CyberData
The IP Endpoint Company

webex
by CISCO

Webex Calling Configuration Guide: SIP Enabled Call Buttons

Webex Calling Configuration Guide: SIP Call Button
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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.
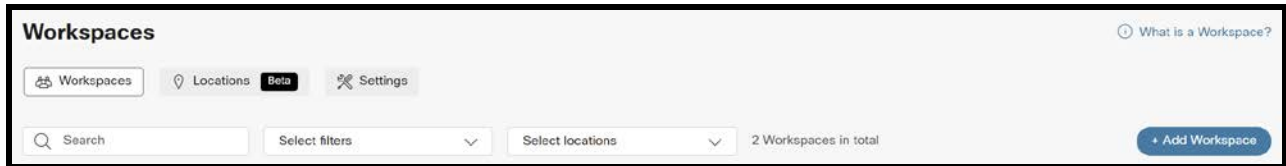
1. Login to Webex Control Hub as the administrator.
2. From the overview page select **Workspaces**.
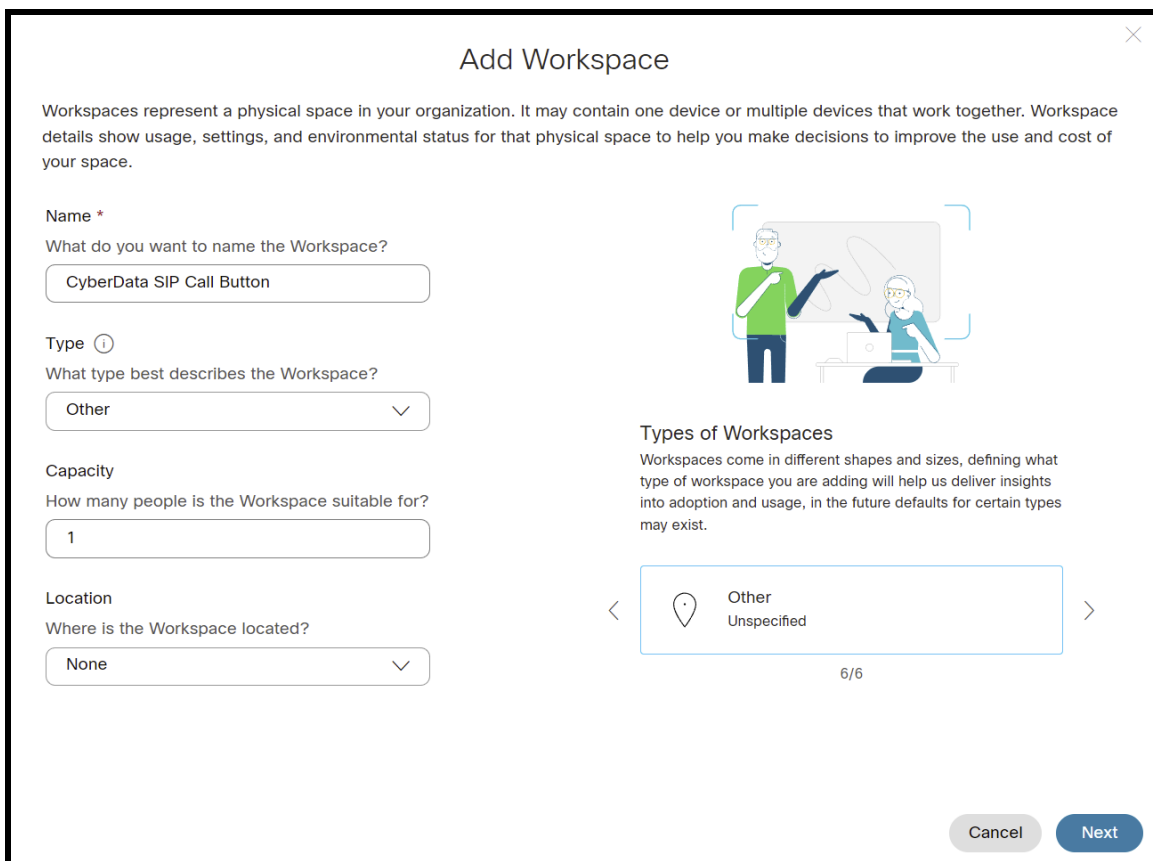
Figure 3-1: Overview Side Bar
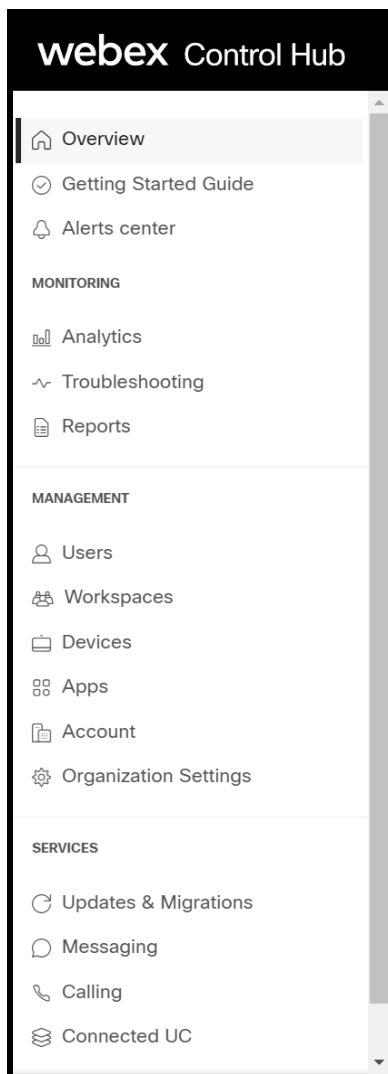
3. From the Workspaces page select the **Add Workspace** button.

