



Zoom Configuration Guide: SIP Call Button

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Revision Information

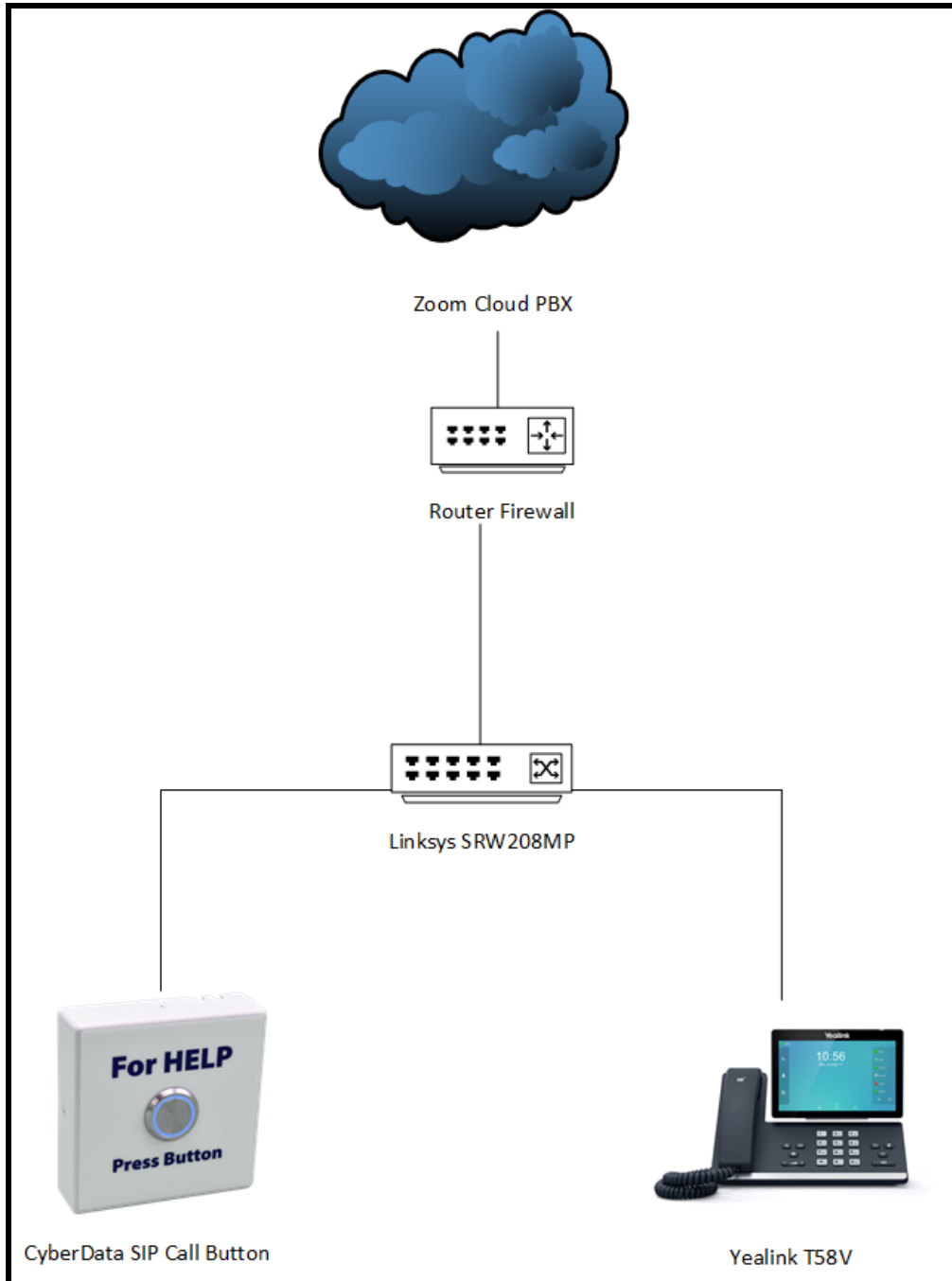
- 9-27-19 Initial Release
- 1-31-20 Updated Device type creation.
- 3-11-21 Updated for Zoom phone security update
- 9-13-21 Updated setup process

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1.0 Setup Diagram

Figure 1-1: Interoperability Test Infrastructure



2.0 Test Setup Equipment

This section describes the products used for interoperability testing with Zoom.

Table 2-1: Setup Equipment

EQUIPMENT	MODEL or PART NUMBER	FIRMWARE VERSION
CYBERDATA SIP CALL BUTTON	011049	20.3.0
CYBERDATA OUTDOOR SIP CALL BUTTON	011491	20.3.0
YEALINK	T58A	58.83.3.6
LINKSYS SWITCH	SRW208MP	---

3.0 Before You Start

This configuration guide documents the integration process of a CyberData SIP Call Button.

Network Advisories

Zoom uses a Fully Qualified Domain Name (FQDN) for the SIP server and Outbound Proxy addresses. The CyberData SIP Call Button needs to perform a DNS A query to resolve the IP address of Zoom's Outbound Proxy FQDN. It is necessary to ensure the configured DNS server(s) have an A record for the Outbound Proxy address.

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

- TCP 5060, 5091 (SIP)
- UDP 10500 (RTP)

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

The button's paging extension uses SIP port 5060 to receive SIP messages. The paging extension will send SIP messages to port 5091, the port used by Zoom's Outbound Proxy.

SIP ports 5060 and RTP port 10500 are the default values on all noted firmware levels.

