



Cisco TelePresence System Codec C/EX/MX-Series

Software release notes TC4

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Document revision history

Revision	Date	Description
11	09/10/2012	Release of TC4.2.4, patch release
10	03/05/2012	Release of TC4.2.3, patch release
09	25/11/2011	Release of TC4.2.2, patch release
08	16/09/2011	Release of TC4.2.1, patch release
07	20/07/2011	Release of TC4.2.0, dot release
06	17/06/2011	Release of TC4.1.2, patch release
05	16/05/2011	Release of TC4.1.1, patch release
04	25/02/2011	Release of TC4.1.0, dot release
03	25/02/2011	Release of TC4.0.4, patch release
02	23/11/2010	Release of TC4.0.1, patch release
01	18/11/2010	Initial release of TC4.0.0 release

Introduction software version TC4.2.4

This release note describes the features and capabilities included in the Cisco TelePresence System C/MX/EX-Series codec software version TC4.2.4 released on 9th of October 2012.

Note: Please read the known limitations section if you use TMS to upgrade your system from any release prior to TC4.0.0

Hardware compatibility

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. Executing the API **xcommand xstat 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:

- HW dependencies – Compatibility Levels Cisco TelePresence Systems

- HW dependencies – Compatibility Levels Cisco TelePresence Touch 8

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 new version of the flash memory. For simplicity we will call the first flash version 0 and the second flash version 1. There will probably be more versions. Endpoints having 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. Please check the release note to find if the new version of the flash memory is supported. If your endpoint does not have the CompatibilityLevel command it will have flash version 0 installed which means no software constraints.

Internal Camera

For units with internal 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. **MX300 is not supported in TC4.**

To check which camera sensor the EX-series or MX-series product has, execute the API command `xstatus camera HardwareID`

This example shows an EX60 with the E3 sensor, which means that it can be downgraded to versions earlier than TC4.2.4 or TC 5.1.1:

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. From TC5.1.3 there is a lock which prevents the system from downgrading to an unsupported version.

Interpreting the compatibility level

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

The result returned when running the command in TC4 will be 0,1 or 2

0 = The system does not have the new flash memory installed.

1 = The system has the new flash memory installed. If downgraded, it can only be downgraded to previous TC software versions having support for the new version of the flash memory.

2 = For MX and EX: The system has the new flash memory and the new E4 sensor. Minimum software version is TC4.2.4 or TC5.1.1.

2 = For C20: A component change needed new software support. Minimum software version TC 4.2.3 or TC5.1.1.

Example:

```
xstatus SystemUnit Hardware Module CompatibilityLevel
*s SystemUnit Hardware Module CompatibilityLevel: 0
** end
```

New hardware revisions for Cisco TelePresence Touch 8

There are as of TC4.2.4 and TC5.1.5 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. Please refer to the tables in the appendix:

HW dependencies – Compatibility Levels Cisco TelePresence Touch 8

This appendix contains detailed information on how to identify the touch panel hardware version and the potential software constraints.

New features and functionality in TC4.2.4

- ▶ Bugfixes
- ▶ Support for new hardware revisions of Cisco Telepresence Touch 8
- ▶ Support for the new camera sensor E4 for MX-series and EX-series
- ▶ New software release for Cisco TelePresence PrecisionHD 1080p 4x Camera

New feature descriptions

Support for new hardware revisions of Cisco TelePresence Touch 8

Please see the section hardware compatibility in the beginning of this document and the appendix describing the related TAN numbers and software compatibility.

Support for the new camera sensor E4 for MX-series and EX-series

Please see the section hardware compatibility in the beginning of this document and the appendix describing the related TAN numbers and software compatibility.

New software release for Cisco TelePresence PrecisionHD 4x Camera

With the TC4.2.4 release, the PrecisionHD 1080p 4x camera will automatically be upgraded to camera software release ID20011. Included in this release is:

- ▶ Bugfixes (see section Resolved Caveats for details).

Resolved caveats

Resolved since version TC4.2.3

You can use the Bug Toolkit to find information about caveats (bugs) for this release, including a description of the problems and available workarounds. The Bug Toolkit lists both open and resolved caveats.

To access the Bug Toolkit, you need the following items:

- Internet connection
- Web browser
- Cisco.com user ID and password

To use the Bug Toolkit, follow these steps:

Procedure

Step 1 To access the Bug Toolkit, go to <http://tools.cisco.com/Support/BugToolKit>

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**.

Step 4 To look for information if you do not know the bug ID number:

- a. Choose **Telepresence** from the Select Product Category menu.
- b. Choose **Cisco Telepresence System Integrator C** Series from the Select Products menu.
- c. Choose the version number from the Software Version menu.
- d. Under Advanced Options, choose **Use default settings** or **Use custom settings**. The default settings search for severity 1, 2 and 3 bugs, open and fixed bugs, and only bugs containing bug details. Use the custom settings to change the severity and status parameters, or to search for keywords within the bug headline and description.

System

Reference ID	Summary
<i>CSCub41046</i>	The shell, tsh, was found to provide a means of enumerating the underlying filesystem through manipulating the command line tab completion mechanism.
<i>CSCub18097</i>	Cisco EX90 Series TelePresence systems may not downgrade software because the compatibility level is erroneously reported as 2 for some mainboard revisions.

Camera

Reference ID	Summary
<i>CSCua44699</i>	PrecisionHD 1080p 4x Camera fails to boot due to checksum validation failure

Known limitations

Cisco

Reference ID	Equipment	Summary
CSCts34957	Any	Far End Camera Control (FECC) towards MX200 and EX90 does not work from Movi or MXP.
CSCtu99526	Any	There is a HW incompatibility between the C-Series systems and some NEC monitors. So far this is seen with: NEC LCD4020 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 DVI input of the monitors.
CSCtr32386	Any	ClearPath: H.323 down speeding of the presentation channel (H.239) is not disabled when using ClearPath.
CSCtr47744	Any	Web snapshot is available in the web interface of the EX90 and EX60 even though these units do not support this functionality.
CSCts34957	Any	Far End Camera Control does not work from TANDBERG MXP or Cisco Telepresence Movi towards Cisco Telepresence MX200 and Cisco Telepresence EX-Series.
CSCtr28274	Any	SIP signaling packets are not tagged with QoS.
CSCtr28267	TC4.X	OCS registration is broken in TC4.x
	TC4.x	If you downgrade from TC4.x.x to any software less than TC4.0.0 and have set the IP stack to IPv6, the system will be unusable. The stack will still think it should do IPv6 even though there is no place to configure this in pre TC4.0.0 code. The workaround will be to factory reset the system. Even if the system does not report any IP address, it will still have an IPv4 address. If you can't get hold of this address, you will have to use RS-232 to restore the unit or the procedure of using the power button (for C20, EX60 and EX90).
CSCtr32417	TC4.x	Dual stack for IPv4/IPv6 does not work as intended. If you set the device to IPv6, you will not be able to reach any service by using an IPv4 address. This will be addressed in an upcoming release.
CSCtr32389	TC4.0 and above	The composite output will display black frames when displaying more than two windows. It will set up the black borders but you will not see any video.
CSCtr32420	Any	The C/EX/MX-Series codecs and units with such a codec inside 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	TC4.1.0	The Cisco TelePresence Touch screen does not support up loadable layout families. Hence you should not use the Cisco TC Console to upload layouts to a system with the Cisco Touch screen attached.
N/A	Cisco TelePresence Touch TC4.1.0/TT2.1.0	The Cisco TelePresence Touch must be connected to the same subnet as the codec it is pairing to.
N/A	Cisco TelePresence Touch TC4.1.0/TT2.1.0	The Cisco TelePresence Touch currently do not support: <ul style="list-style-type: none"> • Changing the main source
N/A	TMS 12.6 or below when upgrading to TC4.0.0 and above	<p>Starting with TC4.0, the security model used by the system changes which impacts compatibility with existing installations of TMS. The incompatibilities will result in:</p> <p>1) Upgrading endpoints from a version less than TC4.0 to a version TC4.0 or higher using existing versions of TMS (12.x or lower) will appear to have failed in TMS. Additionally, the endpoint will not get the required release key updated, so the endpoint will not be able to make calls until a release key has been entered into the system.</p> <p>2) After an endpoint is upgraded to TC4.0 or newer, the system will have an incorrect username or password error message in TMS and TMS will not be able to communicate with it properly.</p> <p>A workaround to restore communication with TMS will be:</p> <p>1) Restart the TMS server, or</p> <p>2) Restart the TMS services, following the below steps:</p> <p>* Log into the windows console of the TMS server as a user with Windows Administrative permissions</p> <p>* Open the Services Control Panel (Control Panel->Administrative Tools->Services)</p> <p>* For each service in the list below, select the service from the Services list, and use the restart icon or right-click->restart to restart the service</p> <ul style="list-style-type: none"> - World Wide Web Publishing Service - TMSDatabaseScannerService - TMSLiveService - TMSSchedulerService - TMSNMPSERVICE <p>* Log into the TMS Web Interface, browse to the system and do a 'Force Refresh'. TMS should communicate to the system properly and the error message will clear.</p>

		<p>* To minimize service abruption it will be beneficial to upgrade all systems in one go, avoiding following the above procedure for every endpoints you upgrade. A future TMS version will resolve this condition negating the need to restart the services.</p> <p>Workaround to restore the release keys:</p> <p>* Once TMS has restored communication with the systems, upgrade the units one more time. This time TMS will be able to communicate with the systems when they boot up and set the release keys.</p> <p>Note: Please read the resolved caveats section Reference ID 85930 as well.</p> <p>Note: The above issues are fixed for TMS 13.0</p>
CSCtr32348	TANDBERG 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/Ex/Mx-Series codecs will support these formats.
N/A	Ver. TC2.1.0 and above	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	Ver. 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	Ver. Any	HD-SDI may not work with cables shorter than 3 meters. This is due to a jitter issue.
N/A	Ver.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	1920*1200p60 output resolution will run in DVI compatibility mode and hence audio cannot be transmitted over HDMI when using this resolution.
CSCtr32423	Ver. TC3.x and above	If you dial a TANDBERG 150 with SW version L5.1.1 or older with encryption setting set to 'on', you may not get audio in any direction.
CSCts34924	TC3.0.0 and above	The call status on the web interface will not be displayed if you access the codec using HTTPS.

CSCtr32331	Any	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.
N/A	TC3.0.0 and above	The Cisco TelePresence System codec C40/C60 (rev. 1), will not provide proper analogue VGA output for any resolution of 1080 lines or more.
N/A	Any	The Cisco TelePresence System codec C40 will reduce its capability set when using internal MultiSite. When this is done, the mainstream will maximum be able to transmit w576p until all calls are disconnected.
N/A	Any	The Cisco TelePresence System codec C60 will reduce its capability set when using internal MultiSite. When this is done, the dual stream will maximum be able to transmit WXGA until all calls are disconnected.
N/A	Any	The Cisco TelePresence System EX60/90 does not support usage of the remote control. The Cisco TelePresence Touch Screen must be used to control these devices.
CSCtr32298	TC4	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.

Polycom

Reference ID	Equipment	Summary
<i>Polycom MGC</i>	9.0.3.1	<p>60 frames per second was disabled during the testing (Advanced Configuration/Video/Input/Source/Optimal Definition/Threshold60fps = Never).</p> <p>MGC conference is set to continuous presence, AES and H.239:</p> <p>Far End Camera Control is not working.</p> <p>Call rates down to 256kbps works fine. 256kbps and lower will experience loss of video.</p> <p>MGC conference set to voice switched, AES and H.239:</p> <p>Following conference rates does not work: 1.1Mbps</p> <p>MGC conference is set to continuous presence, no AES and H.239:</p> <p>H.239 does not work very well with the MGC. A lot of issues were seen when testing H.239.</p>
N/A	C Series Ver. TC2.1.0 (No Video Polycom VSX Ver. 9.0.5)	Currently if the video source 1 (PrecisionHD 1080p camera) is set to sharpness then the Polycom VSX will not display video as the TANDBERG codec will transmit w448p, which is not supported by the VSX. Workaround: Set PrecisionHD 1080p camera to motion.
N/A	C Series Ver. TC2.1.0	The Polycom VSX may display distorted video from the TANDBERG codec. Workaround:

	(No Video Polycom VSX Ver. 8.0 & 8.5)	Upgrade the Polycom VSX to software version 8.7 or higher.
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RadVision

Reference ID	Equipment	Summary
<i>RadVision Scoopia 400 MCU</i>	5.7.1.0.13	If a Cisco TelePresence System C20 is connected to a 1080p conference and starts presentation, the C20 will not display incoming video.

Introduction software version TC4.2.3

This release note describes the features and capabilities included in the Cisco TelePresence System C/MX/EX-Series codec software version TC4.2.3 released on 3rd of May 2012.

Note: Please read the known limitations section if you use TMS to upgrade your system from any release prior to TC4.0.0

Hardware compatibility

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 new version of the flash memory. Endpoints having the new version of the flash memory must run software TC4.2.1 or later. Some previous TC software versions will be updated to support the new flash memory. Please check the release note to find if the new version of the flash memory is supported. If your endpoint does not have the CompatibilityLevel command it will not have the new flash memory installed.

The result returned when running the command will be either 0 or 1:

0 = The system does not have the new flash memory installed.

1 = The system has the new flash memory installed. If downgraded, it can only be downgraded to previous TC software versions having support for the new version of the flash memory.

Example:

```
xstatus SystemUnit Hardware Module CompatibilityLevel
*s SystemUnit Hardware Module CompatibilityLevel: 0
** end
```

New features and functionality in TC4.2.3

- ▶ New fan control for the Codec C90
- ▶ New software release for Cisco TelePresence PrecisionHD 1080p 4x Camera

New feature descriptions

New fan control for the Codec C90

The fan control has changed to allow the Codec C90 to run cooler. The fans will now run all the time and with a higher RPM than before.

New software release for Cisco TelePresence PrecisionHD 4x Camera

With the TC4.2.3 release, the PrecisionHD 1080p 4x camera will automatically be upgraded to camera software release ID20010. Included in this release is:

- ▶ Bugfixes (see section Resolved Caveats for details).

Resolved caveats

Resolved since version TC4.2.2

You can use the Bug Toolkit to find information about caveats (bugs) for this release, including a description of the problems and available workarounds. The Bug Toolkit lists both open and resolved caveats.

To access the Bug Toolkit, you need the following items:

- Internet connection
- Web browser
- Cisco.com user ID and password

To use the Bug Toolkit, follow these steps:

Procedure

Step 1 To access the Bug Toolkit, go to <http://tools.cisco.com/Support/BugToolKit>

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**.

Step 4 To look for information if you do not know the bug ID number:

- a. Choose **Telepresence** from the Select Product Category menu.
- b. Choose **Cisco Telepresence System Integrator C** Series from the Select Products menu.
- c. Choose the version number from the Software Version menu.
- d. Under Advanced Options, choose **Use default settings** or **Use custom settings**. The default settings search for severity 1, 2 and 3 bugs, open and fixed bugs, and only bugs containing bug details. Use the custom settings to change the severity and status parameters, or to search for keywords within the bug headline and description.

System

Reference ID	Summary
<i>CSCtz61535</i>	The Cisco Touch will not display any codecs in the codecs to pair with list.

Touch

Reference ID	Summary
<i>CSCtx57456</i>	Touch panel freezes and/or does not boot up after upgrade.

Video

Reference ID	Summary
<i>CSCtz61531</i>	The SX20 may loose ClearPath (packet loss recovery), when using the internal MultiSite.
<i>CSCtz61560</i>	When booting up the EX90 the Cisco splash screen is not shown.

Camera

Reference ID	Summary
<i>CSCts05788</i>	The Cisco PrecisionHD 1080p 4X camera sometimes will loose video output and connection with the codec when coming out of standby, and in rear occasions when booting up.

Known limitations

Cisco

Reference ID	Equipment	Summary
CSCts34957	Any	Far End Camera Control (FECC) towards MX200 and EX90 does not work from Movi or MXP.
CSCtu99526	Any	There is a HW incompatibility between the C-Series systems and some NEC monitors. So far this is seen with: NEC LCD4020 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 DVI input of the monitors.
CSCtr32386	Any	ClearPath: H.323 down speeding of the presentation channel (H.239) is not disabled when using ClearPath.
CSCtr47744	Any	Web snapshot is available in the web interface of the EX90 and EX60 even though these units do not support this functionality.
CSCts34957	Any	Far End Camera Control does not work from TANDBERG MXP or Cisco Telepresence Movi towards Cisco Telepresence MX200 and Cisco Telepresence EX-Series.
CSCtr28274	Any	SIP signaling packets are not tagged with QoS.
CSCtr28267	TC4.X	OCS registration is broken in TC4.x
	TC4.x	If you downgrade from TC4.x.x to any software less than TC4.0.0 and have set the IP stack to IPv6, the system will be unusable. The stack will still think it should do IPv6 even though there is no place to configure this in pre TC4.0.0 code. The workaround will be to factory reset the system. Even if the system does not report any IP address, it will still have an IPv4 address. If you can't get hold of this address, you will have to use RS-232 to restore the unit or the procedure of using the power button (for C20, EX60 and EX90).
CSCtr32417	TC4.x	Dual stack for IPv4/IPv6 does not work as intended. If you set the device to IPv6, you will not be able to reach any service by using an IPv4 address. This will be addressed in an upcoming release.
CSCtr32389	TC4.0 and above	The composite output will display black frames when displaying more than two windows. It will set up the black borders but you will not see any video.
CSCtr32420	Any	The C/EX/MX-Series codecs and units with such a codec inside 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	TC4.1.0	The Cisco TelePresence Touch screen does not support up loadable layout families. Hence you should not use the Cisco TC Console to upload layouts to a system with the Cisco Touch screen attached.
N/A	Cisco TelePresence Touch TC4.1.0/TT2.1.0	The Cisco TelePresence Touch must be connected to the same subnet as the codec it is pairing to.
N/A	Cisco TelePresence Touch TC4.1.0/TT2.1.0	The Cisco TelePresence Touch currently do not support: <ul style="list-style-type: none"> • Changing the main source
N/A	TMS 12.6 or below when upgrading to TC4.0.0 and above	<p>Starting with TC4.0, the security model used by the system changes which impacts compatibility with existing installations of TMS. The incompatibilities will result in:</p> <p>1) Upgrading endpoints from a version less than TC4.0 to a version TC4.0 or higher using existing versions of TMS (12.x or lower) will appear to have failed in TMS. Additionally, the endpoint will not get the required release key updated, so the endpoint will not be able to make calls until a release key has been entered into the system.</p> <p>2) After an endpoint is upgraded to TC4.0 or newer, the system will have an incorrect username or password error message in TMS and TMS will not be able to communicate with it properly.</p> <p>A workaround to restore communication with TMS will be:</p> <p>1) Restart the TMS server, or</p> <p>2) Restart the TMS services, following the below steps:</p> <p>* Log into the windows console of the TMS server as a user with Windows Administrative permissions</p> <p>* Open the Services Control Panel (Control Panel->Administrative Tools->Services)</p> <p>* For each service in the list below, select the service from the Services list, and use the restart icon or right-click->restart to restart the service</p> <ul style="list-style-type: none"> - World Wide Web Publishing Service - TMSDatabaseScannerService - TMSLiveService - TMSSchedulerService - TMSNMPSERVICE <p>* Log into the TMS Web Interface, browse to the system and do a 'Force Refresh'. TMS should communicate to the system properly and the error message will clear.</p>

		<p>* To minimize service abruption it will be beneficial to upgrade all systems in one go, avoiding following the above procedure for every endpoints you upgrade. A future TMS version will resolve this condition negating the need to restart the services.</p> <p>Workaround to restore the release keys:</p> <p>* Once TMS has restored communication with the systems, upgrade the units one more time. This time TMS will be able to communicate with the systems when they boot up and set the release keys.</p> <p>Note: Please read the resolved caveats section Reference ID 85930 as well.</p> <p>Note: The above issues are fixed for TMS 13.0</p>
CSCtr32348	TANDBERG 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/Ex/Mx-Series codecs will support these formats.
N/A	Ver. TC2.1.0 and above	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	Ver. Any	If you run cascaded cameras and the chained cameras are running an old camera code, we have seen that only zoom 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	Ver. Any	HD-SDI may not work with cables shorter than 3 meters. This is due to a jitter issue.
N/A	Ver.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	1920*1200p60 output resolution will run in DVI compatibility mode and hence audio cannot be transmitted over HDMI when using this resolution.
CSCtr32423	Ver. TC3.x and above	If you dial a TANDBERG 150 with SW version L5.1.1 or older with encryption setting set to 'on', you may not get audio in any direction.
CSCts34924	TC3.0.0 and above	The call status on the web interface will not be displayed if you access the codec using HTTPS.

