ClearOne.

COLLABORATE® LIVE 300
USER GUIDE

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COLLABORATE® Live

USER GUIDE

CLEARONE DOCUMENT

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NOTICE: This Class A device complies with Part 15 of the FCC rules and Canadian ICES-003. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

TABLE OF CONTENTS

Chapter 1:   Introduction

IN THIS CHAPTER

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

- COLLABORATE® Live 300 Overview
- Main Features
- Comparison Table
- Feature Highlights

COLLABORATE® LIVE 300 OVERVIEW

The COLLABORATE® Live 300 is a high-definition executive videoconferencing system, featuring laptop sharing, dual display and more. This is a complete video collaboration system ideal for small meeting rooms, everything needed in a single solution for high quality audio and video collaboration.

COLLABORATE® Live 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® Live 300 brings users face-to-face with other people and organizations.

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

COLLABORATE® Live 300 is ideal for users who need a powerful videoconferencing solution, powered by ClearOne's COLLABORATE® Live software.

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

Note:

For more information about the COLLABORATE® Live 300 physical installation, including the connection of cables and devices to COLLABORATE® Live 300, refer to the COLLABORATE® Live 300 Quick Setup Guide.

For the complete technical specifications, refer to the COLLABORATE® Live 300 datasheet.

MAIN FEATURES

COLLABORATE® Live 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
- Communicate 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® Live.

	COLLABORATE® Live 200 Series	COLLABORATE® Live 300 Series	COLLABORATE® Live 600 Series	COLLABORATE® Live 900 Series	COLLABORATE® Live 1000 Series
Max Tx	1080/30	1080/30	1080/60	1080/60	1080/60
Max Rx	1080/60	1080/60	1080/60	1080/60	1080/60
MCU	-	-	4-way SIP/H.323 MCU license Option to upgrade to 9-way SIP/H.323 MCU License	4-way SIP/H.323 MCU license Option to upgrade to 9-way SIP/H.323 MCU License	4-way SIP/H.323 MCU license Option to upgrade to 9-way SIP/H.323 MCU License
Recording	-	-	√	√	√
Streaming	-	-	√	√	√
Data via USB	√	√	√	√	√
DataPoint (Optional)	√	√	√	√	√
Wireless Data	√	√	√	√	√
Multiple Cameras	-	-	√	√	√
Bandwidth	Up to 4 Mbps	Up to 4 Mbps	Up to 6 Mbps	Up to 6 Mbps	Up to 6 Mbps
H.239 Dual Video support	√	√	√	√	√
PTZ camera	ePTZ	√	√	√	√
Balanced Audio	-	-	√	√	√
Audio Device	CHAT 150C Speakerphone	CHAT 150C Speakerphone	CHATAttach 150 Speakerphone	CONVERGE Pro 2 48V mixer and ClearOne Beamforming Mic Array 2	CONVERGE Pro 2 48V mixer and BMA CT Ceiling Tile Beamforming Mic Array

Note:

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
- COLLABORATE® Space web conferencing, Skype® for Business client, SIP/H.323 video conferencing, wireless presentation and interactive whiteboard.
- One CHAT 150 speakerphone provides crystal-clear audio.
- User interface as intuitive and simple as familiar mobile or tablet devices.
- One UNITE® 150 PTZ camera with 1080p30, 12x optical zoom to capture all participants in the room.
- Complimentary 90-day trial of COLLABORATE® Space, our powerful cloud-based audio and video conferencing application.

Chapter 2:   Getting Started

IN THIS CHAPTER

Once the COLLABORATE® Live 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® Live 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.
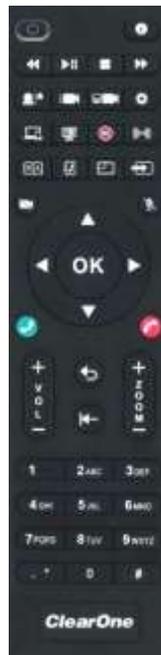
The remote control includes the following button types:

- 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, the Clear button erases 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
	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 Space 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** – Return to the previous step/window without saving changes
- **Menu/OK** – Select/activate a highlighted GUI item/function (highlighted in orange on the screen)
- **Zoom In/Out** – Zoom 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® Live 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® Live main menu, press **OK** on the remote control.
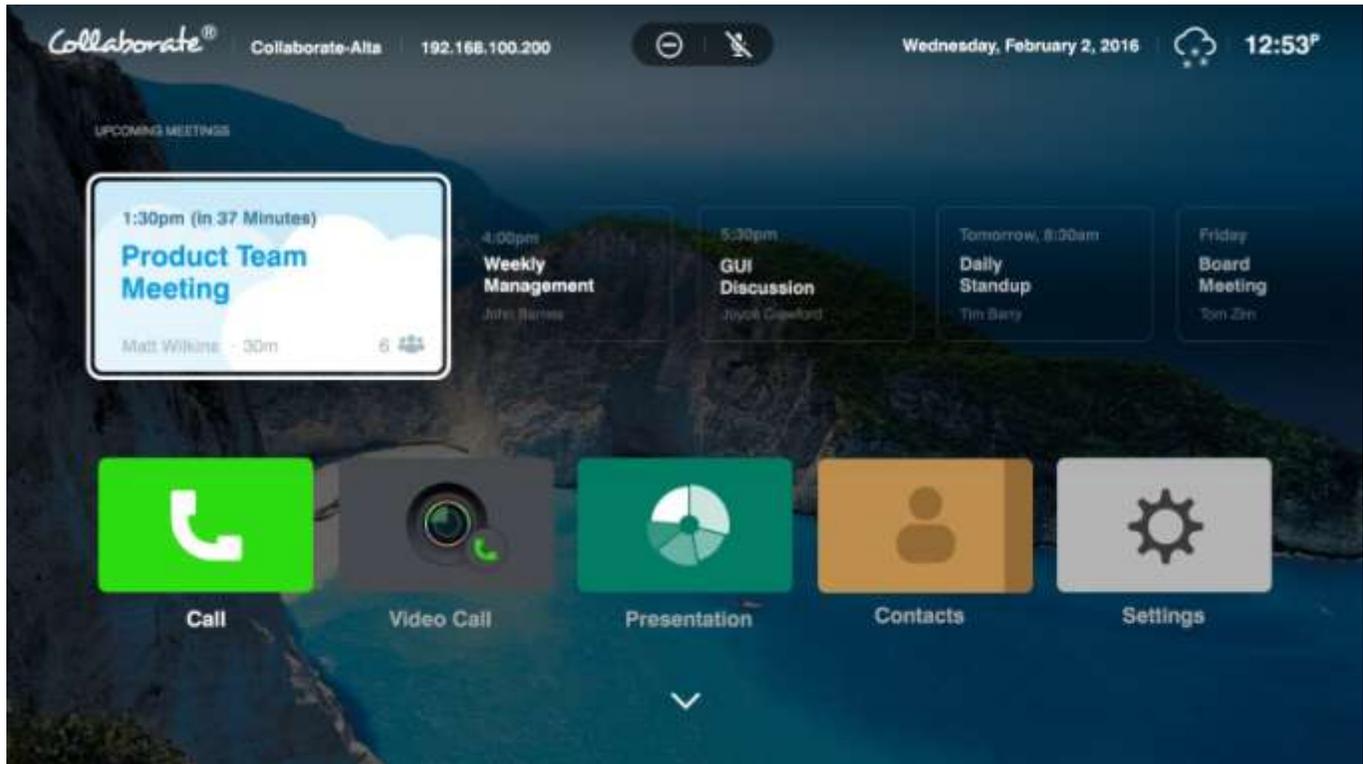
Navigate the COLLABORATE® Live menu using the Navigation Arrows on the remote control. Expand the menu options by pressing **OK**.

Press **Back** to go back to the home menu.

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® Live 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 Information ( ) on the remote control. The Information window appears.
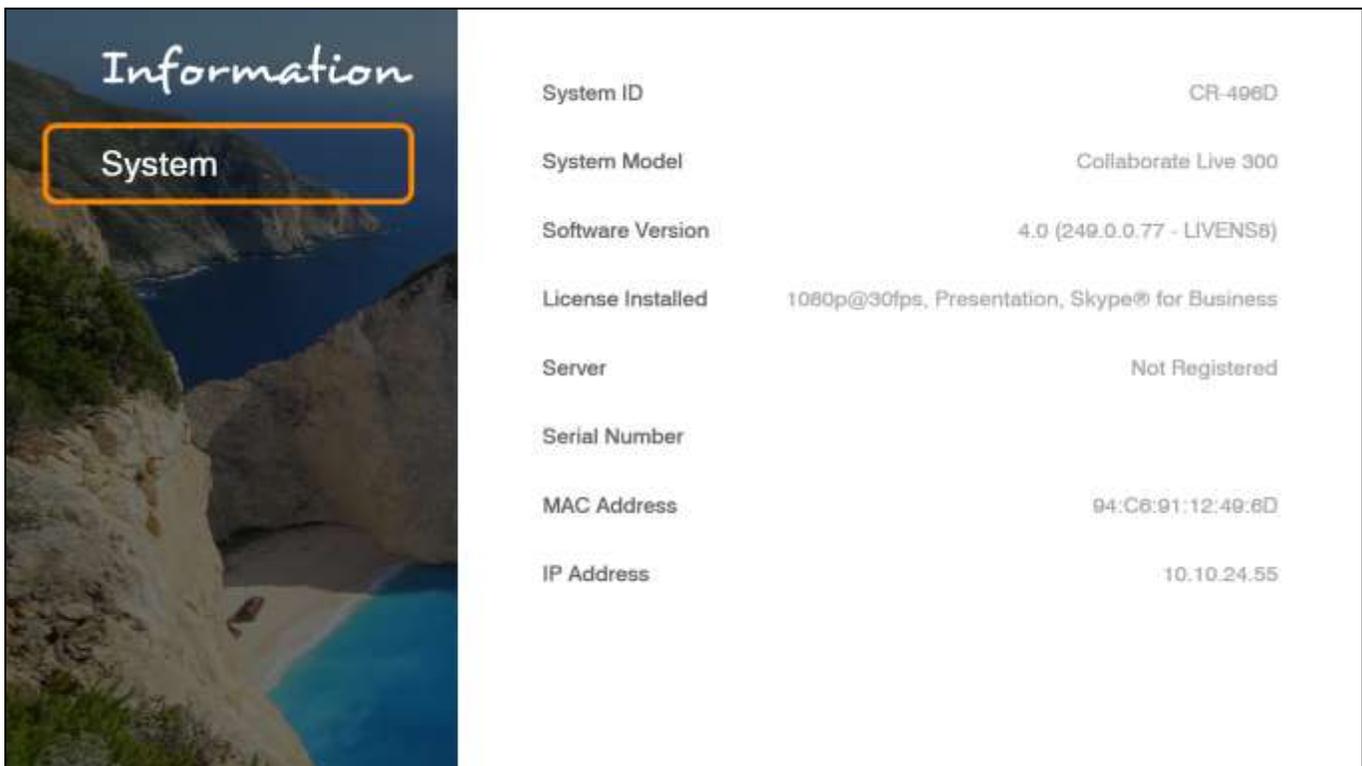
When COLLABORATE® Live is in the idle state, the Information window displays the following information:

- **System ID** – System ID as defined in the system settings (see Preference Settings)
- **System Model** – COLLABORATE® Live model
- **Software Version –** Software version of the COLLABORATE® Live application
- **License Installed** – COLLABORATE® features 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® Live unit
- **IP Address** – IP Address of the COLLABORATE® Live unit, as automatically assigned by the DHCP server or as manually configured via the **Settings>Advanced>Network** menu. You can use this IP Address to access and manage the unit via a browser (see Accessing COLLABORATE® Live 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. **Name:** System name used to identify the system when using DNS dialing. Best Practice will be a name that represents the actual location of the system.
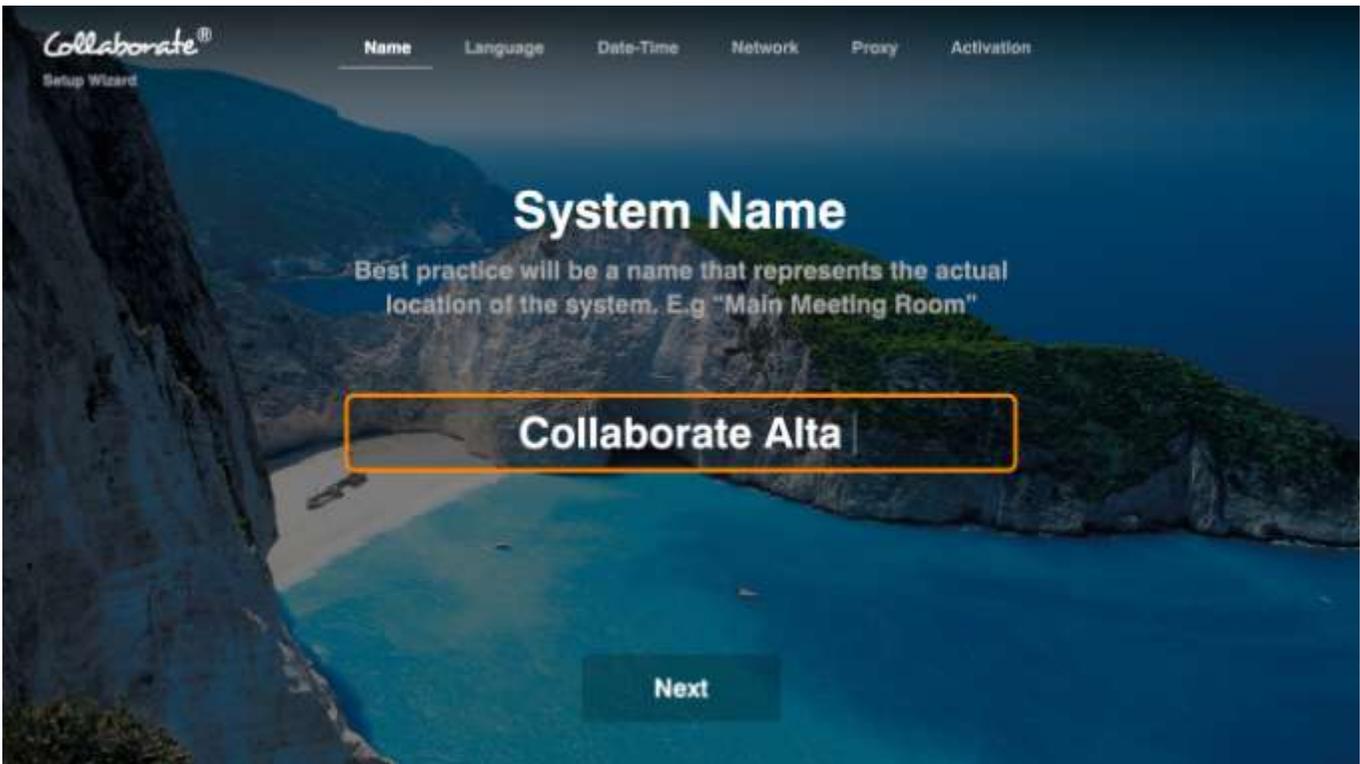
2. Click **Next**.
3. **Language Name:** Use left and right arrows to select a language for the system's User Interface and select the desired language.
4. Click **Next**.
5. Restart the system.

6. Click **Next**.
7. Select **Date, Time** & **Time Zone:** By default, Date, Time & Time Zone values will be set automatically.

8. Click **Next**.
9. Date: This feature allows you to adjust the System's date. This date will be used for scheduling meetings, clock and more.
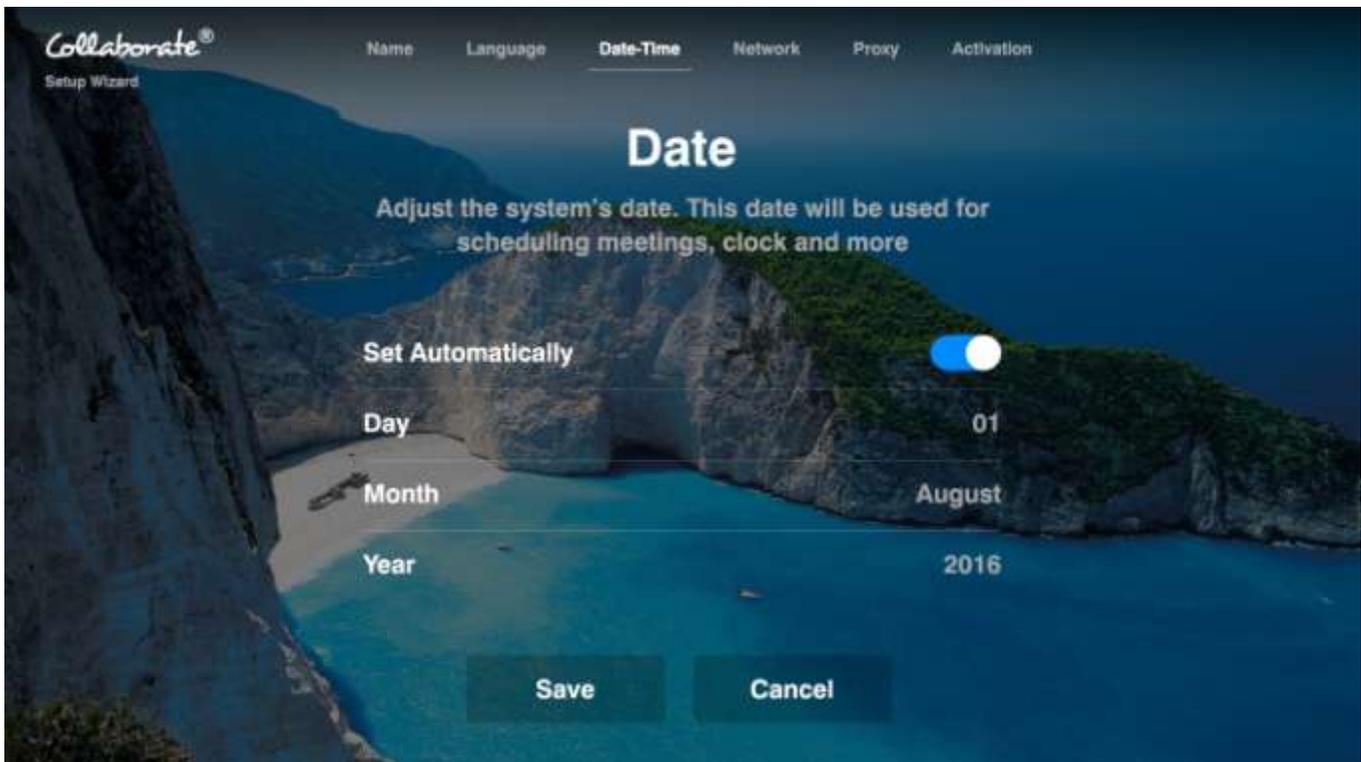
10. Click **Save.** If the date & time are disabled, then the details cannot be updated.

11. Time: This feature allows you to adjust the System's Time. This time will be used for scheduling meetings, clock and more.
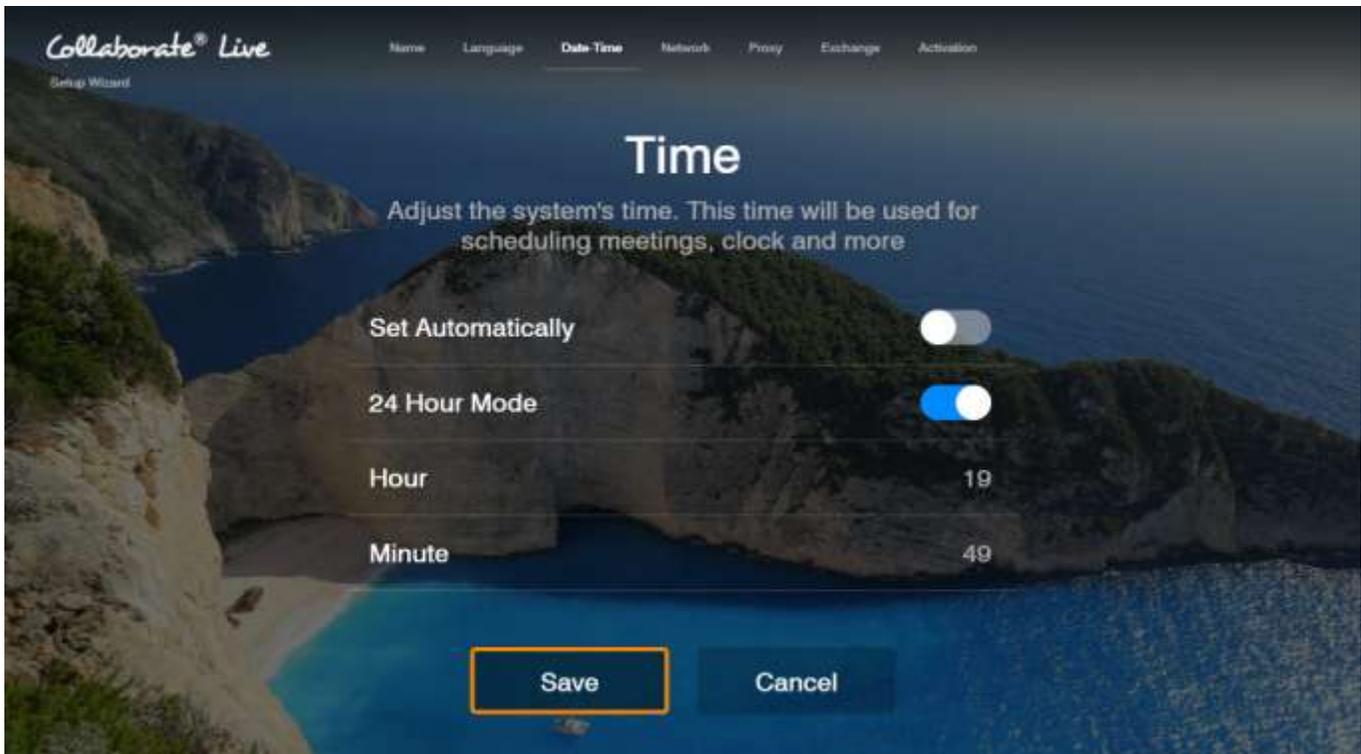
12. Click **Save**.
13. Set network IP addresses.

- **Obtain Automatically** – Select the Toggle button to obtain an IP Address from a DHCP server automatically.
- **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.

You can automatically set these values if your network supports this capability.

14. Click **Next**
15. Set DNS addresses.

Obtain Automatically – Select the Toggle button to obtain your DNS server Address from a DHCP server automatically. If you do not choose to obtain the DNS address from a DHCP server, please 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.

16. Click **Next**.
17. Set Proxy.

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

18. Click **Next**.
19. Fill in Activation information.
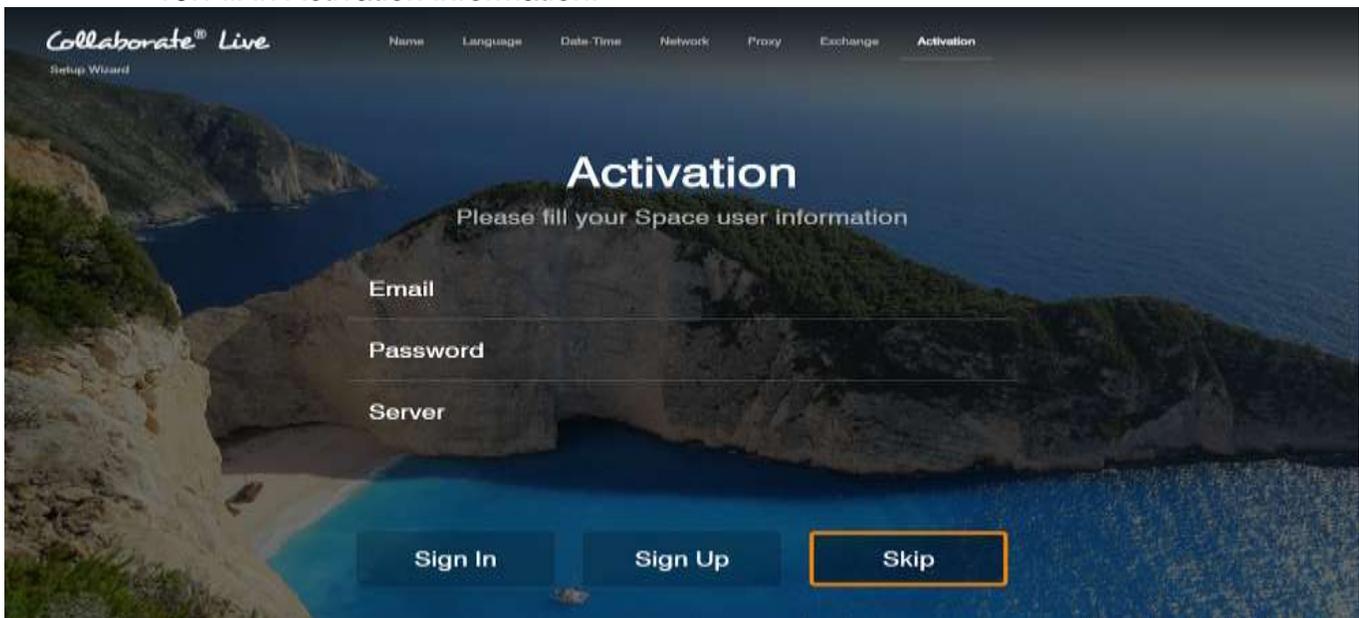
You will need an authenticated login and password to connect to COLLABORATE© Space. These credentials can be created in different ways:

- If you would like to create a new Collaborate Space trial account, complete the Activation information, and then click "Sign Up" to proceed.
- If you have an existing Collaborate Space account, fill in the user information and then click "Sign In" to proceed..

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
- LAN settings
- Firewall Settings
- Wi-Fi Settings
- General Settings
- Calls Settings
- Presentation Settings
- Software 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 >Audio & Video**. The Audio Settings window appears.
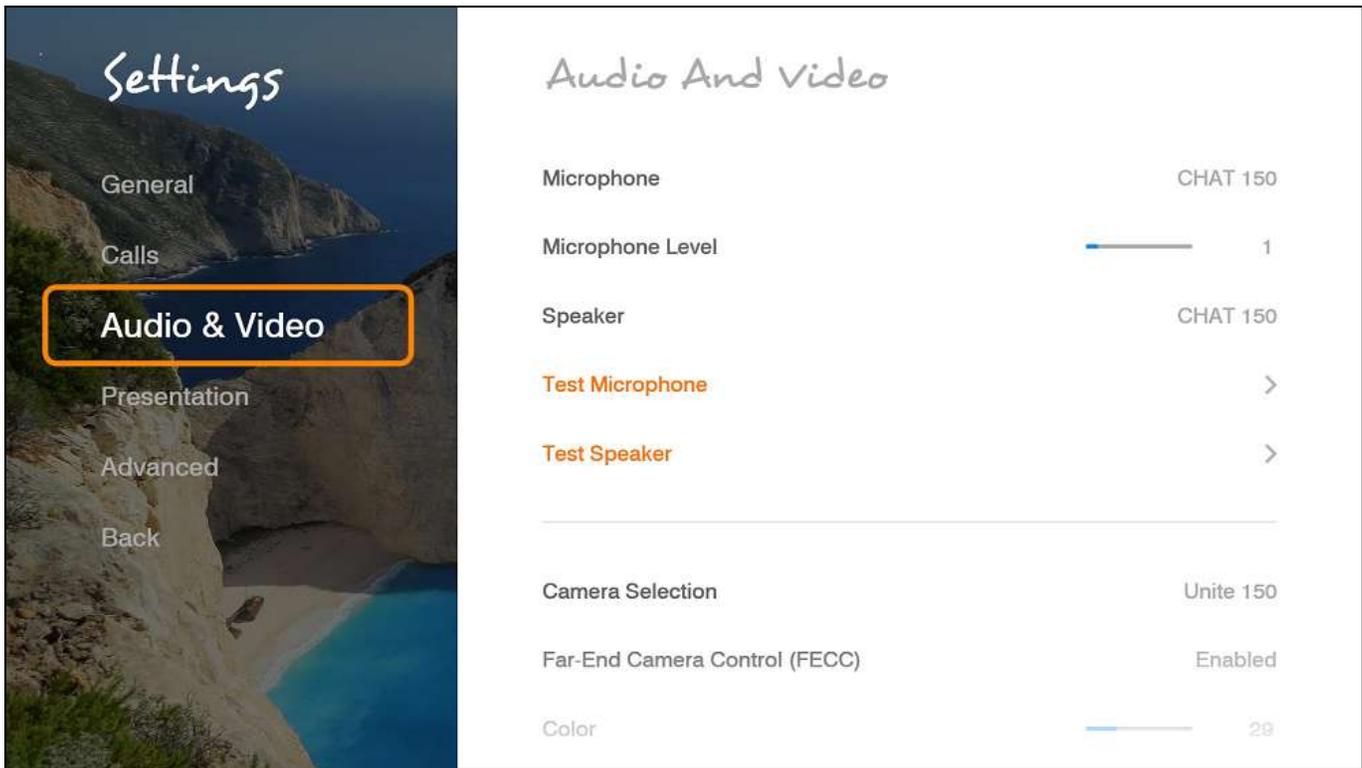
To configure the audio settings:

1.

