ClearOne®

COLLABORATE® PRO 300
USER GUIDE

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COLLABORATE Pro

USER GUIDE

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Chapter 1: Introduction

IN THIS CHAPTER

This chapter introduces the COLLABORATE Pro 300 video collaboration system and includes the following sections:

- COLLABORATE Pro 300 Overview
- Main Features
- Comparison Table
- Feature Highlights

COLLABORATE PRO 300 OVERVIEW

The COLLABORATE Pro 300 is a high-definition executive videoconferencing system, featuring laptop sharing, dual display and more.

COLLABORATE Pro 300 provides an interface to videoconferencing via its plug-and-play application-in-a-box, providing on-screen operation controls and advanced call control options during conferencing. Utilizing the newest H.264 video standard and clear, crisp audio, the COLLABORATE Pro 300 brings users face-to-face with other people and organizations.

COLLABORATE Pro 300 incorporates advanced data sharing capabilities, allowing you to connect to a laptop or PC (cabled or wireless) for data sharing.

COLLABORATE Pro 300 is ideal for users who need a powerful videoconference solution, powered by ClearOne's COLLABORATE Pro software.

Various accessories, such as a PTZ camera, ClearOne CHAT 150C and DataPoint – can be installed and integrated as part of the COLLABORATE Pro 300 system.

NOTES:

- **For more information about the COLLABORATE Pro 300 physical installation, including the connection of cables and devices to COLLABORATE Pro 300, refer to the COLLABORATE Pro 300 Quick Setup Guide.**
- **For the complete technical specifications, refer to the COLLABORATE Pro 300 datasheet.**

MAIN FEATURES

COLLABORATE Pro 300 allows you to call a destination via LAN, and to interact via video and data-sharing during calls. Some of the primary capabilities of the system include:

- Point-to-point connections
- Data sharing
- Sharing cable-connected laptop or wireless via network.
- Collaborate share.
- Side-by-side Picture-In-Picture (PIP) view
- Calling via Contacts or Recent calls
- Calling via online directories
- Calling Via URI
- Configurable audio, video and displays, and automatic answering
- Display on-screen running text to all participants via Web management during a call
- Support ClearOne CHAT 150C.
- Far End mute indicator
- Telnet interface
- Communicating in standalone mode, COLLABORATE Central mode and gatekeeper mode
- Turn unit into sleep mode and wake it up using the remote control
- Web-based management
- Regulatory Compliance: UL, CSA (cUL), TUV, TUV-CB, CE-LVD, CE, FCC Class B, BSMi, VCCI, C-Tick, RoHS.

COMPARISON TABLE

The following table specifies the differences between the various models of COLLABORATE Pro.

	COLLABORATE Pro 300 Series	COLLABORATE Pro 600 Series	COLLABORATE Pro 900 Series
Max Tx	1080/30	1080/60	1080/60
Max Rx	1080/60	1080/60	1080/60
MCU	-	Up to 1+8	Up to 1+8
Recording	-	√	√
Streaming	-	√	√
Data via USB	√ (Only on idle mode)	√	√
DataPoint (Optional)	√	√	√
Multiple Cameras	-	√	√
Bandwidth	Up to 4 Mbps	Up to 6 Mbps	Up to 6 Mbps
H.239 Dual Video support	√	√	√
PTZ camera	√	√	√
Balanced Audio	-	√	√
Audio Device	CHAT 150C	CHAT 150C Mic Array	CONVERGE Pro

Notes:

- **The display resolution must be set to 1920x1080 when the received resolution is 1080. Otherwise you may encounter video issues.**

FEATURE HIGHLIGHTS

- Small and compact unit
- Single or dual monitor display
- RF Remote control – install the unit in a closet
- SSD Storage for faster operation and added resiliency

Chapter 2: Getting Started

IN THIS CHAPTER

Once the COLLABORATE Pro 300 unit is installed, connected and turned on, it is ready for use. This chapter describes the following basic operations:

- Using the Remote Control
- Using the On-Screen Menu
- System Icons
- Displaying System Information

USING THE REMOTE CONTROL

You can navigate the COLLABORATE Pro on-screen graphic user interface (GUI) using the RF remote control, bundled with the unit.

Pressing any button on the remote control activates the on-screen GUI, which appears on top of the camera/videoconference picture.

The remote control includes the following button types:

- Alphanumeric Keypad
- Command Buttons
- Navigation arrows and Additional Buttons

ALPHANUMERIC KEYPAD

The remote control includes an alphanumeric keypad with buttons from 0 to 9. In the Dot button you can find the following signs: '.',', '*', '#', '^', '@', '$', ':', '=', '-', '_'.
In addition, Clear button to erase entered characters.

In different windows, you can toggle between **numbers** and **letters**, depending on the field. Some fields accept numbers only.

- Switch between letters and numbers by pressing a few times on the corresponding key
- When DTMF dialing is requested, use the numeric keypad.

COMMAND BUTTONS

The following command buttons are available on the remote control:

Button Image	Button Name	Command
	Power	Turn system into sleep mode Wake up system
	Status	Display the system information Display the current call status Show the on-screen online help
	Data	Open presentation menu
	Phone Book	Open the phone book
	Input	Change wireless main sender
	Far End	Control the position (PTZ) of the camera at the near/far end
	Player Controller	N/A
	Preset: Recall	Recall a camera PTZ preset position
	Preset: Set	Set a camera PTZ preset position
	Picture-In-Picture (PIP)	Toggle the PIP position (5 positions + Side-by-Side) Change wireless layout
	Recent Calls	Display the current Recent Calls
	Mute Mic	Mute the local microphone

Button Image	Button Name	Command
	Recording	N/A
	Streaming	N/A
	Settings	Open the settings menu
	Mute Video	Temporarily disable the local video camera and its transmission
	Delete	Delete characters
	White Board	Open Spontania white board

NAVIGATION ARROWS AND ADDITIONAL BUTTONS

Using the navigation arrows and the **OK** button, you can navigate the GUI menus/options in four directional movements: **Up**, **Down**, **Left** and **Right**.

In addition to the navigation arrows, the following buttons are available around it:

- **Back** – Returns to the previous step/window without saving changes
- **Menu/OK** – Selects/activates a highlighted GUI item/function (highlighted in orange on the screen)
- **Zoom In/Out** – Zooms in or out with the camera
- **Make Call** – Start a new call
- **End Call** – End the current call or close the GUI.

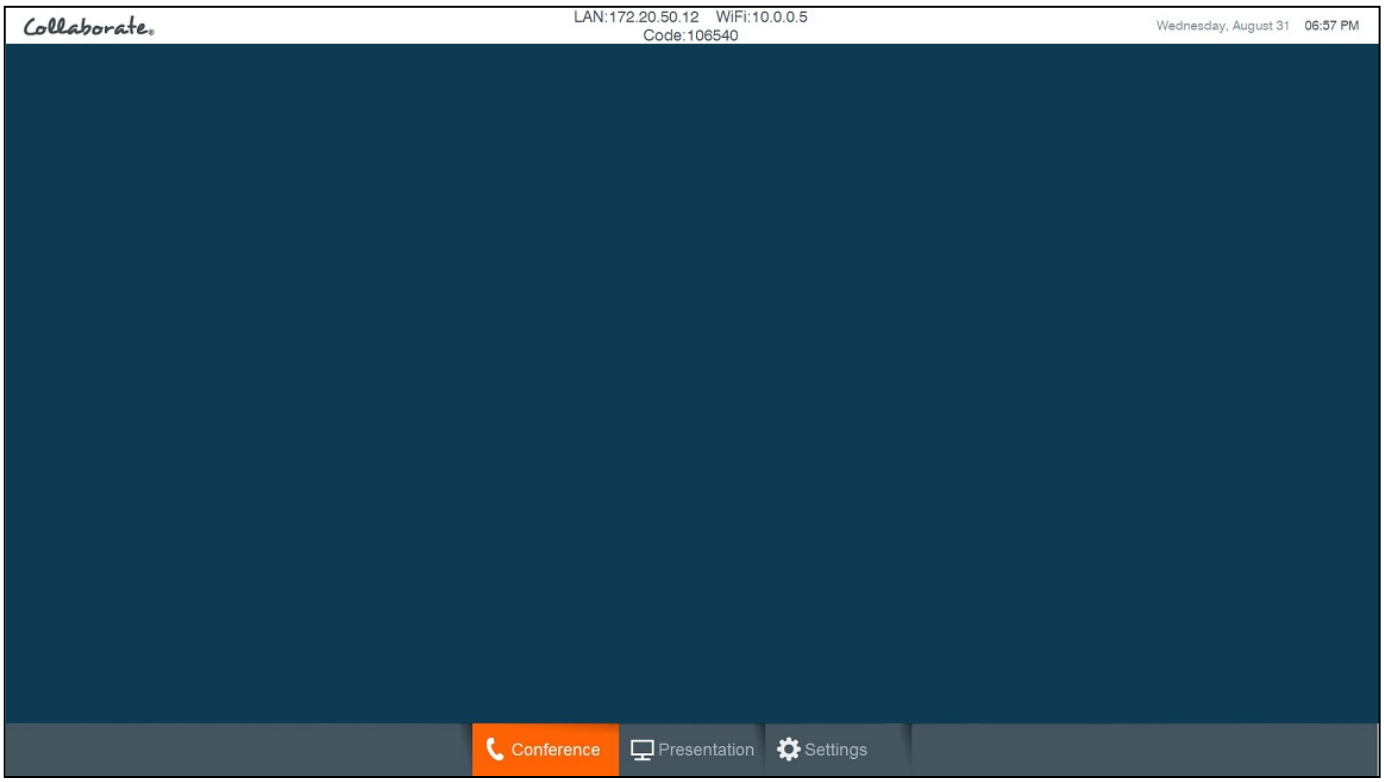
NOTE: The red End Call button can also be used for turning off or restarting the unit. Press and hold the button until the power confirmation prompt appears.

USING THE ON-SCREEN MENU

The on-screen menu enables you to navigate COLLABORATE Pro options prior to and during a videoconference call. The main menu is accessed using the remote control (see Using the Remote Control).

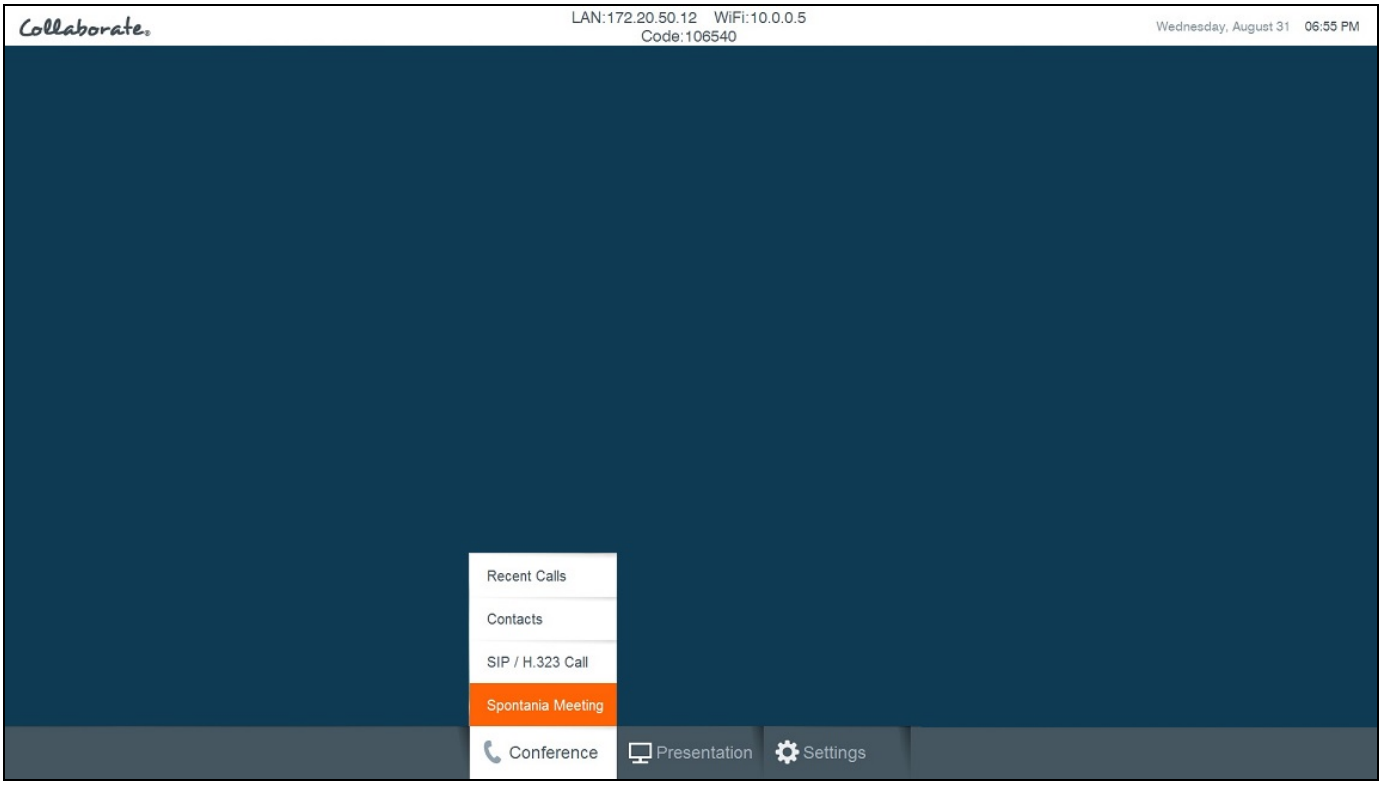
To display the COLLABORATE Pro main menu:

- Press **OK** on the remote control.



Navigate the COLLABORATE Pro menu using the remote control. To expand menu options:

- Press the up arrow (⬆) on the navigation arrows when the expandable option is selected.



To access a category/option:

- Press **OK** when the category/option is selected (highlighted in orange).

To collapse the menu options:

- Press **Back** on the remote control.

The following menu buttons may appear occasionally in the GUI (appear in the context of use):

GUI Button	Label	Function
OK	OK	Save changes
Back	Back	Return to the previous window without saving changes
Apply	Apply	Apply changes
Restore Defaults	Restore Defaults	Cancels all user-defined settings and returns the unit to its factory default settings
Open	Open	Open the selected folder/file

SYSTEM ICONS

The following icons indicate the different behaviors of the system.

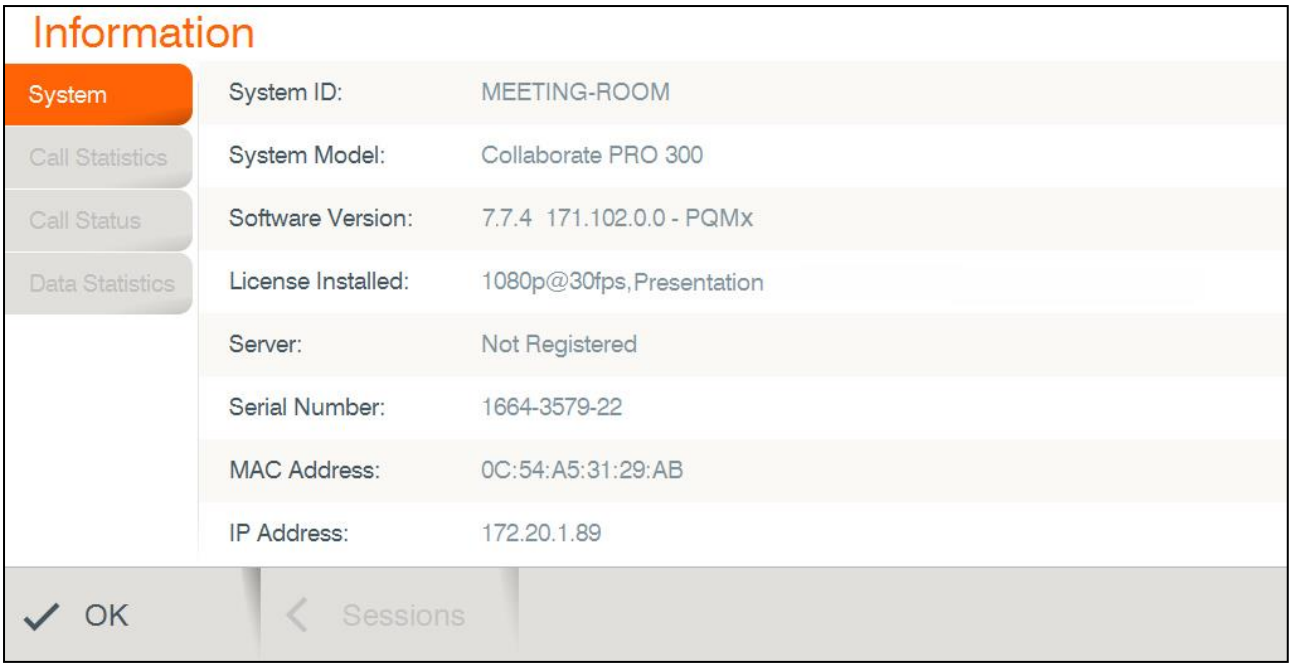
Icon Image	Meaning
	Mute Speaker
	Mute Microphone
	Far End Microphone Mute
	No Network
	Far End Camera Control (FECC)
	Do Not Disturb
	Central Registration
	Central Registration Failed
	Gatekeeper Registration
	Gatekeeper Registration Failed
	Far End Recording
	Encrypted Call
	Audio Only Call
	SIP Registration
	SIP Registration Failed

DISPLAYING SYSTEM INFORMATION

Whenever the COLLABORATE Pro unit is turned on, you can view the system status details. Different details are displayed when the unit is in idle state or in an ongoing videoconference session.

To display the current system status details:

- Press **Status** ( ) on the remote control. The **Information** window appears.



When COLLABORATE Pro is in the idle state, the Information window displays the following information:

- **System ID** – System ID as defined in the system settings (see Preference Settings)
- **System Model** – COLLABORATE Pro model
- **Software Version –** Software version of the COLLABORATE Pro application.
- **License Installed** – COLLABORATE features that available with the installed license.
- **Server** – The current operation mode:
  - **Not registered** – The unit is not connected to a COLLABORATE Central server or a gatekeeper.
  - **COLLABORATE Central** – The unit is connected to a COLLABORATE Central server
  - **Gatekeeper** – The unit is connected to a gatekeeper server.
  - **SIP Proxy** – The unit is connected to a SIP proxy server.

- **Serial Number** – The unit unique serial number.
- **MAC Address** – MAC address of the COLLABORATE Pro unit
- **IP Address** – IP Address of the COLLABORATE Pro unit, as automatically assigned by the DHCP server or as manually configured via **Settings>Admin>IP**. You can use this IP Address to access and manage the unit via a browser (see Accessing COLLABORATE Pro via Browser)

NOTE: During a videoconference call, you can display additional/different relevant information by selecting Call Status / Call Statistics in the Status window.

COLLABORATE SETUP

When system is loaded for the first time (after restore defaults), the setup wizard is displayed on screen in order to configure the basic settings:

1. General:

- **Name** – System name used to identify the system when using DNS dialing.
- **Language** – Select the desired language for the user interface. Click **Apply**. (A system restart is required after changing the system language.)
- **Time Zone** – Select your country time zone.
- **Time** – If not already set, enter the current time.
- **Date** – If not already set, enter the current date.

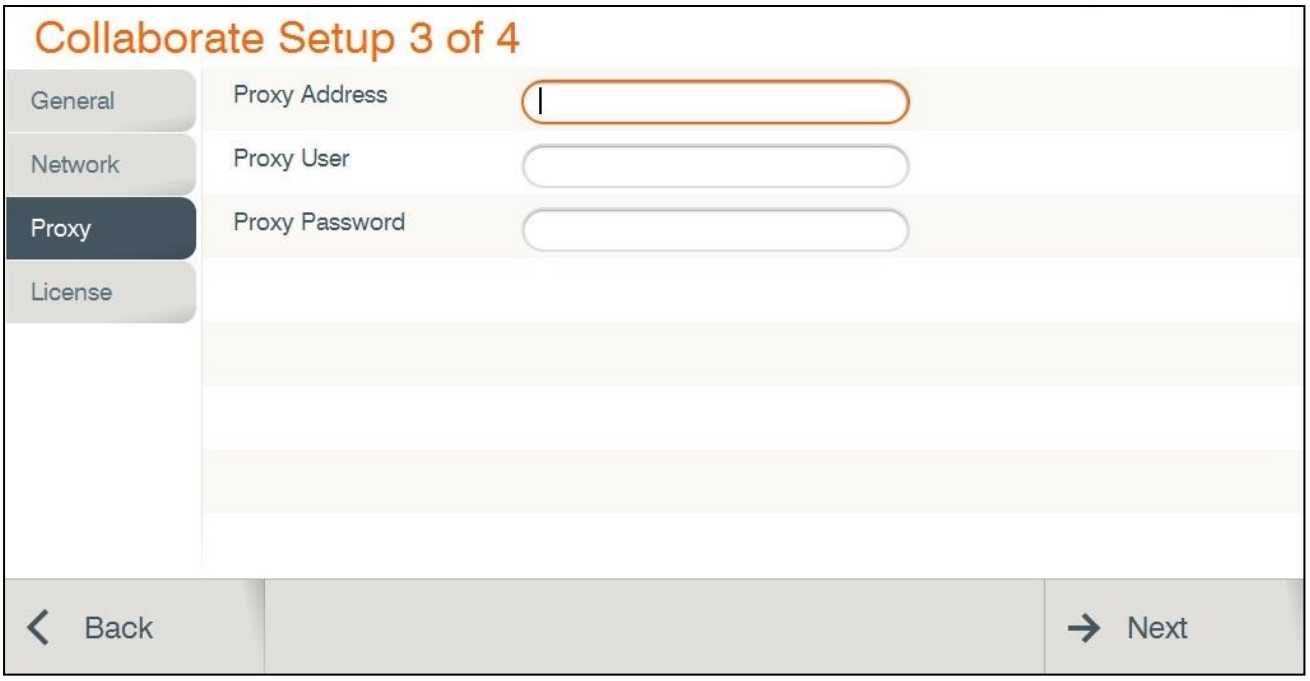
Select **Next**.

