

# Cisco TelePresence TX System Software Version Compatibility and Interoperability with Other Devices—6.x Releases

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This document shows you what systems, including endpoints and infrastructure devices, interoperate with Cisco TelePresence systems that run TX software release 6.x and includes the following sections:

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### **Document Revisions**

Date	Revision
April 10, 2017	Added compatibility for CTS 1.10.x with Unified CM 11.5.
January 26, 2015	Added compatibility for TS 4.1 software.
July 28, 2014	Changed compatibility of CTS-Manager to 1.9.2 and above.
	• Removed compatibility for Cisco Unified Communications Manager (Unified CM) Release 10.1.
	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).



Date	Revision
June 9, 2014	Added compatibility information for Unified CM Release 10.5.
	<ul> <li>Added that a minimum of TX Release 6.1.2.1 is required to fix the OpenSSL Heartbleed Vulnerability.</li> </ul>
February 20, 2014	Modified compatibility information for TC software.
	• Added compatibility information for TMS 14.x.
February 14, 2014	Added compatibility information for Unified CM Release 10.0.
September 18, 2013	Added compatibility information for TC6.2 software.
August 27, 2013	Changed Unified CM version from 8.6(2a)SU2 to 8.6(2a)SU3.
August 20, 2013	Added compatibility for Unified CM version 9.1(2).
	Added minimum TX release for TelePresence Server (TS) software.
May 15, 2013	Added CTRS compatibility
May 14, 2013	Added supported video resolutions for TX devices.
	• Removed the Unified CM version from the table and added a note showing the Unified CM versions that were tested to Table 2,
April 12, 2013	Added CTMS 1.8.x as being compatible.
March 19, 2013	Added footnote to CTMS compatibility information.
March 7, 2013	Added a link to the Cisco TelePresence Interoperability Database
February 28, 2013	Added interoperability with other Cisco devices and other third-party devices
February 27, 2013	First release

## Cisco TelePresence Interoperability Database

For more information about how the products running TX 6.x 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/

## TX 6.x Software Compatibility

The deployments of software in this matrix are tested.

Table 1 summarizes TX software Release 6 compatibility.

Table 1 TX 6.x Software Compatibility

TX	Con- ductor	CTRS	CTS	CTMS	CTS- Man	тс	TE	TMS	TS	Unified CM	vcs	VCS Express- way	SBC <sup>1</sup>	IX
$6.x^2$	XC4.3 XC2.0	1.8.1	1.10. <i>x</i> 1.9. <i>x</i> 1.8. <i>x</i>	1.9.4 <sup>3</sup> 1.9.2 <sup>4</sup> <sup>5</sup> 1.9.1 <sup>4</sup> <sup>5</sup> 1.8. <i>x</i> <sup>4</sup> <sup>5</sup>	1.9.2 <sup>6</sup> 1.8.1- 1.8.5	7.3.6 7.0. <i>x</i> <sup>4</sup> 6.3. <i>x</i> <sup>4</sup>	6.0.0	15. <i>x</i> 14. <i>x</i>	4.4 4.2 4.1 3.1 <sup>7</sup> 3.0 2.3	11.5 <sup>8</sup> 10.5 <sup>9</sup> 10.0 <sup>9</sup> 9.1(2) 8.6(2a)SU3	X8.9 X7.2 X7.1	X7.2	3.4.4	8.2.1 8.2.0

- 1. Session Border Control
- 2. TX Releases earlier than 6.1.13 are vulnerable to OpenSSL vulnerabilities; for this reason, it is highly recommended upgrade to TX 6.1.13 or later. For more information, see the Caveat description for CSCuz52531 in the *Release Notes for Cisco TelePresence System Software Release TX 6.x.*
- 3. CTMS version 1.9.4 is supported only for networks running Unified CM version 10.0.
- 4. Cisco TelePresence systems running TX software support 1080p video when in a CTMS call with systems running TC software 5.0 or later. Systems running CTS software 1.8 or later support 720p video in a CTMS call with systems running TC software 5.0 or later.
- 5. When in a multipoint call using CTMS between EX systems running TC5 or TC6 and TX9000 systems, the presentation rate is limited to 5 frames per second (fps).
- 6. Versions of CTS-Manager above Version 1.9.2 are also compatible.
- 7. A minimum TX release of 6.0.3 is required with TelePresence servers running release 3.1.
- 8. CUCM 11.5 is only compatible with TX 6.1.13 or later.
- Systems that are registered to Unified CM release 10.5 & 10.0 only: A minimum of TX 6.1.1 software is required for the directory feature (if configured) to work on your system.

## TX 6.x Interoperability

This section summarizes video and audio quality; security; and presentation support between a Cisco TelePresence System (CTS) running version TX 6.x software and another Cisco or third-party endpoint or device.