Figure 3-2: Workspaces Page

4. 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

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

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
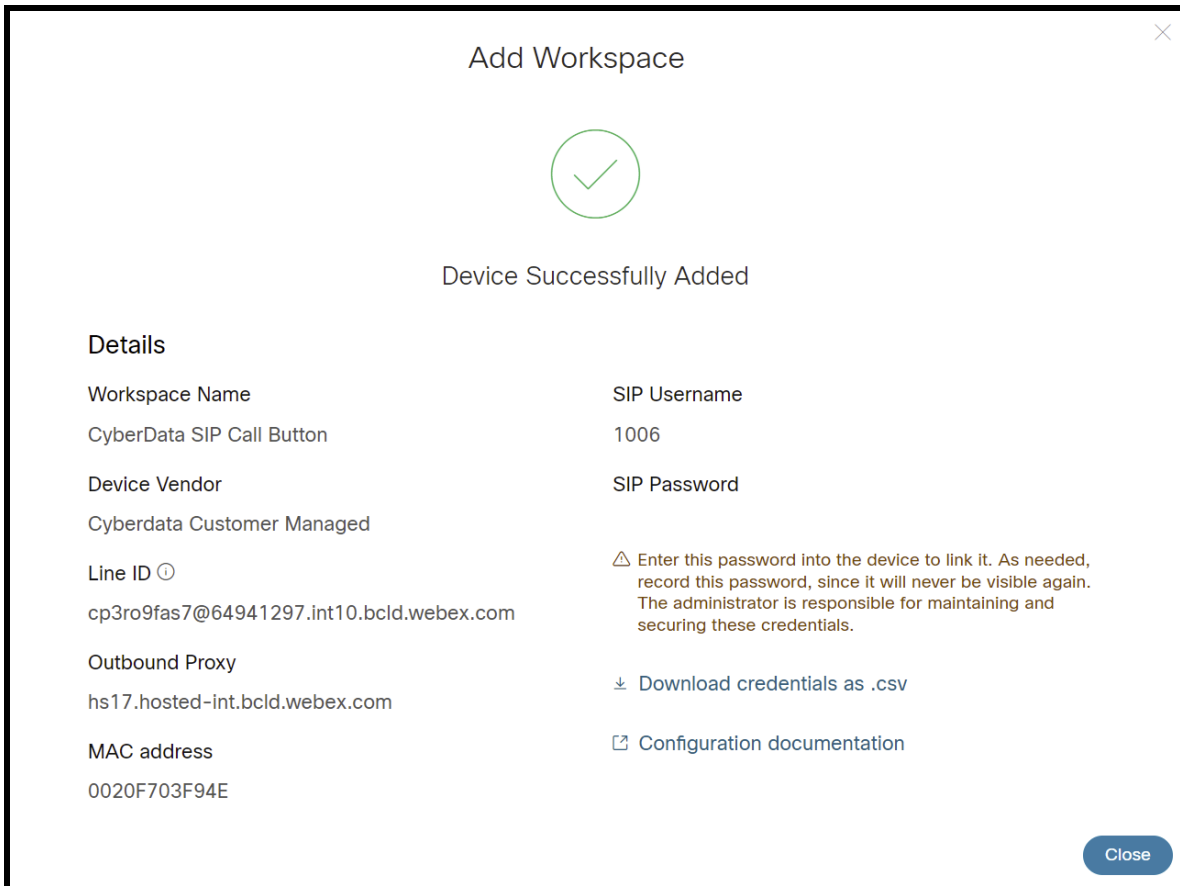
Note: The password has been obscured.

