

## *Blueface Configuration Guide: SIP Paging Adapter*

Document Part # 931913B

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## **Blueface Configuration Guide: SIP Paging Adapter Document #931913B**

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## Revision Information

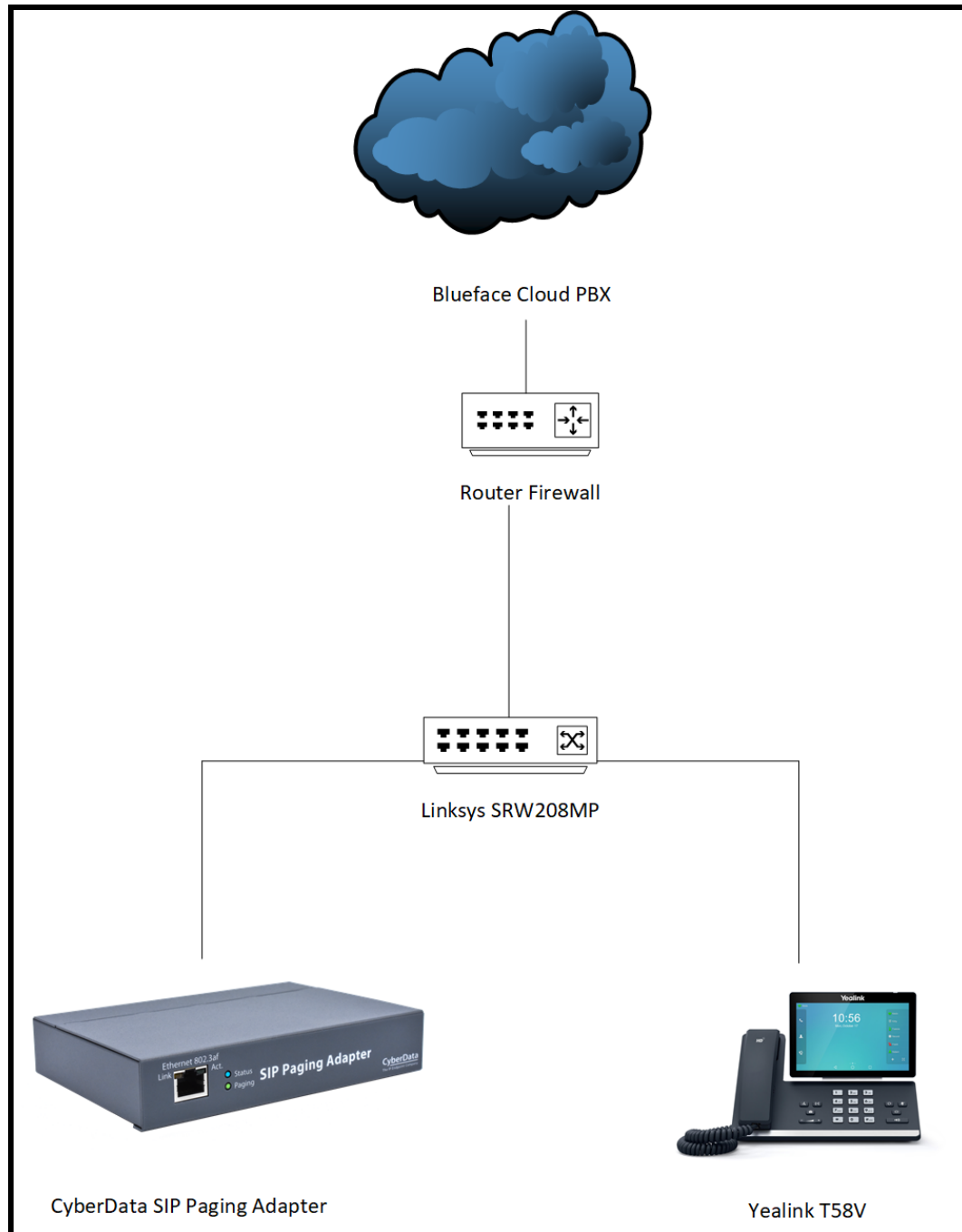
- 1/3/2022 – Initial Release
- 1/5/2022 – Name Update

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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 Blueface.

**Table 2-1: Setup Equipment**

EQUIPMENT	MODEL or PART NUMBER	FIRMWARE VERSION
CYBERDATA SIP PAGING ADAPTER	011233	20.1.0

## 3.0 Before You Start

This configuration guide documents the integration process of the CyberData SIP Paging Adapter.

### Network Advisories

Blueface uses a Fully Qualified Domain Name (FQDN) for the SIP server address. The CyberData SIP Paging Adapter needs to perform a DNS A query to resolve the IP address of Blueface's SIP Server FQDN. It is necessary to ensure the configured DNS server(s) have an A record for the SIP Server address.

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

- UDP 5062 (SIP)
- UDP 10500 (RTP)

The adapter will need to traverse the public internet in order to operate with Blueface in the cloud.

The adapter's paging extension uses SIP port 5060 to receive SIP messages. The device will send SIP messages to port 5062, the port used by Blueface's SIP Server.