2. Network:

- **Obtain Address from DHCP Server** – Select the checkbox to obtain an IP Address from a DHCP server.
- **IP Address** – Set the IP Address for this system. If using a DHCP server, the address obtained from the DHCP server is displayed.
- **Subnet Mask** – Set the subnet mask number for your network. If using a DHCP server, the address obtained from the DHCP server is displayed.
- **Default Gateway** – Set the IP Address of the default gateway router. If using a DHCP server, the address obtained from the DHCP server is displayed.
- **Obtain DNS Automatically** – Use the DHCP server to decide your DNS server address. If you do not select Obtain address from DHCP server, fill in the following fields:
  - **DNS Server** – Set the IP Address of the DNS server. If using a DHCP server, the address obtained from the DHCP server is displayed.
  - **Additional DNS Server** – Alternative DNS server, to be used in case the first DNS server defined can't supply the needed services.
  - **DNS Suffix** – Set the DNS domain suffix to be used by this system.
- **Ethernet Speed** – Displays the network interface speed.

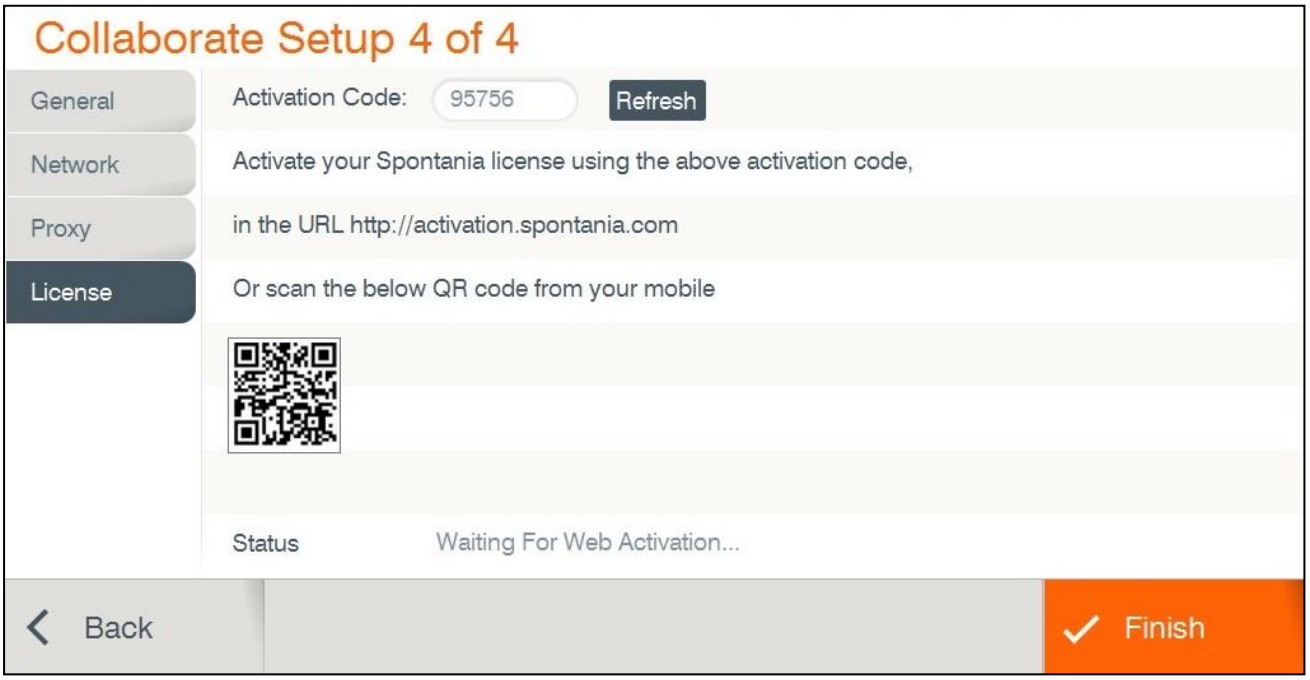
Select **Next**.

3. Proxy:



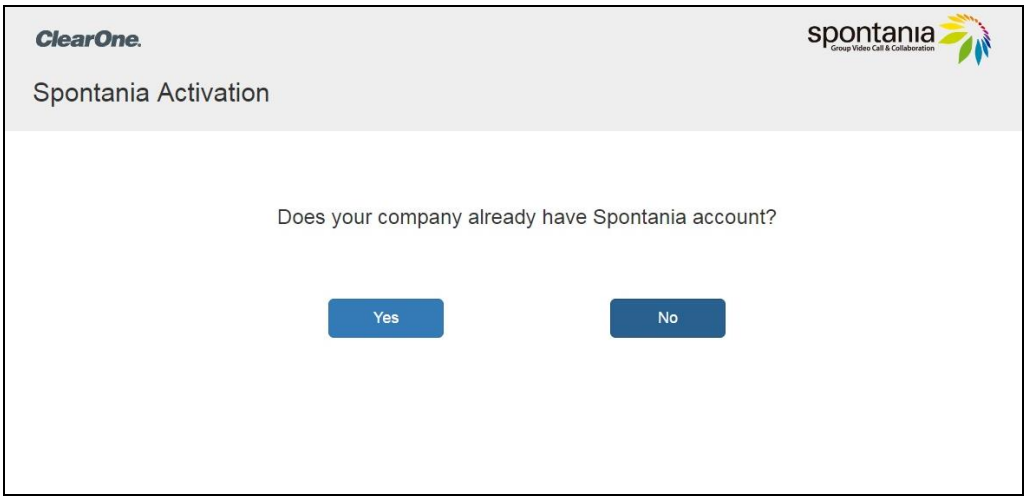
Enter your organization proxy server address. For any assistance use your organization's network manager.

4. License:



Activate Spontania license by following the instructions:

1. Open web browser and navigate to http://activation.spontania.com.
2. If your company doesn't have a Spontania account, choose 'No' option.



3. Fill the required fields in order to create a new administrator account to activate Spontania license, and press ‘Activate’.
4. ‘Spontnaia license is activated’ message will appear and you can use your Spontania application.

Chapter 3: Configuration Basics

IN THIS CHAPTER

This chapter explains the basic configuration options and includes the following sections:

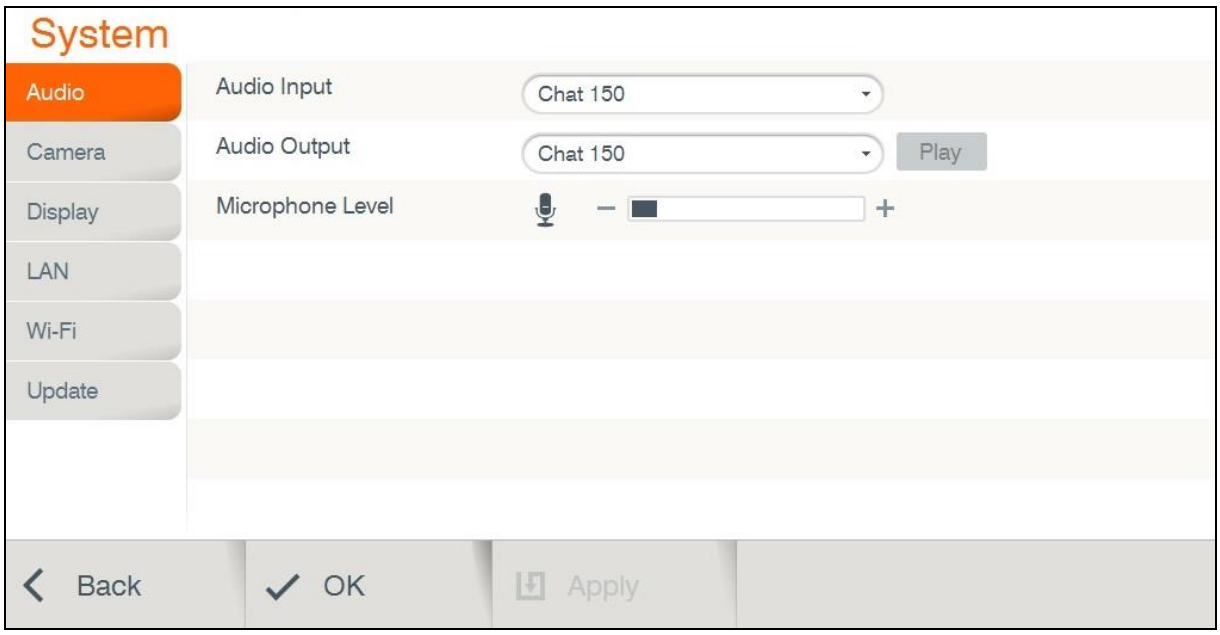
- Configuring the Audio
- Configuring the Camera
- Controlling the Camera
- Configuring the Display
- Configuring the LAN
- Configuring the Wi-Fi
- Updates

CONFIGURING THE AUDIO

The audio input/output must be configured so that you will be able to hear and be heard properly in videoconferences.

To access the audio settings:

1. *Press **OK** on the remote control. The main menu appears.*
2. Using the remote control's navigation arrows, select **Settings> System>Audio.** The Audio Settings window appears.



To configure the audio settings:

3. In the Audio Settings window, set the following properties of the selected audio input. USB devices can be used if the system supports external USB hardware.

    - **Audio Input** – Verify CHAT 150C is your audio input device.
    - **Audio Output** – Verify CHAT 150C is your audio output device.
        - **Play** – This button plays a recorded audio for use in setting output levels. Adjust the desired volume level (using the volume keys) for your audio output device.
    - **Microphone Level** – Adjust the microphone sensitivity level in percentage (%)

4. Select **Apply**.

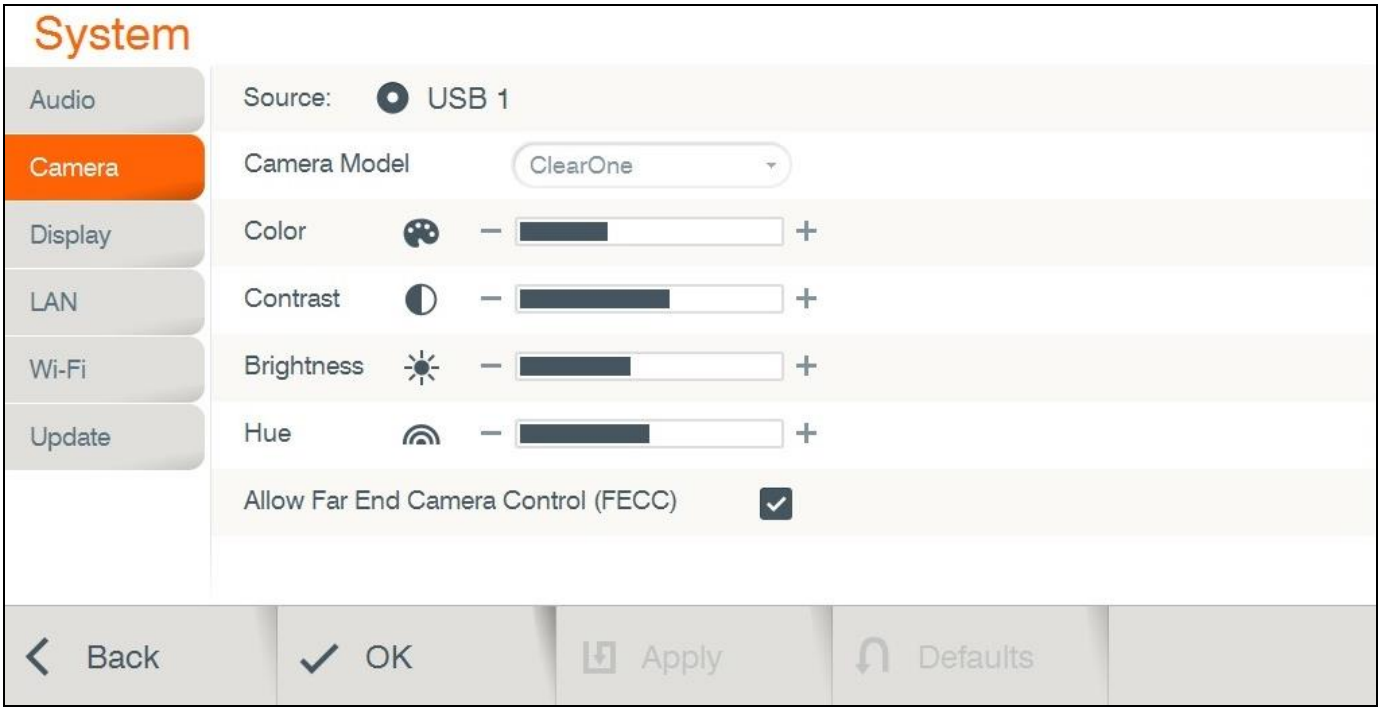
CONFIGURING THE CAMERA

Before you begin videoconferencing, you need to make sure that the camera connected to the COLLABORATE Pro is properly configured. Camera is configured via the Camera Settings window.

To access the camera settings:

1. Press **OK** on the remote control. The main menu appears.
2. Using the remote control's navigation arrows, select **Settings > System > Camera**.

The Camera Settings window appears.



To configure the camera settings:

3. In the Camera Settings window, select the correct options from the **Source.**

NOTE: COLLABORATE Pro supports PTZ cameras only.

2. Optional: Set the percentage (%) of **Color**, **Contrast**, **Brightness**, and **Hue**. You can leave the default settings of these parameters unchanged.
3. Select the correct option from the **Camera Model**.
4. Select the **Allow Far End Camera Control (FECC)** check box to enable the remote side to control your camera (unavailable when working with SIP).
5. Select **Apply** to apply the changes without leaving this window, or select **OK** (in the GUI) to save the changes and close the Camera Settings window.

CONTROLLING THE CAMERA

You can control the camera position using the remote control's arrows on idle mode or during a videoconference. To control the camera's zoom use the zoom-in / zoom-out button.
During a videoconference, you can control the remote side's camera by pressing on Far-End button on remote control and then using the arrows.

CONFIGURING THE DISPLAY

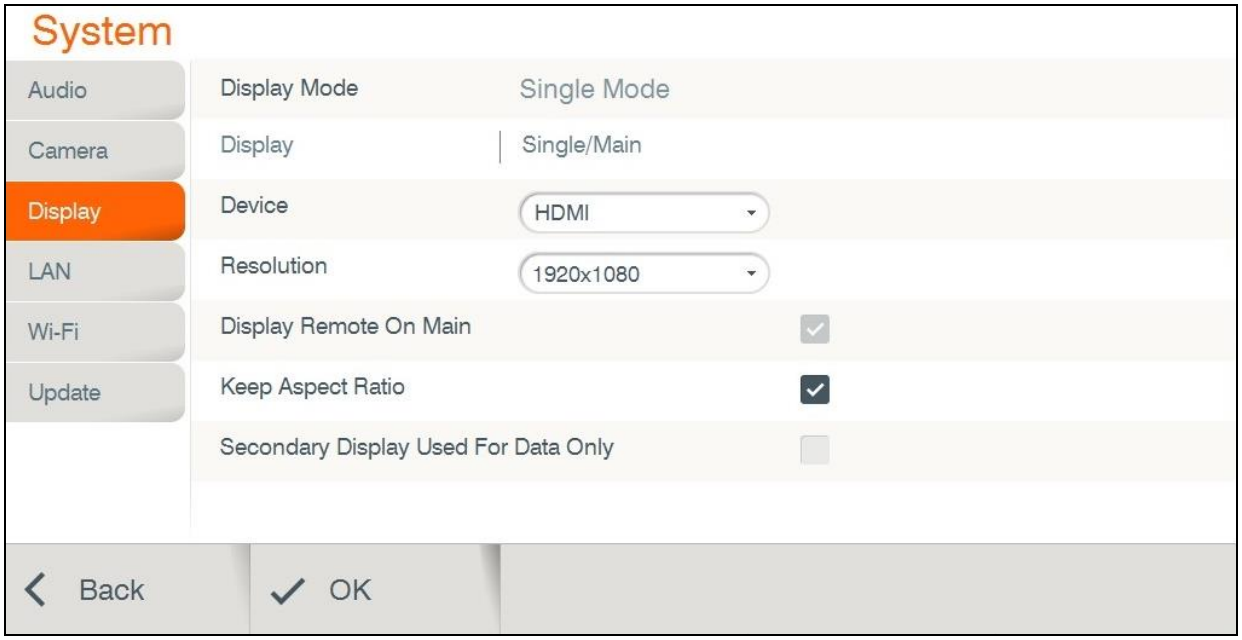
The display settings determine the method by which video is displayed on the screen. Adjust the display settings depending on the room you are using for videoconferencing and on your distance from the screen.

NOTE: The term "screen" refers to any type of monitor you are using (LED, LCD, and so on).

To access the display settings:

1. Press **OK** on the remote control. The main menu appears.

4. Using the remote control's navigation arrows, select **Settings>System > Display**. The Display Settings window appears.



To configure the basic display settings:

1. **Display Mode (Configured automatically)** –
   - **Single Mode** – Both videoconference parties are displayed on a single screen.
   - **Dual Mode** – Conferences are displayed on two screens.

NOTE: Incoming resolution in dual mode is limited to 1080@30.

- **Display Remote on Main** – When using multiple monitors, display the remote side on the main display. Uncheck to display the remote on the secondary monitor.
- **Device** and **Resolution** – Select an option from the lists.
- **Keep Aspect Ratio** – Select this option to keep the original aspect ratio on screens that have different aspect ratio.
- **Secondary Display Used For Data Only –** Select to use secondary monitor only when data is sent / received.

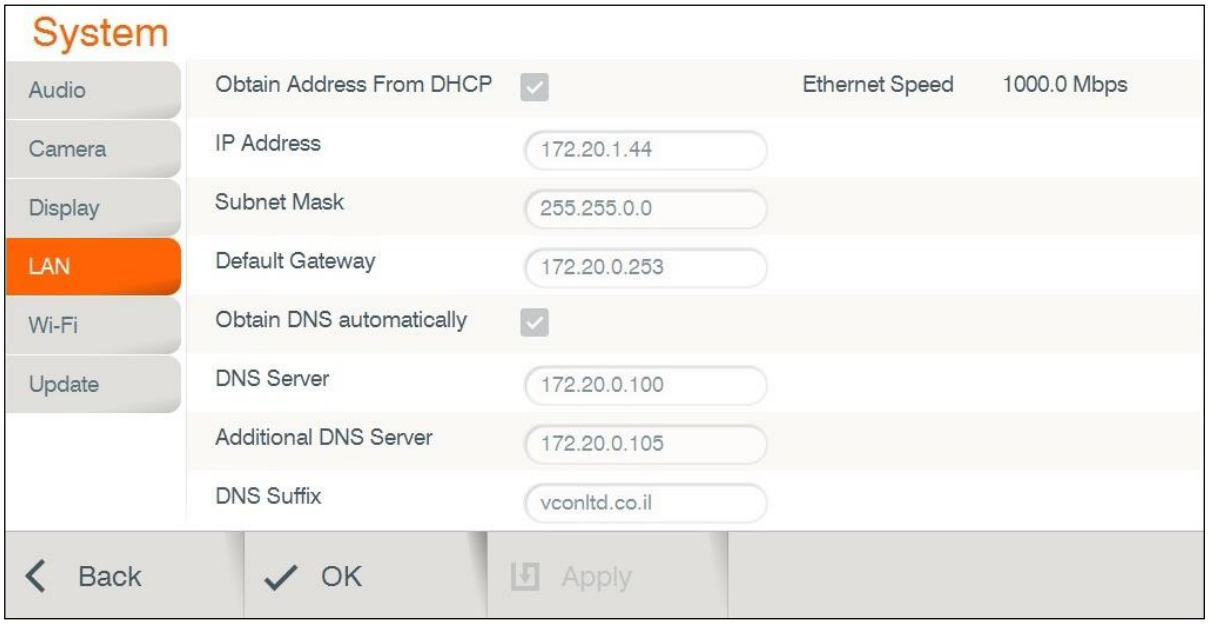
2. Click **OK**.

LAN SETTINGS

In the LAN Settings window you can configure TCP/IP networking parameters for COLLABORATE.

To edit system settings:

1. Select **Settings>System>LAN**. The LAN Settings window appears.



2. In the System Settings window, set the following options and parameters
   - **Obtain Address from DHCP Server** – Select the checkbox to obtain an IP Address from a DHCP server.
   - **IP Address** – Set the IP Address for this system. If using a DHCP server, the address obtained from the DHCP server is displayed.
   - **Subnet Mask** – Set the subnet mask number for your network. If using a DHCP server, the address obtained from the DHCP server is displayed.
   - **Default Gateway** – Set the IP Address of the default gateway router. If using a DHCP server, the address obtained from the DHCP server is displayed.
   - **Obtain DNS Automatically** – Use the DHCP server to decide your DNS server address. If you do not select Obtain address from DHCP server, fill in the following fields:
     - **DNS Server** – Set the IP Address of the DNS server. If using a DHCP server, the address obtained from the DHCP server is displayed.
     - **Additional DNS Server** – Alternative DNS server, to be used in case the first DNS server defined can't supply the needed services.
     - **DNS Suffix** – Set the DNS domain suffix to be used by this system.
   - **Ethernet Speed** – Displays the network interface speed.

