# Cisco TelePresence Video Systems

# **GETTING STARTED GUIDE**

- EX Series
- MX Series
- SX20 Quick Set
- Profile Series
- Quick Set C20
- Codec C Series



Software version TC5.1 FEBRUARY 2012 ......

CISCO

Thank you for choosing Cisco!

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

This part of the product documentation is aimed at administrators working with the setup of the Cisco TelePresence products running TC software.

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. You can click on them to go to the topic.

# Table of contents

Introduction	3
Intellectual property rights	4
User documentation	5
Software	5
Cisco contact	5
User interfaces	6

Configuration8
About user roles, user accounts and passwords9
Configuration tasks10
Configuration using the Touch controller
Configuring H.323 and SIP16 Setting date, time and location17
Configuration using the remote control and on-screen menu
Setting the Administrator Settings menu password
Configuration using the web interface       24         Setting the system/codec password       25         Provisioning set-up       26         Configuring IP       27         Configuring H.323 and SIP       28         Setting the date, time and location       29
Setting the menu password using the command line interface

#### 

1	pp=:::::::::::::::::::::::::::::::::::	•••
	How to use the Touch controller	.32
	The Settings menu on the Touch controller	.33
	How to use the remote control and on-screen menu	.34
	The on-screen menu system	.38
	How to use the web interface	.39
	The Advanced Configuration page on the web interface .	.40
	Cisco VCS provisioning for MX and EX Series	.41
	User documentation on the Cisco web site	.42



# Chapter 1 Introduction

D14639.06 Video Systems Getting Started Guide (TC5.1) | 2012 FEBRUARY | © 2011-2012 Cisco Systems, Inc. All rights reserved.

# Cisco TelePresence Systems **GETTING STARTED GUIDE**



This document provides the information required for you to do the basic configuration of your video conference system. We also explain how to use the remote control, the Touch controller, and the web interface.

For information about system assembly and installation, see the Installation guide for your product.

# Cisco TelePresence products covered in this guide

- EX Series:
  - EX60
  - EX90
- MX Series
  - MX200
  - MX300
- Profile Series using Codec C Series:
  - Profile 42"
  - Profile 52"/55"
  - Profile 52" Dual / 55" Dual
  - Profile 65"
  - Profile 65" Dual
- Quick Set C20 / C20 Plus
- SX20 Quick Set
- · Codec C Series:
  - Codec C40
  - Codec C60
  - Codec C90

# User documentation

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

- Video conference room primer
- Video conference room acoustics guidelines
- Installation guides for the TelePresence systems
- Software release notes for the TC software
- · Getting started guide for the TelePresence systems
- User guides for the TelePresence systems
  - With remote control
  - With Touch controller
- Quick reference guides 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 guide
- Legal & license information for products using TC software

# Downloading the user documentation

You can download the user documentation from the Cisco web site, go to:

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

Guidelines how to find the documentation on the Cisco web site are included in the 
User documentation on the Cisco web site appendix.

# Software

You can download the software for your product from the Cisco web site, go to:

http://www.cisco.com/cisco/software/navigator.html

# **Cisco contact**

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



# Chapter 2 User interfaces

D14639.06 Video Systems Getting Started Guide (TC5.1) | 2012 FEBRUARY | © 2011-2012 Cisco Systems, Inc. All rights reserved.

# **User interfaces**

The principal operating device for your Cisco TelePresence video conference system is either a remote control or a Touch controller.

Additionally, you can configure your system via its web interface, provided that it is already connected to a network and you know the IP address.

In the appendices we briefly describe how to use the Touch controller and the remote control and on-screen menu. We also describe how to navigate and use the web interface.





# Chapter 3 Configuration

D14639.06 Video Systems Getting Started Guide (TC5.1) | 2012 FEBRUARY | © 2011-2012 Cisco Systems, Inc. All rights reserved.

# How to configure your system

Before you can start using your video conference system you must set the basic configurations as described in this chapter.

# Using a provisioning system, or configuring each video conference system individually

Provisioning allows video conferencing network administrators to manage many video systems simultaneously. In general, you only have to input the credentials of the provisioning server to each video system; the rest of the configuration is done automatically.

Without a provisioning system, you must configure each video system individually. As a minimum, you must set the IP and SIP/H.323 parameters. You should also set the correct time and date.

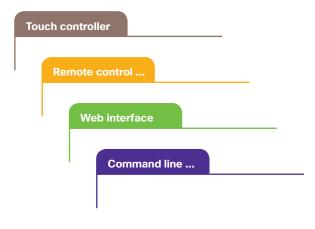
Basic configuration with or without a provisioning system is described in the remainder of this chapter.

# Different user interface

We describe how to configure the video system using either the Touch controller, the remote control or the web interface.

We also describe how to set the menu password using the command line interface.

The descriptions are marked with the following colors.



# About user roles, user accounts and passwords

# System/codec password

You need ADMIN rights to configure the system via web.

**User roles:** A user must possess one or a combination of several user roles. Three user roles exist, representing different rights: ADMIN, USER and AUDIT. It is important to note that these roles have non-overlapping rights.

A complete administrator user account with full access rights, like the default admin user, must possess all the three roles.

**NOTE:** Initially, no password is set for the default admin user. We strongly recommend that you set a password for this user, and any other user possessing an ADMIN role, to restrict access to system configuration.

You can read more about how to create and manage user accounts in the Administrator guide for your product.

# Menu password

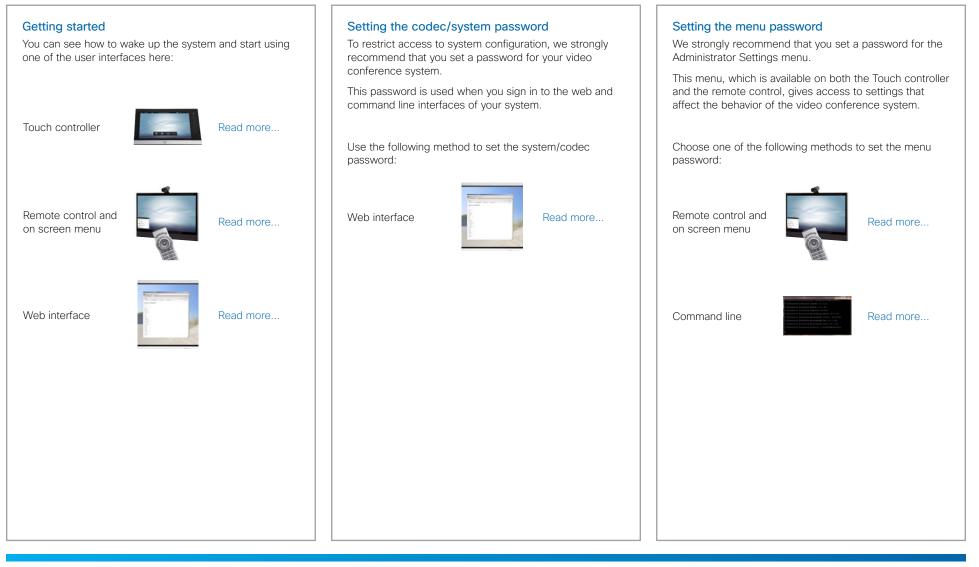
**NOTE:** Initially, no menu password is set. We strongly recommend that you set a menu password to restrict access to the Administrator menus on the Touch controller and remote control.

You need to enter this password to be able to configure the video system using a Touch controller or remote control.