Alternatively, SIP ports for the paging extension are configurable on the **SIP** page of the web interface.

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.

Product Documentation and Utilities

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

CyberData SIP Call Button ([011049](#))

https://files.cyberdata.net/assets/011049/011049_931551C_SIP_Call_Button_Operations_Guide.pdf

CyberData SIP Outdoor SIP Call Button ([011491](#))

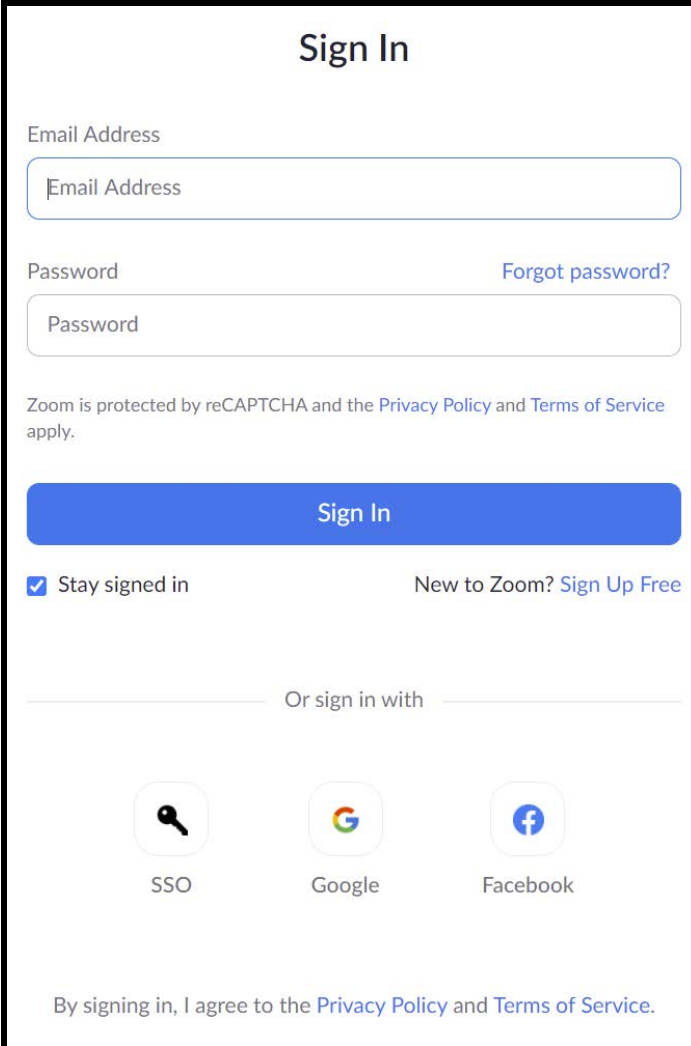
https://files.cyberdata.net/assets/011491/011491_931656C_SIP_Outdoor_Call_Button_Operations_Guide.pdf

4.0 Configuration Procedure: Intercom and Paging Device

There are several different extension types that can be used on the Zoom platform. This guide provides instructions to register the CyberData SIP Call Button as a Common Area Phone. Registering in a different capacity may require creating a user profile and providing an email address. See Zoom documentation for more details.

1. Log into Zoom. <https://zoom.us/signin>

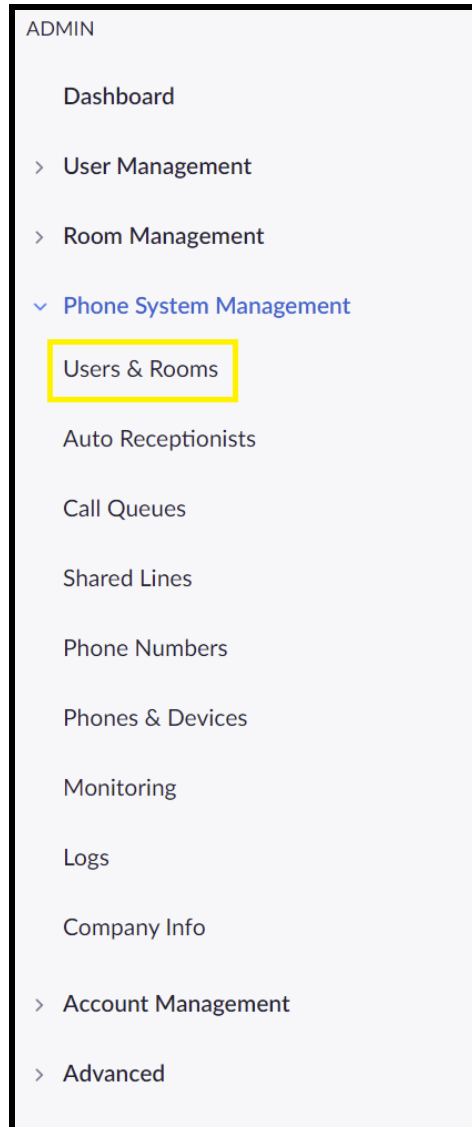
Figure 4-1: Log into Zoom



The image shows a screenshot of the Zoom Sign In page. At the top, it says "Sign In". Below that, there are two input fields: "Email Address" and "Password". To the right of the Password field is a link for "Forgot password?". Below the input fields, there is a blue "Sign In" button. Underneath the button, there is a checked checkbox for "Stay signed in" and a link for "New to Zoom? Sign Up Free". Below this, there is a section titled "Or sign in with" with three icons: SSO (represented by a key icon), Google, and Facebook. At the bottom, there is a line of text: "By signing in, I agree to the Privacy Policy and Terms of Service."

