

*Webex Calling Configuration Guide: SIP Enabled
Call Buttons*

Document Part #931945A

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**Webex Calling Configuration Guide: SIP Call Button
Document #931945A**

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Revision Information

6/29/2022 – Initial Release

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1.0 Supported CyberData Products

This section describes the products used for interoperability testing with Webex Calling.

Table 1-1: Supported CyberData Products

EQUIPMENT	MODEL or PART NUMBER	FIRMWARE VERSION
CYBERDATA SIP CALL BUTTON	011049	20.4.1
CYBERDATA SIP OUTDOOR CALL BUTTON	011491	20.4.1

2.0 Before You Start

Network Advisories

Webex Calling uses a Fully Qualified Domain Name (FQDN) for the SIP server and Outbound Proxy addresses. The CyberData call button needs to perform a DNS query to resolve the IP address of Webex's Outbound Proxy FQDN.

In addition, be sure to verify the following ports are available for the button to use:

- TCP 5060, 5061 (SIP)
- UDP 10500 (RTP)

The button will need to traverse the public internet in order to operate with Webex Calling in the cloud.

The button's paging and Nightringer extension uses SIP port 5060 to send and receive SIP messages.

SIP ports 5060 and RTP port 10500 are the default values on all noted firmware levels. Alternatively, SIP ports are configurable on the **SIP** page of the web interface. The RTP port setting on the **SIP** page is used for both extensions.

Product Documentation and Utilities

Before you start, download the Operation and Quick Start guides from the button's product webpage:

SIP Call Button:

<https://www.cyberdata.net/collections/sip/products/011049>

SIP Outdoor Call Button:

<https://www.cyberdata.net/collections/sip/products/011491>

The CyberData Discovery Utility can be used to locate CyberData devices on your network. You may download it from the following web address:

<https://www.cyberdata.net/pages/discovery>

Note: DHCP addressing mode is enabled on default on all noted firmware levels.

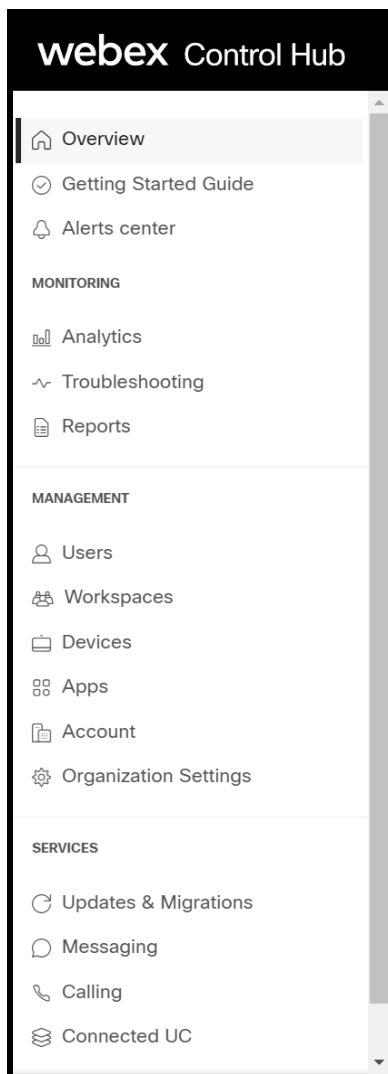
3.0 Setting up a Workspace in Webex Calling

This section outlines how to create a Webex Calling user in the Webex Control Hub (CH). This will provide the credentials to then setup the CyberData device.

[Cisco has detailed instructions in the Cisco Webex Help Center in the Add your customer managed device article.](#)

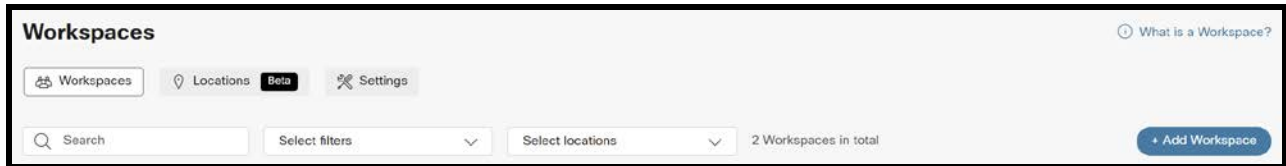
1. Login to [Webex Control Hub as the administrator](#).
2. From the overview page select **Workspaces**.

