCuh37718	TC endpoints using remote control	6.1.x	6.2.0	Enabling Do Not Disturb is implemented in different ways on OSD and Touch. On Touch it will automatically be turned off after x minutes defined by xConfiguration Conference 1 DoNotDisturb DefaultTimeout. Using the Remote it will be enabled until turned off.
CSCug37656	All TC endpoints	6.0.x 6.1.0	6.2.0	Fan status in system information on web might be misinterpreted. Although it may report “fans not running” or “can’t match [RPM] rpm” it does not mean that the system is faulty or that there is a problem with the fans. If the system is operating within the temperature specification, customer or TAC should take no action. The diagnostic messages and system information statuses will be

Reference ID	Endpoint / Device	Versions affected	Fix Target	Summary
				improved.
CSCuf93352	SX20	6.0.x	6.2.0	When an SX20 is in standby mode and is reloaded from the GUI, it comes up correctly, however, the display connected to HDMI1 does not come out of standby. The display on HDMI2 comes correctly out of standby.
CSCue78225	Touch 8	6.0.x	6.2.0	When starting a presentation from the Touch 8", the presentation dialog goes to the secondary camera instead of the PC. PC input has been set as the default presentation source.
CSCug13558	All TC endpoints	6.0.x	6.2.0	The remote service supports the use of anonymous SSL ciphers.
CSCue62562	All TC endpoints	6.0.x	6.2.x/7.x	When a login is required for the OSD (xConfiguration Video OSD LoginRequired: on), only a username and PIN are required to log into the OSD. Thus, if no PIN is configured, non-admin users can log into the OSD as admin, giving them access to admin-level system configuration. No password is required.
CSCug13548	All TC endpoints	6.0.x 6.1.x	6.2.0	The remote service supports the use of medium strength SSL ciphers
CSCue94398	Touch 8	6.0.x 6.1.x	6.2.0	When setting PresentationSelection hidden, the input is still available in Touch UI.
CSCug06492	All TC endpoints	5.x 6.x	6.2.x	A switch is configured with a default data VLAN on a switch port. It tags all packets, also EAP packets with the DATA VLAN. When xConfiguration Network 1 VLAN Voice Mode is set to Off we can read this packet even though it is tagged with VLAN. When we set VLAN mode to auto or manual we discard any packet that is not tagged with our VLAN.
CSCug06474	All TC endpoints	5.x 6.x	6.2.x	When using 802.1x and VLAN and the same time, we tag the EAP packets with a VLAN tag. The switch does not accept packets tagged with VLAN, hence 802.1x authentication fails.
CSCue91808	All TC endpoints	6.0.x 6.1.x	6.2.0	Presentations made from TC based Cisco TelePresence codecs may not visible by remote participants due to the presentation channel spiking outside of QoS boundaries in a cyclic manner.
CSCug09690	Touch pairing	6.0.x 6.1.x	6.2.0	Reverse DNS lookup for SSH may take a very long time to succeed with a bad DNS configuration, which may cause a time out the SSH pairing between touch and endpoint. Solution is to increase time out and remove reverse DNS lookup when doing SSH.
CSCug48377	TC endpoints with Dual Monitor configuration	6.1.0	6.2.0	When setting a monitor to: * PresentationOnly in all monitorroles * Second in DualPresentationOnly the background/wallpaper needs to be displayed.

Open caveats in TC6.1.1

For open caveats regarding other endpoints/vendors, see the interoperability section.

Reference ID	Endpoint / Device	Versions affected	Fix Target	Summary
CSCuh50086	All TC endpoints	6.1.x	6.2.0	H323 Multiway Accept&Merge fails in 6.1.x
CSCug76672	All TC endpoints when using VCS	6.0.x 6.1.x	6.2.0	The encryption padlock does not appear when encryption is set to ON. It does not help to set the GUI EncryptionIndicator to “Always On”. The functionality used to be like this: If Encryption is set to “On” then always display the padlock in call.
CSCuh37718	TC endpoints using remote control	6.1.x	6.2.0	Enabling Do Not Disturb is implemented in different ways on OSD and Touch. On Touch it will automatically be turned off after x minutes defined by xConfiguration Conference 1 DoNotDisturb DefaultTimeout. Using the Remote it will be enabled until turned off.
CSCug37656	All TC endpoints	6.0.x 6.1.0	6.2.0	Fan status in system information on web might be misinterpreted. Although it may report “fans not running” or “can’t match [RPM] rpm” it does not mean that the system is faulty or that there is a problem with the fans. If the system is operating within the temperature specification, customer or TAC should take no action. The diagnostic messages and system information statuses will be improved.
CSCuf93352	SX20	6.0.x	6.2.0	When an SX20 is in standby mode and is reloaded from the GUI, it comes up correctly, however, the display connected to HDMI1 does not come out of standby. The display on HDMI2 comes correctly out of standby.
CSCue78225	Touch 8	6.0.x	6.2.0	When starting a presentation from the Touch 8”, the presentation dialog goes to the secondary camera instead of the PC. PC input has been set as the default presentation source.
CSCug13558	All TC endpoints	6.0.x	6.2.0	The remote service supports the use of anonymous SSL ciphers.
CSCue62562	All TC endpoints	6.0.x	6.2.x/7.x	When a login is required for the OSD (xConfiguration Video OSD LoginRequired: on), only a username and PIN are required to log into the OSD. Thus, if no PIN is configured, non-admin users can log into the OSD as admin, giving them access to admin-level system configuration. No password is required.
CSCug13548	All TC endpoints	6.0.x 6.1.x	6.2.0	The remote service supports the use of medium strength SSL ciphers
CSCue94398	Touch 8	6.0.x 6.1.x	6.2.0	When setting PresentationSelection hidden, the input is still available in Touch UI.

Reference ID	Endpoint / Device	Versions affected	Fix Target	Summary
CSCug06492	All TC endpoints	5.x 6.x	6.2.x	A switch is configured with a default data VLAN on a switch port. It tags all packets, also EAP packets with the DATA VLAN. When xConfiguration Network 1 VLAN Voice Mode is set to Off we can read this packet even though it is tagged with VLAN. When we set VLAN mode to auto or manual we discard any packet that is not tagged with our VLAN.
CSCug06474	All TC endpoints	5.x 6.x	6.2.x	When using 802.1x and VLAN and the same time, we tag the EAP packets with a VLAN tag. The switch does not accept packets tagged with VLAN, hence 802.1x authentication fails.
CSCue91808	All TC endpoints	6.0.x 6.1.x	6.2.0	Presentations made from TC based Cisco TelePresence codecs may not visible by remote participants due to the presentation channel spiking outside of QoS boundaries in a cyclic manner.
CSCug09690	Touch pairing	6.0.x 6.1.x	6.2.0	Reverse DNS lookup for SSH may take a very long time to succeed with a bad DNS configuration, which may cause a time out the SSH pairing between touch and endpoint. Solution is to increase time out and remove reverse DNS lookup when doing SSH.
CSCug48377	TC endpoints with Dual Monitor configuration	6.1.0	6.2.0	When setting a monitor to: * PresentationOnly in all monitorroles * Second in DualPresentationOnly the background/wallpaper needs to be displayed.

Open caveats in TC6.1.0

For open caveats regarding other endpoints/vendors, see the interoperability section.

Reference ID	Endpoint / Device	Versions affected	Fix Target	Summary
CSCuh50086	All TC endpoints	6.1.x	6.2.0	H323 Multiway Accept&Merge fails in 6.1.x
CSCug76672	All TC endpoints when using VCS	6.0.x 6.1.x	6.2.0	The encryption padlock does not appear when encryption is set to ON. It does not help to set the GUI EncryptionIndicator to “Always On”. The functionality used to be like this: If Encryption is set to “On” then always display the padlock in call.
CSCuh37718	TC endpoints using remote control	6.1.x	6.2.0	Enabling Do Not Disturb is implemented in different ways on OSD and Touch. On Touch it will automatically be turned off after x minutes defined by xConfiguration Conference 1 DoNotDisturb DefaultTimeout. Using the Remote it will be enabled until turned off.

Reference ID	Endpoint / Device	Versions affected	Fix Target	Summary
CSCug56502	Touch 8	6.0.x 6.1.0	6.1.1/ 6.2.0	Touch UI: Need easy way to enter dot (.) from the dial pad for IP address dialling
CSCug03464	SX20	6.1.0	6.1.1	Encryption icon is not shown on Touch and OSD although the call is encrypted.
CSCug56483	MX series	6.1.0	6.1.1	MX series camera preset functionality broken.
CSCug37656	All TC endpoints	6.0.x 6.1.0	6.2.0	Fan status in system information on web might be misinterpreted. Although it may report “fans not running” or “can’t match [RPM] rpm” it does not mean that the system is faulty or that there is a problem with the fans. If the system is operating within the temperature specification, customer or TAC should take no action. The diagnostic messages and system information statuses will be improved.
CSCuf93352	SX20	6.0.x	6.2.0	When an SX20 is in standby mode and is reloaded from the GUI, it comes up correctly, however, the display connected to HDMI1 does not come out of standby. The display on HDMI2 comes correctly out of standby.
CSCue78225	Touch 8	6.0.x	6.2.0	When starting a presentation from the Touch 8”, the presentation dialog goes to the secondary camera instead of the PC. PC input has been set as the default presentation source.
CSCug13558	All TC endpoints	6.0.x	6.2.0	The remote service supports the use of anonymous SSL ciphers.
CSCue62562	All TC endpoints	6.0.x	6.2.x/7.x	When a login is required for the OSD (xConfiguration Video OSD LoginRequired: on), only a username and PIN are required to log into the OSD. Thus, if no PIN is configured, non-admin users can log into the OSD as admin, giving them access to admin-level system configuration. No password is required.
CSCug13548	All TC endpoints	6.0.x 6.1.x	6.2.0	The remote service supports the use of medium strength SSL ciphers
CSCue94398	Touch 8	6.0.x 6.1.x	6.2.0	When setting PresentationSelection hidden, the input is still available in Touch UI.
CSCug06492	All TC endpoints	5.x 6.x	6.2.x	A switch is configured with a default data VLAN on a switch port. It tags all packets, also EAP packets with the DATA VLAN. When xConfiguration Network 1 VLAN Voice Mode is set to Off we can read this packet even though it is tagged with VLAN. When we set VLAN mode to auto or manual we discard any packet that is not tagged with our VLAN.
CSCug06474	All TC endpoints	5.x 6.x	6.2.x	When using 802.1x and VLAN and the same time, we tag the EAP packets with a VLAN tag. The switch does not accept packets tagged with VLAN, hence 802.1x authentication fails.
CSCue91808	All TC endpoints	6.0.x 6.1.x	6.2.0	Presentations made from TC based Cisco TelePresence codecs may not visible by remote participants due to the presentation channel spiking outside of QoS boundaries in a cyclic manner.

Reference ID	Endpoint / Device	Versions affected	Fix Target	Summary
CSCug09690	Touch pairing	6.0.x 6.1.x	6.2.0	Reverse DNS lookup for SSH may take a very long time to succeed with a bad DNS configuration, which may cause a time out the SSH pairing between touch and endpoint. Solution is to increase time out and remove reverse DNS lookup when doing SSH.
CSCug48377	TC endpoints with Dual Monitor configuration	6.1.0	6.2.0	When setting a monitor to: * PresentationOnly in all monitorroles * Second in DualPresentationOnly the background/wallpaper needs to be displayed.

