Cisco TelePresence System Software Version Compatibility and Interoperability with Other Devices—1.10 Releases

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Document Revisions

Date	Revision
April 10, 2017	Added compatibility for CTS 1.10.*x* with Unified CM 11.5.
March 4, 2015	Added compatibility for CTS 1.10.10 with TS 4.x.
July 28, 2014	Added compatibility for Cisco TelePresence Multipoint Switch (CTMS) version 1.9.4, and specified the Cisco Unified Communications Manager (Unified CM) version on which it has been tested (10.0).
July 25, 2014	• Changed compatibility of CTS-Manager to 1.9.2 and above. • Removed compatibility for Cisco Unified Communications Manager (Unified CM) Release 10.1.
June 9, 2014	• Added compatibility information for Unified CM Release 10.5. • Added that a minimum of CTS Release 1.10.5.1 is required to fix the OpenSSL Heartbleed Vulnerability.
February 20, 2014	• Modified compatibility information for TX release 6.*x* and TC software. • Added compatibility information for TMS 14.*x*.
February 14, 2014	Added compatibility information for Cisco Unified Communications Manager (Unified CM) Release 10.0.
September 10, 2013	Added compatibility information for TC6.2 software.

Date	Revision
August 27, 2013	Changed Cisco Unified Communications Manager (Unified CM) version from 8.6(2a)SU2 to 8.6(2a)SU3.
August 20, 2013	• Added compatibility for Cisco Unified Communications Manager (Unified CM) version 9.1(2). • Added minimum CTS release for TelePresence Server (TS) software.
May 15, 2013	Added CTRS compatibility.
May 14, 2013	Added supported video resolutions for systems running CTS 1.10.
April 19, 2013	Added SIP75.9-3-1S or SIP70.9-3-1S to list of compatible software for Cisco Unified IP Phones.
April 13, 2013	Added CTMS 1.8.x as being compatible with CTS 1.10.

Cisco TelePresence Interoperability Database

For more information about how the products running CTS 1.10 software interoperate with other Cisco, Cisco TelePresence, and third-party products, refer to the *Cisco TelePresence Interoperability Database* at the following URL:

www.cisco.com/go/tp-interop/

CTS 1.10 Software Compatibility

The deployments of software in this matrix are tested.

Table 1 summarizes CTS software Release 10.0 compatibility.

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Table 1   *CTS 1.10 Software Compatibility*

CTS	Conduc-tor	TX	CTMS	CTS-Man	CTRS	TC	TE	TMS	TS	Unified CM	VCS	VCS Express-way	SBC[1]	Phone Load Name for IP Phones
1.10.x^2 1.9.x 1.8.x	XC4.3 XC2.0	6.x	1.9.4[3] 1.9.2 1.9.1 1.8.x	1.9.2[4] 1.8.x	1.8.1	7.3,x 7.0.x 6.3.x	6.0.0	15.x 14.x 13.2.2	4.4[5] 4.2 4.1 3.1[6] 3.0 2.3	11.5[7] 10.5 10.0 9.1(2) 8.6(2a)SU3	X8.9 X7.2 X7.1	X7.2	3.4.4	SIP75.9-3-1-1S or SIP70.9-3-1-1S[8] SIP75.9-2-1S or SIP70.9-2-1S[8]

1. Session Border Control
2. CTS Releases earlier than 1.10.16 are vulnerable to OpenSSL vulnerabilities; for this reason, it is highly recommended to upgrade to CTS release 1.10.16 or later. For more information, see the Caveat description for CSCvd06162 in the *Release Notes for Cisco TelePresence System Software Release 1.10*.
3. CTMS version 1.9.4 is supported only for networks running Unified CM version 10.0.
4. Versions of CTS-Manager above Version 1.9.2 are also compatible.
5. A minimum CTS release of 1.10.10 is required with TelePresence Servers running release 4.x.
6. A minimum CTS release of 1.10.2 is required with TelePresence servers running release 3.1.
7. CUCM 11.5 is only compatible with CTS 1.10.16 or later.
8. A phone load version is required only if your system uses a Cisco Unified IP Phone for call control. Use the SIP75 phone load version for systems that use a Cisco Unified IP Phone 7975 for call control. Use the SIP70 phone load version for systems that use a Cisco Unified IP Phone 7970 for call control.