Figure 3-1: Overview Side Bar



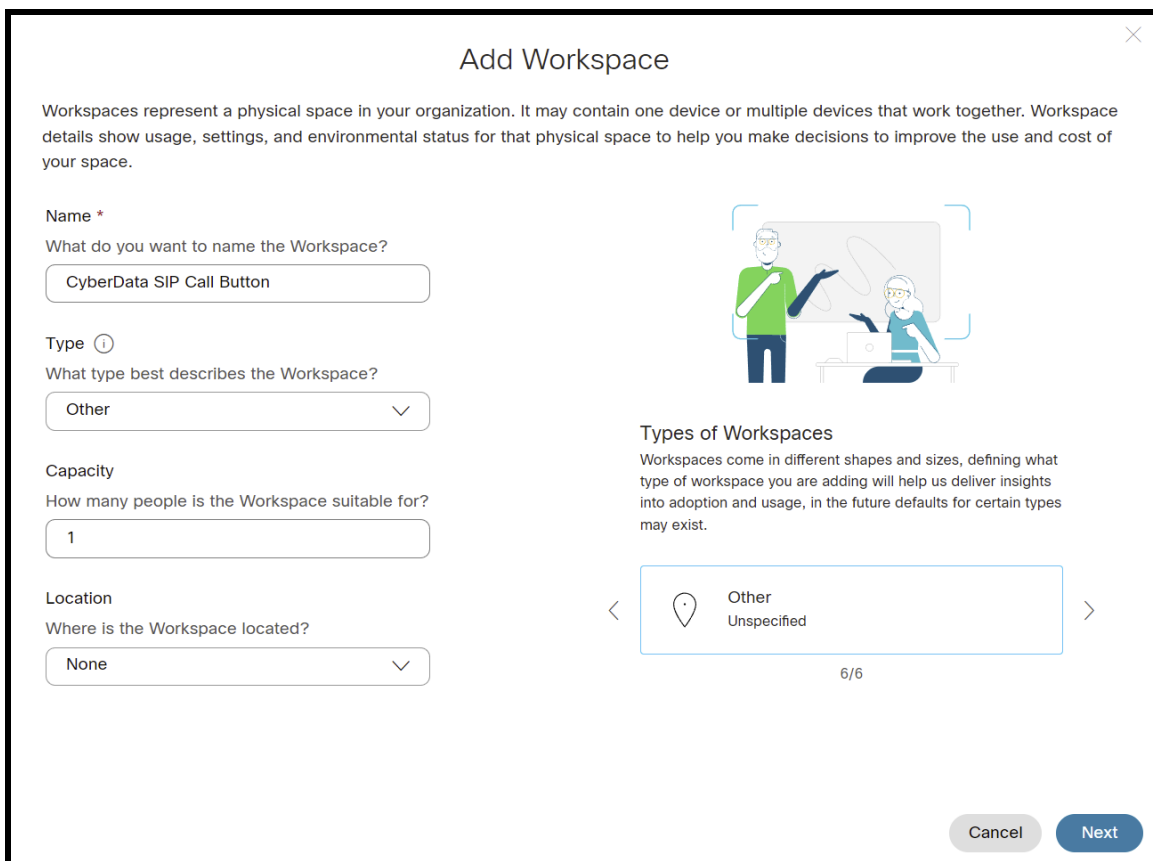
- From the Workspaces page select the **Add Workspace** button.

Figure 3-2: Workspaces Page



- On the Add Workspace popup create a Workspace for the button.

Figure 3-3: Create a Workspace



5. After creating the workspace select **Cisco IP Phone**.

Figure 3-4: Pick a device

Add Workspace

What kind of device do you want to set up in this workspace?

Room, Board or Desk series
e.g. Cisco Webex Board, Room, and Desk series, and Webex Share.