Open caveats in TC6.0.1

For open caveats regarding other endpoints/vendors, see the interoperability section.

Reference ID	Endpoint / Device	Versions affected	Fix Target	Summary
CSCua73240	EX60 and EX90	5.1.x-5.1.5 6.0.x	6.1.0	When closing the privacy cover on EX60 and EX90, the unit does not stop sending video. Bug was re-introduced in 6.0.x.
CSCud79324	C40, C60 and C90	5.x.x 6.0.0	6.1.0	In a point-to-point call, the remote video is shown in the first output display (composite output). When presentation is started, the remote video is being replaced at first output display (composite output) with the presentation content; the second monitor (DVI output) also shows the presentation content.
CSCub20957	Any endpoint using CUCM provisioning	5.0.x 5.1.x 6.0.0	6.1.0	DHCP option 150 is not requested unless CDP is enabled and a Voice VLAN is configured on the DHCP server. CDP is enabled by setting xConfiguration Network 1 VLAN Voice Mode: Auto.
CSCue25312	Touch 8	All	6.1.0	Codec has DNS domain name configured, yet it does not show on the Touch panel.
CSCty11069	EX90	5.1.x 6.0.0	6.1.0	Make a call and share the PC input (presentation). After ending presentation the second monitor will be black.

Open caveats in TC6.0.0

For open caveats regarding other endpoints/vendors, see the interoperability section.

Reference ID	Endpoint / Device	Versions affected	Fix Target	Summary
CSCua73240	EX60 and EX90	5.1.x-5.1.5 6.0.x	6.1.0	When closing the privacy cover on EX60 and EX90, the unit does not stop sending video. Bug was re-introduced in 6.0.x.
CSCud79324	C40, C60 and C90	5.x.x 6.0.0	6.1.0	In a point-to-point call, the remote video is shown in the first output display (composite output). When presentation is started, the remote video is being replaced at first output display (composite output) with the presentation content; the second monitor (DVI output) also shows the presentation content.
CSCue29288	C-series SX-series	6.0.0	6.1.0	Dialling numbers with the “#” symbol does not work when using the remote control.
CSCub20957	Any endpoint using CUCM provisioning	5.0.x 5.1.x 6.0.0	6.1.0	DHCP option 150 is not requested unless CDP is enabled and a Voice VLAN is configured on the DHCP server. CDP is enabled by setting xConfiguration Network 1 VLAN Voice Mode: Auto.
CSCue25312	Touch 8	All	6.1.0	Codec has DNS domain name configured, yet it does not show on the Touch panel.
CSCty11069	EX90	5.1.x 6.0.0	6.1.0	Make a call and share the PC input (presentation). After ending presentation the second monitor will be black.

Known limitations

Cisco

Reference ID	Equipment / Version	Summary
CSCuj09795	Any	When system is set to localOnly in Presentation Policy setting, the system doesn't send support for content in either SIP or H323, so it is also not possible to receive presentation in a separate video channel. This is by design and will not be changed.
CSCtq44757	Any	The TC software is configured with the default SNMP community strings. This is needed for "plug and play" functionality, but SNMP community strings should be treated as "credentials" and therefore this must be changed after initial configuration.
CSCuf20868	Touch 8	Touch panel gets unpaired after downgrade from TC6.1 due to the introduction of encrypted file system on Touch in TC6.1. This will not be fixed and workaround is to pair again.
CSCts98937	Any	Syslog is using TCP and not UDP. Syslog server needs to listen to the TCP port specified by xConfiguration Security Audit Server Port, default value 514. A reboot is required when the xconfiguration Security Audit configuration is changed. External unsecure syslog was changed to UDP in TC6.3.0. Reboot is no longer required.
CSCuh53450	TC6.2	The port used for BFCP control messages is negotiated through SIP messages and the convention for TC based codecs prior to TC6.2 has been to use port 5070. Starting in TC6.2, this now can be in a range from 5070 to 5077.
CSCue74341	TC6.0 and newer	On the OSD interface in TC6, under layout, the option for double screen self view is no longer shown. This prevents setting the TC device self view to full screen on secondary monitor and also double screen self view in a dual setup. Workaround: set the following configurations: xConfiguration Video SelfviewDefault OnMonitorRole: Second xConfiguration Video SelfviewDefault FullscreenMode:On
CSCue62534	TC6.1 and newer	The behaviour of the OSD is unpredictable when users are logged into the OSD with non-admin privileges. Most importantly, the ability to show or hide self view does not work. The solution to this will be simple mode coming in TC7.
CSCul35568	TC6.3 and newer	Due to lack of cipher suite support in IE8 running on Windows XP, HTTPS is no longer possible due to Cisco security requirements. Chrome, Firefox and Opera browsers work fine. These browser have the necessary cipher suite support. IE8 works fine with Windows Vista, Windows 7 and Windows 8.
CSCug06474 CSCug06492	Any	802.1x authentication and VLAN´s used in combination will not work properly and authentication will fail because EAP packets are dropped at the endpoint or at the switch side.

		Workaround is to disable VLAN on the codec and manually assign it on the switch port.
CSCue21526	Any	An incoming SIP call which is initiated as calltype:audio will appear as calltype:video on the receiving side. This is by design in SIP and it will therefore block a video port on the receiving endpoint instead of an audio port. The endpoint will therefore not be able to make a video call at the same time.
CSCud87999	PrecisionHD 1080p 4xS2 and Precision HD 1080p 2.5x with C-series endpoints	Precision HD 1080p4x S2 and Precision HD 1080p 2.5x are not upgradable or fully supported for C series. The cameras will operate as third party cameras. Camera control will work, but software upgrade is not possible.
CSCuc03476	Any	When moving from CUCM provisioning to VCS provisioning the wizard will not change the TlsVerify configuration and will still be On. Most likely this will result in a failing SSL handshake and a failover to TCP if default transport is set to Auto by the CUCM. A TCP registered endpoint will not be able to make secure calls. Also CUCM provisioning will turn DisableListening on: xConfiguration SIP DisableListening: On. This setting has to be set to off in order for the endpoint to register to VCS. Additionally, CUCM requires ANAT mode On when using Dual stack, but when using VCS ANAT must be turned off. When moving an endpoint between CUCM and VCS registration a factory reset should always be performed.
CSCuc09385	Endpoints registered to CUCM	Since a CUCM will not issue an “Install/Update LSC (Locally Significant Certificate)” request to the Endpoint unless explicitly configured to do so, a factory reset will effectively hinder the EP from being able to re-register to the (same) CUCM after the reboot. The only recourse is for the sysadmins to tick “Install/Update LSC” for the device in question on the CUCM side.
CSCtw52376	C20, C40, C60, C90, SX20	The Cisco VCS Provisioning (TMS Agent) wizard is available from the Touch 8 for the C20, C40, C60, C90, SX20 and all other systems with such a codec inside, yet only the Cisco CTS EX60/EX90 and Cisco CTS MX200/MX300 is supported.
CSCuc73665	CUCM provisioned endpoints	When an endpoint that is provisioned to CUCM loses network connectivity and is restored again, it doesn’t re-provision to a second CUCM subscriber if the previous CUCM subscriber is not available. The reason is that failover is yet not supported.
CSCtu99526	Any	There is a hardware incompatibility between the C-Series systems and some NEC monitors. So far this is seen with: NEC LCD4020 and NEC P401. This incompatibility will cause the monitor to wake up from sleep mode even if the codec is still in sleep. This happens when the monitor is connected using HDMI to HDMI. A workaround is to use the monitors DVI input.
CSCtr32420	Any	The C series codecs and units with such a codec inside it do not meet the Cisco password policy. It is highly recommended to set a password on the unit during install

		using the API command: ‘systemtools passwd’
N/A	TC4.x and later	If the ‘admin’ user is deleted, the TMS will not be able to manage the system. At the same time the ‘admin’ user with a blank password will be recreated during next reboot if no other user with admin access exists.
N/A	TC4.x and later	xFeedback register Event/KeyDown masks the keys pressed on the remote control with a ‘*’. This is a security measurement to prevent key logging from the remote control. The ‘*’ can be used to detect that someone has pressed a button on the remote control.
N/A	Cisco TelePresence Touch	The Cisco TelePresence Touch 8 must be connected to the same subnet as the codec it is pairing to.
CSCtr32348	PrecisionHD 1080p Camera all SW versions.	720p50, 720p30 and 720p25 output has no CRC included for HD-SDI. Depending on the device you connect the camera to, you may not get video using this format. The Cisco C Series codecs will support these formats.
N/A	Any	Startup scripts will not work with Windows end of line. You must use Unix end of line to be able to run multiple commands. Most editors have the option to set which format to use. If you use Notepad ++, you can set Unix format in the Settings/Preferences menu.
N/A	Any	If you run cascaded cameras and the chained cameras are running an old camera code, we have seen that zoom only works when trying to control the chained camera. The solution is to connect the cascaded camera as the first camera in the chain so that the camera is detected and upgraded by the codec, or use the Ethernet upgrade method.
N/A	Any	HD-SDI may not work with cables shorter than 3 meters. This is due to a jitter issue.
N/A	Any	If you turn off H.323 as the protocol but leave default protocol as H.323 you will be unable to make outgoing calls unless you edit the URI to include ‘sip:’ in front of the number or change the default call protocol to SIP.
N/A	Any	The Cisco TelePresence codec C40/C60 (rev. 1) will not provide proper analogue VGA output for any resolution of 1080 lines or more.
CSCuj42385	TC6.2 and later	TC6.2 and later does not accept H323 dialing on the format

		@IPADDRESS. Workaround is to remove the @.
CSCud43145	TC5.x.x and TC6.x.x	It is not possible to take a web snapshot of a presentation when OSD mode is disabled on C20.

Interoperability

The interoperability section describes the equipment and software revisions that were tested for interoperability with this release. The absence of a device or revision from this section does not imply a lack of interoperability.

The systems below have been tested and verified with this software release.

H.323 gatekeepers/traversal servers

Equipment	Software version	Comments
TANDBERG Gatekeeper	N6.1	
TANDBERG Border Controller	Q6.1	Both Assent and H.460.18/.19 traversal technologies are supported
Cisco TelePresence System Video Communication Server (VCS)	X6.1, X7.0.1, X7.1, X7.2	Both Assent and H.460.18/.19 traversal technologies are supported

SIP registrars/proxies

Equipment	Software version	Comments
CUCM	8.6, 9.0, 9.1	▶ Native registration. Encrypted calls are not supported in 8.6. ▶ DTMF: KPML is not supported. If you use an H.323 Gateway to access a public telephone line, DTMF will not work. To resolve this: • Convert IOS Gateway to SIP or MGCP. • Insert a Unified Border Element between the CUCM and the H.323 Gateway to do SIP to H.323 conversion (CUCM-SIP-CUBE-H.323-GW). ▶ If you experience random call drops make sure the default maximum size for SIP message in CUCM is set to 11000 bytes

		(default is 5000 bytes) ▶ If dual stream (BFCP) does not work: • Enable BFCP on SIP profile for endpoints in CUCM. • Enable BFCP for SIP trunk profile if calling to/from a Cisco VCS. ▶ NTP: Configure Unicast NTP references for endpoints in CUCM. ▶ Provisioning: Make sure the endpoint has a DNS server that can resolve the host name, or change CUCM > System > Server, to be IP address instead of hostname. ▶ CSCug19308: CUCM 8.6.2 directory returns more than the corporate limit set by the endpoint in the search. Fixed in CUCM 9.0 ▶ To get the correct call back number in call history for trunk calls between VCS and CUCM, make sure Directory URI´s are used on every endpoint and that a top level domain is specified in the Enterprise Parameters of the CUCM. Otherwise endpoints will show DN@CUCM_IP in history instead of URI@domain.
Cisco TelePresence System Video Communication Server (VCS)	X6.1, X7.0.1, X7.1, X7.2	If you configure a trunk towards CUCM 8.6 or 9.0, you must create a custom SIP trunk that does not remove BFCP lines towards CUCM. If you choose CUCM as profile in the VCS, BFCP will be removed and dual stream (BFCP) will not be possible between CUCM and VCS.