2.
   1. 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.

       - **Microphone –** Select Chat 150 to be your Microphone device
       - **Speaker** – Select CHAT 150 to be your Speaker device.
       - **Audio Output** – Select a playback device from the list

           o **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 (%)
       - **Test Microphone –** Check and test the Microphone by using this option
       - **Test Speaker –** Check and test the Speakers by using this option

CONFIGURING THE CAMERA

Before you begin videoconferencing, you need to make sure that the camera connected to the COLLABORATE® Live 300 is properly configured. Camera is configured via the Camera Settings window.
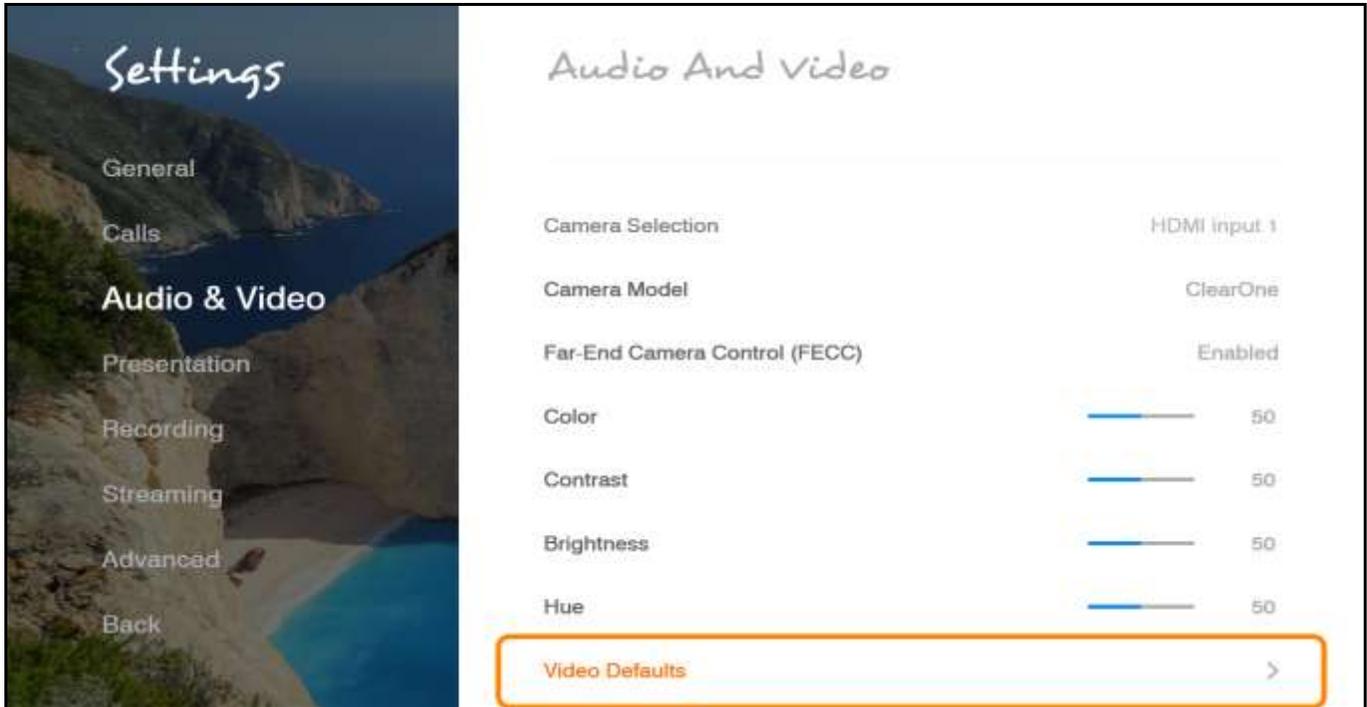
To access the camera settings:

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

Camera Settings window appears.

1. To configure the camera settings:In the Camera Settings window, select the correct options from the **Source.**

Note:

 COLLABORATE® Live supports PTZ cameras only.

- Optional: Set the percentage (%) of **Color**, **Contrast**, **Brightness**, and **Hue**. You can leave the default settings of these parameters unchanged.
- Select the correct option from the **Camera Model**.
- Select the **Far End Camera Control (FECC)** check box to enable the remote side to control your camera (unavailable when working with SIP).

CONTROLLING THE CAMERA

You can control the camera position using the remote control's arrow buttons in 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.

2. Using the remote control's navigation arrows, select Settings>Advanced>Display. The Display Settings window appears.
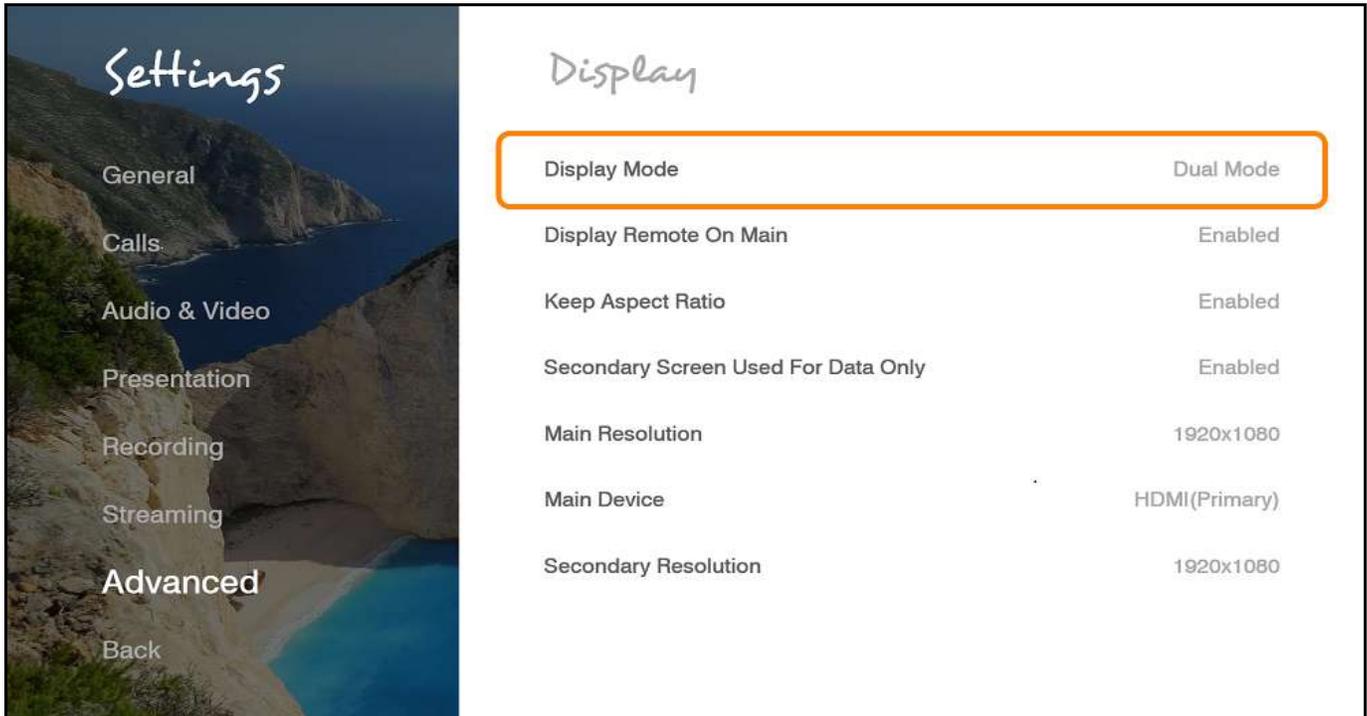
To configure the basic display settings:

- Display Mode (Configured automatically) –

  o **Single Mode** – Both videoconferencing parties are displayed on a single screen.
  o **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 a different aspect ratio.
- **Secondary Screen Used for Data Only –** Select to use secondary monitor only when data is sent / received.

LAN SETTINGS

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

To edit Network settings:

1. Press **OK** on the remote control. The main menu appears.
2. Using the remote control's navigation arrows, select
   Settings>Advanced>Network. The LAN Settings window appears.
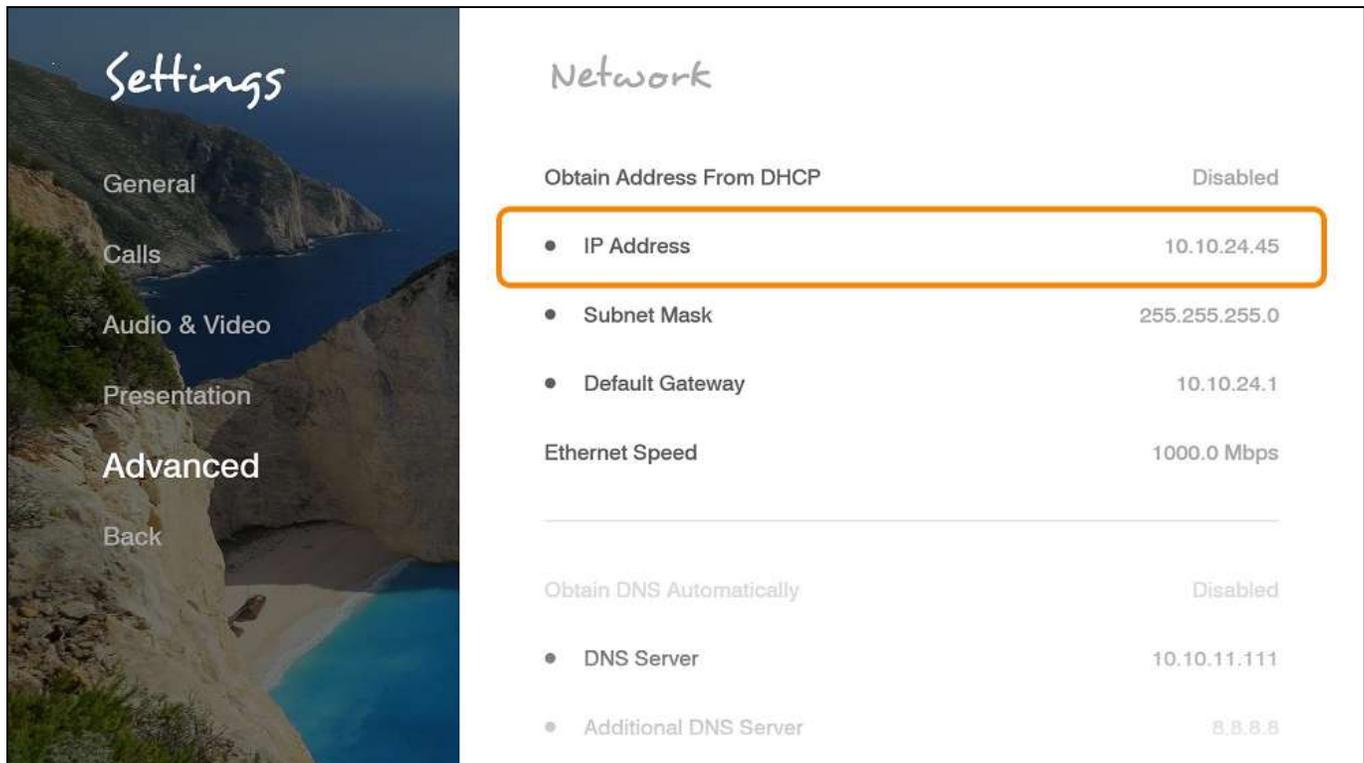
3. In the System Settings window, set the following options and parameters.

- **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:

  o **DNS Server** – Set the IP Address of the DNS server. If using a DHCP server, the address obtained from the DHCP server is displayed.
  o **Additional DNS Server** – Alternative DNS server, to be used in case the first DNS

server defined can't supply the needed services.

- o **DNS Suffix** – Set the DNS domain suffix to be used by this system.

- **Ethernet Speed** – Displays the network interface speed.

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. Press **OK** on the remote control. The main menu appears.
2. Select **Settings > Advanced > Network**. The Network Settings window appears.
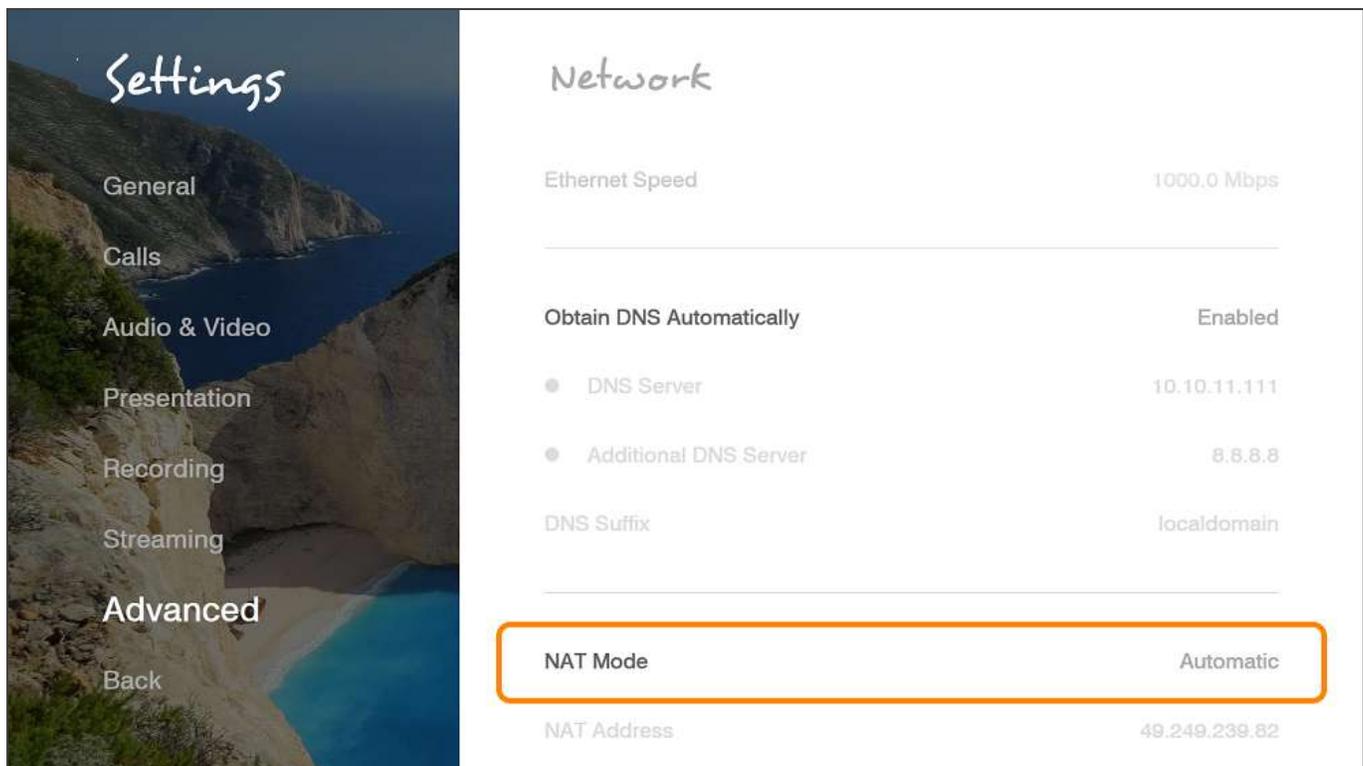
3. In the Firewall window, set the following options and parameters:

- NAT Mode:

  - o **Disabled** – Callers to the organization LAN are not identified.
  - o **Manual** – Enter your external IP Address. The NAT device maps this to your internal extension number.
  - o **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.

Wi-Fi SETTINGS

You can use the "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>Advanced>Wi-Fi. The Wi-Fi Settings window appears.
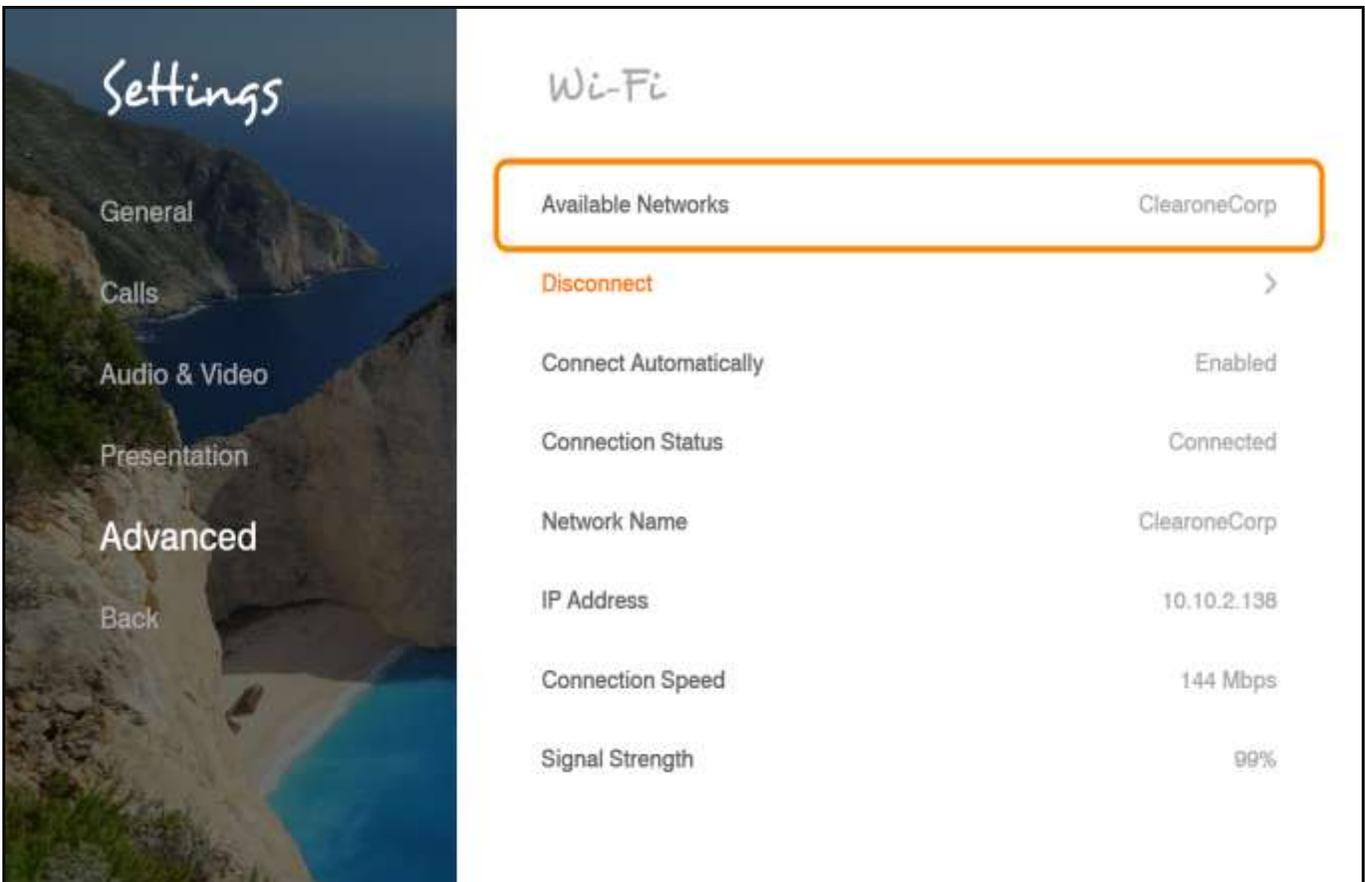
To configure the basic display settings:

- **Available Network** – List of all available Wi-Fi networks in your range. Select the desired network to which you want to connect.
- **Connect Automatically** – Check this option to allow auto connection to the selected network while the network is available.

- **Connection Status** – Displays the status of the Wi-Fi connection.
- **Network Name** – Displays the network SSID.
- **IP Address** – Displays the Wi-Fi network IP address.
- **Connection Speed** – Displays the connection rate.
- **Signal Strength** – Displays the Wi-Fi signal strength. For better strength, put your Collaborate close to the router.

Once the Wi-Fi is setup and connected, verify that the "Collaborate® Share" sender is located within the same Collaborate® Live 300 Wi-Fi network.

Load the "Collaborate® Share" sender application and select the Collaborate® Live 300 receiver from the list.

Note:

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

GENERAL SETTINGS

The general settings define general system properties.

To configure security settings:

1. Press **OK** on the remote control. The main menu appears.
2. Select **Settings>General**. The General Settings window appears.
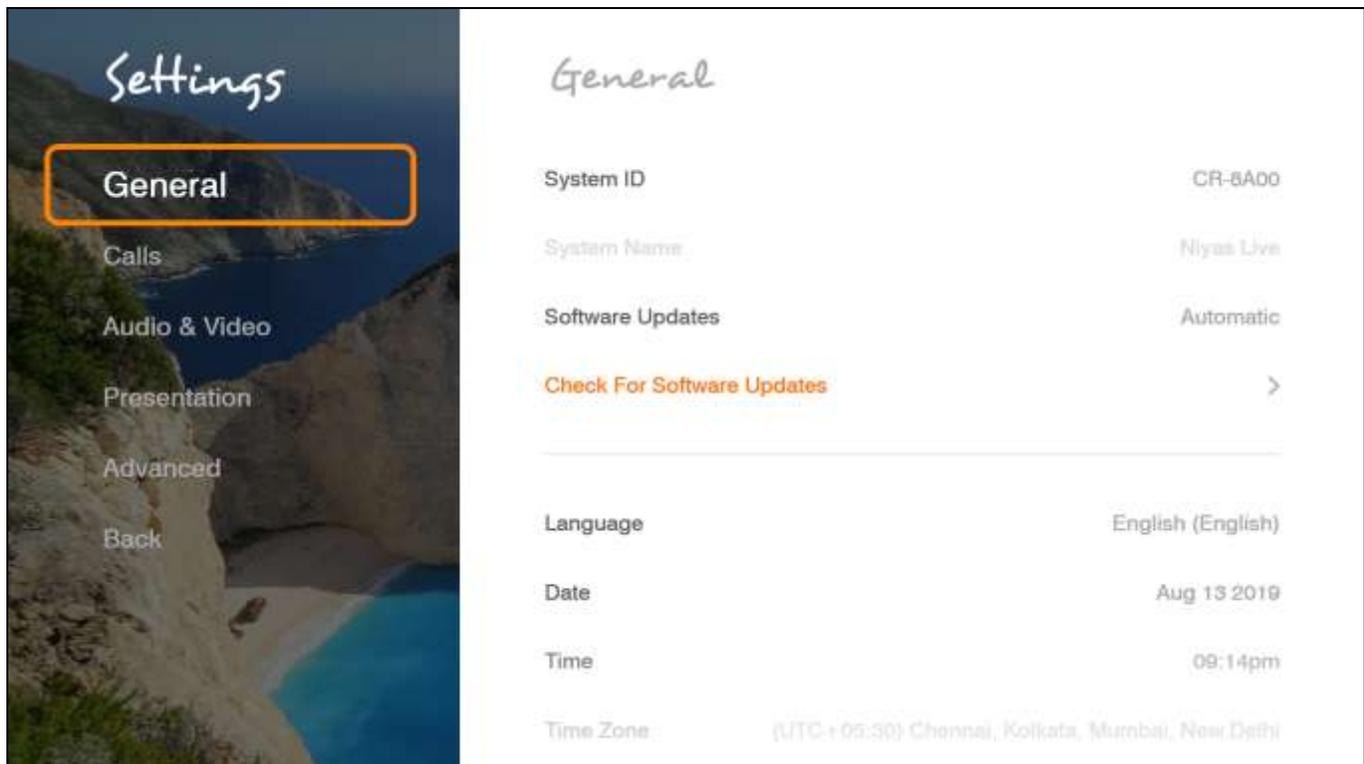
3. In the General Settings window, set the following options and parameters.

- **System Name** – Set the system title that will represent the unit during a session.

- **Language** – Select the desired language for the user interface, then click **Apply**. (A system restart is required after changing the system language.)
- **Date** – If not already set, enter the current date.
- **Time** – If not already set, enter the current time.
- **Time Zone** – Select your time zone.
- **World Clock** – Select the time zones for the clocks displayed on the idle screen.
- **Weather Temperature Unit** – Select Celsius or Fahrenheit for the display.
- **Wallpaper**– Select from the available images.
- **Sleep Timeout** – Duration of idle time (in minutes) before the system goes into sleep mode. If set to "0," the system will not automatically go into sleep mode.