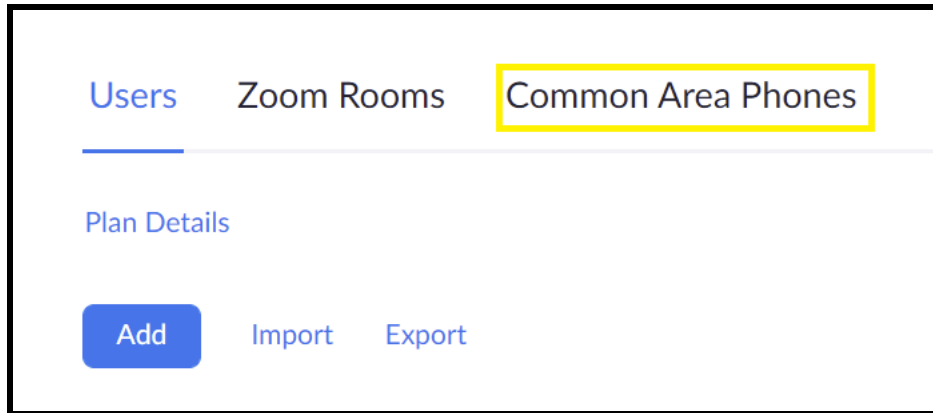
2. From the Profile page select the “Phone System Management” section and the ‘Users & Rooms” subsection.

Figure 4-2: Profile Landing Page



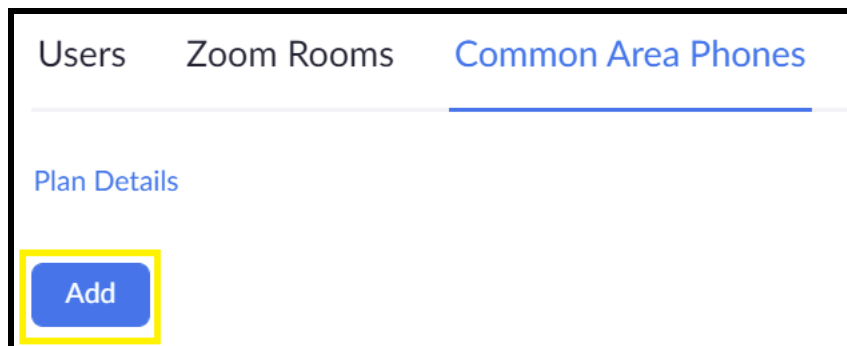
3. From the “Users & Rooms” navigate to the Common Area Phones tab.

Figure 4-3: Users & Rooms



4. Press the Add button on the Common Area Phones tab.

Figure 4-4: Add Common Area Phone



5. After clicking the Add button a Pop-up will appear that allows extension creation.

Figure 4-5: Phone Pop-up

The screenshot shows a web-based form titled "Add Common Area Phone". The form is organized into several sections separated by horizontal lines. The fields and their values are as follows:

- Display Name:** An empty text input field.
- Description (Optional):** An empty text input field.
- Extension Number:** A text input field containing the value "808".
- Package:** A dropdown menu with the selected option "Assign".
- Country/Region:** A dropdown menu with the selected option "United States (+1)".
- Time Zone:** A dropdown menu with the selected option "(GMT-7:00) Pacific Time (US and Canada)".
- MAC Address:** An empty text input field.
- Device Type:** A dropdown menu with the selected option "Select Brand".
- Select Model:** A dropdown menu with the selected option "Select Model".

At the bottom right of the form, there are two buttons: a "Cancel" button and a "Save" button.

6. Set the Display Name to the of the Call Button.
7. Set the description to the location of the intercom.
8. Adjust the Extension number as necessary
9. Assign the calling package.
10. Set the **MAC address** of the device.

***Note:** Adding the MAC Address will switch the device type to “CyberData” make sure cyberdata-sip-based-device is set for the model.*

Figure 4-6: Common Area Phone Pop-up – Filled

Add Common Area Phone

Display Name: CyberData Call Button

Description (Optional): John's Panic Button

Extension Number: 808

Package: Assign
US/CA Metered Calling Plan Pro Features · Metered

Country/Region: United States (+1)

Time Zone: (GMT-7:00) Pacific Time (US and Canada)

MAC Address: 00:20:f7:03:fc:e2

Device Type: CyberData
cyberdata-sip-based-device

Cancel Save

11. Click the **Save** button to create the Phone.
12. Once saved, the browser will redirect to the newly created extensions page.
13. Click on the Provision button at the bottom of the device's page.

Figure 4-7: Provision



Figure 4-8: Provisioning Pop-up

Provisioning

MAC Address	00-20-f7-03-fc-e2
Device Type	CyberData cyberdata-sip-based-device
Provisioning URL	https://gopbxcdp.zoom.us/api/v2/pbx/provisioning/CyberData/cyberdata-sip-based-device Copy to Clipboard

1 Step 1

1. Proceed to the [CyberData website](#) to confirm the unit has the minimum supported firmware installed.
2. Enter **http://device_IP_address** to the browser to access the device web page.
3. Select **Autoprov** tab and select **Enable Autoprovisioning**. Copy **Provisioning URL** from above of this dialogue and paste to the **Autoprovisioning Server** field. Leave **Autoprovisioning Filename** as blank. Uncheck **Use tftp** if it's checked. Select **Verify Server Certificate**. Leave **Username** and **Password** as blank.
4. Click the **Save** button to save the changes. Click the **Reboot** button to reboot and provisioning should happen on reboot.