Cisco IP Phone
e.g. Cisco 8845, 8865, 8800 and Analog Telephone Adapter ports

Select Device
Customer Managed Device

Device Vendor
Cyberdata Customer Managed

Enter MAC Address
Enter the MAC address of the IP phone you want to add.
0020f703f94e

*I confirm that creating this device profile will expose sensitive device credentials that could be misused and exploited by users with unauthorized access. You are responsible for securing and recycling these credentials. You agree that Cisco is not responsible for any fraudulent charges or phone calls that result from the exposure of these device credentials. Cisco offers limited support for third-party devices connected via this interface. Cisco will only investigate basic issues for third-party devices that are actively registered to the Webex Calling platform. Any other third-party device-related support issues should be directed to the third-party device vendor, including issues related to onboarding, deployment, configuration, or connectivity.

Back Next

6. Set the device to **Customer Managed Device**.
7. Select **CyberData Customer Managed** as the Device Vender.
8. Enter the MAC address of the CyberData device.
9. Check the box to confirm authorization.
10. Press **Next** to continue.

Figure 3-5: Set an Extension Number

Add Workspace

Assign numbers
Choose from the available phone numbers and extensions in the drop-down lists. These will become the primary line which you can use to reach this place.

Reset

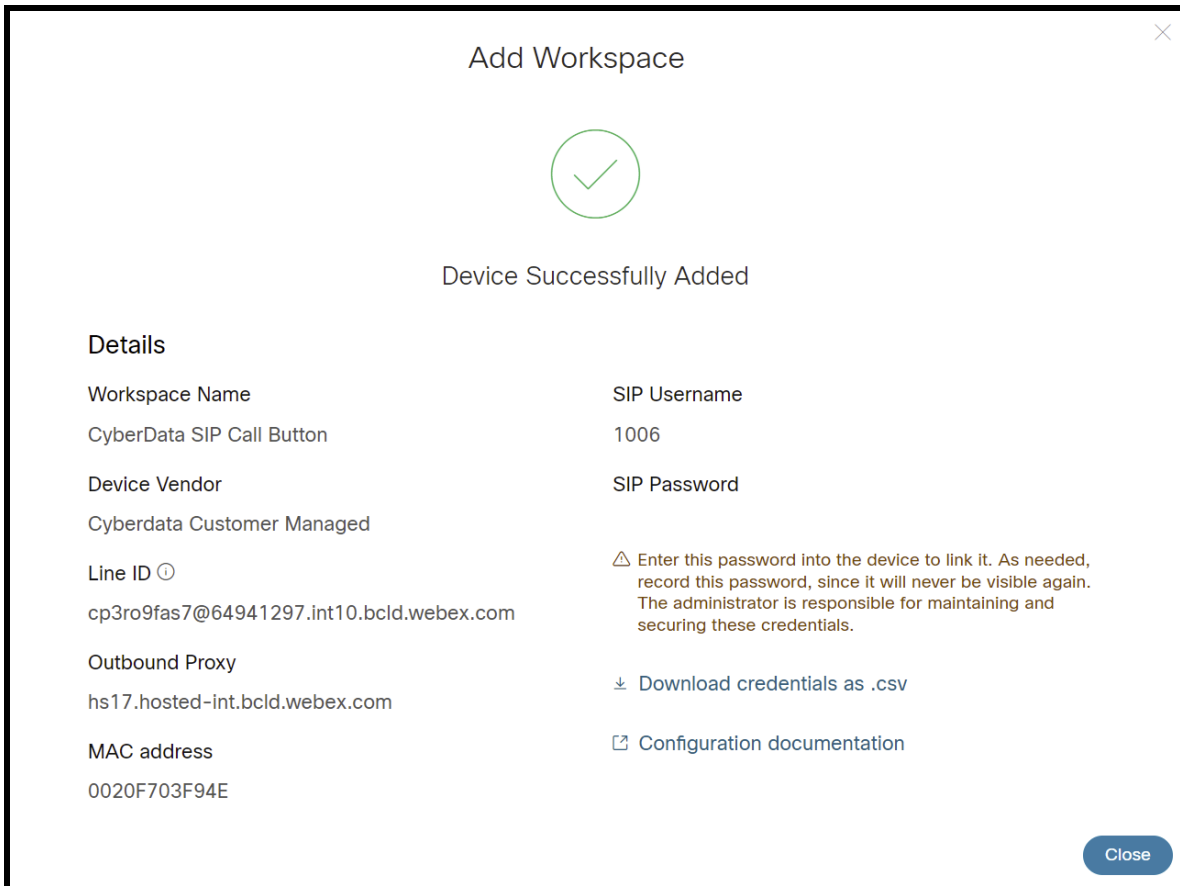
User	Location	Phone Number	Extension	Calling Plan
CyberData SIP Call Button	CyberData_Test	None	1006	

Back Save

11. Set a location for the device.
12. If desired set a phone number for the device.
13. Set an Extension Number for the device

Note: It is possible to create a workspace with both a phone number and extension number, or just one or the other. Depending on the nature of the use case set the numbers accordingly.

