

Blueface Configuration Guide: SIP RGB (Multi-Color) Strobes

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Revision Information

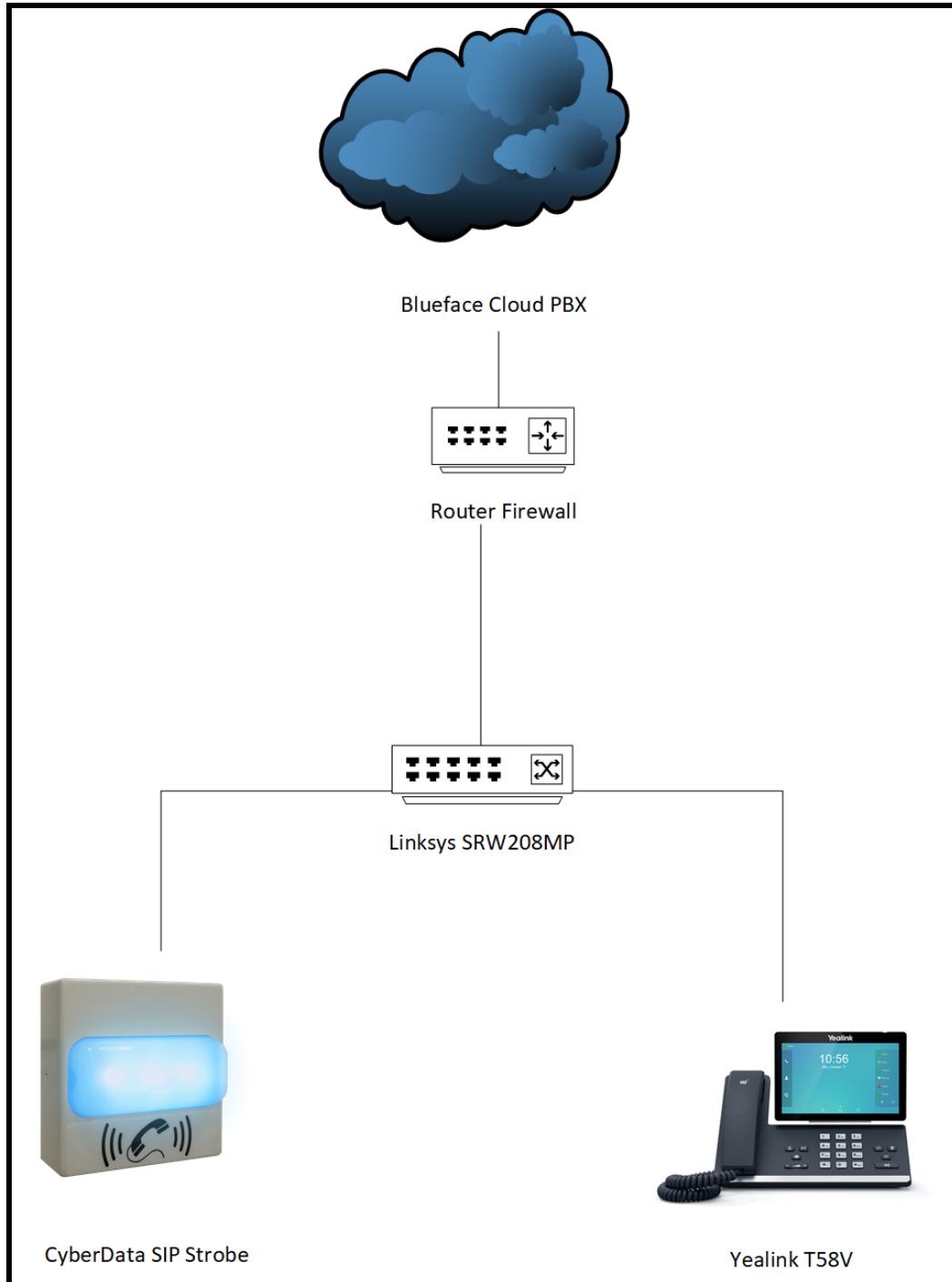
- 1/3/2022 – Initial Release
- 1/5/2022 – Name Update

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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 RGB (MULTI-COLOR) STROBE	011376	20.0.0
CYBERDATA SIP OUTDOOR RGB (MULTI-COLOR) STROBE	011479	20.0.0

3.0 Before You Start

This configuration guide documents the integration process of the CyberData SIP RGB (Multi-Color) Strobe.

Network Advisories

Blueface uses a Fully Qualified Domain Name (FQDN) for the SIP server address. The CyberData SIP RGB (Multi-Color) Strobes need 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 strobe to use:

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

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

The strobe'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 strobe's product webpage:

SIP RGB (Multi-Color) Strobe [\(011376\)](#):

https://files.cyberdata.net/assets/011376/011376_931567B_SIP_RGB_Strobe_Ops_Guide.pdf

SIP Outdoor RGB (Multi-Color) Strobe [\(011479\)](#):

https://files.cyberdata.net/assets/011479/011479_931629B_SIP_Outdoor_RGB_Strobe_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.