Gateway interoperability

Equipment	Software version	Comments
Cisco ISDN LINK	IL1.1.0	CSCuh75104: Placing or receiving calls via ISDN Link from a TC6.2 system registered to VCS with ICE enabled results in no media at the far end ISDN system. Fixed in TC6.3. Pairing TC codec with ISDN Link requires an IPv6 address (link local). If IPv6 is disabled,

		pairing will fail.
TANDBERG MPS Gateway	J4.6, J4.7	CSCuc81894: C-series codec shows black screen momentarily in a MPS voice switch conference when switching between 4:3 image and 16:9 image
TANDBERG Gateway	G3.2	
Cisco ISDN GW 3241	2.1	
RadVision Gateway B40	5.6.0.0.4	

MCU interoperability

Equipment	Software version	Comments
Cisco TelePresence Server 7010	3.0, 3.1	CSCud79767: Content from CUCM-registered C-series endpoints can take 10 seconds to arrive at TS. Fixed in TS 2.42 CSCue88488: TC based endpoint running TC6.0 software or later where a low level of packet loss is present on the network may experience the video session call rate down speed in attempts to mitigate the effects of the packet loss. The amount of down speeding experienced may be significant compared the to relative packet loss being experienced. With Clearpath enabled on the endpoint this issue should not be a problem in TelePresence server 3.1. Workaround is to disable RTCP TMMBR by putting it in the capset filter of the endpoint: xConfiguration Experimental CapsetFilter: RTCP-Feedback-TMMBR CSCud91075: Sometimes you get an Encoder/Decoder mismatch. TelePresence Server 2.2 is prone to this issue and upgrading the TelePresence Server to 3.x will in many cases resolve the problem. CSCuh38547: Clearpath not working correctly between TelePresence Server 3.1 and SX20 if SX20 is initiating the conference. Fixed in

		TC6.3.0
Cisco TelePresence Server MSE 8710	3.0, 3.1	CSCud79767,CSCue88488, CSCud91075 and CSCuh38547: See description above
TANDBERG MPS	J4.5, J4.6	CSCuc81894: C series codec shows black screen momentarily in a MPS voice switch conference J4.6 when switching between 4:3 image and 16:9 image
TANDBERG MCU	D3.10	
Cisco MCU 53xx	4.4(3.42)	Tested with TC5.1.4
Cisco MCU 42xx	4.4 (3.42)	
Cisco MCU 45xx	4.4(3.42)	
Cisco CTMS **Cisco recommends customers to move to the TelePresence Server platform due to the number of caveats between the TC endpoints and CTMS and the end of life of CTMS.**	1.9	▶ CSCul48235: When an SX20 is in a call on CTMS and becomes the active speaker, the video is very poor for the first few seconds. This is not a problem on other endpoints as SX20 has a different decoder. Also applicable for MX300G2. ▶ When dialing to the CTMS, VCS cannot be interwork the call (H.323 to SIP conversion). Such a conversion will make the call drop. ▶ 1.9: Using call rate below 1152kbps will result in CIF video in a CTMS conference ▶ Endpoints that requires the HD option key (SX20 and C20) and do not have it installed will not be able to receive presentation from CTS devices in a CTMS conferences. ▶ CSCuj13986: TC endpoints (except EX60) without Premium Resolution option key do not display presentation sent from any CTS endpoint in a CTMS conference. ▶ TC interoperability must be enabled on the

		CTMS. ► Black Screen Codes are supported, but these will not work if the system is behind a firewall. ► CSCud36845: CTMS can not handle mid call re-invite. This causes problems in mixed 720p/1080p environments ► CSCud45692: CTMS does not respect capability set from a 720p restricted C series endpoint. This may cause no video after the 15-minute session refresh because the 1080p30/720p60 capable endpoints will start transmitting this resolution, which the 720p endpoint cannot decode. ► Multisite is not supported when doing CTMS conferences
Polycom RMX	7.8.0.246	Basic SIP/H323 call OK Encrypted calls: no audio on C/EX/MX/SX series (CSCuh50078), blocky video on SX20 (CSCuh32320) – both bugs are fixed in TC6.2.1 BFCP OK
RadVision Scopia Elite	7.5, 8.0	BFCP does not work

Streaming servers

Equipment	Software revision	Comments
Cisco TelePresence System Content Server	S4.1, S5.1, S5.2, S5.3	

Endpoint Interoperability

Equipment	Software version	Protocol	Comments
Cisco TelePresence System ► 500series	1.9.3 (Ten Bears)	SIP	Encrypted calls supported with TC6 CSCtz95144: TX9000 version earlier than 1.9.2 does not handle RTCP PLI on

► 3x00series ► 1x00series ► TX9000 ► TX9200 ► TX1310			the BFCP channel, which results in no presentation. CSCue55134 (Fixed in TC6.3): P2P call between MX200 and CTS EP. Video corruption can be observed after 1 or 2 minitues into the call. The artifacts can be zebra pattern, color off, blockiness does not smooth out. Corruption clears up with I-frame. This may also cause high jitter value reports on the CTS side.
Cisco TelePresence System ► CTS500-32 ► TX1300 ► TX9000 ► TX9200	TX6.0.2 (Lago)	SIP	1080p60 support on Lago 1G codecs Encrypted calls supported with TC6 CSCue12132: In a point-to-point call between TX9000 running TX6.0 and TC6 the TC6 endpoint has decoding errors on 1080p if the TX6.0 endpoint has previously dialed a CTMS. Bug is identified in TX software. CSCue55134: P2P call between MX200 and CTS EP. Video corruption can be observed after 1 or 2 minitues into the call. The artifacts can be zebra pattern, color off, blockiness does not smooth out. Corruption clears up with I-frame. This may also cause high jitter value reports on the CTS side. CSCue31615: During a H.323 call between a CTS 500-32 system and a C40 system, if the CTS shares a presentation and then changes the presentation resolution to 640x480, the local presentation disappears. The remote C40 system can still see the presentation.
Cisco TelePresence System MXP	F9.3.1	H.323/SIP	CSCuh25060: TC6.1 endpoint calling via H.323 through VCS to an MXP fails to connect due to “master slave negotiation failure”.
TANDBERG Personal	L6.1	H.323/SIP	CSCtr32423: If you dial a TANDBERG

Series			150 with SW version L5.1.1 or older with encryption setting set to 'on', you may not get audio in any direction.
Cisco IP Video Phone E20	TE4.1	SIP/H.323	
LifeSize Room 200	LS_RM2_4.7.18 (15)	H.323/SIP	When encryption is set to Best Effort the call will not be encrypted on SIP. Workaround is to set encryption to 'On'. SIP/H.323 transfer does not work. SIP BFCP (dual stream) does not work.
LifeSize Express	LS_EX1_4.7.18 (15)	H.323/SIP	SIP transfer/hold does not work. LifeSize is unable to start presentation (BFCP).
LifeSize Passport	LS_PP1_4.8.0 (59)	H.323/SIP	SIP/H.323 transfer does not work.
Sony PCS-1	03.41	H.323/SIP	Dual stream is limited to 1 FPS. The main video frame rate will never exceed 15 FPS.
Sony PCS-XG80	2.31.00	H.323/SIP	SIP Far End Camera Control does not work. SIP encrypted calls does not work. SIP/H.323 transfer does not work. Sony is unable to start presentation (BFCP).
Radvision XT5000	3.0	H323/SIP	1080p60 does work – Fixed in Radvision 3.1.1.. SIP Hold causes XT5000 to hang up call after 30s. BFCP does not work FECC does not work.
Microsoft Lync	2013	SIP over VCS trunk from VCS x8	Requires VCS x8 released September 2013
Microsoft OCS 2007R2 clients	2007 R2	SIP over VCS trunk	Maximum resolution CIF unless used with Cisco TelePresence Advanced Media Gateway (720p 30fps Maximum)

			CSCue00022: TC software not able to send Media toward OCS due to problem with xConfiguration Video Layout RemoteLayoutFamily: PresentationSmallSpeaker. Fixed in TC6.1.0 CSCud07398: Calls from an SX20 (5.1.x) to OCS (2007r1) in either direction provide poor video on the SX20 side, and no video on the OCS side. No issues found in OCS 2007R2. OCS 2007R1 is not supported.
Polycom VSX 7000	9.0.6.1	H.323/SIP	At low video rate and with main video set to sharpness the VSX will not display any video. SIP/H.323 transfer does not work. H.264 is only used on lower bandwidths. CSCuh27649: EX60 running TC6.1.1 intermittently receives no audio from Polycom VSX 8000 when H323 calls are made.
Polycom HDX 8000 HD	3.0.5	H.323/SIP	SIP Transfer does not work (not supported by Polycom). H323 transfer reported as cannot connect even when successful SIP BFCP/TCP has flaws. From Polycom 3.0.5 release BFCP/UDP will be preferred which works.

xAPI Changes TC6

This list includes all changes for the full capability set (C90) and some of the configurations/commands and result sets are not available for other endpoints. Experimental commands, configurations and statuses are not documented.

