Getting started guide

For Cisco TelePresence System Profile Series, Codec C Series and Quick Set C20 / C20 Plus
Thank you for choosing Cisco!

Your Cisco product has been designed to give you many years of safe, reliable operation.

Our main objective with this Getting started guide is to address your goals and needs. Please let us know how well we succeeded!

May we recommend that you visit the Cisco web site regularly for updated versions of this guide.

The user documentation can be found on http://www.cisco.com/go/telepresence/docs.

How to use this guide

The top menu bar and the entries in the Table of Contents are all hyperlinks. Just click on them to go to the topic.

---

Table of Contents

### Introduction
- Introduction .................................................. 4
- User documentation ........................................ 4

### How to configure your system
- Initial configurations ...................................... 6
- Using the menu system ................................... 6
- Using the web interface .................................. 6
- Wake up the system ........................................ 6
- Verify IP address settings .............................. 6
- Select IP version .......................................... 6
- If you need to set a static IP address ............. 6
- Add the system to the network ..................... 7
- Verify your settings ...................................... 7
- Adjust the date and time settings ................. 7
- Password protection of the Advanced menu .......... 8

### Using the remote control
- Using the remote control .............................. 10

### Using the menu system
- About the menus ........................................ 13
- The Home menu ......................................... 13
- The Settings menu ...................................... 13
- The Advanced menu .................................... 13
- Navigating the menus .................................. 14
- The search functionality ............................ 15
- Search for contacts in the Call menu ............ 15
- Search for system settings ......................... 15
- Setting the menu password .......................... 16

### Using the web interface
- The web interface ....................................... 18
- Connect to the codec ................................. 18
- Password protection of the web interface .......... 18

### System information
- System information ....................................... 19

### Making calls from the web interface
- Making calls from the web interface .............. 20

### Changing your password
- Changing your password ............................ 21

### Custom wallpaper
- Custom wallpaper ....................................... 22
  - File format and picture size ....................... 22
  - Upload and activate the wallpaper ............. 22

### Support log files
- Support log files ....................................... 23
  - Historical log files ................................. 23
  - Current log files .................................... 23

### Advanced configuration
- Advanced configuration ............................. 25

### Restarting the system
- Restarting the system .................................. 26

---

Copyright © 2010 Cisco Systems, Inc. All rights reserved.
Chapter 1

Introduction
Introduction

This document provides the information required to help you configure the basic settings on your video system. You will also learn about the web interface and find other information that can be useful in your daily use of your video system.

Products covered in this guide:
- Quick Set C20/C20 Plus
- Codec C Series:
  - Codec C40
  - Codec C60
  - Codec C90
- Profile series using Codec C Series:
  - Profile 42"
  - Profile 52" and 52" Dual
  - Profile 65" and 65" Dual

User documentation

The user documentation for the Cisco TelePresence systems, running the TC software, has several guides suitable for various user groups.

- Video conference room primer
- Video conference room acoustics guidelines
- Getting started guide for the TelePresence systems
- User guide for the TelePresence systems
- Administrator guides for the TelePresence systems
- Camera user guide for the PrecisionHD cameras
- API reference guides for the Codec C Series
- TC Console user guide for the Codec C Series
- Physical interfaces guides for the Codec C Series
- Regulatory compliance and safety information guides
- Legal and license information for products using TC software

Download the user documentation

Go to http://www.cisco.com/go/telepresence/docs and select your product to see the user documentation for your product.
Chapter 2

How to configure your system
Initial configurations

When starting up the system for the first time, the menu password is not set. Read more about password protection in the Password protection section later in this guide.

Using the menu system

The menus on screen are easy accessible. You can navigate in the menus using the remote control. Just lift up the remote control and direct the remote towards the camera.

Using the web interface

If you know the IP address of the codec you can do the initial configurations from the web interface.

Open a web browser and enter the IP address of the codec.

Wake up the system

If there is no menu on screen, press Home ( różnic ) on the remote control to show the menu.

If the system does not show a menu on screen:
- Make sure the monitor is connected and has been turned on.
- Make sure the remote control has the batteries installed.
- Make sure the codec has been turned on.
- If the system has just been turned on, wait a few minutes to allow the system to start up.
- If there is still no menu on screen, make sure the monitor cable is connected to the basic video output connector. If in doubt, see the Installation Sheet for your video system.

If you need to set a static IP address

If required, you can set a static IP address for your system.