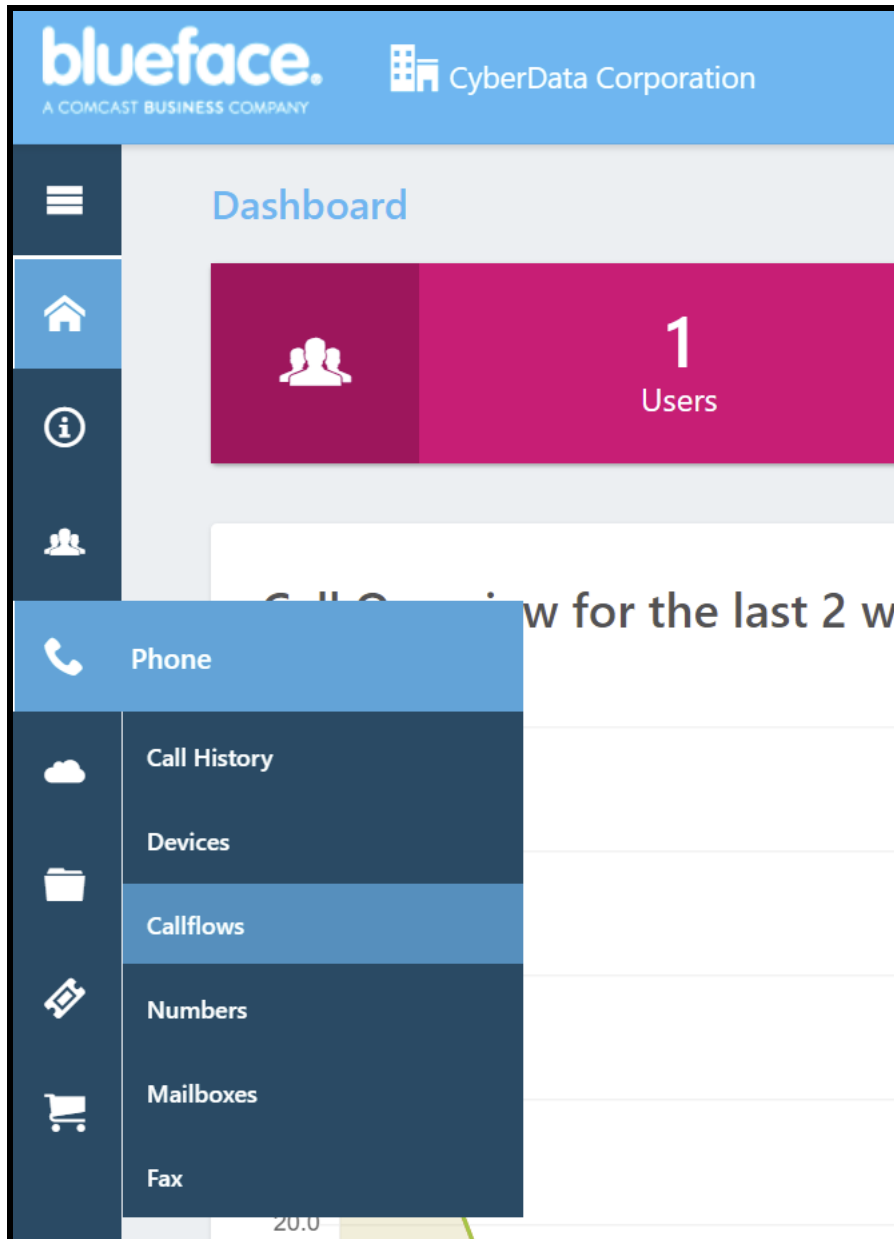
<https://portal.nsvconnect.com/login>

Figure 4-1: Login

The screenshot shows a login page for the NSv Connect Portal. At the top, the text reads "Login To NSv Connect Portal". 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 on the right side. At the bottom left, there is a link for "Forgot Password?". At the bottom right, there is a language selection dropdown menu currently set to "English - USA" with a small American flag icon and a downward arrow.

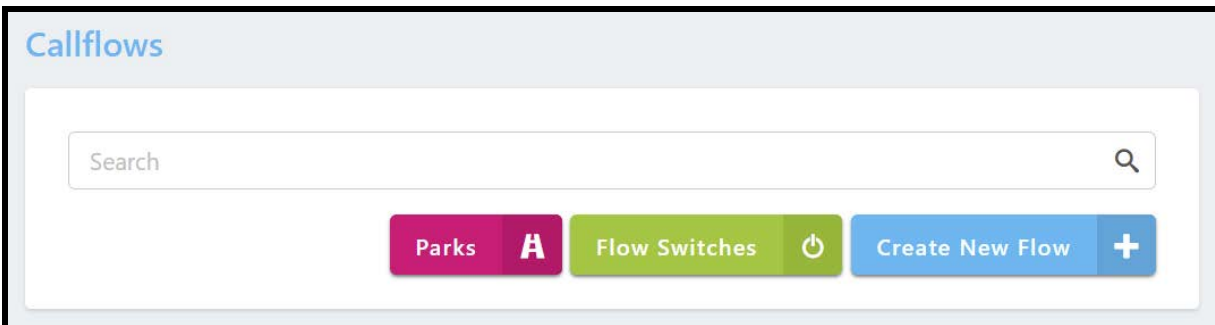
- From the landing page **Phone** and then **callflows**.

Figure 4-2: Dashboard



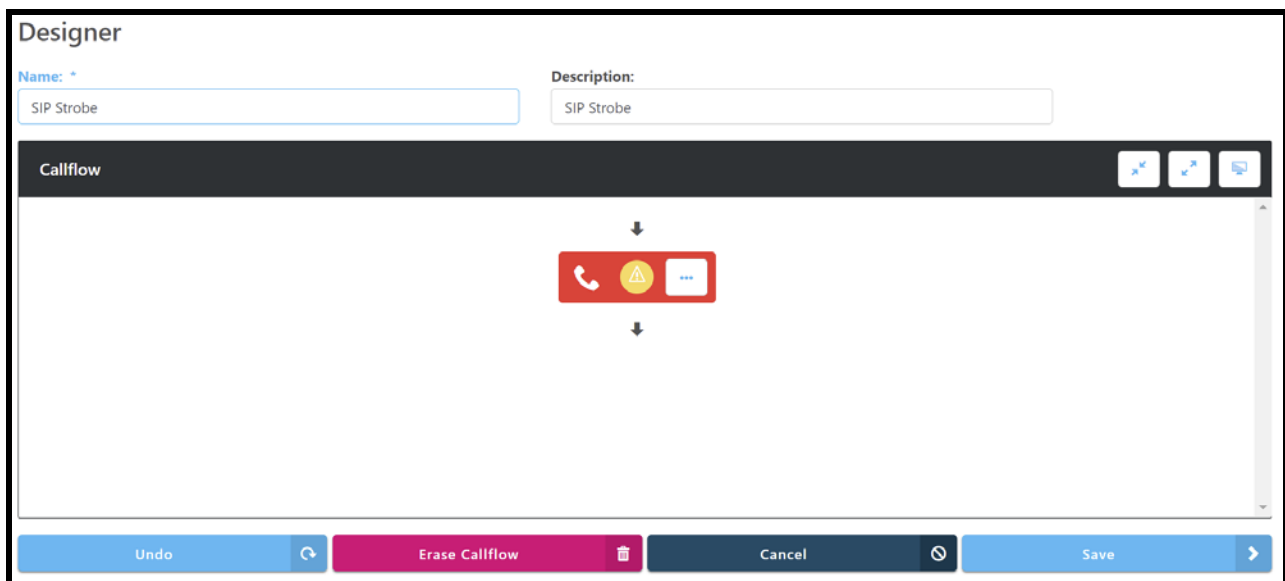
3. On the **Callflows** page press **Create New Flow**.

