

Blueface Configuration Guide: SIP Office Ringer

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Revision Information

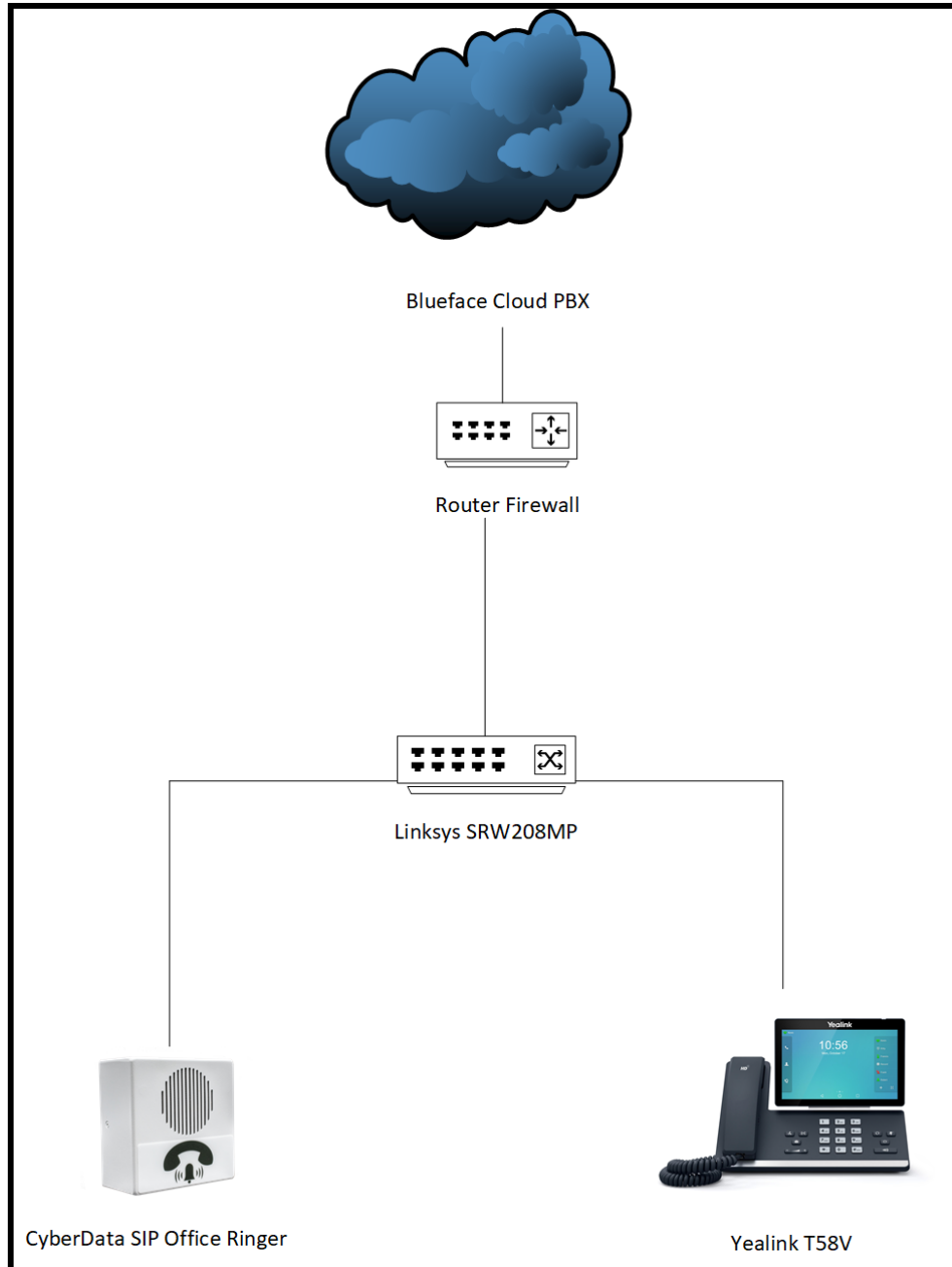
- 1/3/2022 – Initial Release
- 1/5/2022 – Name Update

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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 OFFICE RINGER	011216	20.0.0

3.0 Before You Start

This configuration guide documents the integration process of the CyberData SIP Office Ringer.