   NOTE: Modify these settings only if they are required in your network.

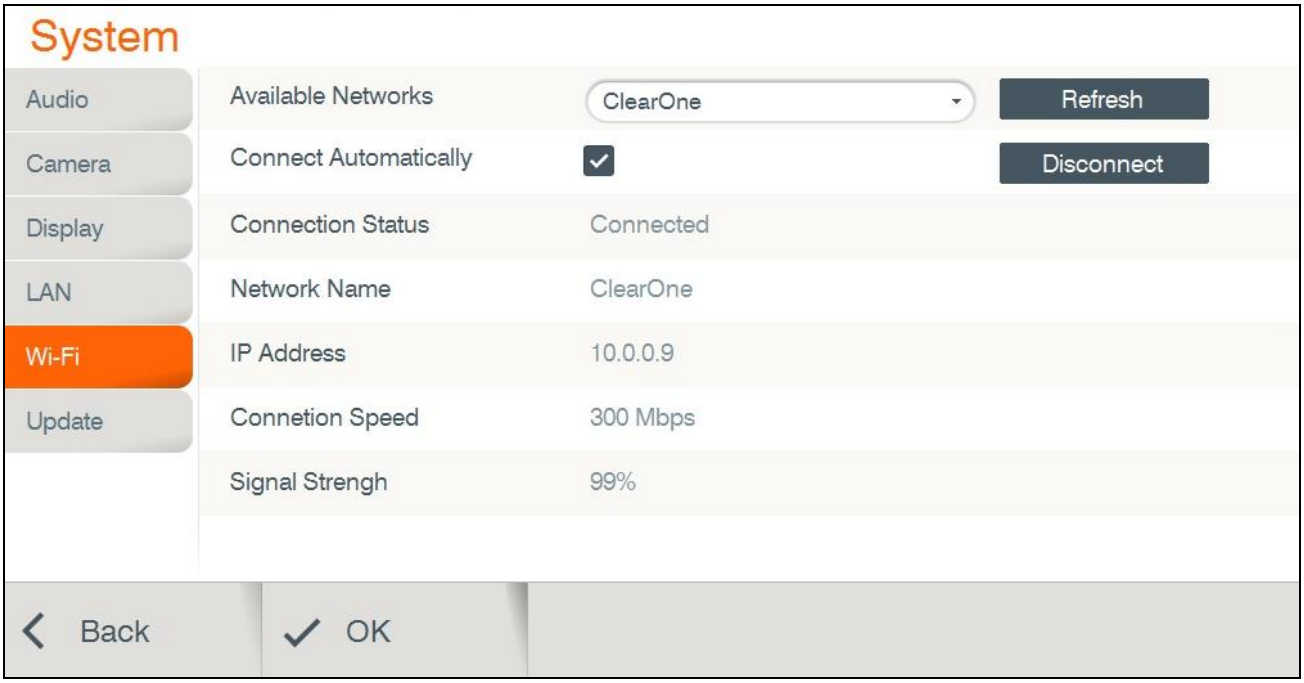
2. Select **Apply**.

Wi-Fi SETTINGS

You can use “Collaborate Share” feature via external **Wi-Fi** network while your system is located in the corporation LAN network**.**

To access the Wi-Fi settings:

1. Press **OK** on the remote control. The main menu appears.
2. Using the remote control’s Navigation arrows, select **Settings>System > Wi-Fi**. The **Wi-Fi** Settings window appears.



To configure the Wi-Fi settings:

1. **Avilable Network** – List of all available Wi-Fi networks in your range**.** Select the desired network you want to connect.
2. **Connect Automatically –** Check this option to allow auto connection to the selected Network while the network is available.
3. **Connection Status** – Displays the status of the Wi-Fi connection.
4. **Network Name** – Displays the network SSID.
5. **IP Address –** Displays the Wi-Fi network IP address.
6. **Connection Speed –** Displays the connection rate.
7. **Signal Strength –** Displays the Wi-Fi signal strength. For better strength, put you Collaborate close to the router.

Once Wi-Fi was set and connected, verify that the “Collaborate Share” sender is located with the same Collaborate Pro 300 Wi-Fi network.
Load “Collaborate Share” sender application and select the Collaborate Pro 300 receiver from the list.

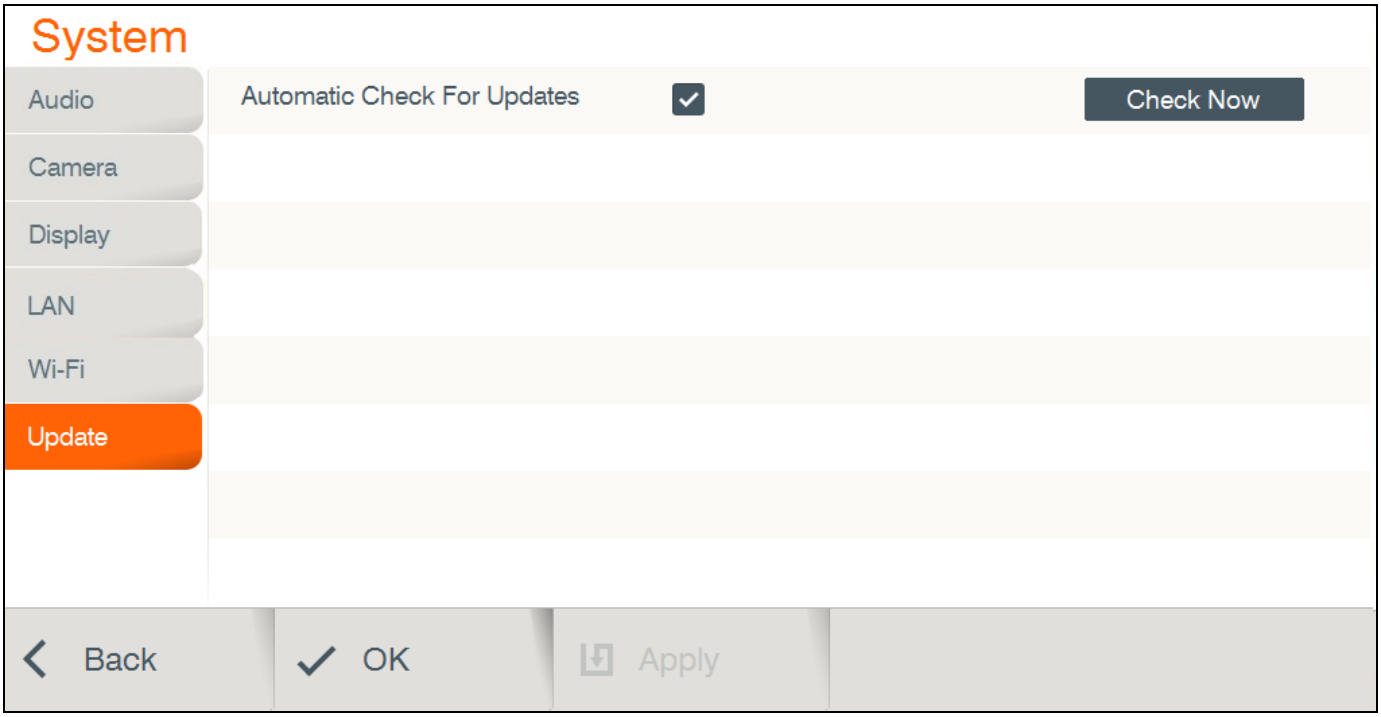
NOTE: While connection speed or Signal Strength is low you may encounter low data quality.

SOFTWARE UPDATES

Configure automatic software updates or check for updates**.**

To access the update settings:

1. Press **OK** on the remote control. The main menu appears.
2. Using the remote control's Navigation arrows, select **Settings>System > Update**. The Update Settings window appears.



To configure the updates settings:

1. **Automatic Check For Updates** – Choose this option for often update check. If an update is available, you will get a proper message on screen and you can choose to update or not.
2. **Check Now –** Check for updates at this moment. If an update is available, you will get a proper message

Chapter 4: Video Collaboration

IN THIS CHAPTER

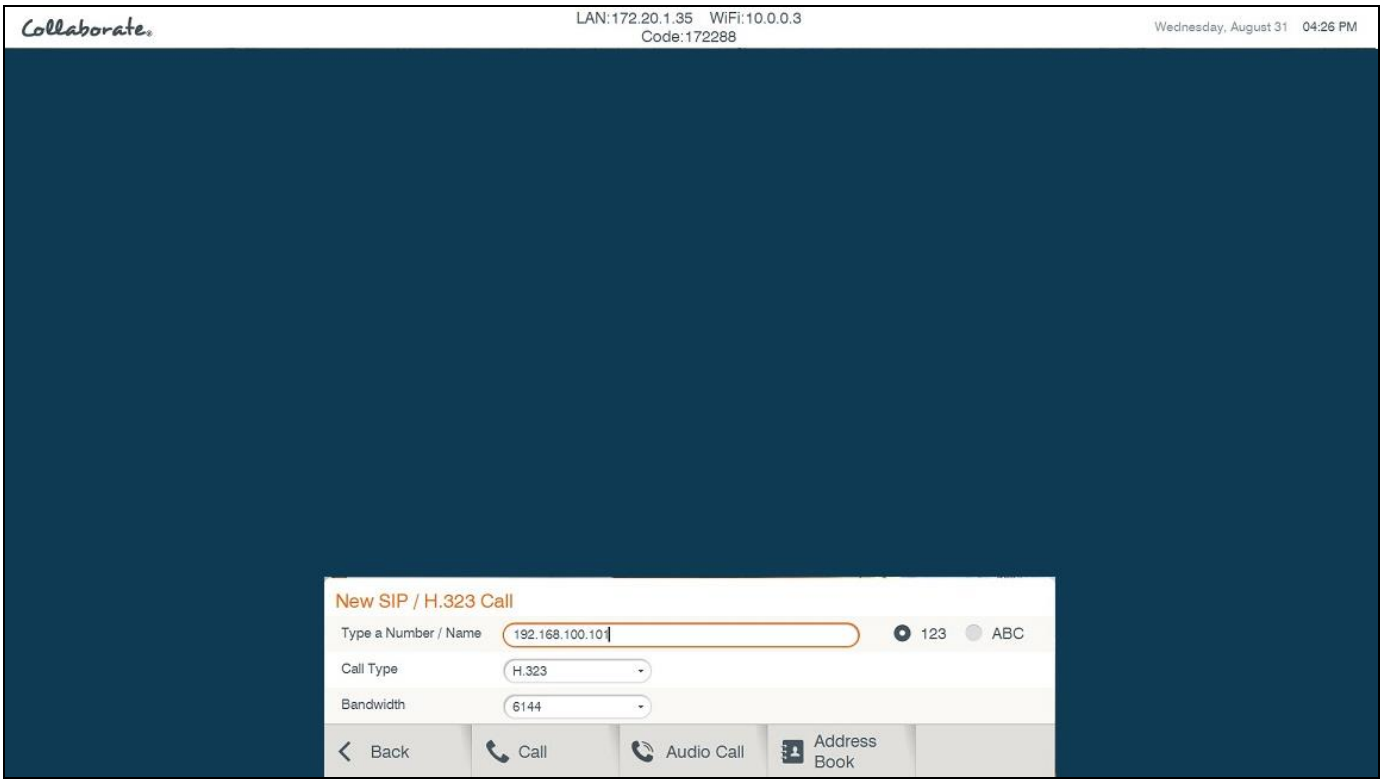
This chapter explains the video collaboration basics and options using COLLABORATE Pro, and includes the following sections:

- Starting Calls
- Auto-Answering Calls
- Ending Calls
- Muting the Video
- Switching Image Modes
- Switching Call View Modes
- Using Picture-In-Picture (PIP) Modes
- Call State Indications
- Using Call Tones
- Data Sharing

STARTING LAN CALLS

You can start a manual call to a network IP Address that you type in the New Call bar.
To start a call using the manual dialer:

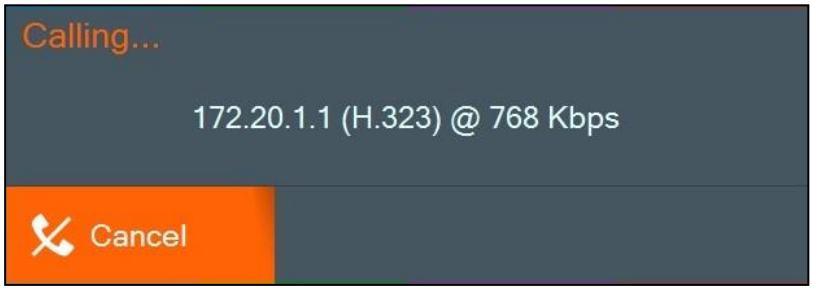
1. Select **Conference > SIP / H.323 Call**. The New Call bar appears.



2. Select the type of call you want to make:
   - **H.323** or **SIP** – an IP-based call via the connected local network (LAN).
3. In the **Type** a **Number/Name** field, type the **IP Address** to which you want to call. Alternatively, instead of an IP Address, you can also use an Alias, E.164 number, or a DNS Address (if such are defined on your network).
   - To type numbers, make sure that the **123** option is selected.
   - To type letters and numbers, make sure that the **ABC** option is selected.
4. Select the maximum bandwidth for the video call and press **Call**. For audio only call press **Audio Call**.

NOTE: Audio only call bandwidth is 64 Kbps.

For video call, you can also press the **Make Call** (green button) on the remote control.
The Calling screen appears.



When the call is answered on the far end, the system switches to the Call mode.

AUTO-ANSWERING CALLS

The auto-answer option is found in the Call Settings window (see Call Settings).
When the auto-answer option is not selected and an incoming call is received, a message is displayed on the screen. You can accept or reject the call using the buttons on the remote control or via the screen message.

ENDING CALLS

You can disconnect the current videoconference call at any time. To end the current call:

- On the remote control, press the red **End Call** button,
  – or –
- Select **Conference**>**Hang Up** in the GUI and then press **OK** on the remote control.

MUTING THE VIDEO

Muting during a videoconference is a preference which is selected via the remote control.

When you press **Mute Video** during a call, the remote side sees the Mute Video BMP image, which indicates that your video source has been mute.

SWITCHING CALL VIEW MODES

Depending on the type of screen and video interface you are using (HDMI / Mini Display port); a call may be displayed in single, dual or presentation mode.

SINGLE MODE

Single mode presents a single screen showing the output of the local video camera in the Picture-In-Picture (PIP) screen area (see Using Picture-In-Picture (PIP) Modes) and the output of the remote video camera on the main screen area.

DUAL MODE

Two screens: one showing the output of the local video camera, and a second screen showing the output of the remote video camera.
When Secondary Display Used For Data Only is checked, the conference will be in a single mode. Once data is shared, the second monitor will display the data.

NOTE: Session bandwidth is limited to 1536 Kb on dual mode and resolution is limited to 1080@30.

PRESENTATION MODE

When laptop is displayed in data sharing mode, the remote video is shown in a PIP area, while the laptop is presented on the main screen area.

USING PICTURE-IN-PICTURE (PIP) MODES

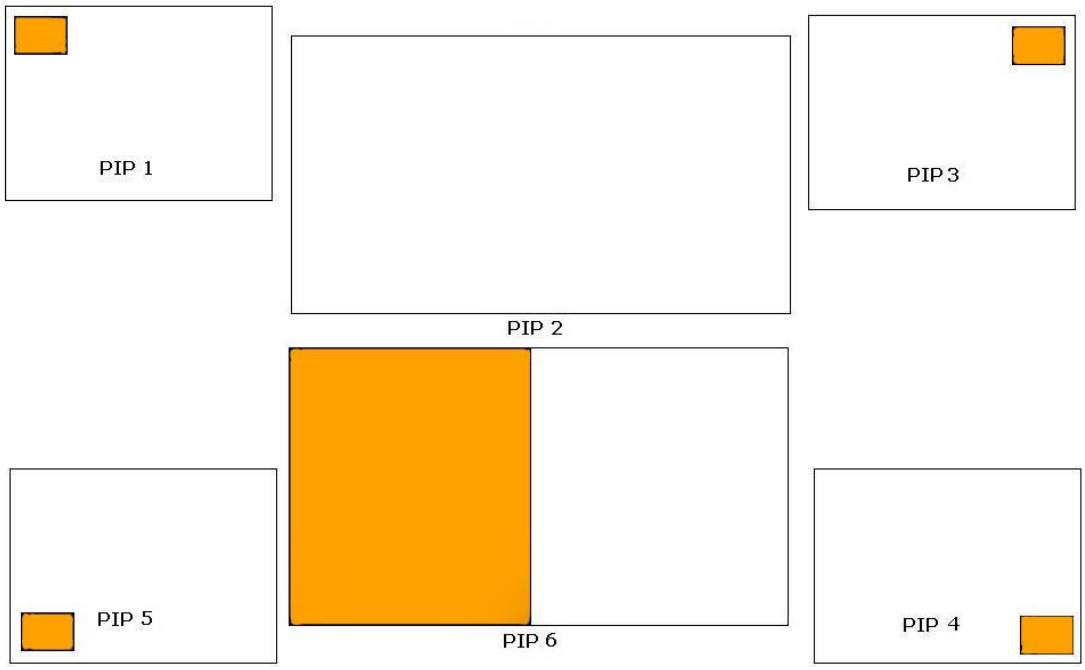
When a conference begins, the local video appears on the monitor in a small rectangular inset located in the upper left corner of the larger remote video display. This display mode is called Picture-In-Picture (PIP).

Each time you press the PIP button on the remote control, the PIP image rotates counter-clockwise to the next corner of the screen. Pressing the PIP button after the PIP completes a rotation to all corners then hides the PIP image, and starts again on a subsequent button press.

The default video mode is **PIP 1**, in which the local caller's video is displayed in the small **upper-left** corner, while the remote person is viewed in the large area of the screen. The other modes are:

- **PIP 2** – The local caller sees only the remote person.
- **PIP 3** – The local caller is viewed in the small **upper-right** corner, while the remote person is viewed in the main area of the screen.
- **PIP 4** – The local caller is viewed in the small **lower-right** corner, while remote person is viewed in the large area of the screen.
- **PIP 5** – The local caller is viewed in the small **lower-left** corner, while remote person is viewed in the large area of the screen.
- **PIP 6** – The local caller is viewed on half the screen and the remote person is viewed on the other half, also known as side-by-side view.

NOTE: When data is shared, the remote video and the data are displayed side by side on the screen (This option is unavilable while sharing via Collaborate Share option).



CALL STATE INDICATIONS

Various call states are represented by icons on the screen when videoconferencing is taking place.

GUI Icon	Indication
	The current call is encrypted
	The local microphone is muted
	The local speaker is muted
	Far End mode is on (You can control the remote side camera)
	Local network disconnection
	Unsuccessful COLLABORATE Central registration

GUI Icon	Indication
	Successful COLLABORATE Central registration
	Unsuccessful gatekeeper registration
	Successful gatekeeper registration
	Currently on Audio session.
	SIP registration.
	SIP Registration failed.

USING CALL TONES

When making calls the call operator can request a Password or DTMF tone to connect.

OPERATOR REQUEST FOR PASSWORD

The Operator can request you to access a conference password to proceed with the call. To enter a conference password:

- Use the remote control, and press the numeric pad.

  The screen shows DTMF message: "DTMF signal **** sent" representing the numbers pressed on the keypad.

OPERATOR REQUEST FOR TELEPHONE TONE

The Operator can request you to connect using a dial-tone to proceed with the call. To enter DTMF tone:

- Use the remote control, dial using the numeric pad.

  The screen shows DTMF message: "DTMF signal **** sent" representing the numbers pressed on the keypad.

DATA SHARING

Data Sharing can be accessed via the menu or via **Data** on the remote control. Data Sources are selected inside the Presentation menu. Press **Data** a second time to stop the data sharing.

CONNECTING THE DATAPOINT

In order for the system to recognize data sources, you need to be connected to the DataPoint.

To choose a data source:

1. Select **Presentation** on the main menu. The Data Sharing menu opens.
2. Select **DataPoint.**
3. Select **Wireless** option to share data using Collaborate Share

CONNECTING A USB FLASH DRIVE

You can view on idle mode files that are stored on a portable USB flash drive. To view and share files from a USB flash drive:

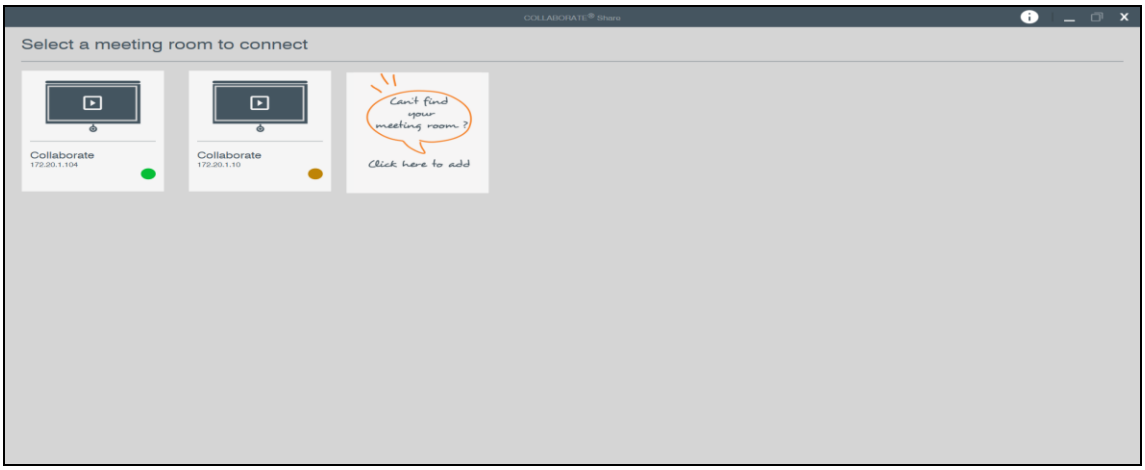
1. Insert a USB flash drive to one of the COLLABORATE Pro USB ports. The message "**USB device inserted**" is displayed.
2. Select **Presentation>USB**. The File Selection window appears.
4. Select the file you want and then press **OK** on the remote control. The following files are supported: *.jpg, *.jpeg, *.gif, *.png, *.tiff, *.tif, *.bmp, *.wmf, *.mpg, *.mpeg, *.wmv, *.mp4, *.avi, *.pdf, *.pps, *.ppt, *.doc, *.rtf, *.xls, *.xlsx, *.pptx, *.ppsx and *.docx.
5. Select **Open**. The file is displayed.