4. Select **Apply**. Changes will take effect after system restart.

CALLS SETTINGS

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

To configure call settings:

1. Press **OK** on the remote control. The main menu appears.
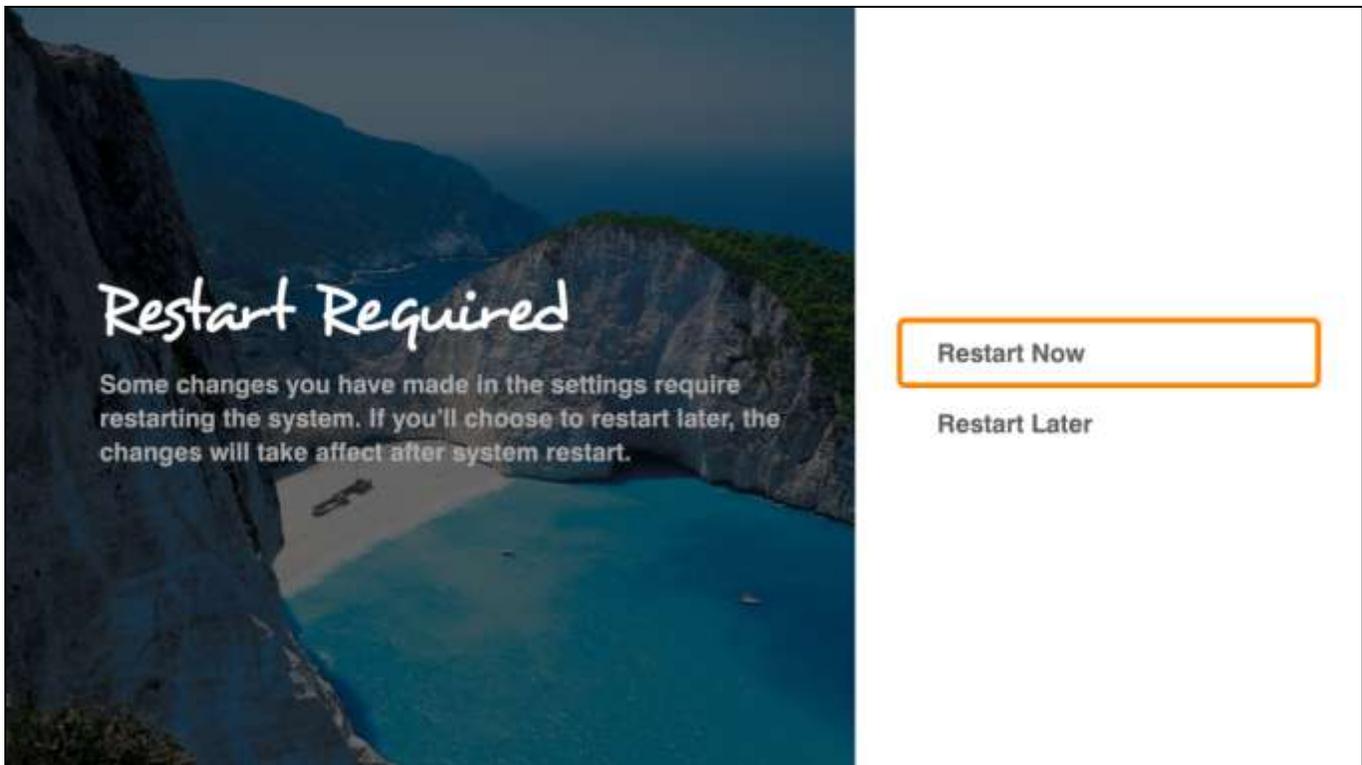Select **Settings > Calls**. The Call Settings window appears.
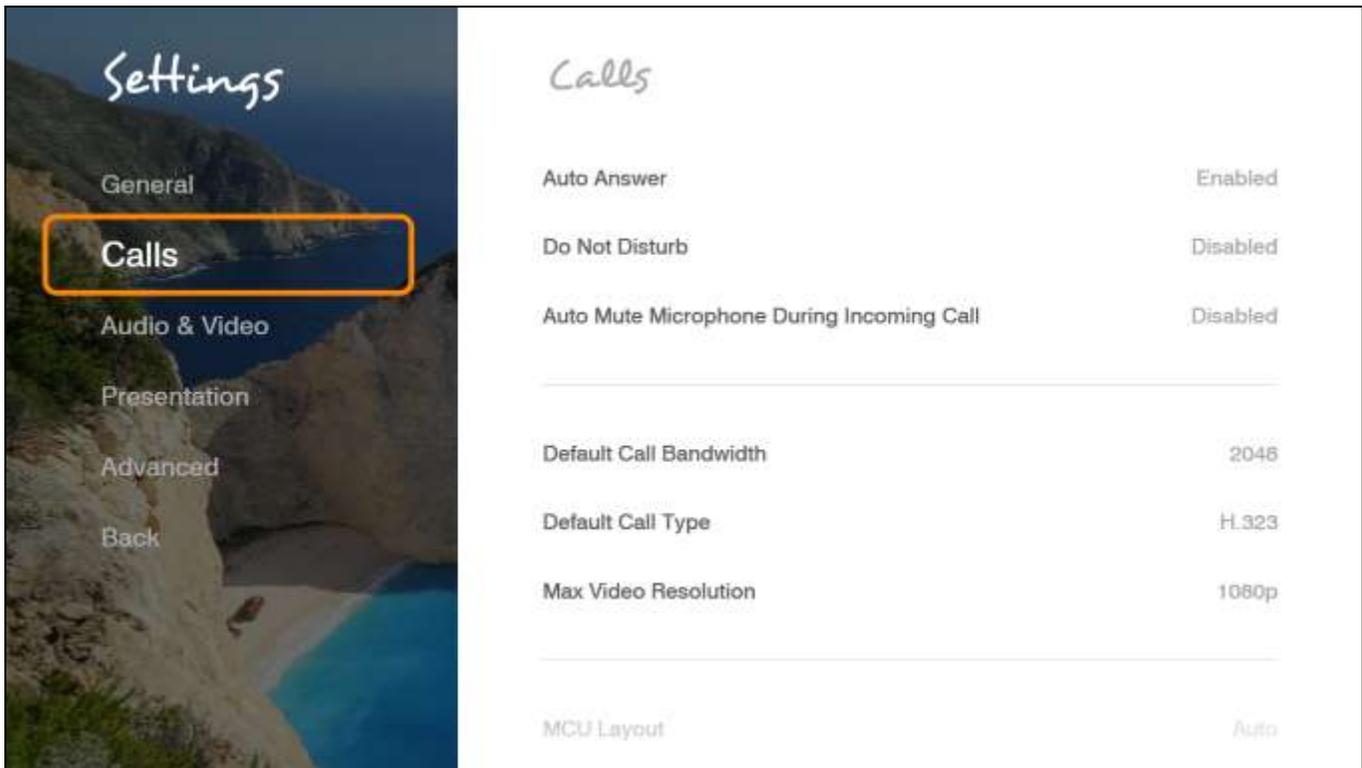
2. In the Call Settings window, set the following options and parameters

- **Auto Answer** – Enables auto answering of incoming calls.
- **Do Not Disturb** – Select to turn on auto reject of all incoming calls.
- **Auto Mute Microphone During Incoming Call** – Enables auto muting the microphone for incoming calls.
- **Default Call Bandwidth** – Select the bandwidth for calls.
- **Default Call Type** – Choose the protocol and path used. GW calls are routed through the Collaborate Space Gateway.
- **Max. Video Resolution** – Set the maximum video resolution.

PRESENTATION SETTINGS

To configure the presentation settings:

1. Press **OK** on the remote control. The main menu appears.
   Select **Settings>Presentation**. The Presentation Settings window appears.

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
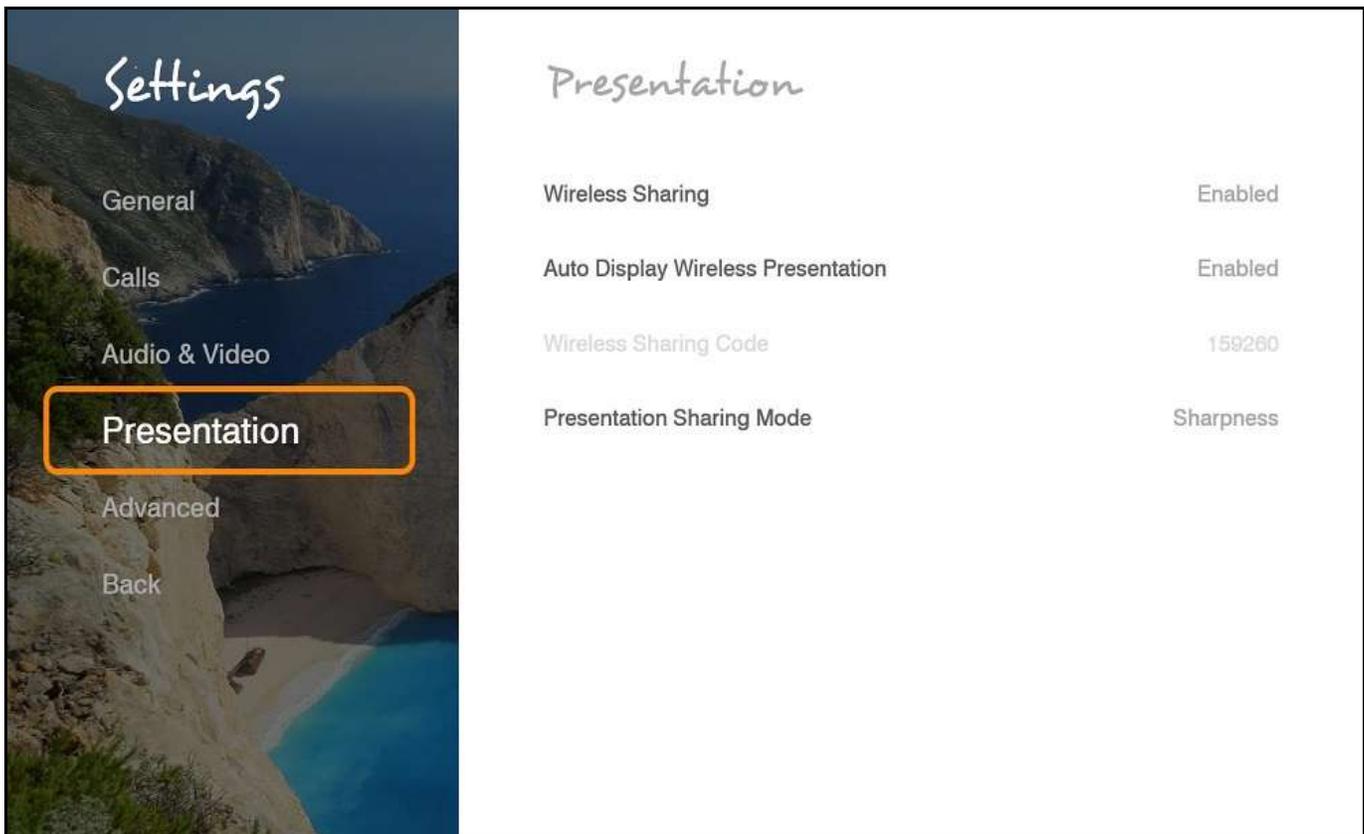- **Presentation Sharing Mode** – Depending on the type of presentation material being transmitted you can choose the data transmit mode priorities either motion or sharpness:

  - **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.

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.
   Using the remote control's Navigation arrows, select **Settings > General**. The Update Settings window appears.
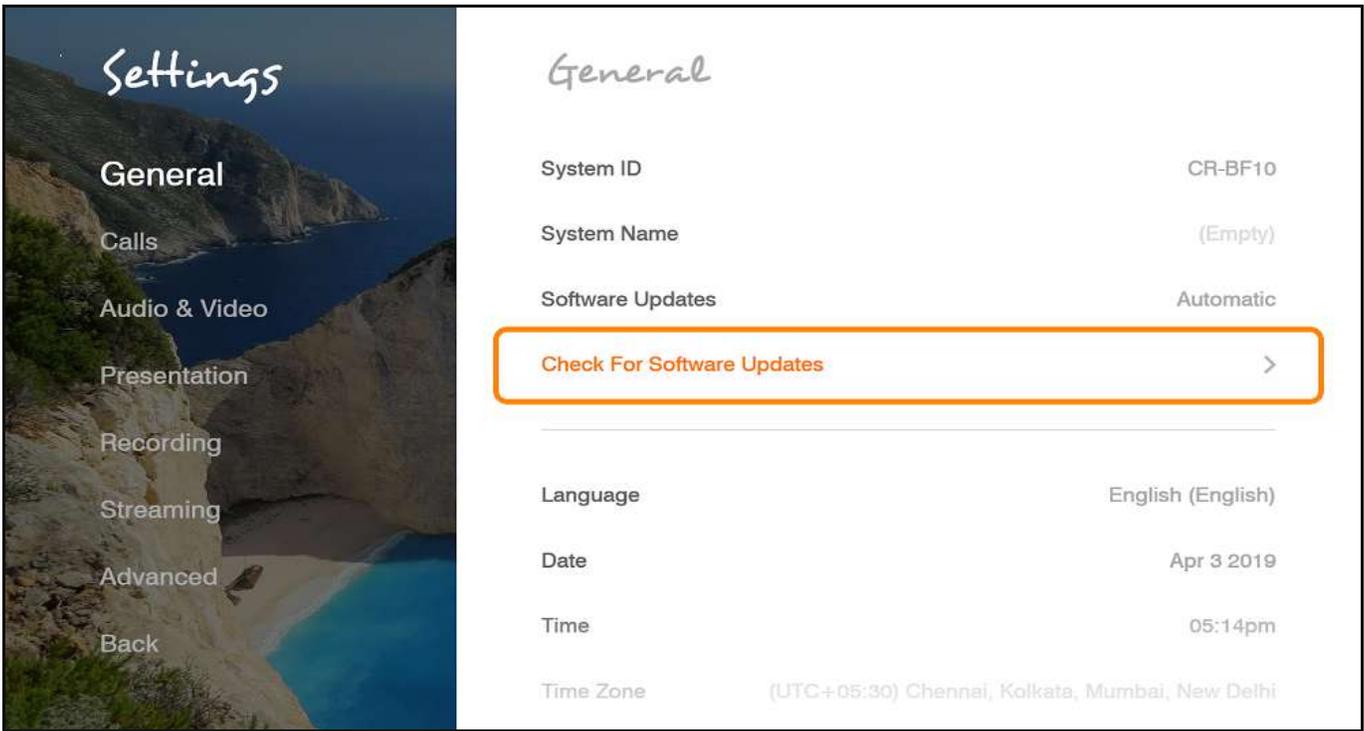
To configure the update settings:

1. **Software Updates** – Choose the "Automatic" option to have the system frequently check for updates. If an update is available, you will get an on screen notification and you can choose to update or not.
2. **Check for Software Updates –** Checks for updates. You see a notification if any new updates are available.

If the system is up to date, it displays a message "Software is up to date" as shown below.
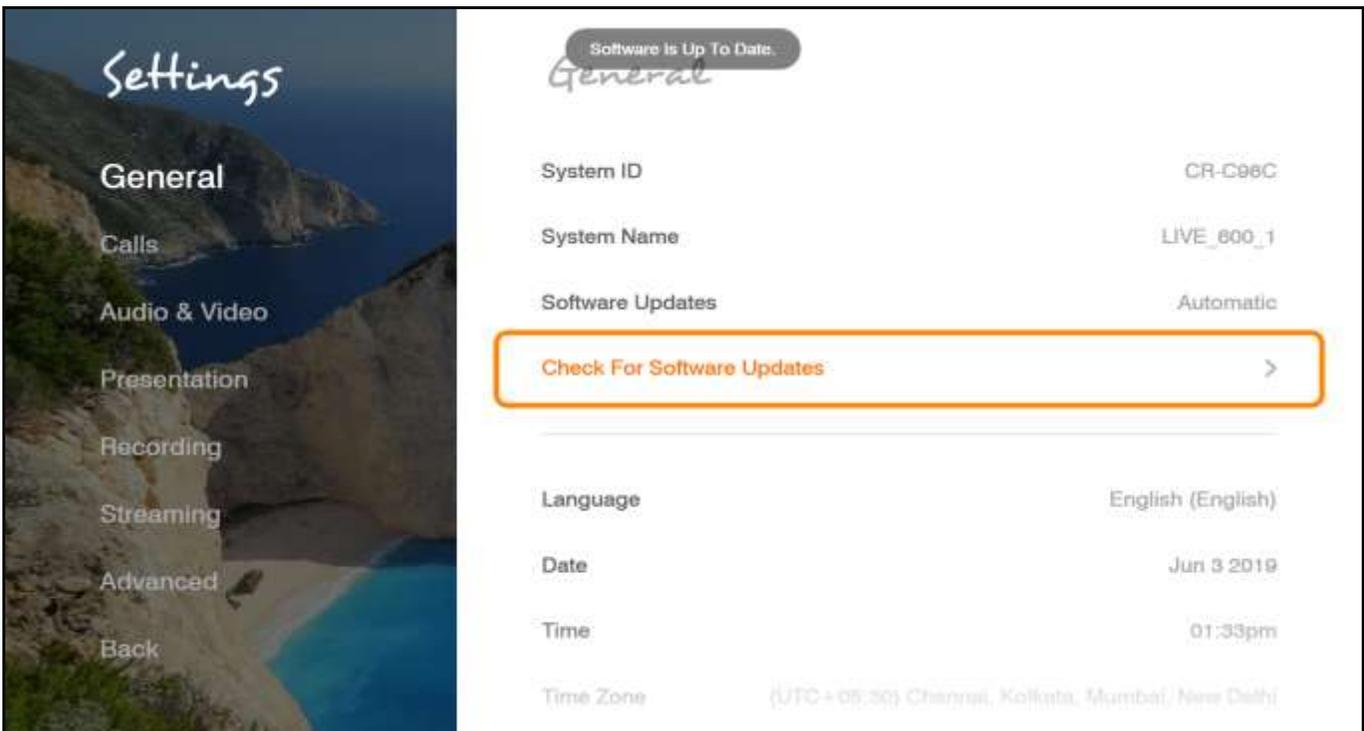
Chapter 4:   Video Collaboration

IN THIS CHAPTER

This chapter explains the video collaboration basics and options using COLLABORATE® Live, 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:

3. Select Video Call > Dial Pad.
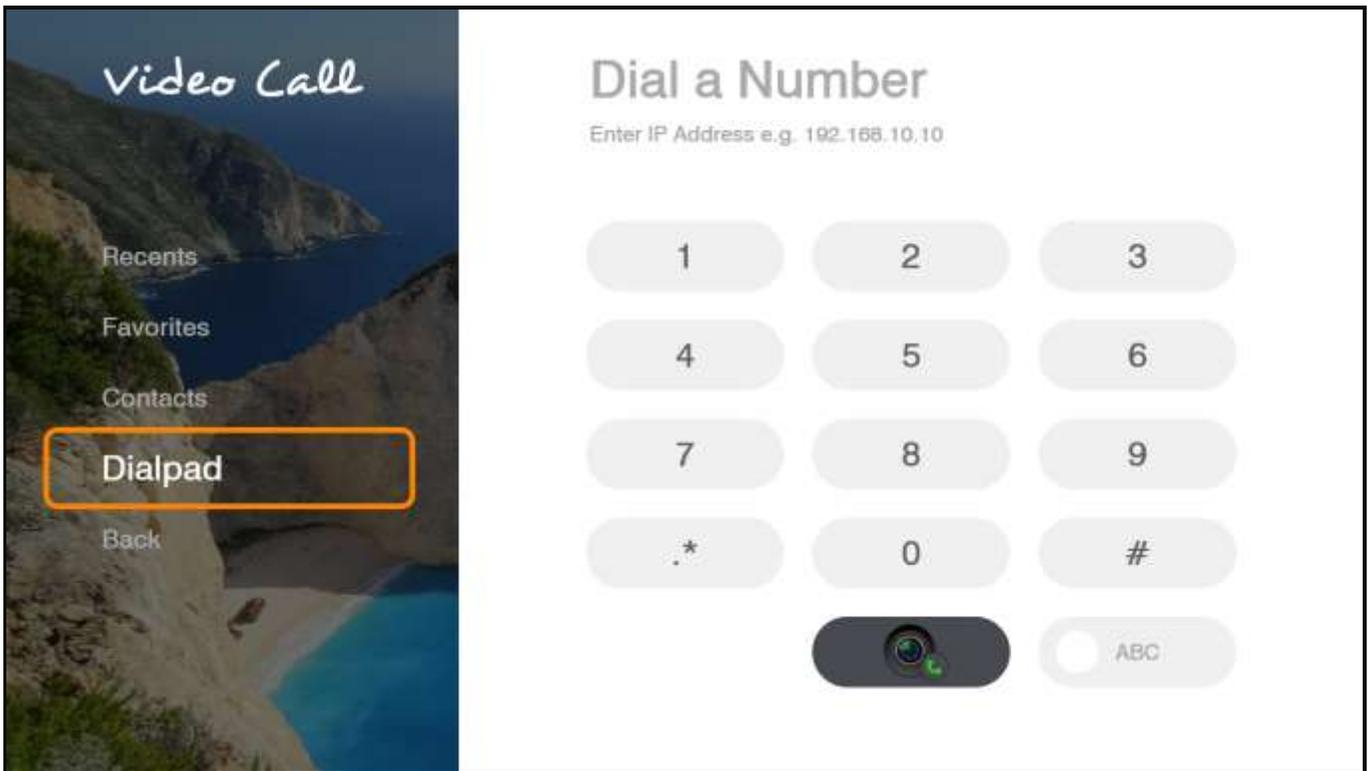
4. Provide the IP Address.
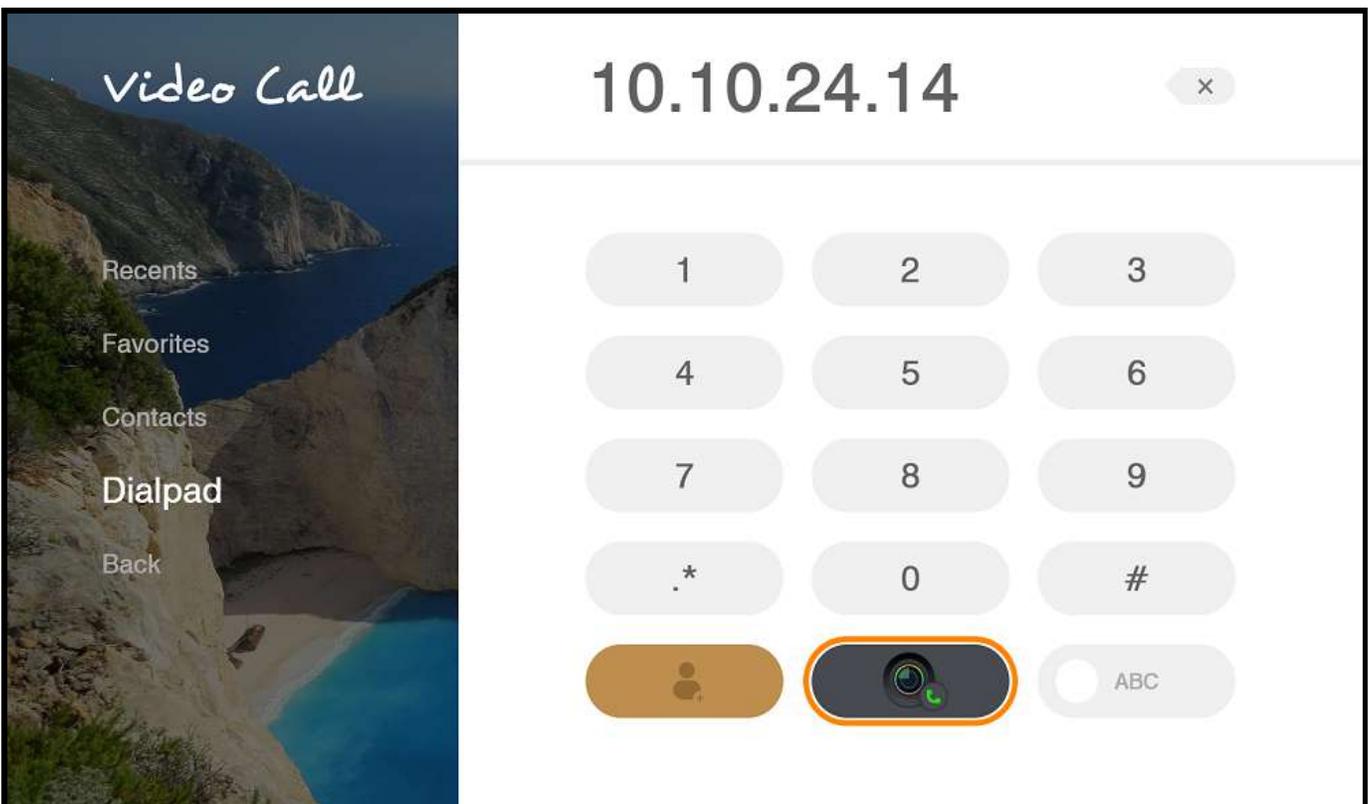
5. In the **Type** a **Number/Name** field, type the **IP Address** to which you want to call. Alternatively, instead of an IP Address, you can also use an Alias, E.164 number, or a DNS Address (if they are defined on your network).
6. To type letters and numbers, make sure that the **ABC** option is selected.
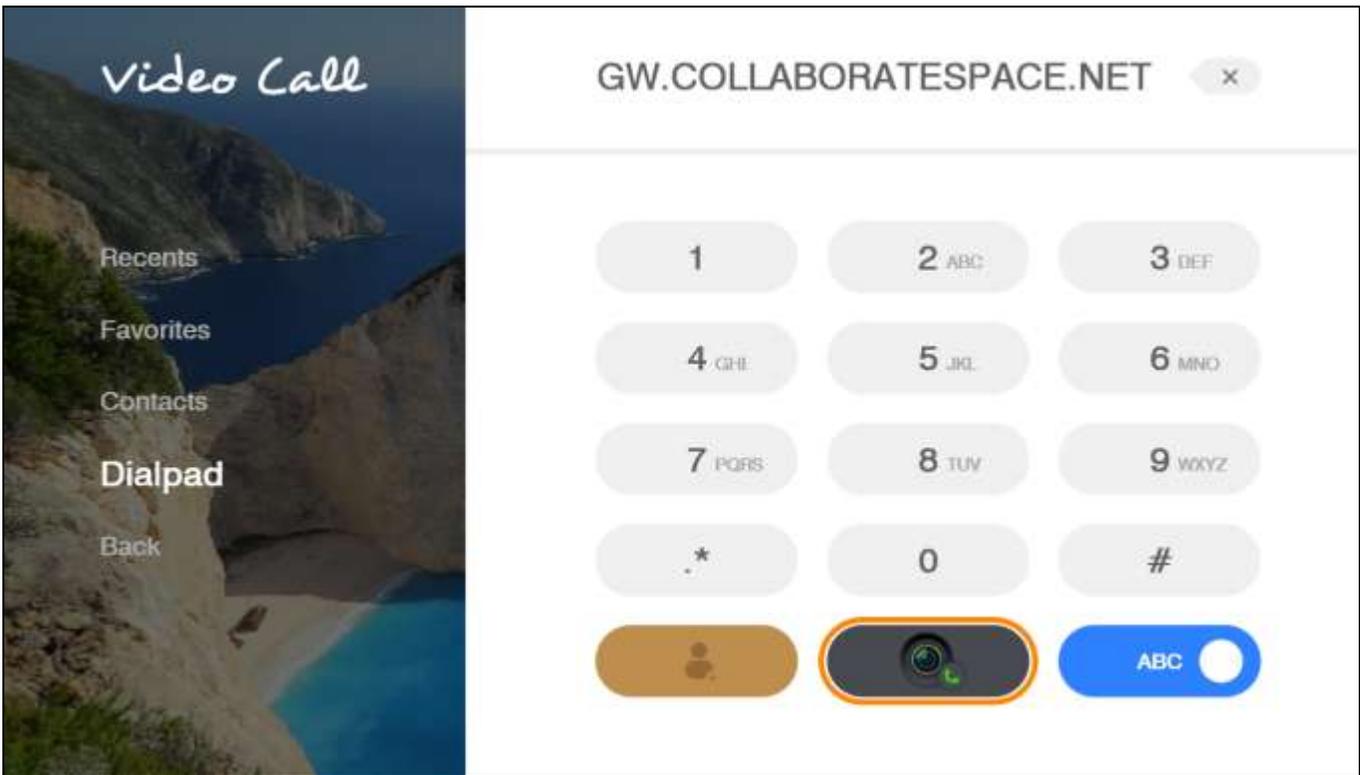
For a video call, you can also press the **Make Call** (green button) on the remote control. The Calling screen appears.
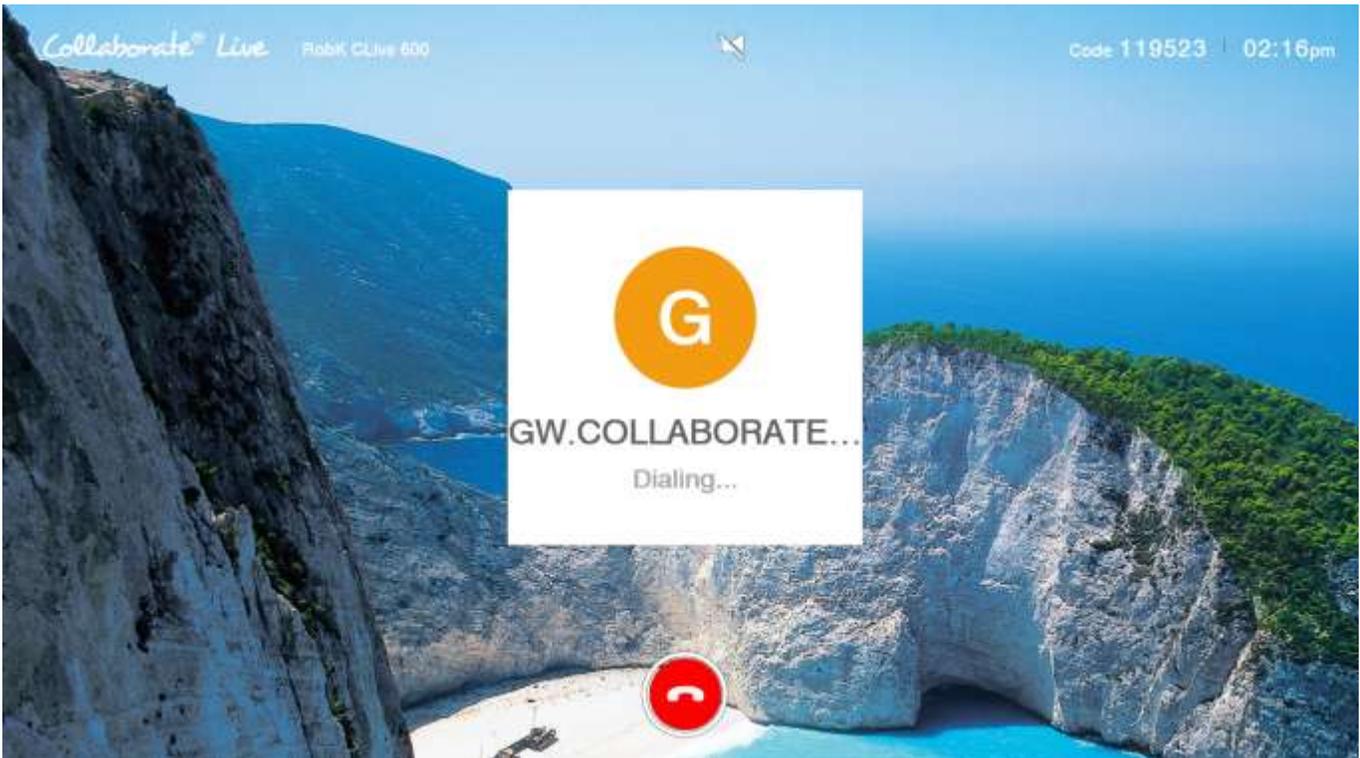
When the call is answered, the system switches to the Call mode.