Network Advisories

Blueface uses a Fully Qualified Domain Name (FQDN) for the SIP server address. The CyberData SIP Office Ringers 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 ringer to use:

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

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

The ringer'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 ringer's product webpage:

SIP Office Ringer ([011216](#)):

https://files.cyberdata.net/assets/011216/011216_931555C_Office_Ringer_Ops_Guide.pdf

4.0 Configuration Procedure: Callflow Setup

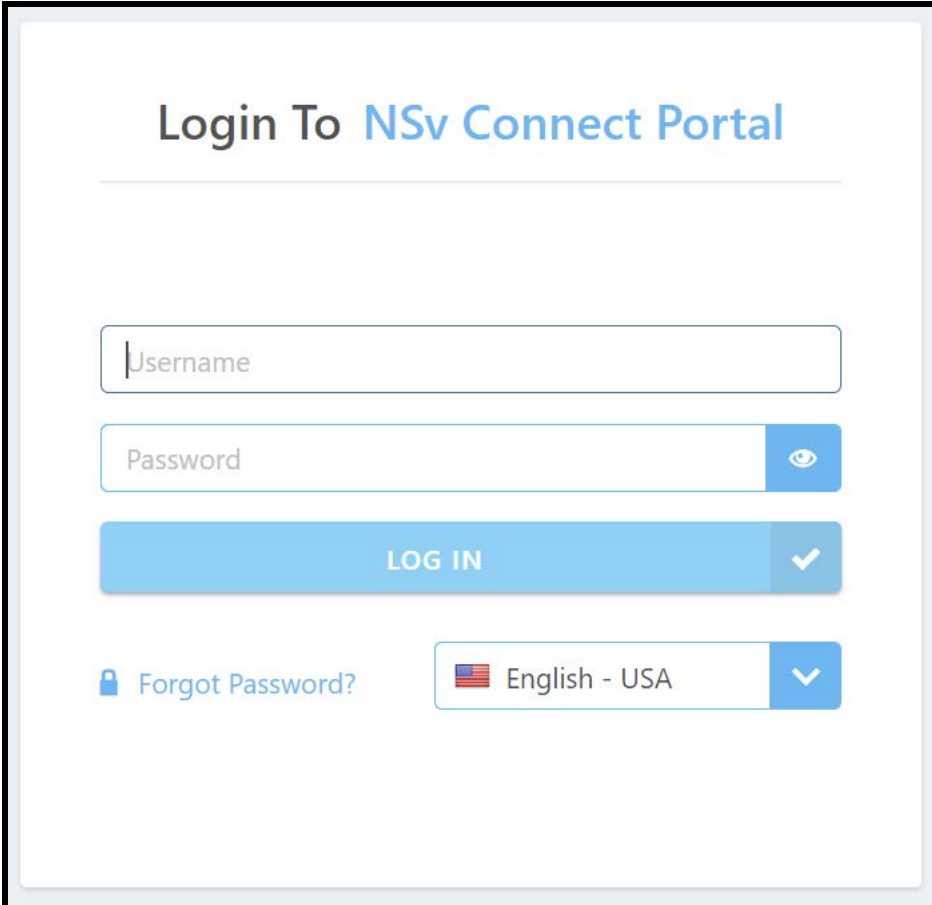
Blueface does not allow users to add their own devices to the platform. The MAC addresses of the devices must be provided to the account manager, who can then add the devices to the platform for you. An email will then be generated and sent to you that will contain the registration information for the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