^x*Table 2*   *CTS 1.10 Software Compatibility*

CTS	IX
1.10.*x*	8.2.1
	8.2.0

CTS 1.10 Interoperability

This section summarizes video and audio quality; security; and presentation support between a Cisco TelePresence System (CTS) running version CTS 1.10 software and another Cisco or third-party endpoint or device.

- **Cisco Unified CM Version**—The first column in each table includes the Cisco Unified Communications Manager (Cisco Unified CM) version to which the system running CTS 1.10 software is registered.

- **With Endpoint/Device Version**—The second column includes the endpoint or device in the same TelePresence meeting with the system running CTS 1.10 software.

    If an endpoint or device is registered to a Cisco TelePresence Video Communication Server (VCS), the supported VCS version is listed. In this type of interoperability deployment, the Cisco Unified CM and VCS are connected by a SIP trunk.

- **Maximum Video and Audio**—The third column includes the maximum video quality and the audio format in the interoperability deployment.

    - Maximum video resolution and frame rate for a call between endpoints is 1080p at 30 frames per second (1080p 30).

    - Video can be negotiated to a lower supported resolution (for example, 720p 60) that is based on the capabilities or configuration of other endpoints in the meeting.

- **Security**—The fourth column indicates whether the call is secure or non-secure.

- **Presentation**—The fifth column indicates presentation support.

    In switched presentation mode, when a meeting participant is sharing a presentation, the other meeting participant (or participants) sees the presentation instead of the main video.

Note The Cisco and third-party endpoint, device, and call signaling agent versions outlined in Table 3 and Table 4 are tested and known to interoperate.
The Cisco and third-party endpoint, device, and call signaling agent versions not explicitly mentioned in these tables can interoperate successfully. If an unexpected issue occurs, the Technical Assistance Center (TAC) will help you identify the root cause. These calls must come from customers with a valid support agreement.

CTS 1.10 Interoperability with Other Cisco Endpoints and Devices

Table 3 summarizes the other Cisco endpoints and devices tested with CTS 1.10 software.