Figure 4-3: Callflow Page



4. Name the new callflow and set a description.

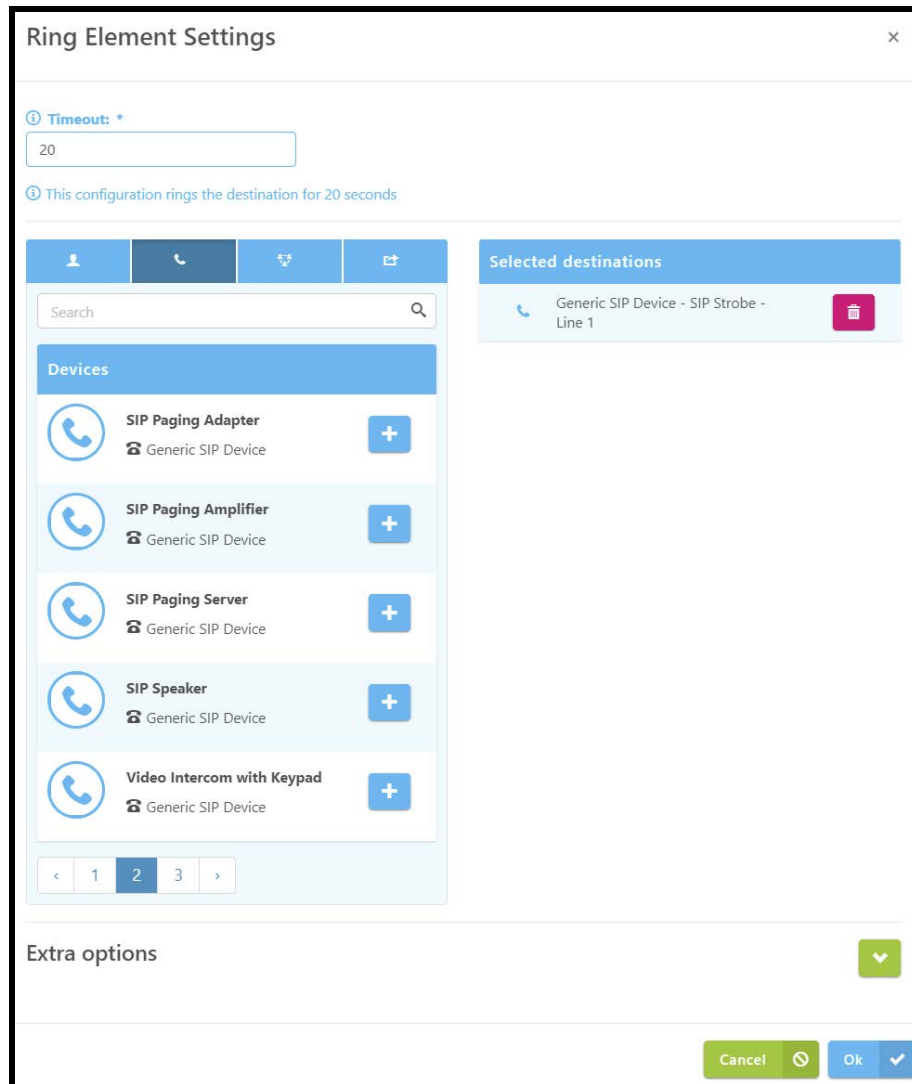
Figure 4-4: Callflow designer



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

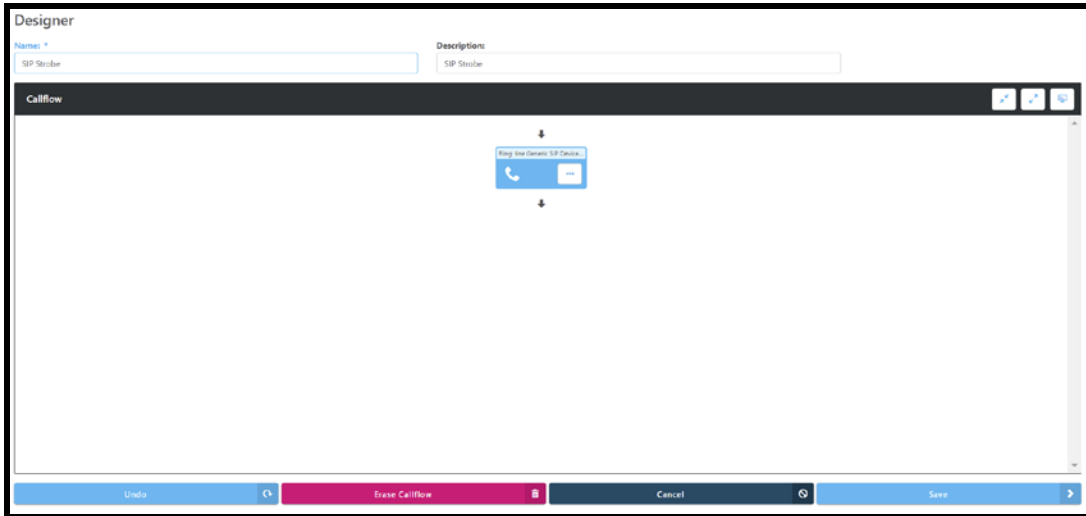
6. Click the yellow exclamation point to open the **Ring Element Settings** popup.
7. Select the Phone tab in the popup.
8. Select the Device that will be used in the group.