# **Configuration tasks**

The initial configuration tasks are described on the following pages. Click the Read more... hyperlink for the method you want to use to find the task description.

Click the Back... button in the task description to go back to this task overview.



# Configuration tasks (continued)

# Provisioning set-up (when using a provisioning system)

Your system may be configured by an external provisioning system. In this way a number of settings are provisioned automatically, and you (most likely) will not have to set the IP, H.323, SIP and Time and Date settings as described on the next page.

Choose one of the following methods to set-up the provisioning parameters:

Touch controller



Remote control and on screen menu

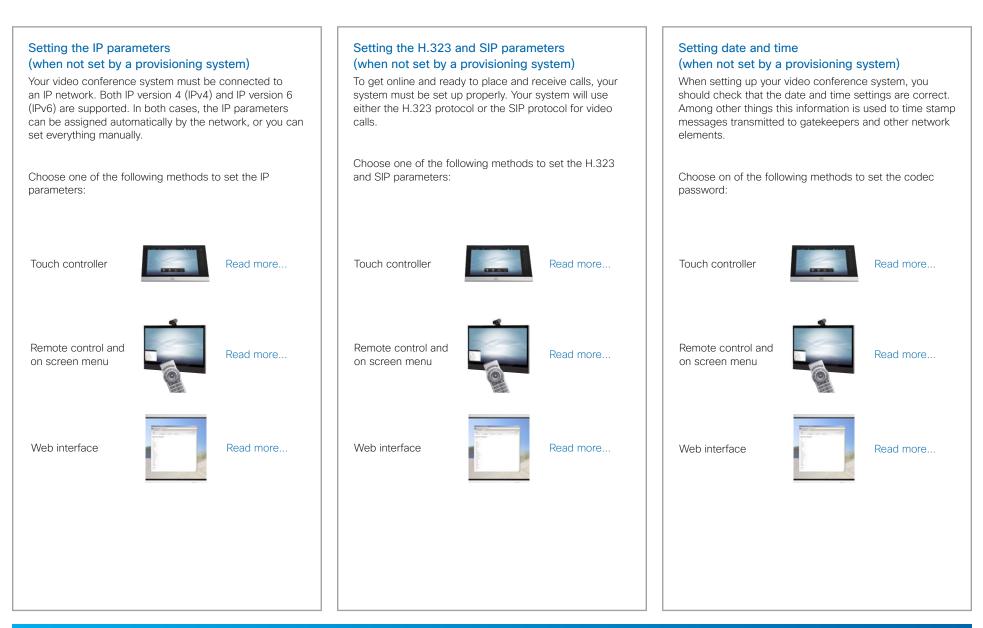


Web interface



Read more...

# Configuration tasks (continued)



..........

11

# Cisco TelePresence Systems **GETTING STARTED GUIDE**

## **Touch controller**

# Configuration using the Touch controller

# Waking up the system

If no menu is displayed on the Touch controller, tap the display to wake up the system.

If the system does not wake up:

- Make sure the Touch controller is connected to the main unit.
- Make sure the main unit is connected to power and switched on.

If the system has just been switched on, wait a few minutes to allow the system to start up.

If in doubt, read the Installation guide for your product.



Touch controller

#### **Touch controller**

Provisioning set-up

(when using a provisioning system)

Start the Provisioning Wizard

Settings > Provisioning and then Start.



# 3. Enter required parameters

Enter the parameters required for the chosen provisioning infrastructure (see illustrations below). Then tap Register to complete the procedure.

#### Cisco TelePresence Callwav

Upon ordering the Cisco TelePresence Callway service, you have received a Video number and an Activation code.

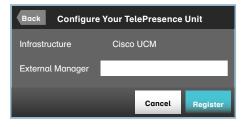
Please send an e-mail to support@callway.com if you don't have a video phone number and an activation code.

	Cisco TelePresence Callway
	received a Video number and an
	ease send an e-mail to support@
	I don't have a video phone number
and an activation	code.
Infrastructure	Cisco TelePresence Callway
	_
Video number	
Activation code	
	Cancel Register

#### Cisco UCM

Contact your UCM provider to get the IP address or DNS name of the Cisco UCM (External Manager) <sup>1)</sup>.

You can find more details about setting up Cisco UCM provisioning in the Administering TC endpoints on CUCM auide.



<sup>1)</sup> The DHCP server can be set up to provide the External Manager address automatically (DHCP Option 150). Any input in the input field will override the setting provided by DHCP.

Cisco VCS (for EX and MX Series only)

Contact your VCS provider to get the IP address or DNS name of the Cisco VCS (External Manager), the SIP Domain, and, if required, the Username/Password for authenticating the video system with the provisioning server.

Have a look at the Cisco VCS provisioning for MX and EX Series appendix for more information about VCS provisioning.

Back Configur	e Your TelePresence	Unit
Infrastructure	Cisco VCS	
Username		
Password		
Domain		
External Manager		
	Cancel	Register

#### **Touch controller**

# Configuring IP

(when not set by a provisioning system)

Your video conference system supports both IP version 4 (IPv4) and IP version 6 (IPv6).

In both cases, the IP parameters can be assigned automatically by the network, or you can set everything manually.

If you want to set the parameters manually please contact your network administrator to obtain the required parameters.

If an IP address is already assigned to your system, you will find the current IPv4 and/or IPv6 address on the System Information page:

Tap More > Settings > System Information.

The IPv4 Address and/or IPv6 Address of the system is shown in the NETWORK section.

# 1. Select IP version

- i. Tap More > Settings > Administrator Settings > Network Settings.
- ii. Tap *IPv4* or *IPv6* in the *IP Version* section according to your requirement.

iii. Tap Save to save the change, or Undo to leave without saving.

### 2. Select automatic or manual IP assignment

i. Tap *Auto* in the *IP Assignment* section if you want automatic IP assignment; or *Manual* if you want to set the IP addresses manually.

ii. Tap Save to save the change, or Undo to leave without saving.

## 3. Set the IP addresses

Set the remaining IP settings according to the table below. The actions required depend on the IP version and IP assignment method you selected in the previous steps.

# 4. Return to the main menu

Press *Exit* to return to the home menu.

	IP Ass	ignment
IP Version	Auto	Manual
IPv4	The IP configuration is complete.	a. Enter the <i>IP Address, Subnet Mask, Gateway,</i> and <i>DNS Server</i> address. A soft keyboard appears when you tap an input field
		b. Tap <i>Save</i> to save the changes, or <i>Undo</i> to leave without saving.
	a. Tap <i>On</i> or <i>Off</i> in the <i>DHCP Options</i> section according to your preference. <sup>1</sup>	a. Enter the <i>IP Address</i> and <i>Gateway</i> . A soft keyboard appears when you tap an input field.
	b. Tap <i>Save</i> to save the change, or <i>Undo</i> to leave without saving.	b. Tap <i>On</i> or <i>Off</i> in the <i>DHCP Options</i> section according to your preference. <sup>1</sup>
IPv6		c. Tap <i>Save</i> to save the changes, or <i>Undo</i> to leave without saving.
	<sup>1</sup> DHCP Options: <i>Off:</i> All IP parameters, except the IP address and gatew Please refer to the Administrator Guide for your pro <i>On:</i> The IP parameters, like the DNS and NTP server ad	

#### **Touch controller**

# Configuring H.323 and SIP

(when not set by a provisioning system)

To get online and ready to place and receive calls, your system must be set up properly. Your system will use either the H.323 protocol or the SIP protocol for video calls.