Figure 3-6: Device Successfully Added



Note: The password has been obscured.

11. Make sure to press **Download credentials as .csv** because this page is only shown once.

4.0 Setting up a CyberData Call Button

This section outlines the required sections for the CyberData device and how the credentials supplied from Webex correlate to the CyberData settings.

Table 4-1: SIP Credential Explanation

Webex Calling Credential	CyberData Setting
2 nd Half of Line ID	Primary SIP Server
1 st Half of Line ID	Primary SIP User ID
SIP Username	Primary SIP Auth ID
SIP Password	Primary SIP Auth Password
Outbound Proxy	Outbound Proxy

Note: CyberData devices do not support ‘Line IDs’ and the ID provided by Webex must be broken up to be used by the CyberData device. Webex provides the line ID in the following format: “UserID@SIP_Server_Address”. Everything before the @ symbol is used as CyberData’s Primary SIP User ID and everything after the @ symbol is used as the Primary SIP Server.

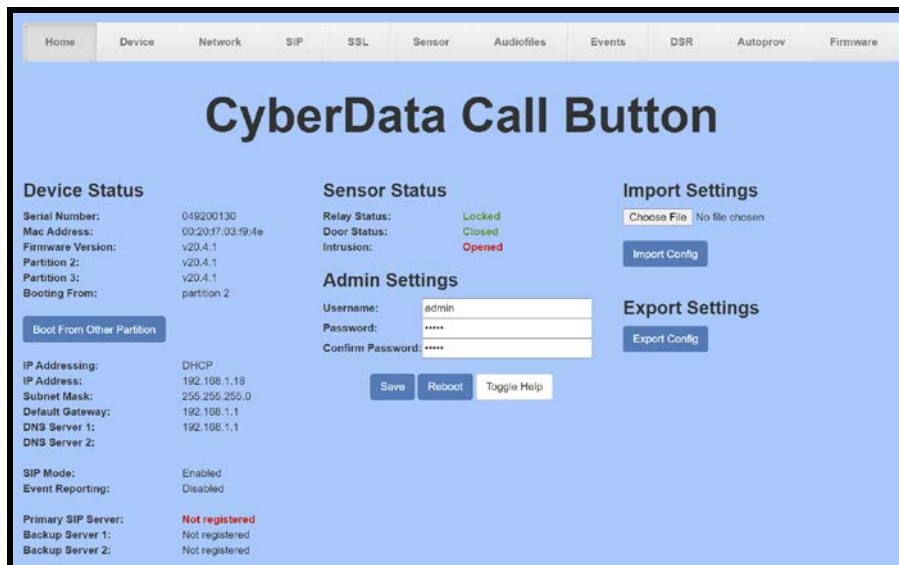
CyberData’s default login credentials are:

Username: admin

Password: admin

1. Log into the web interface of the CyberData device.

Figure 4-1: Home Tab



2. Navigate to the SIP tab.
3. Set the **Primary SIP Server** field to the 2nd half of the Line ID.
4. Set the **Primary SIP User ID** to the 1st half of the Line ID.

Note: Do not add an @ to SIP Server or User ID.

5. Set the **Primary SIP Auth ID** to the Extension Number.
6. Set the **Primary SIP Auth Password** to the SIP Password.
7. Set the **Outbound Proxy** to the Outbound Proxy.
8. Leave the **Outbound Proxy port** set to 0.
9. Set the **SIP Transport** to TLS.
10. Ensure **TLS Version** is set to **1.2 Only (Recommended)**.
11. Set RTP Encryption to **Mandatory**.
12. Save and Reboot.