CSCtr32331	Any	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.
N/A	TC3.0.0 and above	The Cisco TelePresence System codec C40/C60 (rev. 1), will not provide proper analogue VGA output for any resolution of 1080 lines or more.
N/A	Any	The Cisco TelePresence System codec C40 will reduce its capability set when using internal MultiSite. When this is done, the mainstream will maximum be able to transmit w576p until all calls are disconnected.
N/A	Any	The Cisco TelePresence System codec C60 will reduce its capability set when using internal MultiSite. When this is done, the dual stream will maximum be able to transmit WXGA until all calls are disconnected.
N/A	Any	The Cisco TelePresence System EX60/90 does not support usage of the remote control. The Cisco TelePresence Touch Screen must be used to control these devices.
CSCtr32298	TC4	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.

Polycom

Reference ID	Equipment	Summary
<i>Polycom MGC</i>	9.0.3.1	60 frames per second was disabled during the testing (Advanced Configuration/Video/Input/Source/Optimal Definition/Threshold60fps = Never). MGC conference is set to continuous presence, AES and H.239: Far End Camera Control is not working. Call rates down to 256kbps works fine. 256kbps and lower will experience loss of video. MGC conference set to voice switched, AES and H.239: Following conference rates does not work: 1.1Mbps MGC conference is set to continuous presence, no AES and H.239: H.239 does not work very well with the MGC. A lot of issues were seen when testing H.239.
N/A	C Series Ver. TC2.1.0 (No Video Polycom VSX Ver. 9.0.5)	Currently if the video source 1 (PrecisionHD 1080p camera) is set to sharpness then the Polycom VSX will not display video as the TANDBERG codec will transmit w448p, which is not supported by the VSX. Workaround: Set PrecisionHD 1080p camera to motion.
N/A	C Series Ver. TC2.1.0	The Polycom VSX may display distorted video from the TANDBERG codec. Workaround:

	(No Video Polycom VSX Ver. 8.0 & 8.5)	Upgrade the Polycom VSX to software version 8.7 or higher.
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RadVision

Reference ID	Equipment	Summary
<i>RadVision Scoopia 400 MCU</i>	5.7.1.0.13	If a Cisco TelePresence System C20 is connected to a 1080p conference and starts presentation, the C20 will not display incoming video.

Introduction software version TC4.2.2

This release note describes the features and capabilities included in the Cisco TelePresence System C/MX/EX-Series codec software version TC4.2.2 released on 25th of November 2011.

Note: Please read the known limitations section if you use TMS to upgrade your system from any release prior to TC4.0.0

Hardware compatibility

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 new version of the flash memory. Endpoints having the new version of the flash memory must run software TC4.2.1 or later. Some previous TC software versions will be updated to support the new flash memory. Please check the release note to find if the new version of the flash memory is supported. If your endpoint does not have the CompatibilityLevel command it will not have the new flash memory installed.

The result returned when running the command will be either 0 or 1:

0 = The system does not have the new flash memory installed.

1 = The system has the new flash memory installed. If downgraded, it can only be downgraded to previous TC software versions having support for the new version of the flash memory.

Example:

```
xstatus SystemUnit Hardware Module CompatibilityLevel
*s SystemUnit Hardware Module CompatibilityLevel: 0
** end
```

Resolved caveats

Resolved since version TC4.2.1

You can use the Bug Toolkit to find information about caveats (bugs) for this release, including a description of the problems and available workarounds. The Bug Toolkit lists both open and resolved caveats.

To access the Bug Toolkit, you need the following items:

- Internet connection
- Web browser
- Cisco.com user ID and password

To use the Bug Toolkit, follow these steps:

Procedure

Step 1 To access the Bug Toolkit, go to <http://tools.cisco.com/Support/BugToolKit>

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**.

Step 4 To look for information if you do not know the bug ID number:

- a. Choose **Telepresence** from the Select Product Category menu.
- b. Choose **Cisco Telepresence System Integrator C** Series from the Select Products menu.
- c. Choose the version number from the Software Version menu.
- d. Under Advanced Options, choose **Use default settings** or **Use custom settings**. The default settings search for severity 1, 2 and 3 bugs, open and fixed bugs, and only bugs containing bug details. Use the custom settings to change the severity and status parameters, or to search for keywords within the bug headline and description.

Audio

Reference ID	Summary
<i>CSCts31417</i>	The HDMI output of the EX90 does not output any audio.
<i>CSCtu38212</i>	System reboots because audio0 has stopped responding.

System

Reference ID	Summary
<i>CSCtu42304</i>	The Call Rate on local phonebook entries is never used. Instead the default value is used. Using the local phonebook to dial a telephone call will utilize a video resource. So if you want to dial one telephone call and one video call, you must dial the video call first. Otherwise the second call will be connected as telephone call as well. This is valid for systems without MultiSite.

Protocol

Reference ID	Summary
<i>CSCtt45927</i>	A C/EX/MX-Series Cisco TelePresence Device may reload unexpectedly when using ClearPath in heavy packet loss environment.
<i>CSCtu13118</i>	H.323 MultiWay conference will fail to initiate on EX90.
<i>CSCts25444</i>	The system will display H.323 not registered even when it is actually registered.

Video

Reference ID	Summary
<i>CSCtt07468</i>	When presenting from a locally attached computer on a Cisco TelePresence EX90, the far end may see the presentation with video impairments. It has been reported at times that there may be a flickering red and/or green lines seen at the far end view of the presentation. The local view of the presentation does not show this distortion.
<i>CSCtu09288</i>	The CTS Profile boots up with no picture on the screen. The screen will be constant black.
<i>CSCtu38196</i>	The unit boot up without OSD (On Screen Display). Seen also rarely when upgrading from TC4.1 to TC4.2.
<i>CSCts98529</i>	Cisco TelePresence C60-series codec may present a solid green bar at the far end during a multisite call.

Web

Reference ID	Summary
<i>CSCtt36685</i>	Cisco TelePresence codecs may allow an unauthenticated, adjacent attacker to disclose the contents of files within a certain directory. The attacker would need to be adjacent to the device and have the ability to send a crafted UPnP message to an affected device.

Known limitations

Cisco

Reference ID	Equipment	Summary
CSCts34957	Any	Far End Camera Control (FECC) towards MX200 and EX90 does not work from Movi or MXP.
CSCtu99526	Any	There is a HW incompatibility between the C-Series systems and some NEC monitors. So far this is seen with: NEC LCD4020 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 DVI input of the monitors.
CSCtr32386	Any	ClearPath: H.323 down speeding of the presentation channel (H.239) is not disabled when using ClearPath.
CSCtr47744	Any	Web snapshot is available in the web interface of the EX90 and EX60 even though these units do not support this functionality.
CSCts34957	Any	Far End Camera Control does not work from TANDBERG MXP or Cisco Telepresence Movi towards Cisco Telepresence MX200 and Cisco Telepresence EX-Series.
CSCtr28274	Any	SIP signaling packets are not tagged with QoS.
CSCtr28267	TC4.X	OCS registration is broken in TC4.x
	TC4.x	If you downgrade from TC4.x.x to any software less than TC4.0.0 and have set the IP stack to IPv6, the system will be unusable. The stack will still think it should do IPv6 even though there is no place to configure this in pre TC4.0.0 code. The workaround will be to factory reset the system. Even if the system does not report any IP address, it will still have an IPv4 address. If you can't get hold of this address, you will have to use RS-232 to restore the unit or the procedure of using the power button (for C20, EX60 and EX90).
CSCtr32417	TC4.x	Dual stack for IPv4/IPv6 does not work as intended. If you set the device to IPv6, you will not be able to reach any service by using an IPv4 address. This will be addressed in an upcoming release.
CSCtr32389	TC4.0 and above	The composite output will display black frames when displaying more than two windows. It will set up the black borders but you will not see any video.
CSCtr32420	Any	The C/EX/MX-Series codecs and units with such a codec inside 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	TC4.1.0	The Cisco TelePresence Touch screen does not support up loadable layout families. Hence you should not use the Cisco TC Console to upload layouts to a system with the Cisco Touch screen attached.
N/A	Cisco TelePresence Touch TC4.1.0/TT2.1.0	The Cisco TelePresence Touch must be connected to the same subnet as the codec it is pairing to.
N/A	Cisco TelePresence Touch TC4.1.0/TT2.1.0	The Cisco TelePresence Touch currently do not support: <ul style="list-style-type: none"> • Changing the main source
N/A	TMS 12.6 or below when upgrading to TC4.0.0 and above	<p>Starting with TC4.0, the security model used by the system changes which impacts compatibility with existing installations of TMS. The incompatibilities will result in:</p> <p>1) Upgrading endpoints from a version less than TC4.0 to a version TC4.0 or higher using existing versions of TMS (12.x or lower) will appear to have failed in TMS. Additionally, the endpoint will not get the required release key updated, so the endpoint will not be able to make calls until a release key has been entered into the system.</p> <p>2) After an endpoint is upgraded to TC4.0 or newer, the system will have an incorrect username or password error message in TMS and TMS will not be able to communicate with it properly.</p> <p>A workaround to restore communication with TMS will be:</p> <p>1) Restart the TMS server, or</p> <p>2) Restart the TMS services, following the below steps:</p> <p>* Log into the windows console of the TMS server as a user with Windows Administrative permissions</p> <p>* Open the Services Control Panel (Control Panel->Administrative Tools->Services)</p> <p>* For each service in the list below, select the service from the Services list, and use the restart icon or right-click->restart to restart the service</p> <ul style="list-style-type: none"> - World Wide Web Publishing Service - TMSDatabaseScannerService - TMSLiveService - TMSSchedulerService - TMSNMPSERVICE <p>* Log into the TMS Web Interface, browse to the system and do a 'Force Refresh'. TMS should communicate to the system properly and the error message will clear.</p>

		<p>* To minimize service abruption it will be beneficial to upgrade all systems in one go, avoiding following the above procedure for every endpoints you upgrade. A future TMS version will resolve this condition negating the need to restart the services.</p> <p>Workaround to restore the release keys:</p> <p>* Once TMS has restored communication with the systems, upgrade the units one more time. This time TMS will be able to communicate with the systems when they boot up and set the release keys.</p> <p>Note: Please read the resolved caveats section Reference ID 85930 as well.</p> <p>Note: The above issues are fixed for TMS 13.0</p>
CSCtr32348	TANDBERG 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/Ex/Mx-Series codecs will support these formats.
N/A	Ver. TC2.1.0 and above	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	Ver. Any	If you run cascaded cameras and the chained cameras are running an old camera code, we have seen that only zoom 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	Ver. Any	HD-SDI may not work with cables shorter than 3 meters. This is due to a jitter issue.
N/A	Ver.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	1920*1200p60 output resolution will run in DVI compatibility mode and hence audio cannot be transmitted over HDMI when using this resolution.
CSCtr32423	Ver. TC3.x and above	If you dial a TANDBERG 150 with SW version L5.1.1 or older with encryption setting set to 'on', you may not get audio in any direction.
CSCts34924	TC3.0.0 and above	The call status on the web interface will not be displayed if you access the codec using HTTPS.

CSCtr32331	Any	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.
N/A	TC3.0.0 and above	The Cisco TelePresence System codec C40/C60 (rev. 1), will not provide proper analogue VGA output for any resolution of 1080 lines or more.
N/A	Any	The Cisco TelePresence System codec C40 will reduce its capability set when using internal MultiSite. When this is done, the mainstream will maximum be able to transmit w576p until all calls are disconnected.
N/A	Any	The Cisco TelePresence System codec C60 will reduce its capability set when using internal MultiSite. When this is done, the dual stream will maximum be able to transmit WXGA until all calls are disconnected.
N/A	Any	The Cisco TelePresence System EX60/90 does not support usage of the remote control. The Cisco TelePresence Touch Screen must be used to control these devices.
CSCtr32298	TC4	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.

Polycom

Reference ID	Equipment	Summary
<i>Polycom MGC</i>	9.0.3.1	<p>60 frames per second was disabled during the testing (Advanced Configuration/Video/Input/Source/Optimal Definition/Threshold60fps = Never).</p> <p>MGC conference is set to continuous presence, AES and H.239:</p> <p>Far End Camera Control is not working.</p> <p>Call rates down to 256kbps works fine. 256kbps and lower will experience loss of video.</p> <p>MGC conference set to voice switched, AES and H.239:</p> <p>Following conference rates does not work: 1.1Mbps</p> <p>MGC conference is set to continuous presence, no AES and H.239:</p> <p>H.239 does not work very well with the MGC. A lot of issues were seen when testing H.239.</p>
N/A	C Series Ver. TC2.1.0 (No Video Polycom VSX Ver. 9.0.5)	Currently if the video source 1 (PrecisionHD 1080p camera) is set to sharpness then the Polycom VSX will not display video as the TANDBERG codec will transmit w448p, which is not supported by the VSX. Workaround: Set PrecisionHD 1080p camera to motion.
N/A	C Series Ver. TC2.1.0	The Polycom VSX may display distorted video from the TANDBERG codec. Workaround:

	(No Video Polycom VSX Ver. 8.0 & 8.5)	Upgrade the Polycom VSX to software version 8.7 or higher.
--	--	--

RadVision

Reference ID	Equipment	Summary
<i>RadVision Scoopia 400 MCU</i>	5.7.1.0.13	If a Cisco TelePresence System C20 is connected to a 1080p conference and starts presentation, the C20 will not display incoming video.

Introduction software version TC4.2.1

This release note describes the features and capabilities included in the Cisco TelePresence System C-Series codec software version TC4.2.1 released on 16th of September 2011.

Note: Please read the known limitations section if you use TMS to upgrade your system from any release prior to TC4.0.0

Hardware compatibility

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 new version of the flash memory. Endpoints having the new version of the flash memory must run software TC4.2.1 or later. Some previous TC software versions will be updated to support the new flash memory. Please check the release note to find if the new version of the flash memory is supported. If your endpoint does not have the CompatibilityLevel command it will not have the new flash memory installed.

The result returned when running the command will be either 0 or 1:

0 = The system does not have the new flash memory installed.

1 = The system has the new flash memory installed. If downgraded, it can only be downgraded to previous TC software versions having support for the new version of the flash memory.

Example:

```
xstatus SystemUnit Hardware Module CompatibilityLevel
*s SystemUnit Hardware Module CompatibilityLevel: 0
** end
```

New features and functionality in TC4.2.1

- ▶ Support for new NAND flash
- ▶ Changed API xStatus

New API xStatus

- ▶ xStatus SystemUnit Hardware Module
 - Added parameter 'Compatibilitylevel'

Resolved caveats

Resolved since version TC4.2.0

You can use the Bug Toolkit to find information about caveats (bugs) for this release, including a description of the problems and available workarounds. The Bug Toolkit lists both open and resolved caveats.

To access the Bug Toolkit, you need the following items:

- Internet connection
- Web browser
- Cisco.com user ID and password

To use the Bug Toolkit, follow these steps:

Procedure

Step 1 To access the Bug Toolkit, go to <http://tools.cisco.com/Support/BugToolKit>

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**.

Step 4 To look for information if you do not know the bug ID number:

- a. Choose **Telepresence** from the Select Product Category menu.
- b. Choose **Cisco Telepresence System Integrator C** Series from the Select Products menu.
- c. Choose the version number from the Software Version menu.
- d. Under Advanced Options, choose **Use default settings** or **Use custom settings**. The default settings search for severity 1, 2 and 3 bugs, open and fixed bugs, and only bugs containing bug details. Use the custom settings to change the severity and status parameters, or to search for keywords within the bug headline and description.

Touch

Reference ID	Summary
CSCts34983	Selfview cannot be turned off in a call from the Cisco Touch. Workaround: Turn selfview on before making the call.
CSCts34974	The CTS C40, C60 and C90 is not able to add the second call on audio from the Cisco Touch when the option MultiSite is not installed.

Audio

Reference ID	Summary
<i>CSCts05791</i>	Cisco TelePresence C series profile systems may experience a no-audio condition after a reload. In some instances, video may be impacted as well.

System

Reference ID	Summary
<i>CSCts05794</i>	When system dials when in standby the home screen appears if using web or tsh to dial.
<i>CSCts27809</i>	The other side does not get any video because of heavy packet loss. After a while the far end will reboot. This is caused by errors with automatic MTU size detection and you will get fragmented and lost packets. This will again trigger ClearPath to minimize the effects of packet loss, but will in this case give the reverse result and trigger more packet loss and crashing the system at the far end site. The sending endpoint expects the network to give feedback about max MTU size, but in this case this does not happen. The sending side have set the 'do not fragment flag' and hence the packets will not be fragmented but instead thrown away.