**NOTE:** Contact your system administrator, or service provider, for information about the network settings.

For networks administered through Cisco TMS (Cisco TelePresence Management Suite) your Cisco TMS administrator will help you to get online.

# H.323

If in doubt for any of the parameters below, contact your system administrator or your service provider.

- 1. Tap More > Settings > Administrator Settings > Network Settings > H323 Settings
- 2. Enter the *H323 Number* and *H323 Id* in their respective input fields.
- 3. If you want to enter the address of the H.323 gatekeeper manually, tap *Manual* in the *Gatekeeper Discovery* section, and enter the *Gatekeeper Address* in the input field. Otherwise tap *Auto*.
- 4. If the H.323 gatekeeper requires authentication and you want your system to authenticate itself to the gatekeeper, tap ON in the Authentication Mode section and enter the Login Name and Password in their respective input fields. Otherwise, tap OFF.
- 5. Tap *Save* to save the changes, or *Undo* to leave without saving.
- 6. Tap *Back* twice to review the System Information page and verify the H323 settings.

If you successfully registered to the Gatekeeper the *Status* will show *Registered* in the H323 section.

7. Tap Exit to return to the home menu.

# SIP

If in doubt for any of the parameters below, contact your system administrator or your service provider.

- 1. Tap More > Settings > Administrator Settings > Network Settings > SIP Settings
- 2. Enter the SIP URI in the URI input field.
- 3. Tap the preferred transport protocol in the *Default Transport* section. If you select *Auto*, the system will first try to connect using TLS, then TCP, and finally UDP.
- 4. Select a *Proxy Type*. Step through the list of available proxy types by tapping the or + signs. The default type is *Standard*.
- 5. If you want to enter the SIP proxy address manually, tap *Manual* in the *Proxy Discovery* section and enter the *Proxy Address* in the input field. If you want the system to obtain the SIP proxy address automatically (DHCP), tap *Auto*.
- 6. If the SIP proxy server requires authentication you must enter the *Login Name* and *Password* in their respective input fields to authenticate your system.
- 7. Tap *Save* to save the changes, or *Undo* to leave without saving.
- 8. Tap *Back* twice to review the System Information page and verify the SIP settings.

If you successfully registered to a SIP server the *Status* will show *Registered* in the SIP section.

9. Tap *Exit* to return to the home menu.

#### **Touch controller**

# Setting date, time and location

(when not set by a provisioning system)

When setting up your video conference system, you should check that the date and time settings are correct. Among other things this information is used to time stamp messages transmitted to gatekeepers and other network elements.

The time is shown in the top right corner of the Touch controller display.

- 1. Tap More > Settings > Administrator settings > Date, Time & Location.
- 2. Tap 24h or 12h to select the Time Format you prefer.
- 3. Tap *dd.mm.yy*, *mm.dd.yy* or *yy.mm.dd* to select the *Date Format* you prefer.
- 4. Select the *Time Zone* your system is in. Step through the list of available zones by tapping the or + signs.
- 5. Set *Date & Time Mode* to *Auto* if you want time and date to be regularly updated; otherwise, select *Manual*.

If you select *Manual*, enter the correct value for *Hour*, *Minute*, *Year*, *Month*, and *Day*. Tap the plus and minus signs to increase or decrease a value.

If you select *Auto*, the NTP server address can be automatically obtained from the network (set the *NTP Mode* to *Auto*) or you can enter the *NTP Server* address yourself (set *NTP Mode* to *Manual*).

6. Tap *Save* to save the changes, or *Undo* to leave without saving.

7. Tap Exit to return to the home menu.

# Cisco TelePresence Systems **GETTING STARTED GUIDE**

Remote control and on-screen menu

# Configuration using the remote control and on-screen menu

# Waking up the system

If there is no menu on screen, press Home ( $\bigcirc$ ) 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 switched on.
- · Make sure the remote control has the batteries installed.
- · Make sure the system is switched on.

If the system has just been switched 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 guide for your product.



Remote control and on-screen menu

# Setting the Administrator Settings menu password

When starting up the system for the first time the Administrator Settings menu password is not set.

**NOTE:** We strongly recommend that you define a password to protect the Administrator Settings menu, since these settings affect the behavior of the video conference system.

# 1. Go to Home > Settings > Administrator settings > 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* ( $\bigcirc$ ) to exit.



.........

#### Remote control and on-screen menu

# Provisioning set-up

(when using a provisioning system)

If in doubt for any of the parameters below, contact your provisioning system provider.

See the Administrator guide for your product to find more information about the provisioning settings.

## Select provisioning infrastructure

- 1. Go to *Home > Settings > Administrator settings > Advanced configuration > Provisioning > Mode* and select a provisioning infrastructure:
  - TMS Cisco TelePresence Management System
  - VCS Cisco Video Communication Server (only available for EX and MX series)
  - Callway Cisco TelePresence Callway
  - CUCM Cisco Unified Communications Manager

If you select *Off*, all configurations must be set manually on the video system.

# Always save the new value when you change a setting

- Text entry in an input field: Enter the text, navigate to Ok/Save to save the change, or navigate to Cancel to leave without saving; then press the OK (
   key to confirm.

Back to task overview

### Set the required provisioning parameters

Which parameters to set depend on which infrastructure was selected.

#### TMS

- 1. Go to Home > Settings > Administrator settings > Advanced configuration > Provisioning > ExternalManager.
- 2. Enter the IP address or DNS name of the Cisco TMS server in the *Address* input field. <sup>1)</sup>
- 3. Enter the *Path* to the provisioning service in the corresponding input field.
- 4. It may be required to authenticate the video system with Cisco TMS. If so, go back to *Home > Settings > Administrator settings > Advanced configuration > Provisioning,* and enter *LoginName* and *Password* in the respective input fields.

### VCS (for EX and MX Series only)

- 1. Go to Home > Settings > Administrator settings > Advanced configuration > Provisioning > ExternalManager.
- 2. Enter the IP address or DNS name of the Cisco VCS in the *Address* input field.
- 3. Enter the SIP *Domain* for the Cisco VCS in the corresponding input field.
- 4. It may be required to authenticate the video system with Cisco VCS. If so, go back to Home > Settings > Administrator settings > Advanced configuration > Provisioning, and enter LoginName and Password in the respective input fields.

Have a look at the ► Cisco VCS provisioning for MX and EX Series appendix for more information about VCS provisioning.

# Callway

Upon ordering the Cisco TelePresence Callway service, you have received a *Video number* and an *Activation code*.

Please send an e-mail to support@callway.com if you don't have a video phone number and an activation code.

- 1. Go to Home > Settings > Administrator settings > Advanced configuration > Provisioning
- 2. Enter the Video number in the LoginName input field.
- 3. Enter the Activation code in the Password input field.

#### CUCM

- 1. Go to Home > Settings > Administrator settings > Advanced configuration > Provisioning > ExternalManager.
- Enter the IP address or DNS name of the UCM provisioning server in the Address input field <sup>1)</sup>.

You can find more details about setting up Cisco UCM provisioning in the *Administering TC endpoints on CUCM* guide.

<sup>1)</sup> The DHCP server can be set up to provide the External Manager address automatically (Option 242 for TMS; Option 150 for UCM). Any input in the input field will override the setting provided by DHCP.