AUTO-ANSWERING CALLS

The auto-answer option is found in the **Settings>Calls** menu. 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:

1. 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.
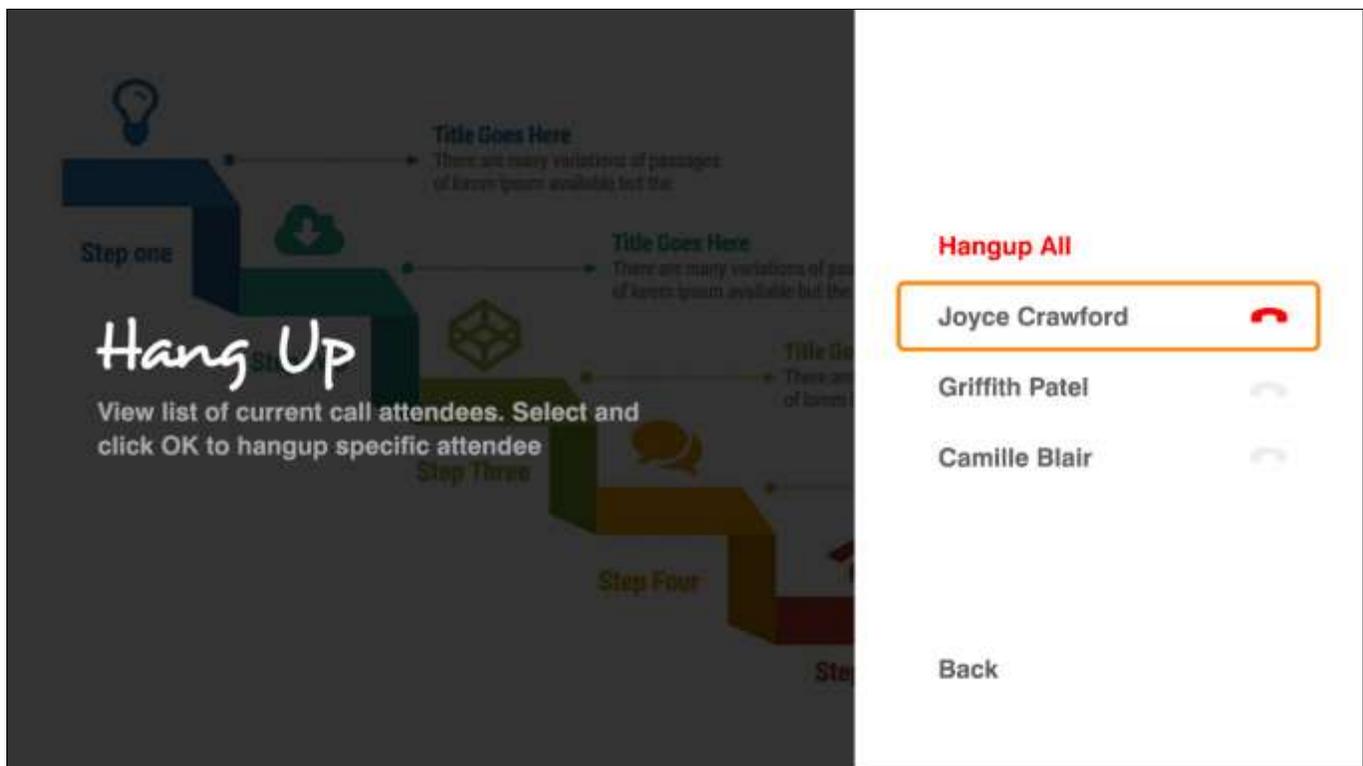
MUTING THE VIDEO

You can mute video during a videoconference using 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 muted.
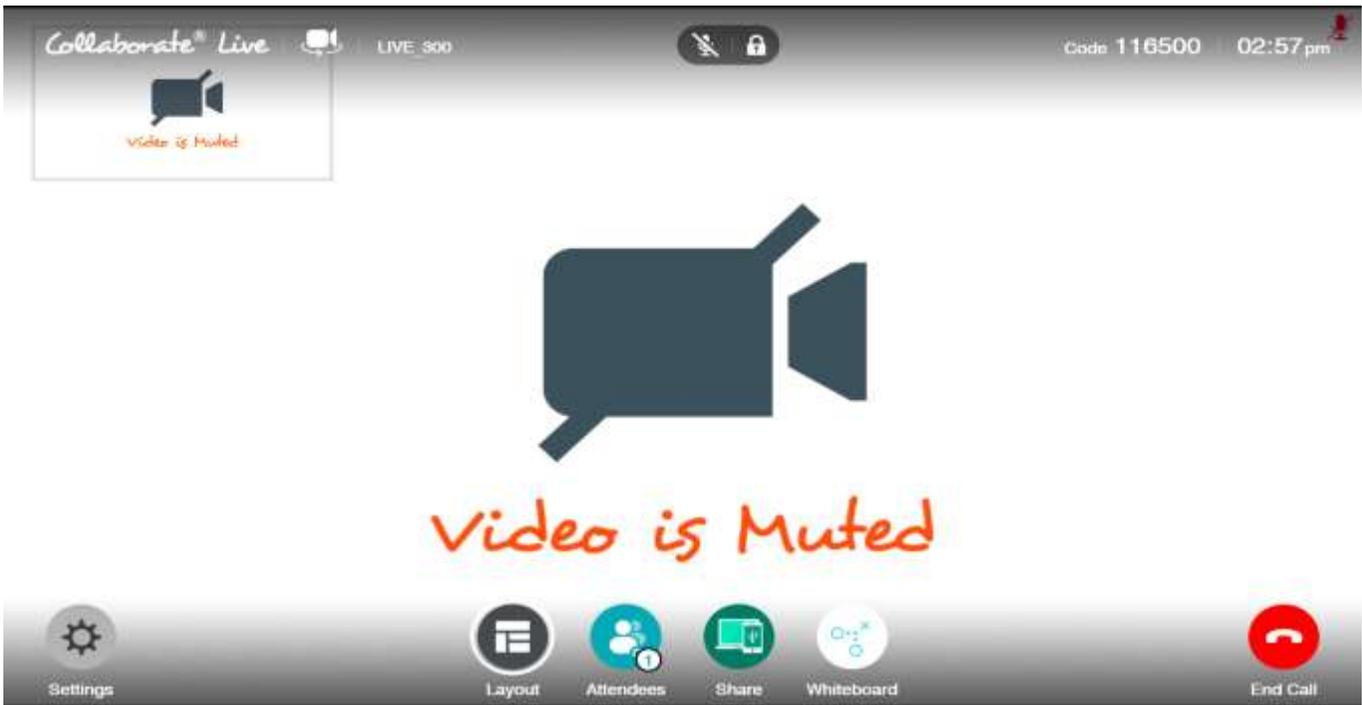
SWITCHING CALL VIEW MODES

Depending on the type of screen and video interface you are using (HDMI 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.

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

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 unavailable while sharing via Collaborate® Share option).
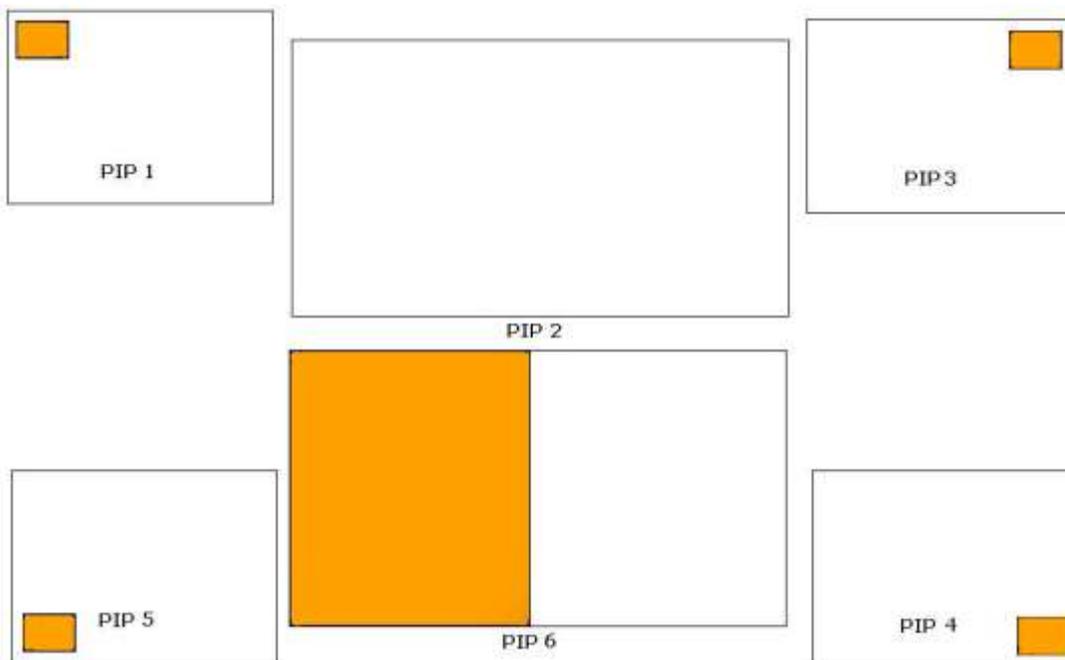
CALL STATE INDICATIONS

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
	Successful COLLABORATE® Central registration
	Unsuccessful gatekeeper registration
	Successful gatekeeper registration
	Currently on Audio session
	SIP registration
	SIP registration failed

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 **Status** button on the remote to view the Call View box (see Call View box).
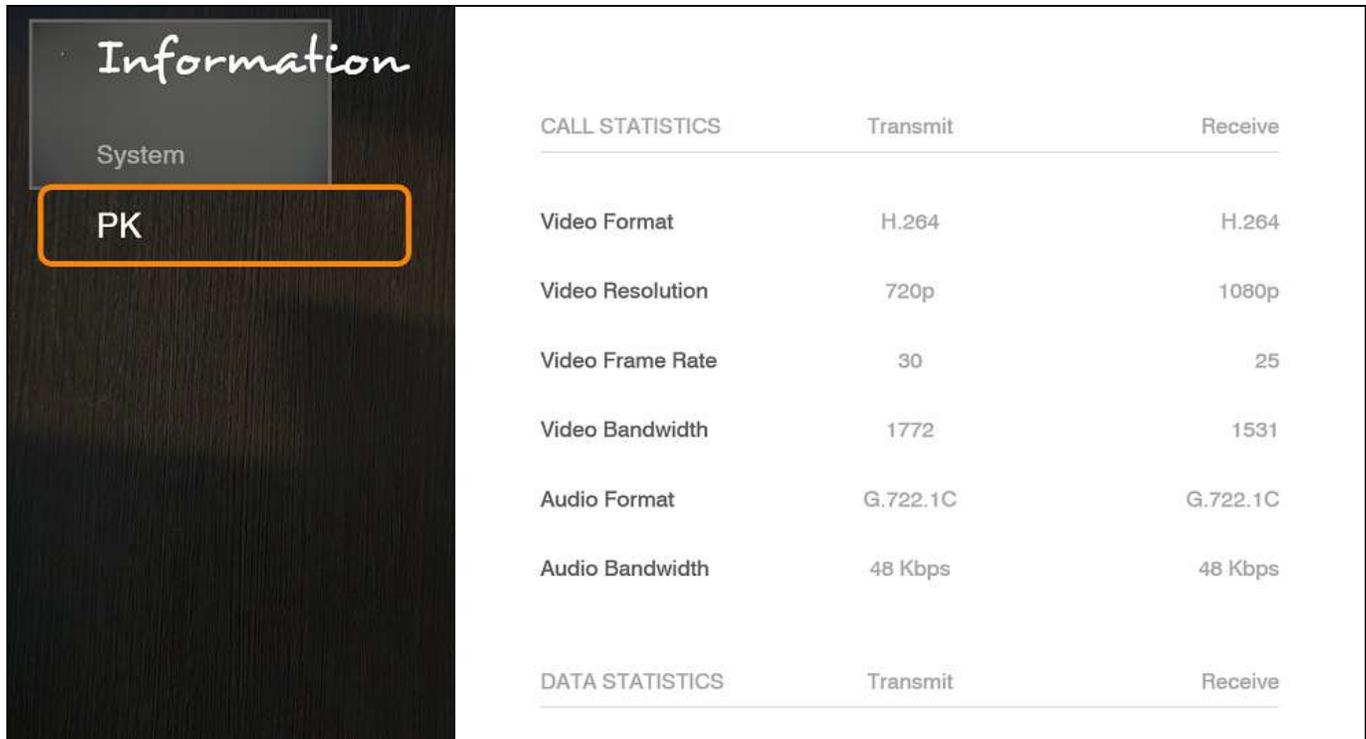
The Call Status box displays the following information for both **incoming** and **outgoing** communication:

- **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 at their destination

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 enter a conference password to proceed with the call.

To enter a conference password, use the numeric pad on the remote control. 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 numeric pad on the remote control to dial. The screen shows DTMF message: "DTMF signal **** sent" representing the numbers pressed on the keypad.

DATA SHARING

Data Sharing can be accessed via the on-screen menu or by pressing the Data button on the remote control. Data Sources are selected inside the Presentation menu. Pressing the Data button a second time stops data sharing.

CONNECTING THE DATAPOINT

For the system to recognize data sources, you need to connect to the DataPoint.

To choose a data source:

1. Select **Presentation** on the main menu. The Data Sharing menu opens.
2. Select **HDMI** option to share data using the DataPoint input.
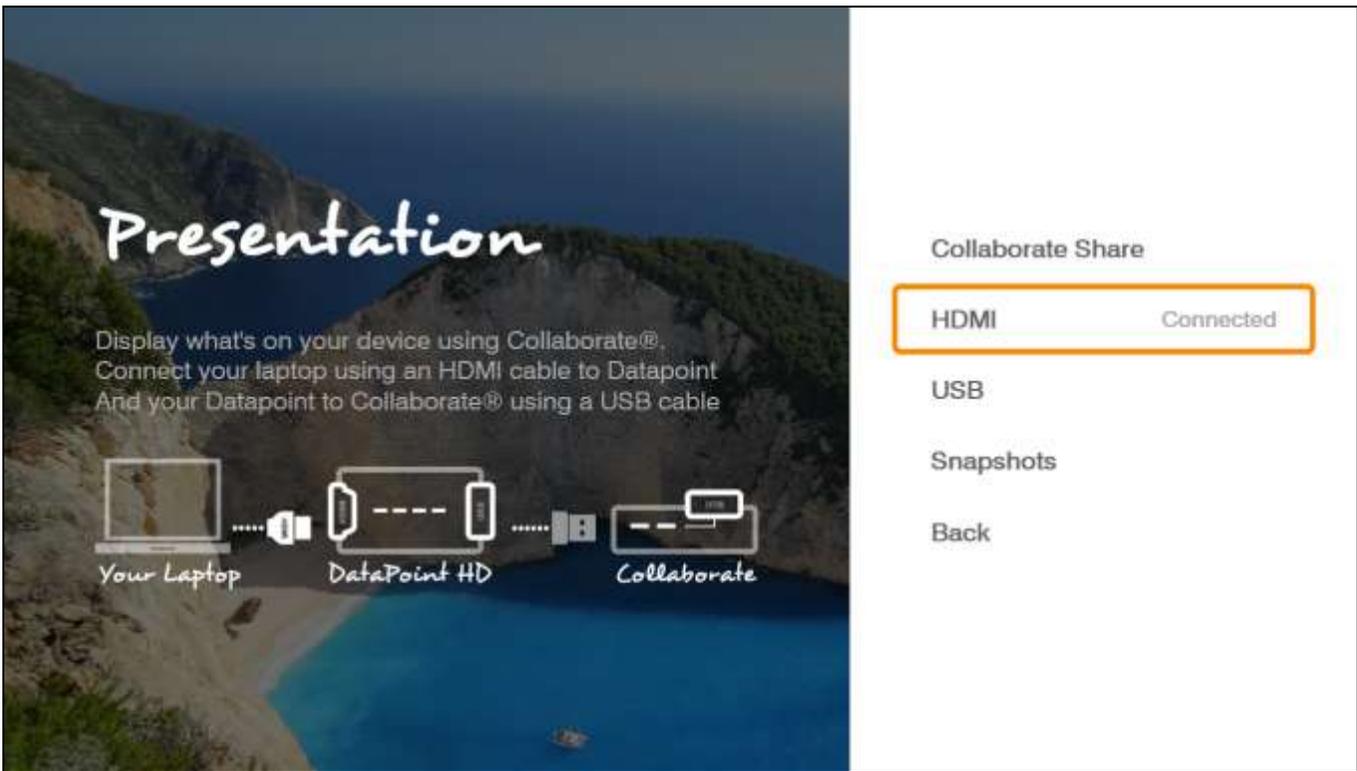
CONNECTING A USB FLASH DRIVE

In idle mode you can view 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® Live USB ports. The message **"USB device inserted"** is displayed.
2. Select **Presentation > USB**. The File Selection window appears.
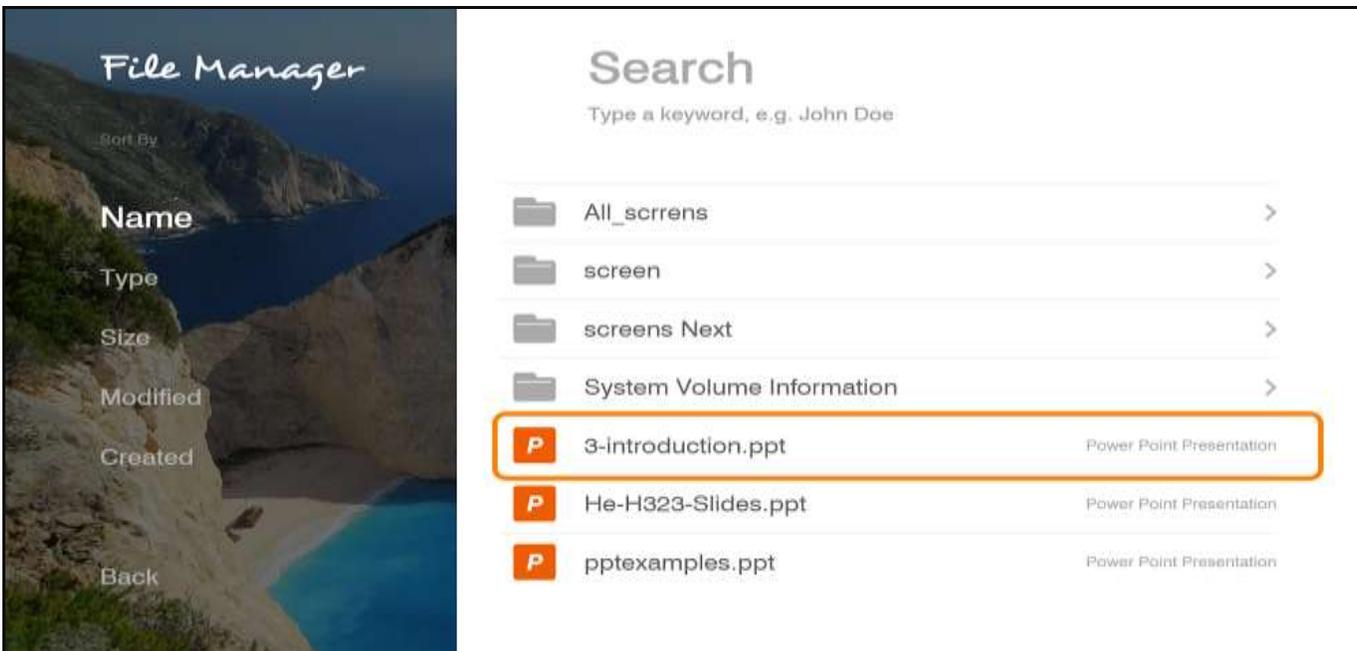
3. Select the file you want and then press **OK** on the remote control. The following files are supported: *.jpg, *.jpeg, *.gif, *.png, *.tiff, *.tif, *.bmp, *.wmf, *.mpg, *.mpeg, *.wmv, *.mp4, *.avi, *.pdf, *.pps, *.ppt, *.doc, *.rtf, *.xls, *.xlsx, *.pptx, *.ppsx and *.docx.
4. The file is displayed. If the file is opened during a videoconference, it is shared with all the viewers.

WIRELESS SHARING

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

To view and share wirelessly:

1. Download the Collaborate® Share application from the web interface
2. Ensure that the computer you are going to use is connected to the network or that your computer can connect to the company's network or to an external Wi-Fi network.

3. Double-click on the desktop Icon .
4. Select a meeting from the meeting list.
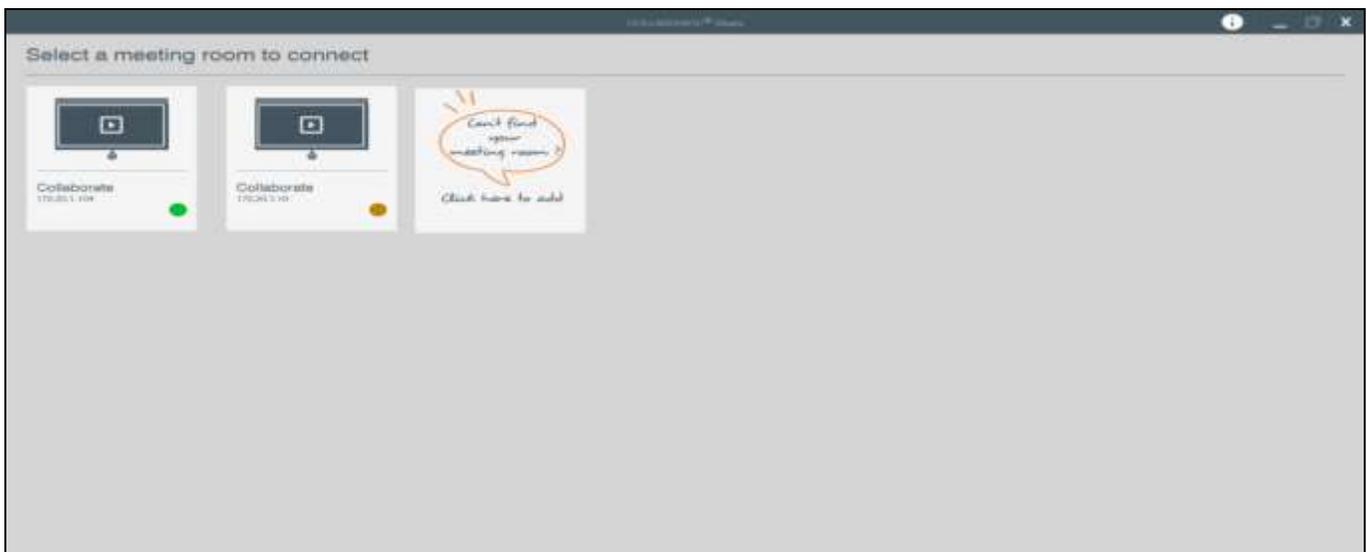
5. If necessary, enter the code number shown on the Collaborate Live screen.
6. Choose the content to be shared, select either the computer desktop or any available applications.
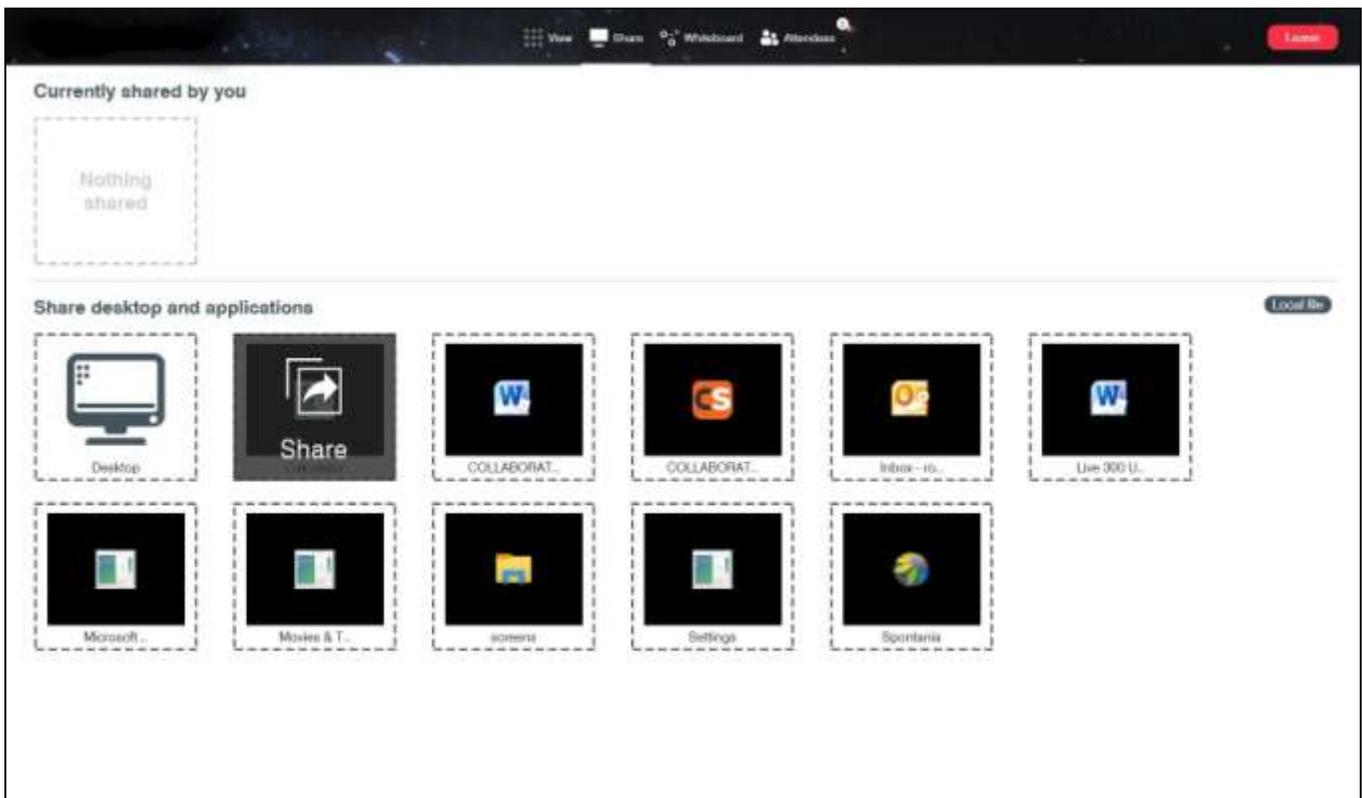
7. Select **Presentation > Collaborate Share**. Wireless data sharing is starting.
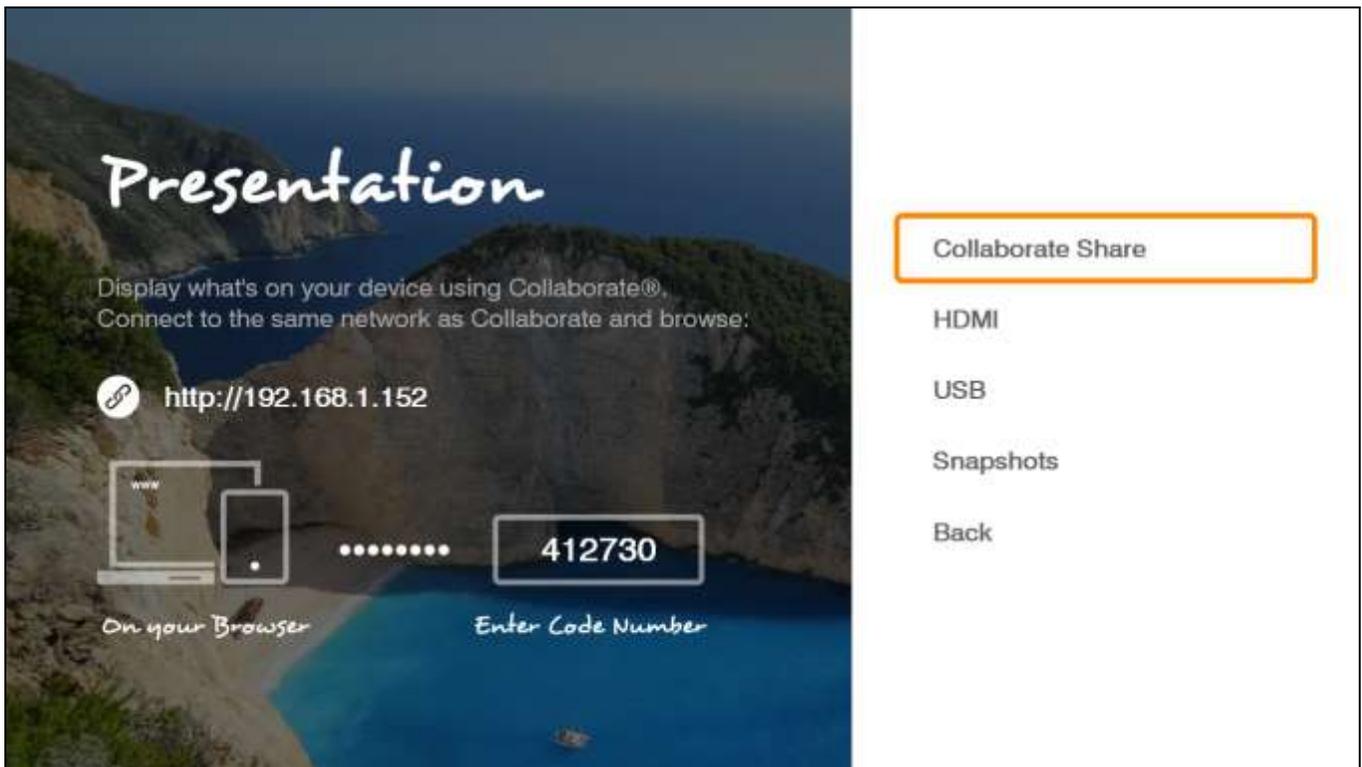
COLLABORATE® SHARE CONTROLLERS

While wireless is shared, you can manage your sharing from "Collaborate® Share" controllers.
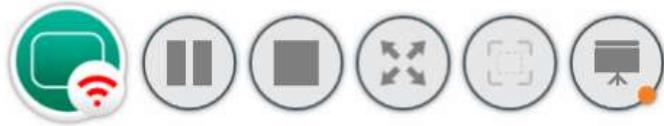
Button Image	Button Name	Command
	Pause	Pause the current share
	Play	Resume the paused shared
	Full view	Switch the Collaborate® share to full view
	Compact view	Switch the Collaborate® share to normal view
	Spotlight	When several "Collaborate® Share" are connected to the system, use this icon to move the chosen stream into the main area.
	Display	When several "Collaborate® Share" are connected, use this icon to change the displayed layout.
	Layout	"Collaborate® share" layout option: Mosaic / Full Screen / Preview
	Dual display	When two monitors are connected to the unit, you can choose which monitor will display the data.