Figure 4-2: SIP Tab

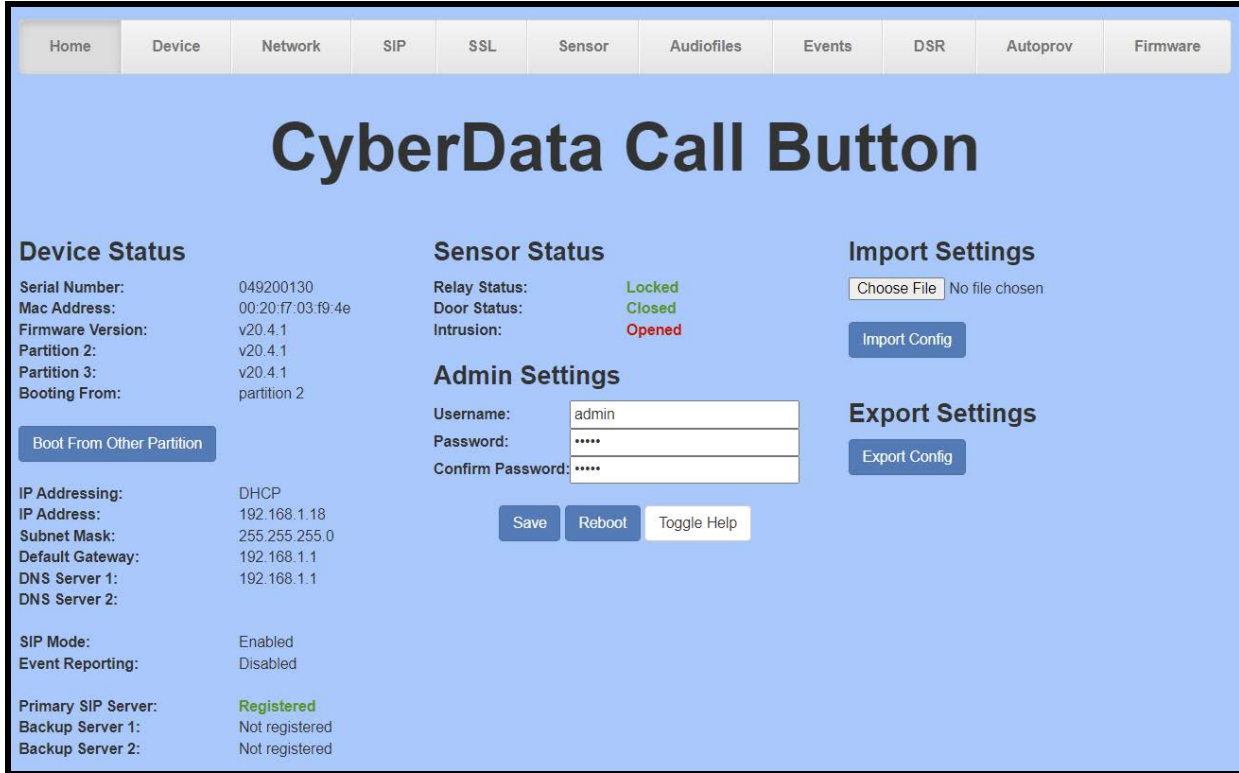
The screenshot shows the 'SIP' configuration page for a CyberData Call Button. The page is titled 'CyberData Call Button' and has a navigation bar with tabs: Home, Device, Network, SIP (selected), SSL, Sensor, Audiofiles, Events, DSR, Autopro, Firmware. The main content is divided into several sections:

- SIP Settings:**
 - Enable SIP operation:
 - Register with a SIP Server:
 - Primary SIP Server: 64941297.int10.bcld.webex.com
 - Primary SIP User ID: cp3ro9fas7
 - Primary SIP Auth ID: 1006
 - Primary SIP Auth Password:
 - Re-registration Interval (in seconds): 360
 - Backup SIP Server 1: Host or IP address
 - Backup SIP User ID: User ID
 - Backup SIP Auth ID: Auth ID
 - Backup SIP Auth Password: Password
 - Re-registration Interval (in seconds): 360
 - Backup SIP Server 2: Host or IP address
 - Backup SIP User ID: User ID
 - Backup SIP Auth ID: Auth ID
 - Backup SIP Auth Password: Password
 - Re-registration Interval (in seconds): 360
 - Remote SIP Port: 5060
 - Local SIP Port: 5060
 - SIP Transport Protocol: TLS NTP enabled
 - TLS Version: 1.2 only (recommended)
 - Verify Server Certificate:
 - Outbound Proxy: hs17.hosted-int.bcld.webex.com
 - Outbound Proxy Port: 0
 - Use Cisco SRST:
 - Disable rport Discovery:
 - Unregister on Boot:
 - Keep Alive Period: 10000
- Dial Out Settings:**
 - Dial out Extension: 1001
 - Extension ID: CyberData SIP Call Button
 - Send Multicast Audio:
 - Multicast Address: 224.5.5.5
 - Multicast Port: 5050
 - Repeat Message: 1
- Call Disconnection:**
 - Terminate Call after delay: 0
- Audio Codec Selection:**
 - Codec: Auto Select
- RTP Settings:**
 - RTP Port (even): 10500
 - Asymmetric RTP:
 - Jitter Buffer: 50
 - RTP Encryption (SRTP): Mandatory