#### **Remote control and on-screen menu**

# Configuring IP

(when not set by a provisioning system)

Your video conference system supports both IP version 4 (IPv4) and IP version 6 (IPv6).

In both cases, the IP parameters can be assigned automatically by the network, or you can set everything manually.

If you want to set the parameters manually please contact your network administrator to obtain the required parameters.

If an IP address is already assigned to your system, you will find the current IPv4 and/or IPv6 address on the System Information page:

Go to Home > Settings > System information.

The IPv4 Address and/or IPv6 Address of the system is shown in the NETWORK section on the System Information page.

Press *Exit* (the right most function key) to exit.

# Always save the new value when you change a setting

- Drop down list selection: Navigate to the correct value and press the OK (√) key to save, or press the left arrow key ◀ to leave without saving.
- Text entry in an input field: Enter the text, navigate to Ok/Save to save the change, or navigate to Cancel to leave without saving; then press the OK (√) key to confirm.

## 1. Select IP version

- i. Go to Home > Settings > Administrator settings > IP settings.
- ii. Select *IPv4* or *IPv6* in the *IP version* drop down list according to your requirement.

# 2. Select automatic or manual IP assignment

- i. Go to Configure > IP assignment.
- Select DHCP (IPv4) or Autoconf (IPv6) in the IP assignment drop down list if you want automatic IP assignment; select Static if you want to set the IP addresses manually.
- iii. Navigate to *OK* to save the change, or *Cancel* to leave without saving. Press *OK* ( $^{\checkmark}$ ) to confirm.

# 3. Set the IP addresses

Set the remaining IP settings according to the table to below. The actions required depend on the IP version and IP assignment method you selected in the previous steps.

# 4. Return to the main menu

Press *Home*  $(\bigcirc)$  to return to the home menu.

	IP assig	gnment
IP version	DHCP/Autoconf	Static
IPv4	The IP configuration is complete.	a. Go to <i>Configure</i> and enter the <i>IP Address, Subnet Mask, Gateway,</i> and <i>DNS Server.</i>
	a. Go to Configure, and set <i>DHCP Options</i> to <i>On</i> or <i>Off</i> according to your preference. <sup>1</sup>	a. Go to Configure, and enter the <i>IP Address</i> and <i>Gateway</i> .
	b. Navigate to <i>OK</i> to save the change, or <i>Cancel</i> to leave without saving.	b. Set <i>DHCPOptions</i> to <i>On</i> or <i>Off</i> according to your preference. <sup>1</sup>
IPv6		c. Navigate to <i>OK</i> to save the change or <i>Cancel</i> to leave without saving.
	<sup>1</sup> DHCP Options: <i>Off:</i> All IP parameters, except the IP address and gate Please refer to the Administrator Guide for your pro- <i>On:</i> The IP parameters, like the DNS and NTP server an	

#### Remote control and on-screen menu

# Configuring H.323 and SIP

(when not set by a provisioning system)

To get online and ready to place and receive calls, your system must be set up properly. Your system will use either the H.323 protocol or the SIP protocol for video calls.

**NOTE:** Contact your system administrator, or service provider, for information about the network settings.

For networks administered through Cisco TMS (Cisco TelePresence Management Suite) your Cisco TMS administrator will help you to get online.

#### Save the new value when you change a setting

- Text entry in an input field: Enter the text, navigate to Ok/Save to save the change, or navigate to Cancel to leave without saving; then press the OK (√) key to confirm.

# H.323

If in doubt for any of the parameters below, contact your system administrator or your service provider.

- 1. Go to Home > Settings > Administrator settings > Advanced configuration > H323 > Profile 1.
- 2. Go to *H323Alias* and enter the *E164* number and *ID* in the corresponding input fields.
- 3. If you want the system to obtain the H.323 gatekeeper address automatically, go to *Gatekeeper* and select *Auto* in the *Discovery* drop down list; if you want to enter the address manually, select *Manual*.

If set to *Manual* enter the gatekeeper address in the *Address* input field.

4. If the H.323 gatekeeper requires authentication and you want your system to authenticate itself to the gatekeeper, go to *Authentication* and select *On* in the *Mode* drop down list; otherwise select *Off.* 

If set to *On* enter the *LoginName* and *Password* in the corresponding input fields.

5. Go to *Home > Settings > System information* and verify the H323 settings.

If you successfully registered to the Gatekeeper the *Status* will show *Registered* in the H323 section.

6. Press *Home* ( ) to exit.

Please check the Administrator guide for your product if you want to change the other H.323 settings.

# SIP

If in doubt for any of the parameters below, contact your system administrator or your service provider.

- 1. Go to Home > Settings > Administrator settings > Advanced configuration > SIP > Profile 1.
- 2. Go to URI and enter the SIP URI in the corresponding input field.
- 3. Select your preferred *Default Transport* protocol in the drop down list. If you select *Auto* the system will first try to connect using TLS, then TCP, and finally UDP.
- 4. Select your preferred proxy *Type* in the drop down list. The default type is *Standard*.
- Go to *Proxy 1*. If you want the system to obtain the SIP proxy address automatically, select *Auto* in the *Discovery* drop down list; if you want to enter the address manually, select *Manual*.

If set to *Manual* enter the proxy address in the *Address* input field.

- 6. If the SIP proxy requires authentication you must enter a login name and password to authenticate your system.
   Go to Authentication 1 and enter the LoginName and Password in the corresponding input fields.
- 7. Go to *Home > Settings > System information* and verify the SIP settings.

If you successfully registered to a SIP server the *Status* will show *Registered* in the SIP section.

# 8. Press *Home* ( $\bigcirc$ ) to exit.

Please check the Administrator guide for your product if you want to change the other SIP settings.

#### **Remote control and on-screen menu**

# Setting date, time and location

(when not set by a provisioning system)

When setting up your video conference system, you should check that the date and time settings are correct. Among other things this information is used to time stamp messages transmitted to gatekeepers and other network elements.

The time and date is shown in the top right corner of the main display.

#### Save the new value when you change a setting

- Drop down list selection: Navigate to the correct value and press the OK (√) key to save, or press the left arrow key < to leave without saving.</li>
- Text entry in an input field: Enter the text, navigate to Ok/Save to save the change, or navigate to Cancel to leave without saving; then press the OK (√) key to confirm.

1. Go to Home > Settings > Date and time.

- 2. Select 24 hours or 12 hours (am/pm) in the Time format drop down list as you prefer.
- 3. Select *Day.Month.Year*, *Month.Day.Year* or *Year.Month. Day* in the *Date format* drop down list as you prefer.
- 4. Select your time zone in the *Time zone* drop down list.
- 5. Select *Auto, Manual* or *Off* in the *NTP mode* drop down list as you prefer. <sup>1</sup>

If you select *Manual*, also enter the *NTP server* address in the corresponding input field.

If you select *Off,* also select the correct value for *Day, Month, Year* and *Time* in the corresponding drop down lists.

6. Press *Home* ( ) to exit.

<sup>1</sup> NTP mode:

- Auto: The time is regularly updated using an NTP server. The NTP server address is automatically obtained from the network (DHCP).
- Manual: The time is regularly updated using an NTP server. You must manually enter the NTP server address.
- Off: You must set the time manually. The time will not be updated automatically.

# Web interface

# Configuration using the web interface

You have to use the Touch controller or remote control for the configurations until you know your system's IP address.

# Finding the IP address

Tap *More > Settings > System Information* on a Touch controller; or navigate to *Home > Settings > System information* if you use the remote control and on-screen menu.