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

Alternatively, SIP ports for the device 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 adapter's product webpage:

SIP Paging Adapter [\(011233\)](#):

[https://files.cyberdata.net/assets/011233/011233\\_931763C\\_SIP\\_Paging\\_Adapter\\_Operations\\_Guide.pdf](https://files.cyberdata.net/assets/011233/011233_931763C_SIP_Paging_Adapter_Operations_Guide.pdf)



## 4.0 Configuration Procedure: Callflow Setup

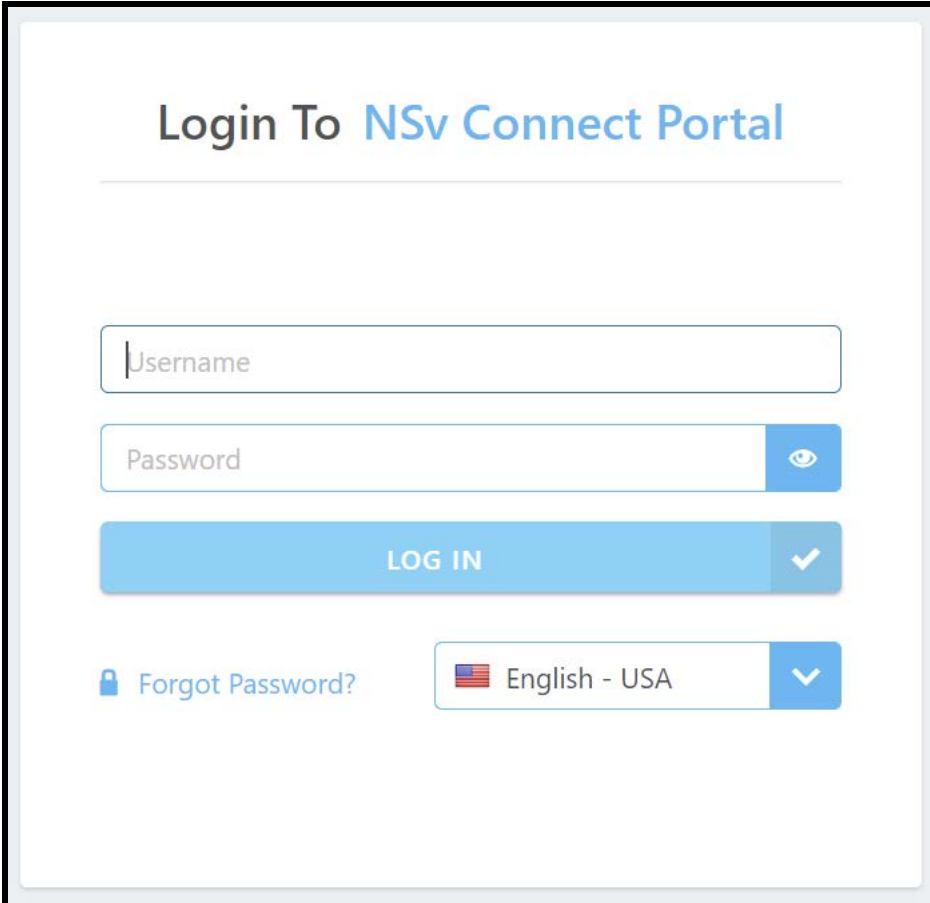
Blueface does not allow users to add their own devices to the platform. The MAC addresses of the devices must be provided to the account manager, who can then add the devices to the platform for you. An email will then be generated and sent to you that will contain the registration information for the CyberData device.

Blueface requires a callflow to be created to call or make a call from any device. This section will outline how to create the dial plan.