Figure 4-5: Ring Element Settings



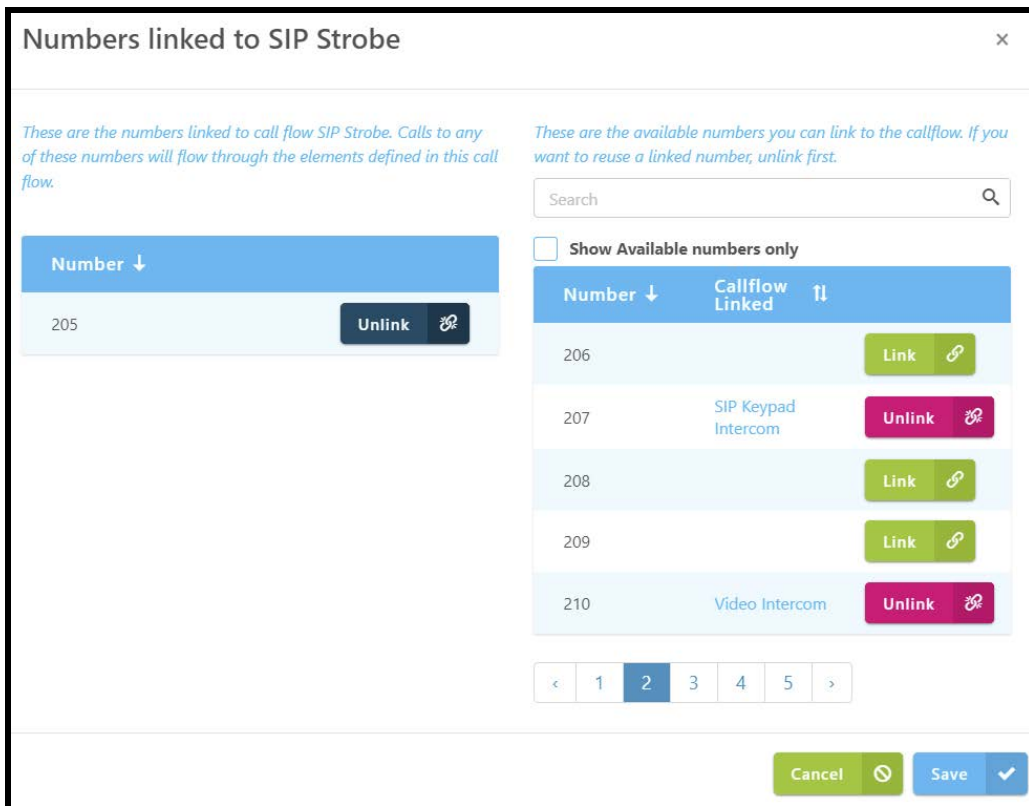
9. Press Ok to save the device to the callflow.
10. Press Save to save the callflow.

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

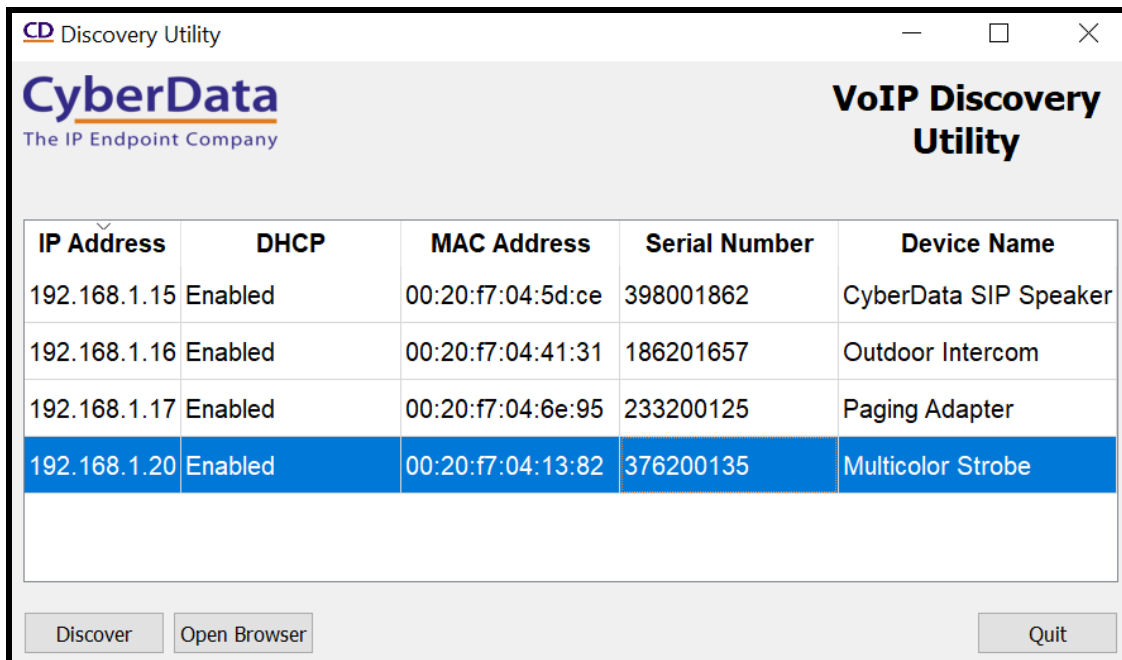
For configuring through the web interface, use the following steps to login to the web interface of your CyberData device.