The API changes in this section are documented in the Cisco API Reference Guides available for download at:

http://www.cisco.com/en/US/partner/products/ps11422/prod_command_reference_list.html

New API commands in TC 6.3.0

Command/CallHistory/AcknowledgeAllMissedCalls

Command/CallHistory/AcknowledgeMissedCall

CallHistoryId(r): <1..2147483647> AcknowledgeConsecutiveDuplicates(o): <False/True>

Command/CallHistory/DeleteAll Filter(o): <All/Missed/Placed/Received>

Command/CallHistory/DeleteEntry CallHistoryId(r): <1..2147483647> DeleteConsecutiveDuplicates(o): <False/True>

Command/CallHistory/Get

Filter(o): <All/Missed/Placed/Received/UnacknowledgedMissed> Offset(o): <0..65534> Limit(o): <0..65534> DetailLevel(o): <Basic/Full> SearchString(o): <S: 0, 255> CallHistoryId(o): <0..65534>

Command/CallHistory/Recents

Filter(o): <All/Missed/Placed/Received/UnacknowledgedMissed> Offset(o): <0..65534>

PresentationInstance(r): <0..65534> SourceType(o): <GraphicFile/Input/VideoFile> SourceNumber(o): <1..5> SourceFilename(o): <S: 0, 128>

Command/Experimental/PresentationLocal/ResetFocus

PresentationType(r): <Local/TokenBased> Instance(r): <0..65534>

Command/Provisioning/CUCM/ExtensionMobility/Login UserId(r): <S: 1, 255> Pin(r): <S: 1, 255> Profile(o): <S: 1, 255>

Command/Provisioning/CUCM/ExtensionMobility/Logout

Command/Security/Persistency Configurations(r): <NonPersistent/Persistent> CallHistory(r): <NonPersistent/Persistent> InternalLogging(r): <NonPersistent/Persistent> LocalPhonebook(r): <NonPersistent/Persistent> DHCP(r): <NonPersistent/Persistent> ConfirmAndReboot(r): <Yes>

Command/SystemUnit/Diagnostics/ExtendedLogging/Start Duration(o): <1..600>

Command/SystemUnit/Diagnostics/ExtendedLogging/Stop

Removed API commands in TC6.3.0

Command/Experimental/Audio/StereoEchoCancellation Mode(r): <On/Off>

Command/Experimental/CallHistory/AcknowledgeAllMissedCalls

Command/Experimental/CallHistory/AcknowledgeMissedCall CallHistoryId(r): <1..2147483647> AcknowledgeConsecutiveDuplicates(o): <False/True>

Command/Experimental/CallHistory/DeleteAll Filter(o): <All/Missed/Placed/Received>

Command/Experimental/CallHistory/DeleteEntry CallHistoryId(r): <1..2147483647> DeleteConsecutiveDuplicates(o): <False/True>

Command/Experimental/CallHistory/Get Filter(o): <All/Missed/Placed/Received/UnacknowledgedMissed> Offset(o): <0..65534> Limit(o): <0..65534> DetailLevel(o): <Basic/Full> SearchString(o): <S: 0, 255> CallHistoryId(o): <0..65534>

Command/Experimental/CallHistory/Recents Filter(o): <All/Missed/Placed/Received/UnacknowledgedMissed> Offset(o): <0..65534> Limit(o): <0..65534> DetailLevel(o): <Basic/Full> SearchString(o): <S: 0, 255>

Command/Experimental/Presentation/Forward MediachannelId(r): <0..65534> Address(r): <S: 0, 255> Port(o): <0..65534>

Command/Experimental/Presentation/PresentationFwdStop MediachannelId(r): <0..65534>

Command/Experimental/SetDiagnosticsMode Timeout(o): <0..65534>

Modified API commands in TC6.3.0

Command/Dial

DisplayName(o): <S: 0, 255>

Command/Video/Layout/Frame/Add

VideoSourceType

OLD: <graphic/localInput/localMain/localPresentation/mostSpeaking/mostSpeaking_orderedByPartNumb/otherMain/ownMain/participantNumber/presentation/remoteMain/remotePresentation/videoFile>

NEW: <graphic/localInput/localMain/localPresentation/mostSpeaking/mostSpeaking_orderedByPartNumb/ot

herMain/otherMainRemote/ownMain/participantNumber/presentation/remoteMain/remotePresentation/videoFile>

Command/Video/Layout/Frame/Update

VideoSourceType

OLD:
<graphic/localInput/localMain/localPresentation/mostSpeaking/mostSpeaking_orderedByPartNumb/otherMain/ownMain/participantNumber/presentation/remoteMain/remotePresentation/videoFile>

NEW:

<graphic/localInput/localMain/localPresentation/mostSpeaking/mostSpeaking_orderedByPartNumb/otherMain/otherMainRemote/ownMain/participantNumber/presentation/remoteMain/remotePresentation/videoFile>

New API configurations in TC6.3.0

Configuration/Logging[1]

Configuration/Logging[1]/Mode[1] <Off/On>

Configuration/NetworkServices[1]/WelcomeText[1] <Off/On>

Configuration/Provisioning[1]/ExternalManager[1]/AlternateAddress[1] <S: 0, 64>

Configuration/Security[1]/Audit[1]/Server[1]/PortAssignment[1] <Auto/Manual>

Configuration/SIP[1]/Profile[1]/Turn[1]/DiscoverMode[1] <Off/On>

Configuration/SIP[1]/Profile[1]/Turn[1]/BandwidthProbe[1] <Off/On>

Configuration/SIP[1]/Profile[1]/Turn[1]/DropRflx[1] <Off/On>

Configuration/SIP[1]/AuthenticateTransferror[1] <Off/On>

Configuration/SIP[1]/ANAT[1] <Off/On>

Configuration/SIP[1]/PreferredIPMedia[1] <IPv4/IPv6>

Configuration/SIP[1]/PreferredIPSignaling[1] <IPv4/IPv6>

Configuration/SIP[1]/OCSP[1]

Configuration/SIP[1]/OCSP[1]/Mode[1] <Off/On>

Configuration/SIP[1]/OCSP[1]/DefaultResponder[1] <S: 0, 255>

Configuration/Video[1]/Layout[1]/Engine[1]

Configuration/Video[1]/Layout[1]/Engine[1]/LocalMode[1] <Disabled/Enabled/DisabledPIPs>

Configuration/Video[1]/Layout[1]/PresentationDefault[1]

Configuration/Video[1]/Layout[1]/PresentationDefault[1]/View[1] <Default/Minimized/Maximized>

Configuration/Video[1]/Layout[1]/DisableDisconnectedLocalOutputs[1] <Off/On>

Configuration/Video[1]/OSD[1]/CallSettingsSelection[1] <Off/On>

Removed API configurations in TC6.3.0

Configuration/Cameras[1]/PowerLine[1]

Configuration/Cameras[1]/PowerLine[1]/Frequency[1]

Configuration/Conference[1]/PacketLossResilience[1]

Configuration/Conference[1]/PacketLossResilience[1]/Mode[1]

Modified API configurations in TC6.3.0

Configuration/Conference[1]/DefaultCall[1]/Protocol[1]

OLD: <H323/Sip/H320>

NEW: <Auto/H323/Sip/H320>

Configuration/Conference[1]/CallProtocolIPStack[1]

OLD: <IPv4/IPv6>

NEW: <Dual/IPv4/IPv6>

Configuration/SIP[1]/Profile[1]/Type[1]

OLD: <Standard/Alcatel/Avaya/Cisco/Microsoft/Nortel>

NEW: <Standard/Cisco>

Configuration/SIP[1]/Profile[1]/Ice[1]/Mode[1]

OLD: <Off/On>

NEW: <Auto/Off/On>

Configuration/SystemUnit[1]/MenuLanguage[1]

OLD: <English/ChineseSimplified/ChineseTraditional/Czech/Danish/Dutch/Finnish/French/German/Hungarian/Italian/Japanese/Korean/Norwegian/Polish/PortugueseBrazilian/Russian/Spanish/SpanishLatin/Swedish/Turkish>

NEW: <English/ChineseSimplified/ChineseTraditional/Catalan/Czech/Danish/Dutch/Finnish/French/German/Hungarian/Italian/Japanese/Korean/Norwegian/Polish/PortugueseBrazilian/Russian/Spanish/SpanishLatin/Swedish/Turkish/Arabic/Hebrew>

Configuration/Video[1]/Wallpaper[1]

OLD: <None/Growing/Summersky/Custom/Waves>

NEW: <None/Custom/Growing/Summersky/Waves>

Configuration/Video[1]/OSD[1]/Output[1]

OLD:<1/2/3/4>

NEW: <Auto/1/2/3/4>

Configuration/Video[1]/Output[1]/HDMI[1]/MonitorRole[1]

OLD: <First/Second/PresentationOnly/Recorder/Third/Fourth>

NEW: <Auto/First/Second/PresentationOnly/Recorder/Third/Fourth>

Configuration/Video[1]/Output[1]/HDMI[3]/MonitorRole[1]

OLD: <First/Second/PresentationOnly/Recorder/Third/Fourth>

NEW: <Auto/First/Second/PresentationOnly/Recorder/Third/Fourth>

Configuration/Video[1]/Output[1]/DVI[2]/MonitorRole[1]

OLD: <First/Second/PresentationOnly/Recorder/Third/Fourth>

NEW: <Auto/First/Second/PresentationOnly/Recorder/Third/Fourth>

Configuration/Video[1]/Output[1]/DVI[4]/MonitorRole[1]

OLD: <First/Second/PresentationOnly/Recorder/Third/Fourth>

NEW: <Auto/First/Second/PresentationOnly/Recorder/Third/Fourth>

Configuration/Video[1]/Output[1]/Composite[5]/MonitorRole[1]

OLD: <First/Second/PresentationOnly/Recorder/Third/Fourth>

NEW: <Auto/First/Second/PresentationOnly/Recorder/Third/Fourth>

New API Statuses in TC6.3.0

Status/Audio[1]/Input[1]/Connectors[1]

Status/Audio[1]/Input[1]/Connectors[1]/Microphone[1]

Status/Audio[1]/Input[1]/Connectors[1]/Microphone[1]/EcReferenceDelay[1]

Status/Audio[1]/Input[1]/Connectors[1]/Microphone[2]

Status/Audio[1]/Input[1]/Connectors[1]/Microphone[2]/EcReferenceDelay[1]

Status/Audio[1]/Input[1]/Connectors[1]/Microphone[3]

Status/Audio[1]/Input[1]/Connectors[1]/Microphone[3]/EcReferenceDelay[1]

Status/Audio[1]/Input[1]/Connectors[1]/Microphone[4]

Status/Audio[1]/Input[1]/Connectors[1]/Microphone[4]/EcReferenceDelay[1]

Status/Audio[1]/Input[1]/Connectors[1]/Microphone[5]

Status/Audio[1]/Input[1]/Connectors[1]/Microphone[5]/EcReferenceDelay[1]

Status/Audio[1]/Input[1]/Connectors[1]/Microphone[6]

Status/Audio[1]/Input[1]/Connectors[1]/Microphone[6]/EcReferenceDelay[1]

Status/Audio[1]/Input[1]/Connectors[1]/Microphone[7]

Status/Audio[1]/Input[1]/Connectors[1]/Microphone[7]/EcReferenceDelay[1]

Status/Audio[1]/Input[1]/Connectors[1]/Microphone[8]

Status/Audio[1]/Input[1]/Connectors[1]/Microphone[8]/EcReferenceDelay[1]

Status/Camera[1]/UpgradeStatus[1]

Status/Camera[1]/DownloadProgress[1]

Status/Camera[2]/UpgradeStatus[1]

Status/Camera[2]/DownloadProgress[1]

Status/Camera[3]/UpgradeStatus[1]

Status/Camera[3]/DownloadProgress[1]

Status/Camera[4]/UpgradeStatus[1]

Status/Camera[4]/DownloadProgress[1]

Status/Camera[5]/UpgradeStatus[1]

Status/Camera[5]/DownloadProgress[1]

Status/Camera[6]/UpgradeStatus[1]

Status/Camera[6]/DownloadProgress[1]

Status/Camera[7]/UpgradeStatus[1]

Status/Camera[7]/DownloadProgress[1]

Status/Conference[1]/SelectedCallProtocol[1]

Status/NetworkServices[1]/NTP[1]/CurrentAddress[1]