SHARING WIRELESS

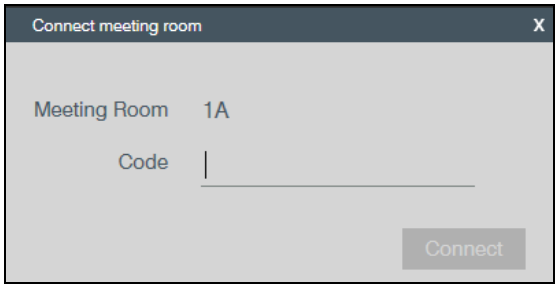
You can view and share your PC desktop or any open application via network using Collaborate Share feature. To define wireless settings, please follow the Presentation settings.

To view and share wireless:

1. Download Collaborate Share application from the web interface (More information in web section).
2. Ensure that the computer you are going to be using is connected to the network. Your computer can be connected to corporation's network or to external Wi-Fi network.
3. Start "Collaborate Share" Software by double-clicking on the desktop Icon .



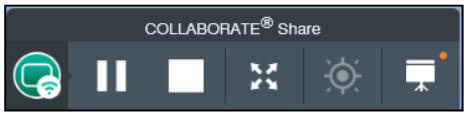
5. Select a meeting from the meeting list and enter code number if required.



6. Choose content to be shared between desktop and all available applications.
7. Select Presentation>Wireless. Wireless data sharing is starting.

Collaborate Share CONTROLLERS

While wireless is shared, you can manage your sharing from "Collaborate Share" controllers.

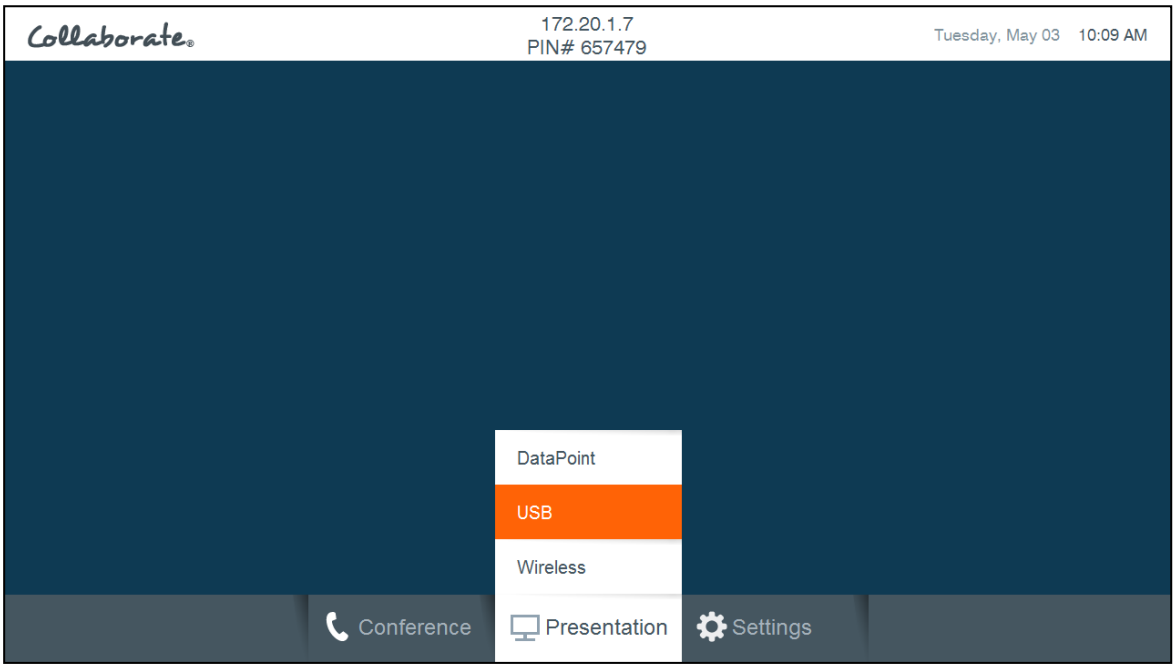


Button Image	Button Name	Command
	Pause	Pause the current share
	Play	Resume the paused shared
	Full view	Switch the Collaborate share to full view
	Compact view	Switch the Collaborate share to normal view
	Spotlight	When several “Collaborate Share” are connected to the system, use this icon to move the chosen stream into the main area
	Dispaly	When several “Collaborate Share” are connected, Use this icon to change the displayed layour
	Layout	“Collaborate share” layout option: Mosaic / Full Screen / Preview
	Dual display	When two monitors are connected to the unit, You can also choose which monitor will display the data.

You can also use “Collaborate Share” application while it is connected to Wi-Fi network and the Collaborate Pro is connected to the corporation network.
(Please refer to Wi-Fi settings page number 23)

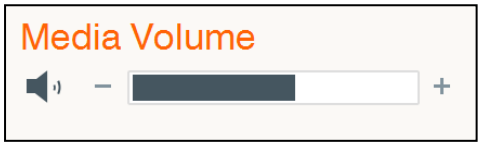
DATA SHARING ON IDLE MODE

It is possible to share data on idle. Connect USB drive, DataPoint or Collaborate Share, and share the desired data. You can press 'PIP' button on the remote control in order to see your data and your main camera side-by-side.



Sharing Data with Audio

When sharing a PC, Collaborate Pro is mixing the audio channels into one channel so the data audio as well as unit microphone could be heard. During the sharing, the volume buttons control the **media volume** (PC or movie) on the local side and on the remote side.



Chapter 5: Quick Dialing Methods

IN THIS CHAPTER

This chapter describes the different quick dialing methods that are available in COLLABORATE Pro, and includes the following sections:

- Using the Contacts
- Using the Recent Calls
- Using Online Directories
- Using Spontania Contacts

USING THE CONTACTS

The Contacts enables you to make calls to addresses stored on the local system. You can add frequently used addresses to the Contacts.

USING THE CONTACTS VIA THE REMOTE CONTROL

You can select the Contacts using the remote control. To select the Contacts via the remote control:

1. On the remote control, press **Phone Book** ( ). The Contacts window appears.

2. In the Contacts tab, select the number to dial, and then press Make Call button ( ) on the remote control.

USING CONTACTS VIA THE COLLABORATE PRO GUI

You can display the Contacts using the COLLABORATE Pro GUI menus. To select the

Contacts via the COLLABORATE Pro GUI:

1. Select **Conference>Contacts**. The Contacts window appears (use the left arrow button to skip to the left tabs).
2. In the Contacts tab, select the number to dial, and then press **Make Call** button ( ) on the remote control.

USING THE CONTACTS VIA THE NEW CALL BAR

You can select the Contacts from the New Call bar. To select the **Contacts** via the **New Call** bar:

1. Select **SIP / H.323 Call** or **Spontania Meeting** on the main menu. The **New Call** bar, appears.
2. In the **New Call** bar, select **Address Book**. The Contacts window appears. (Use the navigation arrows left button to skip to the left tabs)
3. In the Contacts tab, select the Contact to dial, and then press **Make Call** button ( ) on the remote control.

ADDING ENTRIES TO THE CONTACTS

You can add frequently used addresses to the Contacts list from where calls can be made directly.
To add a new contact to the Contacts list:

1. In the Contacts, select **Add** and press **OK**. The Name/Address bar opens.
2. Type in the new contact's name and IP Address, and then select **Save**. The new contact is added to the Contacts list.

NOTE: You can also set the dialing method (H.323 or SIP) and the bandwidth that you want to use specifically for the contact that you add.

EDITING ENTRIES IN THE CONTACTS

You can edit frequently used numbers already in the Contacts list and save them for repeated use.
To edit a contact's details in the Contacts list:

1. In the Contacts list, select the entry you want to edit and then press **OK** on the remote control.
2. Select **Edit** in the GUI. The Name/Address bar opens.
3. Edit the contact name and IP Address, and then select **Save**.

NOTE: If necessary, you can change the dialing method (H.323 or SIP) and bandwidth that are used specifically for the contact that you edit.

DELETING ENTRIES FROM THE CONTACTS

You can delete and thus manage Contacts entries when they are no longer in use.
To delete a contact from the Contacts:

1. In the Contacts, select the contact you want to delete, select **Delete** and then press **OK**. The following message is displayed: "Are you sure?"
2. Select **Yes** to delete, or **No** to cancel.

USING THE RECENT CALLS

Log entries are automatically logged to the Recent Calls when an outgoing call is made or when an incoming call is received. You can add log entries to the Contacts, or delete them from the Recent Calls log.

NOTE: Log entries cannot be edited.

USING THE RECENT CALLS VIA THE REMOTE CONTROL

To select the Recent Calls via the remote control:

1. On the remote control, press **Recent Calls** ( ) – or – on the Main Menu, select **Conference**>**Recent Calls**. The Recent Calls window appears.
2. Select the enrty and press **Dial**.

DISPLAYING THE RECENT CALLS FROM THE CONTACTS

To display the Recent Calls via the Contacts:

- In the Contacts, select **Recent Calls** by pressing up with the navigation arrows and scrolling up.

ADDING A RECENT CALLS ENTRY TO THE CONTACTS

You can add entries for Recent Calls to the Contacts for reuse later. To add Recent Calls entry to the Contacts:

1. In the Recent Calls, select the entry you want to add to the Contacts and then press **OK** on the remote control.
2. Select **Add**. The Name/Address bar appears.
3. Edit in the contact Name or Address if needed, and then select **Save**. The log entry is added to the Contacts.

CLEARING THE RECENT CALLS

You can delete and thus manage Recent Calls when you do not require them any longer. To delete a Recent Calls or clear the entire log:

1. In the Recent Calls window, select which log entry to delete.
2. Select **Delete** to delete just the selected entry, or **Clear All** to delete all entries, and then press **OK**. The following message is displayed when clearing all: "**Are you sure?**"
3. Select **Yes** to delete, or **No** to cancel.

USING Directory

The Directory is an external directory which can be used for calling. If you are registered in the Directory, you can view the Directory in the Contacts under the Directory tab.

ACCESSING A DIRECTORY VIA THE REMOTE CONTROL

To access the Contacts via the remote control:

1. On the remote control, press the Contacts button. The Contacts opens.
2. Select the Directory tab, and on the number to dial press **Dial.**

ACCESSING THE DIRECTORY VIA THE CONTACTS

To access the Directory via the Contacts:

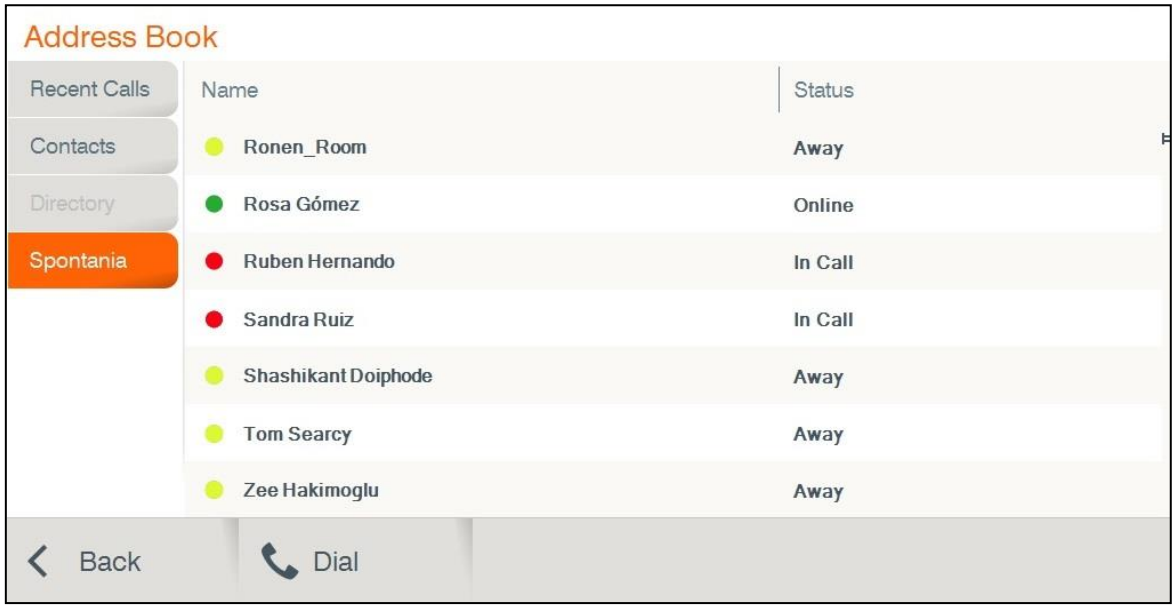
1. In the Contacts, select **Directory** by pressing down with the navigation arrows.
2. Select the Directory tab, select the number to dial and press **Dial**.

USING SPONTANIA CONTACTS

When your system is registered to Spontania server (See Spontania settings), all users that are registered to this server will appear in Spontania contacts list.

To access the Contacts via the remote control:

1. On the remote control, press the Contacts button. The Contacts opens.
2. Select the Spontania tab.



3. Select Online / Away contact and press **Dial**.

Chapter 6: Advanced Settings

IN THIS CHAPTER

This chapter covers the advanced settings for COLLABORATE Pro, and includes the following sections:

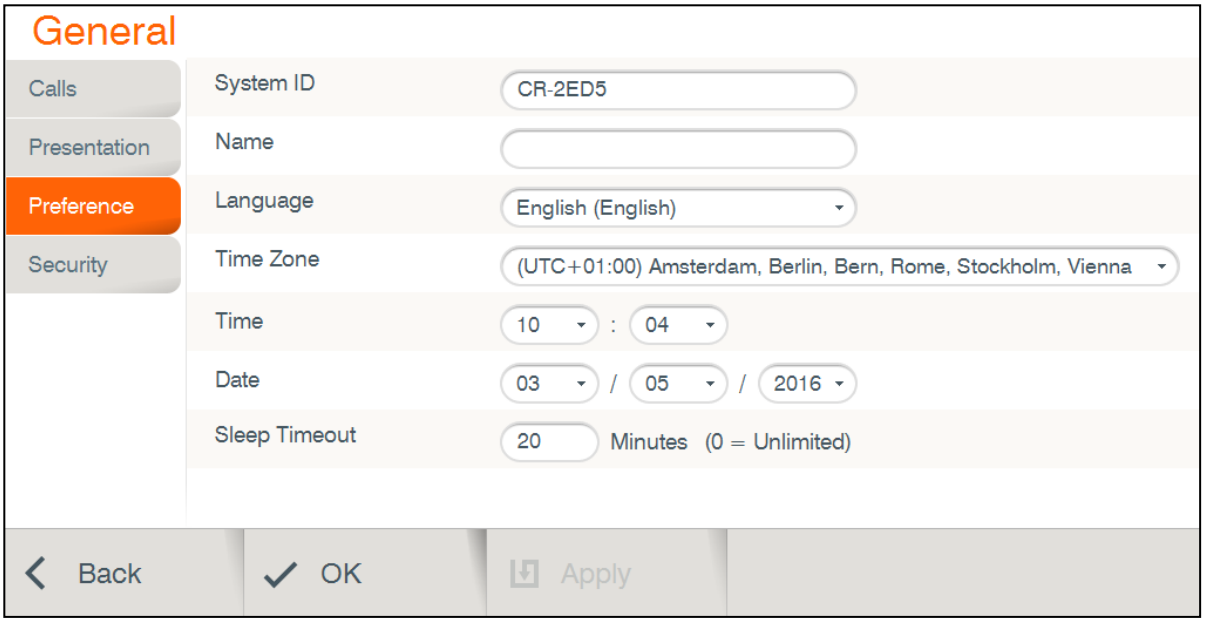
- Preference Settings
- Security Settings
- Call Settings
- Admin Settings
- Directory Properties
- H.323 Protocol Settings
- SIP Protocol Settings
- Firewall and NAT Settings
- Spontania Settings

PREFERENCE SETTINGS

The preference settings define general system properties.

To configure preference settings:

1. Select **Settings>General> Preference**. The preference Settings window appears.



2. In the Preference Settings window, set the following options and parameters.

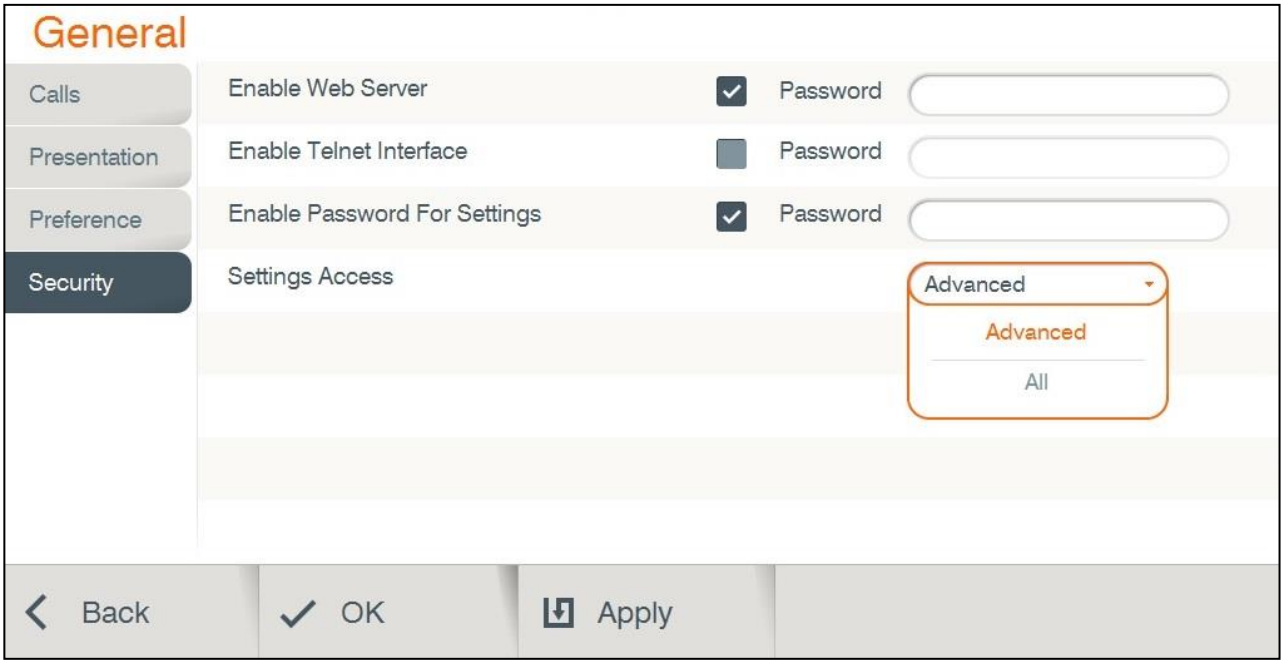
   - **System ID** – System ID used to identify the system when using DNS dialing.
   - **Name –** Set the system title that will represent the unit during a session.
   - **Language** – Select the desired language for the user interface. Click **Apply**. (A system restart is required after changing the system language.)
   - **Time Zone** – Select your country time zone.
   - **Time** – If not already set, enter the current time.
   - **Date** – If not already set, enter the current date.
   - **Sleep Timeout** – Duration of idle time (in minutes) before the system goes into sleep mode.

3. Select **Apply**.

SECURITY SETTINGS

To configure security settings:

1. Select **Settings>General>Security**. The Security Settings window appears.



2. In the Security Settings window, set the following options and parameters

- **Enable Web Server** – Select this option to allow Web access to the COLLABORATE Pro unit via a browser. If you enter a password, Web users will be required to enter the same password when they access the unit. (For more information, see Web Access and Management).

- **Enable Telnet Interface** – Select this option to allow access to the COLLABORATE Pro unit via a Telnet-based terminal. If you enter a password, Telnet users will be required to enter the same password when they access the unit.