To set a static IP address for IPv4:
1. Go to Settings > Advanced > IP settings > Configure.
2. Set IP Assignment to Static. Press OK ( ) to save the change.
3. Enter the IP Address, Subnet Mask and Gateway address. The sequence is shown below. Contact your network administrator to obtain the required IP addresses.
4. Select OK to save the changes, or Cancel to leave without saving.
5. Press Home ( ) to exit.

How to set a static IP address for IPv6, is described in the Administrator guide of your product.

Verify IP address settings

To verify the IP address settings:

1. Go to Settings > System Information.
2. Check the Network > IP address section to see that the IP address of the codec is shown on the System Information page.
3. Press Home ( ) to exit.

Select IP version

The system supports IPv4 and IPv6. To set the IP version:

1. Go to Settings > Advanced > IP settings > IP version.
2. Set IP version to IPv4 or IPv6 according to your requirement.
3. Press Home ( ) to exit.

If you need to set a static IP address

1. Go to Settings > Advanced > IP settings > Configure.
2. Set IP Assignment to Static. Press OK ( ) to save the change.
3. Enter the IP Address, Subnet Mask and Gateway address. The sequence is shown below. Contact your network administrator to obtain the required IP addresses.
4. Select OK to save the changes, or Cancel to leave without saving.
5. Press Home ( ) to exit.

How to set a static IP address for IPv6, is described in the Administrator guide of your product.
5 Add the system to the network
Contact your system administrator, or service provider, for information about the network settings:

- For H.323 calls, this will include system name, H.323 alias, gatekeeper address, etc.
- For SIP calls, similar types of information will be supplied.
- For networks administered through TMS (Cisco TelePresence Management Suite), your TMS administrator will help you to get online.

The H.323 profile and SIP profile are configured from the Advanced configuration menu:

- Go to Settings > Advanced > Advanced configuration and search for H323 or SIP, or select H323 > Profile 1 or SIP > Profile 1 from the menu.
- Expand the items you want to edit and enter the required information. If in doubt, contact your system administrator or your service provider.

6 Verify your settings
Verify the settings by reviewing the System Information page.

1. Go to Settings > System Information
2. Verify the previous configurations:
   - If you successfully registered to a Gatekeeper the Status will show Registered. If the registration failed the Status will show Not registered.
   - If you successfully registered to a SIP server the Status will show Registered. If the registration failed the Status will show Not registered.
3. Press Home to exit.

7 Adjust the date and time settings
Check that the date and time settings are correct. The date and time are located in the upper right corner of the screen.
To adjust the date and time settings:

1. Go to Settings > Date and time
2. When Set date and time is set to Auto there will be an automatic update of the date and time settings. If you want to manually adjust the date and time settings, select Manual and enter the Day, Month, Year and Time. After having adjusted the settings manually, you can set the Set date and time back to Auto for automatic update.
3. Select the appropriate Time zone from the list of GMT time zones.
4. Select the appropriate Date format from the list.
5. Select the appropriate Time format from the list.
6. Press Home to exit.
Password protection of the Advanced menu

It is recommended to define a password to protect the Advanced menu. Changing the advanced settings may affect the behavior of the system and should be done by the system administrator.

**NOTE:** When you define, or change a password, make sure you keep a copy of the password in a safe place.

How to set the menu password

1. Go to **Settings > Advanced > Set menu password.**
   
   On the remote control, press the # key to toggle between lower or upper case characters and numbers: abc/ABC/123.

2. Enter the menu password. The password you enter is hidden; each character is replaced with a star (*).

3. Select **Save** to save the changes, or **Cancel** to leave without saving.

4. Press **Home** (🏠) to exit.
Chapter 3

Using the remote control
Using the remote control

The Functions keys in the upper part of the remote control reflect the softkeys on screen.

The middle part of the remote control is used to handle the video, sound, phone book, menus and navigation.

The lower part of the remote control is similar to the keypad of a mobile phone.

Inserting the batteries
Make sure the remote control has working batteries (4 x AAA batteries).

FUNCTION KEYS: Each Function key corresponds to a softkey on the screen and represents shortcuts and advanced functions.

MICROPHONE: Press the Microphone key to switch between setting the microphone to on and off.

VOLUME: Press the + or – on the Volume key to adjust the codec volume.

MUTE: Press the – to mute an incoming call.

PRESENTATION: Press the Presentation key to show or hide a presentation.

ZOOM: Press the + or – on the Zoom key to zoom the camera in and out.

PHONE BOOK: Press the Phone Book key to display the phone book.