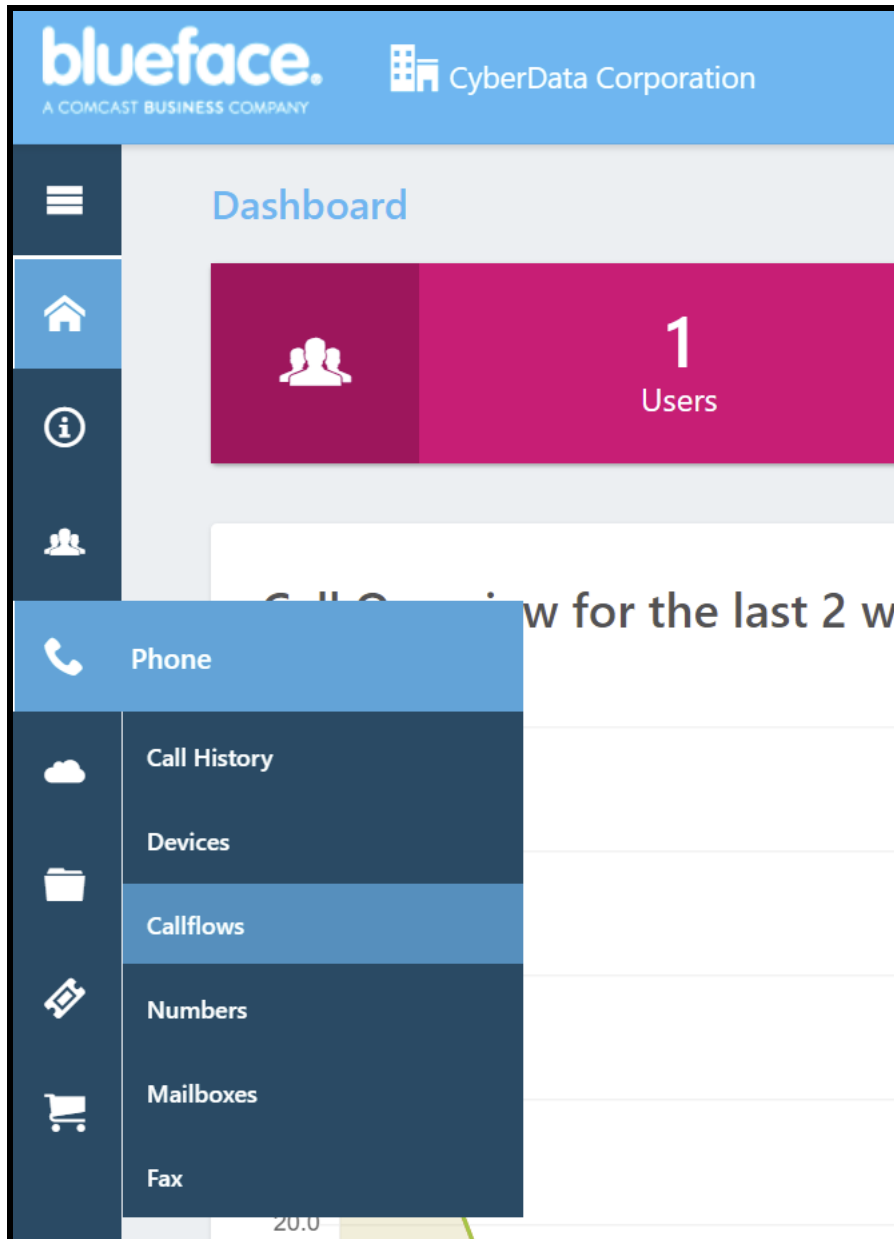
Figure 4-1: Login



The screenshot shows the login page for the NSv Connect Portal. The page has a white background with a light blue header area. The main heading is "Login To NSv Connect Portal" in a large, bold, blue font. Below the heading is a horizontal line. There are two input fields: "Username" and "Password". The "Password" field has a blue eye icon on the right side to toggle visibility. Below the input fields is a large blue button with the text "LOG IN" and 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 US flag icon and a downward arrow.

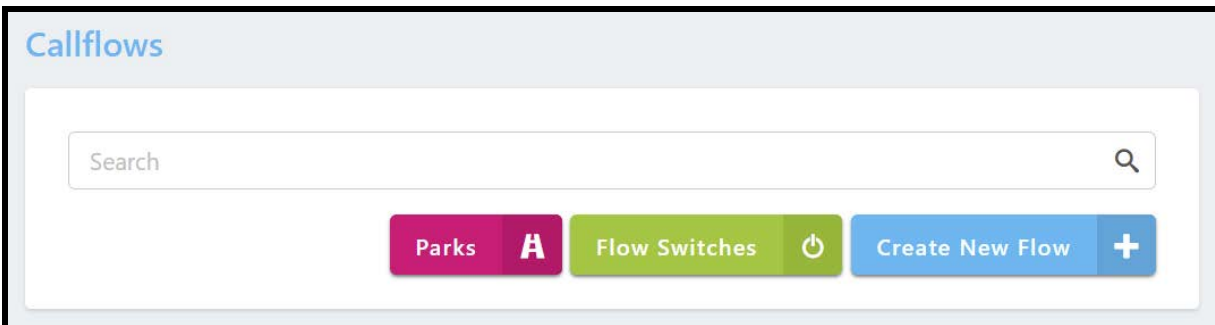
2. From the landing page **Phone** and then **callflows**.