Table 3 **CTS 1.10 Interoperability with Other Cisco Endpoints and Devices**

CTS 1.10 Registered to Cisco Unified CM Version	With Cisco Endpoint/Device Version	Maximum Video and Audio	Security	Presentation
10.5 & 10.0[1], 9.1(2), 9.1(1), 8.6(2a)SU3	TX 6.0 registered to Cisco Unified CM version 9.1(1) or 8.6(2a)SU3	Video: Up to 1080p Audio: AAC-LD	Secure	Yes (Auto-Collaborate)
10.5 & 10.0[1], 9.1(2), 9.1(1), 8.6(2a)SU3	CTS 1.9.x registered to Cisco Unified CM version 9.1(1) or 8.6(2a)SU3	Video: Up to 1080p Audio: AAC-LD	Secure	Yes (Auto-Collaborate)
10.5 & 10.0[1], 9.1(2), 9.1(1), 8.6(2a)SU3	CTS 1.8.x registered to Cisco Unified CM version 9.1(1) or 8.6(2a)SU3	Video: Up to 1080p Audio: AAC-LD	Secure	Yes (Auto-Collaborate)
10.5 & 10.0[1], 9.1(2), 9.1(1), 8.6(2a)SU3	CTS 1.7.4 through 1.7.6 registered to Cisco Unified CM version 9.1(1) or 8.6(2a)SU3[2]	Video: Up to 1080p Audio: AAC-LD	Secure	Yes (Auto-Collaborate)
10.5 & 10.0[1], 9.1(2), 9.1(1), 8.6(2a)SU3	TC 6.x and TC 5.x (EX series, MX, C series, and SX20) registered to Cisco Unified CM version 9.1(1) or 8.6(2a)SU3	Video: 720p Audio: G.722 **Note** With 8.6(2a)SU3 and later, AAC-LD LATM is supported for audio.	Secure if running TC 6.x, non-secure if running TC 5.x	Yes (BFCP)
10.5 & 10.0[1], 9.1(2), 9.1(1), 8.6(2a)SU3	TC 6.x and TC 5.x (EX series, MX, C series, and SX20) registered to VCS version X7.2[4], X7.1[3, 4], X7.0[3, 4, 5], or TC6.x[4, 5]	Video: 720p Audio: G.722 **Note** With 8.6(2a)SU3 and later, AAC-LD LATM is supported for audio.	Secure	Yes (BFCP)
10.5 & 10.0[1], 9.1(2), 9.1(1), 8.6(2a)SU3	Cisco MXP 1000 F9.x registered to VCS version X7.2[4], X7.1[4], X7.0[4], or X6.1[4]	Video: CTS transmits at 360p, receives CIF Audio: G.722	Non-secure	Yes (switched presentation mode; only on SIP and H.323)
10.5 & 10.0[1], 9.1(2), 9.1(1), 8.6(2a)SU3	Cisco TelePresence Server (TS) running 2.2 registered to VCS version X7.2[4], X7.1[4], or X7.0[4]	Video: CTS transmits and receives up to 1080p Audio: AAC-LD	Secure	Yes (using TelePresence Interoperability Protocol [TIP])
10.5 & 10.0[1], 9.1(2), 9.1(1), 8.6(2a)SU3	Cisco MCU 4500 series registered to VCS version X7.2[4], X7.1[4], or X7.0[4]	Video: 720p Audio: G.722	Secure	Yes (BFCP)
10.5 & 10.0[1], 9.1(2), 9.1(1), 8.6(2a)SU3	Cisco MCU 4200 series version 4.4 and 4.3(2.18) registered to VCS version X7.2, X7.1[4], or X7.0[4]	Video: CTS transmits at 360p, receives at 720p Audio: G.722	Non-secure	Yes (BFCP)

Table 3 **CTS 1.10 Interoperability with Other Cisco Endpoints and Devices (continued)**

CTS 1.10 Registered to Cisco Unified CM Version	With Cisco Endpoint/Device Version	Maximum Video and Audio	Security	Presentation
10.5 & 10.0[1], 9.1(2), 9.1(1), 8.6(2a)SU3	Cisco MCU 5300 version 4.4 and 4.3(2.20) registered to VCS version X7.2[4], X7.1[4], or X7.0[4]	Video: 720p Audio: AAC-LD LATM	Secure	Yes (BFCP)
10.5 & 10.0[1], 9.1(2), 9.1(1), 8.6(2a)SU3	Jabber video version 4.5 registered to VCS version X7.2[4], X7.1[4], or X7.0[4]	Video: CTS transmits and receives at 720p Audio: G.722	Secure	Yes (BFCP)
10.5 & 10.0[1], 9.1(2), 9.1(1), 8.6(2a)SU3	Cisco Unified IP Phone 8961, 8941, 8945, 9951, and 9971 SIP version 9.2.1 or SCCP version 9.1.2 registered to Cisco Unified CM 8.6.*x* or 8.5.*x*	Video: CTS transmits and receives at 360p Audio: G.722	Non-secure	No
10.5 & 10.0[1], 9.1(2), 9.1(1), 8.6(2a)SU3	Cisco Unified Video Advantage version 2.2.2 with Cisco IP phones 69xx, 79xx, 89xx, 99xx registered to Cisco Unified CM 8.6.*x* or 8.5.*x*	Video: CTS transmits and receives at CIF Audio: G.722	Non-secure	No

1. **Systems that are registered to Unified CM release 10.5 & 10.0 only:** A minimum of Cisco TelePresence Administration software TX 6.1.1. or 1.10.4 is required for the directory to appear on the Touch 12 control device of your system.