ARROW UP/DOWN: Press the up ▲ and down ▼ arrow keys to navigate in the menu and to move the camera (pan, tilt) when the menu on screen is not displayed.

ARROW LEFT: Press the left ◄ arrow key to go one step back in the menu or to move to the left in a text field.

ARROW RIGHT: Press the right ► arrow key to expand the selected menu item or to move to the right in a text field.

OK/SELECT: Press the OK/Select key to confirm your choice or selection.

LAYOUT: Press the Layout key to display the layout menu, then select a view in the menu.

HOME: Press the Home key to go back to the Home menu.
Waking up the system

To wake up the system just pick up the remote control or press any key. You may have to point the remote control towards the system to make sure it discovers you.

Press the HOME key to show the Home menu on screen.

When you pick up the remote control and touch the rubber line sensors along the sides of the remote control, the system wakes up.

CALL KEY: Press the Call key to place a call, and to accept an incoming call.
Use the Call button as a shortcut to Recent Calls when the Call menu is not visible.

END CALL / STANDBY: Press the End Call key to reject an incoming call, to end an ongoing call or—when idle—to go into standby mode. When navigating in the menus the key is used to exit the menu system. Press and hold this key to have the system enter standby mode.

CLEAR: Press the Clear key to remove characters in a text field.

ALPHANUMERIC KEYPAD
The keypad behaves in a similar way to the keypad of a cellular phone.

0-9, a-z, period (.), @, space, *:
Press a key repeatedly to toggle between the options displayed on each key.

abc/123 #:
Press and hold the # key to toggle between lower and upper case characters and numbers (depending on context).

IR sensor range (DIP switch setting)
The IR sensor has a short and long range. When video systems are placed close to each other, you may find it convenient to use the short range to avoid interfering with the other video systems.

Open the battery cover and remove the batteries to set the DIP switch.
- Short range (1 m / 3 ft): Move the DIP switch down.
- Long range: Move the DIP switch up.
Chapter 4

Using the menu system
About the menus

You will find a complete description of the menus in the User guide and Administrator guides.

The **Home**, **Settings** and **Advanced** menus are explained in the User guide for your product.

Read about the daily use of your video system in the User guide for Profile Series, Codec C Series and Quick Set C20/C20 Plus.

The **Advanced configuration** menu is explained in the Administrator guide for your product.

See the Administrator guide for Quick Set C20/C20 Plus and Profile 42” using C20.

See the Administrator guide for Codec C60/C40 and Profiles using Codec C60.

See the Administrator guide for Codec C90 and Profile 65” Dual using Codec C90.

The user documentation is available at the Cisco web site. Go to: [http://www.cisco.com/go/telepresence/docs](http://www.cisco.com/go/telepresence/docs).

---

### The Home menu

- **Call**: Menu for making calls.
- **Presentation**: Select a presentation source.
- **Camera control**: Control the camera settings.
- **Settings**: Configure the system.

### The Settings menu

- **Layout**: Select screen layout, including self view.
- **Main source**: Select the main video source.
- **Call settings**: Configure the default bit rate and auto answer settings.
- **Languages**: Select the preferred menu language.
- **Date and time**: Configure date and time settings.
- **Sounds and alerts**: Select a ring tone, the ring tone volume and key tone.
- **Wallpaper**: Select the background picture on screen.
- **System information**: See an overview of the system configurations.
- **Advanced**: Configure the advanced settings.
- **Restart**: Select this option to restart the system.

### The Advanced menu

- **Programmable softbuttons**: User defined softbuttons for selecting main video source, camera presets or speed dial.
- **Connect to Cisco CallWay**: Connect your system to the Cisco CallWay subscription-based service for video calls.
- **IP settings**: Configure the IP settings.
- **Advanced configuration**: Configure the system settings.
- **Set menu password**: Change the menu password.
Navigating the menus

Changing the settings in the Advanced menu may affect the behavior of your video conference system; contact your system administrator before altering any of these settings.

The Advanced menu may be password protected. If so, type in the menu password and press OK to proceed or Cancel to go back to the Settings menu.

Use the remote control to navigate the menus:
- Use the arrows down/up to select a menu item.
- Use the arrow right to expand the selection.
- Use the arrow left to go back one step.

How to change a value:
- Select a value from a drop down list and press the OK (▼) key to save, or press the left arrow key (►) to leave without saving.
- Enter a value/text in a value/text field. Navigate to Save and press OK (▼) to save the change, or Cancel to leave without saving.