In both cases you will find the IPv4 Address and/or IPv6 Address of the system in the NETWORK section.

# Signing in to the web interface

- 1. Open a web browser and enter the system's IP address in the address bar.
- 2. Enter your user name and password and click *Sign In*. The default user name is admin with no password set.

If you are not able to connect to the system:

- Make sure the system and computer are connected to the same network.
- Make sure the system is switched on.

If the system has just been switched on, wait a few minutes to allow the system to start up.



# Setting the system/codec password

You need a username and password to sign in to the web and command line interfaces of your system.

The video conference system is delivered with a default user account with username admin and no password set. This user has full access rights to the system.

**NOTE:** We strongly recommend that you set a password for the admin user to restrict access to system configuration.

Make sure to keep a copy of the password in a safe place. You have to contact your Cisco representative if you have forgotten the password.

1. Click the small arrow next to your user name in the upper right corner and select *Change password*.

 Enter the *Current password*, the *New password*, and repeat the new password in the appropriate input fields. The password format is a string with 0–64 characters. If a password is not currently set, use a blank *Current password*.

3. Click Change password.

Back to task overview

D14639.06 Video Systems Getting Started Guide (TC5.1) | 2012 FEBRUARY | © 2011-2012 Cisco Systems, Inc. All rights reserved.



#### Web interface

# Provisioning set-up

(when using a provisioning system)

If in doubt for any of the parameters below, contact your provisioning system provider.

See the Administrator guide for your product to find more information about the provisioning settings.

## Select provisioning infrastructure

- 1. Go to the *Configuration* tab and select *Advanced* Configuration.
- 2. Open the *Provisioning* settings from the left column.
- 3. Select a provisioning infrastructure in the Mode drop down list:
  - TMS Cisco TelePresence Management System
  - VCS Cisco Video Communication Server (only available for EX and MX series)
  - Callway Cisco TelePresence Callway

Back to task overview

CUCM - Cisco Unified Communications Manager

If you select *Off*, all configurations must be set manually on the video system.

#### Set the required provisioning parameters

Which parameters to set depend on which infrastructure was selected.

#### TMS

1. It may be required to authenticate the video system with Cisco TMS. If so, enter LoginName and Password in the respective input fields.

Click ok to save the settings.

- 2. Enter the IP address or DNS name of the Cisco TMS server in the Address input field under the ExtermalManager heading.<sup>1)</sup> Click ok to save the setting.
- 3. Enter the Path to the provisioning service in the corresponding input field. Click ok to save the setting.
- VCS (for EX and MX Series only)
- 1. It may be required to authenticate the video system with the Cisco VCS. If so, enter LoginName and Password in the respective input fields.

Click ok to save the settings.

2. Enter the IP address or DNS name of the Cisco VCS in the Address input field under the ExternalManager heading.

Click ok to save the setting.

- 3 Enter the SIP Domain for the Cisco VCS in the corresponding input field
  - Click ok to save the setting.

Have a look at the > Cisco VCS provisioning for MX and EX Series appendix for more information about VCS provisioning.

### Callway

Upon ordering the Cisco TelePresence Callway service, you have received a Video number and an Activation code.

Please send an e-mail to support@callway.com if you don't have a video phone number and an activation code.

- 1. Enter the Video number in the LoginName input field. Click ok to save the setting.
- 2. Enter the Activation code in the Password input field. Click ok to save the setting.

## CUCM

3. Enter the IP address or DNS name of the UCM provisioning server in the Address input field under the ExtermalManager heading.1)

You can find more details about setting up Cisco UCM provisioning in the Administering TC endpoints on CUCM quide.

<sup>1)</sup> The DHCP server can be set up to provide the External Manager address automatically (Option 242 for TMS; Option 150 for UCM). Any input in the input field will override the setting provided by DHCP.

# Web interface

# Configuring IP

(when not set by a provisioning system)

Your video conference system supports both IP version 4 (IPv4) and IP version 6 (IPv6).

In both cases, the IP parameters can be assigned automatically by the network, or you can set everything manually.

If you want to set the parameters manually please contact your network administrator to obtain the required parameters.

If an IP address is already assigned to your system, you will find the current IPv4 and/or IPv6 address on the System Information page:

Go to the *Diagnostics* tab and select *System Information*. The system's IP address is listed in the General section.

# 1. Select IP version

Go to the *Configuration* tab and select *Advanced Configuration*.

Open the *Network 1* settings from the left column. Select which IP version to use in the *IPStack* drop down list.

# 2. Select automatic or manual IP assignment

*For IPv4:* Select *DHCP* or *Static* in the *Assignment* drop down list.

*For IPv6:* Scroll down the page to the *IPv6* section and select *Autoconf* or *Static* in the *Assignment* drop down list.

# 3. Set the IP addresses

Set the remaining IP settings according to the table below. The actions required depend on the IP version (*IPStack*) and IP assignment method (*Assignment*) you selected in the previous steps.

	Assig	nment
IPStack	DHCP/Autoconf	Static
IPv4	The IP configuration is complete.	<ul> <li>a. Under the heading <i>IPv4</i>; enter the <i>Address, Gateway</i> and <i>SubnetMask</i> in the corresponding input fields. Click <i>ok</i> to save the change.</li> </ul>
		b. Under the heading <i>DNS</i> , enter the DNS server address in the <i>Server 1 Address</i> input field. Click <i>ok</i> to save the change.
	a. Select <i>On</i> or <i>Off</i> in the <i>DHCPOptions</i> drop down list according to your preference. <sup>1</sup>	a. Select <i>On</i> or <i>Off</i> in the <i>DHCPOptions</i> drop down list according to your preference. <sup>1</sup>
IPv6		b. Enter the system IP address in the <i>Address</i> input field and the gateway address in the <i>Gateway</i> input field. Click <i>ok</i> to save the change.
	<sup>1</sup> DHCP Options: <i>Off:</i> All IP parameters, except the IP address and gatew Please refer to the Administrator Guide for your pro <i>On:</i> The IP parameters, like the DNS and NTP server ad	

### Web interface

# Configuring H.323 and SIP

(when not set by a provisioning system)

To get online and ready to place and receive calls, your system must be set up properly. Your system will use either the H.323 protocol or the SIP protocol for video calls.

**NOTE:** Contact your system administrator, or service provider, for information about the network settings.

For networks administered through Cisco TMS (Cisco TelePresence Management Suite) your Cisco TMS administrator will help you to get online.

# H.323

If in doubt for any of the parameters below, contact your system administrator or your service provider.

1. Go to the *Configuration* tab and select *Advanced Configuration*.

Open the H323 settings from the left column.

- 2. Under the *H323 Alias* heading, enter the *ID* and *E164* number in their respective input fields.
- 3. Go to the Gatekeeper heading.

If you want the system to obtain the H.323 gatekeeper address automatically, select *Auto* in the *Discovery* drop down list; if you want to enter the address manually, select *Manual*.

If set to *Manual* enter the gatekeeper *Address* in the corresponding input field. Click *ok* to save the change.

4. If the H.323 gatekeeper requires authentication and you want your system to authenticate itself to the gatekeeper, go to the *Authentication* heading and select *On* in the *Mode* drop down list. Then enter the *LoginName* and *Password* in the corresponding input fields. Click *ok* to save the change.

Otherwise, select Off in the Mode drop down list.