2. To support CTS 1.7.4 through 1.7.6 endpoints, and endpoints that use BFCP for presentation sharing, you must run a minimum Cisco Unified CM version of 8.6(2a)SU3.

3. In an H.323 call between a CTS 1.10 endpoint registered to a UCM server running 8.6(2a)SU3 and a TC 5.*x* or TE 4.*x* endpoint registered to VCS X7.1 or X7.0, an intermittent loss of audio can occur. Caveat that tracks this issue: CSCtx16122. This caveat is fixed in Unified CM 9.1(1) and appears in the *Release Notes for Cisco TelePresence System Software Release 1.9*.

4. We recommend that you install and assign the Cisco Unified CM "vcs-interop" SIP Normalization script to make secure calls between CTS endpoints and endpoints and devices registered to VCS.
   For more information about the conditions required for secure calls, see this document:
   http://www.cisco.com/en/US/docs/telepresence/cts_admin/1_8/release/notes/cts_1_8_release_notes.html#wp138743
   For more information about the Cisco Unified CM script, see this document:
   http://www.cisco.com/en/US/docs/voice_ip_comm/cucm/rel_notes/8_6_2/cucm-rel-notes-862.html#wp1961382
   For more information about configuring Cisco Unified CM and Cisco VCS to interoperate via a SIP trunk, see this document:
   http://www.cisco.com/en/US/docs/telepresence/infrastructure/vcs/config_guide/Cisco_VCS_Cisco_Unified_Communications_Manager_Deployment_Guide_CUCM_6-1_7_8_and_X7-0.pdf

5. In a call between a CTS endpoint and a TC 5.*x* endpoint registered to VCS X7.0.1 or X6.1, a video issue could occur after holding then resuming the call. Caveat that tracks this issue: CSCua23599. This caveat is fixed in VCS X7.2 and appears in the *Release Notes for Cisco TelePresence System Software Release 1.9*.

CTS 1.10 Interoperability with Third-Party Endpoints and Devices

Cisco TelePresence endpoints are designed to work with any standards-based (SIP and H.264) endpoint and any TelePresence Interoperability Protocol (TIP) device.

Cisco tests interoperability with TIP devices and other standards-based endpoints based on market priority. The Cisco Technical Assistance Center (TAC) accepts calls related to interoperability with third-party endpoints and devices to troubleshoot and identify the root cause of issues. These calls must

come from customers with a valid support agreement. When appropriate, Cisco will engage third-party vendors to resolve interoperability issues. Also when appropriate, Cisco will document known issues in software release notes.

Table 4 summarizes the third-party endpoints and devices tested with CTS 1.10 software.

Table 4   *CTS 1.10 Interoperability with Third-Party Endpoints and Devices*

CTS 1.10 Registered to Cisco Unified CM Version	With Third-Party Endpoint/Device Version	Maximum Video and Audio	Security	Presentation	TIP License Required?
10.5 & 10.0[1], 9.1(2), 9.1(1), 8.6(2a)SU3	Polycom HDX Series version 3.0.5 registered to VCS 7.x[2][3][4]	720p Audio: G.722	[5]	BFCP (H.239 interworking[6] through VCS) Switched Presentation	No, this system uses standards-based SIP and is natively interoperable.
10.5 & 10.0[1], 9.1(2), 9.1(1), 8.6(2a)SU3	LifeSize Express 220 and Passport Room 220[7] version LS_EX2_4.10 registered to VCS 7.x[2]	720p Audio: G.722	Non-secure[8]	BFCP (H.323) Switched Presentation (SIP)	Yes

1. **Systems that are registered to Unified CM release 10.5 & 10.0 only:** A minimum of Cisco TelePresence Administration software TX 6.1.1. or 1.10.4 is required for the directory to appear on the Touch 12 control device of your system.