ARROW UP/DOWN: Press the up ▲ and down ▼ arrow keys to navigate in the menu.

ARROW LEFT/RIGHT
- Press the right ► arrow key to expand the selected menu item or to move to the right in a text field.
- Press the left ◄ arrow key to go back one step in the menu or to move to the left in a text field.

OK/SELECT: Press the OK/Select key (▼) to confirm your choice or selection.
The search functionality

You can search for names in the phone book and in the list of recent calls. You can also search for system settings in the Advanced configuration menu.

- On the remote control, press the # key to toggle between lower or upper case characters and numbers: abc/123.
- Enter as many characters as needed until the name or setting you are searching for displays in the list. Add or remove characters until you get the desired result.
- Remove all characters to return to the main view.

Search for contacts in the Call menu

On the remote control, press the # key to toggle between lower or upper case characters and numbers: abc/123. Enter as many characters as needed, until the name you are searching for displays in the list. Add or remove characters until you get the desired result. Remove all characters to return to the main view.

Search for system settings

Navigate to the Advanced Configuration menu.
Enter as many characters as needed, until the setting you are searching for displays in the list.

Contacts from the list of recent calls are displayed first. Contacts from the Phone book follow. Contacts marked with a ☆ are from My contacts, the others are from the corporate phone book.
Setting the menu password

The Advanced menu can be password protected. When turning on the codec for the first time, the password is not set. If a menu password has been set you will be asked to enter a password to get access to the Advanced menu. Read more about password protection in chapter 6, Password protection.

Setting a new password

Go to the Set menu password menu and:

1. On the remote control, press the # key to toggle between lower or upper case characters and numbers: abc/ABC/123
2. Enter the password. The password you enter is hidden, and each character is replaced with a star (*).
3. Navigate to Save and press OK (✓) to save the changes, or Cancel to leave without saving.
4. Press Home ( huisje ) to exit.

If the Advanced menu is password protected, type in the password and press OK to proceed or Cancel to go back one step in the menu.
Chapter 5

Using the web interface
The web interface

The web interface allows for remote administration of the system.

Connect to the codec

Open a web browser and enter the **IP address** of the codec.

How to find the IP address:

To find the IP address, open the System Information page using the remote control. Navigate to **Home > Settings > System Information**.

Password protection of the web interface

In order to access the web interface you must sign in. The username and password are the same as defined for the codec. The default username is **admin** with no password set.

Read more about user roles and how to manage users in the Administrator guide for your product.

1. Enter the IP address of the codec.

2. Enter the username and password and press **Sign In**.
**System information**

From the web interface you have the following menu options:

- System Information
- Call
- Snapshot
- Users
- Change Password
- Wallpaper
- Logon Banner
- Upload Certificates
- Audit Certificate
- Logs
- XML Files
- Upgrade Software
- Advanced Configuration
- Restart
- Sign Out

The highlighted options are described in this document. See the Administrator guide for your product for a detailed description of all options.
Making calls from the web interface

Sometimes, e.g. when you are configuring the system from a remote location, it is convenient to be able to make calls from the video system to ensure everything works as expected.

The Call page

<table>
<thead>
<tr>
<th>Call</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York <a href="mailto:Receptionist@tanberg.com">Receptionist@tanberg.com</a></td>
</tr>
<tr>
<td>New York <a href="mailto:Receptionist@tanberg.com">Receptionist@tanberg.com</a></td>
</tr>
<tr>
<td>New York <a href="mailto:Receptionist@tanberg.com">Receptionist@tanberg.com</a></td>
</tr>
</tbody>
</table>

How to make a call

Input field: Enter one or more characters in the input field, until the name you want to call appears in the dynamic search list; or, enter the complete name or number.

Dial: Press Dial to initiate the call.

Disconnect all: Press Disconnect all to end all calls.

Options: Click Options to change the bit rate for this call. Select the Call rate in the drop down list.

The call status page

The call status page appear when you make a call. Please allow for approximately 30 seconds after the call is up before checking call details.

You will find the following information on the call status page:

- Remote number
- Status: Connected
- Direction: Incoming/Outgoing
- Protocol: H323/SIP
- Transmit and receive call rates
- Encryption
- Audio: Transmit and receive protocols
- Video: Transmit and receive protocols and resolutions
- Presentation: Transmit and receive protocols and resolutions
Changing your password

When you are logged in, you can change your password.
The password is a string with 0–255 characters.