5. Go to the *Diagnostics* tab and select *System Information* to verify the H323 settings.

If you successfully registered to a Gatekeeper the *Status* will show *Registered* in the H323 section.

Please check the Administrator guide for your product if you want to change the other H.323 settings.

# SIP

If in doubt for any of the parameters below, contact your system administrator or your service provider.

1. Go to the *Configuration* tab and select *Advanced Configuration*.

Open the SIP page from the sidebar on the left.

- 2. Enter the SIP URI in the *URI 1* input field, and optionally a display name in the *DisplayName* input field. Click *ok* to save the change.
- 3. Select the preferred transport protocol from the *DefaultTransport* drop down list. If you select *Auto*, the system will first try to connect using TLS, then TCP, and finally UDP.
- 4. Select a proxy type in the *Type* drop down list. The default type is *Standard*.
- 5. Go to the Proxy 1 heading.

If you want the system to obtain the SIP proxy address automatically, select *Auto* in the *Discovery* drop down list; if you want to enter the address manually, select *Manual*.

If you select *Manual* enter the proxy *Address* in the corresponding input field. Click *ok* to save the change.

- 6. If the SIP proxy requires authentication you must enter a login name and password to authenticate your system.
  Go to the Authentication 1 heading and enter the LoginName and Password in the corresponding input fields. Click ok to save the change.
- 7. Go to the *Diagnostics* tab and select *System Information* to verify the SIP settings.

If you successfully registered to a SIP server the *Status* will show *Registered* in the SIP section.

Please check the Administrator guide for your product if you want to change the other SIP settings.

#### Web interface

# Setting the date, time and location

(when not set by a provisioning system)

When setting up your video conference system, you should check that the date and time settings are correct. Among other things this information is used to time stamp messages transmitted to gatekeepers and other network elements.

If you operate your system using the Touch controller, the time is shown in the top right corner of the Touch controller display; if you operate your system using a remote control, the time and date is shown in the top right corner of the main display. 1. Go to the *Configuration* tab and select *Advanced Configuration*.

Open the *Time* settings from the left column.

- 2. Select your preferred date format in the *DateFormat* drop down list.
- 3. Select your preferred time format in the *TimeFormat* drop down list.
- 4. Select your time zone in the *Zone* drop down list.
- 5. Open the *NetworkServices* folder and then the *NTP* folder.

Select Auto, Manual or Off in the Mode drop down list. 1

If you select *Manual*, enter the NTP server address in the *Address* input field. Click *ok* to save the change.

If you select *Off*, you have to enter the time and date manually using either the Touch controller (*More* > *Settings* > *Administrator Settings* > *Date, Time & Location*) or the remote control and on-screen menu system (*Home* > *Settings* > *Date and Time*).

<sup>1</sup> NTP mode:

Auto: The time is regularly updated using an NTP server. The NTP server address is automatically obtained from the network (DHCP).

Manual: The time is regularly updated using an NTP server. You must manually enter the NTP server address.

*Off:* You must set the time manually. The time will not be updated automatically.

### Command line interface

# Setting the menu password using the command line interface

When starting up the system for the first time the Administrator Settings menu password is not set.

**NOTE:** We strongly recommend that you define a password to protect the Administrator Settings menu, since these settings affect the behavior of the video conference system.

The Administrator Settings menu password cannot be set using the Touch controller. If your system does not have a remote control, you have to set the menu password from the command line interface.

#### Signing in to the command line interface

1. To find the IP address of the system, tap *More > Settings* > *System Information* on the Touch controller.

The IPv4 Address and/or IPv6 Address is listed in the NETWORK section.

- 2. Open a command line interface (SSH or Telnet) using the system's IP address.
- 3. Enter your codec/system user name and password when prompted.

The default user name is admin with no password set.

#### Setting the menu password

- Connect to the system through the network or the serial data port, using a command line interface (SSH or Telnet).
- 2. Type the following command:

xCommand SystemUnit MenuPassword Set Password: cpassword>

The password format is a string with 0-255 characters.



# Appendices

D14639.06 Video Systems Getting Started Guide (TC5.1) | 2012 FEBRUARY | © 2011-2012 Cisco Systems, Inc. All rights reserved.

# How to use the Touch controller

The basic function of the Touch controller is illustrated below.

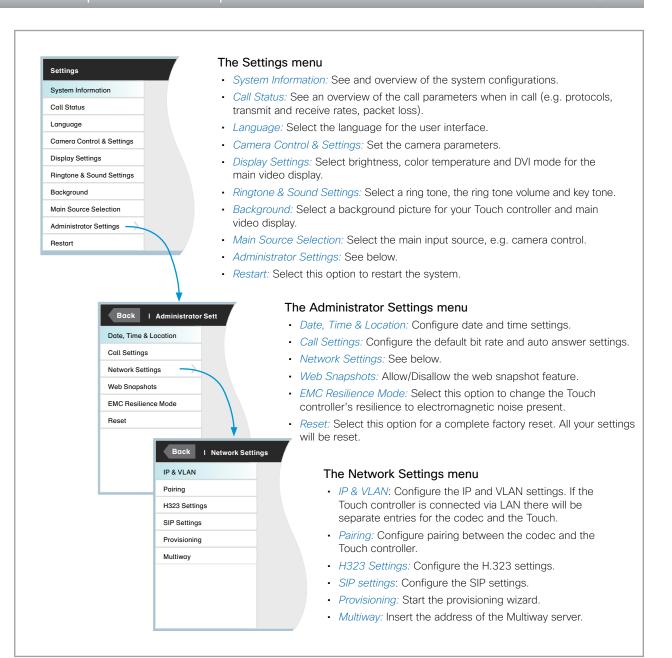
The Touch controller and its use are described in full detail in the User Guide for your video conference system. All settings are not available on all products; therefore the touch buttons shown below may or may not be present on your system.



# The Settings menu on the Touch controller

All settings are not available on all products; therefore the menu items shown to the right may or may not be present on your system.

You will find a complete description of the Touch controller menus in the User guide for your video conference system.



# How to use the remote control and on-screen menu

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

Point the remote control towards the system or camera and press the Home key (a) to open the top level menu.

# Navigating the menu

Using the remote control to navigate the menu:

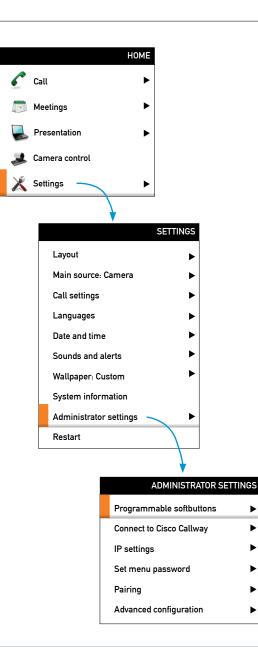
- Use the arrows down/up to select a menu item.
- Use the arrow right to expand the selection.
- Use the arrow left to go back one step.

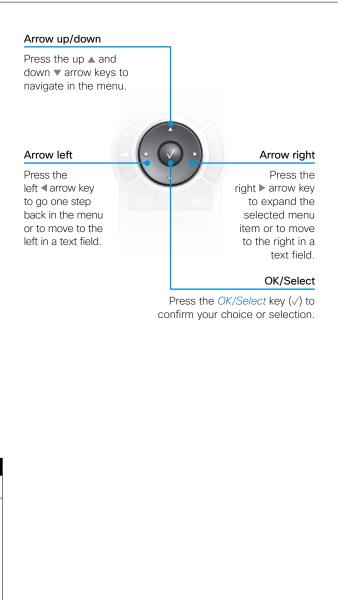
# Changing settings

Using the remote control 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 input field. Navigate to Save and press OK (√) to save the change, or navigate to Cancel and press OK (√) to leave without saving.

