CyberData
The IP Endpoint Company

Zoom CONFIGURATION GUIDE: Intercoms

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Revision Information

- 9-27-19 Initial Release
- 1-31-20 Update to revise Device type selection on Zoom.
- 3-11-21 Update for Zoom phone security update.
- 9-14-21 Update for new provisioning process.
- 10-12-21 Updated compatibility diagram
- 1-12-22 Update for Primary and Nightringer Extension usage.

Table of Contents

1.0 Test Setup Equipment

This section describes the products configured following this document

Table 2-1: Setup Equipment

EQUIPMENT	MODEL or PART NUMBER	FIRMWARE VERSION
CYBERDATA OUTDOOR INTERCOM	011186	20.4.1 or later
CYBERDATA OUTDOOR KEYPAD INTERCOM	011214	20.3.0 or later
CYBERDATA INDOOR INTERCOM	011211	20.4.1 or later
SIP EMERGENCY INTERCOM	011209	20.4.1 or later

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2.0 Before You Start

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

Network Advisories

Zoom uses a Fully Qualified Domain Name (FQDN) for the SIP server and Outbound Proxy addresses. The CyberData Intercom 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 intercom to use:

- TCP 5060-5061, 5091 (SIP)
- UDP 10500 (RTP)

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

The intercom's paging extension uses SIP port 5060 to receive SIP messages. The Nightringer extension uses SIP port 5061 to receive SIP messages. Both extensions will send SIP messages to port 5091, the port used by Zoom's Outbound Proxy.

SIP ports 5060-5061 and RTP port 10500 are the default values on all noted firmware levels.

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

The RTP port setting on the **SIP** page is used for both extensions.

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 intercom's product webpage:

Outdoor Intercom (011186):
https://www.cyberdata.net/collections/sip/products/011186

Outdoor Intercom with Keypad (011214):
https://www.cyberdata.net/collections/sip/products/011214

SIP Indoor Intercom (011211):
https://www.cyberdata.net/collections/sip/products/011211

SIP Emergency Intercom (011209)
https://www.cyberdata.net/collections/sip/products/011209

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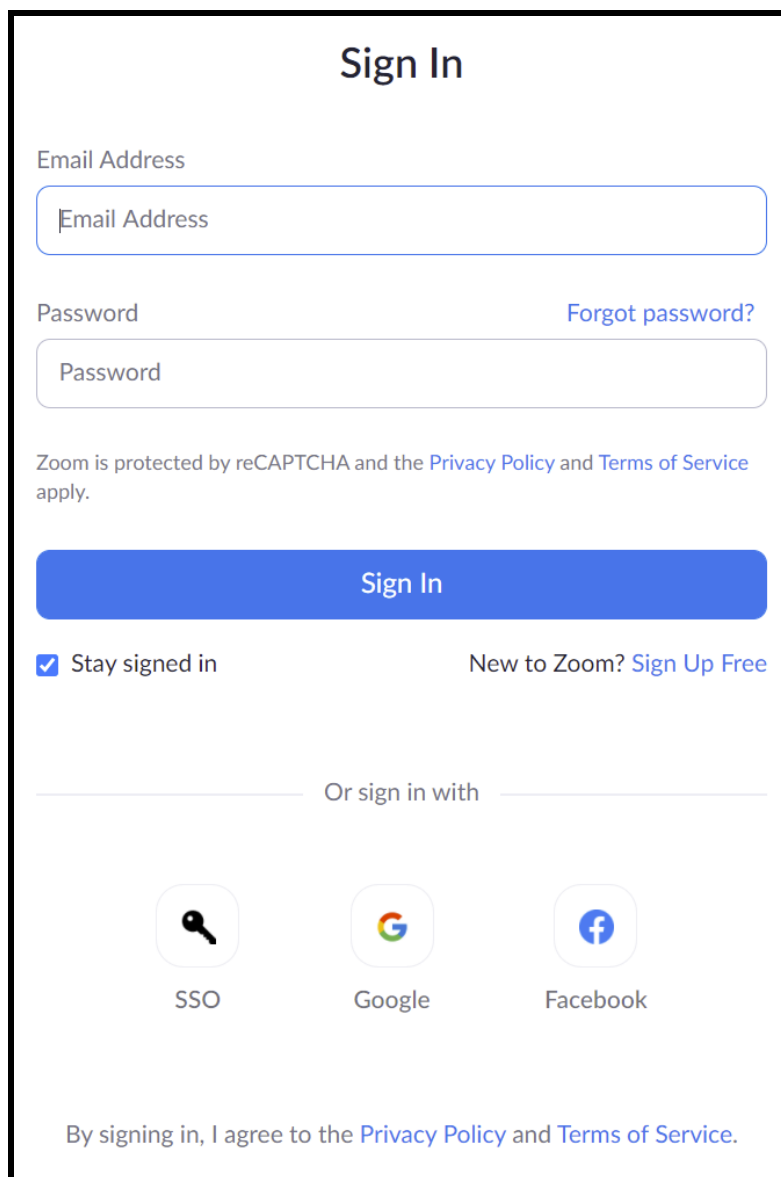
3.0 Configuration Procedure: Intercom/Paging Device