You can also use the Collaborate® Share application while it is connected to a Wi-Fi network and the Collaborate® Live is connected to the corporate network.

Refer to Wi-Fi settings.

DATA SHARING IN IDLE MODE

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

Note:

 PIP will not be displayed while using Collaborate Share in idle mode.
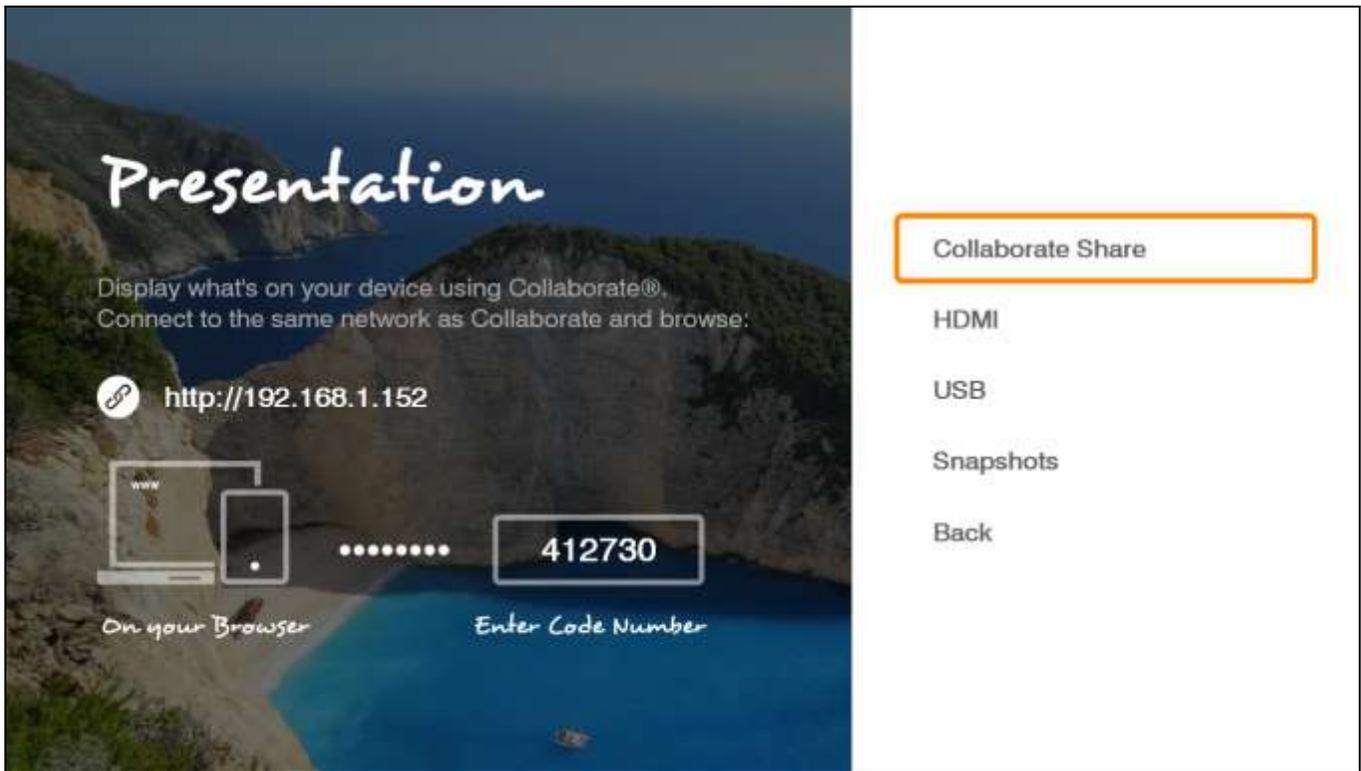
SHARING DATA WITH AUDIO

When sharing a video file from a PC or a USB flash drive, the Collaborate ® Live is mixing the audio channels into one channel so the presentation audio as well as the microphone can be heard. While 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® Live 300, and includes the following sections:

- Using the Contacts
- Using the Recent Calls
- Using Online Directories
- Using Collaborate Space 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 (use the menu on the left to choose from: Recents, Favorites, Contacts or Dialpad).

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

USING CONTACTS VIA THE COLLABORATE® LIVE GUI

You can display the Contacts using the COLLABORATE® Live GUI menus. To select the Contacts via the COLLABORATE® Live GUI:

1. Select the Contacts, Video Call, or Audio Call icon. The call window appears (use the menu on the left to choose from: Recents, Favorites, Contacts or Dialpad).
2. 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 **Dialpad** and press **OK**. The Dialpad opens.
2. Type in the new contact's IP Address, and then click on the new contact button below. The **New Contact** window appears where you can enter their First Name, Last Name, and the call Protocol, and then click on **Save** on the right side of the window to create the new contact.

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. Use the menu on the right to add to favorites, edit or remove a contact.
3. Edit the Name, Address and call Protocol.
4. Click **Save**.

USING THE RECENT CALLS

Recent calls are automatically logged to the Recent Calls when an outgoing call is made or when an incoming call is received.

Note:

The Recent calls list 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 the **Contacts, Video Call,** or **Audio Call** icons. The Recent Calls window appears.
2. Select the entry and press **Dial**.

DISPLAYING THE RECENT CALLS FROM THE CONTACTS

To display the Recent Calls via the Contacts:

- In the Contacts screen, select **Recents** in the menu on the left side of the screen.

ADDING A RECENT CALLS ENTRY TO THE CONTACTS

You can add entries for Recent Calls to the Contacts for reuse later. To add a 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 **Create New Contact**. The New Contact menu appears.

3. Edit in the contact Name, Address, and call protocol if needed, and then select **Save**. The log entry is added to the Contacts.

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 COLLABORATE SPACE CONTACTS

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

To access the Contacts via the remote control:

1. On the remote control, press the Contacts button. The Contacts opens.
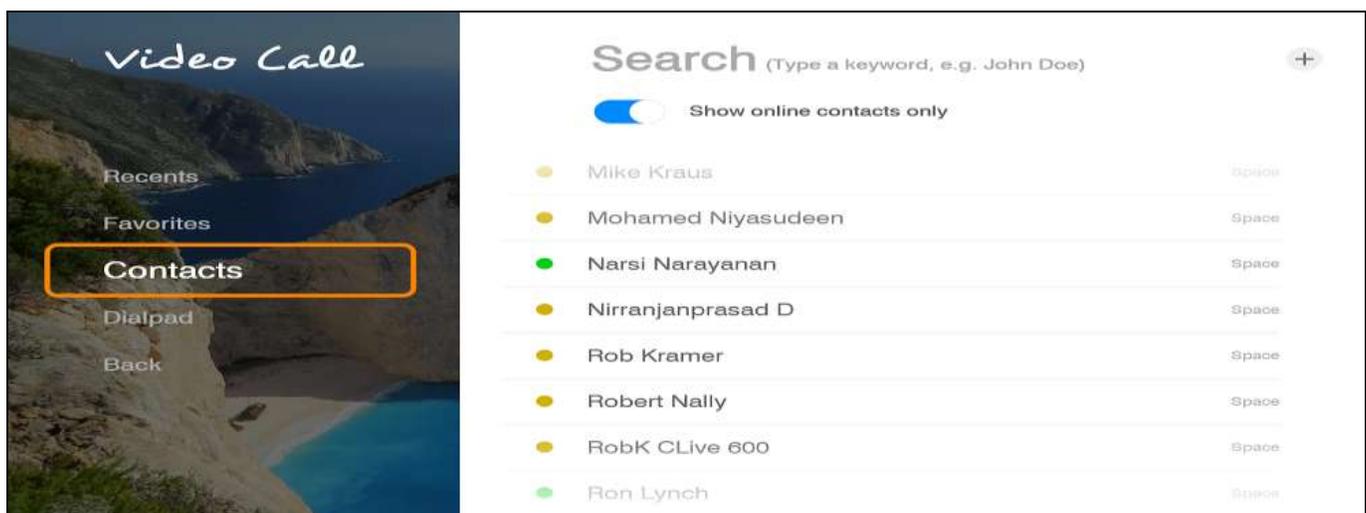
2. Select Online / Away contact.
3. Press **Dial**.

Chapter 6: Skype for Business

IN THIS CHAPTER

This chapter covers Skype for Business calling, and includes the following sections:

- Starting Skype for Business Calls
- Starting Skype for Business Multi Conference Calls
- Presentation Sharing
- Display Layouts
- Join scheduled Skype for Business Meetings

STARTING SKYPE FOR BUSINESS CALLS

In order to start a Skype for Business call follow these step-by-step instructions:

1. Make sure you're logged into the Skype for Business server (To register your system to the Skype for Business server please refer to the Skype for Business settings). To verify registration, press the info button (ⓘ) on remote control and check if you are registered to the Skype for Business server.
2. Select **Video Call > Contacts**.
3. Select the name of the contact you want to call.
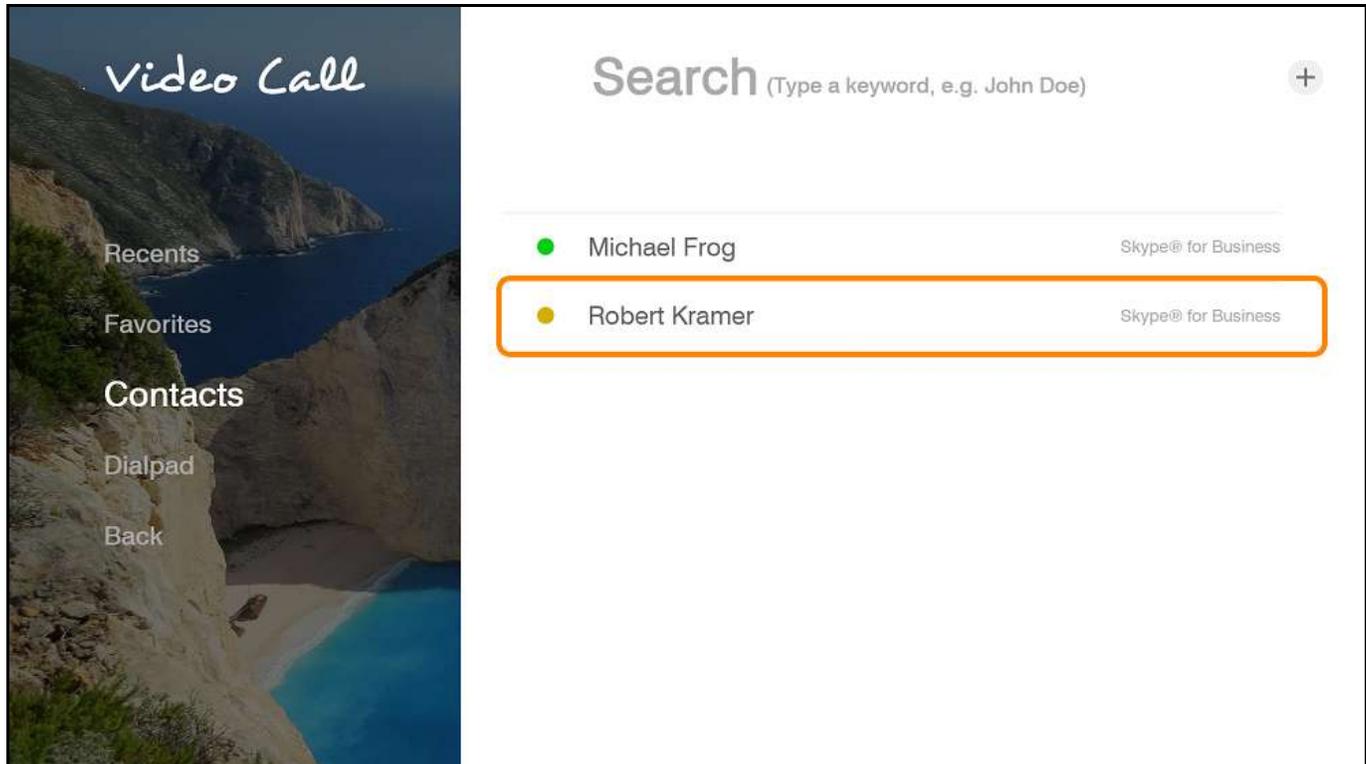
Guide to status icons:

🟢 Available - Online and Available

🟡 Away - Logged on but have been away from system for a period a time

🔴 Busy – In a conference call

⚪ Off Line – Not signed in

STARTING SKYPE FOR BUSINESS MULTI CONFERENCE CALLS

If you need to add more people to your conference call, you can select their names from your Contacts list:

1. Make sure your contacts are available by checking their present status first.
2. Select contact from the list, and then click Dial.
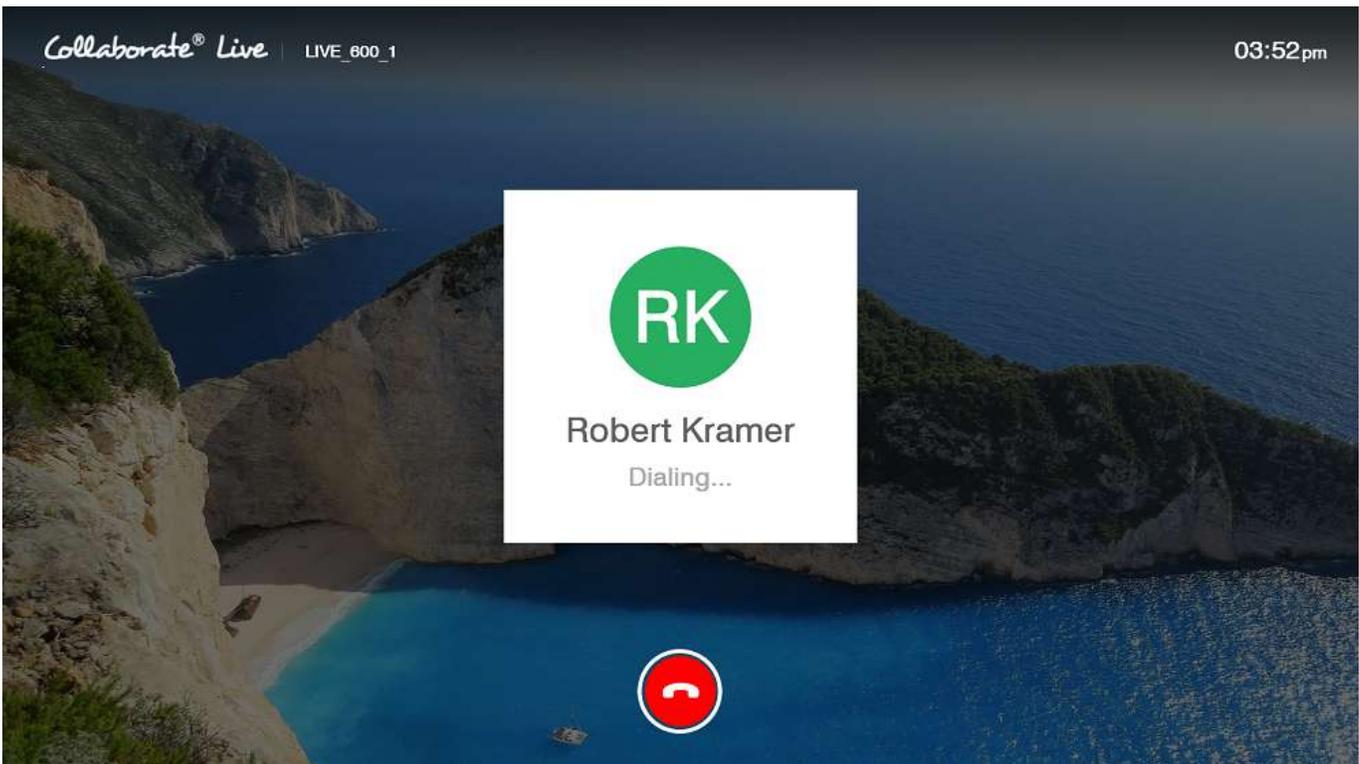
Attendees -During a Skype for Business call, click on the Attendees menu to see all of the Attendees in the call

PRESENTATION SHARING

- HDMI Input
- Wireless Presentation
- USB

DISPLAY LAYOUTS

Dual Displays: One display showing the presentation, the second display showing the far-end video:

Dual Displays: One display showing the near-end video, the second display showing the far-end video

Voice Switched Mode: Displays the party that is talking in a point-to-point, or multi-party calls.
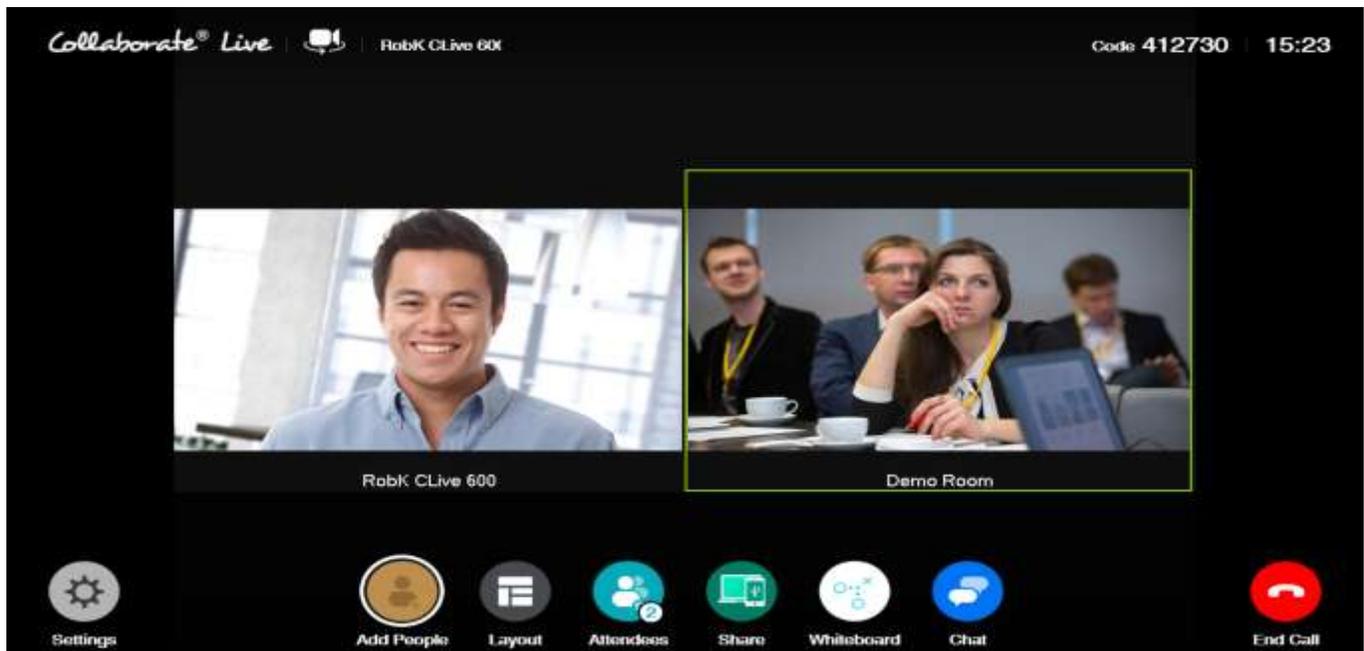
JOIN SCHEDULED SKYPE FOR BUSINESS MEETINGS
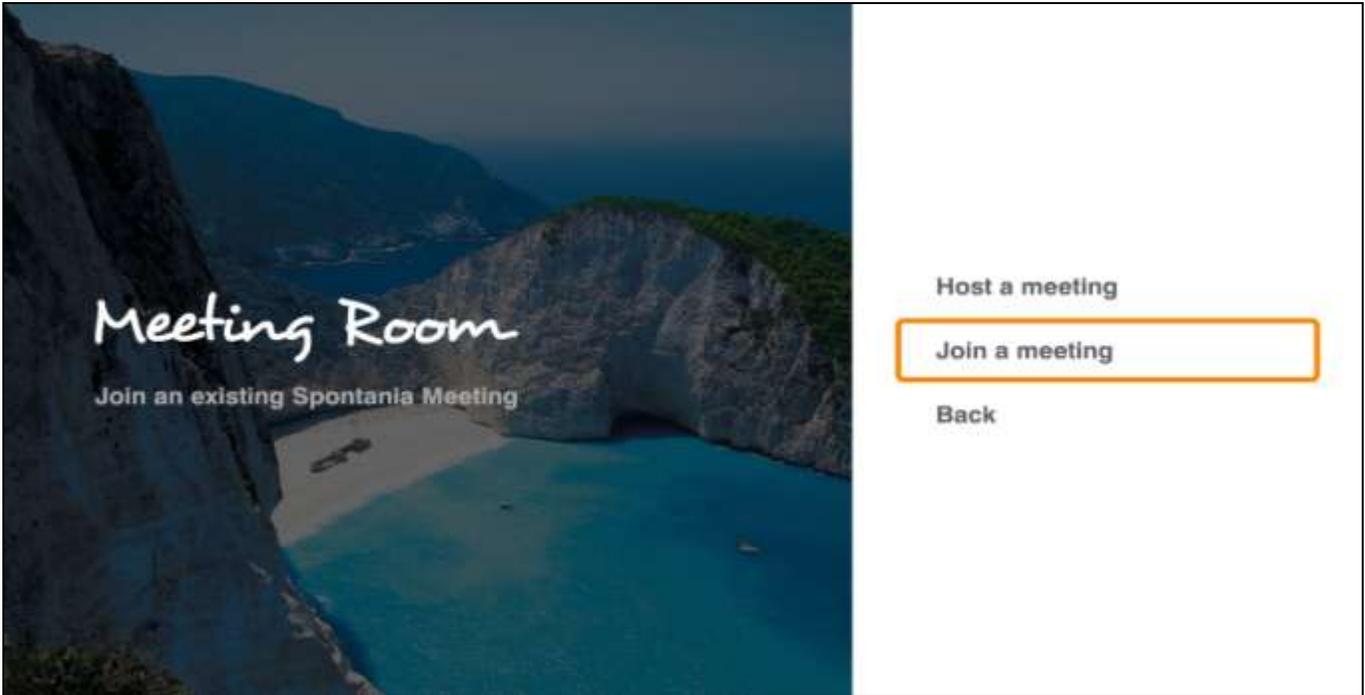
A meeting Reminder will pop up for scheduled Skype for Business meetings.

USING SKYPE FOR BUSINESS CONTACTS

When your system is registered to a Skype for Business server (See Skype for Business settings), all users that are registered to this server will appear in the combined Contacts list.

To access the Contacts via the remote control:

1. Select **Video Call** and then **Recents**, **Favorites**, or **Contacts** and select the name of the contact you want to call.
2. Select the Online / Away contact and click on Video Call.
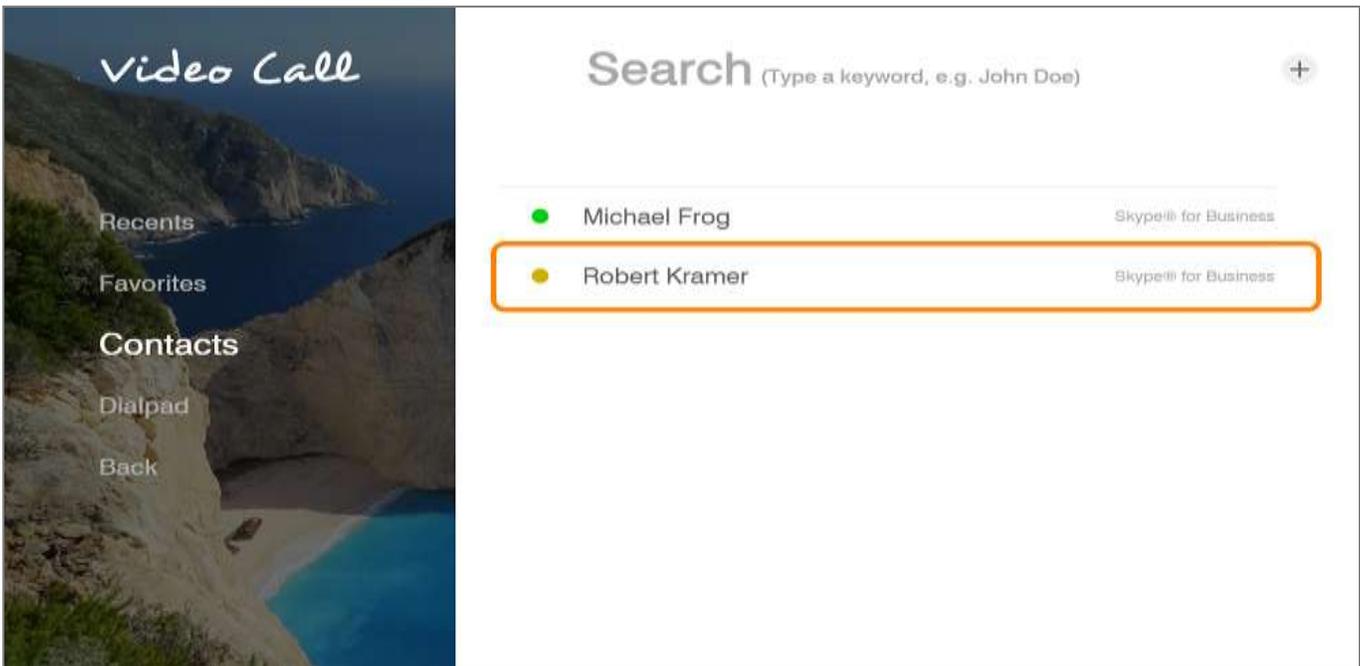
Guide to status icons:

- Available - Online and Available

- Away - Logged on but have been away from system for a period a time

- Busy – In a conference call

- Off Line – Not signed in

Chapter 7: Advanced Settings

IN THIS CHAPTER

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

- Display Settings
- Network Settings
- Wi-Fi Settings
- Directory Properties
- H.323 Protocol Settings
- SIP Protocol Settings
- Space Settings
- Security Settings
- Admin Settings
- Proxy Settings
- Exchange Settings
- Skype® for Business Settings

DISPLAY SETTINGS

Please refer to Chapter 3

NETWORK SETTINGS

Please refer to chapter 3

Wi-Fi SETTINGS

Please refer to chapter 3

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® Live 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.
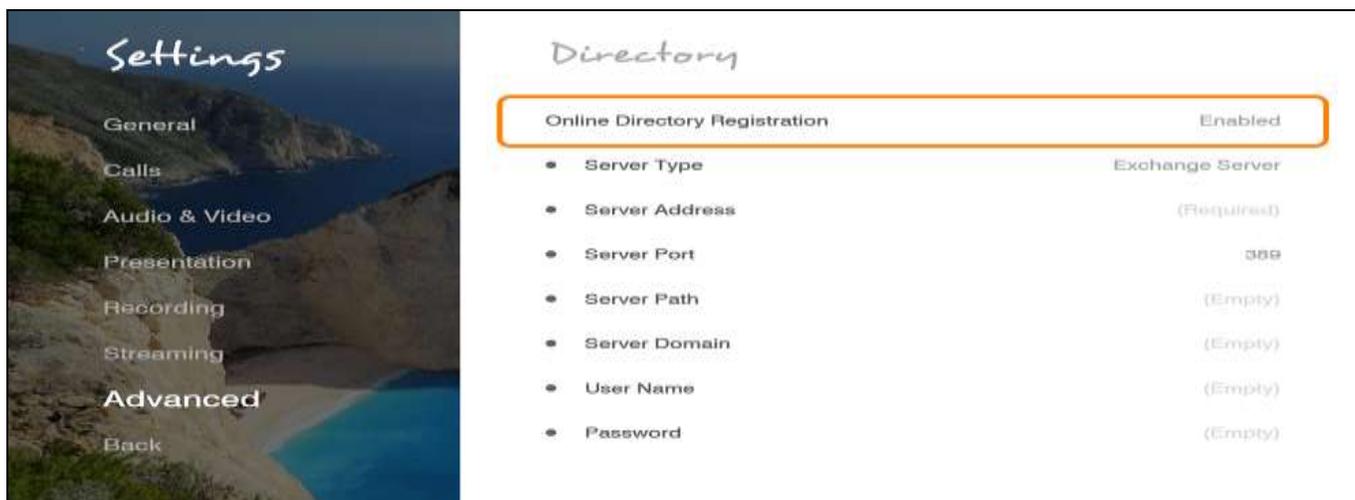
2. In the Directory Settings window, set the following options and parameters:

- **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."
- **Server Port** – Number of the port the connection to the server is established through
- **Server Path** – Folder your user information is stored in, as created in 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.