Figure 4-2: Dashboard



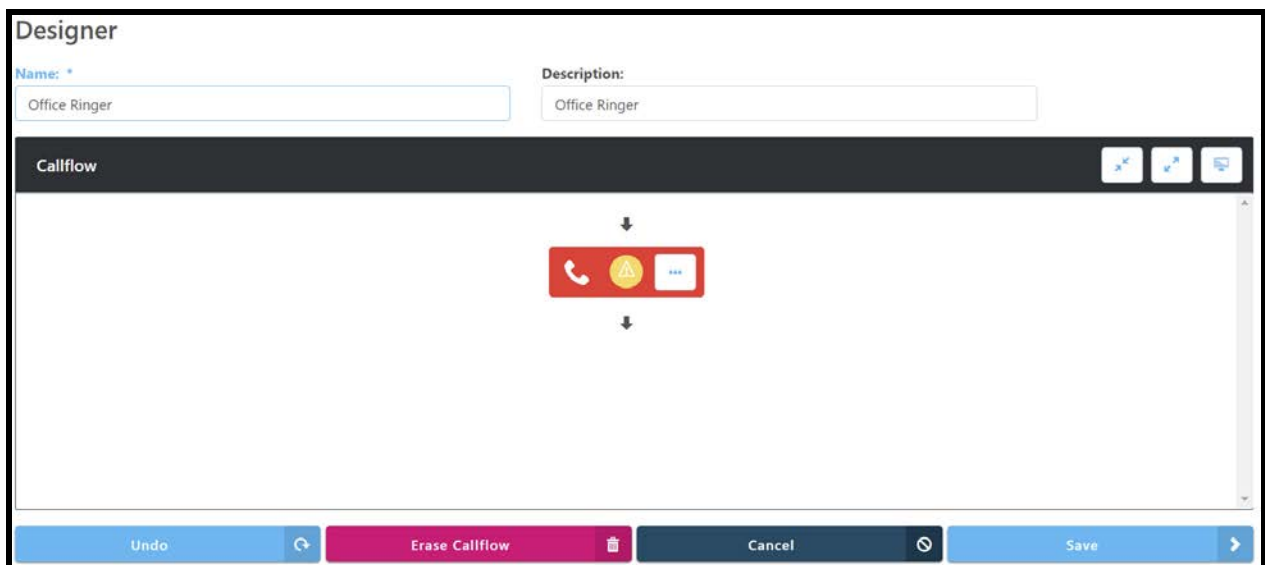
3. On the **Callflows** page press **Create New Flow**.