Status/NetworkServices[1]/NTP[1]/Status[1]

Status/Provisioning[1]/CUCM[1]/ExtensionMobility[1]

Status/Provisioning[1]/CUCM[1]/ExtensionMobility[1]/Enabled[1]

Status/Provisioning[1]/CUCM[1]/ExtensionMobility[1]/LoggedIn[1]

Status/Provisioning[1]/CUCM[1]/ExtensionMobility[1]/LastLoggedInUserId[1]

Status/Provisioning[1]/CUCM[1]/TVS[1]

Status/Security[1]/Persistency[1]

Status/Security[1]/Persistency[1]/Configurations[1]

Status/Security[1]/Persistency[1]/CallHistory[1]

Status/Security[1]/Persistency[1]/InternalLogging[1]

Status/Security[1]/Persistency[1]/LocalPhonebook[1]

Status/Security[1]/Persistency[1]/DHCP[1]

Status/Security[1]/Audit[1]

Status/Security[1]/Audit[1]/Server[1]

Status/Security[1]/Audit[1]/Server[1]/Port[1]

Status/ICE[1]/Turn[1]/Discovermode[1]

Status/ICE[1]/Turn[1]/Bandwidth[1]

Status/SystemUnit[1]/Diagnostics[1]/ExtendedLogging[1]

Status/SystemUnit[1]/Diagnostics[1]/ExtendedLogging[1]/Mode[1]

Status/Video[1]/Monitors[1]

Status/Video[1]/OSD[1]

Status/Video[1]/OSD[1]/Output[1]

Status/Video[1]/OSD[1]/Mode[1]

Status/Video[1]/Input[1]/Source[2]/Connector[1]

Status/Video[1]/Input[1]/Source[3]/Connector[1]

Status/Video[1]/Input[1]/Source[4]/Connector[1]

Status/Video[1]/Input[1]/Source[5]/Connector[1]

Status/Video[1]/Input[1]/HDMI[1]/SourceId[1]

Status/Video[1]/Input[1]/HDMI[2]/SourceId[1]

Status/Video[1]/Input[1]/HDMI[3]/SourceId[1]

Status/Video[1]/Input[1]/HDMI[4]/SourceId[1]

Status/Video[1]/Input[1]/HDSDI[1]/SourceId[1]

Status/Video[1]/Input[1]/HDSDI[2]/SourceId[1]

Status/Video[1]/Input[1]/HDSDI[3]/SourceId[1]

Status/Video[1]/Input[1]/HDSDI[4]/SourceId[1]

Status/Video[1]/Input[1]/YPbPr[1]/SourceId[1]

Status/Video[1]/Input[1]/YPbPr[2]/SourceId[1]

Status/Video[1]/Input[1]/DVI[3]/SourceId[1]

Status/Video[1]/Input[1]/DVI[5]/SourceId[1]

Status/Video[1]/Input[1]/Legacy[5]/SourceId[1]

Status/Video[1]/Output[1]/HDMI[1]/MonitorRole[1]

Status/Video[1]/Output[1]/HDMI[3]/MonitorRole[1]

Status/Video[1]/Output[1]/DVI[2]/MonitorRole[1]

Status/Video[1]/Output[1]/DVI[4]/MonitorRole[1]

Status/Video[1]/Output[1]/Legacy[5]/MonitorRole[1]

Removed API Statuses in TC6.3.0

Status/Network[1]/IPv4[1]/DNS[1]/Server[4]

Status/Network[1]/IPv4[1]/DNS[1]/Server[4]/Address[1]

Status/Network[1]/IPv4[1]/DNS[1]/Server[5]

Status/Network[1]/IPv4[1]/DNS[1]/Server[5]/Address[1]

Status/Network[1]/VLAN[1]/Native[1]

Status/Network[1]/VLAN[1]/Native[1]/VlanId[1]

Status/SIP[1]/Profile[1]/Turn[1]

Status/SIP[1]/Profile[1]/Turn[1]/ServerAddress[1]

New API commands in TC 6.2.0

New commands

C90, C60: xCommand Video Layout Frame List (only C60 anc C90)

C90, C60: xCommand Video Layout List (only C60 and C90)

Modified API commands in TC6.2.0

xCommand Message FarendMessage

OLD: CallId was required

NEW: CallId is optional

xCommand Phonebook Search

ADDED: ContactType: <Any/Folder/Contact>

C60, C90: xCommand Video Layout Frame Add (only C60 and C90)

OLD: VideoSourceType: <graphic/localInput/localMain/ localPresentation/mostSpeaking/otherMain/ownMain/ presentation/remoteMain/remotePresentation/videoFile>

NEW: VideoSourceType: <graphic/localInput/ localMain/localPresentation/mostSpeaking/ mostSpeaking_orderedByPartNumb/otherMain/ ownMain/participantNumber/presentation/remoteMain/ remotePresentation/videoFile>

C60, C90: xCommand Video Layout Frame Update (only C60 and C90)

OLD: VideoSourceType: <graphic/localInput/localMain/ localPresentation/mostSpeaking/otherMain/ownMain/ presentation/remoteMain/remotePresentation/videoFile>

NEW: VideoSourceType: <graphic/localInput/ localMain/localPresentation/mostSpeaking/ mostSpeaking_orderedByPartNumb/otherMain/ ownMain/participantNumber/presentation/remoteMain/ remotePresentation/videoFile>

New API configurations in TC6.2.0

Configuration/Cameras[1]/Camera[1]/MotorMoveDetection[1] <Off/On>

Configuration/Cameras[1]/Camera[2]/MotorMoveDetection[1] <Off/On>

Configuration/Cameras[1]/Camera[3]/MotorMoveDetection[1] <Off/On>

Configuration/Cameras[1]/Camera[4]/MotorMoveDetection[1] <Off/On>

Configuration/Cameras[1]/Camera[5]/MotorMoveDetection[1] <Off/On>

Configuration/Cameras[1]/Camera[6]/MotorMoveDetection[1] <Off/On>

Configuration/Cameras[1]/Camera[7]/MotorMoveDetection[1] <Off/On>

Configuration/Conference[1]/CallProtocolIPStack[1] <IPv4/IPv6>

Configuration/Conference[1]/LyncCompatibility[1]

Configuration/Conference[1]/LyncCompatibility[1]/Mode[1] <Off/On>

Configuration/Network[1]/IPv4[1]/Assignment[1] <Static/DHCP>

Configuration/SIP[1]/Profile[1]/Ice[1]

Configuration/SIP[1]/Profile[1]/Ice[1]/Mode[1] <Off/On>

Configuration/SIP[1]/Profile[1]/Ice[1]/DefaultCandidate[1] <Host/Rflx/Relay>

Configuration/SIP[1]/Profile[1]/Turn[1]

Configuration/SIP[1]/Profile[1]/Turn[1]/Server[1] <S: 0, 255>

Configuration/SIP[1]/Profile[1]/Turn[1]/UserName[1] <S: 0, 128>

Configuration/SIP[1]/Profile[1]/Turn[1]/Password[1] <S: 0, 128>

Configuration/Video[1]/OSD[1]/WallPaperSelection[1] <Off/On>

Configuration/Video[1]/OSD[1]/LanguageSelection[1] <Off/On>

Removed API configurations in TC6.2.0

Configuration/Network[1]/Assignment[1]

Replaced by xConfiguration Network IPv4 Assignment

Modified API configurations in TC6.2.0

Configuration/Network[1]/IPStack[1]

<IPv4/IPv6>

<Dual/IPv4/IPv6>

New API Statuses in TC6.2.0

xStatus Conference Site Hold

xStatus Conference Site Preserved

xStatus SIP Profile Turn ServerAddress

xStatus SIP Profile 1 DirectoryURI Primary URI

xStatus SIP Profile 1 DirectoryURI Alias URI

xStatus ICE Configured

xStatus ICE Defaultcandidate

xStatus ICE Turn IP

xStatus ICE Turn Hostname

xStatus ICE Turn Username

xStatus ICE Call Result

xStatus ICE Call Local Candidate

xStatus ICE Call Local IP

xStatus ICE Call Remote Candidate

xStatus ICE Call Remote IP

xStatus Video Layout Mode

xStatus Video Input Source [1..n] MediaChannelId

SX20: xStatus Video Input Source 3 Resolution Height

SX20: xStatus Video Input Source 3 Resolution Width

SX20: xStatus Video Input Source 3 Resolution RefreshRate SX20: xStatus Video Input Source 3 Resolution FormatType SX20: xStatus Video Input Source 3 Resolution FormatStatus SX20: xStatus Video Input USB 3 Connected

SX20: xStatus Video Input USB 3 SignalState

Modified API Statuses in TC6.2.0

xStatus Call Status

OLD: <Idle/Dialling/Ringing/Connecting/Connected/ Disconnecting/OnHold>

NEW: <Idle/Dialling/Ringing/Connecting/Connected/ Disconnecting/OnHold/EarlyMedia/Preserved/ RemotePreserved>

xStatus H320 Gateway Status

OLD: <OK/OKWithWarning/Error/Inactive>

NEW: <OK/OKWithWarning/Error/Inactive/Warning>

xStatus SystemUnit Diagnostics Message Type

OLD: <ValidAdminPassword/CamerasDetected/ H320GatewayStatus/ISDNLinkCompatibility/ SIPProfileRegistration/SIPListenPortAndOutboundMode/ TLSVerifyRequiredCerts/DefaultCallProtocolRegistered/

NetSpeedAutoNegotiated/HasValidReleaseKey/ EthernetDuplexMatches/IPv4Assignment/ IPv6Assignment>

NEW: <ValidAdminPassword/CamerasDetected/ H320GatewayStatus/ISDNLinkCompatibility/ SIPProfileRegistration/SIPListenPortAndOutboundMode/ TLSVerifyRequiredCerts/DefaultCallProtocolRegistered/ NetSpeedAutoNegotiated/HasValidReleaseKey/ EthernetDuplexMatches/IPv4Assignment/ IPv6Assignment/SIPProfileType/ CallProtocolIPStackPlatformCompatability/ CameraStatus/CameraPairing/CameraSoftwareVersion/ SelectedVideoInputSourceConnected/OSDVideoOutput/ VideoFromInternalCamera/H323GatekeeperStatus>

xStatus MediaChannels Call IncomingVideoChannel Video Protocol

OLD: <Off/Raw/H261/H263/H263p/H263pp/H264/MP4V/ JPEG>

NEW: <Off/Raw/H261/H263/H263p/H263pp/H264/MP4V/ JPEG/HEVC>

xStatus MediaChannels Call OutgoingVideoChannel Video Protocol

OLD: <Off/Raw/H261/H263/H263p/H263pp/H264/MP4V/ JPEG>

NEW: <Off/Raw/H261/H263/H263p/H263pp/H264/MP4V/ JPEG>

Modified API commands in TC6.1.0

Command/Call/Hold

Reason(o): <Conference/Transfer/Other>

Command/Call/Join

CallId(o): <0..65534>

Command/Dial

Appearance(o): <1..999999999>

Command/SystemUnit/Diagnostics/Run

ResultSet(o): <Alerts/All/None>

New API configurations in TC6.1.0

Configuration/Network[1]/DHCP[1]

Configuration/Network[1]/DHCP[1]/RequestTFTPServerAddress[1] <Off/On>

Configuration/SIP[1]/Profile[1]/Mailbox[1] <S: 0, 255>

Configuration/SIP[1]/Profile[1]/Line[1] <Private/Shared>

Configuration/Video[1]/SelfviewControl[1]

Configuration/Video[1]/SelfviewControl[1]/AutoResizing[1] <Off/On>

Configuration/Video[1]/CamCtrlPip[1]

Configuration/Video[1]/CamCtrlPip[1]/CallSetup[1]

Configuration/Video[1]/CamCtrlPip[1]/CallSetup[1]/Mode[1] <Off/On>

Configuration/Video[1]/CamCtrlPip[1]/CallSetup[1]/Duration[1] <1..60>

Modified API configurations in TC6.1.0

First line shows old command, second line shows new command.