1. Log into Blueface.

<https://portal.nsvconnect.com/login>

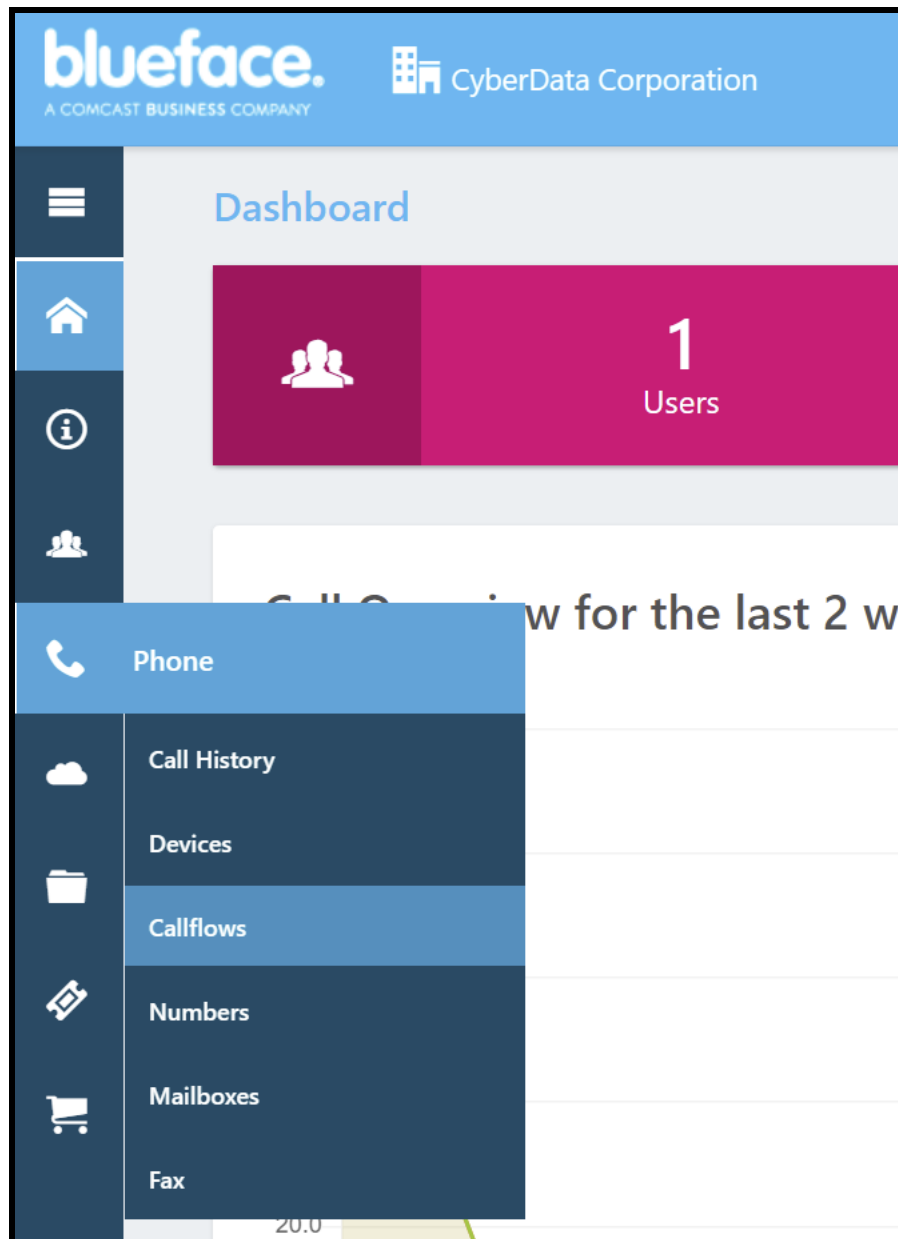
**Figure 4-1:** Login



The screenshot shows the login interface for the NSv Connect Portal. At the top, the text "Login To NSv Connect Portal" is displayed. Below this, there are two input fields: "Username" and "Password". The "Password" field has a blue eye icon on the right side, indicating a toggle for password visibility. Below the input fields is a large blue button labeled "LOG IN" with a white checkmark icon on the right. At the bottom left, there is a link "Forgot Password?" with a lock icon. At the bottom right, there is a language selection dropdown menu showing "English - USA" with a flag icon and a downward arrow.

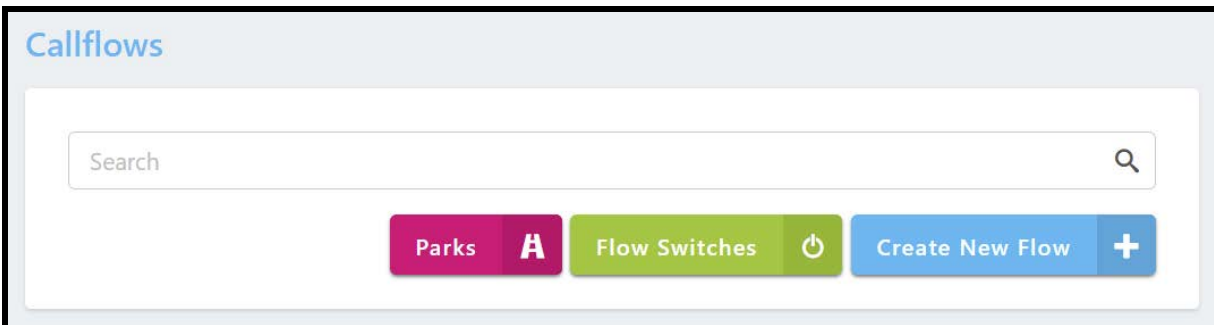
2. From the landing page **Phone** and then **callflows**.

**Figure 4-2:** Dashboard



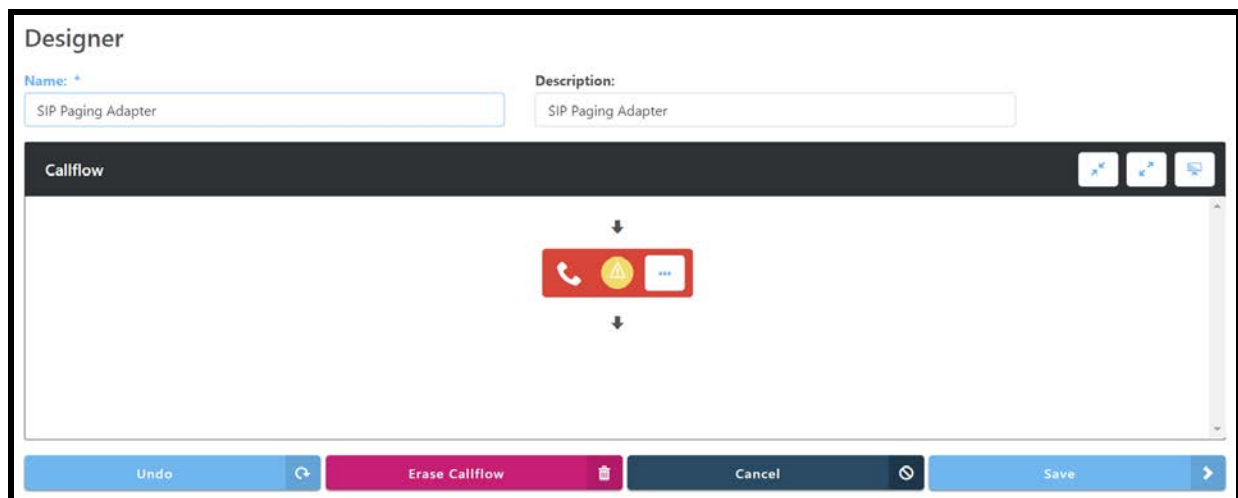
3. On the **Callflows** page press **Create New Flow**.