You can find more information about the on-screen menu in the ► On-screen menu system appendix.



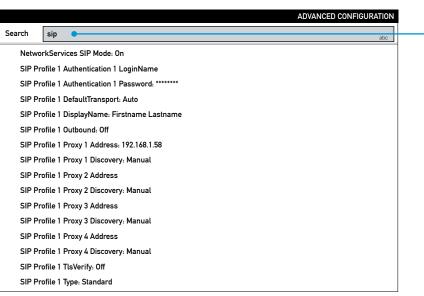


# The search functionality

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

- On the remote control, press the # key to toggle between 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.

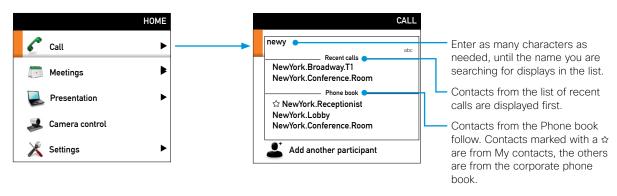
# Searching for system settings



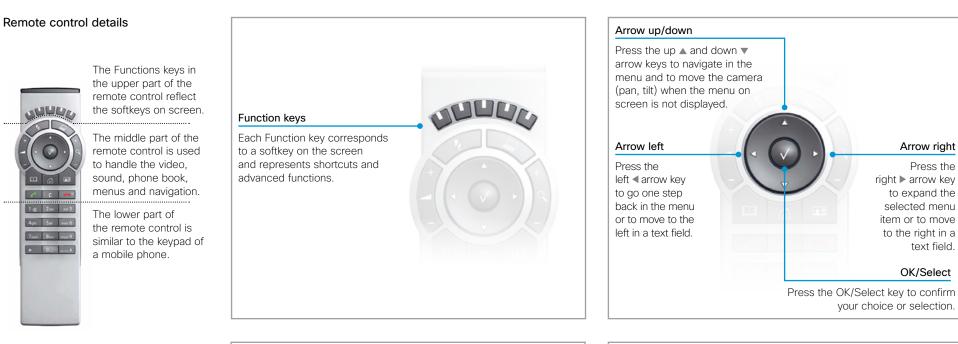
Navigate to the Advanced Configuration menu.

 Enter as many characters as needed, until the setting you are searching for displays in the list.

# Searching for contacts in the Call menu

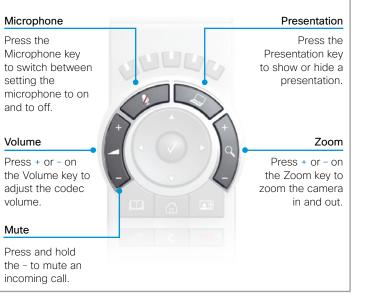


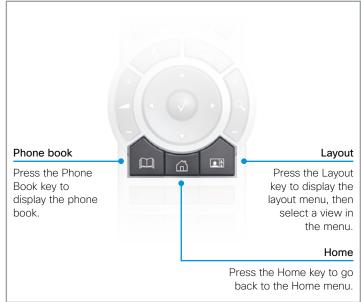
# Cisco TelePresence Systems **GETTING STARTED GUIDE**

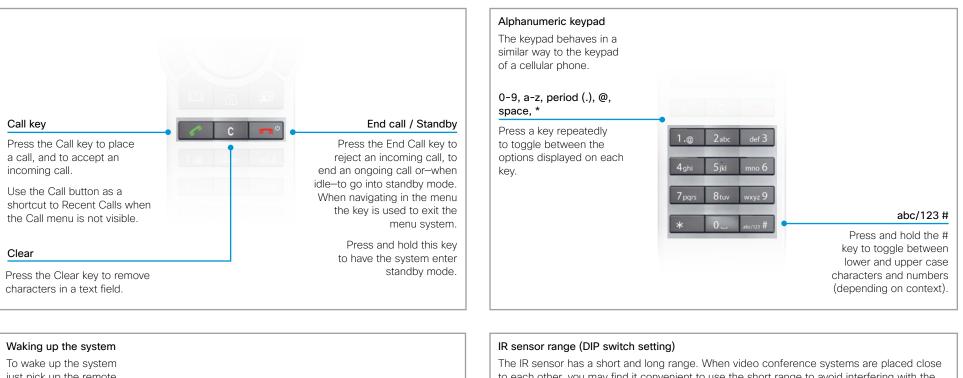


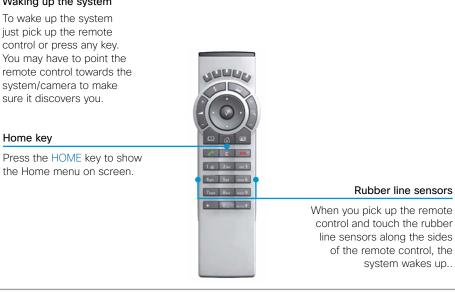
Make sure the remote control has working batteries (4 x AAA batteries).











to each other, you may find it convenient to use the short range to avoid interfering with the other 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.

The DIP switch



# The on-screen menu system

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

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

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

	HOME The Hor	ne menu
Call	• <i>Call:</i> N	lenu for making calls.
Call	• Meetir	ngs: A list off uppcoming meetings.
Meetings	<ul> <li>Presei</li> </ul>	ntation: Select a presentation source.
Presentation	<ul> <li>Came</li> </ul>	ra control: Control the camera settings.
	Setting	gs: Configure the system.
Camera control		
Settings	•	
		The Settings menu
	<b>V</b>	Layout: Select screen layout, including self view.
	SETTINGS	• Main source: Select the main video source.
Layout	•	• Call settings: Configure the default bit rate and auto answer settings.
Main source:	Camera 🕨	Languages: Select the preferred menu language.
Call settings	•	Date and time: Configure date and time settings.
Languages	•	• Sounds and alerts: Select a ring tone, the ring tone volume and key
Date and time	a 🕨	tone.
Sounds and a		<ul> <li><i>Wallpaper:</i> Select the background picture on screen.</li> <li><i>System information:</i> See an overview of the system configurations.</li> </ul>
		<ul> <li>Administrator settings: Configure the administrative settings.</li> </ul>
Wallpaper: C		<ul> <li><i>Restart:</i> Select this option to restart the system.</li> </ul>
System infor	mation	
Administrato	r settings 📃 🕨	
Restart		
		The Administrator settings menu
	ADMINISTRATOR	- Drogrammable softbuttane: Llear defined softbuttane for
		selecting main video source, camera presets or speed
	Programmable softbuttons	► dial.
	Connect to Cisco Callway	<ul> <li>Connect to Cisco CallWay: Connect your system to the Cisco CallWay subscription-based service for video calls.</li> </ul>
	IP settings	<ul> <li>IP settings: Configure the IP settings.</li> </ul>
	Set menu password	<ul> <li>Set menu password: Change the menu password.</li> </ul>
	Pairing	<ul> <li>Pairing: Change the pairing behavior.</li> </ul>
	Advanced configuration	Advanced configuration: Configure the system settings.