Figure 4-3: Callflow Page



4. Name the new callflow and set a description.

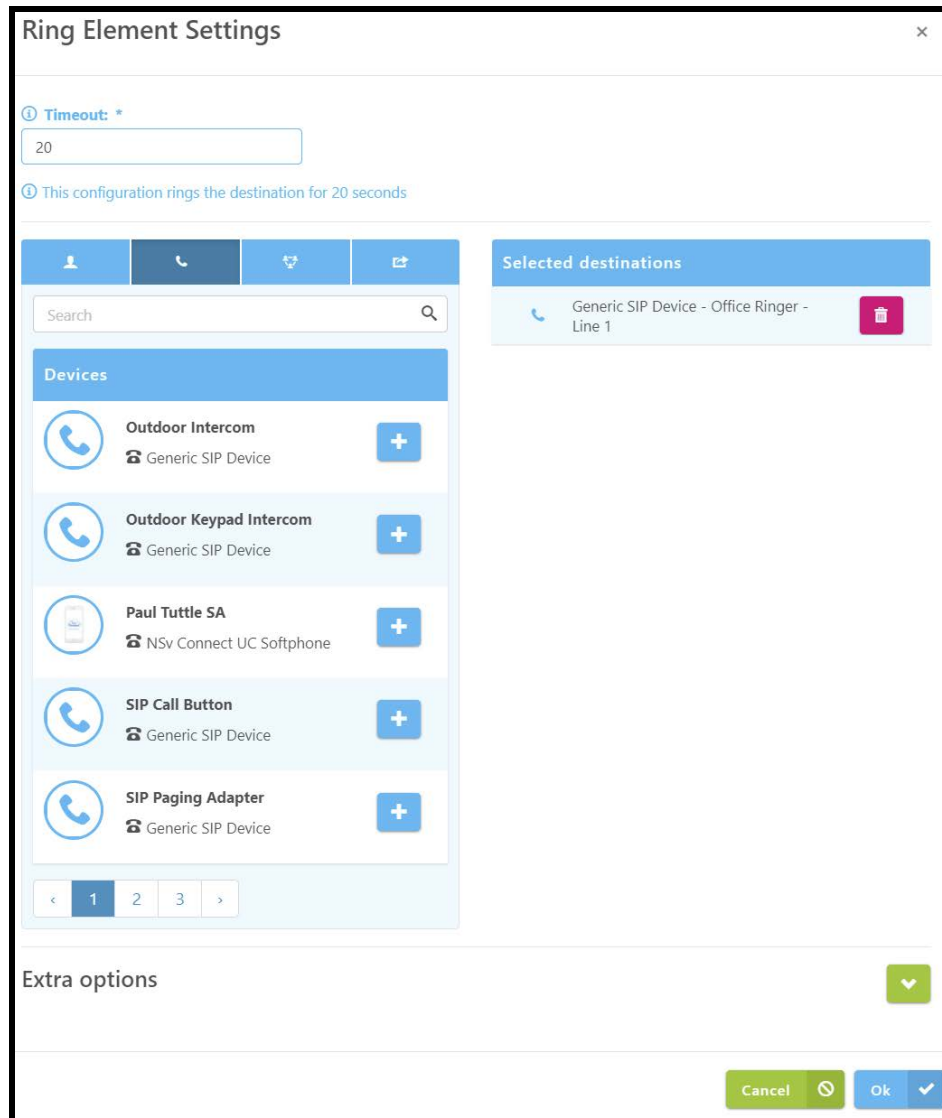
Figure 4-4: Callflow designer



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

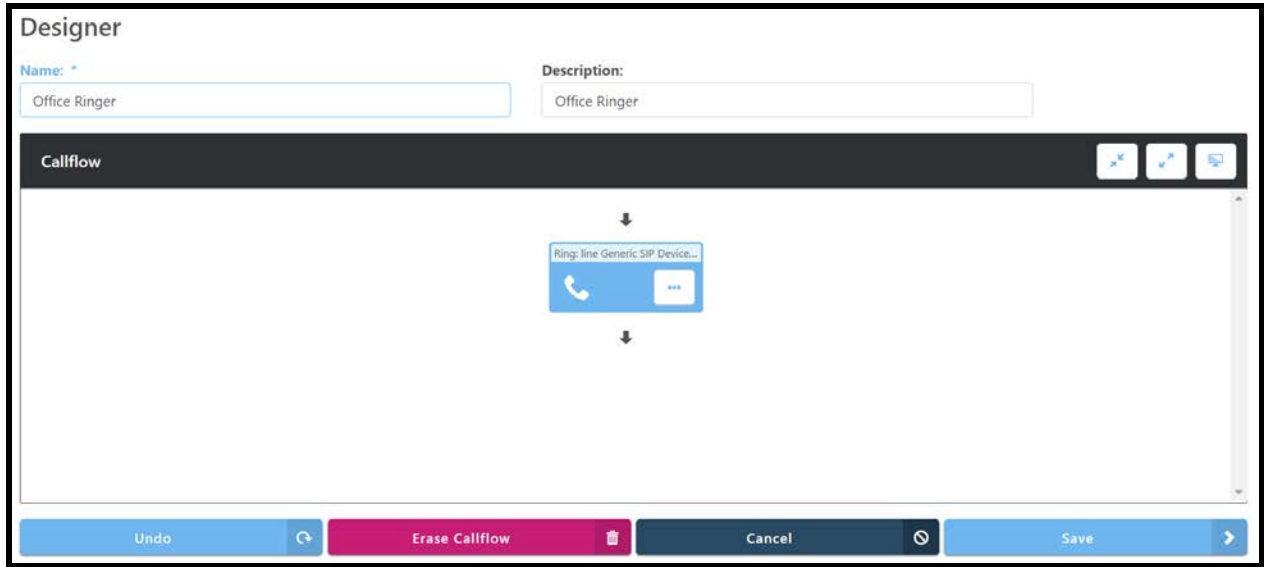
6. Click the yellow exclamation point to open the **Ring Element Settings** popup.
7. Select the Phone tab in the popup.
8. Select the Device that will be used in the group.

Figure 4-5: Ring Element Settings



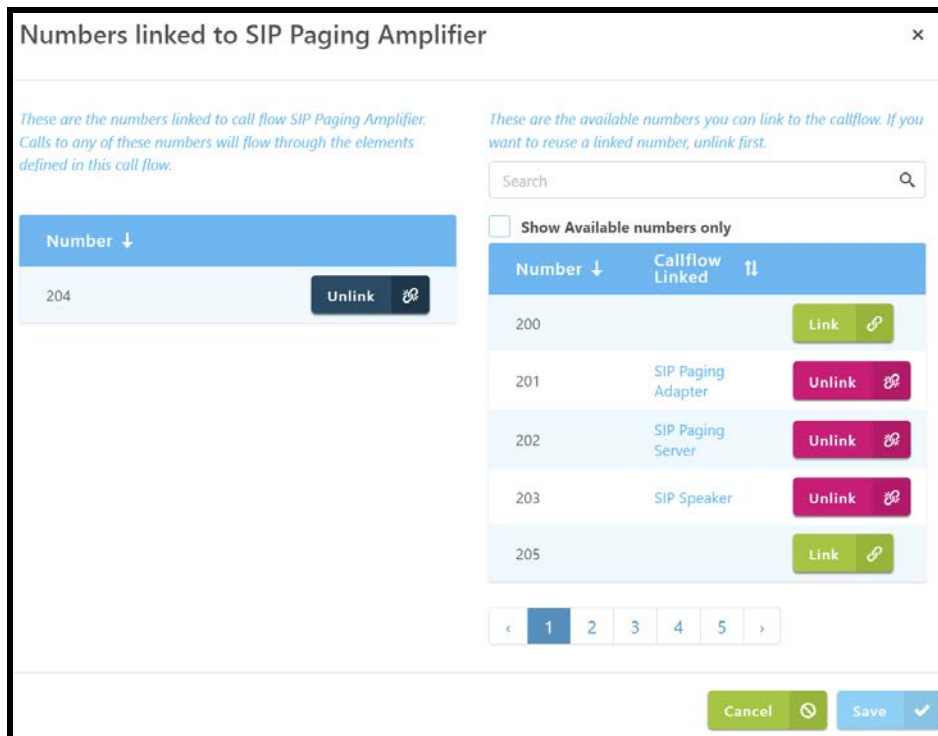
9. Press Ok to save the device to the callflow.
10. Press Save to save the callflow.