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.
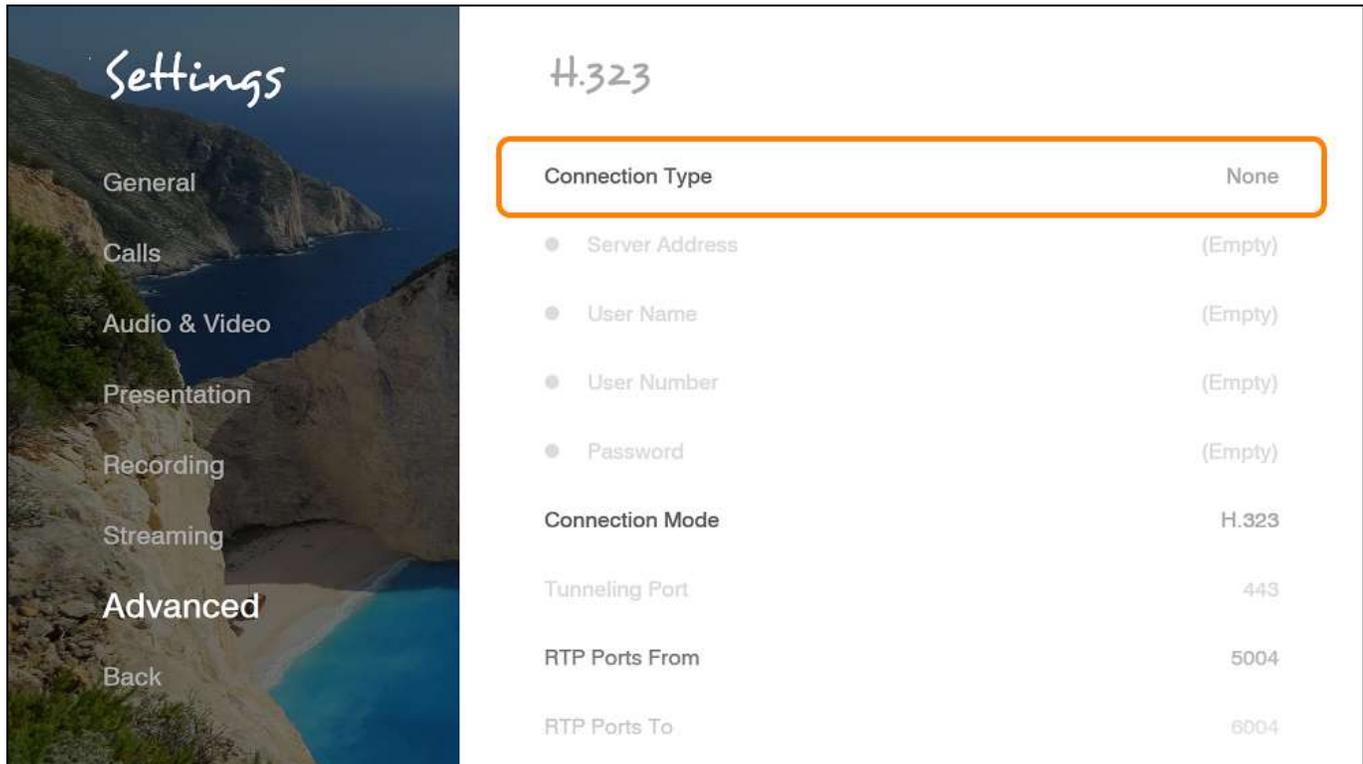
COLLABORATE® Live utilizes H.323 to transport video/audio via DNS and NAT addressing, and to communicate/interact with either a COLLABORATE® Central server or a standard gatekeeper server, one of which you can choose to work with in order to gain better performance and flexibility in point-to-point and 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.
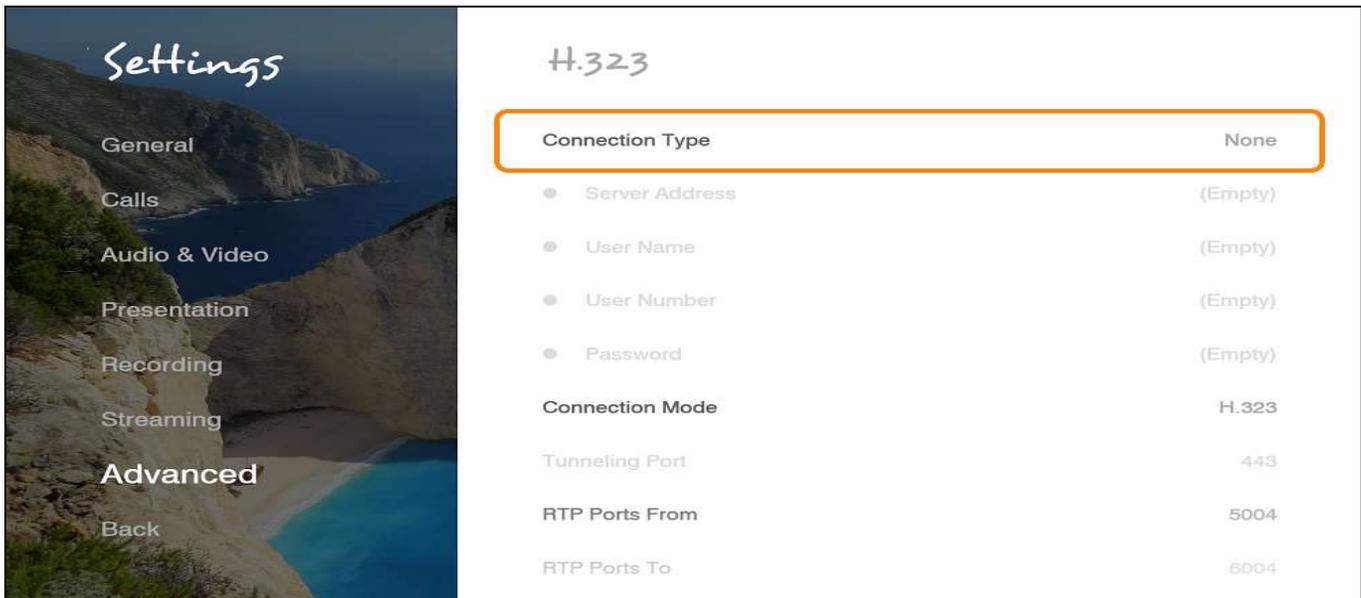
2. In the H.323 Settings window, set the following options and parameters:

- **Connection Type 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® Live 300 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 to log into the COLLABORATE® Central server.
  - **User Number** – Enter your user number for identification on the COLLABORATE® Central server. If not entered, the COLLABORATE® Central server will automatically generate a number.
  - **Password** – Enter the password to log into the COLLABORATE® Central server.

- **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 cause COLLABORATE® Live to reload.
- RTP Ports:

  - **From** – Enter the minimum RTP value.
  - **To** – Enter the maximum RTP value.

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.
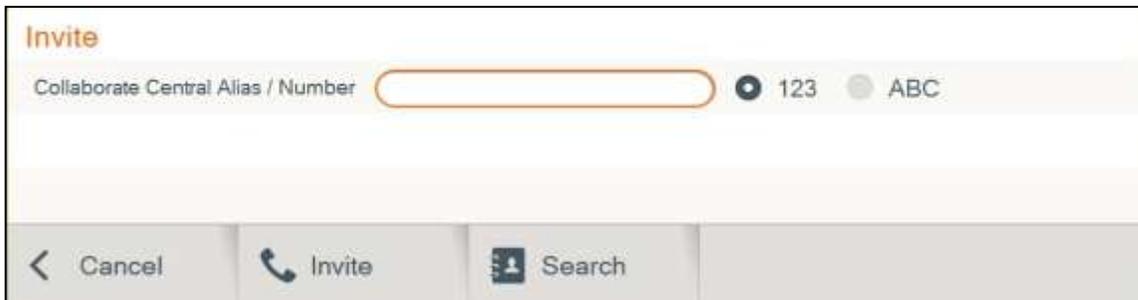
Note:

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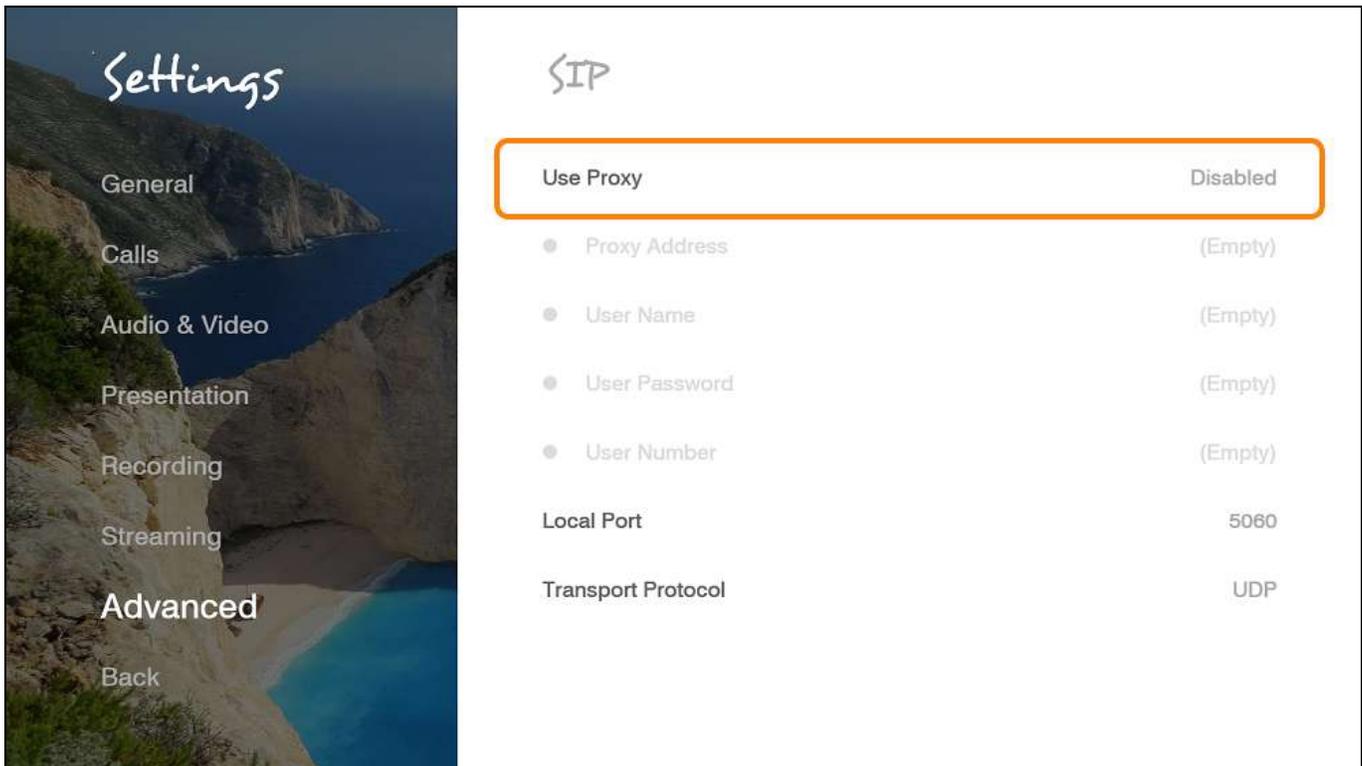
2. In the SIP Settings window, set the following options and parameters:

- **Use Proxy** – Use a proxy server or as stand alone

  o **Proxy Address** – IP address of the Proxy server
  o **User Name** – The user name as configured in the proxy server (proxy mode).
  o **User Password** – The user password as configured in the proxy server (proxy mode).

- **Local Port** – The SIP port on your computer (the standard is 5060).
- **Transport Protocol** – Select the desired protocol (TCP or UDP)

SPACE SETTINGS

Registering to the Collaborate® Space server will allow you to join and create a Collaborate® space cloud-based video conference according to your permissions.

To access Collaborate® Space Settings:

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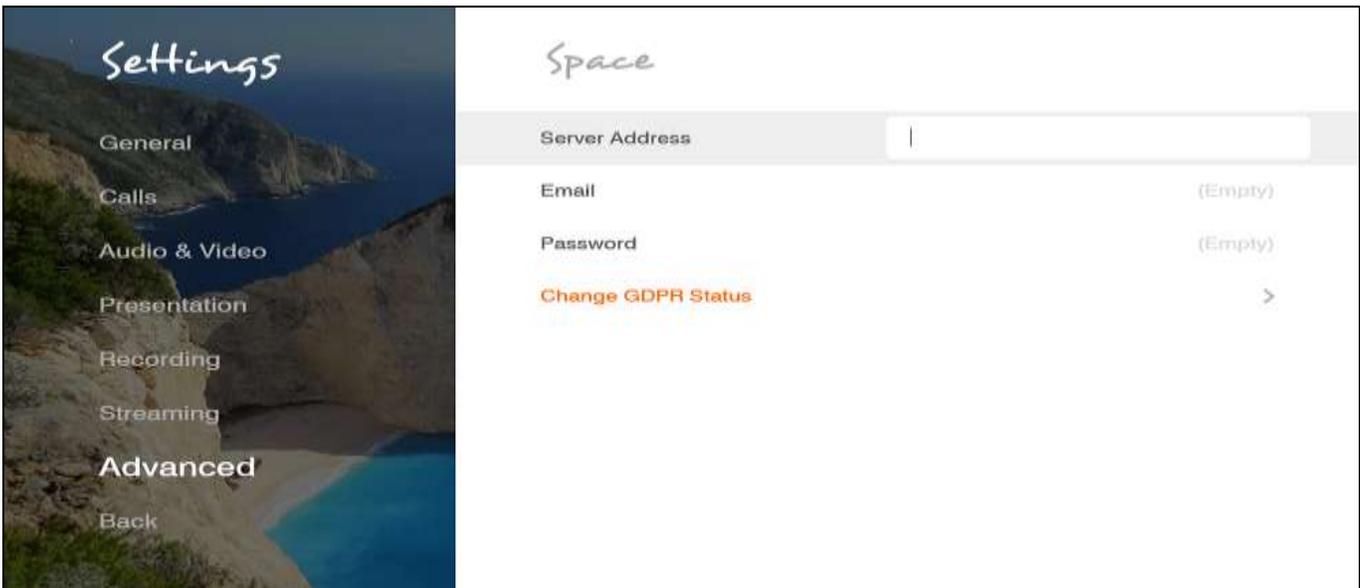
2. In the Space window, set the following options and parameters:

- **Server Address** - Enter the IP Address of the Collaborate® Space server.
- **Email** – Enter the Email used to log into the Collaborate® Space server.
- **Password** – Enter the password used to log into the Collaborate® Space server (if required).

SECURITY SETTINGS

To configure security settings:

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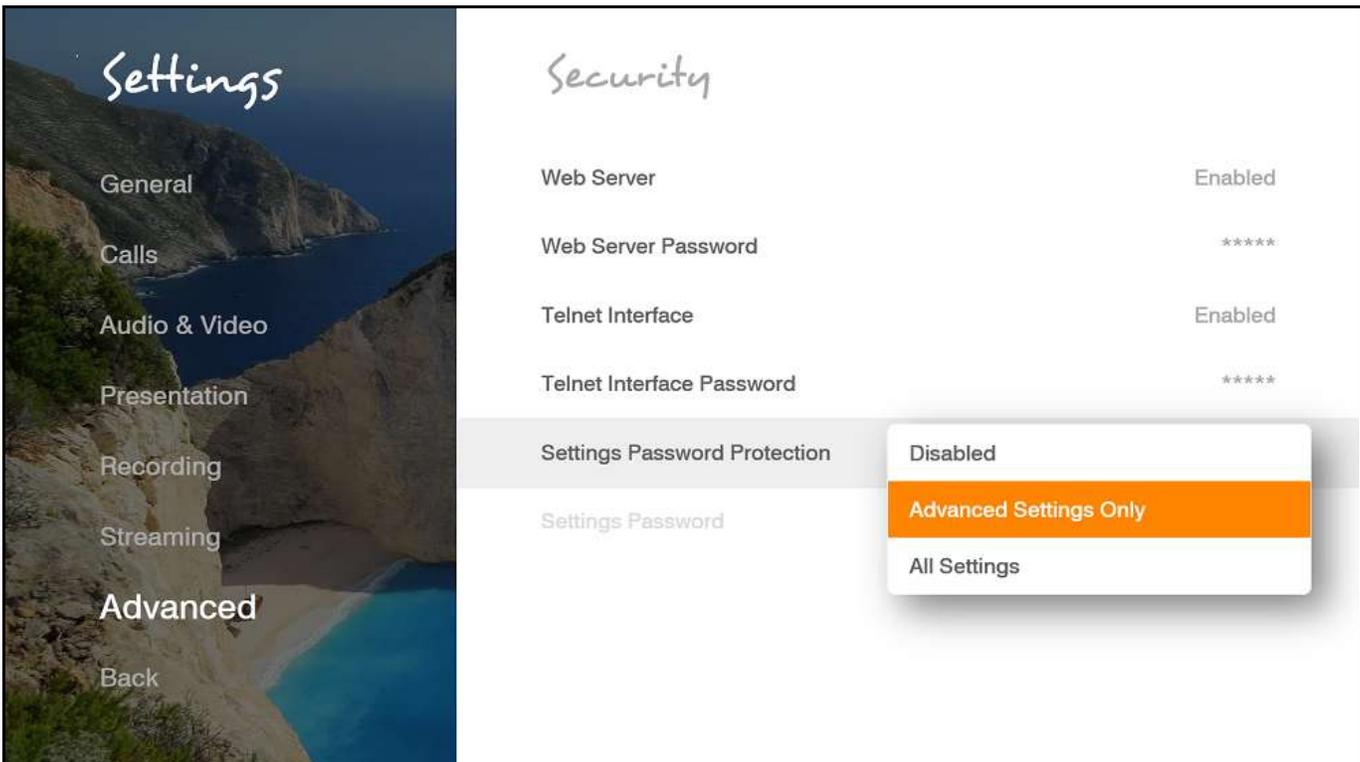
2. In the Security Settings window, set the following options and parameters:

- **Web Server** – Select this option to allow Web access to the COLLABORATE® Live 300 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).
- **Telnet Interface** – Select this option to allow access to the COLLABORATE® Live 300 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.
- **Settings Password Protection** –

  - **Advanced Settings Only** - Selecting this option restricts the access to the advanced settings of the unit, which are: Admin, IP, Directory, H.323, Firewall and Collaborate® Space.
  - **All Settings** - Selecting this option restricts the access to all settings of the unit.

ADMIN SETTINGS

To configure Admin settings:

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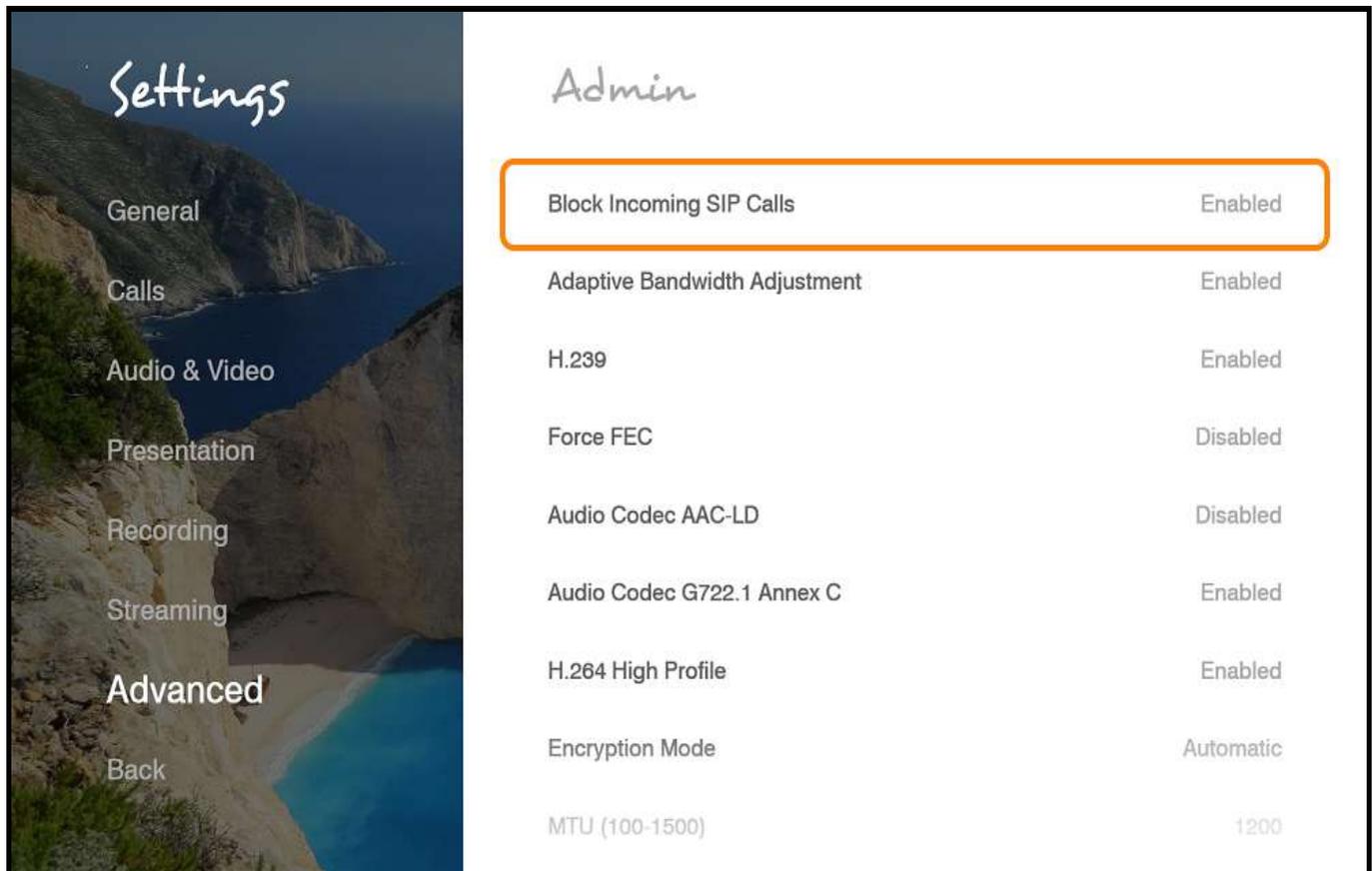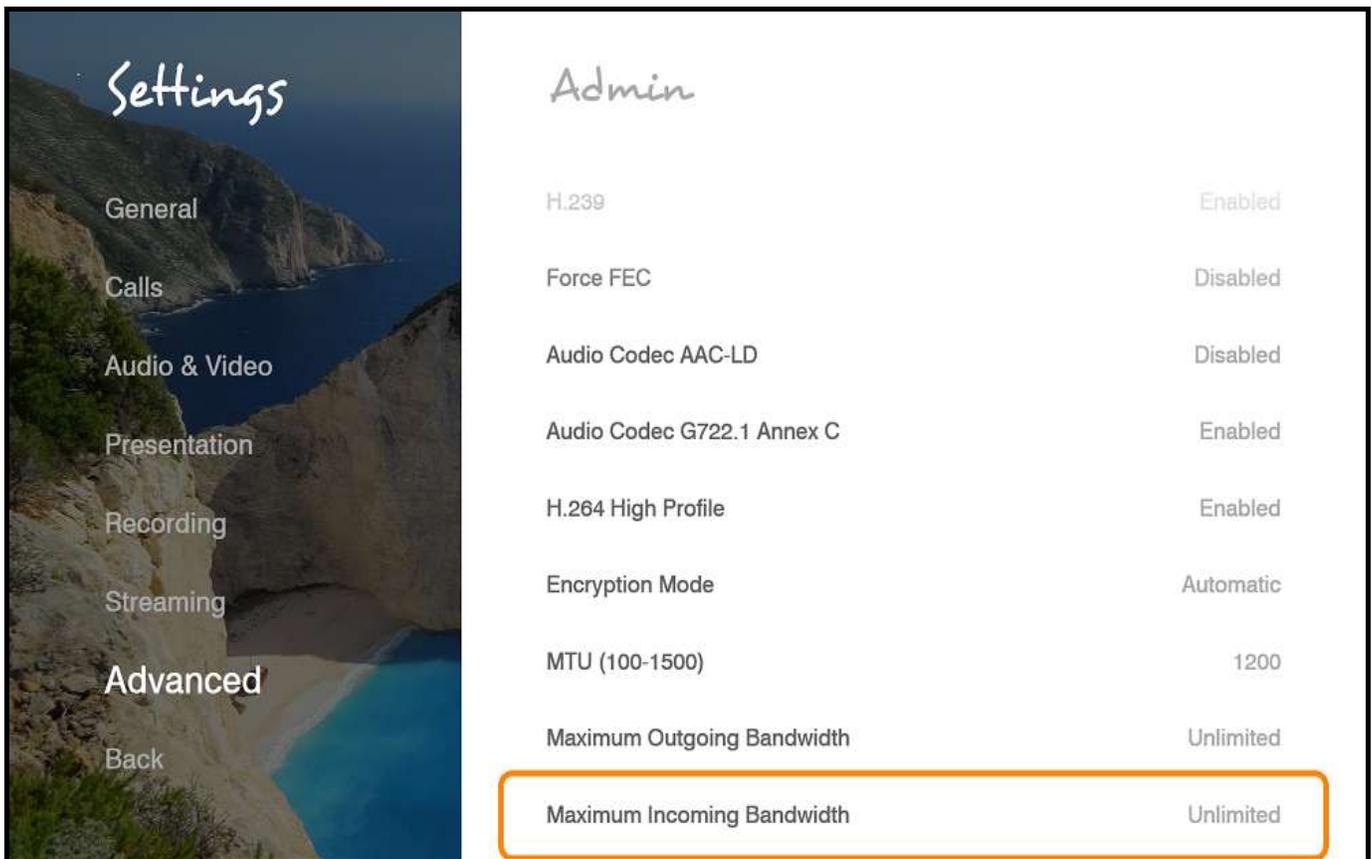
2. In the Admin Settings window, set the following options and parameters.