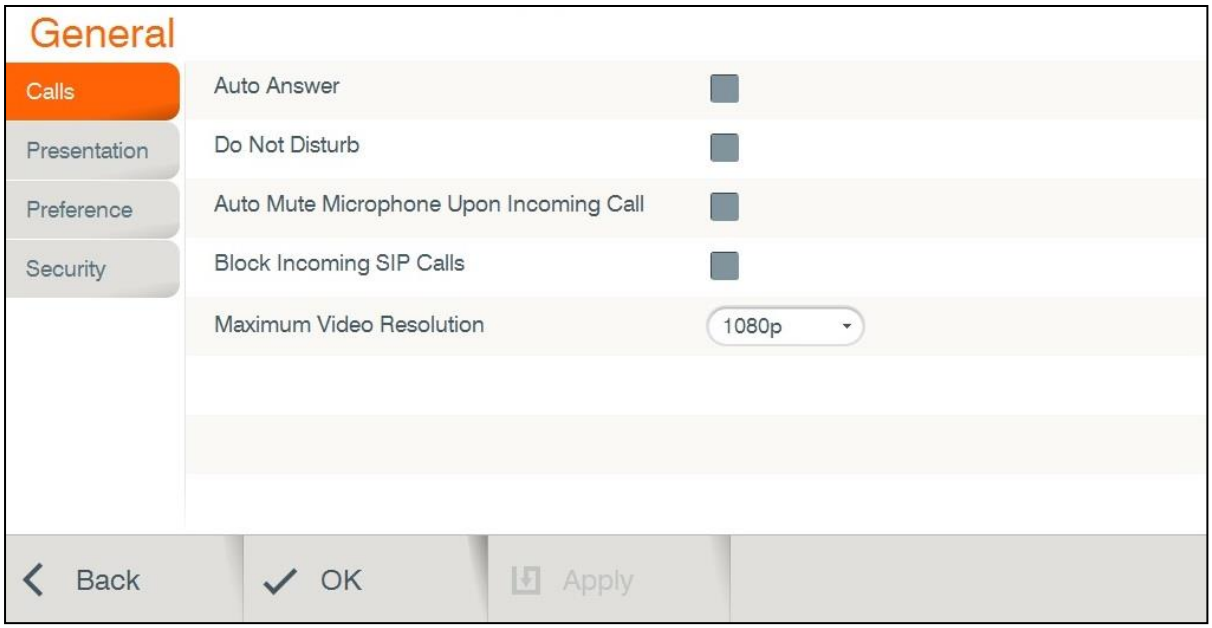
- **Enable Password for Settings** –
  - **Advanced** - Selecting this option restricts the access to the advanced settings of the unit, which are: Admin, IP, Directory, H.323, SIP, Firewall and Spontania.
  - **All** - Selecting this option restricts the access to all settings of the unit.

CALL SETTINGS

In the Call Settings window you can define miscellaneous technical settings that affect how video collaboration calls are performed by default.

To configure call settings

1. Select **Settings>General>Calls**. The Call Settings window appears.

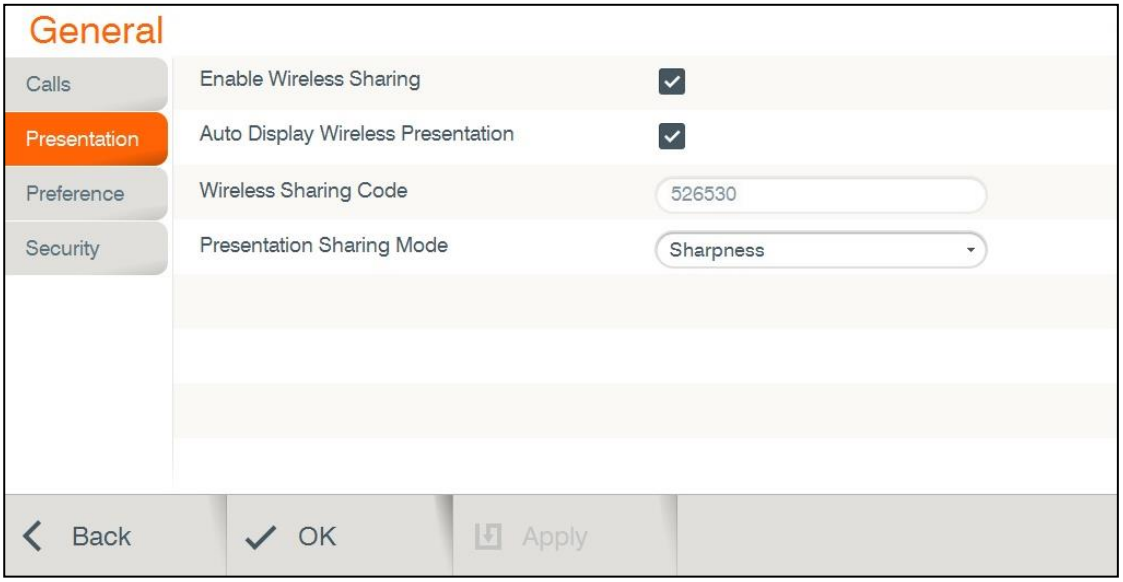


2. In the Call Settings window, set the following options and parameters
   - **Auto Answer** – Enables auto answering of incoming calls.
   - **Do Not Disturb** – Select to turn on auto reject of all incoming calls.
   - **Auto Mute Microphone Upon Incoming Call** – Enables auto muting the microphone for incoming calls.
   - **Block Incoming SIP Calls** – Select to auto reject only incoming SIP calls.
   - **Maximum Video resolution** – Set the maximum video resolution.

PRESENTATION SETTINGS

To configure the presentation settings:

1. Select **Settings>General> Presentation**. The Presentation Settings window appears.



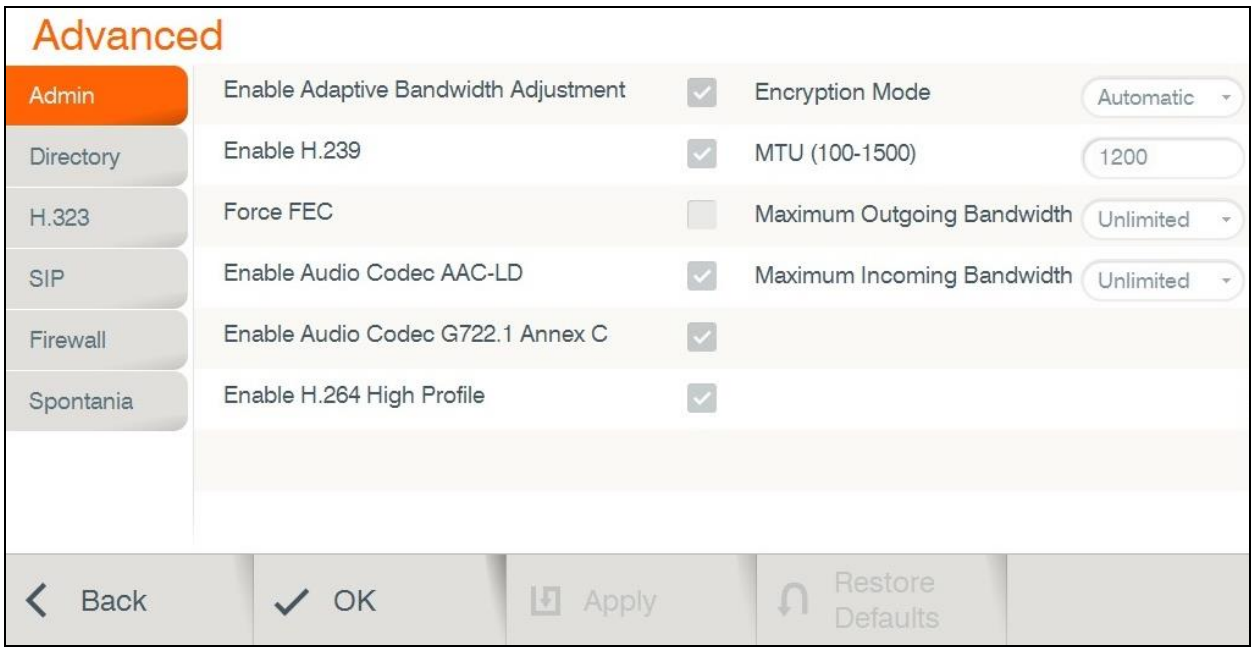
2. In the Presentation Settings window the following properties can be configured:
   - **Enable Wireless Sharing** – Allow wireless data sharing from any PC with Collaborate share.
   - **Auto Display Wireless Presentation** – Wireless auto-sharing once sender is connected.
   - **Wireless Sharing Code** – Wireless security code need to be entered by sender.
   - **Presentation Sharing Mode** – Depending on the type of presentation material being transmitted you can choose the data transmit mode priorities either motion or sharpness:
     - **Motion** - provides the highest possible frame rate. Used when there is a need for higher frame rates, when there is a lot of motion in the data.
     - **Sharpness** - provides the highest possible resolution. Used when you want the highest quality of detailed images and graphics.

3. Select **Apply**.

ADMIN SETTINGS

To configure Admin settings:

1. Select **Settings>Advanced>Admin**. The Admin Settings window appears.



2. In the Admin Settings window, set the following options and parameters.

- **Enable adaptive bandwidth Adjustment** – Enables videoconferences to proceed at reduced bandwidth if the network is congested. Deselecting this option maintains a constant quality to the session, but it may cause network problems.
- **Enable H.239** – Enables data sharing protocols.
- **Force FEC** – Force Forward Error Correction (FEC) – Forwards an error-correction code instead of automatically adjusting the bandwidth.
- **Enable Audio Codec AAC-LD:** – Audio Codec: audio compression format designed to combine the advantages of perceptual audio coding with the low delay necessary for two-way communication.
- **Enable Audio Codec G722.1 Annex C** – Audio Codec: wide-band compression algorithm provides higher-than-toll quality speech. The codec operates between a wide-band, 50Hz to 7kHz signal range, at the G.722.1 standard bit rate of 24kbps and 32kbps. GAO's G.722.1 algorithm is in the form of fixed-point arithmetic and is based on the Modulated Lapped Transform (MLT).
- **Enable H.264 Profile** – When selected, enables the system to operate in high profile mode.

- **Encryption mode** – Encryption Mode - Calling securely requires setting the encryption protocol or using defaults which include automatic encryption. Alternatively, you can disable the encryption if it is not needed. Calls that are made using encryption will have a lock icon on the right-bottom corner of the screen.
  - **Automatic** –The default option; enables encryption automatically.
  - **AES** –An encryption algorithm included in the H.235 security protocol.
  - **No Encryption** –No encryption will be used.
- **MTU (100–1500)**– Set the designated MTU (Maximum Transfer Unit) value. The default value is 1200. Applies only to RTP streams.
- **Maximum Outgoing Bandwidth** – Maximum upload bandwidth (0 for unlimited).
- **Maximum Incoming Bandwidth** – Maximum download bandwidth (0 for unlimited).

3. Press **Restore Defaults** to reset system into factory settings.

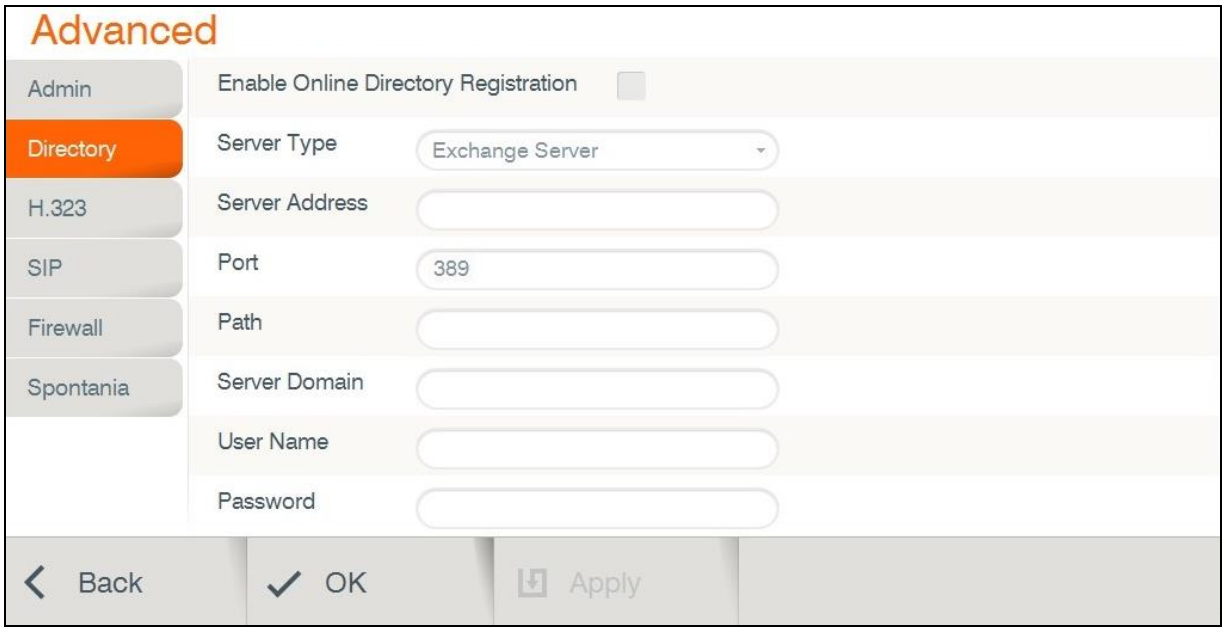
DIRECTORY PROPERTIES

Online directories are lists of contacts (such as Internet Location Server, or ILS) whose videoconferencing systems are online and registered with that directory. If your system is not registered with a COLLABORATE Central®, the Directory Settings provide a way to register with a Directory.

NOTE: Directory settings are available only in COLLABORATE Pro systems that are not managed by a ClearOne COLLABORATE Central.

To configure the Directory settings:

1. Select **Settings>Advanced>Directory**. The Directory Settings window appears.



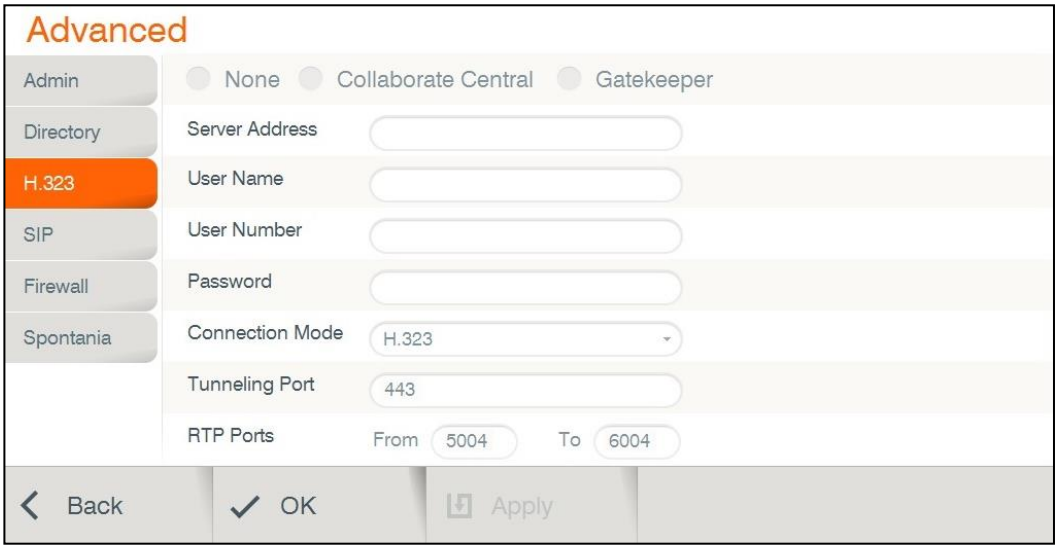
2. In the Directory Settings window, set the following options and parameters
   - **Enable Directory Registration** – When selected, this checkbox activates the rest of the fields in this window and enables the Directory connection registration.
   - **Server Type** – Select the Directory server type. If you are not sure which type to select, consult with your system administrator. An LDAP (Lightweight Directory Access Protocol) server is usually used.
   - **Server Address** – The server's IP Address. If an IP is not entered, the following message appears: "You must enter server address in order to continue."
   - **Port** – Number of the port through which the connection to the server is established.
   - **Path** – Folder in which your user information is stored, as created on the Online Directory.
   - **Server Domain** – Server's domain name for the Directory.
   - **User Name** – Your user name as defined on the Directory server.
   - **Password** – Your access password as defined on the Directory server.
3. Select **Apply**.

NOTE: In the Standalone/Gatekeeper mode, either the ILS or iPlanet servers should be installed for the directory. Consult with your system administrator regarding the installation/configuration of these servers.

Server Type	Description	Prerequisites
ILS server	Site Server ILS is a service used for publishingH.323 videoconferencing and telephony users conferences on the network.	System administrator configuration
iPlanet server	Contains lists of people and resources. Administrators can manage a single user- repository for their organization that can be used by multiple applications to both authenticate and retrieve stored information for users such as access levels and user profiles.	System administrator configuration

H.323 PROTOCOL SETTINGS

For point-to-point and multipoint videoconferences, the H.323 protocol standard is used for call signaling and control, video/audio transport and control, and bandwidth control.



COLLABORATE Pro utilizes H.323 to transport video/audio via DNS and NAT addressing, and to communicate/interact with either a COLLABORATE Central server or a standard gatekeeper server, one of which you can choose to work with in order to gain better performance and flexibility in point-to-point and multipoint videoconferences.

NOTE: For more information about ClearOne's COLLABORATE Central server, its installation and configuration, refer to the COLLABORATE Central User Guide.

To configure a connection to a COLLABORATE Central server or to a gatekeeper server:

1. Select **Settings>Advanced>H.323**. The H.323 Settings window appears.
2. In the H.323 Settings window, set the following options and parameters:

- **None** – Keep this option selected (selected by default) if you do not want to use a **COLLABORATE Central server or a gatekeeper**.
- **COLLABORATE Central** – Select this option if you want COLLABORATE Pro to communicate/interact with a COLLABORATE Central server and utilize its advanced features. If selected, enter the required details in the following fields:
  - **Server Address** – Enter the IP Address of the COLLABORATE Central server.
  - **User Name** – Enter the user name used to log into the COLLABORATE Central server.
  - **User Number** – Enter your user number used for identification on the COLLABORATE Central server. If not entered, the COLLABORATE Central server will automatically generate a number.
  - **Password** – Enter the password used to log into the COLLABORATE Central server.

- **Gatekeeper** – Select this option if you want COLLABORATE Pro to communicate/interact with a gatekeeper server. If selected, enter the required details in the following fields:
  - **Server Address** – Enter the IP Address of the gatekeeper server.
  - **User Name** – Enter the user name used to log into the gatekeeper server.
  - **User Number** – Enter the user number used for identification on the gatekeeper server.
  - **Password** – Disabled when working with a gatekeeper because gatekeeper authentication is currently not supported.
- **Connection Mode** – Select the protocol you want to use to connect your call.
  - **H.323** - This selection should be selected manually for LAN network connections only when the connection type is known.
  - **H.460** - This selection should be selected manually for network connections over Firewall/NAT only when the connection type is known.
  - **Tunneling (not available when working with a gatekeeper)** - This selection should be selected manually for ClearOne Proprietary Tunneling. The default tunneling port is configured by the System Administrator (see NetPoint/ COLLABORATE Central Administration Configuration Manager).

    NOTE: Changing this setting causes COLLABORATE Pro to reload.
- **RTP Ports** – In the two boxes, set the RTP range:
  - **From** – Enter the minimum RTP value.
  - **To** – Enter the maximum RTP value.

3. Select **Apply**.

NOTE: In COLLABORATE Central mode, the system administrator should configure the LDAP settings for COLLABORATE Central on the server side.

To verify that COLLABORATE Central mode is active:

1. Press **Status** on the remote control and check in the displayed information that a COLLABORATE Central icon appears.
2. Select **Settings>Advanced>H.323** and check the displayed information.

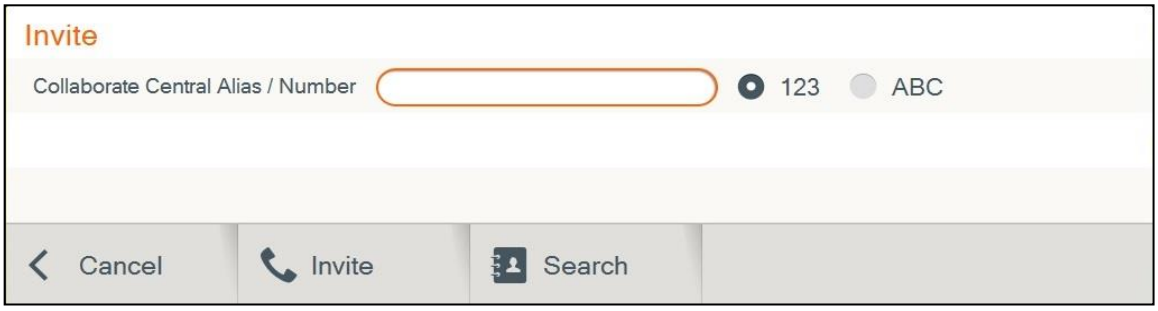
   The New Call IP number shows the extension number that the system received when initiating COLLABORATE Central mode, which is the ID number.

WORKING IN COLLABORATE CENTRAL MODE

In a point-to-point call and when COLLABORATE Central mode is active, you can add another participant to the call without hanging up, i.e. – the call continues while the additional participant is being invited.