[Next](#) [Close](#)

14. A popup will appear with autoprovisioning URL, press the Copy to Clipboard button.

5.0 Configuration Procedure: Setting up the Paging Extension

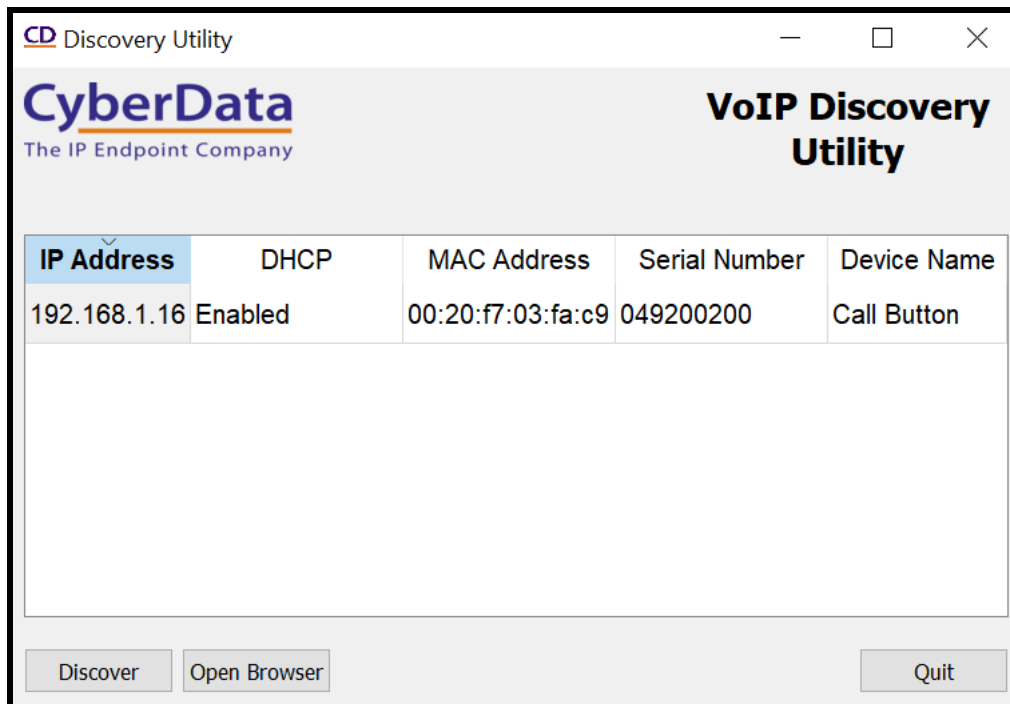
If you are configuring through the web interface, use the following steps to login to the web interface of your CyberData device.

Table 5-1: Setting Name correlation

CyberData Setting	Zoom Provisioning Pop-up
Primary SIP Server	SIP Domain
Outbound Proxy Outbound Proxy Port	Outbound Proxy
Primary SIP User ID	User Name
Primary SIP Auth ID	Authorization ID
Primary SIP Auth Password	Password

1. Click **Launch Browser** from the CyberData Discovery Utility or point your browser to the CyberData device’s IP address to access the Home Page of the web interface.