Web

Reference ID	Summary
<i>CSCts34993</i>	Internet Explorer (IE7) stopped working in TC4.2

Known limitations

TANDBERG

Reference ID	Equipment	Summary
CSCtr28274	Any	SIP signaling packets are not tagged with QoS.
CSCtr28267	TC4.X	OCS registration is broken in TC4.x
	TC4.x	If you downgrade from TC4.x.x to any software less than TC4.0.0 and have set the IP stack to IPv6, the system will be unusable. The stack will still think it should do IPv6 even though there is no place to configure this in pre TC4.0.0 code. The workaround will be to factory reset the system. Even if the system does not report any IP address, it will still have an IPv4 address. If you can't get hold of this address, you will have to use RS-232 to restore the unit or the procedure of using the power button (for C20, EX60 and EX90).
CSCtr32417	TC4.x	Dual stack for IPv4/IPv6 does not work as intended. If you set the device to IPv6, you will not be able to reach any service by using an IPv4 address. This will be addressed in an upcoming release.
CSCtr32389	TC4.0 and above	The composite output will display black frames when displaying more than two windows. It will set up the black borders but you will not see any video.
N/A	TC4.1.0	The Cisco TelePresence Touch screen does not support up loadable layout families. Hence you should not use the Cisco TC Console to upload layouts to a system with the Cisco Touch screen attached.
N/A	Cisco TelePresence Touch TC4.1.0/TT2.1.0	The Cisco TelePresence Touch must be connected to the same subnet as the codec it is pairing to.
N/A	Cisco TelePresence Touch TC4.1.0/TT2.1.0	The Cisco TelePresence Touch currently do not support: <ul style="list-style-type: none"> • Changing the main source
N/A	TMS 12.6 or below when upgrading to TC4.0.0 and above	Starting with TC4.0, the security model used by the system changes which impacts compatibility with existing installations of TMS. The incompatibilities will result in: <ol style="list-style-type: none"> 1) Upgrading endpoints from a version less than TC4.0 to a version TC4.0 or higher using existing versions of TMS (12.x or lower) will appear to have failed in TMS. Additionally, the endpoint will not get the required release key updated, so the endpoint will not be able to make calls until a release key has been entered into the system. 2) After an endpoint is upgraded to TC4.0 or newer, the system will have an incorrect username or password error message in TMS and TMS will not be able to communicate with it properly.

		<p>A workaround to restore communication with TMS will be:</p> <p>1) Restart the TMS server, or</p> <p>2) Restart the TMS services, following the below steps:</p> <p>* Log into the windows console of the TMS server as a user with Windows Administrative permissions</p> <p>* Open the Services Control Panel (Control Panel->Administrative Tools->Services)</p> <p>* For each service in the list below, select the service from the Services list, and use the restart icon or right-click->restart to restart the service</p> <ul style="list-style-type: none"> - World Wide Web Publishing Service - TMSDatabaseScannerService - TMSLiveService - TMSSchedulerService - TMSNMPSERVICE <p>* Log into the TMS Web Interface, browse to the system and do a 'Force Refresh'. TMS should communicate to the system properly and the error message will clear.</p> <p>* To minimize service abruption it will be beneficial to upgrade all systems in one go, avoiding following the above procedure for every endpoints you upgrade. A future TMS version will resolve this condition negating the need to restart the services.</p> <p>Workaround to restore the release keys:</p> <p>* Once TMS has restored communication with the systems, upgrade the units one more time. This time TMS will be able to communicate with the systems when they boot up and set the release keys.</p> <p>Note: Please read the resolved caveats section Reference ID 85930 as well.</p> <p>Note: The above issues are fixed for TMS 13.0</p>
CSCtr32348	TANDBERG 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	Ver. TC2.1.0 and above	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.
CSCtr32344	Ver. TC2.1.0 and above.	Composite and S-Video video input is shaking. However some improvements have been made within TC2.0.
N/A	Ver. Any	If you run cascaded cameras and the chained cameras are running an old camera code, we have seen that only zoom 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	Ver. Any	HD-SDI may not work with cables shorter than 3 meters. This is due to a jitter issue.
N/A	Ver. 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	1920*1200p60 output resolution will run in DVI compatibility mode and hence audio cannot be transmitted over HDMI when using this resolution.
CSCtr32423	Ver. TC3.x and above	If you dial a TANDBERG 150 with SW version L5.1.1 or older with encryption setting set to 'on', you may not get audio in any direction.
CSCts34924	TC3.0.0 and above	The call status on the web interface will not be displayed if you access the codec using HTTPS.
N/A	TC3.0.0 and above	The Cisco TelePresence System codec C40/C60 (rev. 1), will not provide proper analogue VGA output for any resolution of 1080 lines or more.
N/A	Any	The Cisco TelePresence System codec C40 will reduce its capability set when using internal MultiSite. When this is done, the main stream will maximum be able to transmit w576p until all calls are disconnected.
N/A	Any	The Cisco TelePresence System codec C60 will reduce its capability set when using internal MultiSite. When this is done, the dual stream will maximum be able to transmit WXGA until all calls are disconnected.
N/A	Any	The Cisco TelePresence System EX60/90 does not support usage of the remote control. The Cisco TelePresence Touch Screen must be used to control these devices.
CSCtr32298	TC4	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.

Polycom

Reference ID	Equipment	Summary
<i>Polycom MGC</i>	9.0.3.1	<p>60 frames per second was disabled during the testing (Advanced Configuration/Video/Input/Source/Optimal Definition/Threshold60fps = Never).</p> <p>MGC conference is set to continuous presence, AES and H.239:</p> <p>Far End Camera Control is not working.</p> <p>Call rates down to 256kbps works fine. 256kbps and lower will experience loss of video.</p> <p>MGC conference set to voice switched, AES and H.239:</p> <p>Following conference rates does not work: 1.1Mbps</p> <p>MGC conference is set to continuous presence, no AES and H.239:</p> <p>H.239 does not work very well with the MGC. A lot of issues were seen when testing H.239.</p>
N/A	C Series Ver. TC2.1.0 (No Video Polycom VSX Ver. 9.0.5)	Currently if the video source 1 (PrecisionHD 1080p camera) is set to sharpness then the Polycom VSX will not display video as the TANDBERG codec will transmit w448p, which is not supported by the VSX. Workaround: Set PrecisionHD 1080p camera to motion.
N/A	C Series Ver. TC2.1.0 (No Video Polycom VSX Ver. 8.0 & 8.5)	The Polycom VSX may display distorted video from the TANDBERG codec. Workaround: Upgrade the Polycom VSX to software version 8.7 or higher.

RadVision

Reference ID	Equipment	Summary
<i>RadVision Scoopia 400 MCU</i>	5.7.1.0.13	If a Cisco TelePresence System C20 is connected to a 1080p conference and starts presentation, the C20 will not display incoming video.

Open caveats

Reference ID	Summary
<i>CSCtr32386</i>	ClearPath: H.323 down speeding of the presentation channel (H.239) is not disabled when using ClearPath.
<i>CSCtr28267</i>	Microsoft OCS registration is broken in TC4.x.x
<i>CSCtr32410</i>	The Cisco TelePresence System codec C40 is unable to automatically detect a Digital Natural Audio Module (DNAM) in software versions previous to TC4. This will cause the codec to output analog audio instead of SPDIF (digital). If connected to a DNAM for software versions previous to TC4 it is recommended to set the audio output to SPDIF manually.
<i>CSCtr32420</i>	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'
<i>CSCtr32331</i>	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.
<i>CSCtr47744</i>	Web snapshot is available in the web interface of the EX90 and EX60 even though these units do not support this functionality.
<i>CSCts34957</i>	Far End Camera Control does not work from TANDBERG MXP or Cisco Telepresence Movi towards Cisco Telepresence MX200 and Cisco Telepresence EX-Series.
N/A	If the 'admin' user is deleted, then TMS will not be able to manage the system. At the same time the 'admin' user will be recreated with blank password during next reboot if not other user with admin access exist.
N/A	xFeedback register Event/KeyDown will now mask 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.

Introduction software version TC4.2.0

This release note describes the features and capabilities included in the Cisco TelePresence System Codec C Series, EX Series and MX200 software version TC4.2.0 released on 21th of July 2011.

Note: Please read the known limitations section if you use TMS to upgrade your system from any release prior to TC4.0.0

New features and functionality in TC4.2.0

- ▶ Support for Cisco TelePresence MX200
- ▶ New software release for Cisco TelePresence PrecisionHD 1080p Camera
- ▶ New features accessible from Touch UI
- ▶ New look and feel on the web interface
- ▶ Continuous auto focus for EX60/90
- ▶ Support for CEC (Consumer Electronics Control)
- ▶ Support for unmute when not in conference
- ▶ Support for VCS clustering
- ▶ 50 Hz output
- ▶ Increased video capabilities for CTS C20 when menus are disabled
- ▶ Manual configuration of the RTP ports
- ▶ Support for MS-CHAPv2 when authenticating using 802.1x
- ▶ New API xCommands
- ▶ Changed API xCommands
- ▶ Removed API xCommands
- ▶ New API xConfigurations
- ▶ Changed API xConfigurations
- ▶ Removed API xConfigurations
- ▶ Added API xStatus
- ▶ Removed API xStatus

Support for Cisco TelePresence MX200

The TC4.2.0 release introduces support for the new Cisco TelePresence MX200.

Cisco TelePresence MX200 is the first truly integrated video endpoint for the meeting room, with a look that everyone wants and can afford, and designed with qualities to make it as easy to use and install as a phone for everyone, every time.



Note: Cisco TelePresence MX200 requires software version TC4.2.0 or later.

New software release for Cisco TelePresence PrecisionHD Camera

With the TC4.2.0 release, the PrecisionHD 1080p camera will automatically be upgraded to camera software release ID40069. Included in this release is:

- ▶ Improvements to auto focus
- ▶ Improvement to hot pixel correction
- ▶ Improvements with the automatic white balance.
- ▶ EDID information is now only used when camera is set in auto mode. Previously auto would still be used when the dipperswitches was set.

New features accessible from Touch UI

- ▶ Support for MultiWay conference
- ▶ Support for standby (MX200 and C-Series only)
- ▶ Support for restart
- ▶ Support for factory defaulting the system
- ▶ Support for camera presets for pan, tilt and zoom cameras.
- ▶ Support for configuring VLAN settings and IPv6.
- ▶ Support for configuring DNS server in the IP Settings menu.
- ▶ Support for DVI/HDMI status on the system information page

New look and feel of the web interface

The web interface has a new look and feel. The new and intuitive navigation helps you find what you need quickly. No features have been added or removed. See the TC4.2 versions of the administrator guides for a description of the web interface. Go to: <http://www.cisco.com/go/telepresence/docs>

Continuous auto focus for EX60

The EX60 can now be configured to use continuous auto focus. See the 'New xConfigurations' section for further details.

Support for CEC (Consumer Electronics Control)

The HDMI outputs now support Consumer Electronics Control (CEC). When set to on (default is off), and the monitor connected to the HDMI output is CEC compatible and CEC is configured, the system will use CEC to set the monitor in standby when the system enters standby. Likewise the system will wake up the monitor when the system wakes up from standby. Please note that the different manufacturers uses different marketing names for CEC: Anynet+ (Samsung); Aquos Link (Sharp); BRAVIA Sync (Sony); HDMI-CEC (Hitachi); Kuro Link (Pioneer); CE-Link and Regza Link (Toshiba); RIHD (Remote Interactive over HDMI) (Onkyo); SimpLink (LG); HDAVI Control, EZ-Sync, VIERA Link (Panasonic); EasyLink (Philips); and NetCommand for HDMI (Mitsubishi).

Support for unmute when not in conference

The codecs can now be configured to always be unmuted when not in a conference. Once configured, pressing the mute button will not have any effect if you are not in a conference. This feature must be configured using the API. See the 'New API xConfigurations' section for further details.

Support for VCS clustering

The system can now retrieve a list of SIP registrars and/or H.323 gatekeepers by configuring the unit with the fully qualified domain name of the registrar/gatekeeper. Both NAPTR and SRV records are

supported in addition to A-records using DNS. This will allow the unit to retrieve a list of up to 20 registrars/gatekeepers and try to register to them in order. If the first one is full, unavailable or does not answer the registration request, the unit will try to register to the next one in the list until a successful registration is made.

50Hz output

The video output will now support the following 50Hz formats: 1080p50 and 720p50.

Note: It is still recommended to use 60Hz as the video output frequency as the video chain is optimized for this and will provide the best video quality.

Increased video capabilities for Codec C20 when menus are disabled

Support for 1080p30/720p60 in the mainstream when using presentation if the menus (OSD) are disabled. Typically this can be done if the system is used together with an external control system (like Cisco Touch). You can disable the OSD by executing the API command: 'xConfiguration Video OSD Mode: Disabled' or from the GUI using the remote control. Changing this setting will require a reboot.

Manual configuration of the RTP ports.

The RTP (Realtime Transfer Protocol) port range can now be manually configured. See the 'New xConfigurations' section for further details.

Support for MS-CHAPv2 when authenticating using 802.1x

Added support for MS-CHAPv2 for inner authentication when using 802.1x

New API xCommands

The commands in this section will be documented in the TANDBERG API Guide available for download at <http://developer.tandberg.com>

- ▶ xCommand CallLog Missed
 - Added argument 'Dismiss'
- ▶ xCommand Audio LocalOutput/UpdateInputGain (C40/C60)
- ▶ xCommand Audio RemoteOutput UpdateInputGain (C40/C60)
- ▶ xCommand Call
 - Added arguments 'Hold', 'Join' and 'Resume' for the EX60/EX90

Changed API xCommands

The commands in this section will be documented in the TANDBERG API Guide available for download at <http://developer.tandberg.com>

- ▶ xCommand Dial
 - Added arguments 'BookingID' and 'Role'
- ▶ xCommand HttpFeedback Deregister
 - Added argument 'FeedbackSlot'
- ▶ xCommand HttpFeedback Register
 - Added argument 'FeedbackSlot'
- ▶ xCommand Message
 - Added argument 'Prompt Response'

- ▶ xCommand Phonebook Contact Add
 - Added argument 'ShowInBuddyList'
- ▶ xCommand Phonebook Contact Modify
 - Added argument 'ShowInBuddyList'
- ▶ xCommand Phonebook Search
 - Added argument 'Recursive'
- ▶ xCommand SStringSend Message
 - The argument 'CallId' is now a string supporting up to 255 characters.

Removed API xCommands

- ▶ xCommand CallLog Missed Reviewed

New API xConfigurations

The commands in this section will be documented in the TANDBERG API Guide available for download at <http://developer.tandberg.com>

- ▶ xConfiguration Audio Microphones Mute
 - Added argument 'InCallOnly'
- ▶ xConfiguration NetworkServices
 - Added argument 'MultiWay' for EX60 and EX90
 - Added argument 'OCSP'
- ▶ xConfiguration RTP Ports Range Start
- ▶ xConfiguration RTP Ports Range Stop
- ▶ xConfiguration Security Session ShowLastLogon
- ▶ xConfiguration SIP Profile DisplayName
- ▶ xConfiguration SystemUnit Type
- ▶ xConfiguration Video Output HDMI CEC Mode (not EX60)
- ▶ xConfiguration Video OSD AutoSelectPresentationSource

Changed API xConfigurations

The commands in this section will be documented in the TANDBERG API Guide available for download at <http://developer.tandberg.com>

The Advanced Configuration on the OSD menu reflects the same changes as described in the xConfiguration API. The OSD menus differ between the different products.

- ▶ xConfiguration Audio Input Microphone Equalizer
- ▶ xConfiguration Cameras Camera Focus
 - Added parameter 'ContinuousAuto' for EX60
- ▶ xConfiguration Network
 - VLAN Data Mode
 - VLAN Data VlanID
 - MTU
 - NTP Mode

- ▶ xConfiguration Provisioning Mode
 - Added parameter 'Auto'
- ▶ xConfiguration Video OSD Mode
 - Added argument 'Disabled' for the C20.
- ▶ xConfiguration Video Output HDMI Resolution
 - Added arguments '1280_720p50' and '1920_1080p50'
- ▶ xConfiguration Video Output DVI Resolution
 - Added arguments '1280_720p50' and '1920_1080p50'

New API xStatus

The commands in this section will be documented in the TANDBERG API Guide available for download at <http://developer.tandberg.com>

- ▶ xStatus HttpFeedback 4
- ▶ xStatus Provisioning Software
- ▶ xStatus HttpFeedback 4
- ▶ xStatus Provisioning Software
- ▶ xStatus Video Input LastConnectedSource
- ▶ xStatus Video Input Source Resolution
 - Added arguments 'FormatType', 'FormatStatus' and 'FormatType'
- ▶ xStatus MediaChannels Call
 - Will now return Local and Remote IP Address and port for all RTP and RTCP packets.

Removed API xStatus

- ▶ xStatus Provisioning PendingUpgrade

Resolved caveats

Resolved since version TC4.1.2

Audio

Reference ID	Summary
85847/CSCtr25432	Corrected an issue when entering DTMF tones causing the tones to sometimes not be heard locally.
114281/CSCts34945	RFC2833 out of band DTMF tones will now have a marker bit in the beginning of each event to become compliant. This will address the issue of not being able to pass RFC2833 DTMF tones through a Cisco ISDN GateWay.

Video

Reference ID	Summary
85686/CSCts34900	Corrected the selfview behavior when entering and leaving document camera view on the EX60/EX90. Now the system will remember the state of the selfview i.e. if self view is set to on, entering and leaving document camera view will not turn off the self view.
87563/CSCtr25551	Fixed a problem decoding H.263+ from the TANDBERG MPS GateWay and the old TANDBERG Classic video systems.
84716/CSCtr25502	Fixed an issue that could get the system to reboot when using compositing with duplicated sources at the same location, but with different depth.
88217/CSCtr32279	Fixed an issue causing the C40 to be limited to w576p in point to point calls when using the API to accept the call without specifying the CallId.
84654/CSCtr32351	The system will now use proper pacing to avoid large bursts, which for some networks would cause packet loss.
113915/CSCts34942	Increased the encoder and decoder buffer size for H.263. This will prevent an unexpected restart when using dual stream.

Web

Reference ID	Summary
87917/CSCts34921	Fixed an issue causing the details of the call apps page to collapse when expanded.
81660/CSCtr25569	Fixed an issue causing the unit to dial at 256kbps if you choose the bandwidth 1024 when dialing from the web interface.
86065/CSCtr25541	When changing password in the web user interface with illegal characters the active user will no longer be set to inactive.
86225/CSCtr25546	Removed the restriction of not supporting special characters when entering the password on the web interface.
86213/CSCtr25528	Reduced the HTTP(s) response delay.
84816/CSCtr25523	Fixed broken support for double byte characters in the web interface.
114401/CSCts34948	Fixed an issue causing units coming back for repair or brand new systems to not be able to generate a self signed certificate if the system name was not configured. This would cause HTTPS connections to fail.

System

Reference ID	Summary
86982/CSCts34896	Fixed an issue causing the directory to not be shown when accessed from a non admin user.
89291/CSCts34912	Fixed an issue causing the IP address to not change when choosing a different configuration profile.

Protocol

Reference ID	Summary
88286/CSCts34927	Fixed an issue causing the calls to fail when dialing a TANDBERG MPS personal conference with encryption set to off, when encryption on the C-Series endpoint is set to 'Best Effort'.
89179/CSCto48146	Fixed an issue causing the unit to reboot if configured for NAT without any IP configured.
86997/CSCtr25588	Fixed an issue causing the Display Name to not be displayed for incoming calls or stored in the missed call list.
87370/CSCtr25576	Fixed an issue causing the system to not respond to a 407 proxy authentication required message sent from a Huawei SIP PBX.
84734/CSCtr25515	Fixed an issue causing the SIP registration to fail sometimes after reboot and when upgrading from TC3.x.
79091/CSCtr47739	Fixed an issue with DNS and round robin causing the unit to disconnect a call when the DNS TTL expired and a new DNS lookup provided a shuffled list of gatekeepers causing the unit to register to a different gatekeeper.
76765/CSCtr32399	It is now possible to dial using the format name@domain or name@IPAddress without being registered to a gatekeeper.
89366/CSCts34939	Enabled WXGA (1280*768) support for H.263 when using SIP.