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

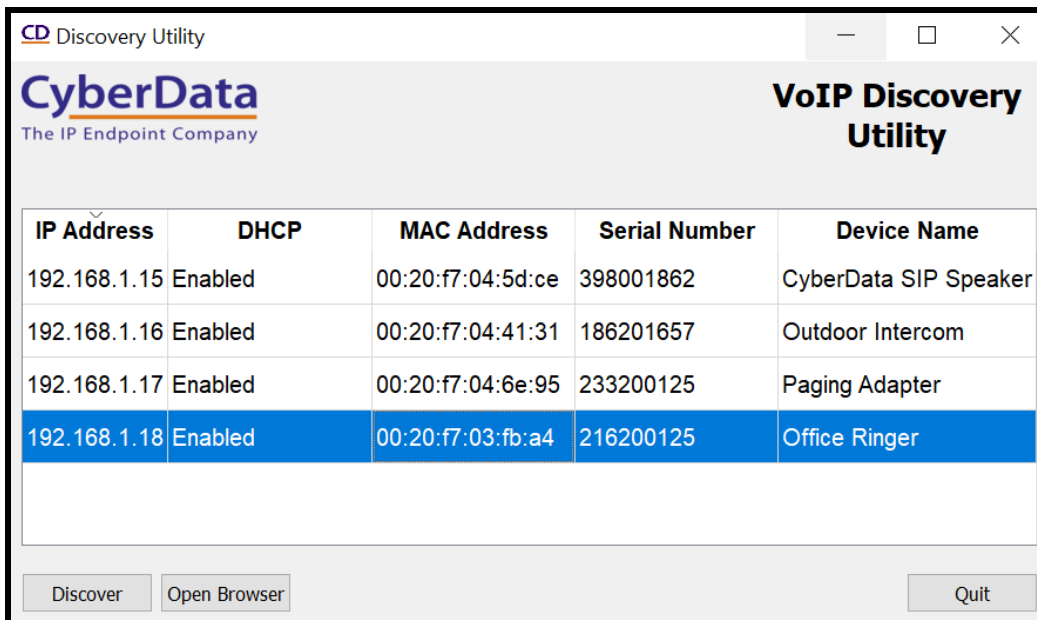
For configuring through the web interface, use the following steps to login to the web interface of your CyberData device.