Configuration/Conference[1]/Multipoint[1]/Mode[1]

<Auto/Off/MultiSite/MultiWay>

<Auto/Off/MultiSite/MultiWay/CUCMMediaResourceGroupList>

Configuration/Video[1]/Output[1]/HDMI[1]/MonitorRole[1]

<First/Second/PresentationOnly/Third/Fourth>

<First/Second/PresentationOnly/Recorder/Third/Fourth>

Configuration/Video[1]/Output[1]/HDMI[3]/MonitorRole[1]

<First/Second/PresentationOnly/Third/Fourth>

<First/Second/PresentationOnly/Recorder/Third/Fourth>

Configuration/Video[1]/Output[1]/DVI[2]/MonitorRole[1]

<First/Second/PresentationOnly/Third/Fourth>

<First/Second/PresentationOnly/Recorder/Third/Fourth>

Configuration/Video[1]/Output[1]/DVI[4]/MonitorRole[1]

<First/Second/PresentationOnly/Third/Fourth>

<First/Second/PresentationOnly/Recorder/Third/Fourth>

Configuration/Video[1]/Output[1]/Composite[5]/MonitorRole[1]

<First/Second/PresentationOnly/Third/Fourth>

<First/Second/PresentationOnly/Recorder/Third/Fourth>

New API Statuses in TC6.1.0

Status/Network[1]/IPv4[1]/DHCP[1]

Status/Network[1]/IPv4[1]/DHCP[1]/TftpServerAddress[1]

Status/Network[1]/IPv4[1]/DHCP[1]/TmsServer[1]

Status/Network[1]/IPv4[1]/DHCP[1]/ProvisioningServer[1]

Status/Network[1]/IPv4[1]/DHCP[1]/ProvisioningDomain[1]

Status/Network[1]/IPv4[1]/DHCP[1]/TftpServer[1]

Status/Provisioning[1]/Server[1]

Status/Provisioning[1]/Software[1]/UpgradeStatus[1]/SecondsUntilUpgrade[1]

Status/SIP[1]/Profile[1]/Mailbox[1]

Status/SIP[1]/Profile[1]/Mailbox[1]/MessagesWaiting[1]

Status/SIP[1]/Profile[1]/CallForward[1]

Status/SIP[1]/Profile[1]/CallForward[1]/Mode[1]

Status/SIP[1]/Profile[1]/CallForward[1]/URI[1]

Status/SIP[1]/Profile[1]/CallForward[1]/DisplayName[1]

Status/SystemUnit[1]/ContactName[1]

Status/Time[1]/SystemTime[1]

Status/Video[1]/Output[1]/HDMI[1]/Connected[1]

Status/Video[1]/Output[1]/HDMI[3]/Connected[1]

Status/Video[1]/Output[1]/DVI[2]/Connected[1]

Status/Video[1]/Output[1]/DVI[4]/Connected[1]

Status/Video[1]/Output[1]/Legacy[5]/Connected[1]

New API commands in TC 6.0.0

Command/Audio/VuMeter/Start

ConnectorType(r): <HDMI/Line/Microphone>

ConnectorId(r): <1..4>

Command/Audio/VuMeter/Stop

ConnectorType(r): <HDMI/Line/Microphone>

ConnectorId(r): <1..4>

Command/Audio/VuMeter/StopAll

Command/Call/UnattendedTransfer

CallId(r): <0..65534>

Number(r): <S: 0, 255>

Command/Conference/ActiveSpeaker/Reset

Command/Conference/ActiveSpeaker/Set

Target(r): <local/remote>

CallId(o): <0..65534>

Command/Provisioning/CUCM/CAPF/OperationStart

AuthString(o): <S: 4, 10>

Command/Provisioning/CUCM/CTL/Delete

Command/SystemUnit/Diagnostics/Run

Command/Video/OSD/Close

Element(r): <Menu>

Command/Video/PIP/ActiveSpeaker/Set

Position(r): <CenterLeft/CenterRight/LowerLeft/LowerRight/UpperCenter/UpperLeft/
UpperRight>

Command/Video/PIP/Presentation/Set

Position(r): <CenterLeft/CenterRight/LowerLeft/LowerRight/UpperCenter/UpperLeft/
UpperRight>

Command/Video/Selfview/Set

Mode(o): <On/Off>

FullscreenMode(o): <On/Off>

PIPPosition(o): <CenterLeft/CenterRight/LowerLeft/LowerRight/UpperCenter/UpperLeft/
UpperRight>

OnMonitorRole(o): <First/Fourth/Second/Third>

Removed API commands in TC6.0.0

Command/Audio/Vumeter/Start

ConnectorType(r): <HDMI/Line/Microphone>

ConnectorId(r): <1..4>

Command/Audio/Vumeter/Stop

ConnectorType(r): <HDMI/Line/Microphone>

ConnectorId(r): <1..4>

Command/Audio/Vumeter/StopAll

Modified API commands in TC6.0.0

First line shows old command, second line shows new command.

Command/Call/Accept

CallType(o): <Audio/Video>

Command/CamCtrlPip

Duration(o): <0..60>

Command/Camera/Preset/Store

CameraId

(o)<1..7>

(r)<1..7>

Command/Dial

Protocol

(o)<H323/Sip>

(o)<H320/H323/Sip>

Command/Phonebook/Contact/Add

Protocol

(o)<H323/SIP>

(o)<Auto/H320/H323/SIP>

CallRate

(o)<0..65534>

(o)<0..6000>

Command/Phonebook/ContactMethod/Add

Protocol

(o)<H323/SIP>

(o)<Auto/H320/H323/SIP>

CallRate

(o)<0..65534>

(o)<0..6000>

Command/Phonebook/ContactMethod/Modify

Protocol

(o)<H323/SIP>

(o)<Auto/H320/H323/SIP>

CallRate

(o)<0..65534>

(o)<0..6000>

Command/Presentation/Start

SendingMode(o): <LocalRemote/LocalOnly>

Command/Video/Layout/Frame/Add

PositionX

(r)<0..10000>

(o)<0..10000>

PositionY

(r)<0..10000>

(o)<0..10000>

Layer

(r)<1..5>

(o)<1..5>

Height

(r)<1..10000>

(o)<1..10000>

Width

(r)<1..10000>

(o)<1..10000>

VideoSourceType

(r)<graphic/localInput/localMain/localPresentation/mostSpeaking/otherMain/ownMain/presentation/remoteMain/remotePresentation/videoFile>

(o)<graphic/localInput/localMain/localPresentation/mostSpeaking/otherMain/ownMain/presentation/remoteMain/remotePresentation/videoFile>

Command/Video/PictureLayoutSet

LayoutFamily

(r)<auto/custom/equal/fullscreen/presentationlargespeaker/presentationsmallspeaker/speaker_full>

(r)<auto/custom/equal/fullscreen/overlay/presentationlargespeaker/presentationsmallspeaker/prominent/single/speaker_full>

New API configurations in TC6.0.0

Configuration/Conference[1]/DoNotDisturb[1]/DefaultTimeout[1] <0..1440>

Configuration/Conference[1]/MaxTotalTransmitCallRate[1] <64..10000>

Configuration/Conference[1]/MaxTotalReceiveCallRate[1] <64..10000>

Configuration/Conference[1]/Presentation[1]/RelayQuality[1] <Motion/Sharpness>

Configuration/Conference[1]/Presentation[1]/OnPlacedOnHold[1] <Stop/NoAction>

Configuration/Experimental[1]/Conference[1]/Multistream[1]/AudioInputCount[1] <1..3>

Configuration/Experimental[1]/Conference[1]/Multistream[1]/SimulcastQualities[1] <1..3>

Configuration/Experimental[1]/NetworkServices[1]/Medianet[1]

Configuration/Experimental[1]/NetworkServices[1]/Medianet[1]/Metadata[1] <Off/On>

Configuration/Experimental[1]/Audio[1]/Input[1]/Microphone[1]/EchoControl[1]/NoiseReductionMode[1] <Normal/Aggressive>

Configuration/Experimental[1]/Audio[1]/Input[1]/Microphone[2]/EchoControl[1]/NoiseReductionMode[1] <Normal/Aggressive>

Configuration/Experimental[1]/Audio[1]/Input[1]/Microphone[3]/EchoControl[1]/NoiseReductionMode[1] <Normal/Aggressive>

Configuration/Experimental[1]/Audio[1]/Input[1]/Microphone[4]/EchoControl[1]/NoiseReductionMode[1] <Normal/Aggressive>

Configuration/Network[1]/QoS[1]/Diffserv[1]/ICMPv6[1] <0..63>

Configuration/Network[1]/QoS[1]/Diffserv[1]/NTP[1] <0..63>

Configuration/NetworkServices[1]/CTMS[1]

Configuration/NetworkServices[1]/CTMS[1]/Mode[1] <Off/On>

Configuration/NetworkServices[1]/CTMS[1]/Encryption[1] <Off/BestEffort>

Configuration/SIP[1]/ListenPort[1] <Off/On>

Configuration/Video[1]/SelfviewDefault[1]

Configuration/Video[1]/SelfviewDefault[1]/Mode[1] <Off/Current/On>

Configuration/Video[1]/SelfviewDefault[1]/FullscreenMode[1] <Off/Current/On>

Configuration/Video[1]/SelfviewDefault[1]/PIPPosition[1] <Current/UpperLeft/UpperCenter/UpperRight/CenterLeft/CenterRight/LowerLeft/LowerRight>

Configuration/Video[1]/SelfviewDefault[1]/OnMonitorRole[1] <First/Second/Current>

Configuration/Video[1]/PIP[1]

Configuration/Video[1]/PIP[1]/ActiveSpeaker[1]

Configuration/Video[1]/PIP[1]/ActiveSpeaker[1]/DefaultValue[1]

Configuration/Video[1]/PIP[1]/ActiveSpeaker[1]/DefaultValue[1]/Position[1] <Current/UpperLeft/UpperCenter/UpperRight/CenterLeft/CenterRight/LowerLeft/LowerRight>

Configuration/Video[1]/PIP[1]/Presentation[1]

Configuration/Video[1]/PIP[1]/Presentation[1]/DefaultValue[1]

Configuration/Video[1]/PIP[1]/Presentation[1]/DefaultValue[1]/Position[1] <Current/UpperLeft/UpperCenter/UpperRight/CenterLeft/CenterRight/LowerLeft/LowerRight>