GUI

Reference ID	Summary
81740/CSCts34904	Corrected the behavior of the GUI only showing the encryption status of the last connected call. It will now display the status for the entire conference, so if one participant is unencrypted the entire conference will be flagged as unencrypted.
78937/CSCtr25572	Fixed an issue with the Cisco Touch where changing the IP address of the IP gateway could revert back to the old address.
88020/CSCts34890	Cisco Touch will no longer override the call rate provided by the Corporate Directory with the default call rate set on the Touch.
83816/CSCtr25506	Improved the responsiveness of the GUI
83933/CSCtr25435	Fixed an issue that was causing the directory to give duplicated entries when a subfolder existed within a folder.
85466/CSCtr25466	Fixed Japanese wallpaper translation under layout control.
115887/CSCtr68350	Fixed an issue causing the Cisco Touch mic off and volume bar to become unresponsive if DNS response time is more than 5 seconds.
78561/CSCtr28238	TMS messages will now be shown and responded to by the Cisco Touch for systems with such a device connected.
78304/CSCtr28248	Fixed an issue causing the Cisco Touch to display the old IP address when changing the static IP address.

114176/CSCtq16038	Fixed an issue with the Cisco Touch where selfview would be displayed as a PIP if the layout family were set to equal.
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API

Reference ID	Summary
89602/CSCtq42908	xConfiguration Conference 1 IncomingMultiSiteCall Mode: Deny is now available for systems without MultiSite installed. This makes it possible to configure these systems to not receive notification of incoming calls when already in a call.
84157/CSCtr28248	The API command: 'xConfiguration Video Layout ScaleToFrameThreshold', will now remember its value after reboot.
82535/CSCtr32403	The API command 'systemtools rootsettings get' will now return the correct status. Previously it always returned 'off'
85632/CSCtr25462	xConfiguration Cameras Camera DHCP was missing from the CTS C40.

Camera

Reference ID	Summary
87474/CSCtr25427	Fixed an issue detecting cameras connected in a chain when 5 or more cameras are connected.
114717/CSCtr25582	Fixed an issue causing the camera to be unstable for scenes with extreme high-frequency content. When this happened the video output of the camera became black for a few seconds.

Known limitations

TANDBERG

Reference ID	Equipment	Summary
86208/CSCtr28274	Any	SIP signaling packets are not tagged with QoS.
87376/CSCtr28267	TC4.X	OCS registration is broken in TC4.x
	TC4.x	If you downgrade from TC4.x.x to any software less than TC4.0.0 and have set the IP stack to IPv6, the system will be unusable. The stack will still think it should do IPv6 even though there is no place to configure this in pre TC4.0.0 code. The workaround will be to factory reset the system. Even if the system does not report any IP address, it will still have an IPv4 address. If you can't get hold of this address, you will have to use RS-232 to restore the unit or the procedure of using the power button (for C20, EX60 and EX90).
89393/CSCtr32417	TC4.x	Dual stack for IPv4/IPv6 does not work as intended. If you set the device to IPv6, you will not be able to reach any service by using an IPv4 address. This will be addressed in an upcoming release.
87026/CSCtr32389	TC4.0 and above	The composite output will display black frames when displaying more than two windows. It will set up the black borders but you will not see any video.
N/A	TC4.1.0	The Cisco TelePresence Touch screen does not support up loadable layout families. Hence you should not use the Cisco TC Console to upload layouts to a system with the Cisco Touch screen attached.
N/A	Cisco TelePresence Touch TC4.1.0/TT2.1.0	The Cisco TelePresence Touch must be connected to the same subnet as the codec it is pairing to.
N/A	Cisco TelePresence Touch TC4.1.0/TT2.1.0	The Cisco TelePresence Touch currently do not support: <ul style="list-style-type: none"> Changing the main source
N/A	TMS 12.6 or below when upgrading to TC4.0.0 and above	Starting with TC4.0, the security model used by the system changes which impacts compatibility with existing installations of TMS. The incompatibilities will result in: <ol style="list-style-type: none"> Upgrading endpoints from a version less than TC4.0 to a version TC4.0 or higher using existing versions of TMS (12.x or lower) will appear to have failed in TMS. Additionally, the endpoint will not get the required release key updated, so the endpoint will not be able to make calls until a release key has been entered into the system. After an endpoint is upgraded to TC4.0 or newer, the system will have an incorrect username or password error message in TMS and TMS will not be able to communicate with it properly.

		<p>A workaround to restore communication with TMS will be:</p> <p>1) Restart the TMS server, or</p> <p>2) Restart the TMS services, following the below steps:</p> <p>* Log into the windows console of the TMS server as a user with Windows Administrative permissions</p> <p>* Open the Services Control Panel (Control Panel->Administrative Tools->Services)</p> <p>* For each service in the list below, select the service from the Services list, and use the restart icon or right-click->restart to restart the service</p> <ul style="list-style-type: none"> - World Wide Web Publishing Service - TMSDatabaseScannerService - TMSLiveService - TMSSchedulerService - TMSNMPSERVICE <p>* Log into the TMS Web Interface, browse to the system and do a 'Force Refresh'. TMS should communicate to the system properly and the error message will clear.</p> <p>* To minimize service abruption it will be beneficial to upgrade all systems in one go, avoiding following the above procedure for every endpoints you upgrade. A future TMS version will resolve this condition negating the need to restart the services.</p> <p>Workaround to restore the release keys:</p> <p>* Once TMS has restored communication with the systems, upgrade the units one more time. This time TMS will be able to communicate with the systems when they boot up and set the release keys.</p> <p>Note: Please read the resolved caveats section Reference ID 85930 as well.</p> <p>Note: The above issues are fixed for TMS 13.0</p>
62204/CSCtr32348	TANDBERG 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	Ver. TC2.1.0 and above	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.
67092/CSCtr32344	Ver. TC2.1.0 and above.	Composite and S-Video video input is shaking. However some improvements have been made within TC2.0.
N/A	Ver. Any	If you run cascaded cameras and the chained cameras are running an old camera code, we have seen that only zoom 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	Ver. Any	HD-SDI may not work with cables shorter than 3 meters. This is due to a jitter issue.
N/A	Ver.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	1920*1200p60 output resolution will run in DVI compatibility mode and hence audio cannot be transmitted over HDMI when using this resolution.
75341/CSCtr32423	Ver. TC3.x and above	If you dial a TANDBERG 150 with SW version L5.1.1 or older with encryption setting set to 'on', you may not get audio in any direction.
82627	TC3.0.0 and above	The call status on the web interface will not be displayed if you access the codec using HTTPS.
N/A	TC3.0.0 and above	The Cisco TelePresence System codec C40/C60 (rev. 1), will not provide proper analogue VGA output for any resolution of 1080 lines or more.
N/A	Any	The Cisco TelePresence System codec C40 will reduce its capability set when using internal MultiSite. When this is done, the main stream will maximum be able to transmit w576p until all calls are disconnected.
N/A	Any	The Cisco TelePresence System codec C60 will reduce its capability set when using internal MultiSite. When this is done, the dual stream will maximum be able to transmit WXGA until all calls are disconnected.
N/A	Any	The Cisco TelePresence System EX60/90 does not support usage of the remote control. The Cisco TelePresence Touch Screen must be used to control these devices.
83992/CSCtr32298	TC4	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.

Polycom

Reference ID	Equipment	Summary
<i>Polycom MGC</i>	9.0.3.1	<p>60 frames per second was disabled during the testing (Advanced Configuration/Video/Input/Source/Optimal Definition/Threshold60fps = Never).</p> <p>MGC conference is set to continuous presence, AES and H.239:</p> <p>Far End Camera Control is not working.</p> <p>Call rates down to 256kbps works fine. 256kbps and lower will experience loss of video.</p> <p>MGC conference set to voice switched, AES and H.239:</p> <p>Following conference rates does not work: 1.1Mbps</p> <p>MGC conference is set to continuous presence, no AES and H.239:</p> <p>H.239 does not work very well with the MGC. A lot of issues were seen when testing H.239.</p>
N/A	C Series Ver. TC2.1.0 (No Video Polycom VSX Ver. 9.0.5)	Currently if the video source 1 (PrecisionHD 1080p camera) is set to sharpness then the Polycom VSX will not display video as the TANDBERG codec will transmit w448p, which is not supported by the VSX. Workaround: Set PrecisionHD 1080p camera to motion.
N/A	C Series Ver. TC2.1.0 (No Video Polycom VSX Ver. 8.0 & 8.5)	The Polycom VSX may display distorted video from the TANDBERG codec. Workaround: Upgrade the Polycom VSX to software version 8.7 or higher.

RadVision

Reference ID	Equipment	Summary
<i>RadVision Scoopia 400 MCU</i>	5.7.1.0.13	If a Cisco TelePresence System C20 is connected to a 1080p conference and starts presentation, the C20 will not display incoming video.

Open caveats

Reference ID	Summary
88976/CSCtr32386	ClearPath: H.323 down speeding of the presentation channel (H.239) is not disabled when using ClearPath.
87376/CSCtr28267	Microsoft OCS registration is broken in TC4.x.x
81993/CSCtr32410	The Cisco TelePresence System codec C40 is unable to automatically detect a Digital Natural Audio Module (DNAM) in software versions previous to TC4. This will cause the codec to output analog audio instead of SPDIF (digital). If connected to a DNAM for software versions previous to TC4 it is recommended to set the audio output to SPDIF manually.
83374/CSCtr32420	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'
84314/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.
84032/CSCtr47744	Web snapshot is available in the web interface of the EX90 and EX60 even though these units do not support this functionality.
116925/CSCts34957	Far End Camera Control does not work from TANDBERG MXP or Cisco Telepresence Movi towards Cisco Telepresence MX200 and Cisco Telepresence EX-Series.
N/A	If the 'admin' user is deleted, then TMS will not be able to manage the system. At the same time the 'admin' user will be recreated with blank password during next reboot if not other user with admin access exist.
N/A	xFeedback register Event/KeyDown will now mask 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.

Interoperability

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

H.323 gatekeepers/traversal servers

Equipment	Software revision	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)	X5.2, X6.1	Both Assent and H.460.18/.19 traversal technologies are supported

SIP registrars/proxies

Equipment	Software revision	Comments
Cisco TelePresence System Video Communication Server (VCS)	X5.2, X6.1	

Gateway interoperability

Equipment	Software revision	Comments
TANDBERG MPS Gateway	J4.6	
TANDBERG Gateway	G3.2	
Cisco ISDN GW 3241	2.1	
RadVision Gateway B40	5.6.0.0.4	

MCU interoperability

Equipment	Software revision	Comments
TANDBERG MPS	J4.5	
TANDBERG MCU	D3.10	
Cisco MCU 4210	4.1, 4.2	
Cisco MCU 4520	4.1, 4.2	

RadVision Scopia Elite	7.5.0.18.6	
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Streaming servers

Equipment	Software revision	Comments
Cisco Telepresence System Content Server	S4.1, S5.1	

Endpoint Interoperability

Equipment	Software revision	Protocol	Comments
Cisco TelePresence System MXP	F8.3, F9.1	H.323/SIP	
TANDBERG Personal Series	L5.1, L6.1	H.323	
Cisco IP Video Phone E20	TE2.2.1, TE4.0	SIP	
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 transfer does not work.
LifeSize Express	LS_EX1_4.7.18 (48)	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	Far End Camera Control (FECC) does not work on H.323 or SIP. SIP 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. No video on both endpoints when dialing at 64kbps.
Sony PCS- XG80	2.31.00	H.323/SIP	SIP Far End Camera Control does not work. SIP encrypted calls does not work. SIP transfer does not work. Sony is unable to start presentation (BFCP).
Polycom VSX 7000	9.0.5.2	H.323/SIP	At low video rate and with main video set to sharpness the VSX will not display any video. SIP transfer does not work.
Polycom	3.0.1-10628	H.323/SIP	Far End Camera Control over H323/SIP

HDX 8000 HD			does not work. Presentation (BFCP) does not work for SIP calls. SIP Transfer does not work.
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Introduction software version TC4.1.2

This release note describes the features and capabilities included in the Cisco TelePresence System C-Series codec software version TC4.1.2 released on 17th of June 2011.

Note: Please read the known limitations section if you use TMS to upgrade your system from any release prior to TC4.0.0

Resolved caveats

Resolved since version TC4.1.1

Cisco Touch

Reference ID	Summary
114755	Fixed an issue that could cause the Cisco Touch to become extremely sluggish after several hundred calls. This is especially seen when doing sideways transitions.

Video

Reference ID	Summary
114087/ CSCtq61047	Fixed an issue with the HDMI transmitter causing the HDMI output to go black for short periods of time. The black out issue could in some units happen as often as every 30 seconds, but on other affected codec's hardly be seen at all. When this happened the monitor connected would go black and you would not be able to see any image at all from the codec.

Known limitations

TANDBERG

Reference ID	Equipment	Summary
	TC4.x	If you downgrade from TC4.x.x to any software less than TC4.0.0 and have set the IP stack to IPv6, the system will be unusable. The stack will still think it should do IPv6 even though there is no place to configure this in pre TC4.0.0 code. The workaround will be to factory reset the system. Even if the system does not report any IP address, it will still have an IPv4 address. If you can't get hold of this address, you will have to use RS-232 to restore the unit or the procedure of using the power button (for C20, EX60 and EX90).
114401	TC4.x	Brand new systems or systems coming back from repair cannot be managed by using HTTPS direct out of the box. The self-signed SSL certificate will not be generated during boot up when no host name is present. The workaround is to configure the system with a host name and reboot the system. This can be done by using the menu (GUI) or by executing the API command: 'xConfiguration SystemUnit Name: <hostname>.
89393	TC4.x	Dual stack for IPv4/IPv6 does not work as intended. If you set the device to IPv6, you will not be able to reach any service by using an IPv4 address. This will be addressed in an upcoming release.
87026	TC4.0 and above	The composite output will display black frames when displaying more than two windows. It will set up the black borders but you will not see any video.
88217	TC4.0 and above	Incoming calls only achieve w576p whilst outgoing calls achieve 720p. This happens if you accept the call using the API command: "xCommand Call Accept". Typically this will be the fact when controlling the system from a Touch Interface such as Crestron or AMX. The workaround will be to accept the call using the CallID parameter. If the incoming call has CallID 7, you can accept the call this way: xcommand call accept callid: 7. You can get the CallID by subscribing to feedback for call status like this: xFeedback Register /Status/Call
86225, 85361,	TC4.0.0 and above	The web interface does not support the following Unicode characters as a part of the admin password: “ ~ ! # \$ % ^ & * () [{ }] \ ‘ “ < > ?” The following special characters are supported: “@ - _ = + ; : , . /”.
	TC4.1.0	The Cisco TelePresence Touch screen does not support up-loadable layout families. Hence you should not use the Cisco TC Console to upload layouts to a system with the Cisco

		Touch screen attached.
	TC4.1.0	Provisioning: If you use VCS provisioning in TC4.1.1 you will be unable to upgrade the endpoint using provisioning until TC5 is released. The workaround will be to upgrade the unit manually.
	Cisco TelePresence Touch TC4.1.0/TT2.1.0	The Cisco TelePresence Touch is currently missing the ability to display messages from TMS.
	Cisco TelePresence Touch TC4.1.0/TT2.1.0	The Cisco TelePresence Touch must be connected to the same subnet as the codec it is pairing to.
	Cisco TelePresence Touch TC4.1.0/TT2.1.0	The Cisco TelePresence Touch currently do not support: <ul style="list-style-type: none"> • Camera presets • Changing the main source
	TMS 12.6 or below when upgrading to TC4.0.0 and above	<p>Starting with TC4.0, the security model used by the system changes which impacts compatibility with existing installations of TMS. The incompatibilities will result in:</p> <p>1) Upgrading endpoints from a version less than TC4.0 to a version TC4.0 or higher using existing versions of TMS (12.x or lower) will appear to have failed in TMS. Additionally, the endpoint will not get the required release key updated, so the endpoint will not be able to make calls until a release key has been entered into the system.</p> <p>2) After an endpoint is upgraded to TC4.0 or newer, the system will have an incorrect username or password error message in TMS and TMS will not be able to communicate with it properly.</p> <p>A workaround to restore communication with TMS will be:</p> <p>1) Restart the TMS server, or</p> <p>2) Restart the TMS services, following the below steps:</p> <p>* Log into the windows console of the TMS server as a user with Windows Administrative permissions</p> <p>* Open the Services Control Panel (Control Panel->Administrative Tools->Services)</p> <p>* For each service in the list below, select the service from the Services list, and use the restart icon or right-click->restart to restart the service</p> <ul style="list-style-type: none"> - World Wide Web Publishing Service - TMSDatabaseScannerService - TMSLiveService - TMSSchedulerService - TMSNMPService

		<p>* Log into the TMS Web Interface, browse to the system and do a 'Force Refresh'. TMS should communicate to the system properly and the error message will clear.</p> <p>* To minimize service abruption it will be beneficial to upgrade all systems in one go, avoiding following the above procedure for every endpoints you upgrade. A future TMS version will resolve this condition negating the need to restart the services.</p> <p>Workaround to restore the releasekeys:</p> <p>* Once TMS has restored communication with the systems, upgrade the units one more time. This time TMS will be able to communicate with the systems when they boot up and set the releasekeys.</p> <p>Note: Please read the resolved caveats section Reference ID 85930 as well.</p> <p>Note: The above issues are fixed for TMS 13.0</p>
76765	Any	Dialing from an unregistered endpoint to a registered endpoint using the format: remotesystem@company.com will not work
62204	TANDBERG 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 TANDBERG codec will support these formats.
	Ver. TC2.1.0 and above	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.
67092	Ver. TC2.1.0 and above.	Composite and S-Video video input is shaking. However some improvements have been made within TC2.0.
	Ver. Any	If you run cascaded cameras and the chained cameras are running an old camera code, we have seen that only zoom 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.
	Ver. Any	HD-SDI may not work with cables shorter than 3 meters. This is due to a jitter issue.
	Ver.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.
66993	Ver. TC3.x and above	The C-series codecs will reduce the presentation resolution if you are unable to sustain a minimum of 1 frame per second.
	Any	1920*1200p60 output resolution will run in DVI compatibility mode and hence audio cannot be transmitted over HDMI when using this resolution.
75341	Ver. TC3.x and above	If you dial a TANDBERG 150 with SW version L5.1.1 or older with encryption setting set to 'on', you may not get audio in any direction.
75382	TC3.0.0 and above	The call tab on the web interface doesn't work properly with Opera. You can dial, but you will not get the call status.
82627	TC3.0.0 and above	The call status on the web interface will not be displayed if you access the codec using HTTPS.
75045	TC2.x.x and above	When setting the H.323 id to "number.something@domain", the endpoint becomes unreachable. The workaround is to not let H.323 ID start with a number.
	TC3.0.0 and above	The Cisco TelePresence System codec C40/C60 (rev. 1), will not provide proper analogue VGA output for any resolution of 1080 lines or more.
	Any	The Cisco TelePresence System codec C40 will reduce its capability set when using internal MultiSite. When this is done, the main stream will maximum be able to transmit w576p until all calls are disconnected.
	Any	The Cisco TelePresence System codec C60 will reduce its capability set when using internal MultiSite. When this is done, the dual stream will maximum be able to transmit WXGA until all calls are disconnected.
	Any	The Cisco TelePresence System EX60/90 does not support usage of the remote control. The Cisco TelePresence Touch Screen must be used to control these devices.
78636	TC4	A search in the local phonebook will list all contacts including those in the subfolders.
83992	TC4	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.