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

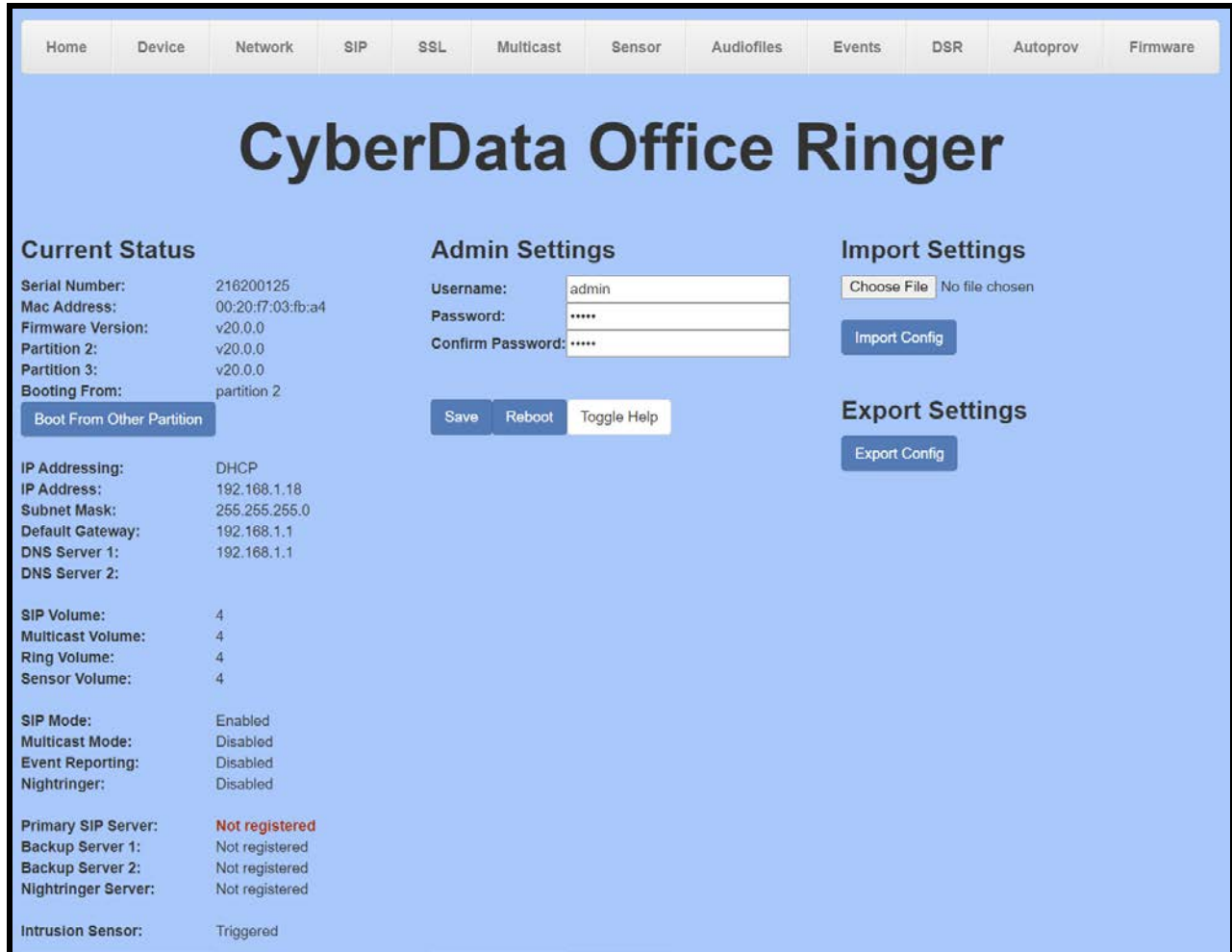


2. Enter the default credentials when prompted and click the **Log In** button.

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

The screenshot displays the configuration interface for the CyberData Office Ringer. The interface is titled "CyberData Office Ringer" and is divided into several sections:

- SIP Settings:** Includes checkboxes for "Enable SIP operation" and "Register with a SIP Server", both of which are checked. Below these are input fields for "Primary SIP Server" (cust-uc-us.nsvconnect.com), "Primary SIP User ID" (ZFQqexCgfywHJ9SdNuSG), "Primary SIP Auth ID" (ZFQqexCgfywHJ9SdNuSG), and "Primary SIP Auth Password" (masked with dots). There are also fields for "Re-registration interval (in seconds)" set to 360, and three sets of fields for "Backup SIP Server" (Server 1 and 2), each with "User ID", "Auth ID", "Auth Password", and "Re-registration interval" (all set to 360).
- Remote SIP Port:** Set to 5062.
- Local SIP Port:** Set to 5060.
- SIP Transport Protocol:** Set to UDP.
- TLS Version:** Set to 1.2 only (recommended).
- Verify Server Certificate:** A checkbox that is currently unchecked.
- Outbound Proxy:** An empty input field.
- Outbound Proxy Port:** Set to 0.
- Use Cisco SRST:** Unchecked.
- Disable rport Discovery:** Unchecked.
- Unregister on Boot:** Unchecked.
- Keep Alive Period:** Set to 10000.

Nightringer Settings: Includes input fields for "SIP Server", "SIP User ID", "SIP Auth ID", and "SIP Auth Password". The "Re-registration Interval (in seconds)" is set to 360.

Call Disconnection: Includes a field for "Terminate Call after delay" set to 0.

Audio Codec Selection: Includes a dropdown menu for "Codec" set to "Auto Select".

RTP Settings: Includes a field for "RTP Port (even)" set to 10500 and a field for "Jitter Buffer" set to 50.

At the bottom of the configuration area, there are three buttons: "Save", "Reboot", and "Toggle Help".