Figure 5-1: CyberData Discovery Utility



2. Enter the default credentials when prompted and click the **Log In** button.

Username: admin

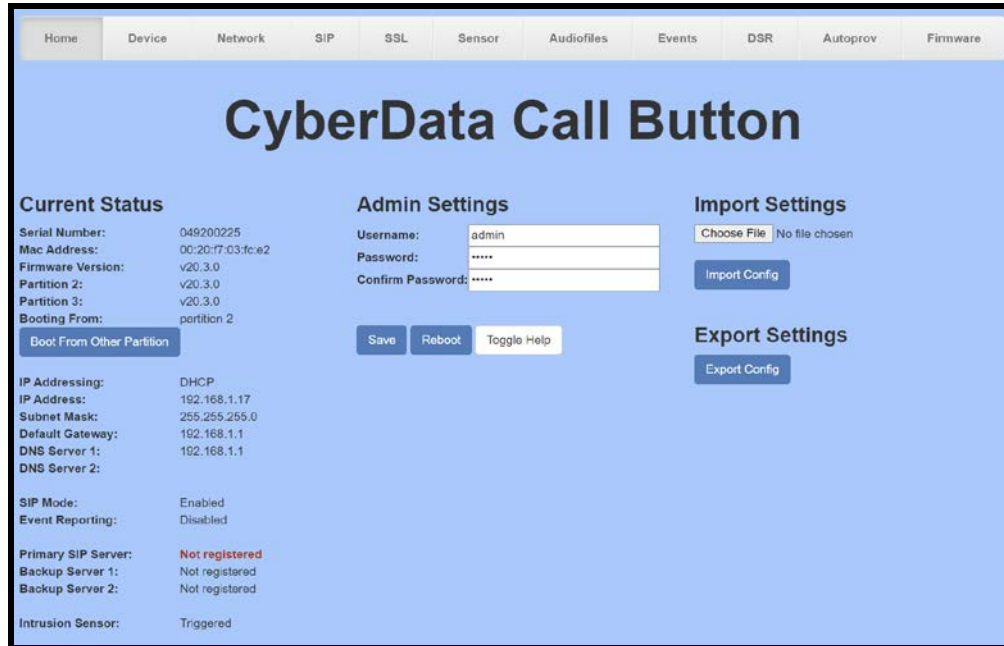
Password: admin

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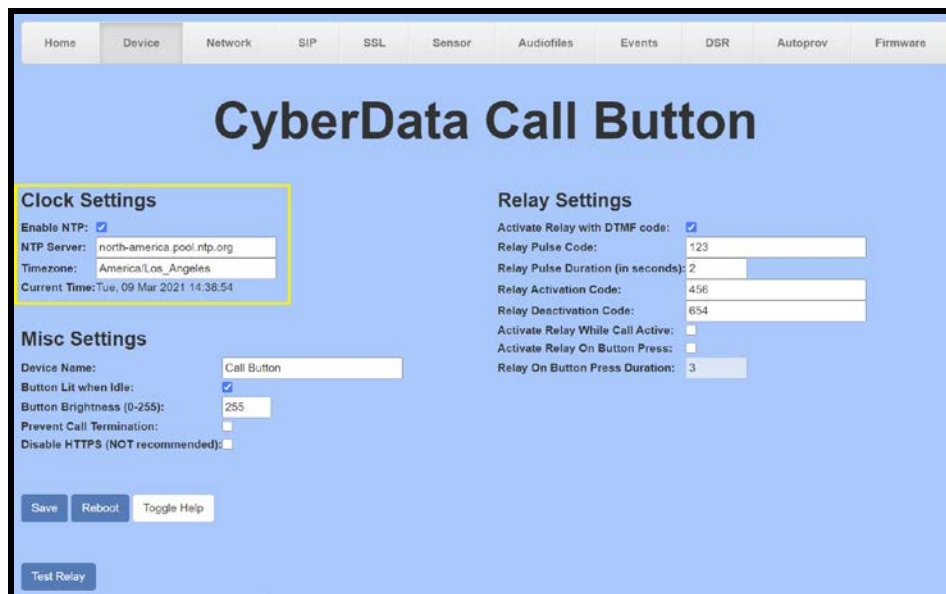
P 831.373.2601 | F 831.373.4193

Figure 5-2: Home Tab



3. Navigate to the Device tab.
4. Adjust the Timezone as necessary.
5. Save.

Figure 5-3: Device Tab



6. Navigate to the Autoprov tab.

Figure 5-4: Autorpov Tab - Filled

The screenshot shows the 'Autoprovisioning' tab in the CyberData Call Button configuration interface. The page has a blue header with the title 'CyberData Call Button' and a navigation menu with tabs: Home, Device, Network, SIP, SSL, Sensor, Audiofiles, Events, DSR, Autoprovisioning (selected), and Firmware. The main content area is light blue and contains the following configuration options:

- Enable Autoprovisioning:**
- Autoprovisioning Server:**
- Autoprovisioning Filename:**
- Use tftp:**
- Verify Server Certificate:**
- Username:**
- Password:**
- Autoprovisioning autoupdate (in minutes):**
- Autoprovision at time (HHMM):**
- Autoprovision when idle (in minutes > 10):**

Below the fields, there is instructional text: "See the manual to learn how to use autoprovisioning to configure your device.", "Autoprovisioning happens on boot.", "The device will first look for a configured server address and filename.", and "If these haven't been configured, it will look for an autoprovisioning server in your list of DHCP options and try to download '0020f703fce2.xml' and if this fails, '000000cd.xml'." At the bottom, there are three buttons: "Save", "Reboot", and "Toggle Help".

7. Paste the provisioning URL in the **Autoprovisioning Server** field.
8. Check the box for **Verify Server Certificate**.
9. Save.
10. Reboot.

Once the unit reboots it will attempt to download the provisioning file from Zoom, which should succeed. This can be verified on the Home tab of the Call button and through the Zoom provisioning popup.