Configuration/Video[1]/OSD[1]/MenuStartupMode[1] <Closed/Home>

Configuration/Video[1]/OSD[1]/VirtualKeyboard[1] <UserSelectable/AlwaysOn>

Configuration/Video[1]/OSD[1]/EncryptionIndicator[1] <AlwaysOn/Auto/AlwaysOff>

Configuration/Video[1]/OSD[1]/MissedCallsNotification[1] <Off/On>

Configuration/Video[1]/Input[1]/Source[1]/PresentationSelection[1] <Manual/Automatic/Hidden>

Configuration/Video[1]/Input[1]/Source[2]/PresentationSelection[1] <Manual/Automatic/Hidden>

Configuration/Video[1]/Input[1]/Source[3]/PresentationSelection[1] <Manual/Automatic/Hidden>

Configuration/Video[1]/Input[1]/HDMI[1]

Configuration/Video[1]/Input[1]/HDMI[1]/RGBQuantizationRange[1] <Auto/Full/Limited>

Configuration/Video[1]/Input[1]/HDMI[2]

Configuration/Video[1]/Input[1]/HDMI[2]/RGBQuantizationRange[1] <Auto/Full/Limited>

Configuration/Video[1]/Input[1]/DVI[2]/RGBQuantizationRange[1] <Auto/Full/Limited>

Configuration/Video[1]/Input[1]/DVI[3]/RGBQuantizationRange[1] <Auto/Full/Limited>

Configuration/Video[1]/Output[1]/HDMI[1]/RGBQuantizationRange[1] <Auto/Full/Limited>

Configuration/Video[1]/Output[1]/DVI[2]/RGBQuantizationRange[1] <Auto/Full/Limited>

Removed API configurations in TC6.0.0

Configuration/Experimental[1]/CTMSSupport[1]

Configuration/Experimental[1]/CTMSSupport[1]/Mode[1]

Configuration/Experimental[1]/Enable1080p60[1]

Configuration/SystemUnit[1]/Type[1]

Modified API configurations in TC6.0.0

Configuration/Audio[1]/Input[1]/Microphone[1]/Equalizer[1]/ID[1]

<1..17>

<1..8>

Configuration/Audio[1]/Input[1]/Microphone[2]/Equalizer[1]/ID[1]

<1..17>

<1..8>

Configuration/Audio[1]/Input[1]/Microphone[3]/Equalizer[1]/ID[1]

<1..17>

<1..8>

Configuration/Audio[1]/Input[1]/Microphone[4]/Equalizer[1]/ID[1]

<1..17>

<1..8>

Configuration/Cameras[1]/PowerLine[1]/Frequency[1]

<Auto/50Hz/60Hz>

<50Hz/60Hz>

Configuration/Cameras[1]/Camera[1]/Mirror[1]

<Off/Auto/On>

<Auto/Off/On>

Configuration/Cameras[1]/Camera[1]/Flip[1]

<Off/Auto/On>

<Auto/Off/On>

Configuration/Cameras[1]/Camera[2]/Mirror[1]

<Off/Auto/On>

<Auto/Off/On>

Configuration/Cameras[1]/Camera[2]/Flip[1]

<Off/Auto/On>

<Auto/Off/On>

Configuration/Cameras[1]/Camera[3]/Mirror[1]

<Off/Auto/On>

<Auto/Off/On>

Configuration/Cameras[1]/Camera[3]/Flip[1]

<Off/Auto/On>

<Auto/Off/On>

Configuration/Cameras[1]/Camera[4]/Mirror[1]

<Off/Auto/On>

<Auto/Off/On>

Configuration/Cameras[1]/Camera[4]/Flip[1]

<Off/Auto/On>

<Auto/Off/On>

Configuration/Cameras[1]/Camera[5]/Mirror[1]

<Off/Auto/On>

<Auto/Off/On>

Configuration/Cameras[1]/Camera[5]/Flip[1]

<Off/Auto/On>

<Auto/Off/On>

Configuration/Cameras[1]/Camera[6]/Mirror[1]

<Off/Auto/On>

<Auto/Off/On>

Configuration/Cameras[1]/Camera[6]/Flip[1]

<Off/Auto/On>

<Auto/Off/On>

Configuration/Cameras[1]/Camera[7]/Mirror[1]

<Off/Auto/On>

<Auto/Off/On>

Configuration/Cameras[1]/Camera[7]/Flip[1]

<Off/Auto/On>

<Auto/Off/On>

Configuration/Conference[1]/DefaultCall[1]/Protocol[1]

<H323/Sip>

<H323/Sip/H320>

Configuration/Conference[1]/Multipoint[1]/Mode[1]

<Off/MultiSite/MultiWay/Auto>

<Auto/Off/MultiSite/MultiWay>

Configuration/Experimental[1]/Conference[1]/PacketLossResilience[1]/ForwardErrorCorrection[1]

<Off/On>

<Off/On/OnWithUniqueSsrc>

Configuration/Experimental[1]/Audio[1]/Panning[1]/Mode[1]

<Off/Auto>

<Auto/Off>

Configuration/H323[1]/NAT[1]/Mode[1]

<Off/Auto/On>

<Auto/Off/On>

Configuration/Network[1]/IPv6[1]/Assignment[1]

<Static/Autoconf>

<Static/DHCPv6/Autoconf>

Configuration/NetworkServices[1]/NTP[1]/Mode[1]

<Off/Auto/Manual>

<Auto/Off/Manual>

Configuration/Security[1]/Session[1]/ShowLastLogon[1]

<On/Off>

<Off/On>

Configuration/SystemUnit[1]/ContactInfo[1]/Type[1]

<Auto/None/IPv4/IPv6/H323Id/E164Alias/SipUri/SystemName>

<Auto/None/IPv4/IPv6/H323Id/E164Alias/H320Number/SipUri/SystemName/DisplayName>

Configuration/SystemUnit[1]/IrSensor[1]

<Off/Auto/On>

<Auto/Off/On>

Configuration/UserInterface[1]/TouchPanel[1]/DefaultPanel[1]

<ContactList/MeetingList>

<ContactList/MeetingList/Dialpad>

Configuration/Video[1]/SelfviewPosition[1]

<UpperLeft/UpperRight/LowerLeft/LowerRight/CenterRight>

<UpperLeft/UpperCenter/UpperRight/CenterLeft/CenterRight/LowerLeft/LowerRight>

Configuration/Video[1]/Layout[1]/LocalLayoutFamily[1]

<Auto/FullScreen/Equal/PresentationSmallSpeaker/PresentationLargeSpeaker>

<Auto/FullScreen/Equal/PresentationSmallSpeaker/PresentationLargeSpeaker/Prominent/Overlay/Single>

Configuration/Video[1]/Layout[1]/RemoteLayoutFamily[1]

<Auto/FullScreen/Equal/PresentationSmallSpeaker/PresentationLargeSpeaker>

<Auto/FullScreen/Equal/PresentationSmallSpeaker/PresentationLargeSpeaker/Prominent/Overlay/Single>

Configuration/Video[1]/Input[1]/Source[1]/OptimalDefinition[1]/Threshold60fps[1]

<512_288/768_448/1024_576/1280_720/Never>

<512_288/768_448/1024_576/1280_720/1920_1080/Never>

Configuration/Video[1]/Input[1]/Source[2]/OptimalDefinition[1]/Threshold60fps[1]

<512_288/768_448/1024_576/1280_720/Never>

<512_288/768_448/1024_576/1280_720/1920_1080/Never>

Configuration/Video[1]/Input[1]/Source[3]/OptimalDefinition[1]/Threshold60fps[1]

<512_288/768_448/1024_576/1280_720/Never>

<512_288/768_448/1024_576/1280_720/1920_1080/Never>

New API Statuses in TC6.0.0

Status/Conference[1]/ActiveSpeaker[1]

Status/Conference[1]/ActiveSpeaker[1]/Mode[1]

Status/Conference[1]/ActiveSpeaker[1]/SiteId[1]

Status/Conference[1]/Presentation[1]/LocalSendingMode[1]

Status/Conference[1]/Presentation[1]/LastLocalSource[1]

Status/Experimental[1]/Audio[1]/Input[1]/Connectors[1]/Microphone[1]/ConnectionStatus[1]

Status/Experimental[1]/Audio[1]/Input[1]/Connectors[1]/Microphone[2]/ConnectionStatus[1]

Status/Experimental[1]/Audio[1]/Input[1]/Connectors[1]/Microphone[3]/ConnectionStatus[1]

Status/Experimental[1]/Audio[1]/Input[1]/Connectors[1]/Microphone[4]/ConnectionStatus[1]

Status/Experimental[1]/Peripherals[1]

Status/H320[1]

Status/H320[1]/Gateway[1]

Status/H320[1]/Gateway[1]/Status[1]

Status/H320[1]/Gateway[1]/Address[1]

Status/H320[1]/Gateway[1]/Number[1]

Status/H320[1]/Gateway[1]/Mode[1]

Status/H320[1]/Gateway[1]/Reason[1]

Status/H320[1]/Gateway[1]/Id[1]

Status/Network[1]/VLAN[1]/Native[1]

Status/Network[1]/VLAN[1]/Native[1]/VlanId[1]

Status/Network[1]/CDP[1]

Status/Network[1]/CDP[1]/Platform[1]

Status/Network[1]/CDP[1]/Version[1]

Status/Network[1]/CDP[1]/Capabilities[1]

Status/Network[1]/CDP[1]/DeviceId[1]

Status/Network[1]/CDP[1]/PortID[1]

Status/Network[1]/CDP[1]/Duplex[1]

Status/Network[1]/CDP[1]/VTPMgmtDomain[1]

Status/Network[1]/CDP[1]/Address[1]

Status/Network[1]/CDP[1]/PrimaryMgmtAddress[1]

Status/Network[1]/CDP[1]/SysName[1]

Status/Network[1]/CDP[1]/SysObjectID[1]

Status/Network[1]/CDP[1]/VoIPApplianceVlanID[1]

Status/NetworkServices[1]

Status/NetworkServices[1]/NTP[1]

Status/NetworkServices[1]/NTP[1]/Address[1]

Status/Provisioning[1]/CUCM[1]

Status/Provisioning[1]/CUCM[1]/CAPF[1]

Status/Provisioning[1]/CUCM[1]/CAPF[1]/Mode[1]

Status/Provisioning[1]/CUCM[1]/CAPF[1]/ServerName[1]

Status/Provisioning[1]/CUCM[1]/CAPF[1]/ServerPort[1]

Status/Provisioning[1]/CUCM[1]/CAPF[1]/LSC[1]

Status/Provisioning[1]/CUCM[1]/CAPF[1]/OperationState[1]

Status/Provisioning[1]/CUCM[1]/CAPF[1]/OperationResult[1]

Status/Provisioning[1]/CUCM[1]/ProvisionSecurity[1]

Status/Provisioning[1]/CUCM[1]/CTL[1]

Status/Provisioning[1]/CUCM[1]/CTL[1]/State[1]

Status/Provisioning[1]/CUCM[1]/ITL[1]

Status/Provisioning[1]/CUCM[1]/ITL[1]/State[1]

Status/SystemUnit[1]/Hardware[1]/TemperatureThreshold[1]

Status/SystemUnit[1]/MenuLogo[1]

Status/SystemUnit[1]/Diagnostics[1]

Status/SystemUnit[1]/Diagnostics[1]/LastRun[1]

Status/Video[1]/PIP[1]

Status/Video[1]/PIP[1]/ActiveSpeaker[1]

Status/Video[1]/PIP[1]/ActiveSpeaker[1]/Position[1]

Status/Video[1]/PIP[1]/Presentation[1]

Status/Video[1]/PIP[1]/Presentation[1]/Position[1]

Status/Video[1]/Selfview[1]

Status/Video[1]/Selfview[1]/Mode[1]

Status/Video[1]/Selfview[1]/FullscreenMode[1]

Status/Video[1]/Selfview[1]/PIPPosition[1]

Status/Video[1]/Selfview[1]/OnMonitorRole[1]

Cisco TelePresence systems hardware dependencies

Introduction

Due to replacement of hardware components there are some constraints running older software on newly manufactured endpoints. This is due to end-of-life of some components and introduction of new components that require support in the software. There are two ways to identify the minimum software version of a system, using the xAPI/tshell or by looking at the TAN number. These methods are presented in the following. Downgrading to an unsupported software version will fail. **The latest software releases are always backward compatible with all hardware versions.**

NAND Flash

The Cisco TelePresence endpoints are using a NAND flash memory for general storage and transfer of data. The endpoints running TC software will be manufactured with a newer version of the flash memory. For simplicity in this document we will call the first flash version 0 and the second flash version and the third version (expected Summer 2014) version 2. Endpoints that have version 1 of the flash memory must run software TC3.1.5 and later, 4.2.0 and later or 5.0.0 and later. Endpoints that have version 2 of the flash memory must run software TC5.1.9 and later, TC6.1.2 and later or TC7 and later.