**Figure 4-3:** Callflow Page



4. Name the new callflow and set a description.

**Figure 4-4:** Callflow designer



5. From Elements drag **Ring** into the Callflow.

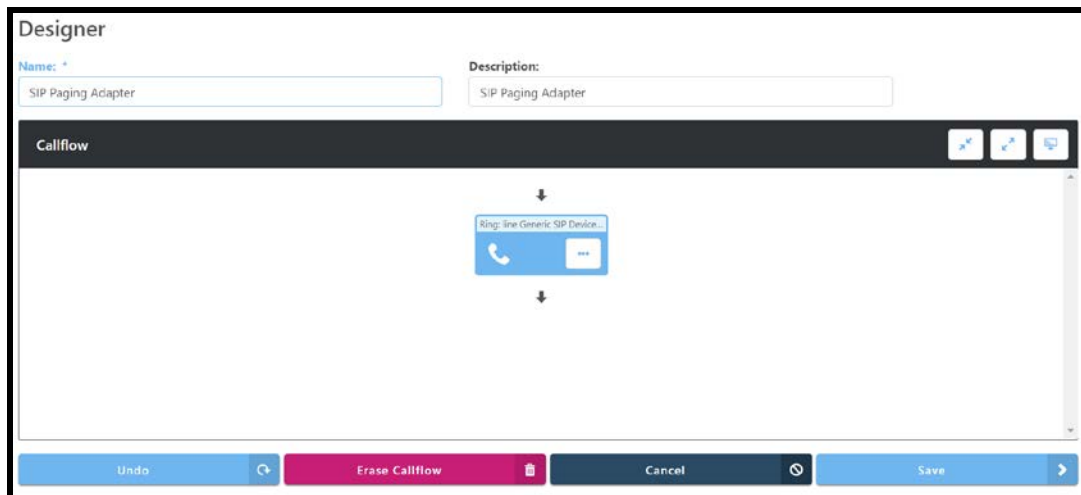
6. Click the yellow exclamation point to open the **Ring Element Settings** popup.
7. Select the Phone tab in the popup.
8. Select the Device that will be used in the group.

**Figure 4-5: Ring Element Settings**

The screenshot shows the 'Ring Element Settings' dialog box. At the top, there's a title bar with the text 'Ring Element Settings' and a close button (X). Below the title bar, there's a 'Timeout' field with a value of '20' and a note: 'This configuration rings the destination for 20 seconds'. The main area is divided into two sections. On the left, there's a 'Devices' list with five items: 'SIP Paging Amplifier', 'SIP Paging Server', 'SIP Speaker', 'SIP Strobe', and 'Video Intercom with Keypad'. Each item has a blue '+' button next to it. On the right, there's a 'Selected destinations' list with one item: 'Generic SIP Device - SIP Paging Adapter - Line 1'. At the bottom of the dialog, there's an 'Extra options' section with a dropdown arrow, and two buttons: 'Cancel' and 'Ok'.

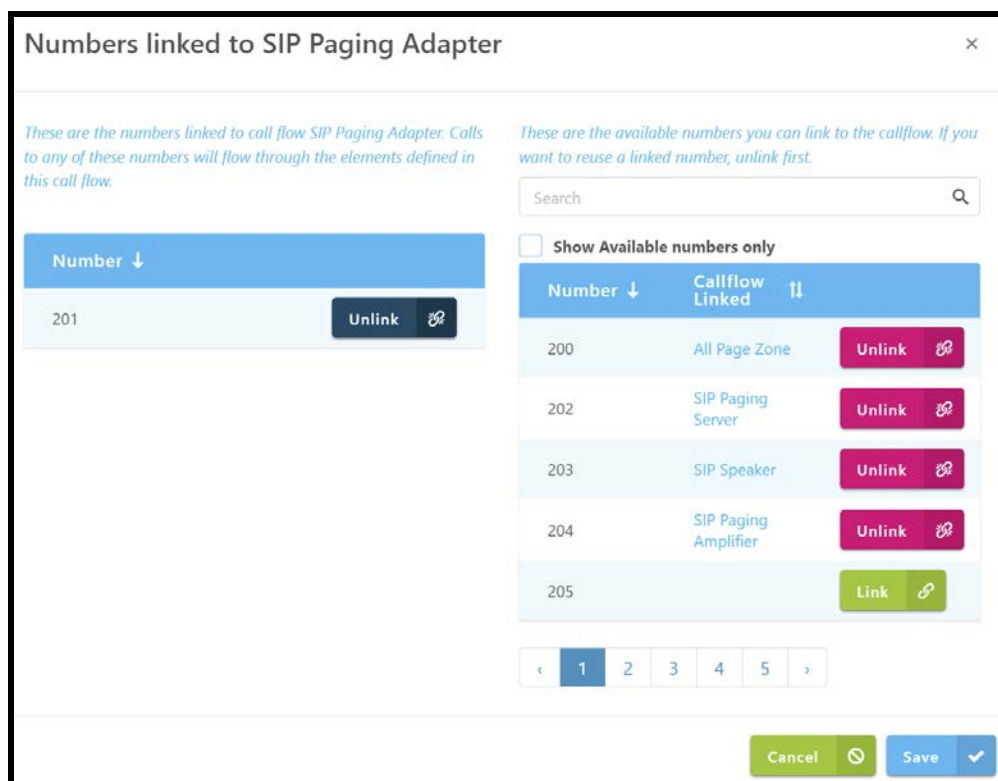
9. Press Ok to save the device to the callflow.
10. Press Save to save the callflow.