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

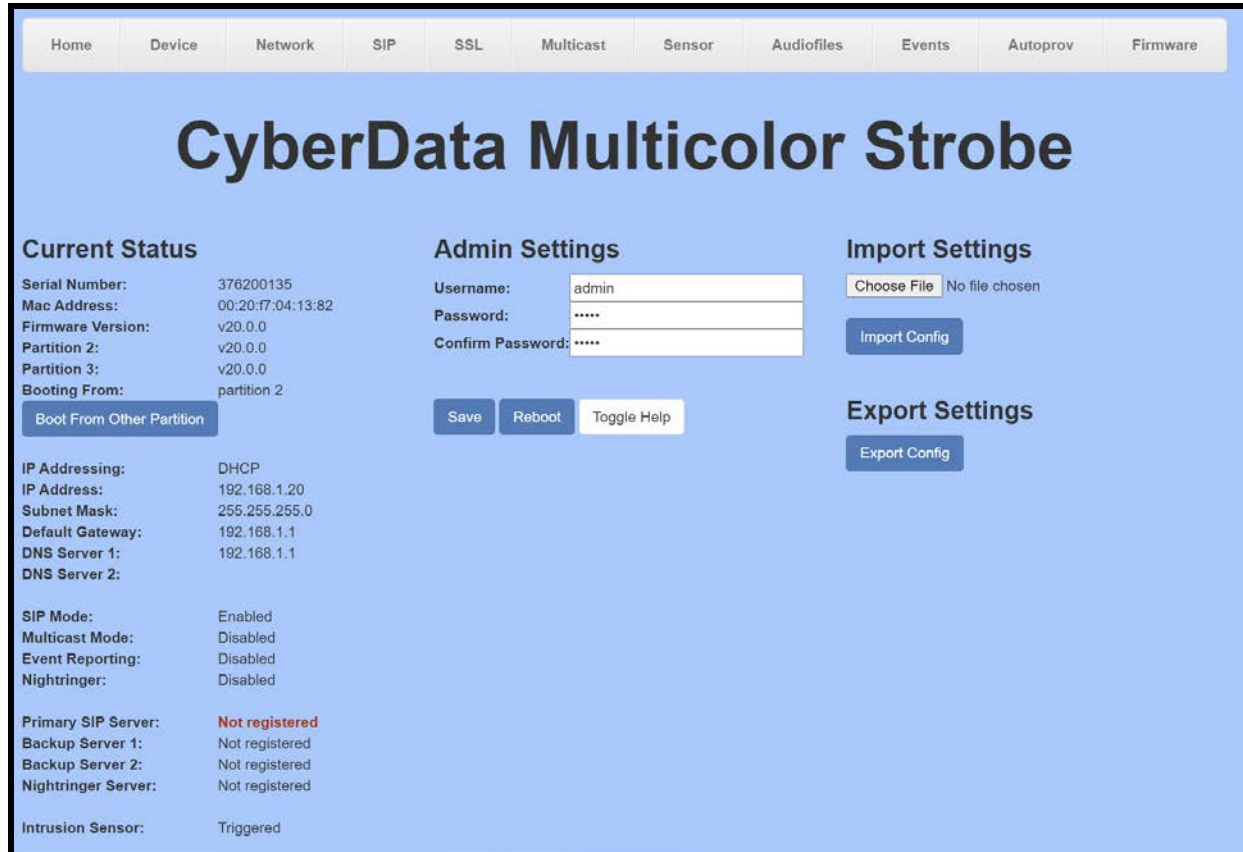


2. Enter the default credentials when prompted and click the **Log In** button.

Username: admin

Password: admin

Figure 5-2: Home Tab



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

SIP Settings

Enable SIP operation:
 Register with a SIP Server:
 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:
 Unregister on Boot:
 Keep Alive Period:

Nightringer Settings

SIP Server:
 SIP User ID:
 SIP Auth ID:
 SIP Auth Password:
 Re-registration Interval (in seconds):

SIP Ring Strobe Settings

Blink Strobe on Ring:
 Scene:
 Brightness:
 Color:
 Red:
 Green:
 Blue:

SIP Call Strobe Settings

Blink Strobe during Call:
 Scene:
 Brightness:
 Color:
 Red:
 Green:
 Blue:

MWI Strobe Settings

Blink Strobe on MWI:
 Scene:
 Brightness:
 Color:
 Red:
 Green:
 Blue:

Nightringer Strobe Settings

Blink Strobe on Nightring:
 Scene:
 Brightness:
 Color:
 Red:
 Green:
 Blue:

Call Disconnection

Terminate Call after delay:

Audio Codec Selection

Codec:

RTP Settings

RTP Port (even):
 Jitter Buffer:

9. Save and Reboot.

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

Figure 5-3: Home Tab – Registered

The screenshot shows the configuration interface for a CyberData Multicolor Strobe device. The top navigation bar includes tabs for Home, Device, Network, SIP, SSL, Multicast, Sensor, Audiofiles, Events, Autoprov, and Firmware. The main heading is "CyberData Multicolor Strobe".

Current Status

Serial Number:	376200135
Mac Address:	00:20:17:04:13:82
Firmware Version:	v20.0.0
Partition 2:	v20.0.0
Partition 3:	v20.0.0
Booting From:	partition 2

[Boot From Other Partition](#)

Admin Settings

Username:

Password:

Confirm Password:

[Save](#) [Reboot](#) [Toggle Help](#)

Import Settings

[Choose File](#) No file chosen

[Import Config](#)

Export Settings

[Export Config](#)

