



# Cisco TelePresence Server on Virtual Machine Release 3.1(1.96)

Software Release Notes  
November 2013

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## Product documentation

The following documents provide guidance on installation, initial configuration and operation of the product:

### Installation:

- [Cisco TelePresence Server on Virtual Machine Installation Guide](#)
- [Cisco UCS C240 Server Installation and Service Guide](#)

### TelePresence Server Configuration in TelePresence Conductor:

- [Cisco TelePresence Conductor with Cisco VCS \(B2BUA\) Deployment Guide \(XC2.2\) \(PDF\)](#)
- [Cisco TelePresence Conductor with Cisco Unified Communications Manager Deployment Guide \(XC2.2\) \(PDF\)](#)

### TelePresence Conductor Installation and Deployment:

- [Cisco TelePresence Conductor Virtual Machine Deployment Guide \(X2.2\) \(PDF\)](#)

### TelePresence Conductor Configuration:

- [Cisco TelePresence Conductor Configuration Guides](#)

### VCS Deployment:

- [Cisco TelePresence Conductor with Cisco VCS \(B2BUA\) Deployment Guide \(XC2.2\) \(PDF\)](#)

**TMS Installation and Administration:**

- [Cisco TelePresence Management Suite Installation and Upgrade Guides](#)
- [Cisco TelePresence Management Suite Administrator Guides](#)

## System requirements

The following table provides the minimum system requirements for Cisco TelePresence Server on Virtual Machine.

Product	Description
Cisco TelePresence Conductor*	Release XC2.2 or later
Cisco Unified Communications Manager (Unified CM)	Release 8.6(2x) or 9.1 or later
Cisco Video Communication Server (VCS)	Release X7.2.2 or later
Cisco TelePresence Management Suite	Release 14.3 or later

\* Cisco TelePresence Conductor must be configured to run in Back-to-back User Agent (B2BUA) mode, or policy server mode if SIP is configured. TelePresence Server on Virtual Machine cannot be used in an H.323-capable policy server Conductor deployment.

## New features

In TelePresence Server on Virtual Machine release 3.1(1.96), Cisco TelePresence Server on Virtual Machine now supports an 8-core CPU virtual machine deployment. For customers upgrading to release 3.1(1.96) who want to change an existing TelePresence Server 3.1 virtual machine from 10 cores (20vCPU) to 8 cores (16vCPU), refer to the [Cisco TelePresence Server on Virtual Machine Installation Guide](#) for more information.

All features are identical to the features in Cisco Multiparty Media 310/320, except where noted in the table below. For TelePresence Server 3.1 specific features, refer to the TelePresence Server 3.1 software features documentation at the following location: [Cisco TelePresence Server Software Release Notes 3.1\(1.95\)](#).

The following table lists the differences in functionality between TelePresence Server on Virtual Machine and Multiparty Media 310/320.

Functionality	Feature	TelePresence Server on Virtual Machine	Multiparty Media 310/320
<b>Installation</b>	OVA Deployment option	Support 20 logical cores (10 physical cores) and 16 logical cores (8 physical cores) Hyperthread-enabled via Hypervisor	Not Applicable
	Console access through Virtual Center	Serial Console accessible through VMWare VM Console to configure TelePresence Server	Serial Console Access to configure TelePresence Server
	Clustering	Not supported	Supported
	Upgrade file	Cisco_ts_VirtualMachine_<version>	Cisco_ts_media_300_<version>
<b>Serial Console</b>	Serial console	Serial console available through VM Console screen only	Serial console available
	show inventory	Display the serial # and PID	Displays serial #, PID and VID.
	dhcp : (command)	DHCP IP configuration is not supported.	Available
	ethertype : (command)	Not supported	Available
<b>UI</b>	Health Status page	Not applicable on Virtual Platform	Available
	Product Name	Cisco TelePresence Server on Virtual Machine	Cisco TelePresence Server on Media 310 or 320
	Change System Time	Not applicable on Virtual Platform	Available
	Update NTP Settings	Available - Reboot is not required.	Available - Reboot is not required
	Update IP Configuration	Configures IP address of TelePresence Server on virtual machine	Configures IP address of TelePresence Server
<b>Configuration</b>	DHCP Support	DHCP IP configuration is not supported	DHCP Supported

## Licensing

For software licensing information, refer to the Cisco TelePresence on Virtual Machine datasheet, available from Cisco.