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
2nd Half of Line ID	Primary SIP Server
1st 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.
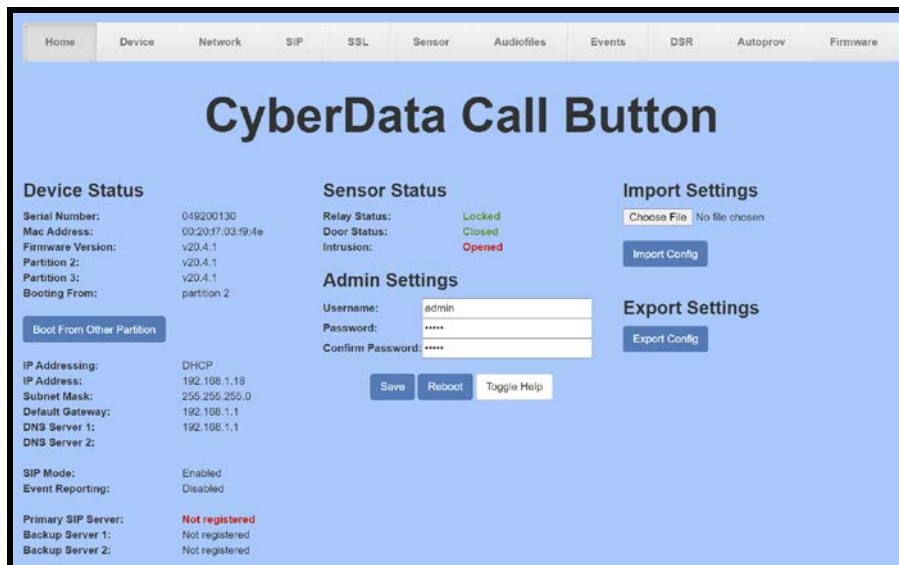
CyberData's default login credentials are:
Username: admin
Password: admin

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

Figure 4-1: Home Tab

CyberData Corporation
3 Justin Court, Monterey, CA 93940
www.cyberdata.net
P 831.373.2601 | F 831.373.4193

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**.
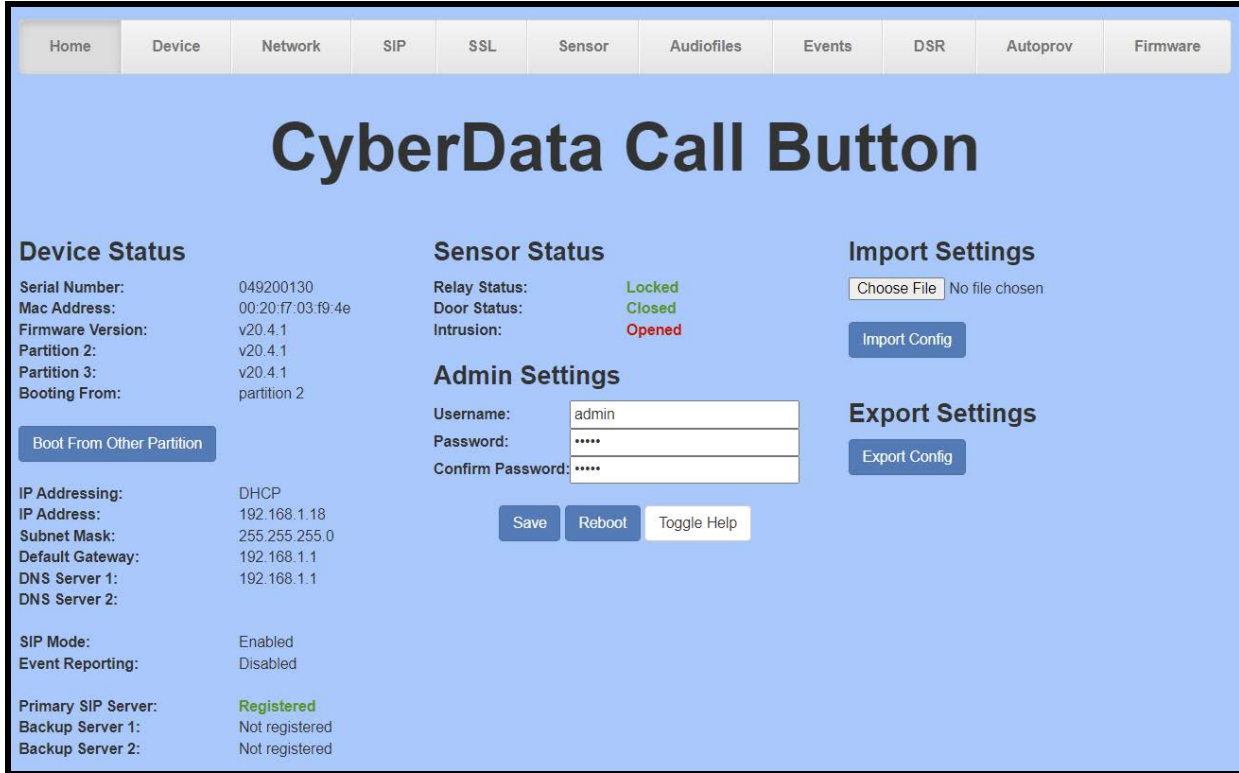12. Save and Reboot.