- Unified CM Version—The first column in each table includes the Unified CM version to which the system running TX 6.x software is registered.
- With Endpoint/Device Version—The second column includes the endpoint or device in the same TelePresence meeting with the system running TX 6.x 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 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 60 frames per second (1080p 60).
  - 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.
    - For more information, including systems that support 1080p 60 and bandwidth requirements and recommendations, refer to the "60 fps Main Video" section of the *Administration Guide for Cisco TelePresence TX Software Release* 6.
- **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.

For the latest information about endpoint capabilities and maximum resolutions for presentations, refer to the "High-Definition Presentation" section of the *Administration Guide for Cisco TelePresence TX Software Release 6*.



The Cisco and third-party endpoint, device, and call signaling agent versions outlined in Table 2 and Table 3 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.

#### TX 6.x Interoperability with Other Cisco Endpoints and Devices

Table 2 summarizes the other Cisco endpoints and devices tested with TX 6.x software.

The endpoints running TX 6.x software were registered to Unified CM devices running either version 9.1(2), 9.1(1), or 8.6(2a)SU3 software.

Table 2 TX 6.0 Interoperability with Other Cisco Endpoints and Devices

With Cisco Endpoint/Device Version	Maximum Video and Audio	Security	Presentation
CTS 1.10. <i>x</i> registered to Unified CM version 10.5 & 10.0 <sup>1</sup> , 9.1(2), 9.1(1), or 8.6(2a)SU3	Video: Up to 1080p Audio: AAC-LD	Secure	Yes (Auto-Collaborate)
CTS 1.9. <i>x</i> registered to Unified CM version 10.5 & 10.0 <sup>1</sup> , 9.1(2), 9.1(1), or 8.6(2a)SU3	Video: Up to 1080p Audio: AAC-LD	Secure	Yes (Auto-Collaborate)
CTS 1.8. <i>x</i> registered to Unified CM version 10.5 & 10.0 <sup>1</sup> , 9.1(2), 9.1(1), or 8.6(2a)SU3	Video: Up to 1080p Audio: AAC-LD	Secure	Yes (Auto-Collaborate)
CTS 1.7.4 through 1.7.6 registered to Unified CM version 10.5 & 10.0 <sup>1</sup> , 9.1(2), 9.1(1), or 8.6(2a)SU3	Video: Up to 1080p Audio: AAC-LD	Secure	Yes (Auto-Collaborate)
TC 6.x and TC 5.x (EX series, MX, C series, and SX20) registered to Unified CM version 10.5 & 10.0 <sup>1</sup> , 9.1(2), 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)

Table 2 TX 6.0 Interoperability with Other Cisco Endpoints and Devices (continued)

With Cisco Endpoint/Device Version	Maximum Video and Audio	Security	Presentation
TC 6.x and TC 5.x (EX series, MX, C series, and SX20) registered to VCS version X7.2 <sup>3</sup> , X7.1 <sup>2, 3</sup> , X7.0 <sup>2, 3, 4</sup> , or TC6.x <sup>3, 4</sup>	Video: 720p Audio: G.722  Note With 8.6(2a)SU3 and later, AAC-LD LATM is supported for audio.	Secure	Yes (BFCP)
Cisco MXP 1000 F9.x registered to VCS version X7.2 <sup>3</sup> , X7.1 <sup>3</sup> , X7.0 <sup>3</sup> , or X6.1 <sup>3</sup>	Video: CTS transmits at 360p, receives CIF Audio: G.722	Non-secure	Yes (switched presentation mode; only on SIP and H.323)
Cisco TelePresence Server (TS) running 2.2 registered to VCS version X7.2 <sup>3</sup> , X7.1 <sup>3</sup> , or X7.0 <sup>3</sup>	Video: CTS transmits and receives up to 1080p Audio: AAC-LD	Secure	Yes (using TelePresence Interoperability Protocol (TIP))
Cisco MCU 4500 series registered to VCS version X7.2 <sup>3</sup> , X7.1 <sup>3</sup> , or X7.0 <sup>3</sup>	Video: 720p Audio: G.722	Secure	Yes (BFCP)
Cisco MCU 4200 series version 4.4 and 4.3(2.18) registered to VCS version X7.2, X7.1 <sup>3</sup> , or X7.0 <sup>3</sup>	Video: CTS transmits at 360p, receives at 720p Audio: G.722	Non-secure	Yes (BFCP)
Cisco MCU 5300 version 4.4 and 4.3(2.20) registered to VCS version X7.2 <sup>3</sup> , X7.1 <sup>3</sup> , or X7.0 <sup>3</sup>	Video: 720p Audio: AAC-LD LATM	Secure	Yes (BFCP)
Jabber video version 4.5 registered to VCS version X7.2 <sup>3</sup> , X7.1 <sup>3</sup> , or X7.0 <sup>3</sup>	Video: CTS transmits and receives at 720p Audio: G.722	Secure	Yes (BFCP)
Unified IP Phone 8961, 8941, 8945, 9951, and 9971 SIP version 9.2.1 or SCCP version 9.1.2 registered to Unified CM 8.6.x or 8.5.x	Video: CTS transmits and receives at 360p Audio: G.722	Non-secure	No
Unified Video Advantage version 2.2.2 with Cisco IP phones 69xx, 79xx, 89xx, 99xx registered to Unified CM 8.6.x or 8.5.x	Video: CTS transmits and receives at CIF Audio: G.722	Non-secure	No

<sup>1.</sup> Systems that are registered to Unified CM release 10.5 & 10.0 only: A minimum of 6.1.2.1 software is required for the directory feature (if configured) to work on your system.