There are several different extension types that can be used on the Zoom platform.
This guide provides instructions to register the CyberData Intercom as an Intercom/Paging Device.

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

Figure 3-1: Log into Zoom

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2. From the Profile page select the "Phone System Management" section and the 'Users & Rooms' subsection.

Figure 3-2: Profile Landing Page
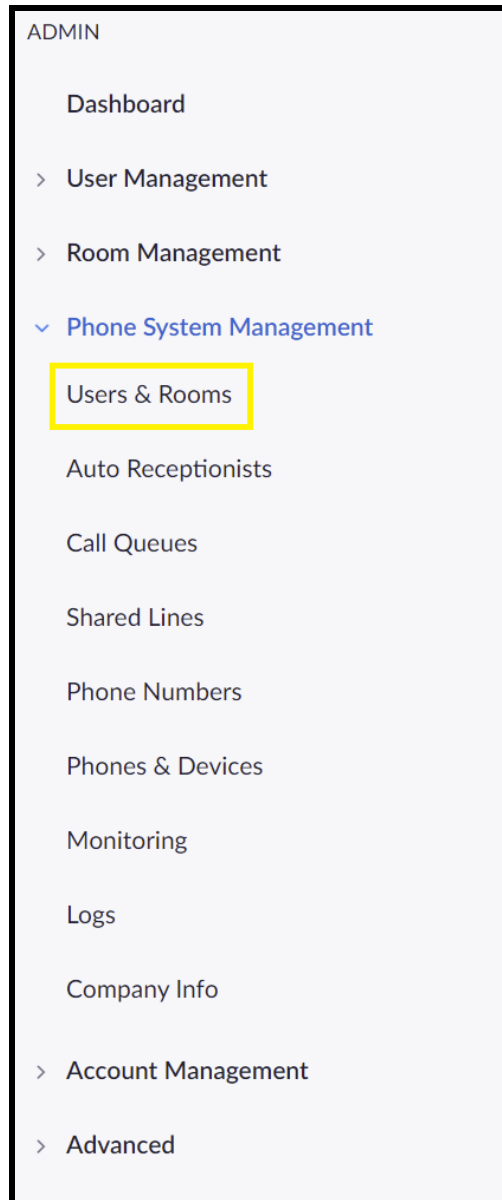
3. From "Users & Rooms" navigate to the Common Area Phones tab.