- **Block Incoming SIP Calls** – Enable to auto reject only incoming SIP calls.
- **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.

   o **Automatic** –The default option; enables encryption automatically.
   o **AES** –An encryption algorithm included in the H.235 security protocol.
   o **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)

PROXY SETTINGS

To configure Proxy Settings:

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

- **Proxy Address** – Proxy server IP
- **Proxy Port** – The port required for the proxy server (proxy mode).
- **Proxy User** – The User Name as configured in the proxy server (proxy mode).
- **Proxy Password** – The user password as configured in the proxy server (proxy mode).

EXCHANGE SETTINGS

This configuration allows you to integrate Exchange server with your Skype For Business

To access Exchange Settings:

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

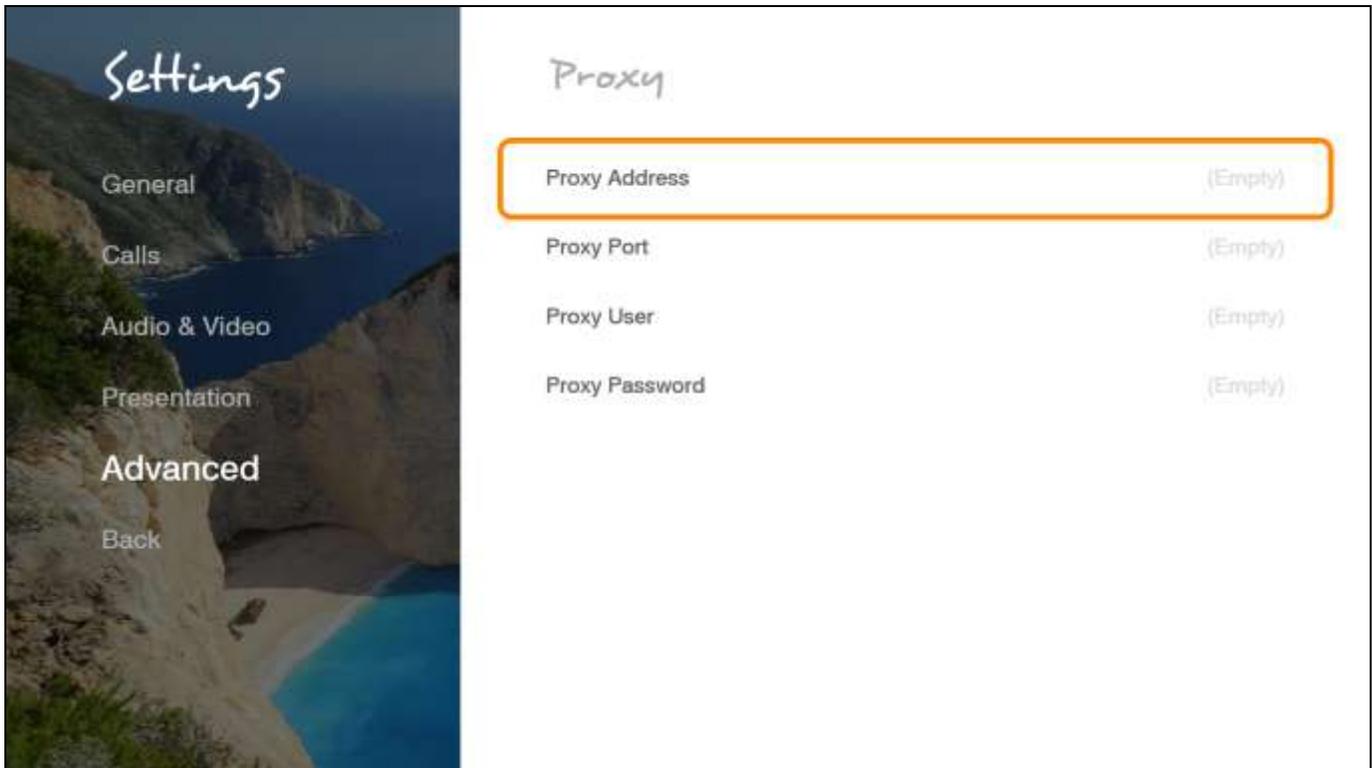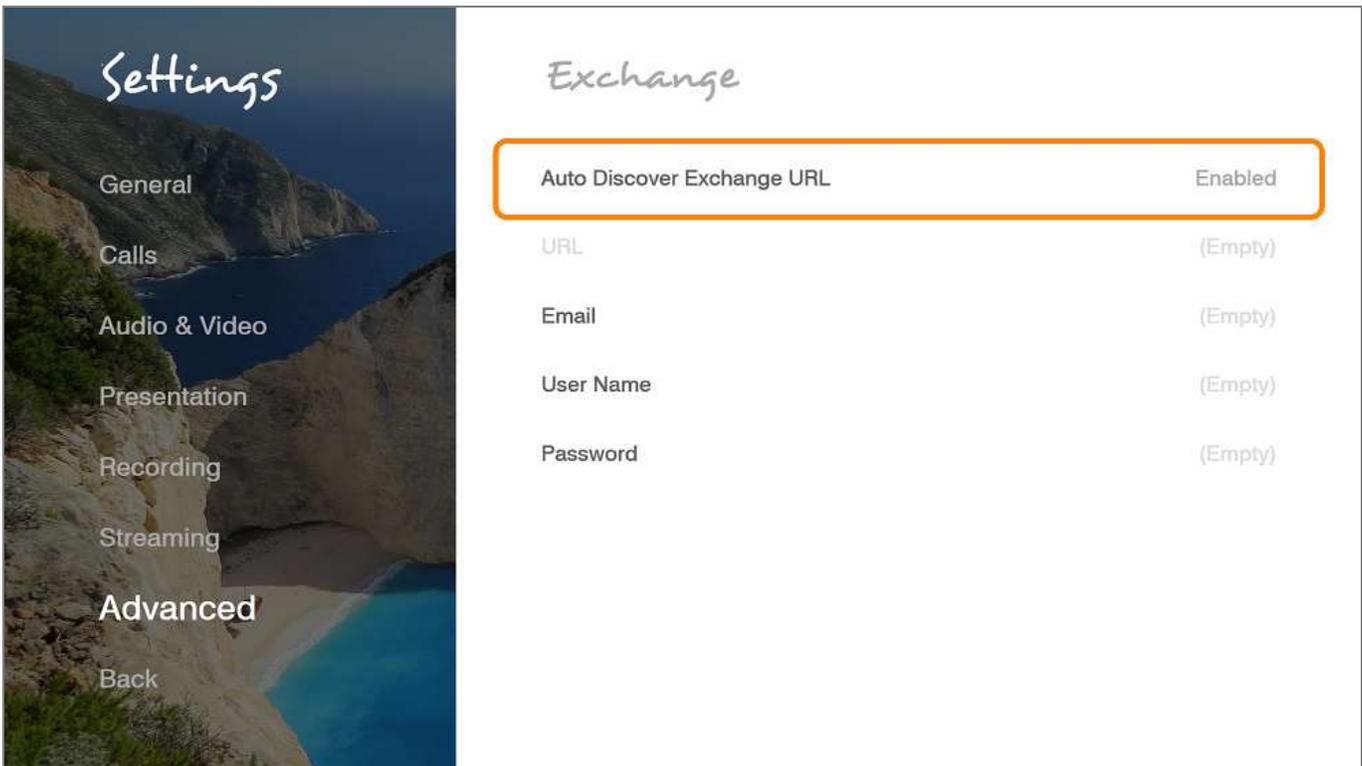2. In the Exchange window, set the following options and parameters:

- **Auto Discover Exchange URL** - Enabling this option would integrating the outlook automatically.
- **Email** - Enter the email address you use to sign in to your organization's network.
- **User Name** – Enter the user name used to log into the organization's network.
- **Password** – Enter the password used to log into the organization's network.

SKYPE FOR BUSINESS SETTINGS

Registering to a Skype for Business server will allow you to join and create Skype for Business cloud-based video conferences according to your permissions.

Note:

Customer must purchase and install a COLLABORATE® Live Skype for Business activation license to enable the Skype for Business feature on the COLLABORATE® Live system. A Skype for Business user License will also be required.

To access the Skype for Business Settings:

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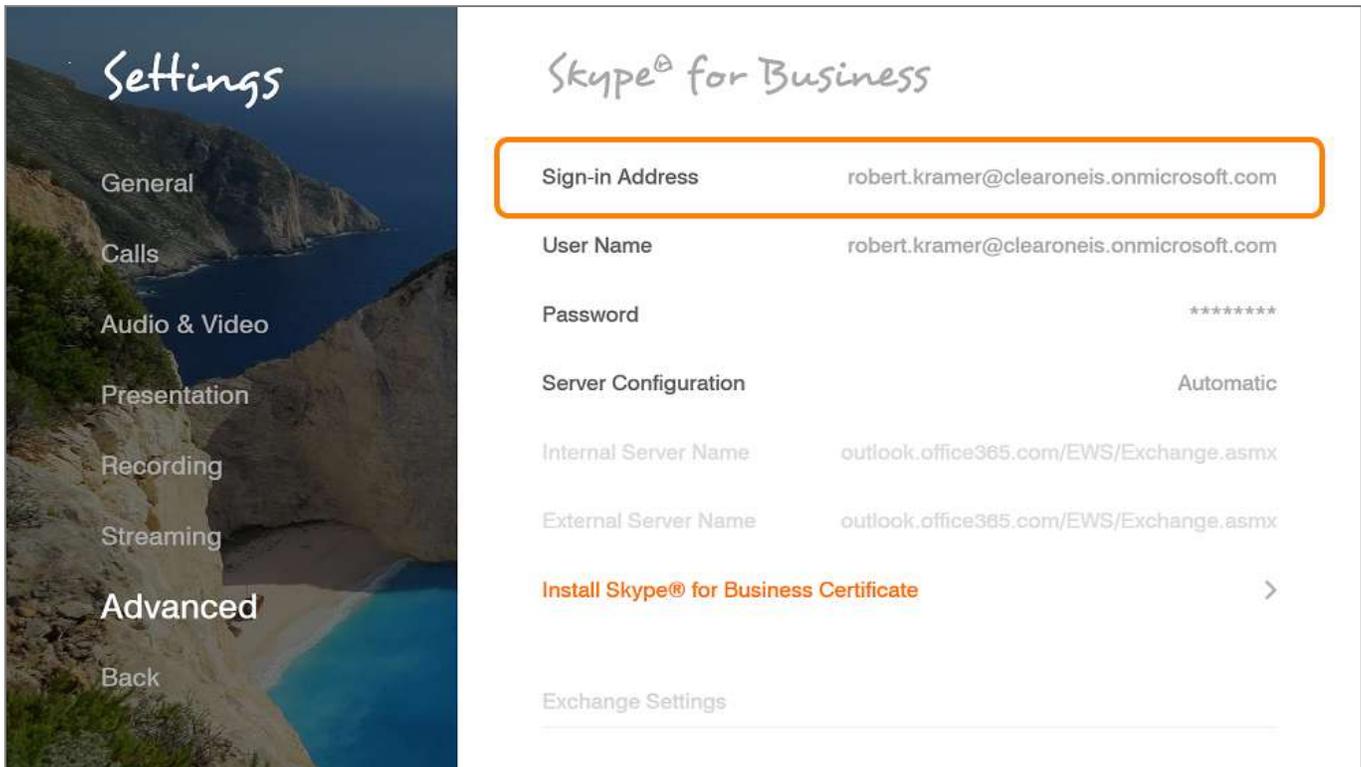
2. In the Skype for Business window, set the following options and parameters:

- **Sign in Address** - Enter the sign in address for your Skype for Business server.
- **User Name** – Enter the user name used to log into the Skype for Business server.
- **Password** – Enter your account password used to log into the Skype for Business   server
- **Automatic Server Configuration** – Chose this option to let the Skype for Business server automatically configure your connection settings
- **Internal Server Name**– Type the FQDN (fully qualified domain name) of your Skype for Business Server.
- **External Server Name**– Type the FQDN (fully qualified domain name) of your Skype for Business Server
- **Install Skype for Business Certificate:** To connect securely to your Skype for Business Server when you're using an on-premises configuration, install the intermediary certificates from your Skype for Business Edge servers. Otherwise, client cannot perform secure connections.

To install the intermediary certificates generated by your Skype for Business server:

1. Press on install button, file selection windows will be opened.
2. Browse to the folder that lists the certificate file.
3. Choose the certificate file
4. Select Install option

Chapter 8: Collaborate Space

IN THIS CHAPTER

COLLABORATE© Space is a cloud video collaboration application that connects hundreds of users joining from any device, anytime, and anywhere using messaging, calling, and meetings.

STARTING / JOINING A SPACE MEETING

You can start or join a Collaborate Space meeting.

Note:

Before joining / starting a space meeting, you must enter a valid server and user details under Settings > Advanced > Space.

1. Click on the Ongoing scheduled meeting icons at the top of the screen to join that scheduled meeting. Future scheduled meetings are also displayed with their start times. Space meeting starts.
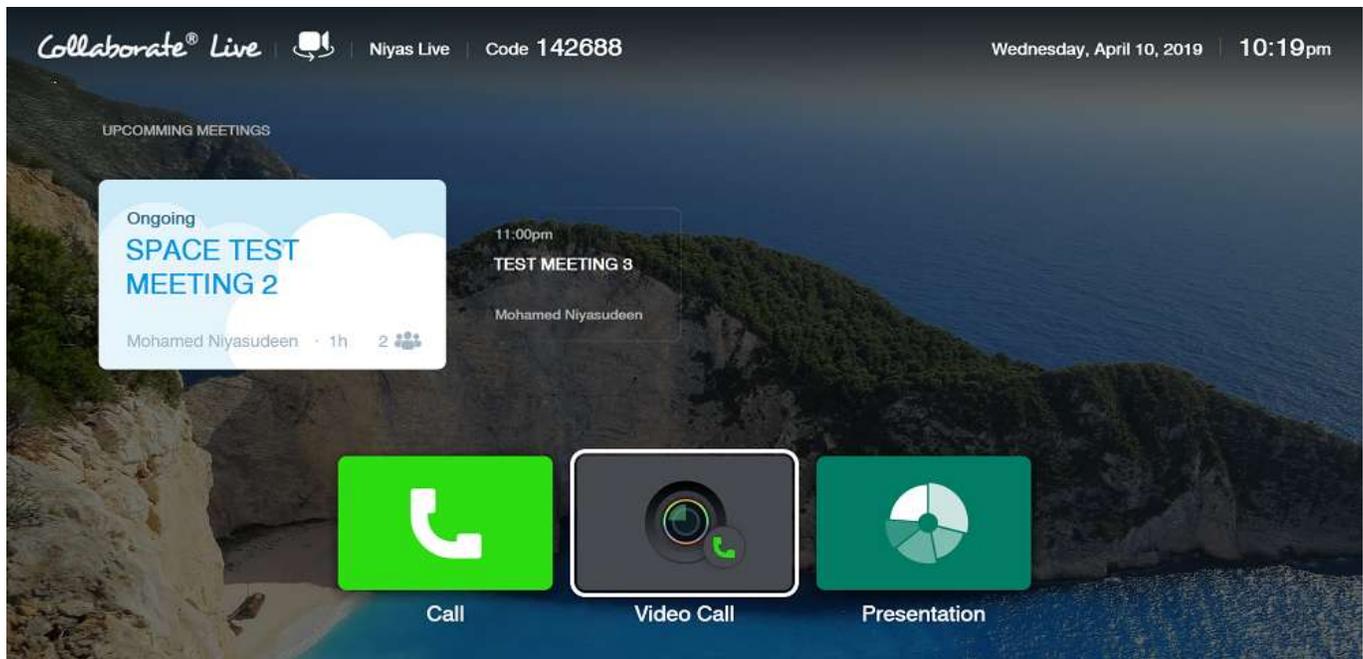
2. To create a new call, click the **Call**, **Video Call** or **Contacts** icons. The Video Call menu opens.
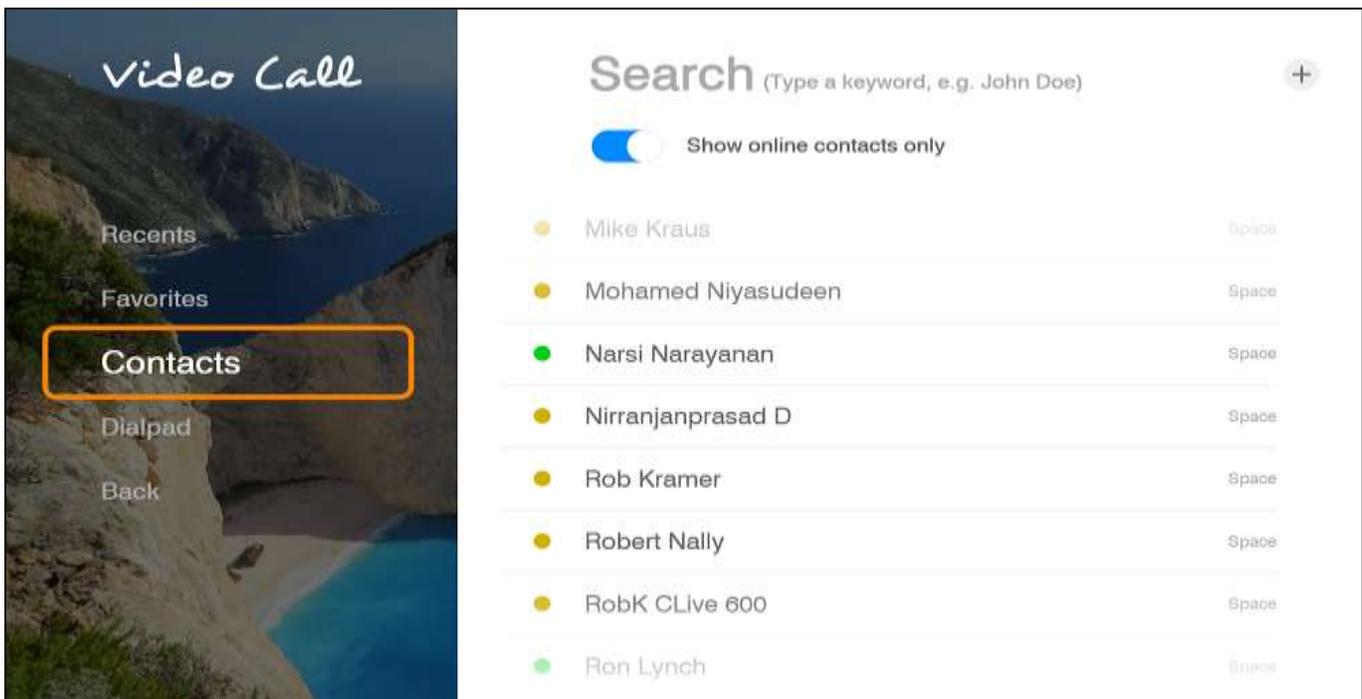
3. Select Online / Away contact and press Dial. Space call appears, as shown below.
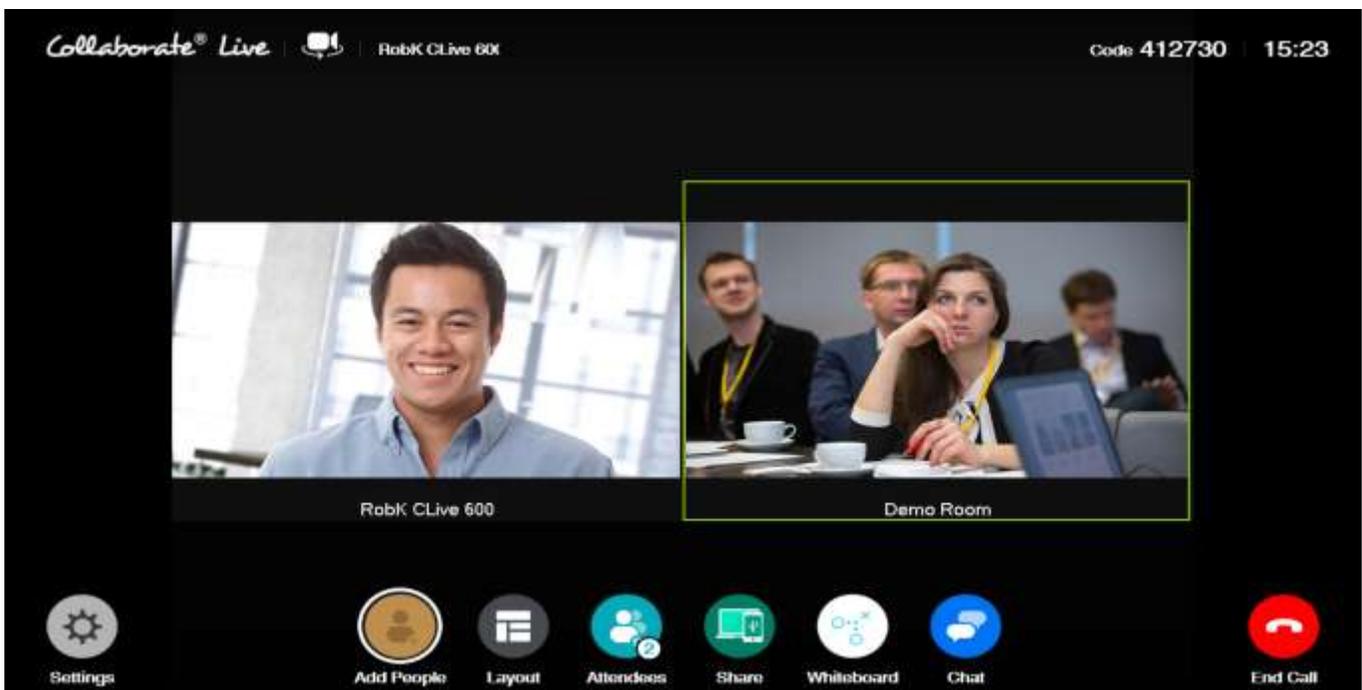
- Add people – Add participants to the meeting / call
- Layout - Choose streaming layout:

    o Vertical – Stream video in top and bottom mode.
    o Horizontal – Stream video in side by side mode.

- Attendees – Shows the list of participants in the meeting / call
- Share - Share video file from USB storage device or share a recording.
- Whiteboard - Graphic space to draw or take notes on a new "canvas".
- Chat – Chat with the attendees

PRESENTATION
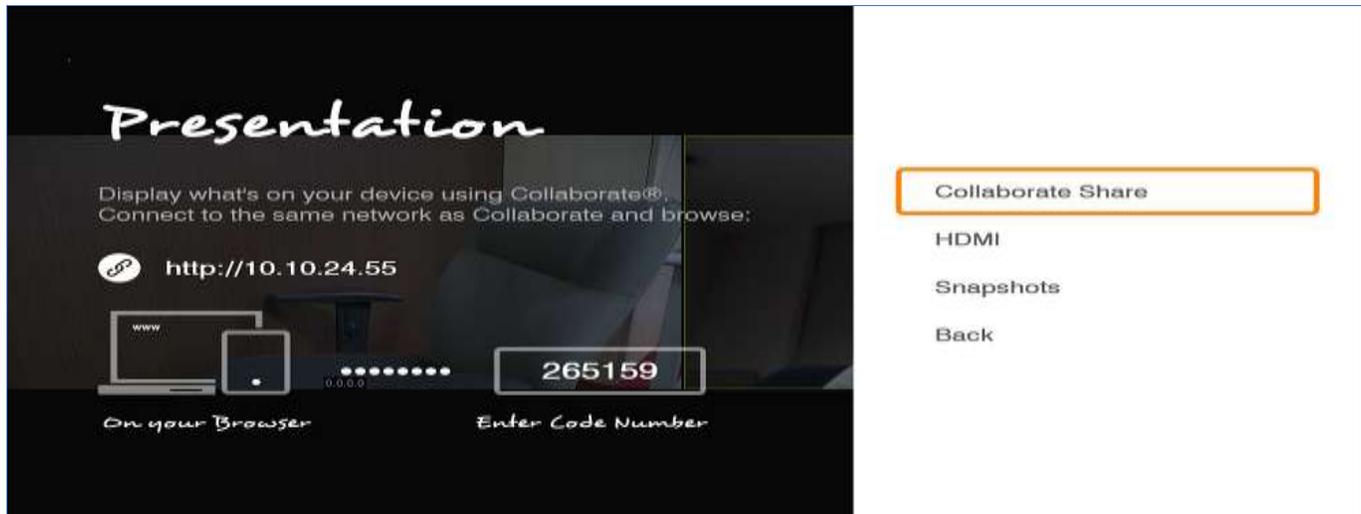
Collaborate Share – Wirelessly share your PC desktop or any open application.

HDMI – share using the DataPoint HD if that option is installed.

Snapshots – Share saved snapshots of your Whiteboard presentations.

END MEETING

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

Chapter 9:   Web Access and Management

IN THIS CHAPTER

This chapter explains how to access COLLABORATE® Live 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® Live 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® LIVE VIA BROWSER

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

To access COLLABORATE® Live via a browser:

1. Open your browser.
2. In the browser's address bar, type the direct IP Address of the COLLABORATE® Live unit. (e.g.: http://172.100.100.25) The COLLABORATE® Live Web login page appears.

Note:

 If you do not know the IP Address of the COLLABORATE® Live unit, request help from a user close to the unit, who can check the unit's IP Address as explained in Displaying System Information.
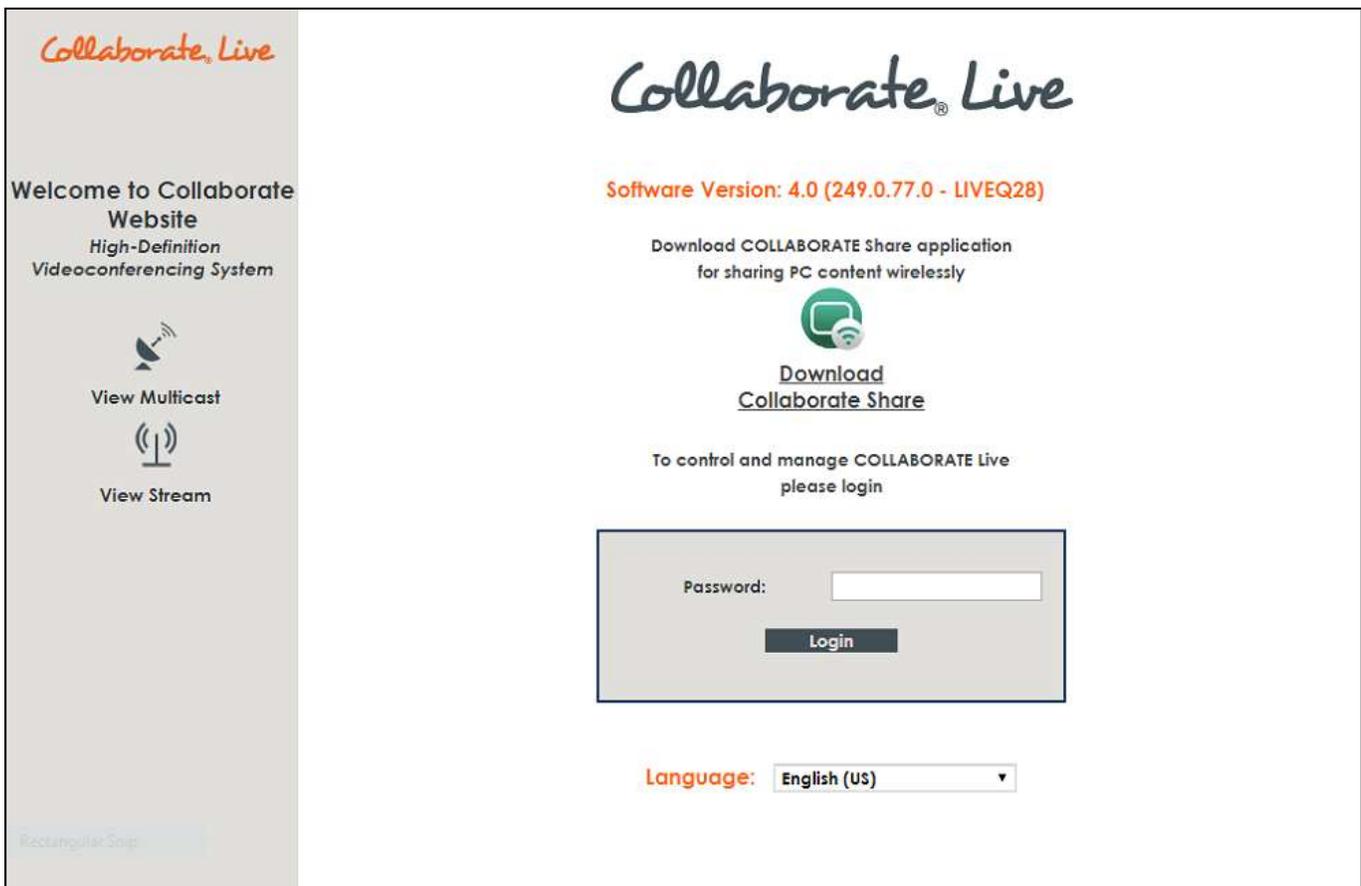
3. If a password was set for Web access (see Administration Settings): in the **Password** field, enter your password for accessing the management options, and then click **Login**.