Figure 5-5: Home page – Registered

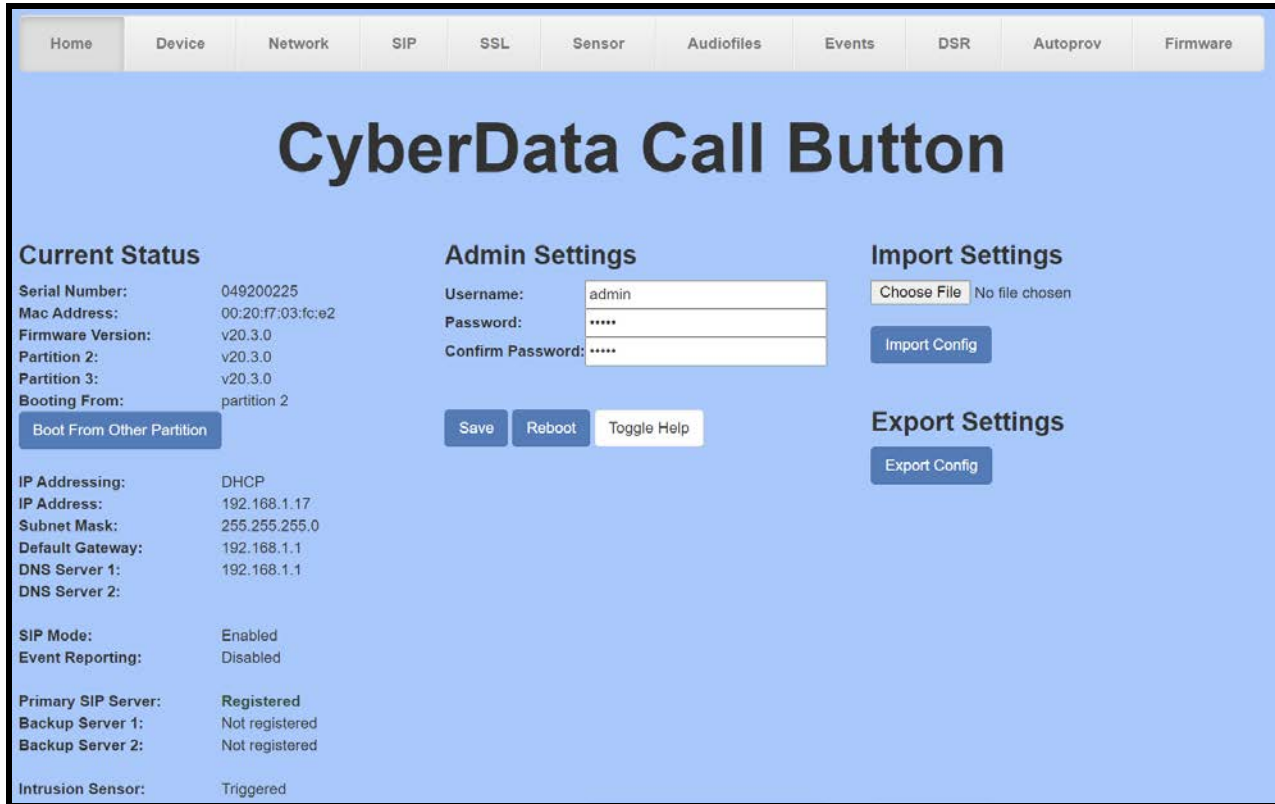
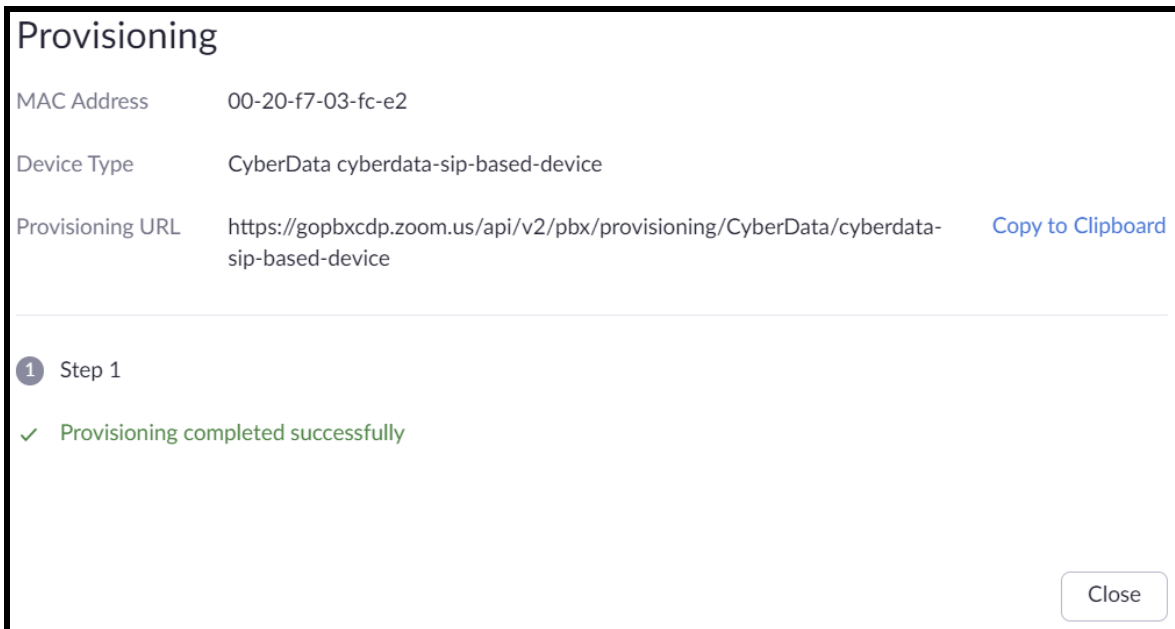


Figure 5-6: Zoom Provisioning Check



6.0 Using the CyberData Call Button in a Zoom system.

CyberData SIP Call Buttons are designed for sending a call to a phone or making an announcement. The button can call an extension number, ring group/call queue, or send multicast audio. When the call button is pressed it will make a call to the configured number and play a pre-recorded WAV File.

6.1 Setting the Dialout extension and loading an audio file

Once the call button is registered with Zoom the Dialout extension will need to be configured and an audio file may be loaded to customize the message. The Dialout extension is set on the SIP tab.

Figure 6-1: Set Dialout Extension

The screenshot displays the 'CyberData Call Button' configuration page. The 'Dial Out Settings' section is highlighted with a yellow border. The 'SIP Settings' section includes fields for enabling SIP operation, registering with a SIP server, and configuring primary and backup SIP servers with their respective user IDs, authentication IDs, and passwords. The 'Dial Out Settings' section includes fields for dial out extension (802), extension ID (Emergency Call Button), multicast address (224.5.5.5), and multicast port (5050). The 'Call Disconnection' section has a field for terminate call after delay (0). The 'Audio Codec Selection' section has a dropdown menu set to PCMU (G.711, u-law). The 'RTP Settings' section has fields for RTP port (even) (10500) and jitter buffer (50). At the bottom, there are 'Save', 'Reboot', and 'Toggle Help' buttons.