To add participants to the call in COLLABORATE Central mode:

1. Select **Conference>Invite**. The Invite call window is displayed.



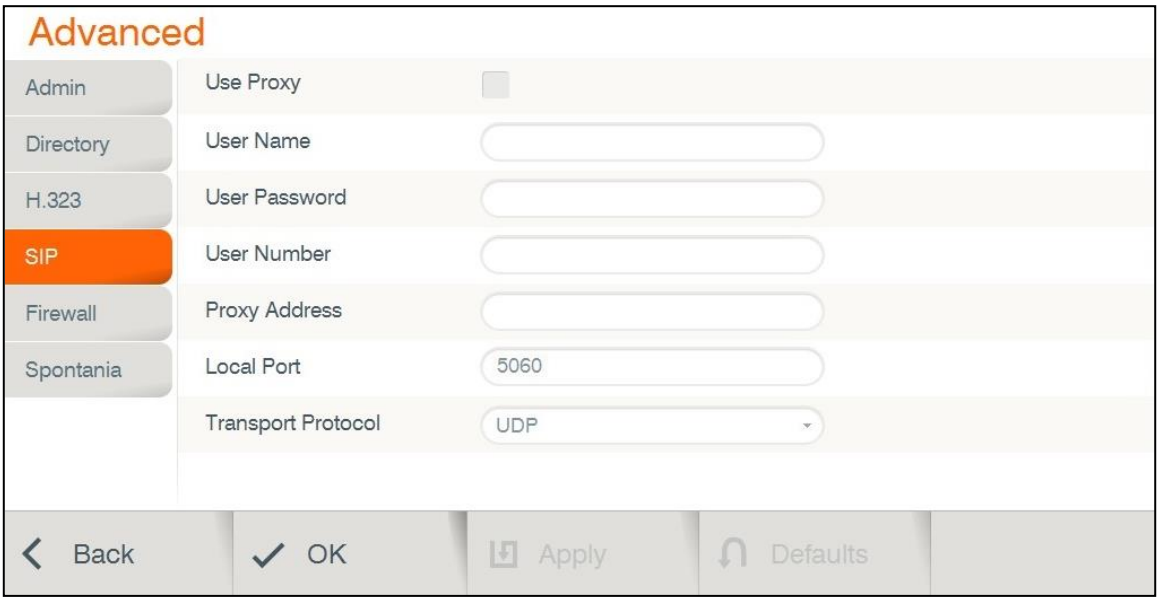
NOTE: The COLLABORATE Central >Invite option is available on the menu only when COLLABORATE Central mode is active.

2. Type in the participant COLLABORATE Central alias/IP number, and select **Invite**. The call is connected.

SIP PROTOCOL SETTINGS

SIP is a common communication signaling protocol for VoIP. To configure SIP settings:

1. Select **Settings>Advanced>SIP**. The SIP Settings window appears.



2. In the SIP Settings window, set the following options and parameters:
   - **Use Proxy** – Use a proxy server or as stand alone.
     - **User Name** – The user name as configured in the proxy server (proxy mode).
     - **User Password** – The user password as configured in the proxy server (proxy mode).
     - **Proxy Address** – Proxy server IP
   - **Local Port** – The SIP port on your computer (the standard is 5060).
   - **Transport Protocol** – Select the desired protocol (TCP or UDP).
3. Select **Apply**.

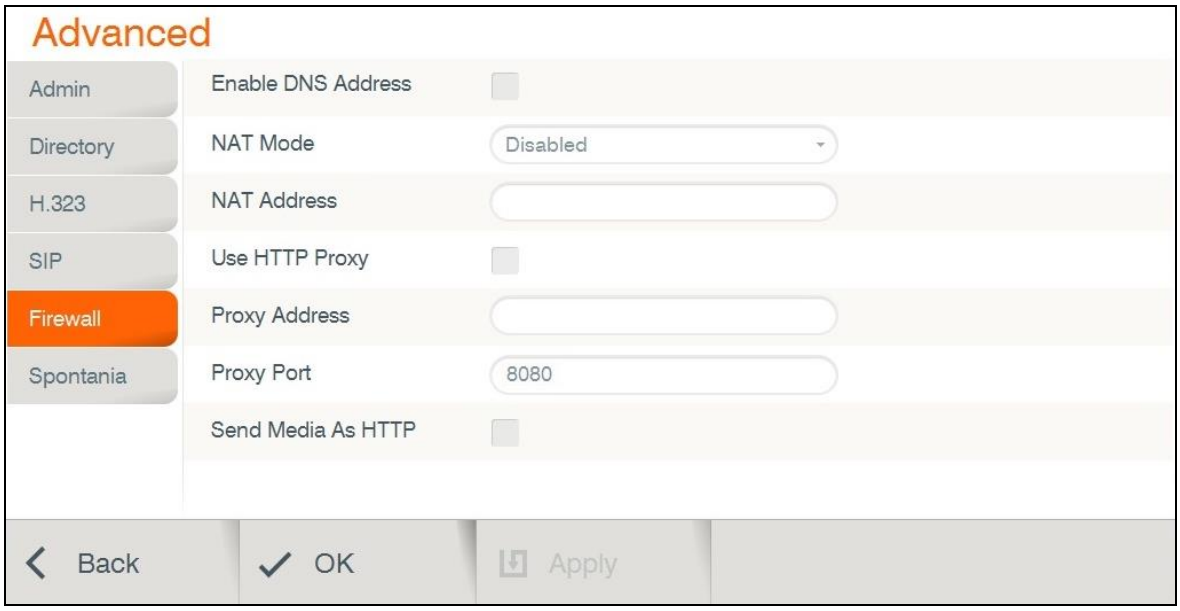
FIREWALL SETTINGS

The Firewall Network Settings contain your system's identification configuration on the local network.

NAT helps protect a LAN from exposure to unwanted traffic by providing one single external address to remote users. NAT uses a system of local and external addresses to hide a LAN's users from other networks. A NAT server translates local parties' addresses to an external address, which is then used to identify the local party to remote parties. Therefore, remote parties use this external address to call the local party, without knowing its actual local address.

To access Firewall/NAT Settings:

1. Select **Settings>Advanced>Firewall**. The Firewall window appears.



2. In the Firewall window, set the following options and parameters:
   - **Enable DNS Address** – Allows the use of DNS for outgoing calls to other parties by a defined computer name.
   - **NAT Mode:**
     - **Disabled** – Callers to the organization LAN are not identified.
     - **Manual** – Enter your external IP Address. The NAT device maps this to your internal extension number.
     - **Automatic** – The NAT device recognizes your IP Address and maps it to your internal extension number when you dial out through your organization LAN.
   - **NAT Address** – If your organization uses NAT when communicating with parties in another LAN or WAN, type the external address for your videoconferencing device.

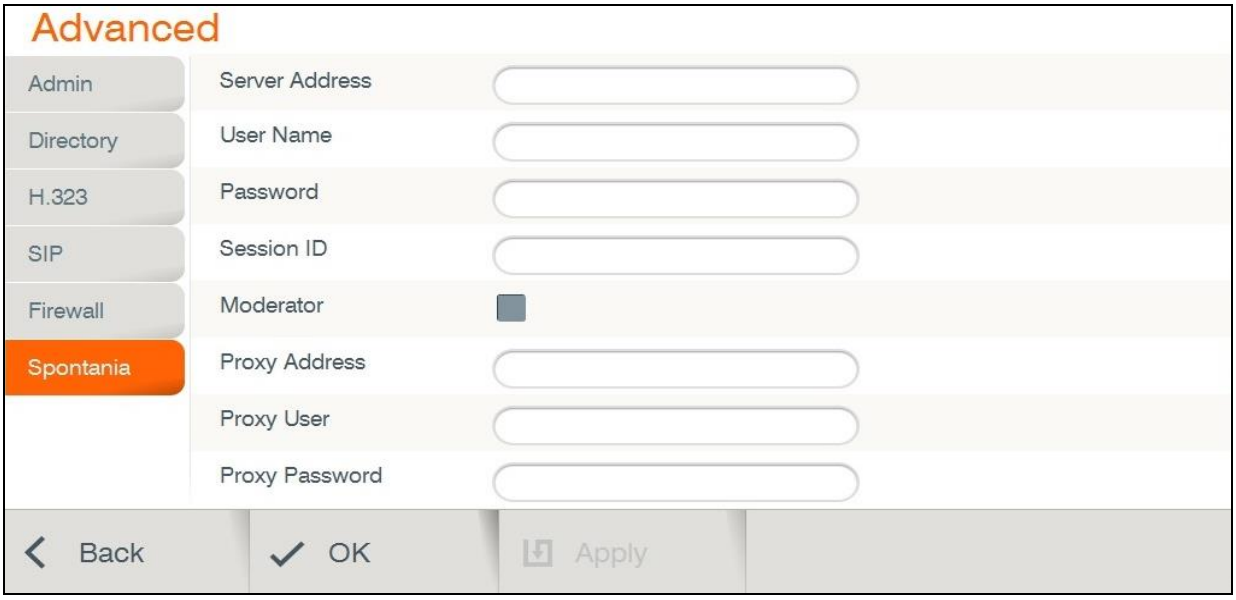
- **Tunneling Port** – The default tunneling port is 443. Tunneling is available only when working with COLLABORATE Central.
- **Use HTTP Proxy** – If your organization uses Proxy server, configure in the Proxy Address and Proxy Port.
- **Send Media As HTTP** – Disguising tunneling traffic as HTTP.

SPONTANIA SETTINGS

Registering to Spontania server will allow you to join and create Spontania cloud-based video conference according to your permissions.

To access Spontania Settings:

1. Select **Settings>Advanced>Spontania**. The Spontania window appears.



2. In the Spontania window, set the following options and parameters:

- **Server Address** - Enter the IP Address of the Spontania server.
- **User Name** – Enter the user name used to log into the Spontania server.
- **Password** – Enter the password used to log into the Spontania server (if required).
- **Session ID** – Enter the default session ID in order to perform quick dialing.
- **Moderator** – Check this option to identify as Spontania moderator.
- **Proxy Address:** Enter your organization proxy server address. For any assistance Use your organization's network manager.
- **Proxy User:** Enter the proxy server user name.
- **Proxy Password:** Enter the proxy server password.

Chapter 7: Spontania

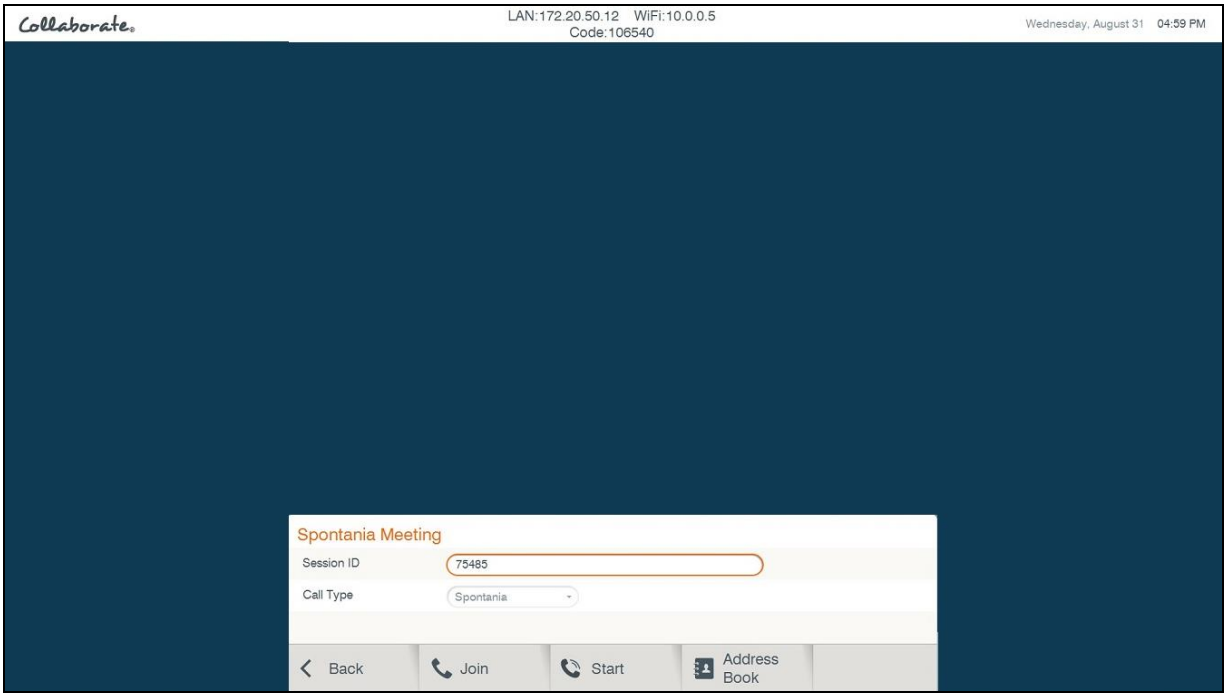
IN THIS CHAPTER

Spontania is a unified group video conference and collaboration software. It provides a full range of real-time communication and collaboration.

STARTING / JOINING A SPONTANIA MEETING

You can start or join a Spontania meeting:

1. Select **Conference > Spontania Meeting**. The Spontania meeting bar appears.



2. To join a Spontania meeting enter Meeting ID and press Join. If you are a session moderator and you entered session ID in Spontania settings, press Start.

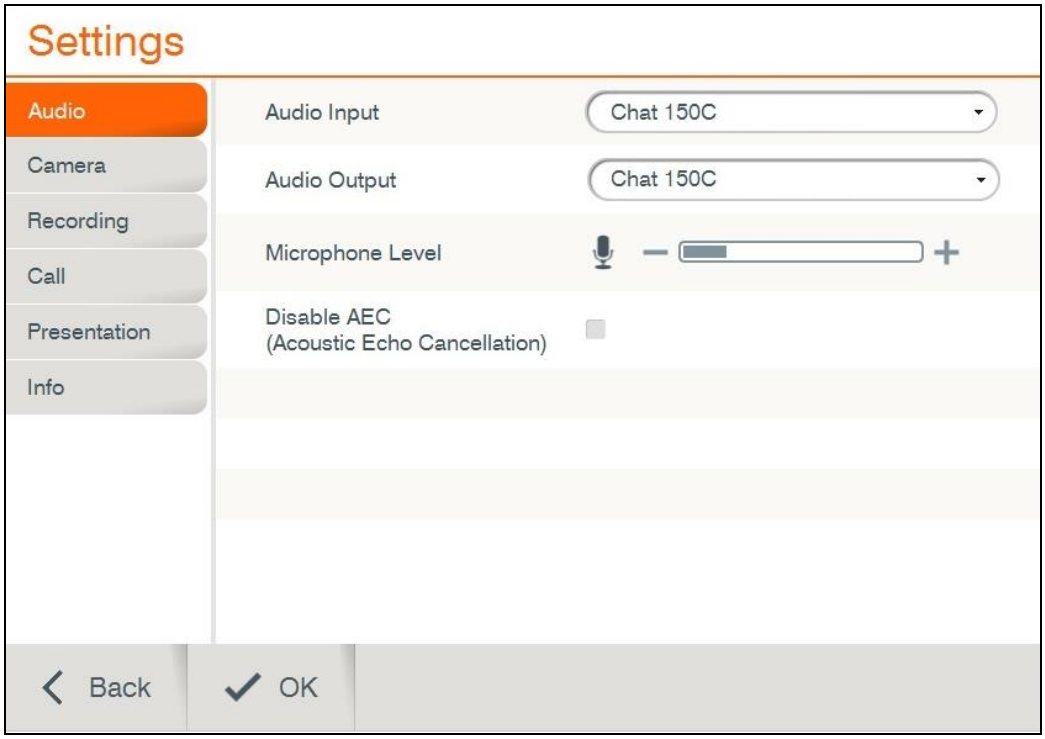
> **NOTE: Before joining / starting a Spontania meeting, you must enter a valid server and user details under Settings > Advanced Spontania.**

3. Spontania meeting starts.

SPONTANIA SETTINGS

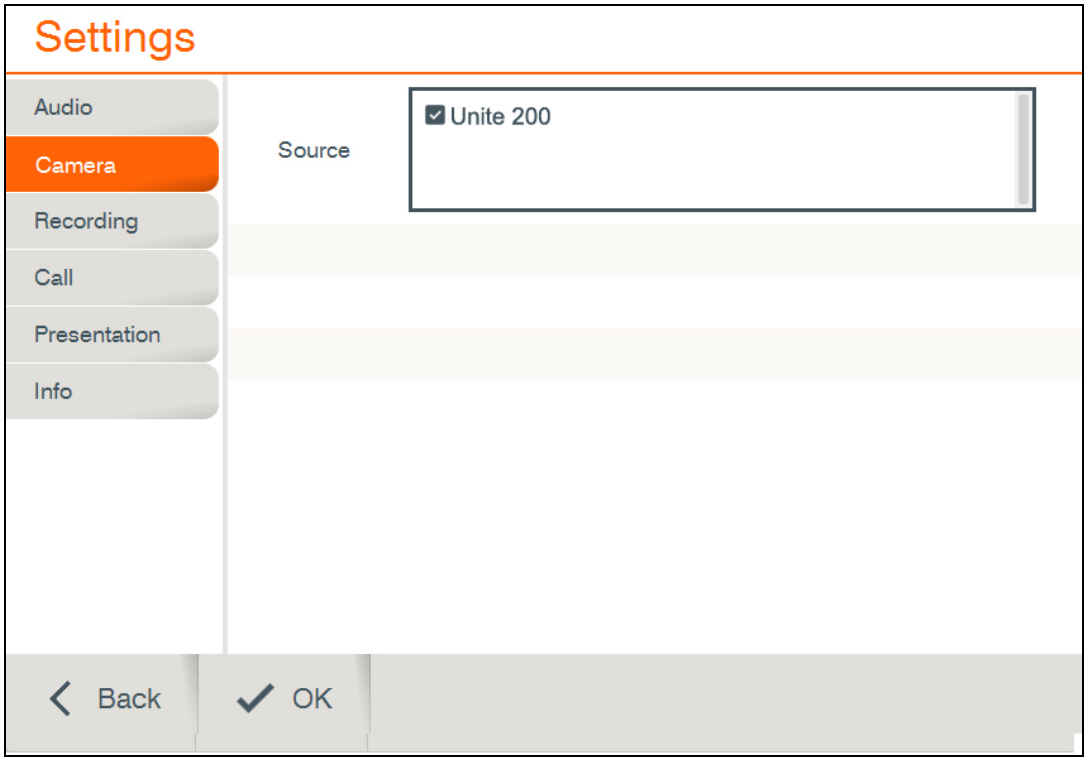
During a Spontania meeting you can change the settings according to your permissions.

1. Audio Settings:



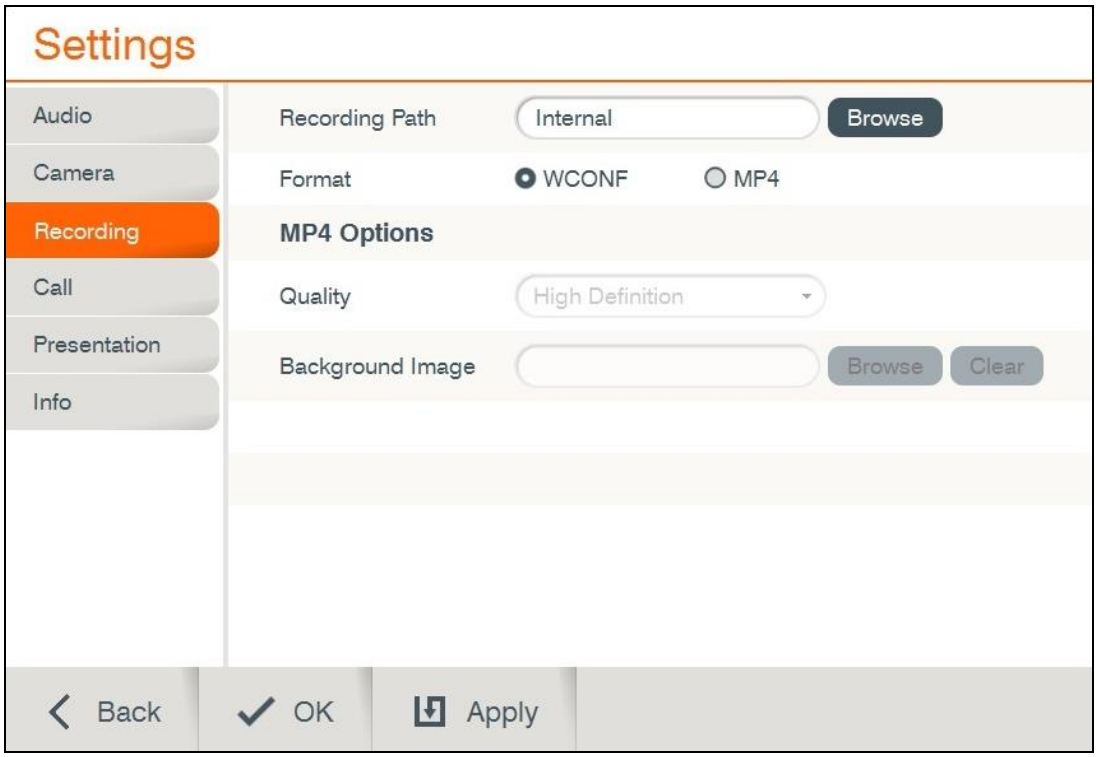
- **Audio Input** – Select CHAT 150C Mic Array to be your audio input device.
- **Audio Output** – Select a playback device from the list
- **Microphone Level** – Adjust the microphone sensitivity level in percentage (%)
- **Disable AEC** – Disable the check box to prevent echo.