Figure 3-3: Users & Rooms
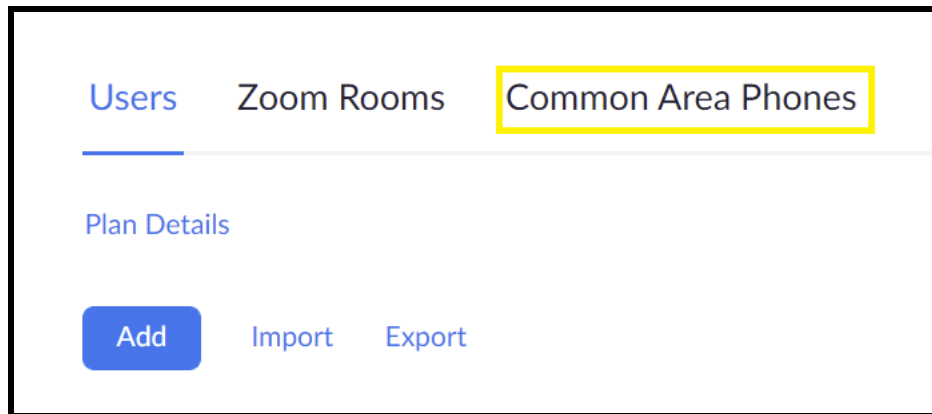
4. Press the Add button on the Common Area Phones Tab.

Figure 3-4: Add Common Area Phone

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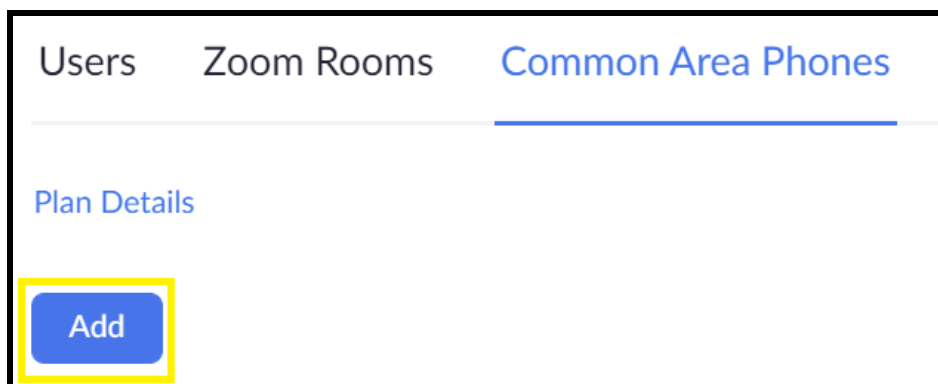
5. After clicking the Add button a Pop-up will appear that allows common area phone creation.

Figure 3-5: <u>Add Common Area Phone Pop-up</u>

6. Set the **Display Name** to the name of the intercom.
7. Adjust the **Extension Number** as necessary.
8. Select the desired **Package**.
9. Adjust the **Country/Region** as necessary
10. Adjust the Time Zone if required.
11. Press **Save**.

After creating the common area phone, a device will need to be created to add or associate with the common area phone.

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12. From the side tool bar select **Phones & Devices**.

Figure 3-5: Phones & Devices
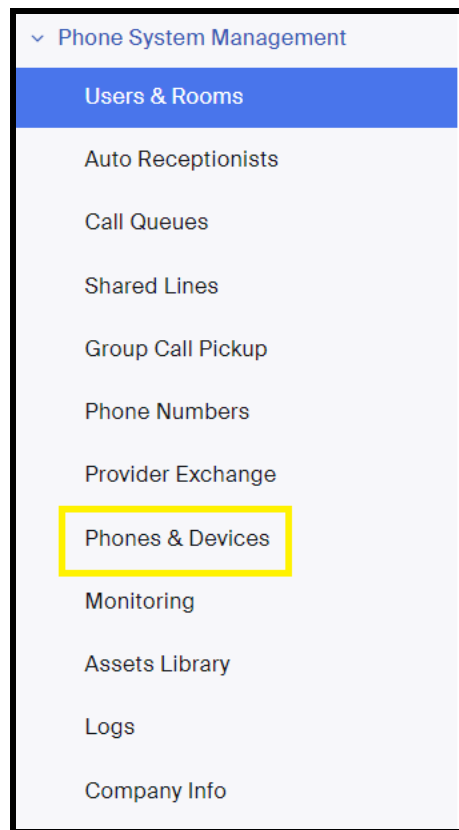
13. From the Phones & Devices page press the **Add** button to create a new phone.