For information on the open source software used in Cisco TelePresence on Virtual Machine, refer to: [Cisco TelePresence Server on Virtual Machine 3.1 Open Source Documentation](#).

## Screen licenses per participant

The following table provides the number of screen licenses per participant for each mode and display resolution for both 8 and 10-core deployments.

Call type description			Screen licenses required per call	Maximum calls by core size (with licenses to provide 100% of capacity)	
Main video	Audio	Content		8-core VM 4 screen licenses	10-core VM 6 screen licenses
-	Mono	-	1/52	104*	104*
360p30 <sup>†</sup>	Mono	In main video	1/8	33	49
480p30	Mono	In main video	1/4	16	24
480p30	Stereo	720p5	1/3	12	18
720p30	Stereo	720p5	1/2	8	12
720p30	Stereo	720p30	1	4	6
1080p30	Stereo	720p15	1	4	6
720p60	Stereo	720p15	1	4	6
1080p30	Stereo	720p30	1 1/2	2	4
Three-screen <sup>‡</sup> 720p30	Multichannel	720p5	1 1/2	2	4
Three-screen <sup>‡</sup> 720p30	Multichannel	720p30	2	2	3
1080p30	Stereo	1080p30	2	2	3
Dual-screen <sup>‡</sup> 1080p30	Stereo	720p30	2	2	3
Three-screen <sup>‡</sup> 1080p	Multichannel	720p30	3	1	2
Three-screen <sup>‡</sup> 1080p	Multichannel	1080p30	4	1	1
Four-screen <sup>‡</sup> 1080p	Stereo	1080p30	4	1	1

\* 104 is the maximum number of calls that is possible on a TelePresence Server.

‡ The TelePresence Server needs the *Third Party Interop* feature key to host conferences with multi-screen endpoints that are not third party interoperable. This includes all multi-screen endpoints except the Cisco TelePresence System T3 and TIP-compatible endpoints.

† Requires TelePresence Conductor XC2.2 or later.

**Note:** The table above assumes that calls of one type are being used to reach these maximum values. To calculate the total number of licenses required for a variety of concurrent calls, sum the screen licenses required for each concurrent call.

## Resolved issues

The following issues were found in previous releases and are resolved in release 3.1(1.96).

### Resolved since version 3.1

Identifier	Description
CSCuj31071	Participant set behaves incorrectly with pre-configured participants
CSCui55633	IDR feedback on a flux enabled call has current timestamp as 0
CSCui40606	TelePresence Server on Virtual Machine: Enable NTP again results in Synchronization error
CSCuh35020	TelePresence Server on Virtual Machine help pages do not list TelePresence Server on Virtual Machine, Multiparty Media 3XX or 8510 running TS software

## Open issues

The following issues apply to this version of TelePresence Server on Virtual Machine

Identifier	Description
CSCui40566	<p>Symptom: Video from TelePresence Content Server (TCS) displays as a black pane.</p> <p>Additional details: Despite this symptom, recording functions correctly.</p> <p>Workaround: Set TCS as a recording device.</p>
CSCui40584	<p>Symptom: Video errors occur on TelePresence Content Server during the first few seconds of a call.</p> <p>Workaround: None.</p>
CSCui40568	<p>Symptom: Adding routes to TelePresence Server on Virtual Machine causes random warnings and is always "disabled" even when it is working.</p> <p>Workaround: None.</p>

## Optimizing MTU Size for Endpoints Joining Over VPN

If endpoints will be joining meetings over a Cisco AnyConnect Phone VPN connection, it is highly recommended to lower the MTU size in Cisco TelePresence Conductor to ensure best video quality.

To adjust the MTU size, do the following:

1. Log in to Cisco TelePresence Conductor.
2. Go to **Conference configuration > Conference templates**.
3. Select your template and in the Advanced parameters section, click **Edit**.
4. Copy and paste the following parameters into the Custom parameters field:

```
{"callAttributes": { "maxTransmitPacketSize": 1200 } }
```

**Note:** For "maxTransmitPacketSize", Cisco recommends using a value of **1200** up to **1400** (the Conductor default value).