2. Camera Settings:



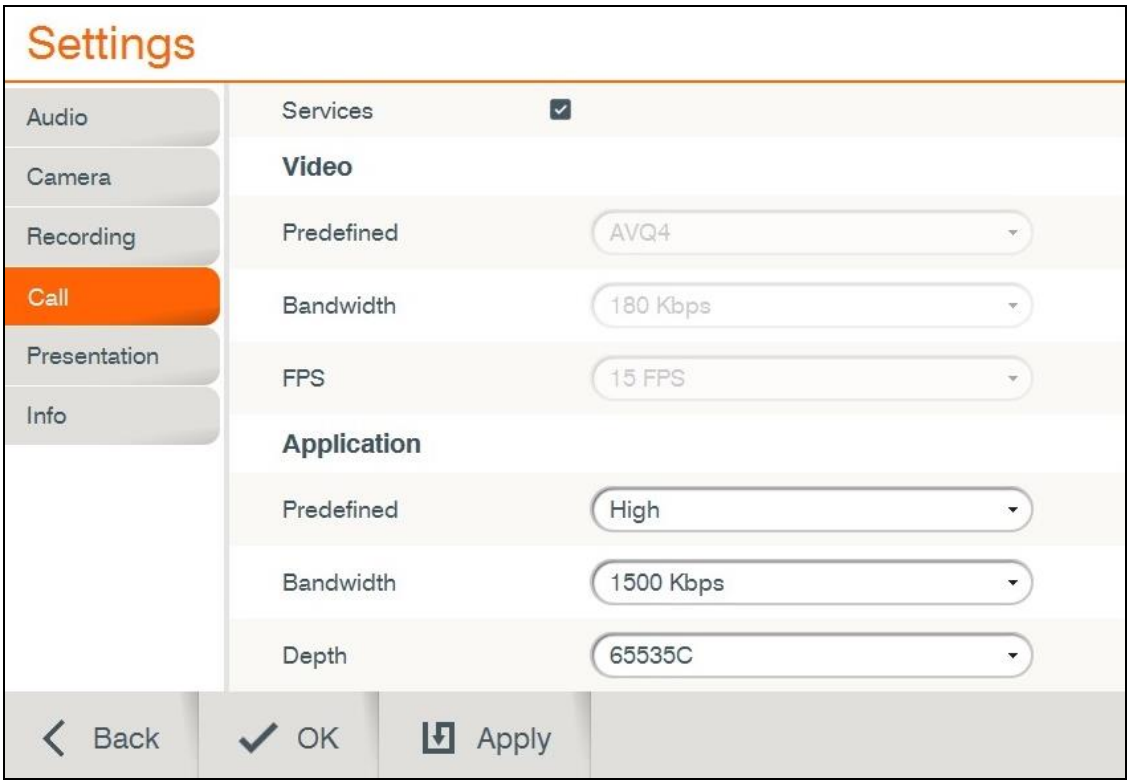
- **Source:** Choose one or more cameras to share in the meeting.

3. Recording Settings (Available only for moderator):



- **Recording Path** – The path where the recordings will be saved.
- **Format** – Choose between MP4 and WCONF.
- **Quality** – Choose recording quality (MP4 format only).
- **Background Image** – Choose image to be in the background when the recording layout is not covering the all screen (MP4 format only).

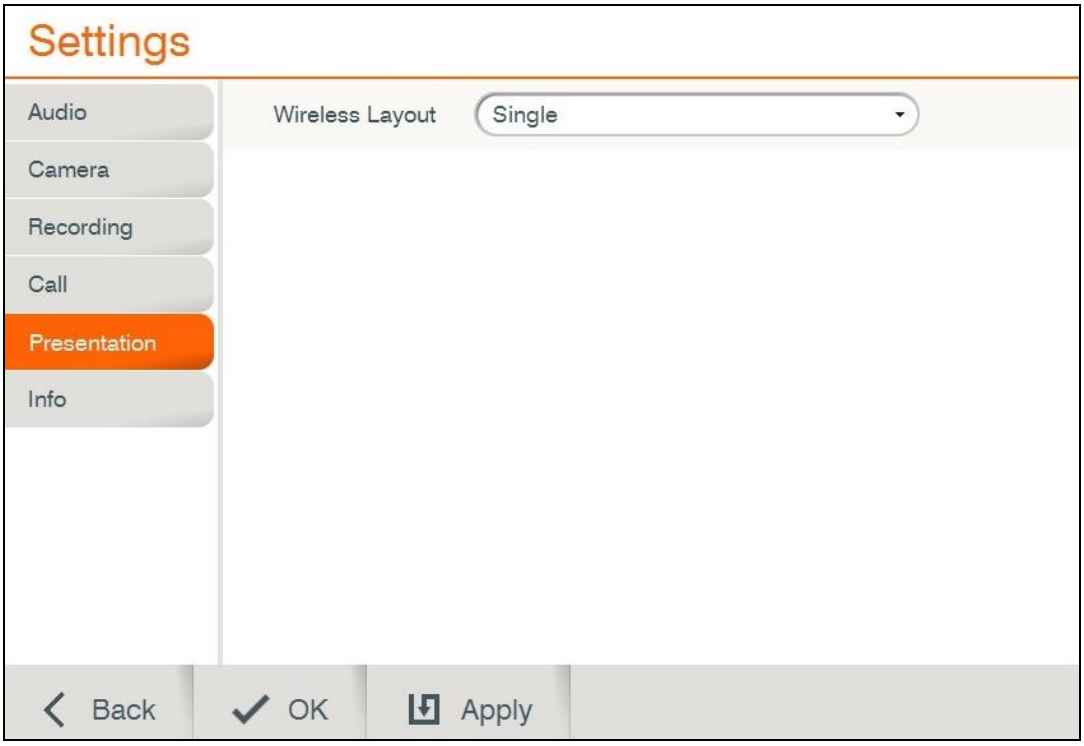
4. Call Settings (Available only for moderator):



Application: shows the general configuration of quality for the signal transmission in the participants' application sharing service. It is divided into 3 fields:

- **Predefined** - shows a list of pre-established configurations regarding the quality of the application sharing service, which sets up specific values for the fields "Bandwidth" and "Depth".
- **Bandwidth** - offers a list of values of network speed (in kilobits per second) associated with the signal transmission of the application sharing service, if this service is activated during the session.
- **Depth** - provides a list of values (in number of colors) associated with the sharpness of the application sharing service, if this service is activated during the session.

5. Presentation Settings:



- **Wireless Layout**: Choose wireless sharing layout:
  - **Automatic**: All senders will be displayed and arranged in the same size.
  - **Single**: Only one sender will be displayed. You can switch between senders with input button in your remote control.
  - **Preview**: All senders will be displayed. The chosen main sender will be displayed in big size and other senders will be displayed in small size. You can switch between main sender with input button in your remote control.

PRESENTATION

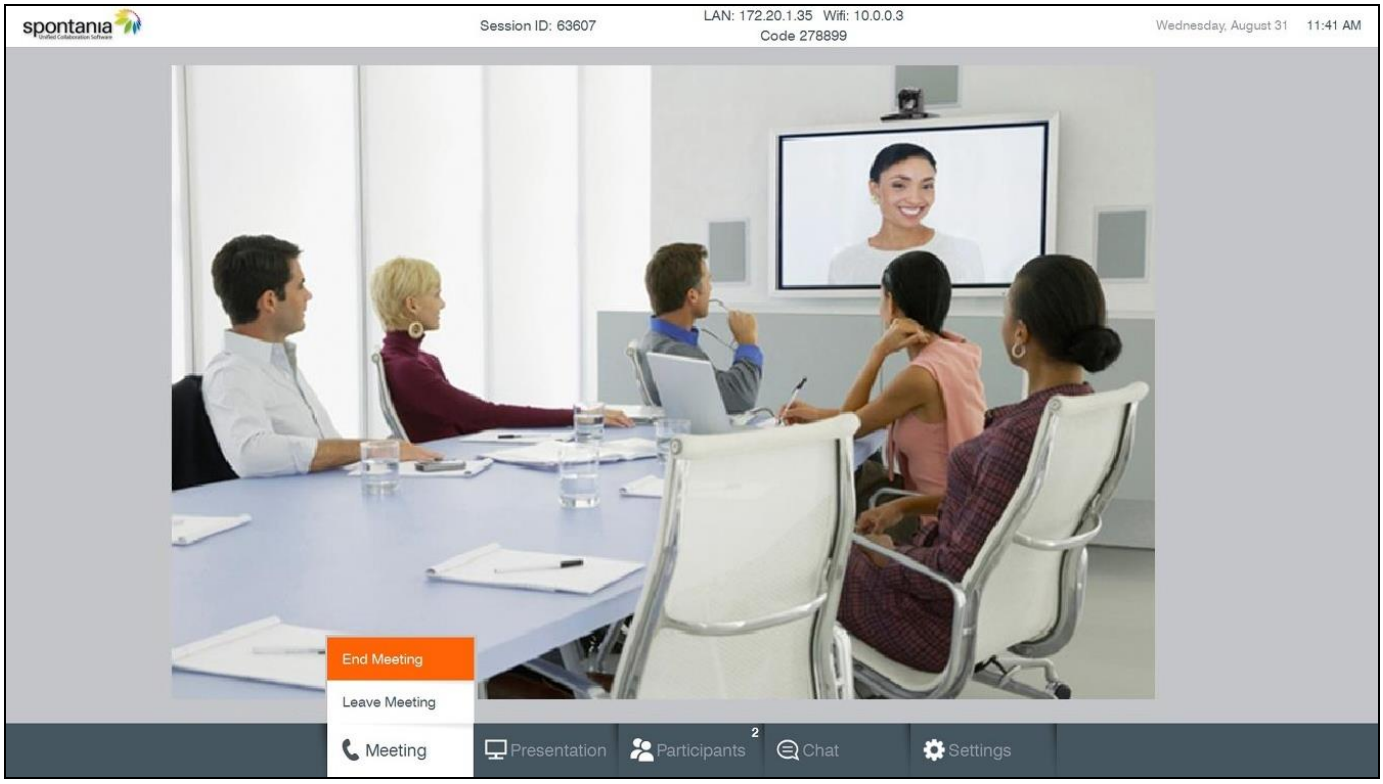
- **File Transfer** – Transfer a file to the other participants.
- **Share Video** – Share video file from USB storage device or share a recording.
- **Whiteboard** – Graphic space to draw or take notes on a new “canvas”.
- **Start Recording (Moderator only)** – Start recording the current meeting.
- **Hand Raise** - Request permission to speak during the session.
- **Wireless –** Start wireless sharing, when sender is connected to the unit.

PARTICIPANTS

Lists of connected participants, showing the communication and collaboration services activated for each of them. Only moderator can manage these services.

- **Icon** - This icon allows the moderator to act on the specific configuration parameters of a certain user.
- **Icon** - appears on the left of each user's name. It shows the quality of connection for that user.
- To activate any of the Spontania communication and collaboration services for a participant, the moderator must act on the corresponding user's checkbox (listed in rows) and service (listed in columns) and mark them with the icon. To carry out the opposite action, that is, to deactivate one of the services for a participant, the moderator must click on the checkbox showing the active state to change it to the icon deactivated.

END MEETING



- **End Meeting** – Terminate the meeting and discard all participants. This option is available only for moderator.
- **Leave Meeting** – Hang up and leave the meeting.

Chapter 8: Web Access and Management

IN THIS CHAPTER

This chapter explains how to access COLLABORATE Pro via a browser and use the Web-based GUI for viewing sessions/files, and configuring the unit from a remote location or via the LAN.

The Web interface includes all the options that are available via the regular on-screen GUI, as well as some additional configuration options that are not available via the regular GUI.

Since the user options shared by both GUIs are generally the same, this chapter focuses mainly on the exclusive web options, and includes the following sections:

- Accessing COLLABORATE Pro via Browser
- Download Collaborate Share for wireless sharing
- Importing/Exporting the License
- Sending Running Text in a Call
- Viewing Call Status
- Performing System Upgrade
- Performing System Backup
- Performing System Restore from Backup File
- Performing System Restore from FTP

ACCESSING COLLABORATE PRO VIA BROWSER

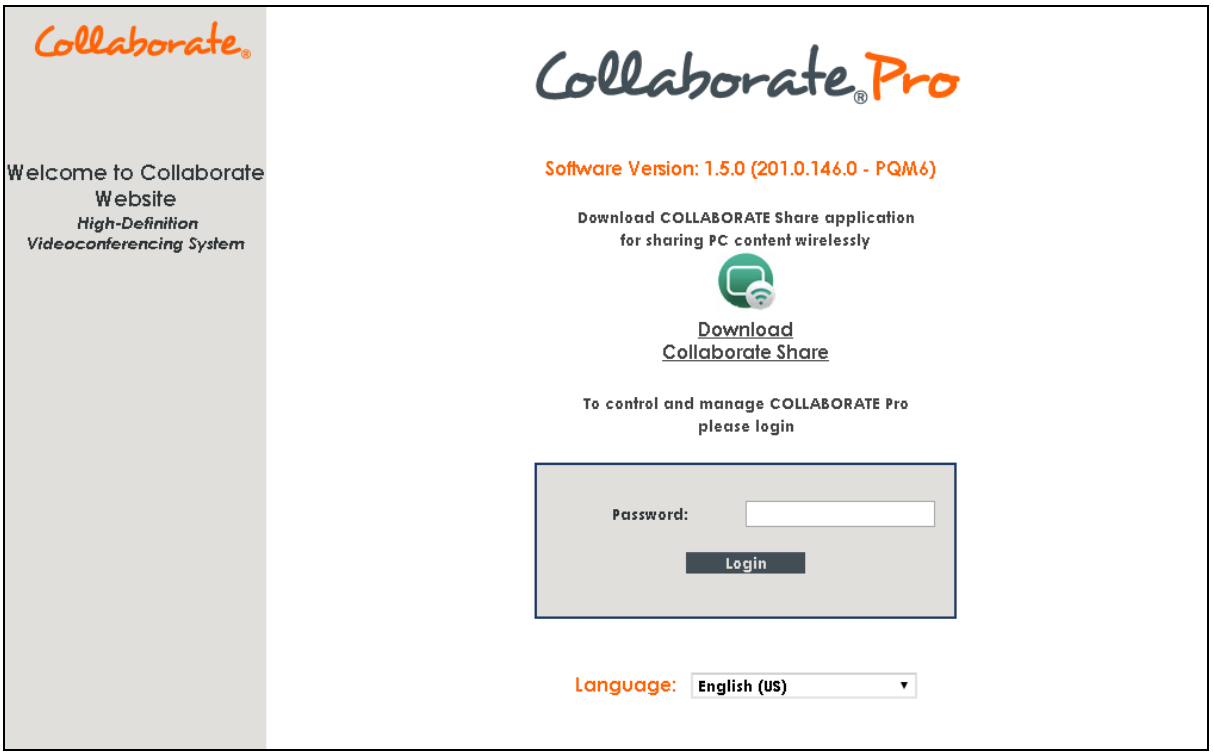
You can access COLLABORATE Pro via a standard Web browser from any remote location or from your LAN.

To access COLLABORATE Pro via a browser:

1. Open your browser.

2. In the browser's address bar, type the direct IP Address of the COLLABORATE Pro unit. The COLLABORATE Pro Web login page appears. For example: http://172.100.100.25

   NOTE: If you do not know the IP Address of the COLLABORATE Pro unit, request help from a user close to the unit, who can check the unit's IP Address as explained in Displaying System Information.



3. If a password was set for Web access (see Administration Settings): in the **Password** field, enter your password for accessing the management options, and then click **Login**.

   If the password is authenticated, the management options page appears.

DOWNLOADING COLLABORATE SHARE

You can share your PC desktop or an application via the network. To use this feature you need to download Collaborate Share application.

To download Collaborate Share:

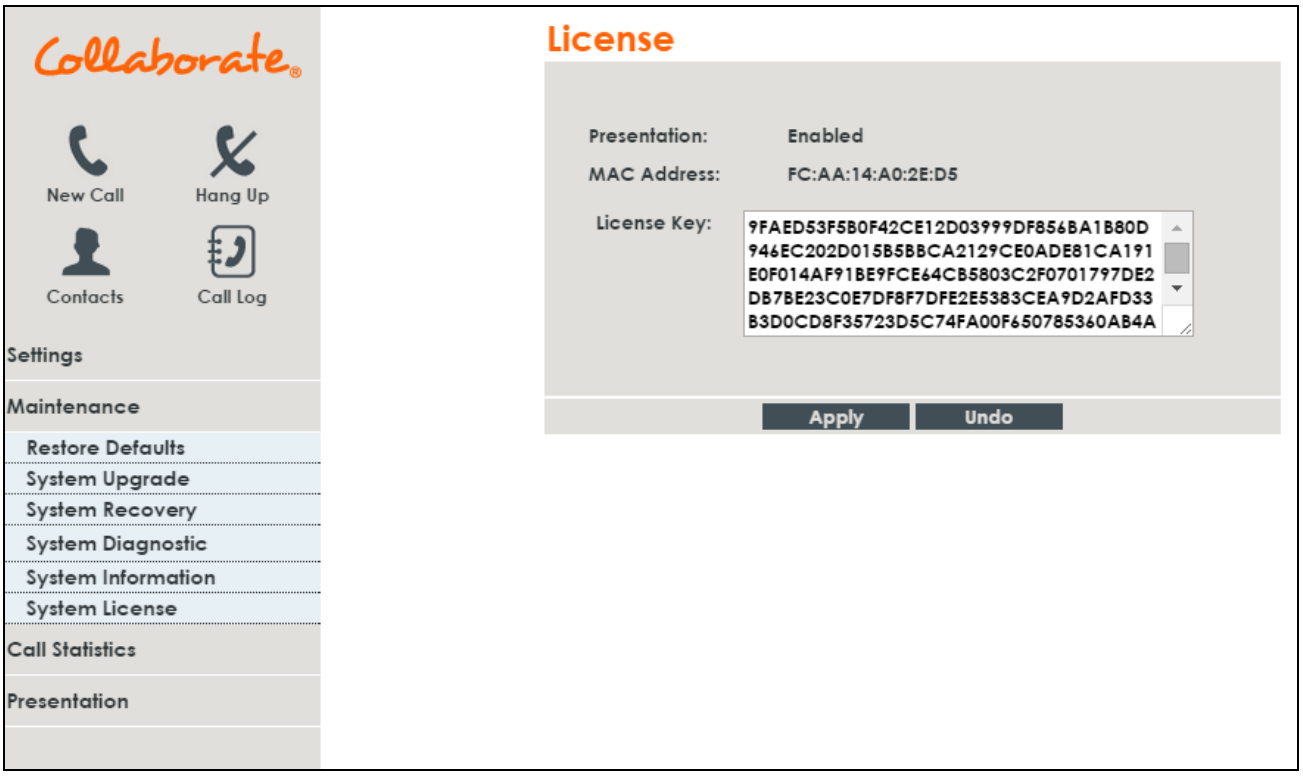
1. Open your browser.
2. In the browser's address bar, type the direct IP Address of the COLLABORATE Pro unit. The COLLABORATE Pro Web login page appears.
3. Click Collaborate Share. The application download will be start automatically.

IMPORTING/EXPORTING THE LICENSE

Some features and functionalities in COLLABORATE Pro require licensing, and are activated with a license key that you must enter and save to your COLLABORATE Pro unit.

To enter and save a license to your COLLABORATE Pro unit:

1. After logging in, click **Maintenance>System License**. The License page appears.



2. Copy and paste the license key (a long text-based string) that you received from ClearOne into the **License Key** text box, and then click **Apply**.

   Once the license key is applied, you can view which features/functionalities are available:

   - **Presentation** – Indicates whether the laptop sharing functionality is enabled or disabled.
   - **MAC address -** The unit's MAC address is also displayed.
   - **License Key –** The generated license code supplied by ClearOne.

SENDING RUNNING TEXT IN A CALL

During a video collaboration call, you can type and send a text message to the person(s) with whom you are communicating. The message is displayed as running text on top of the video image on the far-end screen.

To type and send a running text message:

1. Start the call. The **Running Text** button appears in the Call View box (available only in the Web interface).

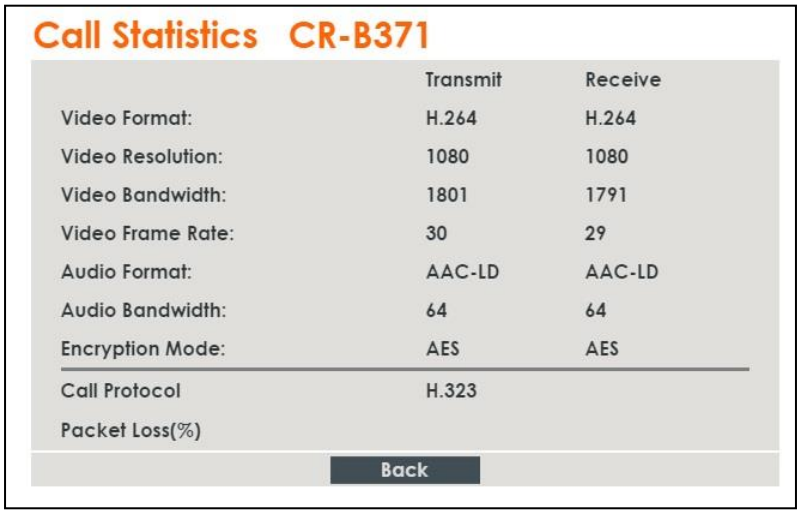
2. Click the **Running Text** button. The Running Text box appears.
3. In the text box, type the message you want to send and display on the far-end screen, and then click **Start**.

NOTE: To stop the display of the running text message on the far end, click Stop.

VIEWING CALL STATUS

During a videoconference call, you can view and check the technical details of the call. To view the call status details:

- During the video collaboration call, click the **Info** link in the Call View box (see Call View box).



The following information is displayed in the Call Status box for both **incoming** and **outgoing** communication:

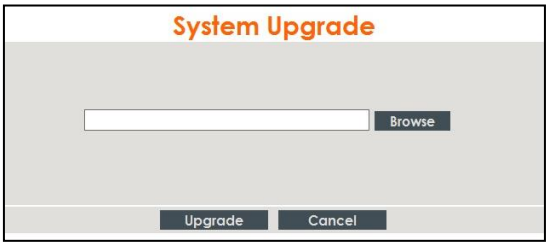
- **Video Format** – Video codec used to display video in this call
- **Video Resolution** – Video resolution used in this call
- **Video Bandwidth** – Bandwidth used by the video in this call
- **Video Frame Rate** – Video frame rate used in this call
- **Audio Format** – Audio codec used to sound audio in this call
- **Audio Bandwidth** – Bandwidth used by the audio in this call
- **Encryption Mode** – Type of encryption used in this call (if encryption is used).
- **Call Protocol** – Protocol of the current call.
- **Packet Loss** – Percentage of packets that did not arrive their destination.