Figure 3-6: Add Device

14. Set the **Display Name**.
15. Set an optional **Description**.
16. Set the **MAC Address** to that of the device

Setting the MAC address should automatically select CyberData as the device type

17. Set the device to "cyberdata-sip-based-device"
18. Search for and find the Common Area Phone created in the previous step
19. Press **Save**.

20. The page will refresh, and the device will have been created. Press the **Actions** button and select **Provision**.

Figure 3-7: Device Created

21. In the provisioning pop-up click the **Copy to Clipboard** button to copy the provisioning URL.

4.0 Configuration Procedure: Setting up the Paging Extension

1. Click **Open 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 4-1: CyberData Discovery Utility
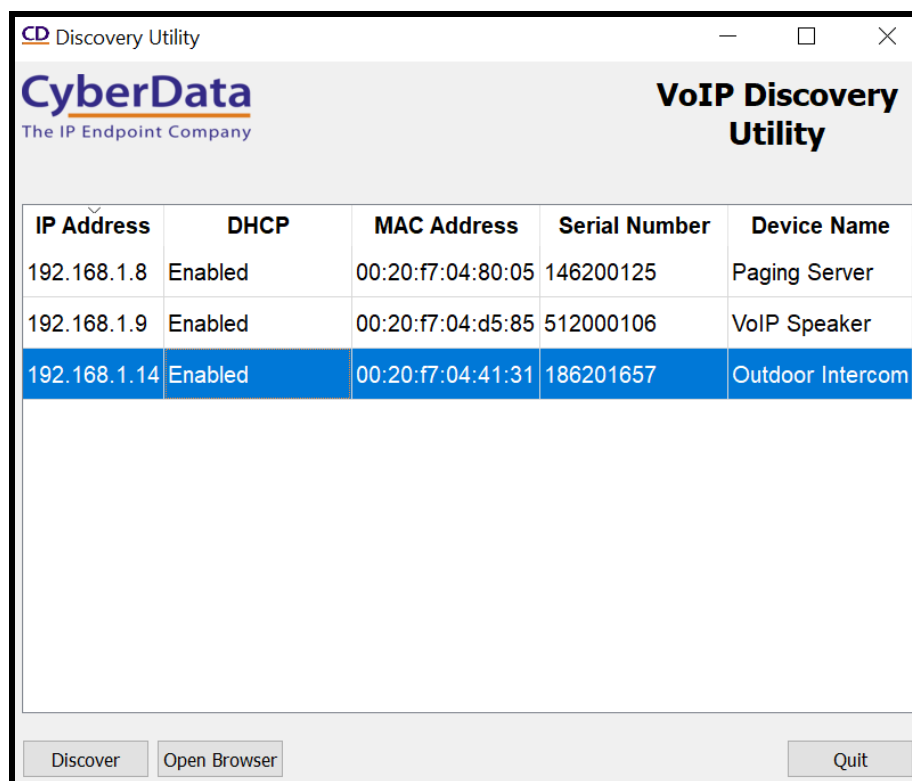
2. Enter the default credentials when prompted and click the **Log In** button.

Username: admin
Password: admin

Figure 4-2: <u>Web Interface Login</u>

3. From the Home tab navigate to the Autoprov Tab.

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Figure 4-4: <u>Autoprov Tab</u>

4. Paste the URL copied from the provisioning popup in the **Autoprovisioning Server**.
5. Check the box for **Verify Server Certificate**.
6. Save.
7. 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 intercom and through the Zoom provisioning popup.

Figure 4-5: <u>Home page - Registered</u>

Figure 4-6: <u>Zoom Provisioning Check</u>

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4.1 Adding Nightringer

CyberData products have a second extension called "Nightringer" that when called the device will ring. This makes the Nightringer extension perfect for use in ring groups. This is easy to add in a Zoom environment.

1. After logging into Zoom a new common area phone will need to be created that will correspond with the Nightringer Extension.
2. From Phone System Management select Users & Rooms and then Common Areas. Finally Press **Add** to create a new Common Area Phone.