<sup>2.</sup> In an H.323 call between a TX 6.x 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.

3. We recommend that you install and assign the 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 Unified CM script, see this document:

For more information about configuring Unified CM and Cisco VCS to interoperate via a SIP trunk, see this document:

 $http://www.cisco.com/en/US/docs/telepresence/infrastructure/vcs/config\_guide/Cisco\_VCS\_Cisco\_Unified\_Communications\_Manager\_Deployment\_Guide\_CUCM\_6-1\_7\_8\_and\_X7-0.pdf$ 

4. In a call between a TX 6.x 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*.

#### TX 6.x 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 3 summarizes the third-party endpoints and devices tested with TX 6.x software.



The endpoints running TX 6.x software were registered to Unified CM devices running either version 9.1(2), 9.1(1), or 8.6(2a)SU3 software.

Table 3 TX 6.x Interoperability with Third-Party Endpoints and Devices

With Third-Party Endpoint/Device Version	Maximum Video and Audio	Security	Presentation	TIP License Required?
Polycom HDX Series version 3.0.5 registered to VCS 7. $x^{1/2/3}$	720p Audio: G.722	4	BFCP (H.239 interworking <sup>5</sup> through VCS) Switched Presentation	No, this system uses standards-based SIP and is natively interoperable.
LifeSize Express 220 and Passport Room 220 <sup>6</sup> version LS_EX2_4.10 registered to VCS 7.x <sup>1</sup>	720p Audio: G.722	Non- secure <sup>7</sup>	BFCP (H.323) Switched Presentation (SIP)	Yes

We recommend that you install and assign the 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 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 Unified CM and Cisco VCS to interoperate via a SIP trunk, see this document:

 $http://www.cisco.com/en/US/docs/telepresence/infrastructure/vcs/config\_guide/Cisco\_VCS\_Cisco\_Unified\_Communications\_Manager\_Deployment\_Guide\_CUCM\_8\_9\_and\_X7-2.pdf$ 

- 2. 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 TX System Software Release 6 at http://www.cisco.com/en/US/docs/telepresence/tx\_sw/6\_0/release/notes/tx\_sw\_6\_0\_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.
- 3. 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.
- 4. 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 <a href="http://www.cisco.com/en/US/docs/telepresence/cts\_admin/1\_9/release/notes/cts\_1\_9\_release\_notes.html">http://www.cisco.com/en/US/docs/telepresence/cts\_admin/1\_9/release/notes/cts\_1\_9\_release\_notes.html</a>.
- 5. The definition of "interworking" is using VCS as an H.323-SIP gateway.
- 6. 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 TX System Software Release 6* at http://www.cisco.com/en/US/docs/telepresence/tx\_sw/6\_0/release/notes/tx\_sw\_6\_0\_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.
- 7. 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 TX System Software Release 6 at <a href="http://www.cisco.com/en/US/docs/telepresence/tx\_sw/6\_0/release/notes/tx\_sw\_6\_0\_release\_notes.html">http://www.cisco.com/en/US/docs/telepresence/tx\_sw/6\_0/release/notes/tx\_sw\_6\_0\_release\_notes.html</a>. For more information about CSCty85689, see the Release Notes for Cisco TelePresence System Software Release 1.9 at <a href="http://www.cisco.com/en/US/docs/telepresence/cts\_admin/1\_9/release/notes/cts\_1\_9\_release\_notes.html">http://www.cisco.com/en/US/docs/telepresence/cts\_admin/1\_9/release/notes/cts\_1\_9\_release\_notes.html</a>.

## **Supported Video Resolutions**

Systems running TX 6.x software send and receive video at the resolutions shown in Table 4. 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 4 Supported Video Resolutions

Resolution Name	VIdeo Resolution Size
1080P	1920x1080
720P	1280x720
XGA	1024x768
W576P	1024x576
540P	960x540
512P	912x512
480P	848x480
600P	800x600
EW448P	800x448
W448P	768x448
400P	720x400
4CIF	704x576
4SIF	704x480
VGA	640x480
360P	640x360

Table 4 Supported Video Resolutions

Resolution	
Name	VIdeo Resolution Size
448P	576x448
W288P	512x288
CIF	352x288
SIF/240P	352x240
200P	320x200
180P	320x180
WQCIF	256x144
208P	208x208
QCIF	176x144

## **Obtaining Documentation and Submitting a Service Request**

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html

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