How to change your password

1. Enter your current password, your new password, and repeat the new password in the input fields.
2. Press Change password to change the password.
Custom wallpaper
If you want the company logo or a custom picture to be displayed on screen, you may very well use a custom wallpaper.

File format and picture size
The picture file format for the custom wallpaper is PNG. The maximum size is 1920x1200 pixels.

Upload and activate the wallpaper
First you have to upload the wallpaper file to the codec, then you can activate the wallpaper.

Upload the custom wallpaper file
1. Press Browse... and locate the wallpaper file (PNG).
2. Press Upload to save the file to the codec.
3. Refresh the web page to see the wallpaper you just uploaded.

Activate the new wallpaper
1. Move to the Advanced configuration page and enter wallpaper in the search field. From the drop-down list, select Custom. The new wallpaper will be displayed on screen.
2. If the new wallpaper does not show on screen, you may have to toggle once between Wallpaper None and Custom to make the change take effect.
Support log files

The log files are Cisco specific debug files which may be requested by the Cisco support organization if you need technical support.

The Logs page

Support log files

- **Support log files**
  - The log files are Cisco specific debug files which may be requested by the Cisco support organization if you need technical support.

The Logs page

- **Current log files**
  - Time stamped event log files. Select Current log files and click on a text file to view the file. Right click on a file and follow the instructions in the dialog box to save the file.

- **Historical log files**
  - Time stamped historical log files. Select Historical log files, click on a file and follow the instructions in the dialog box to save the file.
Software upgrade

From this page you can do software upgrades and add a release key and option keys.

Software versions

The C series codecs are using the TC software.

NOTE: Contact your system administrator if you have questions about the software version.

Software release notes and upgrade files

Cisco recommends reading the software release notes before upgrading the software. The software release notes and upgrade files are available from the TANDBERG ftp site. Go to: http://ftp.tandberg.com/pub/software/endpoints/tc/.

Release key

The release key is required to be able to use any of the released software.

Contact your Cisco representative to obtain the release key.

Option key

An option key is required to activate any optional functionality, and you may have several option keys in your system. The options available are:

- Natural presenter
- Premium resolution
- Multisite (not valid for Codec C20)
- High definition (only valid for Codec C20)
- Dual display (only valid for Codec C20/C40)

Contact your Cisco representative to obtain the option key(s).

Add the release and option keys

Contact your Cisco representative to obtain the required key(s). If you will add both a release key and one or more option keys, the valid procedure will be:

1. Enter the release key and press Add.
   The key format: “1TC001-1-0C22E348” (each system will have a unique key).
2. Enter the option key and press Add.
   The key format: “1N000-1-AA7A4A09” (each system will have a unique key).
3. If you have more than one option key, add the remaining keys.

Upgrade the software on the codec

4. Before you can start the upgrade you must download the software upgrade file. The file format: “s52000tc4_0_0.pkg” (each software version has a unique file name).
5. Press Browse... and select the .PKG file.
6. Press the Upgrade button to start the installation.
7. Leave the system to allow the installation process to complete. You can follow the progress on this page. When the upgrade is successfully completed a message will appear. The installation process may take up to 30 minutes.
Advanced configuration

The web interface allows for remote administration of the system.

The Advanced configuration defines the system settings and are structured in a hierarchy, making up a database of system settings.

The system settings are explained in the Administrator guide for your product.

Go to:

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

Select a menu item to see the system settings.

The search functionality

When searching for words such as H323 or SIP, all settings beginning with these characters, including all settings below in the hierarchy, will show in the list.

Search: Enter as many characters as needed to get the desired result and press Search to initiate the search.

Clear: Press Clear to return to the main view.

Changing system settings

Edit: To change a value, click on the value to see the expanded view as shown above.

Value space: The value space is specified, either as a drop down list or as text, when you edit a value.

OK: Press ok to save the new value.

Cancel: Select cancel to leave without saving.
Restarting the system

Restarting the system takes a few minutes.

Press Restart now.
Chapter 6

About password protection
Password protection
The system can be password protected in the following ways:

- The Advanced menu can be password protected with a menu password.
- The Codec is password protected. You always need to enter a username to log in.
  The same username and password is used for the web and command line interfaces.
You can also configure the codec to prompt for a PIN-code before accessing all the on screen menus.
  » The default username is admin with no password set.
  NOTE: We recommend to set a password for the admin user - see how to Change the codec password to the right.
  » New user accounts with username and password can be created using the web interface.
  Read more about how to create users with passwords and PIN codes in the Administrator guide for your product.
- You can protect the File system of the codec by setting a password for the root user. The root user is disabled by default.
  Read more about the root user and root password in the Administrator guide for your product.