Section	Field	Value	
SIP Settings	Enable SIP operation:	<input checked="" type="checkbox"/>	
	Register with a SIP Server:	<input checked="" type="checkbox"/>	
	Primary SIP Server:	50882551.zoom.us	
	Primary SIP User ID:	794746616686	
	Primary SIP Auth ID:	610615125571	
	Primary SIP Auth Password:	*****	
	Re-registration Interval (in seconds):	360	
	Backup SIP Server 1:		
	Backup SIP User ID:		
	Backup SIP Auth ID:		
Dial Out Settings	Dial out Extension:	802	
	Extension ID:	Emergency Call Button	
	Send Multicast Audio:	<input type="checkbox"/>	
	Multicast Address:	224.5.5.5	
	Multicast Port:	5050	
	Repeat Message:	1	
	Call Disconnection	Terminate Call after delay:	0
	Audio Codec Selection	Codec:	PCMU (G.711, u-law)
	RTP Settings	RTP Port (even):	10500
		Jitter Buffer:	50

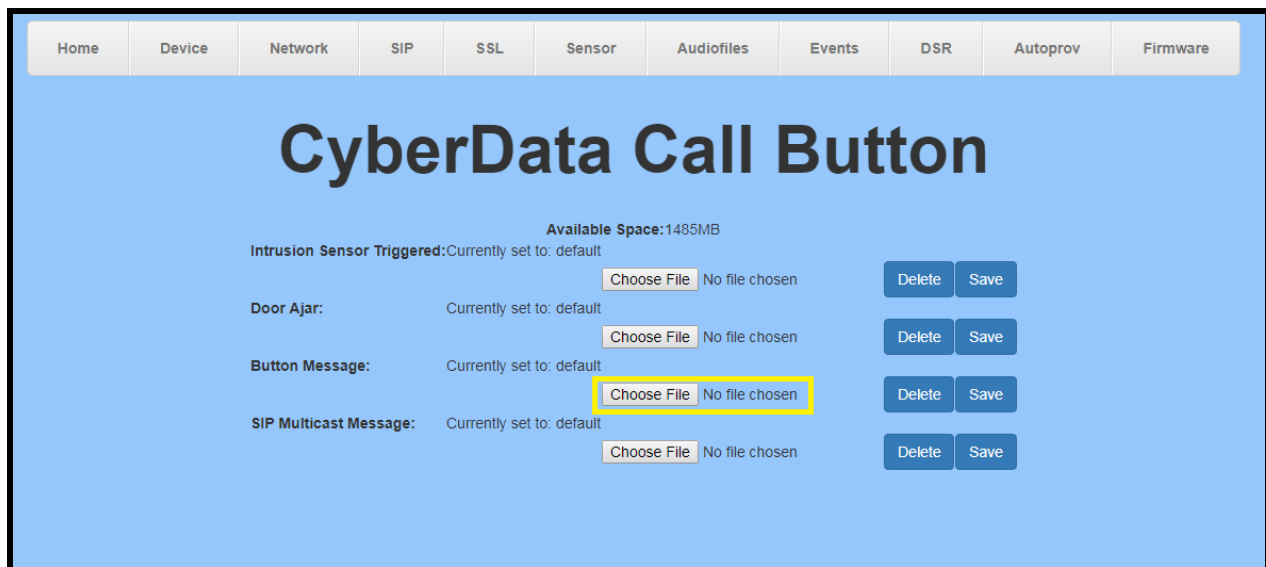
6.2 Load the Audio file

CyberData devices require audio files in a specific format. The process to convert audio files to WAV format is covered in the operations manual for the SIP Call button

- Microsoft PCM
- 16 Bit
- Mono
- 8000Hz
- WAV format

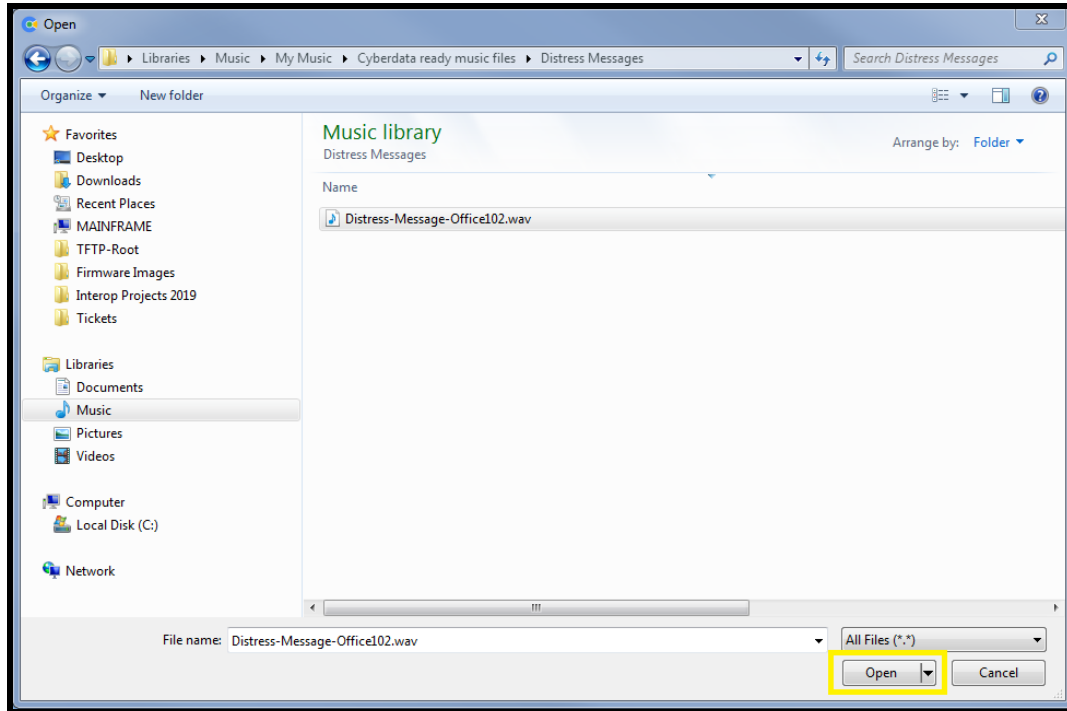
1. After creating the audio file that will be used, load that file on the **Audiofiles** Tab.