Polycom

Reference ID	Equipment	Summary
<i>Polycom MGC</i>	9.0.3.1	60 frames per second was disabled during the testing (Advanced Configuration/Video/Input/Source/Optimal Definition/Threshold60fps = Never).

		<p>MGC conference is set to continuous presence, AES and H.239:</p> <p>Far End Camera Control is not working. Call rates down to 256kbps works fine. 256kbps and lower will experience loss of video.</p> <p>MGC conference set to voice switched, AES and H.239:</p> <p>Following conference rates does not work: 1.1Mbps</p> <p>MGC conference is set to continuous presence, no AES and H.239:</p> <p>H.239 does not work very well with the MGC. A lot of issues was seen when testing H.239.</p>
64418	<p>C Series Ver. TC2.1.0 (No Video Polycom VSX Ver. 9.0.5)</p>	<p>Currently if the video source 1 (PrecisionHD 1080p camera) is set to sharpness then the Polycom VSX will not display video as the TANDBERG codec will transmit w448p, which is not supported by the VSX. Workaround: Set PrecisionHD 1080p camera to motion.</p>
N/A	<p>C Series Ver. TC2.1.0 (No Video Polycom VSX Ver. 8.0 & 8.5)</p>	<p>The Polycom VSX may display distorted video from the TANDBERG codec. Workaround: Upgrade the Polycom VSX to software version 8.7 or higher.</p>

RadVision

Reference ID	Equipment	Summary
<i>RadVision Scoopia 400 MCU</i>	5.7.1.0.13	If a Cisco TelePresence System C20 is connected to a 1080p conference and starts presentation, the C20 will not display incoming video.

Open caveats

Reference ID	Summary
88976	ClearPath: H.323 down speeding of the presentation channel (H.239) is not disabled when using ClearParh.
89291	The IP address is not changed upon reboot when a different configuration profile is selected.
87563	TC4.x.x software do not handle the H.263+ from the TANDBERG MPS GateWay, the image will never clear up. This problem can be seen when dialing from a TANDBERG MXP through ISDN into the MPS GateWay, which again connects to a C-series system with TC4.x software. The problem is not seen with TC3.x software.
87376	Microsoft OCS registration is broken in TC4.x.x
81993	The Cisco TelePresence System codec C40 is unable to automatically detect a Digital Natural Audio Module (DNAM) in software versions previous to TC4. This will cause the codec to output analog audio instead of SPDIF (digital). If connected to a DNAM for software versions previous to TC4 it is recommended to set the audio output to SPDIF manually.
83374	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'
84314	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.
84157	Rebooting the unit will always reset ScaleToFrameThreshold to default value.
84032	Web snapshot is available in the web interface of the EX90 and EX60 even though these units do not support this functionality.
83933	If any of the Corporate Directories contains any sub directories, the first 15 entries will be listed twice.
82631	Missing upgrade status when upgrading through web. You will not be able to see if the upgrade was successful or not when upgrading through the web interface.
82535	API command 'systemtools rootsettings get' return 'off' even if root is set to 'on'
81740	When in a MultiSite call, the encryption status symbol will only reflect the status of the last call.
	If the 'admin' user is deleted, then TMS will not be able to manage the system. At the same time the 'admin' user will be recreated with blank password during next reboot.
	xFeedback register Event/KeyDown will now mask 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.
84734	When upgrading from TC3.x.x it has been seen that the SIP registration becomes inactive. To resolve this issue toggle the 'SIP mode' to 'Off' and back to 'On' again.

Introduction software version TC4.1.1

This release note describes the features and capabilities included in the Cisco TelePresence System C-Series codec software version TC4.1.1 released on 16th of May 2011.

Note: Please read the known limitations section if you use TMS to upgrade your system from any release prior to TC4.0.0

Resolved caveats

Resolved since version TC4.1.0

Audio

Reference ID	Summary
84694	Fixed an issue with the G.722 audio decoder that could crash the audio subsystem. The symptom would be no audio until you reboot the system.

Web

Reference ID	Summary
	The document 'systemunit.xml' containing the system name and software version is now available outside of authentication. This is necessary for Cisco TMS to be able to manage systems located behind a NAT device.

Camera

Reference ID	Summary
86382	Fixed an issue with the focus motor for the EX90 that sometimes could lose some steps resulting in unsharp images until next sleep or reboot cycle.

Known limitations

TANDBERG

Reference ID	Equipment	Summary
	TC4.x	If you downgrade from TC4.x.x to any software less than TC4.0.0 and have set the IP stack to IPv6, the system will be unusable. The stack will still think it should do IPv6 even though there is no place to configure this in pre TC4.0.0 code. The workaround will be to factory reset the system. Even if the system does not report any IP address, it will still have an IPv4 address. If you can't get hold of this address, you will have to use RS-232 to restore the unit or the procedure of using the power button (for C20, EX60 and EX90).
114401	TC4.x	Brand new systems or systems coming back from repair cannot be managed by using HTTPS direct out of the box. The self-signed SSL certificate will not be generated during boot up when no host name is present. The workaround is to configure the system with a host name and reboot the system. This can be done by using the menu (GUI) or by executing the API command: 'xConfiguration SystemUnit Name: <hostname>.
89393	TC4.x	Dual stack for IPv4/IPv6 does not work as intended. If you set the device to IPv6, you will not be able to reach any service by using an IPv4 address. This will be addressed in an upcoming release.
87026	TC4.0 and above	The composite output will display black frames when displaying more than two windows. It will set up the black borders but you will not see any video.
88217	TC4.0 and above	Incoming calls only achieve w576p whilst outgoing calls achieve 720p. This happens if you accept the call using the API command: "xCommand Call Accept". Typically this will be the fact when controlling the system from a Touch Interface such as Crestron or AMX. The workaround will be to accept the call using the CallID parameter. If the incoming call has CallID 7, you can accept the call this way: xcommand call accept callid: 7. You can get the CallID by subscribing to feedback for call status like this: xFeedback Register /Status/Call
86225, 85361,	TC4.0.0 and above	The web interface does not support the following Unicode characters as a part of the admin password: “ ~ ! # \$ % ^ & * () [{ }] \ ‘ “ < > ?” The following special characters are supported: “@ - _ = + ; : , . /”.
	TC4.1.0	The Cisco TelePresence Touch screen does not support up-loadable layout families. Hence you should not use the Cisco TC Console to upload layouts to a system with the Cisco

		Touch screen attached.
	TC4.1.0	Provisioning: If you use VCS provisioning in TC4.1.1 you will be unable to upgrade the endpoint using provisioning until TC5 is released. The workaround will be to upgrade the unit manually.
	Cisco TelePresence Touch TC4.1.0/TT2.1.0	The Cisco TelePresence Touch is currently missing the ability to display messages from TMS.
	Cisco TelePresence Touch TC4.1.0/TT2.1.0	The Cisco TelePresence Touch must be connected to the same subnet as the codec it is pairing to.
	Cisco TelePresence Touch TC4.1.0/TT2.1.0	The Cisco TelePresence Touch currently do not support: <ul style="list-style-type: none"> • Camera presets • Changing the main source
	TMS 12.6 or below when upgrading to TC4.0.0 and above	<p>Starting with TC4.0, the security model used by the system changes which impacts compatibility with existing installations of TMS. The incompatibilities will result in:</p> <p>1) Upgrading endpoints from a version less than TC4.0 to a version TC4.0 or higher using existing versions of TMS (12.x or lower) will appear to have failed in TMS. Additionally, the endpoint will not get the required release key updated, so the endpoint will not be able to make calls until a release key has been entered into the system.</p> <p>2) After an endpoint is upgraded to TC4.0 or newer, the system will have an incorrect username or password error message in TMS and TMS will not be able to communicate with it properly.</p> <p>A workaround to restore communication with TMS will be:</p> <p>1) Restart the TMS server, or</p> <p>2) Restart the TMS services, following the below steps:</p> <p>* Log into the windows console of the TMS server as a user with Windows Administrative permissions</p> <p>* Open the Services Control Panel (Control Panel->Administrative Tools->Services)</p> <p>* For each service in the list below, select the service from the Services list, and use the restart icon or right-click->restart to restart the service</p> <ul style="list-style-type: none"> - World Wide Web Publishing Service - TMSDatabaseScannerService - TMSLiveService - TMSSchedulerService - TMSNMPService

		<p>* Log into the TMS Web Interface, browse to the system and do a 'Force Refresh'. TMS should communicate to the system properly and the error message will clear.</p> <p>* To minimize service abruption it will be beneficial to upgrade all systems in one go, avoiding following the above procedure for every endpoints you upgrade. A future TMS version will resolve this condition negating the need to restart the services.</p> <p>Workaround to restore the releasekeys:</p> <p>* Once TMS has restored communication with the systems, upgrade the units one more time. This time TMS will be able to communicate with the systems when they boot up and set the releasekeys.</p> <p>Note: Please read the resolved caveats section Reference ID 85930 as well.</p> <p>Note: The above issues are fixed for TMS 13.0</p>
76765	Any	Dialing from an unregistered endpoint to a registered endpoint using the format: remotesystem@company.com will not work
62204	TANDBERG 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 TANDBERG codec will support these formats.
	Ver. TC2.1.0 and above	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.
67092	Ver. TC2.1.0 and above.	Composite and S-Video video input is shaking. However some improvements have been made within TC2.0.
	Ver. Any	If you run cascaded cameras and the chained cameras are running an old camera code, we have seen that only zoom 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.
	Ver. Any	HD-SDI may not work with cables shorter than 3 meters. This is due to a jitter issue.
	Ver.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.
66993	Ver. TC3.x and above	The C-series codecs will reduce the presentation resolution if you are unable to sustain a minimum of 1 frame per second.
	Any	1920*1200p60 output resolution will run in DVI compatibility mode and hence audio cannot be transmitted over HDMI when using this resolution.
75341	Ver. TC3.x and above	If you dial a TANDBERG 150 with SW version L5.1.1 or older with encryption setting set to 'on', you may not get audio in any direction.
75382	TC3.0.0 and above	The call tab on the web interface doesn't work properly with Opera. You can dial, but you will not get the call status.
82627	TC3.0.0 and above	The call status on the web interface will not be displayed if you access the codec using HTTPS.
75045	TC2.x.x and above	When setting the H.323 id to "number.something@domain", the endpoint becomes unreachable. The workaround is to not let H.323 ID start with a number.
	TC3.0.0 and above	The Cisco TelePresence System codec C40/C60 (rev. 1), will not provide proper analogue VGA output for any resolution of 1080 lines or more.
	Any	The Cisco TelePresence System codec C40 will reduce its capability set when using internal MultiSite. When this is done, the main stream will maximum be able to transmit w576p until all calls are disconnected.
	Any	The Cisco TelePresence System codec C60 will reduce its capability set when using internal MultiSite. When this is done, the dual stream will maximum be able to transmit WXGA until all calls are disconnected.
	Any	The Cisco TelePresence System EX60/90 does not support usage of the remote control. The Cisco TelePresence Touch Screen must be used to control these devices.
78636	TC4	A search in the local phonebook will list all contacts including those in the subfolders.
83992	TC4	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.

Polycom

Reference ID	Equipment	Summary
<i>Polycom MGC</i>	9.0.3.1	60 frames per second was disabled during the testing (Advanced Configuration/Video/Input/Source/Optimal Definition/Threshold60fps = Never).

		<p>MGC conference is set to continuous presence, AES and H.239:</p> <p>Far End Camera Control is not working. Call rates down to 256kbps works fine. 256kbps and lower will experience loss of video.</p> <p>MGC conference set to voice switched, AES and H.239:</p> <p>Following conference rates does not work: 1.1Mbps</p> <p>MGC conference is set to continuous presence, no AES and H.239:</p> <p>H.239 does not work very well with the MGC. A lot of issues was seen when testing H.239.</p>
64418	<p>C Series Ver. TC2.1.0 (No Video Polycom VSX Ver. 9.0.5)</p>	<p>Currently if the video source 1 (PrecisionHD 1080p camera) is set to sharpness then the Polycom VSX will not display video as the TANDBERG codec will transmit w448p, which is not supported by the VSX. Workaround: Set PrecisionHD 1080p camera to motion.</p>
N/A	<p>C Series Ver. TC2.1.0 (No Video Polycom VSX Ver. 8.0 & 8.5)</p>	<p>The Polycom VSX may display distorted video from the TANDBERG codec. Workaround: Upgrade the Polycom VSX to software version 8.7 or higher.</p>

RadVision

Reference ID	Equipment	Summary
<i>RadVision Scoopia 400 MCU</i>	5.7.1.0.13	If a Cisco TelePresence System C20 is connected to a 1080p conference and starts presentation, the C20 will not display incoming video.

Open caveats

Reference ID	Summary
88976	ClearPath: H.323 down speeding of the presentation channel (H.239) is not disabled when using ClearParh.
89291	The IP address is not changed upon reboot when a different configuration profile is selected.
87563	TC4.x.x software do not handle the H.263+ from the TANDBERG MPS GateWay, the image will never clear up. This problem can be seen when dialing from a TANDBERG MXP through ISDN into the MPS GateWay, which again connects to a C-series system with TC4.x software. The problem is not seen with TC3.x software.
87376	Microsoft OCS registration is broken in TC4.x.x
81993	The Cisco TelePresence System codec C40 is unable to automatically detect a Digital Natural Audio Module (DNAM) in software versions previous to TC4. This will cause the codec to output analog audio instead of SPDIF (digital). If connected to a DNAM for software versions previous to TC4 it is recommended to set the audio output to SPDIF manually.
83374	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'
84314	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.
84157	Rebooting the unit will always reset ScaleToFrameThreshold to default value.
84032	Web snapshot is available in the web interface of the EX90 and EX60 even though these units do not support this functionality.
83933	If any of the Corporate Directories contains any sub directories, the first 15 entries will be listed twice.
82631	Missing upgrade status when upgrading through web. You will not be able to see if the upgrade was successful or not when upgrading through the web interface.
82535	API command 'systemtools rootsettings get' return 'off' even if root is set to 'on'
81740	When in a MultiSite call, the encryption status symbol will only reflect the status of the last call.
	If the 'admin' user is deleted, then TMS will not be able to manage the system. At the same time the 'admin' user will be recreated with blank password during next reboot.
	xFeedback register Event/KeyDown will now mask 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.
84734	When upgrading from TC3.x.x it has been seen that the SIP registration becomes inactive. To resolve this issue toggle the 'SIP mode' to 'Off' and back to 'On' again.

Interoperability

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

H.323 gatekeepers/traversal servers

Equipment	Software revision	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)	X4.3, X5.1.1, X5.2	Both Assent and H.460.18/.19 traversal technologies are supported

SIP registrars/proxies

Equipment	Software revision	Comments
Cisco TelePresence System Video Communication Server (VCS)	X5.2	

Gateway interoperability

Equipment	Software revision	Comments
TANDBERG MPS Gateway	J4.5	
TANDBERG Gateway	G3.2	
Cisco ISDN GW 3241	2.0	
RadVision Gateway P20	5.0	

MCU interoperability

Equipment	Software revision	Comments
TANDBERG MPS	J4.5	
TANDBERG MCU	D3.10	
Cisco MCU 4210	4.0, 4.1	
Cisco MCU 4520	4.0, 4.1	

Streaming servers

Equipment	Software revision	Comments
Cisco Telepresence System Content Server	S3.1, S4.0	

Endpoint Interoperability

Equipment	Software revision	Protocol	Comments
Cisco TelePresence System MXP	F8.2	H.323/SIP	
TANDBERG Personal Series	L5.1	H.323	
Cisco IP Video Phone E20	TE2.2.1, TE2.1.0	SIP	
LifeSize Room 200	LS_RM2_4.7.0 (19)	H.323/SIP	Dual stream (H.239) from LifeSize gives low frame rate.
LifeSize Express	LS_EX1_4.6.0 (48)	H.323/SIP	No video from LifeSize in SIP calls.
LifeSize Passport	LS_PP1_4.3.4 (1)	H.323/SIP	Far End Camera Control 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	2.11.00	H.323/SIP	Far End Camera Control does not work.
Polycom VSX 7000	9.0.5.2	H.323/SIP	At call rate 768kbps and below using H.323, the VSX does not display received video.
Polycom HDX 8000 HD	2.6.0-4700	H.323/SIP	Dual stream does not work using SIP.

Introduction software version TC4.1.0

This release note describes the features and capabilities included in the Cisco TelePresence System C-Series codec software version TC4.1.0 released on 25th of February 2011.

Note: Please read the known limitations section if you use TMS to upgrade your system from any release prior to TC4.0.0

New features and functionality in TC4.1.0

- ▶ Support for the Cisco TelePresence Touch screen
- ▶ New GUI for the Cisco TelePresence Touch screen
- ▶ New API xConfiguration
- ▶ Changed API xConfiguration
- ▶ Removed API xConfiguration
- ▶ New API xStatus
- ▶ New API xCommand
- ▶ Changed API xCommand

New feature descriptions

Support for the Cisco TelePresence Touch screen

The TC4.1.0 release introduces support for the new Cisco TelePresence Touch screen compatible with the Cisco TelePresence System (CTS) Codec C90/C60/C40, CTS Quick Set C20 and the Profile series using Codec C-Series.

The Cisco TelePresence Touch screen is a revolutionary interface that enables users to access video intuitively. You can make and manage video calls, share content and access advanced features – all with a simple glide of the finger.

You'll quickly see how easy and effortless it is to use:

- Simple set-up – one cable connection to network
- Reduced learning curve – clear, context-based interaction
- Easy to connect – select from list of video endpoints
- Seamless collaboration – select the device you want to share
- Consistent experience – shared experience with the immersive Telepresence T3/T1



Note: The Cisco TelePresence Touch screen requires software version TC4.1.0 or later.

Note: Most of the advanced settings must be done from the Web interface or the API and not from the Touch screen

New GUI for the Cisco TelePresence Touch screen

A new improved GUI (Graphical User Interface) has been developed to be used for the Cisco TelePresence Touch screen. Existing EX60 and EX90 users will experience a new GUI after upgrading to TC4.1.0.

Some of the new features of the new GUI include:

- Overall better usability and responsiveness.
- All in one 'Search and dial' mechanism.
- Support for VCS provisioning.
- Support for password protection of the touch panel advanced settings. This is set using the 'xCommand SystemUnit MenuPassword Set' command from the API.