5. Click **Save**.

## Limitations

- Limited co-residency support: Because TelePresence Server on Virtual Machine requires either 20 vCPUs (equal to 10 physical cores) or 16 vCPUs (equal to 8 physical cores), and hyperthreading to be enabled on the server, this release has limited co-residency support with other Cisco Unified Communications applications. For more information about Unified Communications virtualization guidelines, refer to the [Cisco Unified Communications in a Virtualized Environment](#) wiki site.
- Refer to the [New features](#) section for information on the differences between TelePresence Server on Virtual Machine and Multiparty Media 310/320, including limitations. Also refer to the [Open issues](#).
- For a list of limitations for the Cisco TelePresence Server 3.1 software, refer to the [Cisco TelePresence Server Software Release Notes 3.1\(1.80\)](#).

## Interoperability

The interoperability test results for this product are posted to <http://www.cisco.com/go/tp-interop>, where you can also find interoperability test results for other Cisco TelePresence products. We endeavor to make our Cisco TelePresence products interoperable with all relevant standards-based equipment. Although it is not possible to test all scenarios, the testing on which this data is based covers most common functions of the listed endpoints and infrastructure.

## About the interoperability section

The interoperability section describes the equipment and software revisions that were tested for interoperability with TelePresence Server 3.1. The absence of a device or revision from this section does not imply a lack of interoperability. Interoperability testing often requires interworking from one signaling/call control protocol to another. The following table lists phrases that are used to briefly describe the call paths that were tested for each interoperability scenario. The explicit call paths in the table place the endpoint first and the TelePresence Server last as a general convention. References to 'TS' mean either TelePresence Server behind Cisco TelePresence Conductor or TelePresence Server on its own.

Call path phrase	Explicit call path description
SIP	Endpoint ←SIP→ VCS ←SIP→ TelePresence Server Endpoint ←SIP→ VCS ←SIP→ CUCM ← SIP → TelePresence Server
H.323 to SIP interworking	Endpoint ←H.323→ VCS ←SIP→ TelePresence Server Endpoint ←H.323→ VCS ←SIP→ CUCM ←SIP→ TelePresence Server
CUCM SIP	Endpoint ←SIP→ CUCM ←SIP→ TelePresence Server

## Endpoints

This section lists interoperability issues with endpoints. Where an endpoint has limitations, such as a lack of support for encryption or content, the interoperability tests omitted the limitations and they are not listed here.

An infrastructure issue may manifest itself as an issue with a particular endpoint or series of endpoints; issues of this nature are listed separately under 'Infrastructure'.

### Cisco

Endpoint	Software	Tested	Comments
Cisco Unified IP Phone 8941	sip8941_8945.9-3-2-12	CUCM SIP	Black video of other participants when changing to a 4:3 aspect ratio. (Bug ID: CSCui25874)
Cisco Unified IP Phone 9951	sip9951.9-3-2-10	CUCM SIP	No issues found.
Cisco Unified IP Phone 9971	sip9971.9-3-2-10	CUCM SIP	No issues found.

### Cisco TelePresence

Endpoint	Software	Tested	Comments
Cisco IP Video Phone E20	TE4.1.3.303423	CUCM SIP	Hold/resume followed by no content.
Cisco TelePresence MX200	TC6.2.0.677c43b	CUCM SIP	No issues found.
Jabber Video for TelePresence (Mac OS X)	4.6 (build 17194)	SIP	Video to and from this endpoint can have the incorrect aspect ratio when using H.263 or H.263+ (which are not the default codecs).
Cisco TelePresence System EX90	TC6.2.0.20b1616	CUCM SIP	No issues found.
Cisco TelePresence System SX20 Quick Set	TC6.1.1.7d7af15	SIP	No issues found.