PERFORMING SYSTEM UPGRADE

You can upgrade the Collaborate software to a newer version when such becomes available.

To upgrade the COLLABORATE Pro software:

1. After logging in, click **Maintenance>System Upgrade**. The System Upgrade box appears.

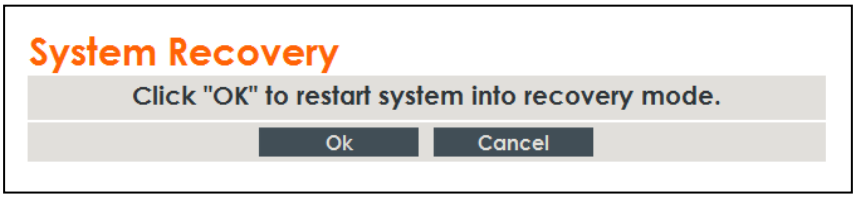


2. Click **Browse** and then select the ClearOne-provided file that contains the newer software version.
3. Click **Upgrade**. The system upgrade is performed and then the system reboots.

PERFORMING SYSTEM BACKUP

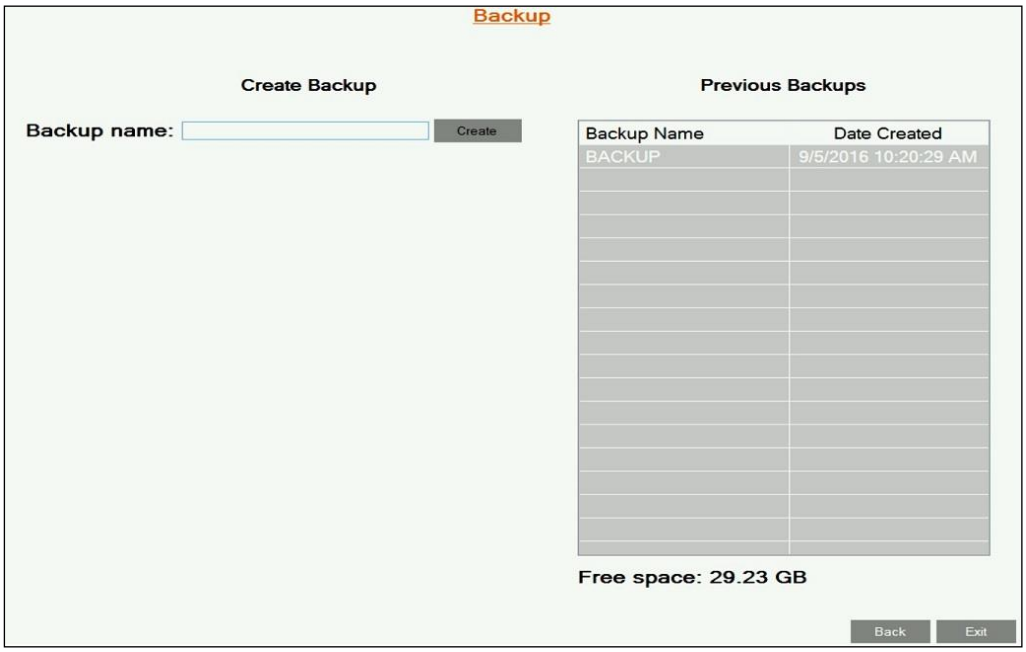
The Backup option, using the remote controller, takes a snapshot of the current COLLABORATE Pro configuration. It is recommended to take backup snapshots every time a configuration change is made.

1. After logging in, click **Maintenance>System Recovery**



2. The system will reboot and a **Recovery** screen will appear

3. Select the **Backup** option. The **Backup** screen will appear.



4. Using the remote control to enter letters and numbers, enter the **Backup name** and click on the **Create** button to create the backup file of the configuration.
5. Once it is done, press the **Exit** button and reboot the system. Shutdown the system by pressing few seconds on the **power** button; then press the **power** button again in order to turn on the system.

PERFORMING SYSTEM RESTORE FROM BACKUP FILE

Whenever necessary, you can discard all manually entered configuration settings and restore the settings to a saved backup of an earlier configuration.

> **NOTE: Before restoring the system, you must save the system License Key. This is accessed by using the menu:**
>
> **Maintenance> System License**

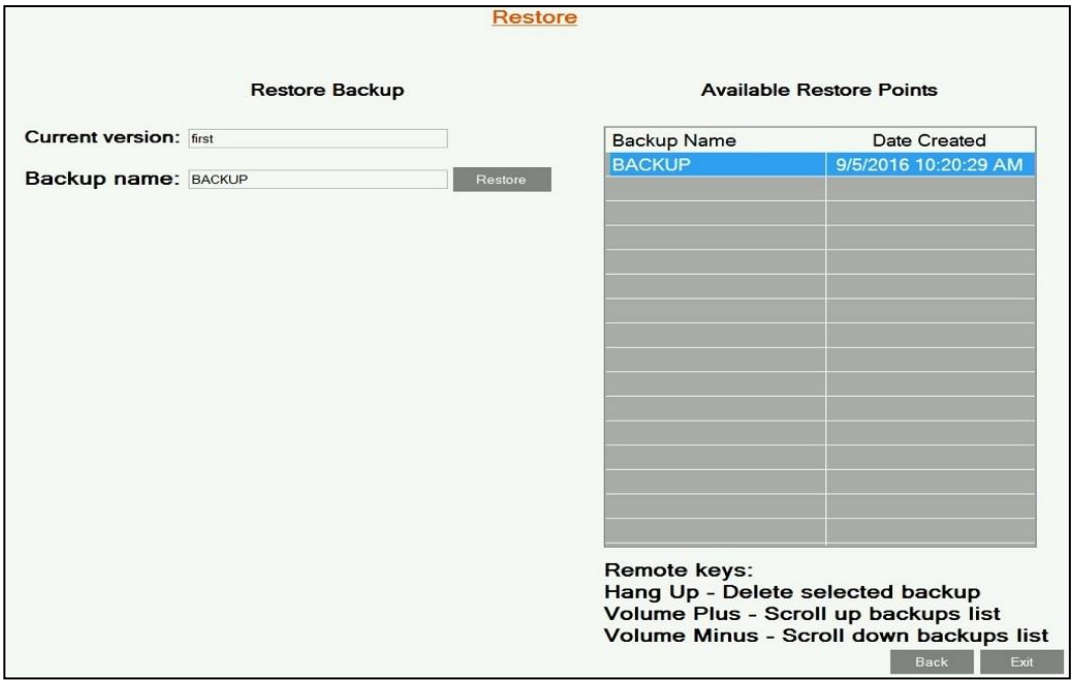
Reset the COLLABORATE Pro unit to a backup snapshot file using a browser:

1. Open your browser.
2. In the browser's address bar, type the direct IP Address of the COLLABORATE Pro unit. The COLLABORATE Pro web login page appears. For example: http://172.100.100.25
3. After logging in, click **Maintenance>System Recovery**

> **NOTE: All information on the system including user information, Contacts entries, IP settings and all other user defined information will be deleted.**
>
> **NOTE: After restoring the system to its factory defaults, it may be necessary to perform a system upgrade.**

3. The system will reboot and **Recovery** menu will appear.

4. Select the **Restore** button. The **Restore** screen will appear



5. Select the backup configuration file you want to restore, and press the **Restore** button.
6. Once the restore process is completed, press **OK** and shutdown the system by pressing for a few seconds on the **power** button; then press the **power** button again in order to turn on the system.
7. Copy the stored License Key to the system (Configuration**>**Option**>**License)

PERFORMING SYSTEM RESTORE FROM FTP

Whenever necessary, you can discard all manually entered configuration settings and restore using settings delivered via FTP.

> **NOTE: before restoring the system to its factory defaults, you must save system License Key. This is accessed by using the menu:**
>
> **Maintenance>System License**

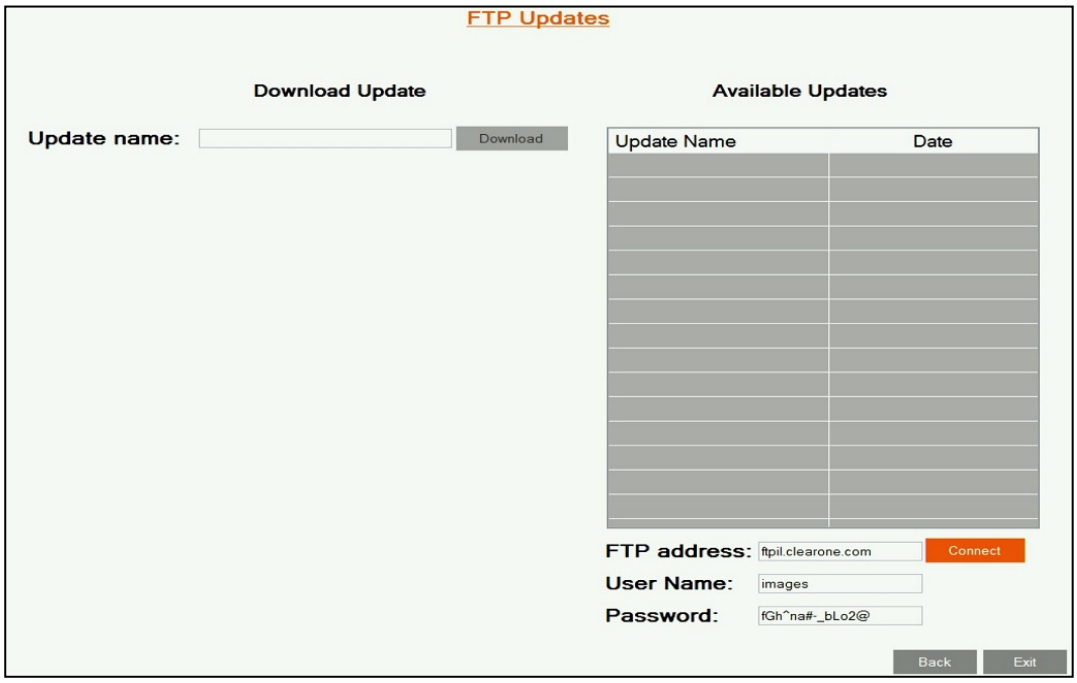
To set the COLLABORATE Pro unit to settings delivered via FTP:

1. After logging in, click **Maintenance>System Recovery**

   > **NOTE: All information on the system including user information, Contacts entries, IP and all other user defined information will be deleted.**
   >
   > **NOTE: After restoring the system to its factory defaults, it may be necessary to perform a system upgrade.**

2. The system will reboot and **Recovery** menu will appear.

3. Select the FTP Updates button. The FTP Updates screen will appear.
4. Enter the FTP server details including FTP Address, User Name and Password, and click the Connect button.
5. Select the file from the listing, and then click on the Download button.



6. Once the download is completed, press on the **Back** button.
7. Select the **Restore** button and follow the restore steps listed above

ACCESS TO SYSTEM RECOVERY WITH USB DEVICE

In addition to web server, you can reach recovery mode with designated USB device.

1. Connect Recovery USB and a keyboard to the system.
2. Restart you system (**Settings > Power > Restart**).
3. During restart, press **F10** on your keyboard.
4. In the boot manager, Choose Recovery USB device.

NOTE: System recovery management via USB device is with the keyboard, while recovery management via Web Server is with the remote control.

Chapter 9: Telnet Commands

The Telnet commands allow you to communicate with a remote computer that is using the Telnet protocol.

You can run **telnet** without parameters in order to enter the telnet context, indicated by the Telnet prompt (**telnet>**). From the Telnet prompt, use the following commands to manage a computer running Telnet Client.

ENABLING THE TELNET API

To enable the Telnet API:

1. Click **Settings > General >Security**
2. Check the **Enable Telnet Interface** checkbox.

DESCRIPTIONS OF THE TELNET API (COLLABORATE PRO)

Key	Description	Arguments	Example
accept	Accept incoming call	—	accept
hangup	Hanging up session		hangup
reject	Rejecting incoming call		reject
callinfo	Request call info values	SessionID: Valid session ID number	callinfo 1
camerahome	Return PTZ camera to default position	—	camerahome
camerapos	Save or restore camera position from preset	Action: save, restore Position: 1-18	camerapos save 2
camerastart	Start camera movement pan, tilt, zoom in different direction	Direction: u – up d – down l – left r – right ul – up+left ur – up+right dl – down+left dr – down+right zi – zoom in zo – zoom out	camerastart u camerastart up camerastart u remote

Key	Description	Arguments	Example
camerastop	Stop camera movement	Direction: - spt – stop pan tilt - sz – stop zoom	camerastop sz camerastop sz remote
dial	Dial specific address via LAN network	- Address: - Calltype: lan,sip,audio - Bandwidth (optional): 64, 128, 256, 384, 512, 1024 (Bandwidth list is configurable in Commands.xml file on both sides, server and client)	dial 125.0.1.2 lan 128
dtmf	Send DTMF tone to remote endpoint identified by Participant ID (Note: Use sessions to retrieve Participant ID)	ParticipantID: any valid participant number DTMF: DTMF tone sequence	dtmf 23 035667344 dtmf 111 123433#5*
dtmf2all	Send DTMF tone to all active calls	DTMF: DTMF tone sequence	dtmf2all 035667344 dtmf2all 123433#5*
get	Get parameter value	Parameter: - mic - volume - speaker - license - autoanswer	get mic get volume get autoanswer
set	Set parameter value	Parameter: - mic - volume - speaker - autoanswer	set mic on set volume 5 set autoanswer on
donotdisturb	Start or stop do not disturb mode.	Parameter: - enable - disable	donotdisturb enable
help	Display all telnet commands and notifications.		help

shutdown / restart	Shutdown or restart the unit.		restart
sharelaptop	Share DataPoint when it is connected to the unit.	Parameter: □ start □ stop	sharelaptop start
sharewireless	Start wireless sharing when there is at least 1 sender connected to the unit.	Parameter: □ start □ stop	sharewireless start
changewirelesslayout	Change wireless layout while wireless is being shared.	Parameter: □ auto □ single □ preview	**changewirelesslayout single**
nextsender	When more than one sender is shared in preview or single layout, change between main senders.		nextsender
startsession	Start Spontania meeting as a moderator.		start session
joinsession	Join Spontania meeting as a participant.	Session ID.	joinsession 12345
sessions	Display all active sessions and their sessions ID.		sessions

remotecontrol	Commit a remote control command	1 Status 2 Data 3 Phone Book 4 Help 5 Near Far 6 Camera Control 7 Preset Recall 8 Preset Set 9 PIP 10 Speed Dial 11 Call Log 12 Mute Mic 13 Display 14 Settings 15 Mute Video 16 Mute Speaker 17 Enter 18 Go Right 19 Go Left 20 Go Up 21 Go Down 22 Cancel 23 Dial 24 Hang Up 25 Zoom In 26 Zoom Out 27 Volume Up 28 Volume Down 29 Num 1 30 Num 2 31 Num 3 32 Num 4 33 Num 5 34 Num 6 35 Num 7 36 Num 8 37 Num 9 38 Num 0 39 Dot (. ^ , @ #) 40 Clear / # DTMF	remotecontrol 1

DESCRIPTIONS OF THE TELNET API (SPONTANIA)

NOTE: You must enable TELNET option before entering Spontania

To enable the Telnet API:

1. Click **Settings > General >Security**
2. Check the **Enable Telnet Interface** checkbox.

TELNET API (SPONTANIA)

Key	Description	Arguments	Example
hangup	Hanging up session		hangup
camerahome	Return PTZ camera to default position	—	camerahome
camerapos	Save or restore camera position from preset	Action: save, restore Position: 1-18	camerapos save 2
camerastart	Start camera movement pan, tilt, zoom in different direction	Direction: u – up d – down l – left r – right zi – zoom in zo – zoom out	camerastart u camerastart up
camerastop	Stop camera movement	Direction: spt – stop pan tilt sz – stop zoom	camerastop sz
help	Display all telnet commands and notifications.		help
recording	Start or stop recording.	Parameter: start stop	recording start
rotatevideos	Rotates the video users list in Spontania		rotatevideos
listcontacts	Retrieve the local user contact list.		listcontacts
invite	Invites a contact to join the current session	User ID	invite 12345

set	Set parameter value	Parameter: □ camera □ mic_all □ camera_all	set mic_all on set camera_all off
sharelaptop	Share DataPoint when it is connected to the unit.	Parameter: □ start □ stop	sharelaptop start
sharewireless	Start wireless sharing when there is at least 1 sender connected to the unit.	Parameter: □ start □ stop	sharewireless start
changewirelesslayout	Change wireless layout while wireless is being shared.	Parameter: □ auto □ single □ preview	**changewirelesslayout single**
nextsender	When more than one sender is shared in preview or single layout, change between main senders.		nextsender

Chapter 10: Specifications

The following are the COLLABORATE Pro specifications.

Video Specifications	
Transmission Speed	SIP / H.323: 64 Kbps - 4Mbps
Video Standards	H.261, H.263, H.263+/++, H.264
Live Video Resolution	QCIF (176 x 144 pixels) QVGA (320 x 240 pixels) CIF (352 x 288 pixels) SIF (352 x 240 pixels) VGA (640 x 480 pixels) 4CIF (704 × 576) 4SIF (704 x 480) 720p (1280 x 720 pixels) 1080p (1920 x 1080 pixels)
Video Frame Rate	Up to 10 fps: 96 Kbps Up to 20 fps: 128 to192 Kbps Up to 30 fps: 320 Kbps and above
Video Outputs	HDMI Mini Display port
Audio Specifications	
Audio Features	Full-duplex echo cancellation Automatic noise suppression (ANS) Automatic gain control (AGC)
Audio Standards	20 KHz: AAC-LD 7 KHz: G.722, G.722.1 3.4 KHz: G.711, G.723.1, G.728,G.729 AMR (3G)

Data Specifications	▯ DataPoint
HD Dual Stream	▯ Sharing of DataPoint input ▯ H.239 support ▯ Sending and receiving capability ▯ Video source + 1 data source ▯ Resolutions supported: 1080p, 720p, XGA, 4CIF SVGA, VGA, CIF, QVGA, QCIF
Display	▯ Single – Mini Display port or HDMI ▯ Dual – Mini Display port + HDMI
Networking Specifications	
Standards Supported	▯ SIP Protocol: RFC 3261 ▯ ITU-T: H.323 v4.2 Annex Q (FECC)
Peripheral Specifications	
Pan-Tilt-Zoom Camera Unit	▯ PTZ Camera: 18x Zoom
Features Specifications	
Dialing Modes	▯ Manual ▯ Contacts ▯ Directory ▯ Recent calls
Security	▯ Encryption using H.235 (AES) ▯ Search and filter packet ordering ▯ Packet duplication ▯ AES is NIST validation ▯ Firewall traversal using NetPoint H.460 protocol and ClearOne Tunneling proprietary protocol ▯ NAT – Network Address Translation ▯ Supports restricted access to users via admin

Directory Services	1000+ local number directory 10,000+ global number directory H.350 support (COLLABORATE Central mode) LDAP Directory support - Open LDAP - Microsoft ILS, SiteServer, Active Directory and Exchange Search and filter queries
Environmental	0 - 40°C temperature 15 - 80% humidity Universal Power Supply: - Input 100~240VAC@1.8A - Frequency 50/60 Hz PS Output / Appliance Input: - 19VDC@6.32A Max
Language Support	English, French, German, Spanish Italian, Russian, Chinese (traditional and simplified), Japanese and Korean

Chapter 11: Network Requirements

IN THIS CHAPTER

In order to operate a videoconferencing via the network, some network settings must be set by your network manager.

SYSTEM PLACED IN DMZ:

1. A reserved static IP address
2. Subnet Mask
3. Default Gateway address
4. DNS address

SYSTEM PLACED IN LAN:

If DHCP is available and the Collaborate Pro is connected behind firewall, select one of the following 3 options to operate the system:

1. Forward the following ports to the video conferencing system in your Firewall :

   - 389 TCP
   - 1718-1719 UDP
   - 1720 TCP
   - 1731 TCP
   - 5004-6004 TCP and UDP
   - 80 TCP
   - 23 TCP

   Ports to open when using SIP:

   - 5060-5061 TCP and UDP
   - 5004 UDP
   - 10000 UDP (SIP gate service - usually 3478/9)
   - 16348-32768 UDP (RTP, RTCP multimedia streaming)

   Ports to open when Spontania:

   - 443 TCP

- 6000-6100 UDP
- 5222 TCP (Presence)

2. Network Address Translation (NAT):

   The NAT address can be configured from Collaborate Pro Network settings form (Settings →Advanced → Firewall. The NAT mode can be configured to Automatic / Manual. Configure the system IP in the Broadband Router DMZ host.

3. Firewall Traversal server:

   The Collaborate Pro can be registered to NetPoint firewall traversal server. The NetPoint server allows end points behind firewalls to communicate with other end points, both in WAN and behind other firewalls (NetPoint server address can be provided by ClearOne representative).

   In network Settings→Advanced→H.323, To configure a connection to a NetPoint server enter the required details in the following fields: Server address (NetPoint IP address) and user name. Select the protocol you want to use to connect your call, H.460 or Tunneling.