Figure 4-2: SIP Tab

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

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**.
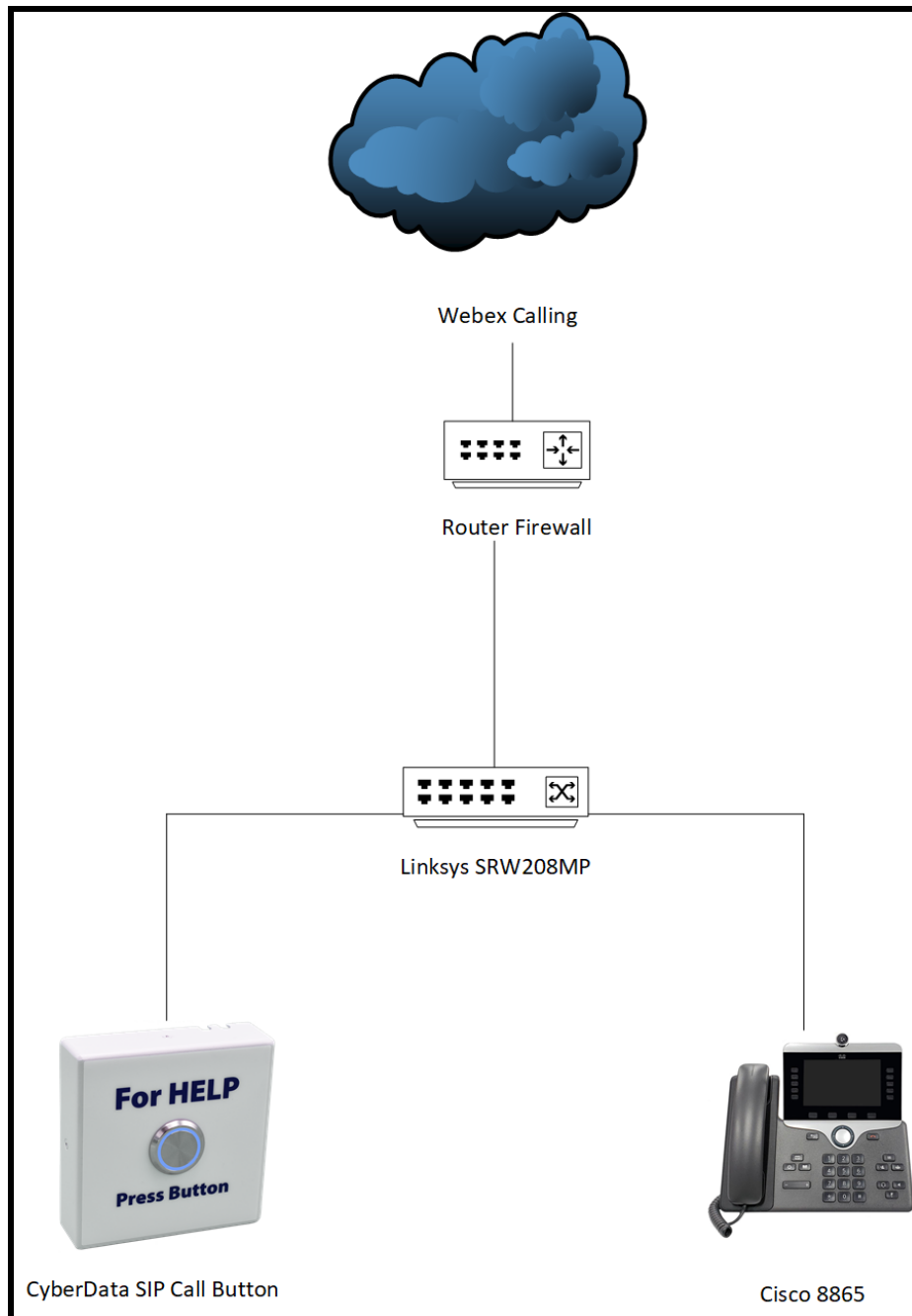3.   Click **Save** to upload the audiofile.

Figure 5-3: <u>Audiofile Uploaded</u>

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.