Endpoint	Software	Tested	Comments
Cisco TelePresence System Codec C60 on VCS	TC6.1.0	SIP, H.323-SIP interworked	No issues found.
Cisco TelePresence System EX90 on CUCM	TC6.1.1	SIP	No issues found.
Cisco TelePresence System EX60	TC6.2.0.20b1616	SIP	No issues found.
Cisco TelePresence System MXP1700	F8.2	SIP	Under some circumstances, continuous presence panes are cropped off the bottom of the screen when this endpoint is receiving CIF/4CIF resolutions. (Bug ID: CSCuh93846)
Cisco TelePresence System 1300-47	1.9.6(2)	SIP	No issues found.
Cisco TelePresence System TX9000	6.1.0(13)	SIP	No issues found.
Cisco TelePresence System 500-32	1.9.4(6)	SIP	No issues found.

## LifeSize

Endpoint	Software	Tested	Comments
Room 200	LS_RM2_4.5.1(34)	H.323-SIP interworked, SIP	<p>TLS encrypted SIP calls are not supported between this endpoint and the TelePresence Server. (Bug ID: CSCtx91859)</p> <ul style="list-style-type: none"> <li>The endpoint does not support SIP content.</li> <li>H.263 codec is not supported between this endpoint and the TelePresence Server, H.264 is enabled by default.</li> <li>H.261 codec is not supported by the endpoint in SIP calls (not default codec); use H.264 codec (enabled by default).</li> <li>SIP calls out from the TelePresence Server to a LifeSize endpoint may exhibit garbled audio, in both directions, if the calling parties use the G.722.1.C codec. This is unlikely to occur unless the call cannot fall back on another codec. Try using a different codec to work around this issue.</li> </ul>

## Polycom

Endpoint	Software	Tested	Comments
HDX 9006	3.0.4-20259	H.323-SIP interworked, SIP	No issues found.
HDX 4000 HD	2.5.0.2-3395	H.323-SIP interworked	No issues found.

## Radvision

Endpoint	Software	Tested	Comments
Scopia XT1000-series	02.05.0406	H.323-SIP interworked, SIP	<ul style="list-style-type: none"><li>• XT1000-series will adversely alter aspect ratio of H.263+ video (not default codec). H.264 is used by default.</li><li>• Dialing out to the endpoint from the TelePresence Server may result in content not working. Dialing in works around this issue. (Bug ID: CSCtz21165)</li><li>• Making a 60fps call at less than 2 Mbps is not supported. As a work around, use a higher bandwidth or disable 60fps on the endpoint.</li></ul>

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## Updating software

### Prerequisites and software dependencies

Refer to the [Cisco TelePresence Server on Virtual Machine Installation Guide](#) for more information.

### Upgrade/downgrade instructions

Refer to the [Cisco TelePresence Server on Virtual Machine Installation Guide](#) for more information.

## Using the Bug Search Tool

The Bug Search Tool contains information about open and resolved issues for this release and previous releases, including descriptions of the problems and available workarounds. The identifiers listed in these release notes will take you directly to a description of each issue.

To look for information about a specific problem mentioned in this document:

1. Using a web browser, go to the [Bug Search Tool](#).
2. Sign in with a Cisco.com username and password.
3. Enter the bug identifier in the **Search** field and click **Search**.

To look for information when you do not know the identifier:

4. Type the product name in the **Search** field and click **Search**.
5. From the list of bugs that appears, use the **Filter** drop-down list to filter on either *Keyword*, *Modified Date*, *Severity*, *Status*, or *Technology*.

Use **Advanced Search** on the Bug Search Tool home page to search on a specific software version.

The Bug Search Tool help pages have further information on using the Bug Search Tool.

## Getting help

If you experience any problems when configuring or using <product name>, see the "Product documentation" section of these release notes. If you cannot find the answer you need in the documentation, check the web site at <http://www.cisco.com/cisco/web/support/index.html> where you will be able to:

- Make sure that you are running the most up-to-date software.
- Get help from the Cisco Technical Support team.



Make sure you have the following information ready before raising a case:

- Identifying information for your product, such as model number, firmware version, and software version (where applicable).
- Your contact email address or telephone number.
- A full description of the problem.

To view a list of Cisco TelePresence products that are no longer being sold and might not be supported, visit [http://www.cisco.com/en/US/products/prod\\_end\\_of\\_life.html](http://www.cisco.com/en/US/products/prod_end_of_life.html) and scroll down to the TelePresence section.

## Document revision history

Date	Revision	Description
November 2013	02	3.1 Maintenance release
October 2013	01	3.1 Release

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