New API xConfiguration

The commands in this section will be documented in the TANDBERG API Guide available for download at <http://developer.tandberg.com>

- ▶ xConfiguration NetworkPort [2] Mode
- ▶ xConfiguration Video SelfViewPosition

Changed API xConfiguration

The commands in this section will be documented in the TANDBERG API Guide available for download at <http://developer.tandberg.com>

- ▶ xConfiguration Provisioning Mode
 - Added argument 'VCS'

Removed API xConfiguration

The commands in this section will be documented in the TANDBERG API Guide available for download at <http://developer.tandberg.com>

- ▶ xConfiguration SystemUnitType

New API xStatus

The commands in this section will be documented in the TANDBERG API Guide available for download at <http://developer.tandberg.com>

- ▶ xStatus Camera [1..7] Capabilities Options
- ▶ xStatus Video Layout PresentationView

New API xCommand

The commands in this section will be documented in the TANDBERG API Guide available for download at <http://developer.tandberg.com>

- ▶ xCommand CallLog Missed Reviewed
- ▶ xCommand Message TextLine Display
- ▶ xCommand Message TextLine Clear
- ▶ xCommand Message Echo
- ▶ xCommand Video Layout SetPresentationView

Changed API xCommand

The commands in this section will be documented in the TANDBERG API Guide available for download at <http://developer.tandberg.com>

- ▶ xCommand Video PictureLayoutSet
 - Added argument 'Speaker_Full'

Resolved caveats

Resolved since version TC4.0.4

Audio

Reference ID	Summary
77625	The EX60/EX90 will now remember the currently selected speaker (headset or speaker) after boot and software upload.

Video

Reference ID	Summary
75777	Fixed a LVDS synchronization issue during start up that could cause one of the active windows to not display any video. This window could be presentation, far end, selfview etc.
84920	Fixed an issue where the PrecisionHD 1080p camera did not get enough time to focus when waking up from sleep before autofocus was turned off.

GUI

Reference ID	Summary
82574	Fixed an issue causing the EX90 to not display the presenter icon when using dual screens.
84057	Fixed an issue where GUI of the EX60 would not display any call status if it had one call on hold.
83009	The Cisco TelePresence Touch Screen will now enforce the max call rate to be the same as maximum set for incoming/outgoing bandwidth.
86539	Fixed an issue causing the unit to dial H.323 from the phonebook even if default call protocol was set to SIP.

Camera

Reference ID	Summary
85987	Fixed an issue with the PrecisionHD 1080p 4x camera, where brightness and white balance did not work as expected in certain configurations.

System

Reference ID	Summary
87232, 86666	Added better support for new batch of components
83972	Fixed an issue that could cause the NTP server to hang during start up.

Known limitations

TANDBERG

Reference ID	Equipment	Summary
86225, 85361,	TC4.0.0 and above	<p>The web interface do not support the following Unicode characters as a part of the admin password: “ ` ~ ! # \$ % ^ & * () [{ }] \ ‘ “ < > ? ”</p> <p>The following special characters is supported: “ @ - _ = + ; : , . / ”.</p>
	TC4.1.0	The Cisco TelePresence Touch screen does not support up loadable layout families. Hence you should not use the Cisco TC Console to upload layouts to a system with the Cisco Touch screen attached.
	TC4.1.0	Provisioning: If you use VCS provisioning in TC4.1 you will be unable to upgrade the endpoint using provisioning until TC5 is released. The workaround will be to upgrade the unit manually.
	Cisco TelePresence Touch TC4.1.0/TT2.1.0	The Cisco TelePresence Touch is currently missing the ability to display messages from TMS.
	Cisco TelePresence Touch TC4.1.0/TT2.1.0	The Cisco TelePresence Touch must be connected to the same subnet as the codec it is pairing to.
	Cisco TelePresence Touch TC4.1.0/TT2.1.0	<p>The Cisco TelePresence Touch currently do not support:</p> <ul style="list-style-type: none"> • Camera presets • Changing the main source
	TMS 12.6 or below when upgrading to TC4.0.0 and above	<p>Starting with TC4.0, the security model used by the system changes which impacts compatibility with existing installations of TMS. The incompatibilities will result in:</p> <ol style="list-style-type: none"> 1) Upgrading endpoints from a version less than TC4.0 to a version TC4.0 or higher using existing versions of TMS (12.x or lower) will appear to have failed in TMS. Additionally, the endpoint will not get the required release key updated, so the endpoint will not be able to make calls until a release key has been entered into the system. 2) After an endpoint is upgraded to TC4.0 or newer, the system will have an incorrect username or password error message in TMS and TMS will not be able to communicate with it properly. <p>A workaround to restore communication with TMS will be:</p> <ol style="list-style-type: none"> 1) Restart the TMS server, or 2) Restart the TMS services, following the below steps: <p>* Log into the windows console of the TMS</p>

		<p>server as a user with Windows Administrative permissions</p> <p>* Open the Services Control Panel (Control Panel->Administrative Tools->Services)</p> <p>* For each service in the list below, select the service from the Services list, and use the restart icon or right-click->restart to restart the service</p> <ul style="list-style-type: none"> - World Wide Web Publishing Service - TMSDatabaseScannerService - TMSLiveService - TMSSchedulerService - TMSNMPService <p>* Log into the TMS Web Interface, browse to the system and do a 'Force Refresh'. TMS should communicate to the system properly and the error message will clear.</p> <p>* To minimize service abruption it will be beneficial to upgrade all systems in one go, avoiding following the above procedure for every endpoints you upgrade. A future TMS version will resolve this condition negating the need to restart the services.</p> <p>Workaround to restore the releasekeys:</p> <p>* Once TMS has restored communication with the systems, upgrade the units one more time. This time TMS will be able to communicate with the systems when they boot up and set the releasekeys.</p> <p>Note: Please read the resolved caveats section Reference ID 85930 as well.</p> <p>Note: The above issues are fixed for TMS 13.0</p>
76765	Any	Dialing from an unregistered endpoint to a registered endpoint using the format: remotesystem@company.com will not work
62204	TANDBERG 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 TANDBERG codec will support these formats.
	Ver. TC2.1.0 and above	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.
67092	Ver. TC2.1.0 and above.	Composite and S-Video video input is shaking. However some improvements have been made

		within TC2.0.
	Ver. Any	If you run cascaded cameras and the chained cameras are running an old camera code, we have seen that only zoom 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.
	Ver. Any	HD-SDI may not work with cables shorter than 3 meters. This is due to a jitter issue.
	Ver.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.
66993	Ver. TC3.x and above	The C-series codecs will reduce the presentation resolution if you are unable to sustain a minimum of 1 frame per second.
	Any	1920*1200p60 output resolution will run in DVI compatibility mode and hence audio cannot be transmitted over HDMI when using this resolution.
75341	Ver. TC3.x and above	If you dial a TANDBERG 150 with SW version L5.1.1 or older with encryption setting set to 'on', you may not get audio in any direction.
75382	TC3.0.0 and above	The call tab on the web interface doesn't work properly with Opera. You can dial, but you will not get the call status.
82627	TC3.0.0 and above	The call status on the web interface will not be displayed if you access the codec using HTTPS.
75045	TC2.x.x and above	When setting the H.323 id to "number.something@domain", the endpoint becomes unreachable. The workaround is to not let H.323 ID start with a number.
	TC3.0.0 and above	The Cisco TelePresence System codec C40/C60 (rev. 1), will not provide proper analogue VGA output for any resolution of 1080 lines or more.
	Any	The Cisco TelePresence System codec C40 will reduce its capability set when using internal MultiSite. When this is done, the main stream will maximum be able to transmit w576p until all calls are disconnected.
	Any	The Cisco TelePresence System codec C60 will reduce its capability set when using internal MultiSite. When this is done, the dual stream will maximum be able to transmit WXGA until all calls are disconnected.
	Any	The Cisco TelePresence System EX60/90 does not support usage of the remote control. The

		Cisco TelePresence Touch Screen must be used to control these devices.
78636	TC4	A search in the local phonebook will list all contacts including those in the subfolders.
83992	TC4	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.

Polycom

Reference ID	Equipment	Summary
<i>Polycom MGC</i>	9.0.3.1	60 frames per second was disabled during the testing (Advanced Configuration/Video/Input/Source/Optimal Definition/Threshold60fps = Never). MGC conference is set to continuous presence, AES and H.239: Far End Camera Control is not working. Call rates down to 256kbps works fine. 256kbps and lower will experience loss of video. MGC conference set to voice switched, AES and H.239: Following conference rates does not work: 1.1Mbps MGC conference is set to continuous presence, no AES and H.239: H.239 does not work very well with the MGC. A lot of issues was seen when testing H.239.
64418	C Series Ver. TC2.1.0 (No Video Polycom VSX Ver. 9.0.5)	Currently if the video source 1 (PrecisionHD 1080p camera) is set to sharpness then the Polycom VSX will not display video as the TANDBERG codec will transmit w448p, which is not supported by the VSX. Workaround: Set PrecisionHD 1080p camera to motion.
N/A	C Series Ver. TC2.1.0 (No Video Polycom VSX Ver. 8.0 & 8.5)	The Polycom VSX may display distorted video from the TANDBERG codec. Workaround: Upgrade the Polycom VSX to software version 8.7 or higher.

RadVision

Reference ID	Equipment	Summary
<i>RadVision Scoopia 400 MCU</i>	5.7.1.0.13	If a Cisco TelePresence System C20 is connected to a 1080p conference and starts presentation, the C20 will not display incoming video.

Open caveats

Reference ID	Summary
81993	The Cisco TelePresence System codec C40 is unable to automatically detect a Digital Natural Audio Module (DNAM) in software versions previous to TC4. This will cause the codec to output analog audio instead of SPDIF (digital). If connected to a DNAM for software versions previous to TC4 it is recommended to set the audio output to SPDIF manually.
83374	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'
84314	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.
84157	Rebooting the unit will always reset ScaleToFrameThreshold to default value.
84032	Web snapshot is available in the web interface of the EX90 and EX60 even though these units do not support this functionality.
83933	If any of the Corporate Directories contains any sub directories, the first 15 entries will be listed twice.
82631	Missing upgrade status when upgrading through web. You will not be able to see if the upgrade was successful or not when upgrading through the web interface.
82535	API command 'systemtools rootsettings get' return 'off' even if root is set to 'on'
81740	When in a MultiSite call, the encryption status symbol will only reflect the status of the last call.
	If the 'admin' user is deleted, then TMS will not be able to manage the system. At the same time the 'admin' user will be recreated with blank password during next reboot.
	xFeedback register Event/KeyDown will now mask 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.
84734	When upgrading from TC3.x.x it has been seen that the SIP registration becomes inactive. To resolve this issue toggle the 'SIP mode' to 'Off' and back to 'On' again.

Introduction software version TC4.0.4

This release note describes the features and capabilities included in the Cisco TelePresence System C-Series codec software version TC4.0.4 released on 25th of February 2011.

Note: Please read the known limitation section if you use TMS to upgrade your system from any release prior to TC4.0.0

Resolved caveats

Resolved since version TC4.0.1

System

Reference ID	Summary
87232	Added better support for new batch of components.

Known limitations

TANDBERG

Reference ID	Equipment	Summary
86225, 85361,	TC4.0.0 and above	<p>The web interface do not support the following Unicode characters as a part of the admin password: “ ` ~ ! # \$ % ^ & * () [{ }] \ ‘ “ < > ? ”</p> <p>The following special characters is supported: “ @ - _ = + ; : , . / ”.</p>
	TMS 12.6 or below when upgrading to TC4.0.0 and above	<p>Starting with TC4.0, the security model used by the system changes which impacts compatibility with existing installations of TMS. The incompatibilities will result in:</p> <ol style="list-style-type: none"> 1) Upgrading endpoints from a version less than TC4.0 to a version TC4.0 or higher using existing versions of TMS (12.x or lower) will appear to have failed in TMS. Additionally, the endpoint will not get the required release key updated, so the endpoint will not be able to make calls until a release key has been entered into the system. 2) After an endpoint is upgraded to TC4.0 or newer, the system will have an incorrect username or password error message in TMS and TMS will not be able to communicate with it properly. <p>A workaround to restore communication with TMS will be:</p> <ol style="list-style-type: none"> 1) Restart the TMS server, or 2) Restart the TMS services, following the below steps: <ul style="list-style-type: none"> * Log into the windows console of the TMS server as a user with Windows Administrative permissions * Open the Services Control Panel (Control Panel->Administrative Tools->Services) * For each service in the list below, select the service from the Services list, and use the restart icon or right-click->restart to restart the service <ul style="list-style-type: none"> - World Wide Web Publishing Service - TMSDatabaseScannerService - TMSLiveService - TMSSchedulerService - TMSNMPService <p>* Log into the TMS Web Interface, browse to the system and do a 'Force Refresh'. TMS should communicate to the system properly and</p>

		<p>the error message will clear.</p> <p>* To minimize service abruption it will be beneficial to upgrade all systems in one go, avoiding following the above procedure for every endpoints you upgrade. A future TMS version will resolve this condition negating the need to restart the services.</p> <p>Workaround to restore the release keys:</p> <p>* Once TMS has restored communication with the systems, upgrade the units one more time. This time TMS will be able to communicate with the systems when they boot up and set the release keys.</p> <p>Note: Please read the resolved caveats section Reference ID 85930 as well.</p>
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62204	TANDBERG 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 TANDBERG codec will support these formats.
	Ver. TC2.1.0 and above	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.
67092	Ver. TC2.1.0 and above.	Composite and S-Video video input is shaking. However some improvements have been made within TC2.0.
	Ver. Any	If you run cascaded cameras and the chained cameras are running an old camera code, we have seen that only zoom 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.
	Ver. Any	HD-SDI may not work with cables shorter than 3 meters. This is due to a jitter issue.
	Ver.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.
66993	Ver. TC3.x and above	The C-series codecs will reduce the presentation resolution if you are unable to sustain a minimum of 1 frame per second.
	Any	1920*1200p60 output resolution will run in DVI compatibility mode and hence audio cannot be

		transmitted over HDMI when using this resolution.
75341	Ver. TC3.x and above	If you dial a TANDBERG 150 with SW version L5.1.1 or older with encryption setting set to 'on', you may not get audio in any direction.
75382	TC3.0.0 and above	The call tab on the web interface doesn't work properly with Opera. You can dial, but you will not get the call status.
82627	TC3.0.0 and above	The call status on the web interface will not be displayed if you access the codec using HTTPS.
75045	TC2.x.x and above	When setting the H.323 id to "number.something@domain", the endpoint becomes unreachable. The workaround is to not let H.323 ID start with a number.
	TC3.0.0 and above	The Cisco TelePresence System codec C40/C60 (rev. 1), will not provide proper analogue VGA output for any resolution of 1080 lines or more.
	Any	The Cisco TelePresence System codec C40 will reduce its capability set when using internal MultiSite. When this is done, the main stream will maximum be able to transmit w576p until all calls are disconnected.
	Any	The Cisco TelePresence System codec C60 will reduce its capability set when using internal MultiSite. When this is done, the dual stream will maximum be able to transmit WXGA until all calls are disconnected.
84627	Any	The Cisco TelePresence System EX60/90 does not support usage of the remote control. The Cisco TelePresence Touch Screen must be used to control these devices.
78636	TC4	A search in the local phonebook will list all contacts including those in the subfolders.
83992	TC4	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.

Polycom

Reference ID	Equipment	Summary
<i>Polycom MGC</i>	9.0.3.1	<p>60 frames per second was disabled during the testing (Advanced Configuration/Video/Input/Source/Optimal Definition/Threshold60fps = Never).</p> <p>MGC conference is set to continuous presence, AES and H.239:</p> <p>Far End Camera Control is not working.</p> <p>Call rates down to 256kbps works fine. 256kbps and lower will experience loss of video.</p> <p>MGC conference set to voice switched, AES and H.239:</p>

		<p>Following conference rates does not work: 1.1Mbps</p> <p>MGC conference is set to continuous presence, no AES and H.239:</p> <p>H.239 does not work very well with the MGC. A lot of issues was seen when testing H.239.</p>
64418	<p>C Series Ver. TC2.1.0 (No Video Polycom VSX Ver. 9.0.5)</p>	<p>Currently if the video source 1 (PrecisionHD 1080p camera) is set to sharpness then the Polycom VSX will not display video as the TANDBERG codec will transmit w448p, which is not supported by the VSX. Workaround: Set PrecisionHD 1080p camera to motion.</p>
N/A	<p>C Series Ver. TC2.1.0 (No Video Polycom VSX Ver. 8.0 & 8.5)</p>	<p>The Polycom VSX may display distorted video from the TANDBERG codec. Workaround: Upgrade the Polycom VSX to software version 8.7 or higher.</p>

RadVision

Reference ID	Equipment	Summary
<i>RadVision Scoopia 400 MCU</i>	5.7.1.0.13	If a Cisco TelePresence System C20 is connected to a 1080p conference and starts presentation, the C20 will not display incoming video.

Open caveats

Reference ID	Summary
81993	The Cisco TelePresence System codec C40 is unable to automatically detect a Digital Natural Audio Module (DNAM) in software versions previous to TC4. This will cause the codec to output analog audio instead of SPDIF (digital). If connected to a DNAM for software versions previous to TC4 it is recommended to set the audio output to SPDIF manually.
83374	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'
84314	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.
84157	Rebooting the unit will always reset ScaleToFrameThreshold to default value.
84032	Web snapshot is available in the web interface of the EX90 and EX60 even though these units do not support this functionality.
83933	If any of the Corporate Directories contains any sub directories, the first 15 entries will be listed twice.
82631	Missing upgrade status when upgrading through web. You will not be able to see if the upgrade was successful or not when upgrading through the web interface.
82535	API command 'systemtools rootsettings get' return 'off' even if root is set to 'on'
81740	When in a MultiSite call, the encryption status symbol will only reflect the status of the last call.
	If the 'admin' user is deleted, then TMS will not be able to manage the system. At the same time the 'admin' user will be recreated with blank password during next reboot.
	xFeedback register Event/KeyDown will now mask 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.
84734	When upgrading from TC3.x.x it has been seen that the SIP registration becomes inactive. To resolve this issue toggle the 'SIP mode' to 'Off' and back to 'On' again.

Introduction software version TC4.0.1

This release note describes the features and capabilities included in the Cisco TelePresence System C-Series codec software version TC4.0.1 released on 23rd of December 2010.

Note: Please read the known limitation section if you use TMS to upgrade your system from any release prior to TC4.0.0

New features and functionality in TC4.0.1

- ▶ Removed hidden games
- ▶ Inband DTMF tones improvements

New feature descriptions

Removed hidden games

The games that was previously available through a 'secret' key combination has been removed.

Inband DTMF tones improvements

A 100ms silence has been added after each inband DTMF tone to help equipment with poor DTMF detection to detect the DTMF tones properly.

Resolved caveats

Resolved since version TC4.0.0

Audio

Reference ID	Summary
85792	Fixed an issue that could cause echo in headset mode for the Cisco TelePresence System EX60/90.

Video

Reference ID	Summary
85549, 84700, 84730, 84728, 84960, 84850	ClearPath improvements.
85236	Fixed an interoperability issue with sending SVGA (800*600) towards a TANDBERG MPS.
85453	Fixed an issue causing remote custom layouts not to be set properly.

System

Reference ID	Summary
85930	Fixed the problem of losing the current password when upgrading from TC3.x to TC4. When upgrading from TC3.x to TC4.0.1 you will now keep your existing password. If the system is already upgraded to TC4.0 you can upgrade to TC4.0.1 and keep the new password set in TC4.0.0. A system that has been upgraded to TC4.0.0 previously, then downgraded to TC3.x and finally upgraded to TC4.0.1 will lose the password set for the system. In this case a new password must be set for the system. Please also look at the 'Known Limitation' section.
85292	The Cisco TelePresence System EX60 will automatically get the option 'HD Resolution' if no options are installed. This will fix an issue reported from the field where some units were reported not to have any options installed.