IP Addressing: DHCP

IP Address: 192.168.1.20

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

Nightringer: Disabled

Primary SIP Server: **Registered**

Backup Server 1: Not registered

Backup Server 2: Not registered

Nightringer Server: Not registered

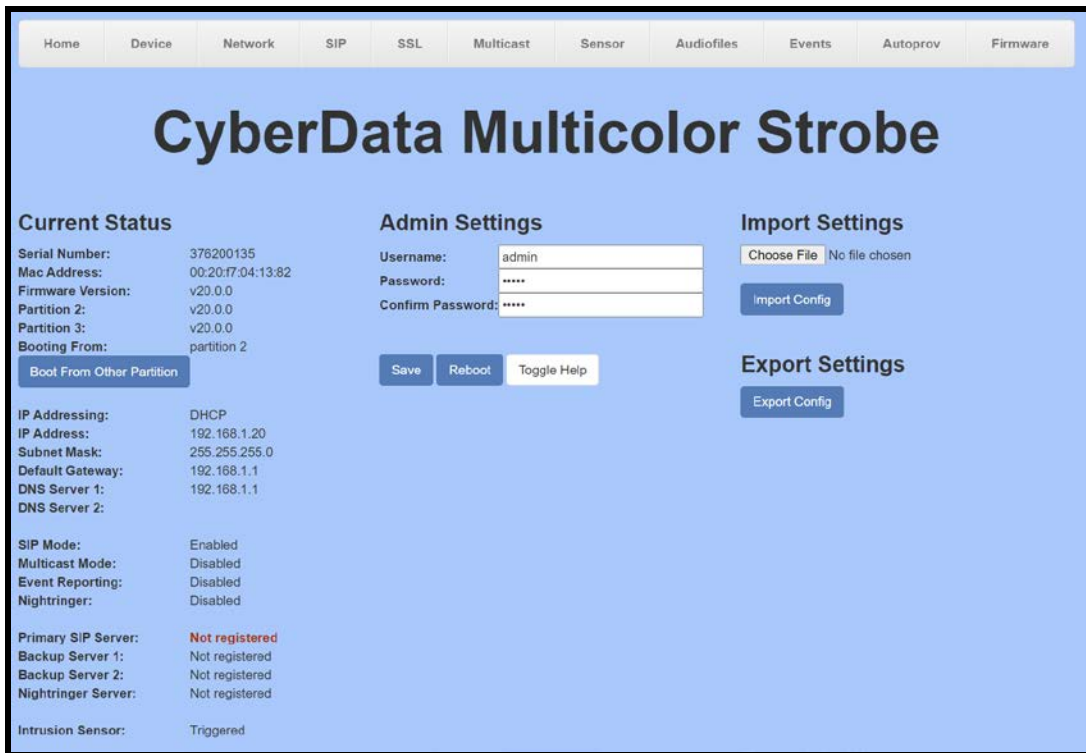
Intrusion Sensor: Triggered

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 device.

Figure 5-4: Home Tab



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

The screenshot displays a configuration page for SIP settings, divided into several sections:

- SIP Settings:** Includes checkboxes for 'Enable SIP operation' and 'Register with a SIP Server'. Fields for Primary SIP Server, Primary SIP User ID, Primary SIP Auth ID, Primary SIP Auth Password, and Re-registration Interval (360 seconds). Backup SIP Server 1 and 2 sections with their respective User IDs, Auth IDs, and Passwords. Remote SIP Port (5060) and Local SIP Port (5060). SIP Transport Protocol (UDP), TLS Version (1.2 only), and Verify Server Certificate (unchecked). Outbound Proxy and Port (0). Use Cisco SRST, Disable rport Discovery, Unregister on Boot, and Keep Alive Period (10000).
- Nightringer Settings:** Fields for SIP Server, SIP User ID, SIP Auth ID, SIP Auth Password, and Re-registration Interval (360 seconds).
- SIP Ring Strobe Settings:** 'Blink Strobe on Ring' checked. Table with columns: Scene, Brightness, Color, Red, Green, Blue. Row: Slow Fade, 255, Color, 255, 200, 0. Preview button.
- SIP Call Strobe Settings:** 'Blink Strobe during Call' checked. Table with columns: Scene, Brightness, Color, Red, Green, Blue. Row: Fast Fade, 255, Color, 255, 35, 0. Preview button.
- MWI Strobe Settings:** 'Blink Strobe on MWI' checked. Table with columns: Scene, Brightness, Color, Red, Green, Blue. Row: Slow Blink, 255, Color, 255, 0, 0. Preview button.
- Nightringer Strobe Settings:** 'Blink Strobe on Nightringer' checked. Table with columns: Scene, Brightness, Color, Red, Green, Blue. Row: Fast Blink, 255, Color, 0, 255, 0. Preview button.
- Call Disconnection:** 'Terminate Call after delay' field set to 0.
- Audio Codec Selection:** 'Codec' dropdown set to 'Auto Select'.
- RTP Settings:** 'RTP Port (even)' field set to 10500, 'Jitter Buffer' field set to 50.

Buttons at the bottom: Save, Reboot, Toggle Help.

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 configuration page for a CyberData Multicolor Strobe device. The interface includes a navigation menu at the top with tabs for Home, Device, Network, SIP, SSL, Multicast, Sensor, Audiofiles, Events, Autoprov, and Firmware. The main title is "CyberData Multicolor Strobe".

The page is divided into several sections:

- Current Status:** Lists device information such as Serial Number (376200135), Mac Address (00:20:f7:04:13:82), Firmware Version (v20.0.0), Partition 2 (v20.0.0), Partition 3 (v20.0.0), and Booting From (partition 2). A button labeled "Boot From Other Partition" is present.
- Admin Settings:** Includes fields for Username (admin), Password (masked with dots), and Confirm Password (masked with dots). Buttons for "Save", "Reboot", and "Toggle Help" are located below.
- Import Settings:** Features a "Choose File" button (with "No file chosen" text) and an "Import Config" button.
- Export Settings:** Features an "Export Config" button.
- Network Settings:** Lists IP Addressing (DHCP), IP Address (192.168.1.20), Subnet Mask (255.255.255.0), Default Gateway (192.168.1.1), and DNS Servers (192.168.1.1).
- SIP Settings:** Shows SIP Mode (Enabled), Multicast Mode (Disabled), Event Reporting (Disabled), and Nightringer (Disabled).
- Server Status:** Lists Primary SIP Server (Registered), Backup Server 1 (Not registered), Backup Server 2 (Not registered), and Nightringer Server (Registered).
- Intrusion Sensor:** Shows the status as Triggered.