At the bottom of the page, there are three buttons: Save, Reboot, and Toggle Help.

If the credentials have been entered correctly the device should now be registered with Webex. This can be verified on the home tab of the web interface or on the Webex site.

Figure 4-3: Home Tab – Registered



5.0 Using the CyberData Call Button in a Webex Calling system.

CyberData Call Buttons are used for notification. When the button is depressed the call button can call a predetermined number and play a preloaded audiofile. It can also send multicast across the local area network simultaneously.

5.1 Setting the Dialout Extension

Once the button is registered with Webex Calling, the “Dial out Extension” will need to be set for the device to call a number when the call button has been pressed. This number can be either a direct extension, hunt group, call queue, or a direct phone number.

1. After Logging into the device go to the **SIP** Tab.
2. On the SIP Tab set the Dial out Extension to the address you want the device to call.
3. The Extension ID of the call button is what should appear as the caller ID to the Recipient.

Figure 5-1: Set the Dial out Extension

Dial Out Settings	
Dial out Extension:	1001
Extension ID:	CyberData SIP Call Button
Send Multicast Audio:	<input type="checkbox"/>
Multicast Address:	224.5.5.5
Multicast Port:	5050
Repeat Message:	1

5.2 Creating up an Audiofile

CyberData devices require audio files to be in a specific format. CyberData recommends using a free tool like Audacity to convert an audio file into the specific required format.

- RIFF (little-endian) data,
- WAVE audio, Microsoft PCM
 - 16 bit, mono 8000 Hz

5.2.1 Uploading the Audiofile

Once the audiofile is created it must then be uploaded to the CyberData device.

1. Navigate to the **Audiofiles** tab.

Figure 5-2: Audiofiles Tab



1. Upload the audiofile to one of the 9 stored message options by pressing **Choose File**.
2. Select the desired audiofile and press **open**.
3. Click **Save** to upload the audiofile.