Protocol

Reference ID	Summary
85694	Removed case-sensitive SIP prefix in front of an URI. This will correct the issue with dialing SIP entries from the corporate phonebook served by TMS.
84641	Fixed SIP logging, when two SIP messages arrive in the same packet.

Known limitations

TANDBERG

Reference ID	Equipment	Summary
86225, 85361,	TC4.0.0 and above	<p>The web interface do not support the following Unicode characters as a part of the admin password: “ ` ~ ! # \$ % ^ & * () [{ }] \ ‘ “ < > ? ”</p> <p>The following special characters is supported: “ @ - _ = + ; : , . / ”.</p>
	TMS 12.6 or below when upgrading to TC4.0.0 and above	<p>Starting with TC4.0, the security model used by the system changes which impacts compatibility with existing installations of TMS. The incompatibilities will result in:</p> <ol style="list-style-type: none"> 1) Upgrading endpoints from a version less than TC4.0 to a version TC4.0 or higher using existing versions of TMS (12.x or lower) will appear to have failed in TMS. Additionally, the endpoint will not get the required release key updated, so the endpoint will not be able to make calls until a release key has been entered into the system. 2) After an endpoint is upgraded to TC4.0 or newer, the system will have an incorrect username or password error message in TMS and TMS will not be able to communicate with it properly. <p>A workaround to restore communication with TMS will be:</p> <ol style="list-style-type: none"> 1) Restart the TMS server, or 2) Restart the TMS services, following the below steps: <ul style="list-style-type: none"> * Log into the windows console of the TMS server as a user with Windows Administrative permissions * Open the Services Control Panel (Control Panel->Administrative Tools->Services) * For each service in the list below, select the service from the Services list, and use the restart icon or right-click->restart to restart the service <ul style="list-style-type: none"> - World Wide Web Publishing Service - TMSDatabaseScannerService - TMSLiveService - TMSSchedulerService - TMSNMPService <ul style="list-style-type: none"> * Log into the TMS Web Interface, browse to the system and do a 'Force Refresh'. TMS should communicate to the system properly and

		<p>the error message will clear.</p> <p>* To minimize service abruption it will be beneficial to upgrade all systems in one go, avoiding following the above procedure for every endpoints you upgrade. A future TMS version will resolve this condition negating the need to restart the services.</p> <p>Workaround to restore the release keys:</p> <p>* Once TMS has restored communication with the systems, upgrade the units one more time. This time TMS will be able to communicate with the systems when they boot up and set the release keys.</p> <p>Note: Please read the resolved caveats section Reference ID 85930 as well.</p>
76765	Any	Dialing from an unregistered endpoint to a registered endpoint using the format: remotesystem@company.com will not work
62204	TANDBERG 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 TANDBERG codec will support these formats.
	Ver. TC2.1.0 and above	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.
67092	Ver. TC2.1.0 and above.	Composite and S-Video video input is shaking. However some improvements have been made within TC2.0.
	Ver. Any	If you run cascaded cameras and the chained cameras are running an old camera code, we have seen that only zoom 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.
	Ver. Any	HD-SDI may not work with cables shorter than 3 meters. This is due to a jitter issue.
	Ver.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.
66993	Ver. TC3.x and above	The C-series codecs will reduce the presentation resolution if you are unable to sustain a minimum of 1 frame per second.
	Any	1920*1200p60 output resolution will run in DVI compatibility mode and hence audio cannot be

		transmitted over HDMI when using this resolution.
75341	Ver. TC3.x and above	If you dial a TANDBERG 150 with SW version L5.1.1 or older with encryption setting set to 'on', you may not get audio in any direction.
75382	TC3.0.0 and above	The call tab on the web interface doesn't work properly with Opera. You can dial, but you will not get the call status.
82627	TC3.0.0 and above	The call status on the web interface will not be displayed if you access the codec using HTTPS.
75045	TC2.x.x and above	When setting the H.323 id to "number.something@domain", the endpoint becomes unreachable. The workaround is to not let H.323 ID start with a number.
	TC3.0.0 and above	The Cisco TelePresence System codec C40/C60 (rev. 1), will not provide proper analogue VGA output for any resolution of 1080 lines or more.
	Any	The Cisco TelePresence System codec C40 will reduce its capability set when using internal MultiSite. When this is done, the main stream will maximum be able to transmit w576p until all calls are disconnected.
	Any	The Cisco TelePresence System codec C60 will reduce its capability set when using internal MultiSite. When this is done, the dual stream will maximum be able to transmit WXGA until all calls are disconnected.
84627	Any	The Cisco TelePresence System EX60/90 does not support usage of the remote control. The Cisco TelePresence Touch Screen must be used to control these devices.
78636	TC4	A search in the local phonebook will list all contacts including those in the subfolders.
83992	TC4	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.

Polycom

Reference ID	Equipment	Summary
<i>Polycom MGC</i>	9.0.3.1	<p>60 frames per second was disabled during the testing (Advanced Configuration/Video/Input/Source/Optimal Definition/Threshold60fps = Never).</p> <p>MGC conference is set to continuous presence, AES and H.239:</p> <p>Far End Camera Control is not working.</p> <p>Call rates down to 256kbps works fine. 256kbps and lower will experience loss of video.</p> <p>MGC conference set to voice switched, AES and H.239:</p>

		<p>Following conference rates does not work: 1.1Mbps</p> <p>MGC conference is set to continuous presence, no AES and H.239:</p> <p>H.239 does not work very well with the MGC. A lot of issues was seen when testing H.239.</p>
64418	<p>C Series Ver. TC2.1.0 (No Video Polycom VSX Ver. 9.0.5)</p>	<p>Currently if the video source 1 (PrecisionHD 1080p camera) is set to sharpness then the Polycom VSX will not display video as the TANDBERG codec will transmit w448p, which is not supported by the VSX. Workaround: Set PrecisionHD 1080p camera to motion.</p>
N/A	<p>C Series Ver. TC2.1.0 (No Video Polycom VSX Ver. 8.0 & 8.5)</p>	<p>The Polycom VSX may display distorted video from the TANDBERG codec. Workaround: Upgrade the Polycom VSX to software version 8.7 or higher.</p>

RadVision

Reference ID	Equipment	Summary
<i>RadVision Scoopia 400 MCU</i>	5.7.1.0.13	If a Cisco TelePresence System C20 is connected to a 1080p conference and starts presentation, the C20 will not display incoming video.

Open caveats

Reference ID	Summary
81993	The Cisco TelePresence System codec C40 is unable to automatically detect a Digital Natural Audio Module (DNAM) in software versions previous to TC4. This will cause the codec to output analog audio instead of SPDIF (digital). If connected to a DNAM for software versions previous to TC4 it is recommended to set the audio output to SPDIF manually.
83374	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'
84314	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.
84157	Rebooting the unit will always reset ScaleToFrameThreshold to default value.
84032	Web snapshot is available in the web interface of the EX90 and EX60 even though these units do not support this functionality.
83933	If any of the Corporate Directories contains any sub directories, the first 15 entries will be listed twice.
82631	Missing upgrade status when upgrading through web. You will not be able to see if the upgrade was successful or not when upgrading through the web interface.
82535	API command 'systemtools rootsettings get' return 'off' even if root is set to 'on'
81740	When in a MultiSite call, the encryption status symbol will only reflect the status of the last call.
	If the 'admin' user is deleted, then TMS will not be able to manage the system. At the same time the 'admin' user will be recreated with blank password during next reboot.
	xFeedback register Event/KeyDown will now mask 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.
84734	When upgrading from TC3.x.x it has been seen that the SIP registration becomes inactive. To resolve this issue toggle the 'SIP mode' to 'Off' and back to 'On' again.

Introduction software version TC4.0.0

This release note describes the features and capabilities included in the Cisco TelePresence System C-Series codec software version TC4.0.0 released on 18th of November 2010.

New features and functionality in TC4.0.0

- ▶ Support for Cisco TelePresence System EX60
- ▶ ClearPath
- ▶ Cisco branding
- ▶ IPv6
- ▶ JITC security features
- ▶ One additional telephone call
- ▶ Multiple dialing methods in phonebook
- ▶ Revised XML format to support uploadable layout families
- ▶ Directional audio support when hosting MultiSite for Cisco Telepresence System Profile 52" Dual
- ▶ Active video out on C40 when no dual option is installed
- ▶ MultiWay support for C40, C60 and C90
- ▶ 3+1 MultiSite support for EX90
- ▶ Configurable top banner
- ▶ Web snapshot
- ▶ Dereverberation on microphones
- ▶ Support for RFC2833
- ▶ New software release for Cisco TelePresence PrecisionHD Camera
- ▶ New software release for Cisco TelePresence PrecisionHD 4x Camera.
- ▶ Configurable discrete text box
- ▶ Moveable self view PIP (Picture In Picture)
- ▶ New API commands
- ▶ Changed API commands
- ▶ Removed API commands
- ▶ New API configurations
- ▶ Changed API configurations
- ▶ New API Status commands
- ▶ Removed API Status commands

New feature descriptions

Support for Cisco TelePresence System EX60

The TC4.0.0 release introduces support for the new Cisco TelePresence System EX60, personal TelePresence for knowledge workers.

The Cisco TelePresence System EX60 is ideal for individual contributors and knowledge workers throughout the organization – bringing the power of TelePresence to the desktop or cubicle as an “always available, anytime” resource.



Note: The Cisco TelePresence System EX60 requires software version TC4.0.0 or later.

ClearPath

ClearPath is a proprietary packet loss recovery technology which will automatically start if supported by the far end. ClearPath works in the following way:

- ▶ If packet loss for audio is more than 1.5%, protection of the audio is started by using FEC (Forward Error Correction) if call bandwidth is 768kbps or more. FEC will stop when packet loss is less than 0,5% for some time. The FEC overhead will be 100%.
- ▶ If packet loss for video is more than 0,5%, protection of the video is started by using FEC if call bandwidth is 768kbps or more. FEC will stop when packet loss is less than 0,1% for some time. The FEC overhead will be 30%.
- ▶ The FEC overhead will be within the call rate so the video rate will have to drop to give room for the additional FEC packets.
- ▶ If the video rate is above 768kbps and we are experiencing between 5-15% packet loss, the video rate will be down speeded by 10%. For loss more than 15% the video rate will be down speeded by 15%.
- ▶ If the current available bit rate for the main video is less than 768kbps the bit rate will be down speeded by 10% if the packet loss is more than 5%.

- ▶ A test will be done to check if the loss is stable. In the beginning of the call any loss will be considered as stable, but then a loss will have to be consistent for 15 seconds before adjusting down the video rate.
- ▶ If there has been no packet loss for the last 30 seconds and the video rate is less than 768kbps because of previous down speeding, the video rate will be up speeded by 5%. If this up speeding does not cause additional losses another up speeding will take place after 10 seconds.
- ▶ If the last video up speeding introduces packet loss, it will take another 2 minutes before considering additional up speeding.
- ▶ In addition to FEC, ClearPath is also using something called Super P frames. These are reference frames used to synchronize the encoder and decoder whenever you get packet loss. Using Super P frames will considerably reduce the pay load during packet loss environments compared to sending a whole new frame every time a packet is lost. Super P frames will be used at any bandwidth.
- ▶ FEC will not be used for dual stream, but Super P frames will.
- ▶ FEC and Super P frames will not be used in MultiSite for the dual stream.

Cisco branding

All logos and references to TANDBERG in the GUI and the web interface have been replaced with Cisco.

IPv6

All services running are supported except for Telnet. Both H.323 and SIP is supported. DHCP, SSH, HTTP, HTTPS, DNS and DiffServ supports dual stack.

Note: Dual protocol is not supported for protocol. H.323 and SIP will run on either IPv4 or IPv6. This is determined by the IP stack setting in 'Settings/Advanced/Advanced configuration/Network 1/IPStack'

JITC security features

This software version includes all security enhancement needed for JITC approval.

These features include:

- ▶ User administration on web, local user database
- ▶ Password (user) and PIN (GUI password) management using the web interface or API
- ▶ Log in/authorization functionality on all interfaces.
- ▶ Audit support.
- ▶ Restrict management by IP address filtering.
- ▶ Sessions and time outs.
- ▶ Mutual authentication on web.

Password and PIN policies for JITC approval can be configured by logging in as admin to the unit using SSH and then using the command: 'systemtools securitysettings'. The command 'systemtools securitysettings ask' let you see the current setting or configure each password/PIN policy one by one. 'systemtools securitysettings default' resets the policies, and 'systemtools securitysettings jitc' enforces all the Password/PIN policies to conform to JITC regulations. Please be aware that this requires all users to change their password on the next login, and all new passwords must conform to the JITC guideline. After setting this, the password policies can be seen by using the command:

'systemtools securitysettings ask'. Enabling "strong security mode" using the web interface is the same as using the command 'systemtools securitysettings jitc' on SSH.

JITC password guideline:

- ▶ All users must change their password/PIN on the next login (including admin).
- ▶ All new password must meet the following criteria:
 - Minimum 15 characters.
 - Minimum 2 uppercase alphabetic character.
 - Minimum 2 lowercase alphabetic character.
 - Minimum 2 non-alphanumeric (special) characters.
 - Not more than 2 consecutive same characters.
 - Be different from the previous 10 password used.
 - Not more than two characters from the previous password can be in the same position.
- ▶ New passwords must be changed at least every 30 days. Failure to do so will lock out the user.
- ▶ Passwords per user cannot be changed more than once within 24 hours.
- ▶ 3 failed logins will set the user inactive until an administrator activates him again. If only the administrator account is active, then the one and only user will be locked out.

Enabling "Strong security mode" will also enforce the following:

- ▶ SW upload from TMS is not longer possible.
- ▶ Web snapshot is no longer available.
- ▶ Call application on web is no longer available.



CAUTION: Be very careful when enabling the strong security mode available in TC4. If you do not follow the instructions carefully you can be locked out of the unit and in some situations you will have to send the unit back for repair to restore it.

One additional telephone call

All systems are now able to dial one additional telephone call in addition to the number of video calls allowed. A system with MultiSite installed can dial 3 sites on video and one additional site on telephone. If MultiWay is configured this feature will not be available.

Note: This feature will not be available for the EX90 or EX60.

Multiple dial methods in phonebook

Contacts in the phonebook can now be dialed using multiple dialing methods. For example a user may be reached in three different ways: H.323, SIP and through a gateway using ISDN. These methods could all use different number/alias to reach the same person. Previously only one of these options would be listed in the phonebook.

Note: This feature will not be available for the EX90 or EX60.

Revised XML format to support uploadable layout families

Systems using the Cisco TelePresence System Codec C60 or C90 can now use the Cisco TC console to configure custom layouts for what to be presented both locally and at the far end. The Cisco TC console can be downloaded free of charge from <http://developer.tandberg.com>

Directional audio support when hosting MultiSite for Cisco Telepresence System Profile 52"

When hosting a MultiSite from this system you will get participants on both screens. The audio will now come from the speaker underneath the screen from where the speaking participant is located.

Active video out on C40 when no dual option is installed

This enables the DVI-I output to be used instead of the HDMI for single screen systems

MultiWay support for C40, C60 and C90

Multiway™ conferencing enables video endpoint users to introduce a 3rd party into an existing call. It can be used in the following situations:

- ▶ You want to add someone else to your existing call.
- ▶ You are called by a 3rd party while already in a call and you want to include that person in the call.
- ▶ Multiway™ requires TANDBERG VCS X5 or later and a Codian MCU running version 3.1 or later.
- ▶ Endpoints invited to join the Multiway™ conference must support the H.323 routeToMC facility message if in an H.323 call, or SIP REFER message if in a SIP call.
- ▶ Multiway™ must be set up with a Multiway™ alias in the format: sip:your-alias@your-company.com or h323:your-alias@your-company.com.
- ▶ For more information please have a look at the Multiway™ Deployment Guide available for download at <http://www.tandberg.com>

3+1 MultiSite support for EX90

The EX90 with MultiSite installed is now able to dial one additional participant on video.

Configurable top banner

The top banner of the GUI which normally will display the systems URI can now be configured to display: Auto, None, IPv4 address, IPv6 address, H.323 ID, E.164 Alias, SIP URI or system name..

Web snapshots

It is now possible to get snapshots from the local main camera through the web interface.

Note: Web snapshots cannot be enabled remotely. You must enable it locally either through the GUI or RS-232. Web snapshots is NOT supported for the EX90 and EX60

Dereverberation on microphones

Dereverberation on microphones is available for the C40, C60, C90 codecs and for profile series with one of the mentioned codecs installed. Dereverberation will try to remove the room signature from the signal before transmitting it to the far end site.

RFC2833

Support for RFC2833, out of band DTMF tones for SIP.

New software release for Cisco TelePresence PrecisionHD Camera

With the TC4.0.0 release, the PrecisionHD 1080p camera will automatically be upgraded to camera software release ID40063. Included in this release is:

- ▶ Minor modification to the sharpen filter strength at lower gain levels.

New software release for Cisco TelePresence PrecisionHD 4x Camera

With the TC4.0.0 release, the PrecisionHD 1080p 4x camera will automatically be upgraded to camera software release ID20002. Included in this release is:

- ▶ Power saving in standby mode.
- ▶ Improved backlight compensation.

Configurable discrete text box

Added support for displaying a textbox at any location on the screen by using the API command: 'xCommand Message TextLine Display'

Moveable self view PIP

Added support for moving the self view PIP position to any corner of the image.

Note: This feature will not be available for the EX90 or EX60.