6.0 Using the CyberData Multi-Color Strobe.

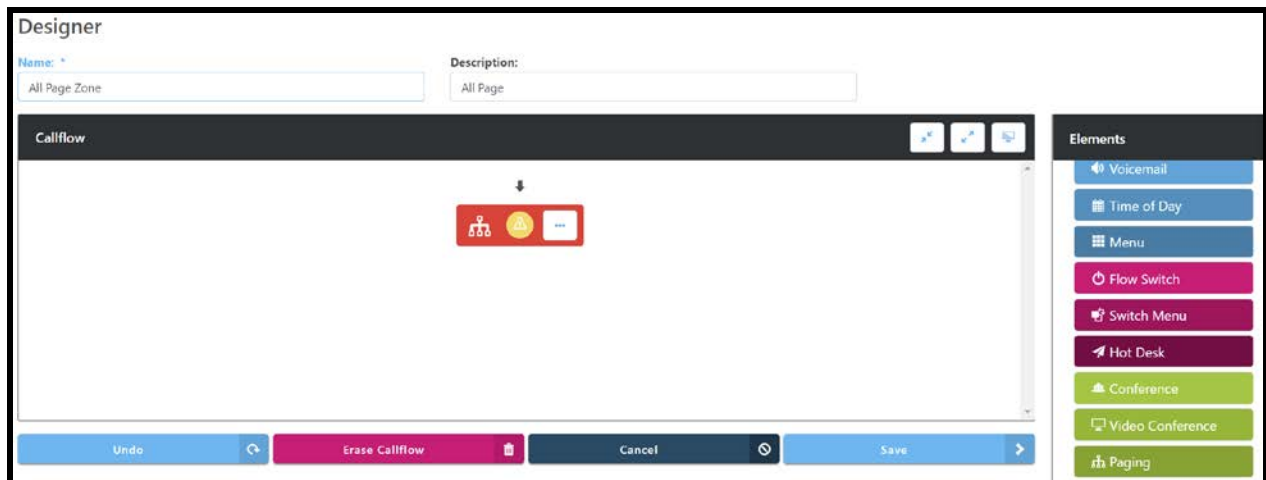
CyberData Multicolor Strobe is designed for one-way communication. When a call is made to the device it can illuminate in a specific color and blink pattern.

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.

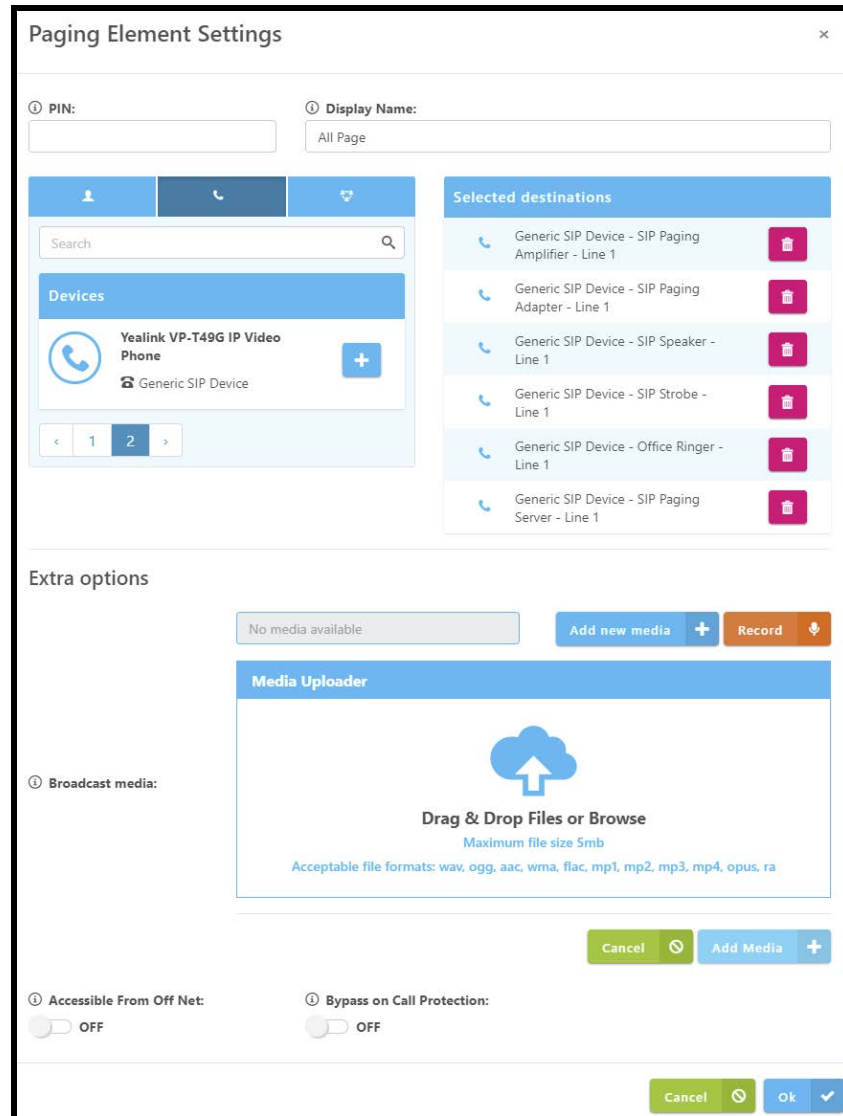
1. Select **Callflows** in Phones on Blueface.
2. Name the new callflow and set a description.
3. In the callflow designer select the Paging Element.