Figure 6-2: Audiofiles tab



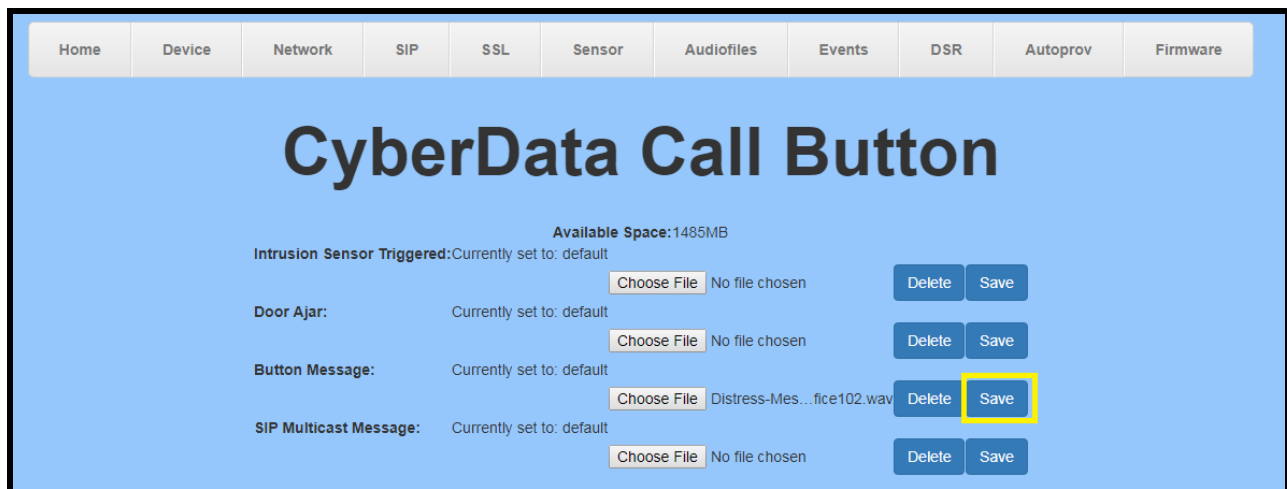
2. Press the Choose File button, then select the audio file.

Figure 6-3: Select the Audio file



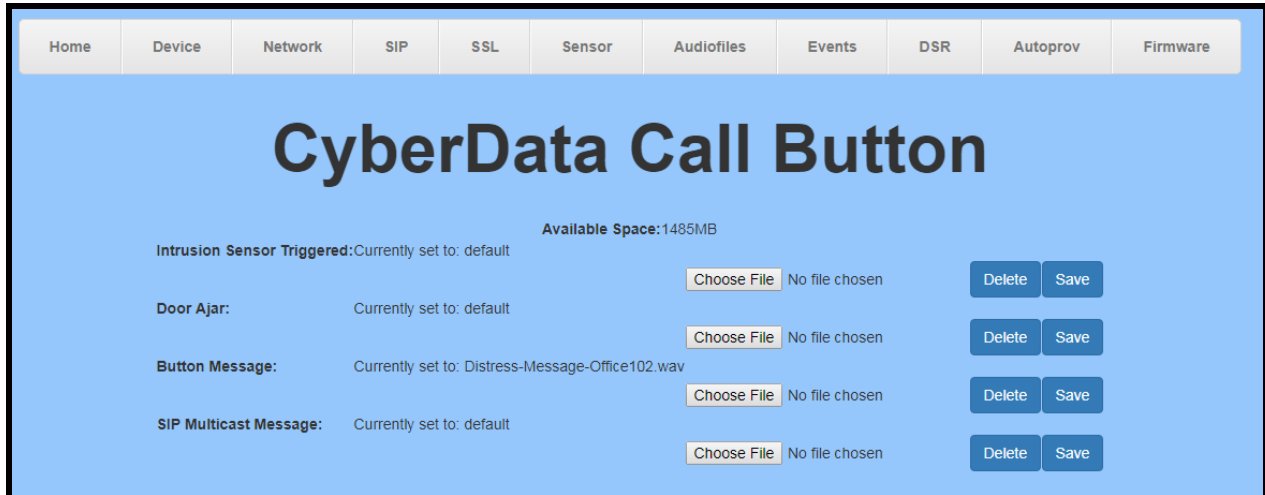
3. Once the audio file is selected, press the save button to load the audio file.

Figure 6-4: Save File



- Once the file is loaded, a press of the call button will trigger the message.

Figure 6-5: Loaded Audio File



7.0 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.

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