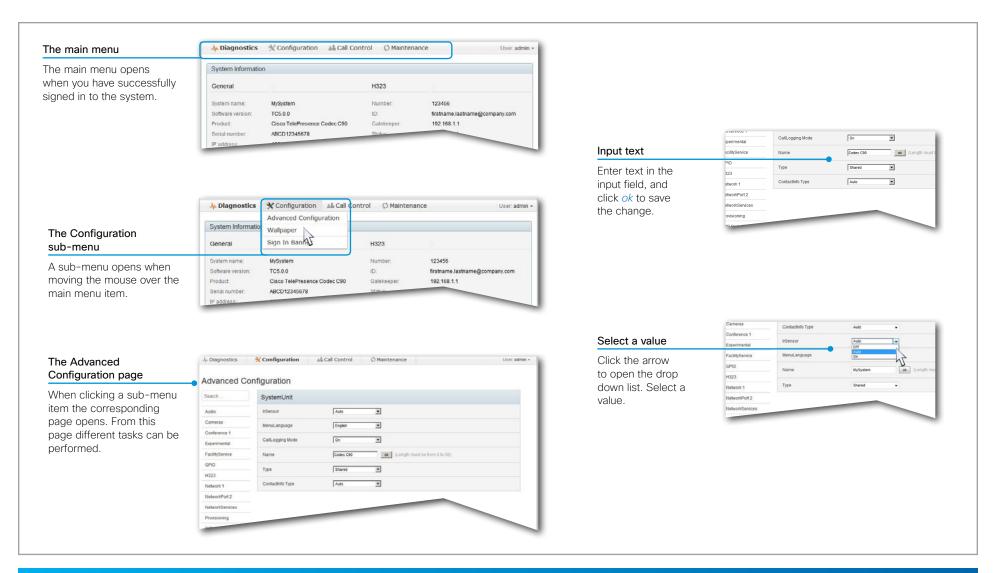
# How to use the web interface

The basic principles of navigating your video conference system's web interface and setting parameters are illustrated below.

You open the web interface by entering your system's IP address in the address bar of a web browser; then you sign in.

Recommended browsers: Internet Explorer 8 and Mozilla Firefox 3.x.

The Administrator guide for your product describes in detail how the web interface is organized, and the settings it provides access to.



# The Advanced Configuration page on the web interface

You open the web interface by entering your video conference system's IP address in the address bar of a web browser; then you sign in.

When signed in, you can open the Advanced Configuration page from the Configuration menu.

You can access all configuration settings from this page.

All settings are not available on all products; therefore the folders shown to the right may or may not be present on your system.

You will find a complete description of the web interface and the settings in the Administrator guide for your system.

M Diagnostics	<b>%</b> Co
Advanced C	onfigu
Search	
Audio	
Cameras	
Conference 1	
Experimental	
FacilityService	
GPIO	
H323	
Network 1	
NetworkPort 2	
NetworkServices	
Phonebook Server 1	
Provisioning	
RTP Ports Range	
SIP Profile 1	
Security	
SerialPort	
Standby	
SystemUnit	
Time	
UserInterface	
Video	

# The Advanced configuration menu

The settings are arranged with the following top level categories:

- *Audio:* Settings for microphones, audio outputs, echo control, volume, sounds and alerts, and more.
- *Cameras:* Settings for focus mode, brightness, whitebalance, backlight compensation, options like flip and mirror, and more.
- *Conference 1:* Conference settings like transmit and receive bit rates, bandwidth allocation, incoming call handling, encryption, packet loss resilience and far end control.
- *Experimental:* Experimental settings are likely to change in future releases. They can be used 'as is' and are not fully documented.
- *FacilityService:* Setting up speed dial buttons for facility services, e.g. Helpdesk.
- GPIO: Definition of the GPIO pins.
- H323: All H.323 protocol settings.
- Network 1: IP, VLAN and QoS settings.
- NetworkPort 2: Enable/disable the codec's second Ethernet port.
- NetworkServices: Enable/disable the network services: Multiway, Telnet, SSH, HTTP, HTTPS, SNMP, H323, SIP and NTP.
- Phonebook Server 1: Phonebook type and location.
- *Provisioning:* Settings for provisioning mode, manager address and protocols and methods.
- RTP Port Range: RTP port numbers.
- SIP Profile 1: All settings for the SIP protocol.
- · Security: Settings for an audit server and error logging.
- SerialPort: Enable/disable the serial port, and set its baud rate.
- *Standby:* Configure when the system should enter standby and how it should behave when entering/leaving standby mode.
- SystemUnit: Settings like system name and type, and menu language selection.
- *Time:* Date and time settings.
- User Interface: Touch panel settings.
- Video: Settings for video sources and monitors, and video display setup and layout.

# Cisco VCS provisioning for MX and EX Series

When using Cisco VCS (Video Communication Server) provisioning, a template containing all the settings that can be provisioned must be uploaded to Cisco TMS (TelePresence Management System). This is called the *Cisco TMS provisioning configuration template*.

All the Advanced Settings for your video system are included in this template. All settings except *SystemUnit Name* and *SIP Profile* [1..1] URI can be automatically provisioned to the video system.

The Advanced Settings are described in the Administrator guide for your video system. Examples showing either the default value or an example value are included.

# Downloading the provisioning configuration template

You can download the templates here:

EX Series:

http://www.cisco.com/en/US/products/ps11327/prod\_ release\_notes\_list.html

# MX Series:

http://www.cisco.com/en/US/products/ps11776/prod\_ release\_notes\_list.html

For each software release there is one provisioning configuration template for every video system model. Take care to download the correct file. Read the *Cisco TMS Provisioning Deployment Guide* to find how to upload the file to Cisco TMS, and how to set the desired values for the parameters to be provisioned. If not set by Cisco TMS, the default values will be used.

# User documentation on the Cisco web site

User documentation for Cisco TelePresence products can be found on > http://www.cisco.com/go/telepresence/docs.

Depending on which product you have got, select the following in the right pane:

### MX series:

TelePresence Endpoints - Multipurpose > Cisco TelePresence MX Series

## Profile Series:

TelePresence Endpoints - Multipurpose > Cisco TelePresence System Profile Series

# EX Series:

TelePresence Endpoints - Personal
> TelePresence Desktop

> Cisco TelePresence System EX Series

# Codec C Series:

TelePresence Solutions Platform

> TelePresence Integrator Products
 > Cisco TelePresence System Integrator C Series

# SX20 Quick Set and Quick Set C20:

TelePresence Solutions Platform
> TelePresence Quick Set

> release Quick Set > Cisco TelePresence Quick Set Series

# **Document categories**

For each product you will find the documents under the following categories:

# User guides:

Maintain and Operate | End-User Guides

# Quick reference guides:

Maintain and Operate | End-User Guides

# Installation guides:

Install and Upgrade | Install and Upgrade Guides

# Getting started guide:

Install and Upgrade | Install and Upgrade Guides

# Administrator guides:

Maintain and Operate | Maintain and Operate Guides

### API reference guides:

Reference Guides | Command references

# Physical interface guides:

Maintain and Operate | End-User Guides

### Regulatory compliance and safety information:

Install and Upgrade | Install and Upgrade Guides

# TC software release notes:

Release and General Information | Release Notes

#### TC software licensing information:

Release and General Information | Licensing Information

#### Video conferencing room guidelines:

Design | Design Guides

**NOTE:** All products do not have all types of user documentation.

# Intellectual property rights

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. (1005R)

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.

# Cisco contacts

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 .........