NOTE: When a new administrator password has been defined make sure you keep a copy of the password in a safe place.
Contact your Cisco representative if you have forgotten the password.

Setting the Advanced menu password
Perform the following steps to define a password for the Advanced menu:
1. In the on screen menu, go to Home > Settings > Advanced > Set menu password.
   The password format is a string with 0–255 characters.
2. Enter the new password in the Set password menu.
3. Press Save.

Log in to the Advanced menu
When a password is set, the password is required to get access to the Advanced menu on screen.

How to change the Advanced menu password
1. To change the password, go to Home > Settings > Advanced > Set menu password.
2. Enter the new password in the Set password menu.
3. Press Save.

How to deactivate the Advanced menu password
1. To deactivate the password, go to Home > Settings > Advanced > Set menu password.
2. Leave the input field empty in the Set password menu.
3. Press Save to save the blank password. This will deactivate the Advanced menu password.

Changing the codec password
A user can change his codec password using the web interface or the command line interface.
If a password is not set, use the procedure below with a blank current password.

Changing the password using the web interface:
1. Log in to the web interface with your username and current password.
2. Go to the Change password page.
3. Enter the current password, the new password, and repeat the new password in the appropriate input fields.
   The password format is a string with 0–255 characters.
4. Click Save.

Changing the password using the command line interface:
1. Connect to the codec through the network or the serial data port, using a command line interface (SSH or Telnet).
2. Log in to the codec with your username and current password.
3. Run the following API command and when prompted enter the current password, the new password, and confirm the new password:
   systemtools passwd
   The password format is a string with 0–255 characters.
On our web site you will find an overview of the worldwide Cisco contacts. Go to: http://www.cisco.com/web/siteassets/contacts

Corporate Headquarters
Cisco Systems, Inc.
170 West Tasman Dr.
San Jose, CA 95134 USA

Disclaimer

THE SPECIFICATIONS AND INFORMATION REGARDING THE PRODUCTS IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE. ALL STATEMENTS, INFORMATION, AND RECOMMENDATIONS IN THIS MANUAL ARE BELIEVED TO BE ACCURATE BUT ARE PRESENTED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. USERS MUST TAKE FULL RESPONSIBILITY FOR THEIR APPLICATION OF ANY PRODUCTS.

THE SOFTWARE LICENSE AND LIMITED WARRANTY FOR THE ACCOMPANYING PRODUCT ARE SET FORTH IN THE INFORMATION PACKET THAT SHIPPED WITH THE PRODUCT AND ARE INCORPORATED HEREIN BY THIS REFERENCE. IF YOU ARE UNABLE TO LOCATE THE SOFTWARE LICENSE OR LIMITED WARRANTY, CONTACT YOUR CISCO REPRESENTATIVE FOR A COPY.

The Cisco implementation of TCP header compression is an adaptation of a program developed by the University of California, Berkeley (UCB) as part of UCB's public domain version of the UNIX operating system. All rights reserved. Copyright © 1981, Regents of the University of California.

NOTWITHSTANDING ANY OTHER WARRANTY HEREIN, ALL DOCUMENT FILES AND SOFTWARE OF THESE SUPPLIERS ARE PROVIDED "AS IS" WITH ALL FAULTS. CISCO AND THE ABOVE-NAMED SUPPLIERS DISCLAIM ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THOSE OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OR ARISING FROM A COURSE OF DEALING, USAGE, OR TRADE PRACTICE.

IN NO EVENT SHALL CISCO OR ITS SUPPLIERS BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR LOSS OR DAMAGE TO DATA ARISING OUT OF THE USE OR INABILITY TO USE THIS MANUAL, EVEN IF CISCO OR ITS SUPPLIERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Cisco and the Cisco Logo are trademarks of Cisco Systems, Inc. and/or its affiliates in the U.S. and other countries. A listing of Cisco's trademarks can be found at www.cisco.com/go/trademarks. Third party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company.

Any Internet Protocol (IP) addresses and phone numbers used in this document are not intended to be actual addresses and phone numbers. Any examples, command display output, network topology diagrams, and other figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses or phone numbers in illustrative content is unintentional and coincidental.

TANDBERG is now a part of Cisco. TANDBERG® is a registered trademark belonging to Tandberg ASA.