Figure 6-1: Page Group Designer



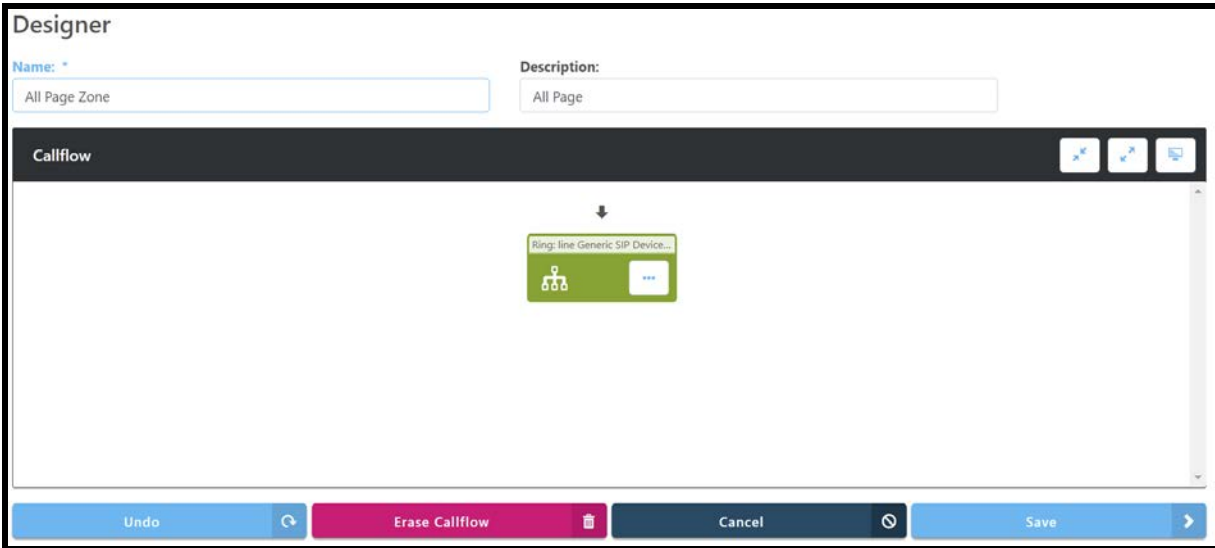
4. After adding the paging element, click on it to assign users.
5. Add all necessary users for the paging group.

Figure 6-2: Paging Element Creation



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

Figure 6-3: Callflow Created



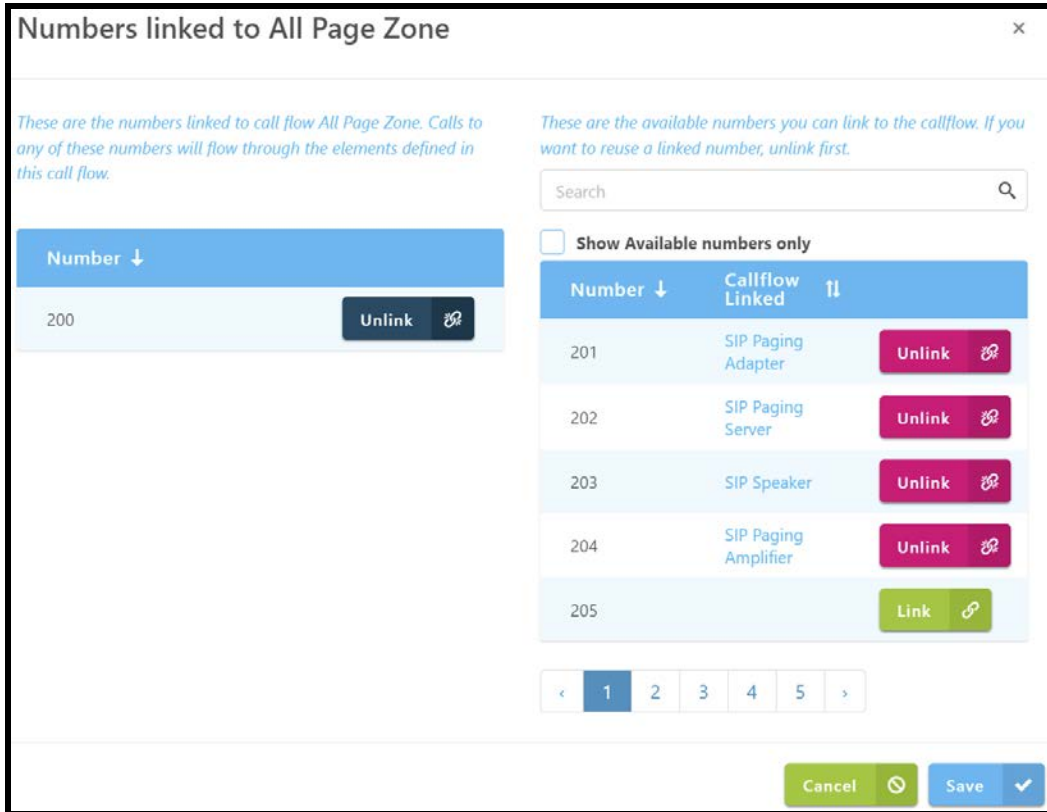
8. After saving the callflow click **Linked Numbers** to set an extension number for the paging group callflow.

Figure 6-4: Linked Numbers



9. Set a number for the paging group.

Figure 6-5: Linking Number



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

Multicast Settings

Enable Multicast Operation:

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

Polycom Default Channel

Polycom Priority Channel

Polycom Emergency Channel

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
** You need to reboot for changes to take effect*

The multicast engine workings 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, play a beep tone before the message or enable the onboard relay for the duration of the message.

6.3 Setting the Blink Scenes

The strobe can illuminate differently depending on what extension is called and what state the call is in. Both color and scene are configurable for each of the different possible options.

Blink Scene types:

- **ADA**
 - Fast blink in White to comply with ADA standards
- **Slow Fade**
 - Full brightness that slowly fades in intensity
- **Fast Fade**
 - Full brightness that fades quickly in intensity
- **Slow Blink**
 - Full brightness that slowly blinks
- **Fast Blink**
 - Full brightness that blinks quickly
- **Off**

Strobe Settings

- **SIP Ring Strobe Settings**
 - How the strobe will blink when the paging extension is called.
- **SIP Call Strobe Settings**
 - How the strobe will blink when the strobe makes an outbound call.
- **MWI Strobe Settings**
 - How the strobe will blink when a voice mail is left for the extension of the strobe.
- **Nightringer Strobe Settings**
 - How the strobe will blink when the Nightringer extension rings.

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.