**Figure 4-6: Callflow Designer**



11. Click the **Save** button to create the Phone.
12. Next link a number to the new callflow.
13. Save the number to the callflow.

**Figure 4-7: Link a Number**



## 5.0 Configuration Procedure: Setting up the Paging Extension

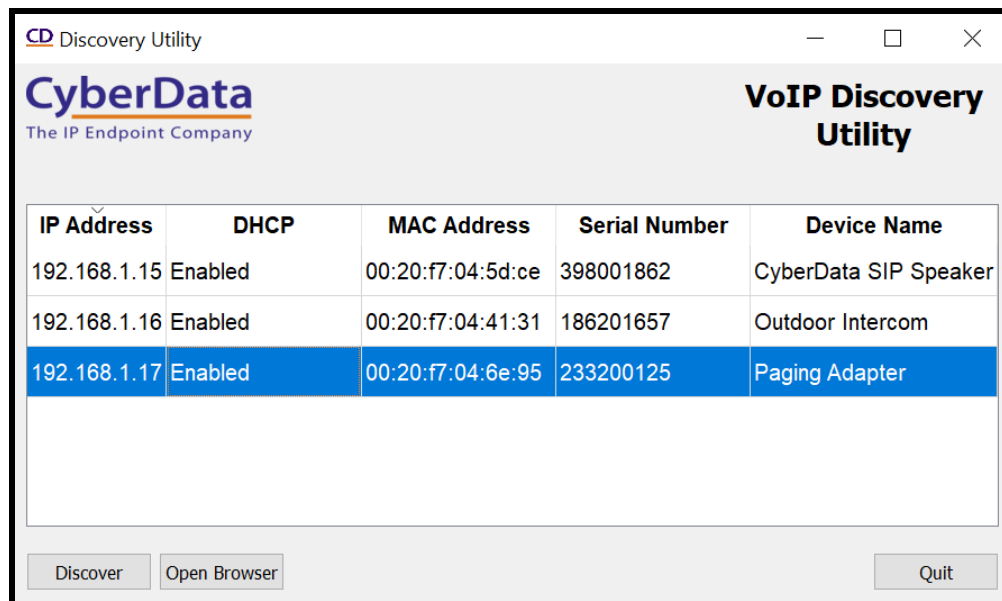
For configuring through the web interface, use the following steps to login to the web interface of your CyberData device.

**Table 5-1: Setting Name correlation**

CyberData Setting	Blueface Email
Primary SIP Server	SIP Server
Primary SIP User ID	Username
Primary SIP Auth ID	Authentication 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

**Figure 5-2: Home Tab**

The screenshot shows the 'Home' tab of the CyberData Paging Adapter web interface. The top navigation bar includes tabs for Home, Device, Network, SIP, SSL, Multicast, Fault, Audiofiles, Events, Autoprov, and Firmware. The main content area is titled 'CyberData Paging Adapter' and is divided into three columns: Current Status, Admin Settings, and Import Settings.

**Current Status:**

- Serial Number: 233200125
- Mac Address: 00:20:f7:04:6e:95
- Firmware Version: v20.1.0
- Partition 2: v20.1.0
- Partition 3: v20.1.0
- Booting From: partition 2
- Boot From Other Partition (button)
- IP Addressing: DHCP
- IP Address: 192.168.1.17
- Subnet Mask: 255.255.255.0
- Default Gateway: 192.168.1.1
- DNS Server 1: 192.168.1.1
- DNS Server 2:
- SIP Mode: Enabled
- Multicast Mode: Disabled
- Event Reporting: Disabled
- Primary SIP Server: **Not registered**
- Backup Server 1: Not registered
- Backup Server 2: Not registered
- Nightringer Server: Not registered

**Admin Settings:**

- Username: admin
- Password: \*\*\*\*\*
- Confirm Password: \*\*\*\*\*
- Save (button)
- Reboot (button)
- Toggle Help (button)

**Import Settings:**

- Choose File (button) | No file chosen
- Import Config (button)

**Export Settings:**

- Export Config (button)

3. Navigate to the SIP tab.

***Note:** All SIP credentials are listed in an email sent by Blueface after the device was added to the platform.*

4. Set the **Primary SIP Server** to the value listed for SIP Server.
5. Set the **Primary SIP User ID** to the value listed for the Username.
6. Set the **Primary SIP Auth ID** to the value listed for the Authentication ID.
7. Set the **Primary SIP Auth Password** to the value listed for the Password.
8. Set the **Remote SIP Port** to 5062.

**Figure 5-2: SIP Tab**

## CyberData Paging Adapter

### SIP Settings

Enable SIP operation: ☒

Register with a SIP Server: ☒

Buffer SIP Calls: ☐

Primary SIP Server:

Primary SIP User ID:

Primary SIP Auth ID:

Primary SIP Auth Password:

Re-registration Interval (in seconds):

Backup SIP Server 1:

Backup SIP User ID:

Backup SIP Auth ID:

Backup SIP Auth Password:

Re-registration Interval (in seconds):

Backup SIP Server 2:

Backup SIP User ID:

Backup SIP Auth ID:

Backup SIP Auth Password:

Re-registration Interval (in seconds):

Remote SIP Port:

Local SIP Port:

SIP Transport Protocol:

TLS Version:

Verify Server Certificate: ☐

Outbound Proxy:

Outbound Proxy Port:

Use Cisco SRST: ☐

Disable rport Discovery: ☐

Keep Alive Period:

### Nightringer Settings

SIP Server:

SIP User ID:

SIP Auth ID:

SIP Auth Password:

Re-registration Interval (in seconds):

### Call Disconnection

Terminate Call after delay:

### Audio Codec Selection

Codec:

### RTP Settings

RTP Port (even):

Asymmetric RTP: ☐

Jitter Buffer:

RTP Encryption (SRTP):

## 9. Save and Reboot.

Once the adapter finishes rebooting the unit should show Registered on the home tab.