New API commands

The commands in this section will be documented in the TANDBERG API Guide available for download at <http://developer.tandberg.com>

- ▶ xCommand Call Hold CallId
- ▶ xCommand Call Join
- ▶ xCommand Call Resume CallId
- ▶ xCommand Camera PositionActivateFromPreset PresetID
- ▶ xCommand SystemUnit SoftwareUpgrade
- ▶ xCommand Video Layout LoadDb Type

Changed API commands

The commands in this section will be documented in the TANDBERG API Guide available for download at <http://developer.tandberg.com>

- ▶ xCommand Dial
 - Removed arguments 'ForceNewConference' and 'Conferenceld'
- ▶ xCommand HttpFeedback Register
 - Increased the string used for the argument 'ServerUrl' from 256 to 2048 characters
- ▶ xCommand Message Alert Display
 - Added argument 'Title'
- ▶ xCommand SStringSend Message

- Increased the string used for the argument 'Message' from 255 to 2048 characters
- ▶ xCommand Video PictureLayoutSet
 - Added arguments 'CustomLayoutName' and 'Target'
 - Added value 'custom' to the 'LayoutFamily' argument

Removed API commands

- ▶ xCommand Video Layout AutoMode
- ▶ xCommand Video Layout AutoModeRemote

New API configurations

- ▶ xConfiguration Audio Input Microphone EchoControl Dereverberation
- ▶ xConfiguration Conference PacketLossResilience Mode
- ▶ xConfiguration Network
 - Added the argument 'IPStack'
 - Added the arguments 'IPv6 Address', 'IPv6 GateWay', 'IPv6 Assignment' and 'IPv6 DHCPOptions'
 - Added the arguments 'RemoteAccess Allow'
- ▶ xConfiguration NetworkServices
 - Added argument 'SSH Mode'
 - Added argument 'SSH AllowPublicKey'
 - Added argument 'HTTPS VerifyClientCertificate'
- ▶ xConfiguration Provisioning ExternalManager Domain
- ▶ xConfiguration Security
 - Added argument 'Audit Server Address'
 - Added argument 'Audit Server Port'
 - Added argument 'Audit On Error Action'
 - Added argument 'Audit Logging Mode'
 - Added argument 'Session ShowLastLogon'
 - Added argument 'Session InactivityTimeout'
- ▶ xConfiguration SerialPort Mode
- ▶ xConfiguration SystemUnit ContactInfo Type
- ▶ xConfiguration Video AllowWebSnapshots
- ▶ xConfiguration Video SelfviewPosition
- ▶ xConfiguration Video Layout LocalLayoutFamily
- ▶ xConfiguration Video Layout RemoteLayoutFamily
- ▶ xConfiguration Video OSD LoginRequired

Changed API configurations

- ▶ xConfiguration Audio Input Microphone Equalizer ID
 - Increased the number of equalizer IDs from 8 to 14.
- ▶ xConfiguration GPIO Pin Mode

- Added argument 'OutputStandbyActive'
- ▶ xConfiguration Network QoS
 - Removed argument 'IPv4'
- ▶ xConfiguration SystemUnit MenuLanguage
 - Added arguments 'SpanishLatin' and 'Turkish'

New API status commands

- ▶ xStatus Camera SerialNumber
- ▶ xStatus Network IPv6 Address
- ▶ xStatus Network IPv6 GateWay
- ▶ xStatus Network MTU
- ▶ xStatus SIP Profile Proxy Status
- ▶ xStatus SIP Profile Proxy Address
- ▶ xStatus SystemUnit Software MaxAudioCalls
- ▶ xStatus Time ZoneOlson

Removed API status commands

- ▶ xStatus Network IPv4 MTU

Resolved caveats

Resolved since version TC3.1.2

Audio

Reference ID	Summary
72754	Fixed an issue where declining an incoming call on the EX90 could cause the volume of the existing call to become very low.
70066	Fixed an issue that could prevent the Digital Natural Audio Module (DNAM) to be detected when connected to the system when line output was set to auto. This would cause the unit to output analog audio instead of digital SPDIF.
79791	Fixed an issue causing the audio input to be set to 'On' after reboot if associated with a video source that is currently not active..

Video

Reference ID	Summary
66695	Removed the small visible line that appeared under the 'Main source' and 'Exit' soft button when moving the camera.
75313	Resolved an issue which could cause no main video and frozen dual stream in a point-to-point call when you get another incoming call you choose to decline.
77411	Added triggering of autofocus when pressing the self view icon on the EX90.
78160	Added support for 4CIF in baseline H.263.
76337	Fixed an issue that could cause a flash of pink on the main channel when stopping dual stream.
75833	The camera on the EX90 will now be turned off when system is in standby.
80812	Improved DVI-I analog video detection.
78496	Removed the possibility to use compositing in the dual stream of a codec C60. This was never intended to work and could cause stability issues.
75772	Improved the focus algorithm used for the EX90.
59872	Added support for displaying "Unsupported Signal" for video inputs that cannot be displayed through the video system.

GUI

Reference ID	Summary
78969	Fixed an issue that could prevent the Cisco TelePresence Touch Screen to boot up properly
68682	Resolved an issue causing the last entered character to get stuck in a phonebook search if the search is aborted using the disconnect key.
77579	Fixed a memory leak caused by the 'System information' screen. This leak could cause the GUI to become unresponsive over time.
77778	Fixed the arrow icons for received and placed call which was pointing the wrong direction on the Cisco TelePresence Touch Screen.

77895	Fixed an issue causing the Cisco TelePresence Touch Screen to not report encrypted calls in the call status menu when dialing an E20 on SIP.
77918	Added the underscore (_) character to the Cisco TelePresence Touch Screen interface.
78004	Fixed an issue causing the 'Max outgoing bandwidth' setting to not be set when using the Cisco TelePresence Touch Screen.
78008	Fixed an issue causing values changed using the web interface to not be reflected on the Cisco TelePresence Touch Screen.
78294	Removed the dismiss button from 'Entering Standby mode' and from 'Upgrading Camera' status screen.
73776	System information page will now show current packet loss and not aggregated as done previously.
71158	Encryption sign will always be shown if encryption is enforced.
76606, 77042, 82171	Fixed several translation errors
79001	Fixed an issue causing the system to delete local phonebook entries entered since the last controlled shut down, if you suddenly removed the power of the system.
78561	The Extend Meeting dialog box initiated from TMS will no longer be shown on the EX90, as the Cisco TelePresence Touch Screen interface does not support this feature.

System

Reference ID	Summary
78401	Increased the HTTP URL size for provisioning from 256 to 2048 characters.
75913	Closed TCP port 111 (rpcbind), which was set to listening mode.
75914	Closed TCP port 2049 (nfs), which was set to listening mode.
77788	The dual monitor setting for the C20 was missing.
70243	Fixed an issue with setting the duplex and Ethernet speed for the C20
78451	Automatic software upgrade mode set to manual as default avoiding units to contact the server 'csupdate.tandberg.com' every night.
75679	Resolved an issue causing the web interface to indicate that all options are installed regardless of actual status.
78175	Changed NTP daemon. The older daemon could sometimes fail to start during boot up.
78548	Fixed an issue causing the message box with today bookings to fail when external manager is set to HTTPS.

API

Reference ID	Summary
74964	Call ID will now be reset when call log is cleared.
80933	Fixed an issue causing the wrong preset to be recalled when using a Sony EVI-HD1 camera.

Protocol

Reference ID	Summary
68629, 79585, 76613,76537, 77201, 77773. 76575, 81454	Several hold, resume and transfer issues has been resolved.
76861	Changed DNS SRV record look up to conform to the standard. The lookup for '_sip._tls' is changed to '_sips._tcp'
78524	Fixed an issue causing problems with registering to a CallWay SIP server.
74537	An error message will now appear if you try to join two MCUs into a MultiWay call.
69348	Added support for different IP address for RTCP and RTP using SIP.
78643	Resolved a weakness making the system vulnerable for a DOS attach.
78752	Fixed an issue causing a Polycom VSX 7000 to not receive dual stream (H.239) in a C90 MultiSite call.
76379	Fixed an issue causing the presentation to stop transmitting if an E20 was added to an encrypted interworking call.
82047	Capset reduction removed when stopping dual stream allowing 1080p when stopping dual stream from a C20.
81836	Fixed an issue causing H.239 (dual stream) to be unsuccessful when dialing through an ISDN gateway.
80455	Fixed a problem with sending presentation through a Radvision ISDN gateway to a Polycom VSX system.
77044	Fixed an issue that could cause an unexpected restart when dialing a MXP 880 on ISDN through a RadVision ISDN gateway.
76081	Fixed an issue that could cause RTP packets longer than one MTU to cause an unexpected restart.
79259	Fixed an issue causing the dual stream (H.239) to drop at random intervals when dialing through a RadVision ISDN gateway.
80071	Fixed an issue with dual stream take over (other side starts dual stream before originator stops sending his dual stream) for the C20.

Known limitations

TANDBERG

Reference ID	Equipment	Summary
62204	TANDBERG 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 TANDBERG codec will support these formats.
	Ver. TC2.1.0 and above	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.
67092	Ver. TC2.1.0 and above.	Composite and S-Video video input is shaking. However some improvements have been made within TC2.0.
	Ver. Any	If you run cascaded cameras and the chained cameras are running an old camera code, we have seen that only zoom 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.
	Ver. Any	HD-SDI may not work with cables shorter than 3 meters. This is due to a jitter issue.
	Ver.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.
66993	Ver. TC3.x and above	The C-series codecs will reduce the presentation resolution if you are unable to sustain a minimum of 1 frame per second.
	Any	1920*1200p60 output resolution will run in DVI compatibility mode and hence audio cannot be transmitted over HDMI when using this resolution.
75341	Ver. TC3.x and above	If you dial a TANDBERG 150 with SW version L5.1.1 or older with encryption setting set to 'on', you may not get audio in any direction.
75382	TC3.0.0 and above	The call tab on the web interface doesn't work properly with Opera. You can dial, but you will not get the call status.
82627	TC3.0.0 and above	The call status on the web interface will not be displayed if you access the codec using HTTPS.

75045	TC2.x.x and above	When setting the H.323 id to "number.something@domain", the endpoint becomes unreachable. The workaround is to not let H.323 ID start with a number.
	TC3.0.0 and above	The Cisco TelePresence System codec C40/C60 (rev. 1), will not provide proper analogue VGA output for any resolution of 1080 lines or more.
	Any	The Cisco TelePresence System codec C40 will reduce its capability set when using internal MultiSite. When this is done, the main stream will maximum be able to transmit w576p until all calls are disconnected.
	Any	The Cisco TelePresence System codec C60 will reduce its capability set when using internal MultiSite. When this is done, the dual stream will maximum be able to transmit WXGA until all calls are disconnected.
84627	Any	The Cisco TelePresence System EX60/90 does not support usage of the remote control. The Cisco TelePresence Touch Screen must be used to control these devices.
78636	TC4	A search in the local phonebook will list all contacts including those in the subfolders.
83992	TC4	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.

Polycom

Reference ID	Equipment	Summary
<i>Polycom MGC</i>	9.0.3.1	<p>60 frames per second was disabled during the testing (Advanced Configuration/Video/Input/Source/Optimal Definition/Threshold60fps = Never).</p> <p>MGC conference is set to continuous presence, AES and H.239:</p> <p>Far End Camera Control is not working.</p> <p>Call rates down to 256kbps works fine. 256kbps and lower will experience loss of video.</p> <p>MGC conference set to voice switched, AES and H.239:</p> <p>Following conference rates does not work: 1.1Mbps</p> <p>MGC conference is set to continuous presence, no AES and H.239:</p> <p>H.239 does not work very well with the MGC. A lot of issues was seen when testing H.239.</p>
64418	C Series Ver. TC2.1.0 (No Video Polycom VSX Ver. 9.0.5)	Currently if the video source 1 (PrecisionHD 1080p camera) is set to sharpness then the Polycom VSX will not display video as the TANDBERG codec will transmit w448p, which is not supported by the VSX. Workaround: Set PrecisionHD 1080p camera to motion.

N/A	C Series Ver. TC2.1.0 (No Video Polycom VSX Ver. 8.0 & 8.5)	The Polycom VSX may display distorted video from the TANDBERG codec. Workaround: Upgrade the Polycom VSX to software version 8.7 or higher.
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RadVision

Reference ID	Equipment	Summary
<i>RadVision Scoopia 400 MCU</i>	5.7.1.0.13	If a Cisco TelePresence System C20 is connected to a 1080p conference and starts presentation, the C20 will not display incoming video.

Open caveats

Reference ID	Summary
81993	The Cisco TelePresence System codec C40 is unable to automatically detect a Digital Natural Audio Module (DNAM) in software versions previous to TC4. This will cause the codec to output analog audio instead of SPDIF (digital). If connected to a DNAM for software versions previous to TC4 it is recommended to set the audio output to SPDIF manually.
83374	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'
84314	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.
84157	Rebooting the unit will always reset ScaleToFrameThreshold to default value.
84032	Web snapshot is available in the web interface of the EX90 and EX60 even though these units do not support this functionality.
83933	If any of the Corporate Directories contains any sub directories, the first 15 entries will be listed twice.
82631	Missing upgrade status when upgrading through web. You will not be able to see if the upgrade was successful or not when upgrading through the web interface.
82535	API command 'systemtools rootsettings get' return 'off' even if root is set to 'on'
81740	When in a MultiSite call, the encryption status symbol will only reflect the status of the last call.
	If the 'admin' user is deleted, then TMS will not be able to manage the system. At the same time the 'admin' user will be recreated with blank password during next reboot.
	xFeedback register Event/KeyDown will now mask 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.
84734	When upgrading from TC3.x.x it has been seen that the SIP registration becomes inactive. To resolve this issue toggle the 'SIP mode' to 'Off' and back to 'On' again.

Interoperability

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

H.323 gatekeepers/traversal servers

Equipment	Software revision	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)	X4.3, X5.1.1, X5.2	Both Assent and H.460.18/.19 traversal technologies are supported

SIP registrars/proxies

Equipment	Software revision	Comments
Cisco TelePresence System Video Communication Server (VCS)	X5.2	

Gateway interoperability

Equipment	Software revision	Comments
TANDBERG MPS Gateway	J4.5	
TANDBERG Gateway	G3.2	
Cisco ISDN GW 3241	2.0	
RadVision Gateway P20	5.0	

MCU interoperability

Equipment	Software revision	Comments
TANDBERG MPS	J4.5	
TANDBERG MCU	D3.10	
Cisco MCU 4210	4.0, 4.1	
Cisco MCU 4520	4.0, 4.1	

Streaming servers

Equipment	Software revision	Comments
Cisco Telepresence System Content Server	S3.1, S4.0	

Endpoint Interoperability

Equipment	Software revision	Protocol	Comments
Cisco TelePresence System MXP	F8.2	H.323/SIP	
TANDBERG Personal Series	L5.1	H.323	
Cisco IP Video Phone E20	TE2.2.1, TE2.1.0	SIP	
LifeSize Room 200	LS_RM2_4.7.0 (19)	H.323/SIP	Dual stream (H.239) from LifeSize gives low frame rate.
LifeSize Express	LS_EX1_4.6.0 (48)	H.323/SIP	No video from LifeSize in SIP calls.
LifeSize Passport	LS_PP1_4.3.4 (1)	H.323/SIP	Far End Camera Control 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	2.11.00	H.323/SIP	Far End Camera Control does not work.
Polycom VSX 7000	9.0.5.2	H.323/SIP	At call rate 768kbps and below using H.323, the VSX does not display received video.
Polycom HDX 8000 HD	2.6.0-4700	H.323/SIP	Dual stream does not work using SIP.

Updating to TC4



CAUTION: The root access has been disabled by default for this release. Root access can still be enabled by login as Admin and execute the API command: 'systemtools rootsettings on <password>' If password is omitted, the root access will be enabled without any password. This is not recommended!

Prerequisites and software dependencies

Before upgrading the systems ensure that:

- ▶ You are upgrading a system running TC software. The endpoints included are Cisco TelePresence System Codec C90, C60, C40, C20, Cisco TelePresence System EX60/90 and the Cisco Telepresence System Profile series having one of the above mentioned codec's inside.
- ▶ The Cisco TelePresence System T3/T1 systems run the software version specified in the Cisco TCU release notes.
- ▶ When upgrading between two major releases i.e. from 2.x.x to 3.x.x a valid release key has to be applied after the upgrade (from 2.1.x and above you can enter the key before the upgrade). The key can be entered either through the API or the web interface.

Strong Security mode (JITC)



CAUTION: Be very careful when enabling the strong security mode available in TC4. If you do not follow the instructions carefully you can be locked out of the unit and in some situations you will have to send the unit back for repair to restore it. Please look in the section: "New feature description".

HW dependencies – Compatibility Levels Cisco TelePresence Systems

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. Executing the API `xcommand xstat SystemUnit Hardware Module CompatibilityLevel` will reveal if there are any constraints on the system.

Compatibility level	Applicable systems	Minimum software version				
		TC3	TC4	TC5	TC6	TC7
0	All	All	All	All	All	All
1	All	3.1.5	4.2.0	All	All	All
2	EX/MX	None	4.2.4	5.1.1	All	All
2	SX20	None	None	5.1.0	All	All
2	C20	None	4.2.3	5.1.1	All	All
3	C40	None	4.2.4	5.1.5	All	All
V	MX300	None	None	5.0.1	All	All
1V	MX300	None	None	5.1.0	All	All
2V	MX300	None	None	5.1.1	All	All

Examples on how to detect the minimum software version:

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 4.2.0)

By having the TAN number on 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.

	Sensor	Nand version	Compatibility level	TAN number
EX60				
	E3	0	0	800-33052-05
	E3	1	1	800-33052-06
	E3	0	0	800-35326-05
	E3	1	1	800-35326-06
	E3	1	1	800-35326-07
	E4	1	2	800-35326-08
	E3	1	1	800-36052-07
	E4	1	2	800-36052-08
EX90				
	E3	0	1	800-35448-05
	E3	1	2	800-35448-06
	E4	1	1	800-35448-07
MX200				
	E3	1	1	130020-09
	E3	1	1	130330-04
	E3	0	0	800-36834-04
	E3	1	1	800-36834-05
	E3	1	1	800-37182-04
	E4	1	2	800-37182-05
MX300				
	E3	0	V	800-36919-03
	E4	1	2V	800-36919-04
	E3	1	1V	800-37822-03
	E4	1	2V	800-37822-04

	NAND version	Compatibility level	TAN number
C20			
	0	0	800-35408-01
	1	1	800-35408-02
	0	0	800-36060-01
	1	1	800-36060-02
	1	2	TBD
C40			
	0	0	800-34910-01
	1	1	800-34910-02
	0	0	800-36047-01

	1	1	800-36047-02
	1	3	TBD
C60			
	0	0	800-35367-01
	1	1	800-35367-02
	0	0	800-36048-01
	1	1	800-36048-02
C90			
	0	0	800-35342-02
	1	1	800-35342-03
	0	0	800-36049-02
	1	1	800-36049-03

HW dependencies – Compatibility Levels Cisco TelePresence Touch 8

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 compatibility level of the Touch panel by finding the TAN number in this table.

Version	Type	Compatibility level	TAN number
0	EX	A	800-35447-04
0	SX/C/Profile	A	800-35343-05
0	MX	A	74-9543-02
1	EX	C	800-35447-06
1	SX/C/Profile	C	800-35343-07
1	MX	C	74-9543-04
2	EX	B	800-38887-01
2	MX	B	800-38886-01
2	SX/C/Profile	B	800-38885-01
3	EX	C	800-38887-02
3	MX	C	800-38886-02
3	SX/C/Profile	C	800-38885-02

Identify the minimum supported software version for the different main releases in this table.

Compatibility level	Minimum software version				
	TC3	TC4	TC5	TC6	TC7
A	3.1.0	All	All	All	All
B	None	4.2.4	5.1.3¹⁾	All	All
C	None	4.2.4	5.1.4	All	All

¹⁾ Please Note: Cisco does NOT recommend using the new Touch with TC5.1.3. The software support needed improvements so Cisco strongly recommends to upgrade to TC5.1.4 if using a Touch panel with a newer hardware revision.

Version	Explanation
0	Rev1
1	OMAP rev 2
2	Touch sensor rev2
3	OMAP rev2 and Touch sensor rev2

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 documentation	http://www.cisco.com/go/telepresence/docs

Software filenames

The correct software filename is listed in the following table.

TANDBERG TC system	Software	Serial number range
AES Encryption	s52000tc4_2_4.pkg	All
No Encryption	s52001tcnc4_2_4.pkg	All

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