Figure 4-7: Add Nightringer

3. Once configured press **Save** to create the common area phone.
4. After creating the phone navigate to Phones & Devices and select the device where the Nightringer extension will be configured.
5. After selecting the device press **Assign** in the 'Assigned to' section.

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6. Change the User selection to **Common Area** then find the newly created Nightringer Common Area Phone.
7. Press **Add** to add the second extension

Figure 4-8: Assigning Nightringer

Note: After adding the Nightringer Extension Zoom should have the device Resync its config file and this will have the device reboot. It is possible that when the new extension is created it will be assigned to the Primary Extension. Confirm the Nightringer extension is assigned to the correct line key. Line Key 1 is for the Primary Extension and Line Key 2 is for the Nightringer Extension.

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8. To reassign the extensions, select Keys & Positions, then press Manage Key.
9. Drag and drop the extensions to the correct Key positions. Key 1 for Primary Extension and Key 2 for Nightringer Extension.
10. Save to confirm the change.

Figure 4-9: Key Positions

5.0 Using the CyberData Intercom in a Zoom system.

CyberData Intercoms are used for access control. Depending on the number of keys the intercom has there are different ways to use the intercom. A single button intercom can be configured to call a number when the call button is pressed. The Keypad variants can take advantage of the keypad and dial numbers to make a call. There are several different modes that can be used on Keypad intercoms.

5.1 Setting the Dialout Extension – Single button intercom

Once the intercom is registered with Zoom the "Dial out Extension" will need to be set for the intercom to call a number when the front Call Button has been pressed. This number can be either a direct extension, ring group/ call queue, or a direct phone number.

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

Figure 5-1: Set the Dial out Extension

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5.2 Calling with a Keypad Intercom

The Keypad Intercom (Indoor or Outdoor) has multiple different 'Dial Modes' that can be used which will make the intercom operate in a slightly different manner. There are four different dial modes that can be used; Telephone Operation, Cell Phone Operation, Speed Dial Operation, and Security Operation. These different modes are selected on the Buttons page.

Figure 5-2: Dial Modes

- **Telephone Operation**
  - This mode operates like a telephone. Press the call button and then dial the number.
- **Cell Phone Operation**
  - This mode operates like a cell phone. Dial the number then press the call button.
- **Speed Dial Operation**
  - This allows each button (0-9 * # Call Button) to be for a specific speed dial number. The Speed Dial Timeout is how long the button must be pressed before the call will send.
- **Security Operation**
  - This mode restricts the calling options to only the call button. The keypad is then used for "Security Codes" for access control without making a call. Check the operations manual for more details on the Security Codes.

5.2.1 Setting up Speed Dial Operation

After setting the dial mode to **Speed Dial Operation**, the **Speed Dial settings** will be configurable. **Speed Dial Timeout** is how long the button will need to be pressed to make a call; if set to 0 the call will send immediately.

Figure 5-3: <u>Speed Dial Settings</u>

5.2.2 Setting up Security Mode Operation

Security Mode Operation will make the call button function as the main way to make a call. The call button can call a direct extension, ring group/call queue, or a standard phone number. The keypad can then be used for security codes that are configured on the security tab.

Relay activation and Relay deactivation are codes that can be entered on the keypad to activate and deactivate the relay. If those fields are left blank, they will be disabled.

Figure 5-4: Security Mode Operation

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5.3 Activating the on-board relay

While in a call with the intercom DTMF codes can be entered on the phone to trigger the onboard relay of the intercom.

- Relay Pulse code
  - Activates the relay for the configured Relay Pulse Duration.
- Relay Pulse Duration
  - How long the relay will activate when the Pulse code is sent.
- Relay Activation Code
  - This code activates the relay.
- Relay Deactivation Code
  - This code deactivates the relay.

Figure 5-5: Relay Settings

Note: Enable "Play Tone During DTMF Activation" if you want a tone to play when the onboard relay is active.