**Figure 5-3: Home Tab – Registered**

The screenshot displays the 'Home' tab of the CyberData Paging Adapter web interface. The top navigation bar includes tabs for Home, Device, Network, SIP, SSL, Multicast, Fault, Audiofiles, Events, Autoprovisioning, and Firmware. The main content area is titled 'CyberData Paging Adapter' and is divided into four primary sections:

- Current Status:** Displays device information such as Serial Number (233200125), Mac Address (00:20:17:04:6e:95), Firmware Version (v20.1.0), and Partition details. It also shows booting status (partition 2) and a 'Boot From Other Partition' button.
- Admin Settings:** Contains fields for Username (admin), Password (masked with asterisks), and Confirm Password (masked with asterisks). It includes 'Save', 'Reboot', and 'Toggle Help' buttons.
- Import Settings:** Features a 'Choose File' button (indicating 'No file chosen') and an 'Import Config' button.
- Export Settings:** Includes an 'Export Config' button.

Below these sections, network configuration details are listed, including IP Addressing (DHCP), IP Address (192.168.1.17), Subnet Mask (255.255.255.0), Default Gateway (192.168.1.1), and DNS Servers (192.168.1.1). SIP and Multicast modes are shown as 'Enabled' and 'Disabled' respectively, with Event Reporting also disabled. At the bottom, server registration status is displayed: Primary SIP Server (Registered), Backup Server 1 (Not registered), Backup Server 2 (Not registered), and Nighthtringer Server (Not registered).

## 5.1 Configuration Procedure: Setting up the Nightringer Extension

The Nightringer Extension is a secondary extension that will ring when called. This makes the Nightringer extension ideal for use in ring groups.

1. Navigate to the web interface of the speaker.

**Figure 5-4: Home Tab**

The screenshot displays the 'Home' tab of the CyberData Paging Adapter web interface. At the top is a navigation bar with tabs: Home, Device, Network, SIP, SSL, Multicast, Fault, Audiofiles, Events, Autoprov, and Firmware. The main heading is 'CyberData Paging Adapter'.

**Current Status**

Serial Number:	233200125
Mac Address:	00:20:f7:04:6e:95
Firmware Version:	v20.1.0
Partition 2:	v20.1.0
Partition 3:	v20.1.0
Booting From:	partition 2

**Admin Settings**

Username:	<input type="text" value="admin"/>
Password:	<input type="password" value="*****"/>
Confirm Password:	<input type="password" value="*****"/>

**Import Settings**

No file chosen

**Export Settings**

**IP Addressing:**

IP Addressing:	DHCP
IP Address:	192.168.1.17
Subnet Mask:	255.255.255.0
Default Gateway:	192.168.1.1
DNS Server 1:	192.168.1.1
DNS Server 2:	

**SIP Mode:** Enabled

**Multicast Mode:** Disabled

**Event Reporting:** Disabled

**Primary SIP Server:** Not registered

**Backup Server 1:** Not registered

**Backup Server 2:** Not registered

**Nightringer Server:** Not registered

2. Navigate to the SIP tab.

***Note:** All SIP credentials are listed in an email sent by Blueface after the device was added to the platform.*

3. Set the **SIP Server** to the value listed for SIP Server.
4. Set the **User ID** to the value listed for the Username.
5. Set the **Authenticate ID** to the value listed for the Authentication ID.
6. Set the **Authenticate Password** to the value listed for the Password.
7. Set the **Remote SIP Port** to 5062.

**Figure 5-5: SIP Tab - Nightringer**

## CyberData Paging Adapter

### SIP Settings

Enable SIP operation: ☒

Register with a SIP Server: ☒

Buffer SIP Calls: ☐

Primary SIP Server:

Primary SIP User ID:

Primary SIP Auth ID:

Primary SIP Auth Password:

Re-registration Interval (in seconds):

Backup SIP Server 1:

Backup SIP User ID:

Backup SIP Auth ID:

Backup SIP Auth Password:

Re-registration Interval (in seconds):

Backup SIP Server 2:

Backup SIP User ID:

Backup SIP Auth ID:

Backup SIP Auth Password:

Re-registration Interval (in seconds):

Remote SIP Port:

Local SIP Port:

SIP Transport Protocol:

TLS Version:

Verify Server Certificate: ☐

Outbound Proxy:

Outbound Proxy Port:

Use Cisco SRST: ☐

Disable rport Discovery: ☐

Keep Alive Period:

### Nightringer Settings

SIP Server:

SIP User ID:

SIP Auth ID:

SIP Auth Password:

Re-registration Interval (in seconds):

### Call Disconnection

Terminate Call after delay:

### Audio Codec Selection

Codec:

### RTP Settings

RTP Port (even):

Asymmetric RTP: ☐

Jitter Buffer:

RTP Encryption (SRTP):

**8. Save and Reboot device.**

If the credentials were added correctly, when the unit finishes rebooting Registered in Green should appear next to Nightringer Status on the Home Tab.