2. We recommend that you install and assign the Cisco Unified CM "vcs-interop" SIP Normalization script to make secure calls between CTS endpoints and endpoints and devices registered to VCS.
   For more information about the conditions required for secure calls, see this document:
   http://www.cisco.com/en/US/docs/telepresence/cts_admin/1_8/release/notes/cts_1_8_release_notes.html#wp138743
   For more information about the Cisco Unified CM script, see this document:
   http://www.cisco.com/en/US/docs/voice_ip_comm/cucmbe/rel_notes/8_6_2/cucmbe-rel_notes-862.html#wp1961463
   For more information about configuring Cisco Unified CM and Cisco VCS to interoperate via a SIP trunk, see this document:
   http://www.cisco.com/en/US/docs/telepresence/infrastructure/vcs/config_guide/Cisco_VCS_Cisco_Unified_Communications_Manager_Deployment_Guide_CUCM_8_9_and_X7-2.pdf

3. The following open caveats impact non-secure and secure calls with a Polycom endpoint: CSCua40108 and CSCty52408. For more information about CSCua40108, see the *Release Notes for Cisco TelePresence System Software Release 1.10* at
   http://www.cisco.com/en/US/docs/telepresence/cts_admin/1_10/release/notes/cts_1_10_release_notes.html. For more information about CSCty52408, see the *Release Notes for Cisco TelePresence System Software Release 1.9* at
   http://www.cisco.com/en/US/docs/telepresence/cts_admin/1_9/release/notes/cts_1_9_release_notes.html.

4. 2 During conferences between a Cisco TelePresence System 500-32, TX1310, TX9000 or TX9200 and a Polycom HDX7001, an extraneous message can display on the Cisco TelePresence screen that the presentation cannot be shared, even if a presentation is not being shared. This message should disappear within 30 seconds of starting the conference.

5. The following open caveats impact secure calls with a Polycom endpoint: CSCtx74718 and CSCty68518. For more information, see the *Release Notes for Cisco TelePresence System Software Release 1.9* at
   http://www.cisco.com/en/US/docs/telepresence/cts_admin/1_9/release/notes/cts_1_9_release_notes.html.

6. The definition of "interworking" is using VCS as an H.323-SIP gateway.

7. The following open caveat impacts interop calls with a LifeSize endpoint when adding an audio-only call: CSCtz27333. The following open caveats impacts interop calls with a LifeSize endpoint if holding then resuming the call: CSCtz05200 and CSCtz27129. For more information about CSCtz05200, see the *Release Notes for Cisco TelePresence System Software Release 1.10* at
   http://www.cisco.com/en/US/docs/telepresence/cts_admin/1_10/release/notes/cts_1_10_release_notes.html. For more information about CSCtz27333 and CSCtz27129, see the *Release Notes for Cisco TelePresence System Software Release 1.9* at
   http://www.cisco.com/en/US/docs/telepresence/cts_admin/1_9/release/notes/cts_1_9_release_notes.html.

8. The following open caveats impact secure interop calls with a LifeSize endpoint: CSCtz27432, CSCty85689. For more information about CSCtz27432, see the *Release Notes for Cisco TelePresence System Software Release 1.10* at
   http://www.cisco.com/en/US/docs/telepresence/cts_admin/1_10/release/notes/cts_1_10_release_notes.html. For more information about CSCty85689, see the *Release Notes for Cisco TelePresence System Software Release 1.9* at
   http://www.cisco.com/en/US/docs/telepresence/cts_admin/1_9/release/notes/cts_1_9_release_notes.html.

Supported Video Resolutions

Systems running CTS 1.10 software send and receive video at the resolutions shown in Table 5. The video resolution that is sent and received is based on the available bandwidth and the capabilities of the other devices that are in the conference.

Table 5 **Supported Video Resolutions**

Resolution Name	VIdeo Resolution Size
1080P	1920x1080
720P	1280x720
XGA	1024x768
SVGA	784x592
W448P	768x448
360P	640x360
448p	576x448
wCIF	512x288
CIF	352x288
SIF	352x240
180P	320x180
QVGA	320x240
	320x192
WQCIF	256x144
QCIF	176x144

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