If your endpoint does not have the CompatibilityLevel command or it returns compatibility level 0 it has the flash version 0 installed. This means that any software version can be installed on the system. When the compatibility level is higher than 0, a newer software release is needed. Version 2 of the flash memory will be identified by software compatibility level 4. **Please refer to the compatibility level table for further details.**

Integrated camera

For units with an integrated camera (EX60/EX90 and MX200/MX300) the camera software is embedded into the application software. Units shipped with the E4 sensor cannot be downgraded or upgraded to any software version lower than TC4.2.4 or TC5.1.1 unless support is specifically documented in the release notes for the software you are downgrading to. Although 5.1.1 can be installed, Cisco recommends TC5.1.6 due to major color calibration improvements for MX series with the E4 sensor. CSCud31649.

To check which camera sensor the EX series or MX series product has, execute the API command “xStatus camera HardwareID”.

Example:

xStatus camera HardwareID

**s Camera 1 HardwareID: “e3:0xd30a”*

*** end*

If a system shipped with the E4 sensor is attempted to downgrade to an unsupported software version, the software downgrade will fail and the unit will reboot, keeping its existing software version. This example showed an EX60 with the E3 sensor, which means that it can be downgraded to versions earlier than TC 5.1.1.

Using the xAPI / tshell to identify software limitations

Executing the API command **xstat SystemUnit Hardware Module CompatibilityLevel** will reveal if there are any software constraints for the system.

The result returned when running the command will be 0, 1, 2, 3, 4, v, 1v, 2v or 4v:

Compatibility level	**Applicable systems**	**Description**	**Minimum software version**			
			TC4[1)]	TC5	TC6	TC7
0	All except MX200 G2	No restrictions	All	All	All	All
0	MX300 G2	Product was introduced with TC7.0.0	None	None	None	7.0.0
1	All	The system has the new flash memory installed	4.2.0	All	All	All
2	EX/MX	The system has the new flash memory and the new E4 sensor	4.2.4	5.1.6 [2)]	All	All
2	SX20	Product was introduced with TC5.1.0	None	5.1.0	All	All
2	C20	A new hardware revision, minor change	4.2.3	5.1.1	All	All
3	SX20	A new hardware revision, minor change	None	5.1.6	All	All
3	C40	A new hardware revision, minor change	4.2.4	5.1.5	All	All
V	MX300	Product was introduced with TC5.0.1	None	5.0.1	All	All
1V	MX300	NAND flash version 1.	None	5.1.0	All	All

		Minimum software version TC5.1.0.				
2V	MX300	NAND flash version 1 and E4 sensor.	None	5.1.6 [2)]	All	All
4	All TC EPs except SX20/MX300G2	NAND flash version 2	None	5.1.9	6.2.2 / 6.3.0	All

[1)] Although listed in this table TC4 is no longer supported and should not be used by any customer.

[2)] Although 5.1.1 can be installed, Cisco recommends TC5.1.6 due to major color calibration improvements for MX series with the E4 sensor. CSCud31649.

Examples of executing the API command:
xStatus SystemUnit Hardware Module CompatibilityLevel

System	Output	Minimum version
MX300	*s SystemUnit Hardware Module CompatibilityLevel: “v”	5.0.1
SX20	*s SystemUnit Hardware Module CompatibilityLevel: “2”	5.1.0
C40	*s SystemUnit Hardware Module CompatibilityLevel: “0”	No restrictions (Cisco recommends no lower than 4.2.4)

Using the TAN Number to identify software limitations

By finding the TAN number of the system, it is possible to determine the software restrictions without executing the API command. Find the compatibility level from the TAN number and look up in the table above.

EX series and MX series

System	TAN number	Camera Sensor	NAND version	Compatibility level
EX60				
	800-35326-05	E3	0	0
	800-35326-06	E3	1	1

	800-35326-07	E3	1	1
	800-35326-08	E4	1	2
(new LCD)	800-35326-09	E4	1	2
(new LCD)	800-35326-10	E4	2	4
Non-crypto	800-36052-05	E3	0	0
Non-crypto	800-36052-06	E3	1	1
Non-crypto	800-36052-07	E3	1	1
Non-crypto	800-36052-08	E4	1	2
Non-crypto (new LCD)	800-36052-09	E4	1	2
Non-crypto (new LCD)	800-36052-10	E4	2	4
EX90				
	800-35448-05	E3	0	0
	800-35448-06	E3	1	1
	800-35448-(07-10)	E4	1	2
	800-35448-11	E4	2	4
(New LCD)	800-35448-12	E4	2	4
Non-crypto	800-36051-05	E3	0	0
Non-crypto	800-36051-06	E3	1	1
Non-crypto	800-36051-(07-10)	E4	1	2
Non-crypto	800-35448-11	E4	2	2
Non-crypto (New LCD)	800-35448-12	E4	2	4
MX200				
	800-36834-02	E3	0	0
	800-36834-03	E3	1	1
	800-36834-05	E4	1	2
	800-36834-06	E4	2	4
Non-crypto	800-37182-02	E3	0	0
Non-crypto	800-37182-03	E3	1	1
Non-crypto	800-37182-05	E4	1	2
Non-crypto	800-37182-06	E4	2	4
MX300				
	800-36919-03	E3	1	V
	800-36919-04	E4	1	2V
	800-36919-05	E4	2	4V

Non-crypto	800-37822-03	E3	1	V
Non-crypto	800-37822-04	E4	1	2V
Non-crypto	800-37822-05	E4	2	4V

C series and Quickset Series

System	TAN number	NAND version	Compatibility level
C20			
	800-35408-01	0	0
	800-35408-02	1	1
New USB chip	800-35408-02 D0	1	2
Non-crypto	800-36060-01	0	0
Non-crypto	800-36060-02	1	1
Non-crypto New USB chip	800-36060-02 D0	1	2
C40			
	800-34910-01	0	0
	800-34910-02	1	1
	800-34910-04	1	3
	800-34910-05	2	4
Non-crypto	800-36047-01	0	0
Non-crypto	800-36047-02	1	1
Non-crypto	800-36047-04	1	3
Non-crypto	800-36047-05	2	4
C60			
	800-35367-01	0	0
	800-35367-02	1	1
	800-35367-04	2	4
Non-crypto	800-36048-01	0	0
Non-crypto	800-36048-02	1	1
Non-crypto	800-36048-04	2	4
C90			
	800-35342-02	0	0
	800-35342-03	1	1

	800-35342-04	2	4
Non-crypto	800-36049-02	0	0
Non-crypto	800-36049-03	1	1
Non-crypto	800-36049-04	2	4
SX20	**TAN number**	**CPU revision**	**Compatibility level**
	800-36554-01	0	2
	800-36554-02	1	3
MX300 G2	**TAN number**	**CPU revision**	**Compatibility level**
	800-100474-01	0	0

Cisco TelePresence Touch 8 hardware dependencies

New hardware revisions for Cisco TelePresence Touch 8

There are as of TC6 four hardware levels of the Touch 8. The new hardware levels 1, 2 and 3 require newer software. From TC5.1.3 there is a lock preventing a downgrade of a system to a software version that is not supported by the connected touch panel.

The TAN number can be found on the back of the Cisco TelePresence Touch 8 panel on the sticker positioned in the upper right corner.

Identify the minimum software supported by using the TAN number with this table.

TAN number	Description	HW level	System type	Minimum release		
				TC4	TC5	TC6
800-35447-04	Touch sensor revision 1	0	EX	All	All	All
800-35343-05	Touch sensor revision 1	0	SX/C/Profile	All	All	All
74-9543-02	Touch sensor revision 1	0	MX	All	All	All
800-35447-06	OMAP revision 2	1	EX	4.2.4	5.1.4	All
800-35343-07	OMAP revision 2	1	SX/C/Profile	4.2.4	5.1.4	All
74-9543-04	OMAP revision 2	1	MX	4.2.4	5.1.4	All
800-38887-01	Touch sensor revision 2	2	EX	4.2.4	5.1.4	All
800-38886-01	Touch sensor revision 2	2	MX	4.2.4	5.1.4	All
800-38885-01	Touch sensor revision 2	2	SX/C/Profile	4.2.4	5.1.4	All
800-38887-02	OMAP revision 2 and Touch sensor revision 2	3	EX	4.2.4	5.1.4	All
800-38886-02	OMAP revision 2 and Touch sensor revision 2	3	MX	4.2.4	5.1.4	All

800-38885-02	OMAP revision 2 and Touch sensor revision 2	3	SX/C/Profile	4.2.4	5.1.4	All

Cisco strongly recommends upgrading from any TC4 software version when using a Cisco Touch 8 due to major improvements in software.

References and related documents

The following table lists documents and web sites referenced in this document. All product documentation can be found on our web site

Name	Document reference
Cisco website	http://www.cisco.com
Cisco Software Download	http://www.cisco.com/cisco/software/navigator.html?i=!ch
Cisco TelePresence User Documentation	http://www.cisco.com/go/TelePresence/docs

Software filenames

The correct software filenames are listed in the following table.

TANDBERG TC system	Software for EX/MX/C-Series	Software for SX series	Serial number range
AES Encryption	s52000tc6_3_0.pkg	s52010tc6_3_0.pkg	All
No Encryption	s52001tcnc6_3_0.pkg	s52011tcnc6_3_0.pkg	All
AES Encryption (for CUCM)	cmterm-s52000tc6_3_0.cop.sgn	cmterm-s52010tc6_3_0.cop.sgn	All
No Encryption (for CUCM)	cmterm-s52001tcnc6_3_0.cop.sgn	cmterm-s52011tcnc6_3_0.cop.sgn	All

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