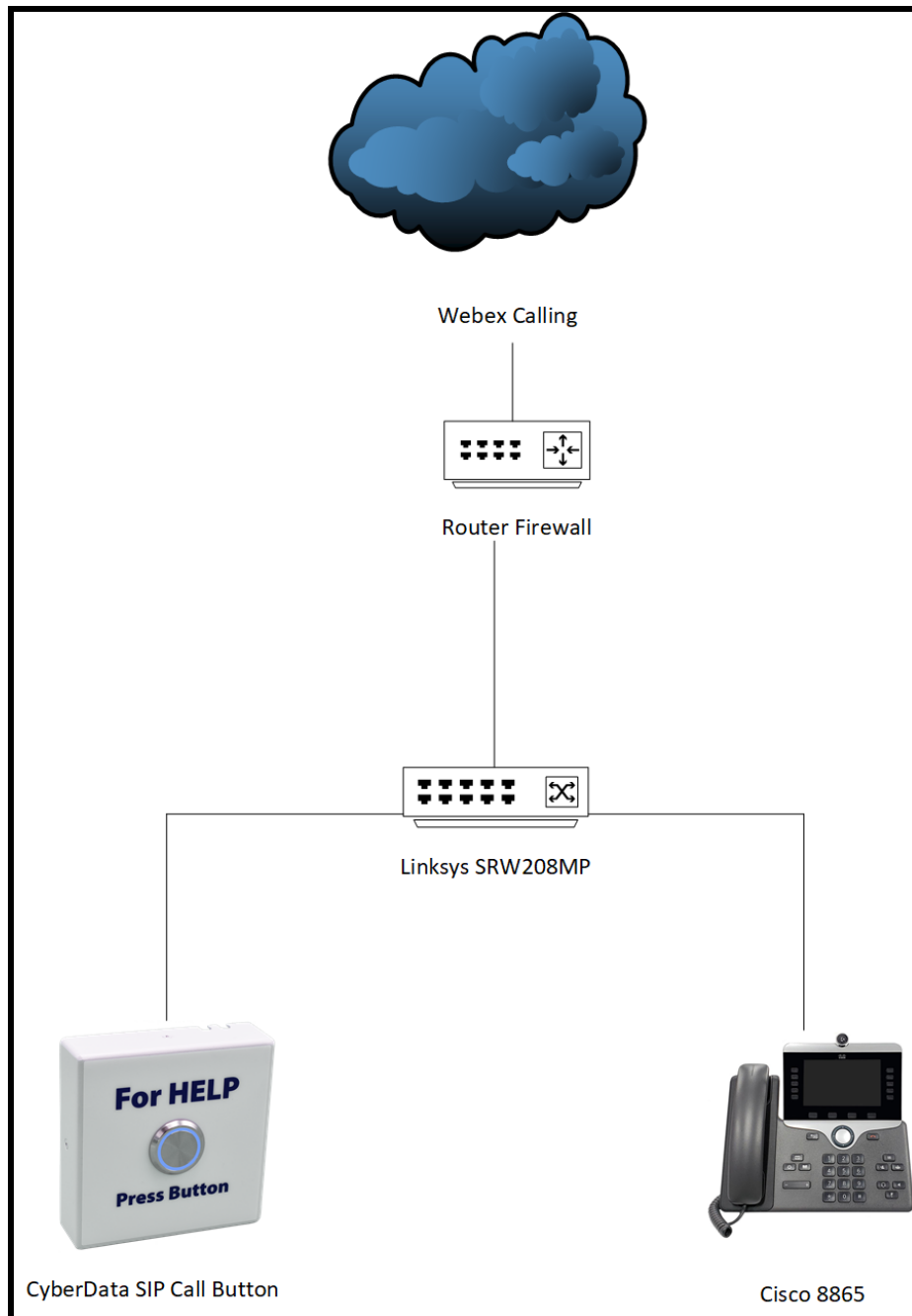
Figure 5-3: Audiofile Uploaded

The screenshot shows the 'Audiofiles' tab in the CyberData Call Button configuration interface. The page title is 'CyberData Call Button' and it indicates 'Available Space: 1485MB'. Under the 'Audio Files' section, there is a table with four rows, each representing a different message type. Each row has a 'Currently set to:' field, a 'Choose File' button, a 'No file chosen' status, and 'Delete' and 'Save' buttons.

Message Type	Currently set to:	File Selection	Status	Actions
Button Message:	default	Choose File	No file chosen	Delete Save
Door Ajar:	default	Choose File	No file chosen	Delete Save
Intrusion Sensor Triggered:	default	Choose File	No file chosen	Delete Save
SIP Multicast Message:	Hr_Button_1_button.wav	Choose File	No file chosen	Delete Save

6.0 Setup Diagram

Figure 6-1: Interoperability Test Infrastructure



7.0 FAQ

Why is the device registering to a backup server and not the primary server listed in the SRV record?

CyberData devices have a bug where they will not fall back to the primary server listed in the SRV record in the event it switches to a backup server. To resolve this issue simply reboot the device. This will be fixed in a future release.

8.0 Contact CyberData Corporation

Sales

For sales-related questions, please visit our [Contact CyberData Sales](#) web page for more information.

Technical Support

For CyberData Technical Support, please submit a [Contact CyberData VoIP Technical Support](#) form on our website.

The CyberData VoIP Technical Support Contact form initiates a troubleshooting ticket which CyberData uses for quality assurance purposes.

Additionally, the Contact VoIP Tech Support form tells us which phone system you are using, the make and model of the network switch, and other essential troubleshooting information we need to efficiently assist with a resolution. Please also include as much detail as possible in the Describe Problem section of the form. Your installation is extremely important to us.

Documentation Feedback

We realize changes to the software or hardware of the Webex solution may render this document obsolete. We welcome and encourage documentation feedback to ensure continued applicability.