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 the 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® Live unit. The COLLABORATE® Live Web login page appears.
3. Click Collaborate® Share. The application download starts automatically.

IMPORTING/EXPORTING THE LICENSE

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

To enter and save a license to your COLLABORATE® Live unit:

1. After logging in, click **Maintenance>System License**. The License page appears.
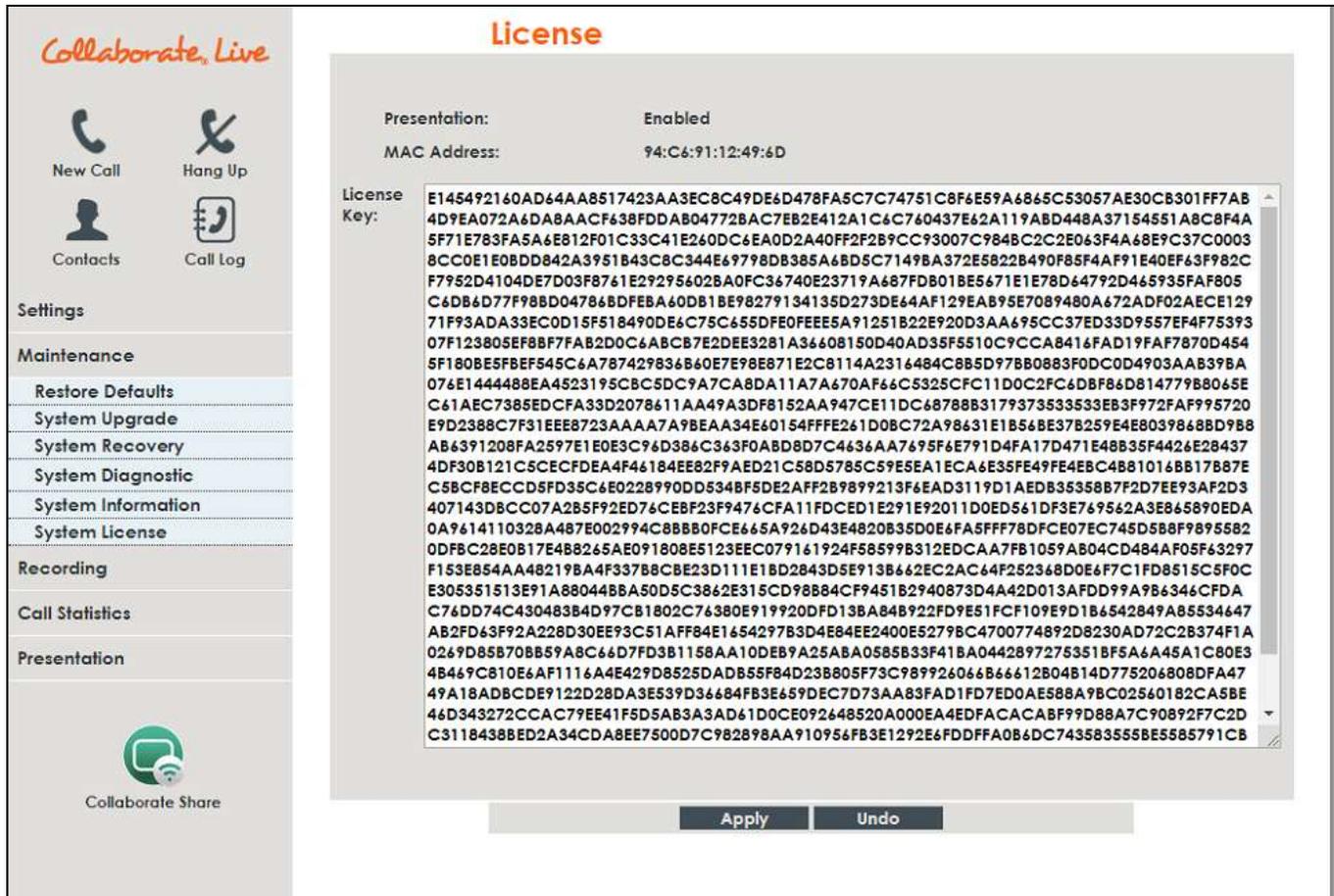
2. Copy and paste the license key (a long text-based string) that you received from ClearOne into the **License Key** text box, and then click **Apply**.

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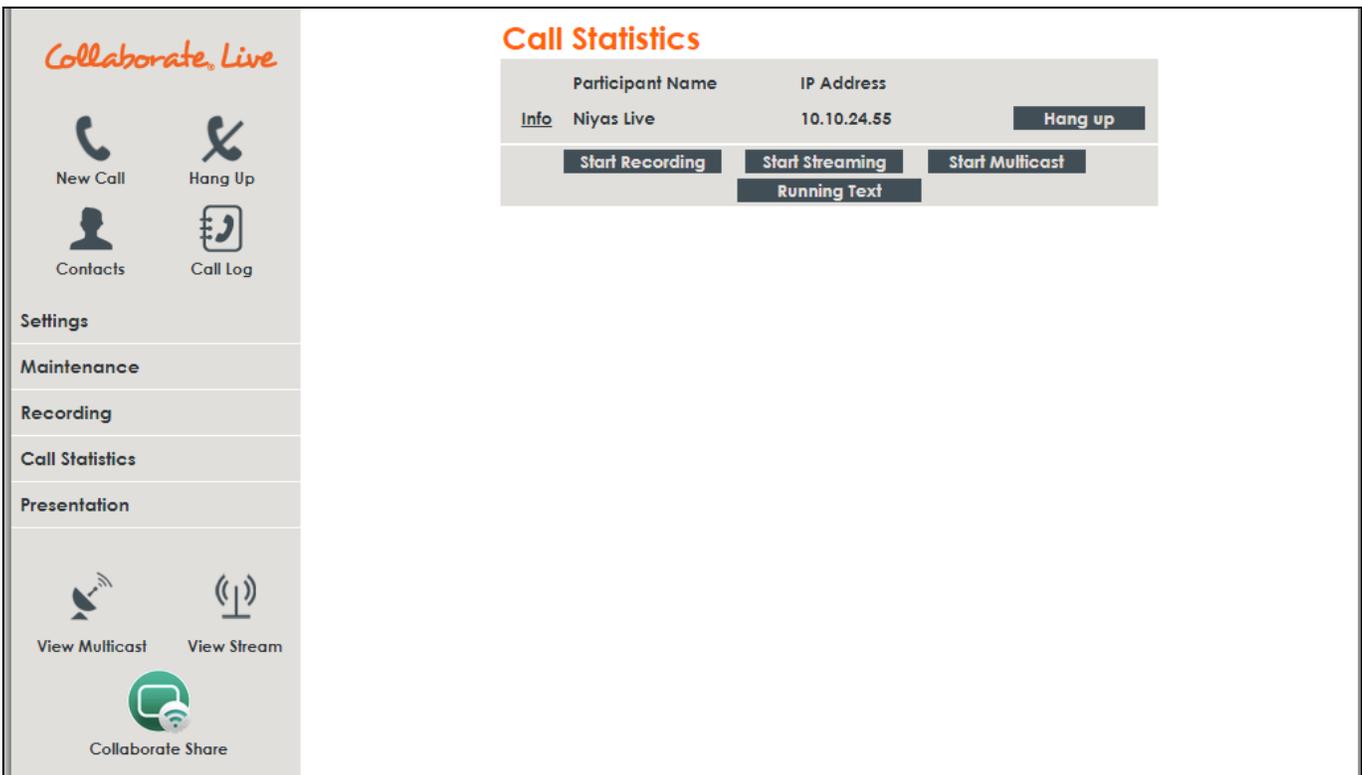
2. Click the **Running Text** button. The Running Text box appears.
3. In the text box, type the message you want to send and display on the far-end screen, and then click **Start**.
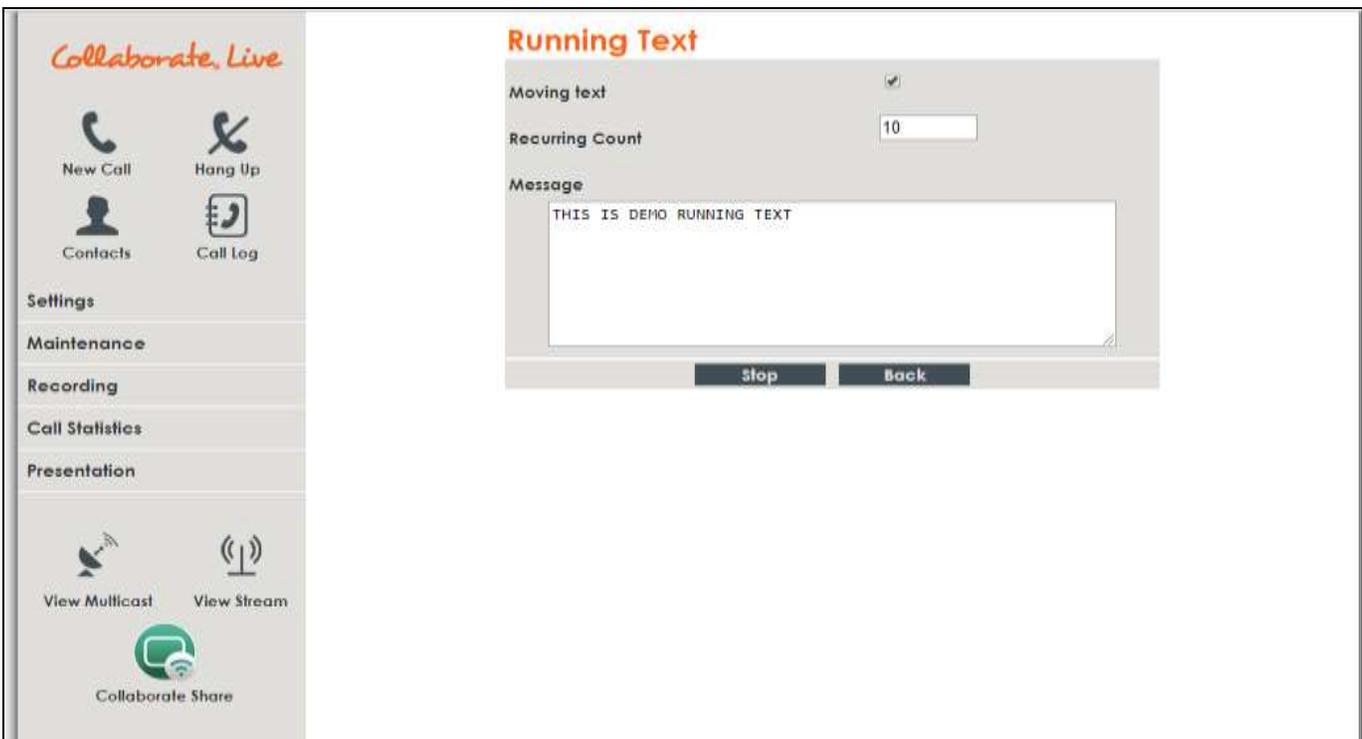
Note:

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

VIEWING CALL STATUS WITH THE WEB-BASED GUI

During a call, you can view and check the technical details of the call with the Web-based GUI. To view the call status details:

- During a call, click on the **Call Statistics** link on the left side of the web interface to view the Call View box as shown below:

If you click on the **Info** link on the left side of the Call Statistics window, detailed call information displays.
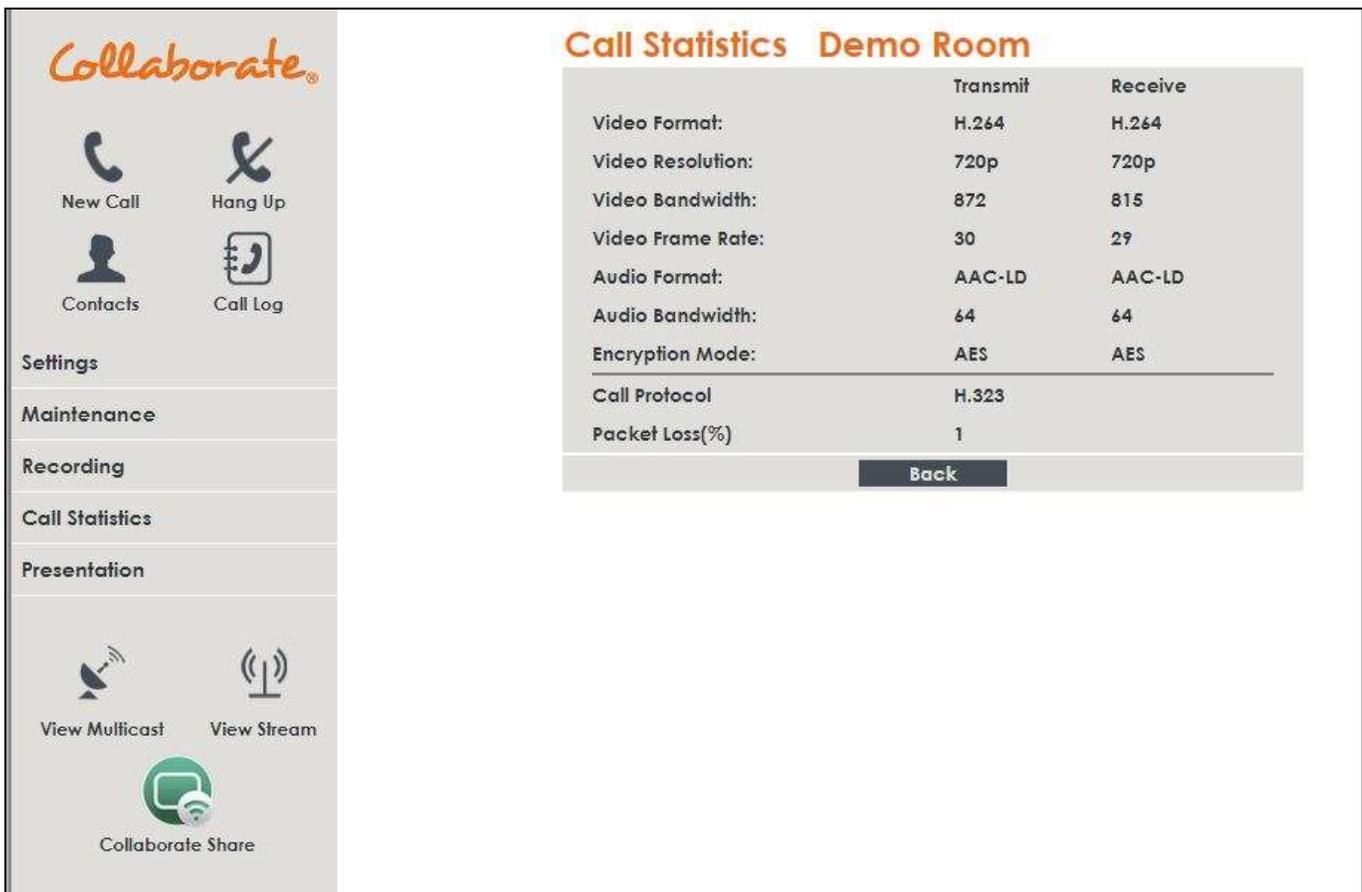
The image above confirms the Call Protocol, Video and Audio formats, Video resolution and frame rate, Audio and Video bandwidth, Encryption Mode, and Packet Loss details.

PERFORMING SYSTEM UPGRADE

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

To upgrade the COLLABORATE® Live 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® Live configuration. It is recommended to take backup snapshots every time a configuration change is made.

1. After logging in, click Maintenance>System Recovery. The system reboots and a Backup/Restore screen appears.
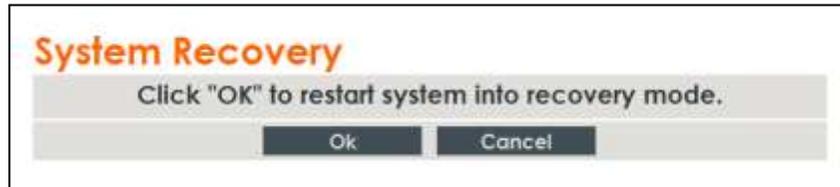
2. Select the **Backup** option. The **Backup** screen appears.
3. Using the remote control to enter letters and numbers, enter the **Backup name.**
4. Click **Create** to create the backup file of the configuration.
5. Press **Exit.**
6. Reboot the system by pressing the **power** button for 3 seconds, 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® Live 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® Live unit (e.g.: http://172.100.100.25). The COLLABORATE® Live web login page appears.
3. After logging in, click **Maintenance>System Recovery.** The system reboots and the **Recovery** menu appears.

Note:

All information on the system including user information, Contacts entries, IP settings and all other user defined information will be deleted.

After restoring the system to its factory defaults, it may be necessary to perform a system upgrade.

4. Select the **Restore** button. The **Restore** screen appears.

5. Select the backup configuration file you want to restore.
6. Press **Restore**.
7. Reboot the system by pressing the **power** button for 3 seconds, then press the **power** button again in order to turn on the system.
8. 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® Live unit to settings delivered via FTP:

1. After logging in, click Maintenance>System Recovery. The system reboots and the **Recovery** menu appears.

Note:

All information on the system including user information, Contacts entries, IP and all other user defined information will be deleted.

After restoring the system to its factory defaults, it may be necessary to perform a system upgrade.

2. Select the **FTP Updates** button. The **FTP Updates** screen will appear.
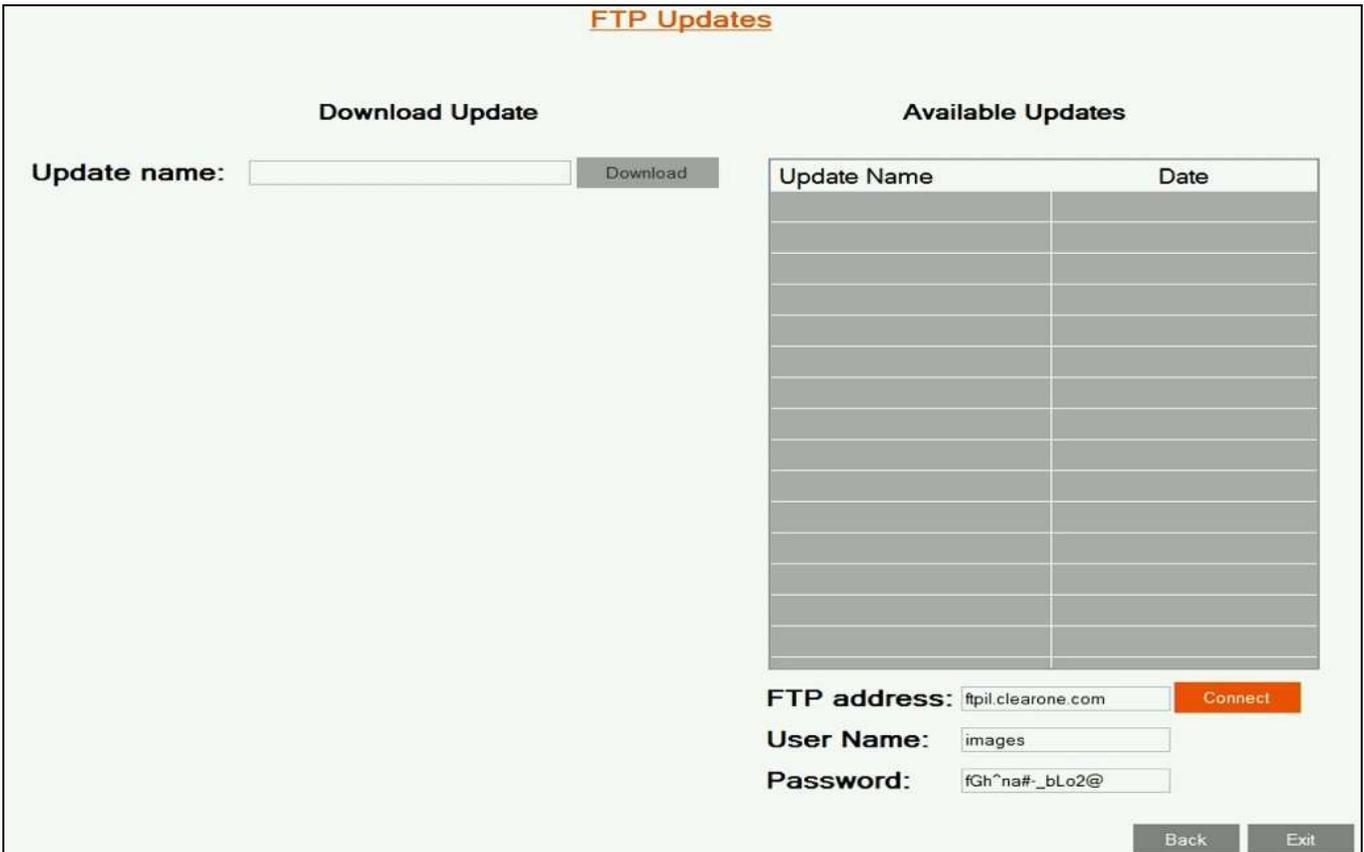
3. Enter the FTP server details including **FTP Address**, **User Name** and **Password**, and click the **Connect** button.

4. Select the file from the listing, and then click on the **Download** button.
5. Once the download is completed, press on the **Back** button.
6. 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 your 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 10:   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>Advanced>Security.
2. Check that the Telnet Interface is Enabled, and create a Telnet Interface Password.

DESCRIPTIONS OF THE TELNET API (COLLABORATE® LIVE)

Key	Description	Arguments	Example
Accept	Accept incoming call	—	accept
callinfo	Request call information details use sessions command to get ID	SessionID: Valid session ID number	callinfo 1
camerahome	Return PTZ camera to default position	—	camerahome
cameralist	Return list of available video devices	—	cameralist
camerapos	Save or restore camera position from preset	Action: save, restore position: 1-9	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 farend: local,remote	camerastart u camerastart u remote camerastart ul

Key	Description	Arguments	Example
camerastop	Stop camera movement	Direction: spt – stop pan tilt sz – stop zoom farend: local, remote	camerastop sz camerastop sz remote
change_camera	Set current camera by index (call cameralist for list of available devices)	Index:1-9	change_camera 1
changewirelesslayout	Change wireless layout while wireless is being shared.	Parameter: auto single preview	changewirelesslayout single
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
dialcontact	Dial H.323 and SIP contacts Use listcontacts command for a numbered contact list	Contact ID	dialcontact 2
dialsfbcontact	Dial Skype for Business contacts	Contact ID	dialsfbcontact 30 audio

Key	Description	Arguments	Example
	Use listsfbcontacts command for a numbered contact list	Calltype: audio, video	
dialspacecontact	Dial Collaborate Space contacts Use listspacecontacts command for a numbered contact list	Contact ID Calltype: audio, video	dialspacecontact 14 video
donotdisturb	Start or stop do not disturb mode.	Parameter: enable disable	donotdisturb enable
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 35667344 dtmf 111 123433#5*
dtmf2all	Send DTMF tone to all active calls	DTMF: DTMF tone sequence	dtmf2all 35667344 dtmf2all 123433#5*
get	Get parameter value	Parameter: mic volume	get mic get volume

Key	Description	Arguments	Example
		speaker	
		license	get autoanswer
		autoanswer	
hangup	Hanging up session	—	hangup
help	Displays all telnet commands and notifications.	—	help
listcontacts	Lists H.323 and SIP contacts	—	listcontacts
listsfbcontacts	Lists Skype for Business contacts	—	listsfbcontacts
listspacecontacts	Lists Collaborate Space contacts	—	listspacecontacts
multicast	Start or stop media activity.	Parameter: start stop	multicast start multicast stop
nextsender	When more than one sender is shared in preview or single layout, change between main senders.	—	nextsender
recording	Start or stop media activity.	Parameter: start stop	recording start recording stop
reject	Rejecting incoming call	—	reject
remotecontrol	Commit a remote control command	1 Status 2 Data 3 Phone Book	remotecontrol 1

Key	Description	Arguments	Example
		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	

Key	Description	Arguments	Example
		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	
restart	restarts the unit.	—	restart
rssmessage	Send RSS message to all participants	usage: rssmessage <text> <speed> <count> <start> text -	rssmessage message 200 1 true

Key	Description	Arguments	Example
		speed - count - start - true,false	
sessions	Display all active sessions and their sessions ID	—	sessions
set	Set parameter value	Parameter: Mic Volume Speaker autoanswer	set mic on set volume 5 set autoanswer on
sfbparticipants	Shows numbered participant list while in a Skype for Business call	—	sfbparticipants
sharehdmi1 / sharehdmi2	Start sharing HDMI content depending on connected devices.	Parameter: Start Stop	sharehdmi2 start
sharelaptop	Share DataPoint when it is connected to the unit.	Parameter: Start Stop	sharelaptop start

Key	Description	Arguments	Example
sharewireless	Start wireless sharing when there is at least 1 sender connected to the unit.	Parameter: Start Stop	sharewireless start
shutdown	Shutdown the system Note: the unit can only be powered back up by pressing the power button on the unit.	—	Shutdown
streaming	Start or stop media activity.	Parameter: Start Stop	streaming start streaming stop
whiteboard		Parameter: Start Stop	whiteboard start

Chapter 11: Specifications

The following are the COLLABORATE® Live 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)
Video Frame Rate	☐ Up to 10 fps: 96 Kbps
Video Outputs	☐ HDMI
Audio Specifications	
Audio Features	☐ Full-duplex echo cancellation
Audio Standards	☐ 20 KHz: AAC-LD ☐ 7 KHz: G.722, G.722.1
Data Specifications	☐ DataPoint

HD Dual Stream	☐ Sharing of DataPoint input ☐ H.239 support ☐ Sending and receiving capability
Display	☐ Single – Display port or 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
Security	☐ Encryption using H.235 (AES) ☐ Search and filter packet ordering ☐ Packet duplication
Directory Services	☐ 1000+ local number directory ☐ 10,000+ global number directory ☐ H.350 support (COLLABORATE® Central mode)

Environmental	☐ 0 - 40°C temperature
	
	☐ 15 - 80% humidity
	
	☐ Universal Power Supply:
	    o Input 100~240VAC@1.8A
	    o Frequency 50/60 Hz

Language Support	English, French, German, Spanish Italian, Russian, Chinese (traditional and simplified), Japanese and Korean

Chapter 12: Network Requirements

IN THIS CHAPTER

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

SYSTEM PLACED IN THE 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® Live is connected behind a 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 :

   Ports to open when using H.323 calls:

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

   Ports to open when using SIP calls:

   - 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 using Space:

   - 443 TCP
   - 6000-6100 UDP
   - 5222 TCP (Presence)

Ports to open when using Collaborate share:

- 9050 TCP
- 9051 TCP
- 56789 TCP
- 56987 TCP
- 2203
- 9052 – 9058 UDP

2. Network Address Translation (NAT):

The NAT address can be configured in the COLLABORATE® Live in the **Settings>Advanced>Network** menu. The NAT mode can be configured to Disabled, Manual, or Automatic. Configure the system IP in the Broadband Router DMZ host.

3. Firewall Traversal server:

The COLLABORATE® Live 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).

Use the **Settings>Advanced>H.323 menu** 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 Tunnelling.