**Figure 5-6: Nightringer Registered**

The screenshot displays the CyberData Paging Adapter web interface. At the top is a navigation bar with tabs: Home, Device, Network, SIP, SSL, Multicast, Fault, Audiofiles, Events, Autopro, and Firmware. The 'SIP' tab is selected. The main header reads 'CyberData Paging Adapter'. Below this, the interface is divided into three main sections: Current Status, Admin Settings, and Import Settings. The 'Current Status' section on the left lists various system parameters. The 'Admin Settings' section in the center includes fields for Username, Password, and Confirm Password, along with buttons for Save, Reboot, and Toggle Help. The 'Import Settings' section on the right has a 'Choose File' button and an 'Import Config' button. Below these, the 'Export Settings' section has an 'Export Config' button. The 'Current Status' section is further divided into two columns of information.

Current Status	
Serial Number:	233200125
Mac Address:	00:20:f7:04:6e:95
Firmware Version:	v20.1.0
Partition 2:	v20.1.0
Partition 3:	v20.1.0
Booting From:	partition 2
<a href="#">Boot From Other Partition</a>	
IP Addressing:	DHCP
IP Address:	192.168.1.17
Subnet Mask:	255.255.255.0
Default Gateway:	192.168.1.1
DNS Server 1:	192.168.1.1
DNS Server 2:	
SIP Mode:	Enabled
Multicast Mode:	Disabled
Event Reporting:	Disabled
Primary SIP Server:	Registered
Backup Server 1:	Not registered
Backup Server 2:	Not registered
Nightringer Server:	Registered

Admin Settings	
Username:	admin
Password:	*****
Confirm Password:	*****
<a href="#">Save</a> <a href="#">Reboot</a> <a href="#">Toggle Help</a>	

Import Settings	
Choose File	No file chosen
<a href="#">Import Config</a>	

Export Settings	
<a href="#">Export Config</a>	

## 6.0 Using the CyberData SIP Paging Adapter.

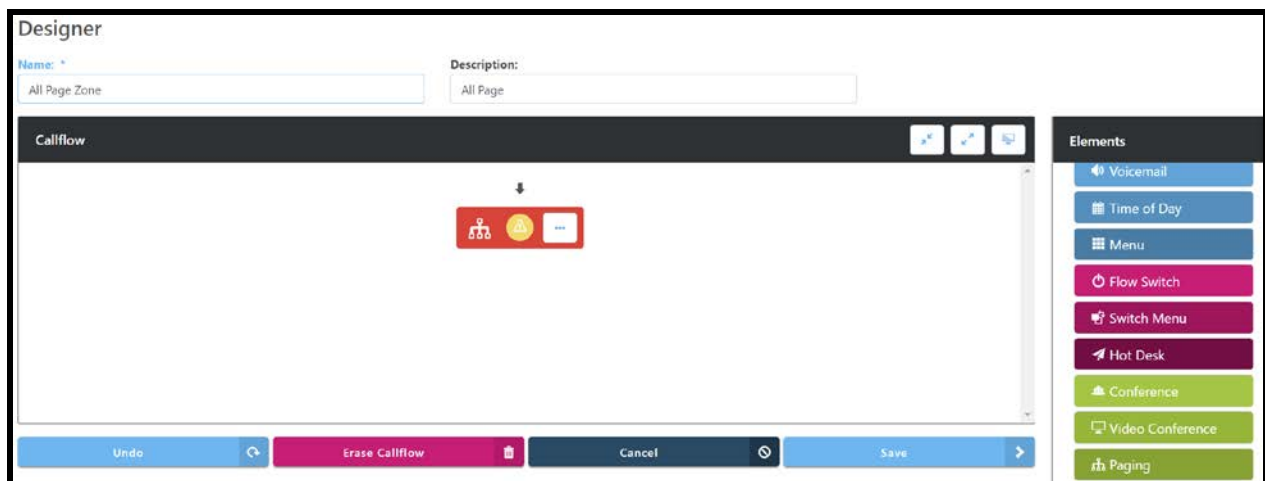
CyberData SIP Paging Adapter is designed to interface with an existing analog paging system and facilitate overhead paging. When a call is made to the device an announcement can be made through the existing paging system. The units can be used by directly calling the SIP extension, in a page group, or with multicast.

### 6.1 Setting up a page group

After registering the device to Blueface, a page group can be created which allows a call to be made which can reach multiple endpoints simultaneously. This allows for zoned paging directly through the service and does not require additional hardware.

1. Select **Callflows** in Phones on Blueface.
2. Name the new callflow and set a description.
3. In the callflow designer select the Paging Element.

**Figure 6-1: Page Group Designer**



4. After adding the paging element, click on it to assign users.
5. Add all necessary users for the paging group.

**Figure 6-2: Paging Element Creation**

**Paging Element Settings**

① PIN:

① Display Name:

**Devices**

Search

Yealink VP-T49G IP Video Phone

Generic SIP Device

**Selected destinations**

- Generic SIP Device - SIP Paging Amplifier - Line 1
- Generic SIP Device - SIP Paging Adapter - Line 1
- Generic SIP Device - SIP Speaker - Line 1
- Generic SIP Device - SIP Strobe - Line 1
- Generic SIP Device - Office Ringer - Line 1
- Generic SIP Device - SIP Paging Server - Line 1

**Extra options**

No media available

**Media Uploader**

① Broadcast media:

Drag & Drop Files or Browse

Maximum file size 5mb

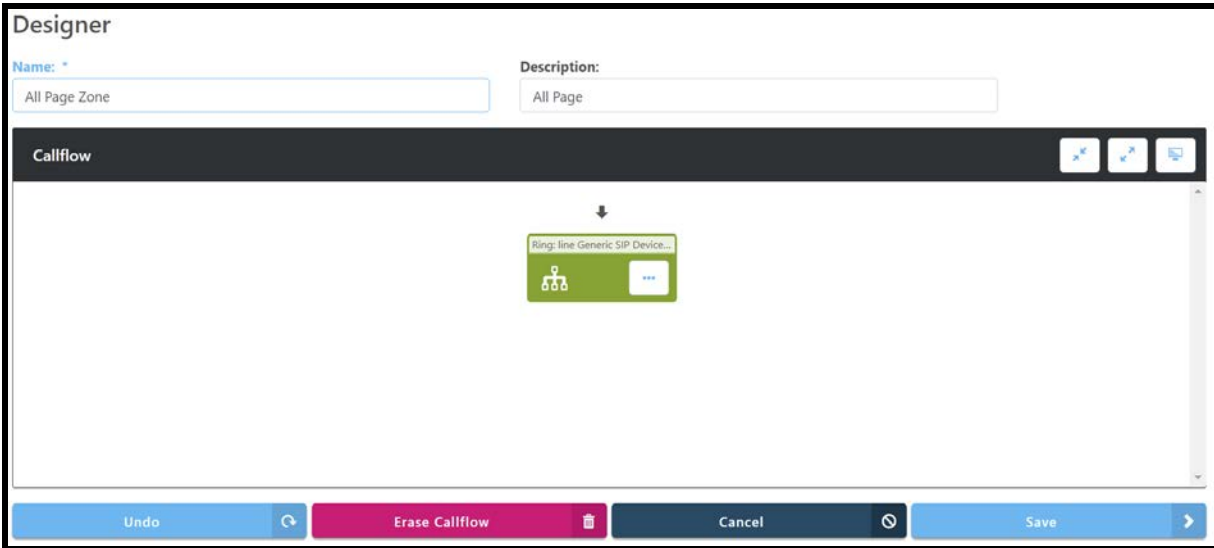
Acceptable file formats: wav, ogg, aac, wma, flac, mp1, mp2, mp3, mp4, opus, ra

① Accessible From Off Net: ☐ OFF

① Bypass on Call Protection: ☐ OFF

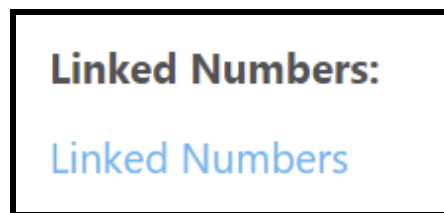
6. Once all the desired users are added, press Ok.
7. Next save the new call flow.

**Figure 6-3: Callflow Created**



8. After saving the callflow click **Linked Numbers** to set an extension number for the paging group callflow.

**Figure 6-4: Linked Numbers**



9. Set a number for the paging group.

**Figure 6-5: Linking Number**

### Numbers linked to All Page Zone

These are the numbers linked to call flow All Page Zone. Calls to any of these numbers will flow through the elements defined in this call flow.

Number ↓	
200	Unlink

These are the available numbers you can link to the callflow. If you want to reuse a linked number, unlink first.

Search

☐ Show Available numbers only

Number ↓	Callflow Linked	
201	SIP Paging Adapter	Unlink
202	SIP Paging Server	Unlink
203	SIP Speaker	Unlink
204	SIP Paging Amplifier	Unlink
205		Link

<

1

2

3

4

5

>

Cancel

Save

**10.** Press Save to save the number to the callflow.

The callflow is now ready to be used. When called it will send a SIP call to all group elements and allow a page to be made.



## 6.2 Multicast Setup

Most CyberData devices support Multicast which is a protocol that allows for easy paging on a local area network (LAN). This section will illustrate how to setup the device to listen for multicast and the different settings that work with multicast.

**Figure 6-6: Multicast Tab**

# CyberData Paging Adapter

## Multicast Settings

Enable Multicast Operation: ☒

Priority	Address	Port	Name	Buffer	Beep
0	239.168.3.1	2000	Background Music	<input type="checkbox"/>	<input type="checkbox"/>
1	239.168.3.2	3000	Unused	<input type="checkbox"/>	<input type="checkbox"/>
2	239.168.3.3	4000	Unused	<input type="checkbox"/>	<input type="checkbox"/>
3	239.168.3.4	5000	Unused	<input type="checkbox"/>	<input type="checkbox"/>
4	239.168.3.5	6000	Unused	<input type="checkbox"/>	<input type="checkbox"/>
5	239.168.3.6	7000	Unused	<input type="checkbox"/>	<input type="checkbox"/>
6	239.168.3.7	8000	Unused	<input type="checkbox"/>	<input type="checkbox"/>
7	239.168.3.8	9000	Warehouse Only	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8	239.168.3.9	10000	All Page	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9	239.168.3.10	11000	Emergency All Page	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Polycom Default Channel 1

Polycom Priority Channel 24

Polycom Emergency Channel 25

*SIP calls are considered priority 4.5*

*Port range can be from 2000-65535*

*Priority 9 is the highest and 0 is the lowest*

*A higher priority audio stream will always supersede a lower one*

The multicast engine works on priority, higher priority supersedes a lower priority. CyberData recommends setting all pages or emergency pages to a higher priority, this will prevent a non-emergency message playing over any emergency notifications. There are also options to buffer the message or play a beep tone before the message

## 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.

### Documentation Feedback

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