6.0 Setup Diagram

Figure 6-1: <u>Interoperability Test Infrastructure</u>

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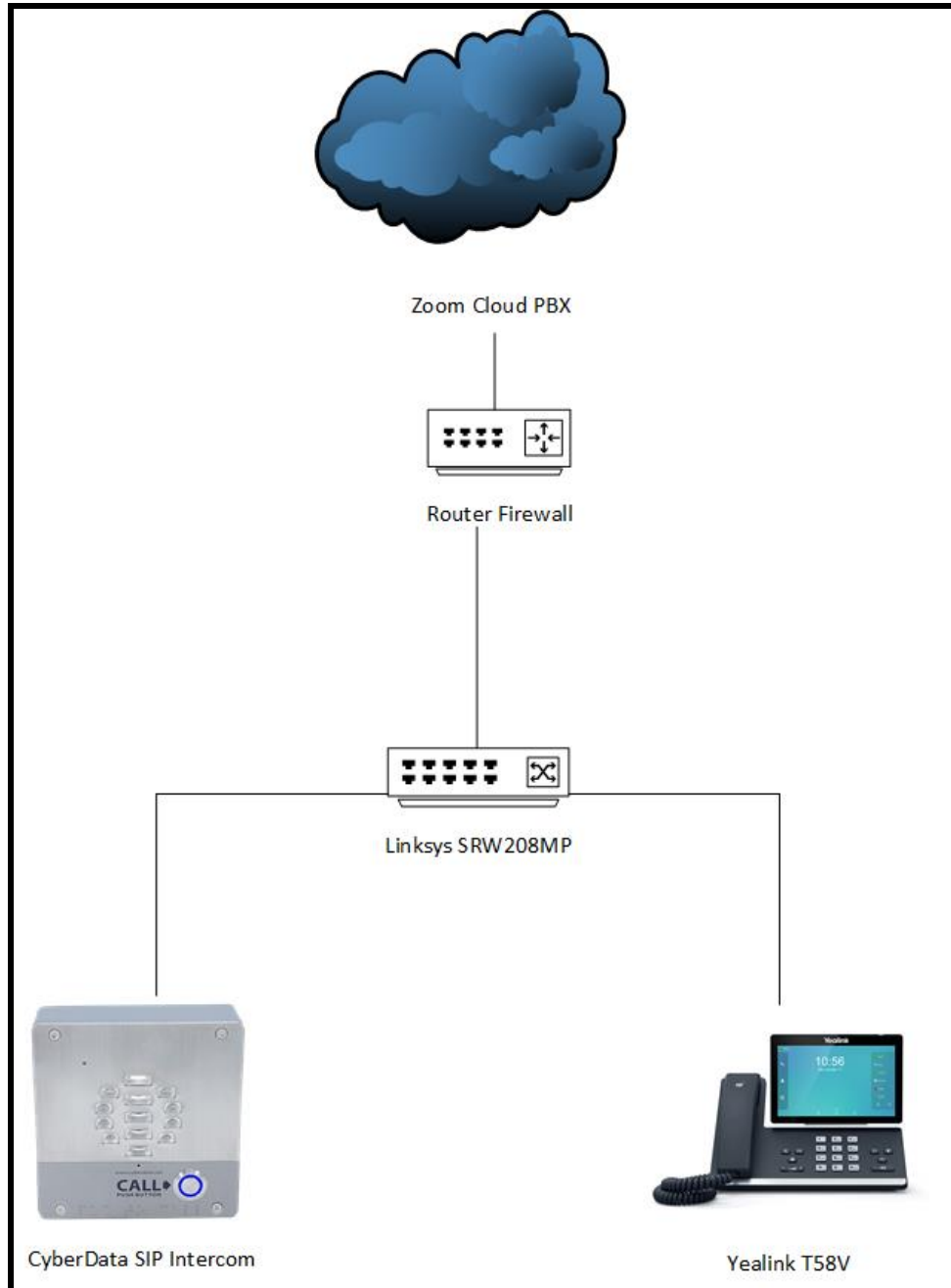
7.0 Contact CyberData Corporation

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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