9. Save and Reboot.

Once the ringer 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 Office Ringer configuration interface. The page features a navigation menu at the top with tabs for Home, Device, Network, SIP, SSL, Multicast, Sensor, Audiofiles, Events, DSR, Autoprov, and Firmware. The main content area is titled 'CyberData Office Ringer' and is divided into several sections:

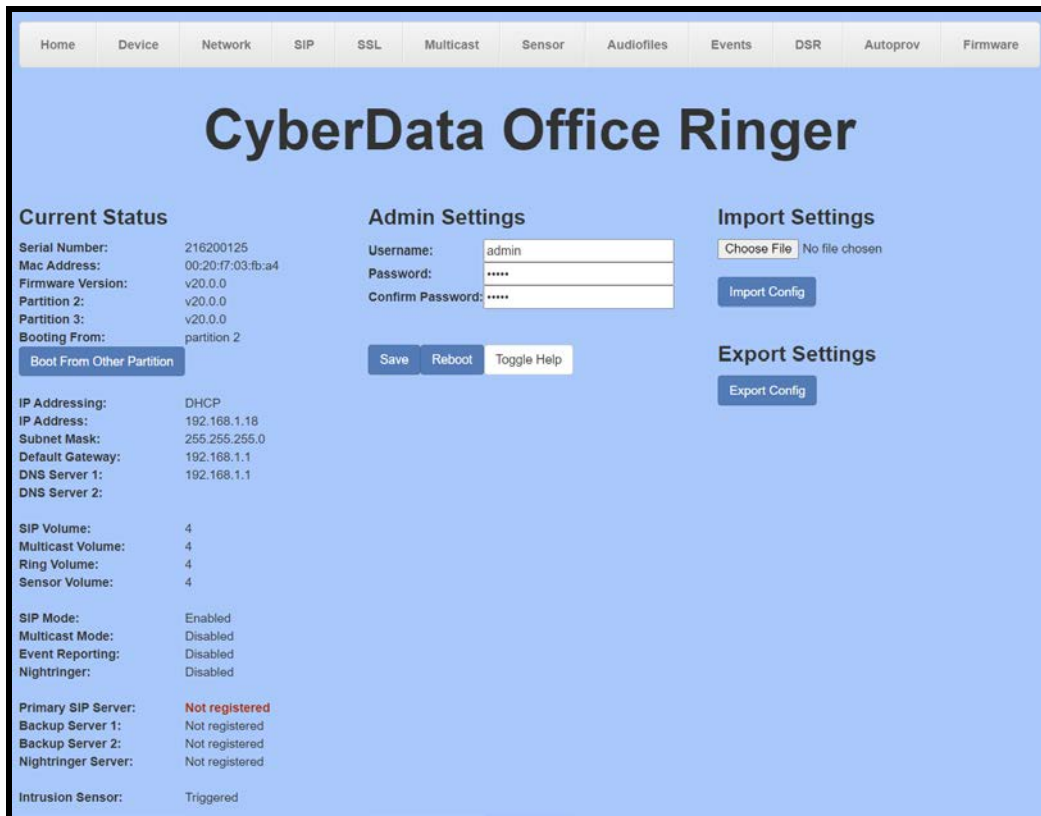
- Current Status:** Displays system information such as Serial Number (216200125), Mac Address (00:20:f7:03:fb:a4), Firmware Version (v20.0.0), and Partition details. A 'Boot From Other Partition' button is present.
- Admin Settings:** Includes fields for Username (admin), Password, and Confirm Password. Below these are 'Save', 'Reboot', and 'Toggle Help' buttons.
- Import Settings:** Features a 'Choose File' button (with 'No file chosen' text) and an 'Import Config' button.
- Export Settings:** Includes an 'Export Config' button.
- Network Settings:** Lists IP Addressing (DHCP), IP Address (192.168.1.18), Subnet Mask (255.255.255.0), Default Gateway (192.168.1.1), and DNS Servers (192.168.1.1).
- Volume Settings:** Shows SIP, Multicast, Ring, and Sensor Volumes, all set to 4.
- Mode Settings:** Lists SIP Mode (Enabled), Multicast Mode (Disabled), Event Reporting (Disabled), and Nightringer (Disabled).
- Server Settings:** Shows Primary SIP Server (Registered), Backup Server 1 and 2 (Not registered), and Nightringer Server (Not registered).
- Intrusion Sensor:** Shows the status as 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 the configuration interface for the CyberData Office Ringer. It is divided into two main sections: SIP Settings and Nightringer Settings. 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, auth IDs, and passwords. It also includes registration intervals, ports, and transport protocols. The Nightringer Settings section includes fields for the SIP server, user ID, auth ID, and password, as well as a registration interval. Below these are sections for Call Disconnection (terminate call after delay) and Audio Codec Selection (Auto Select). The RTP Settings section includes fields for RTP Port (even) and Jitter Buffer. At the bottom, there are buttons for Save, Reboot, and Toggle Help, along with checkboxes for Use Cisco SRST, Disable rport Discovery, and Unregister on Boot, and a Keep Alive Period field.

CyberData Office Ringer

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):

Call Disconnection

Terminate Call after delay:

Audio Codec Selection

Codec:

RTP Settings

RTP Port (even):

Jitter Buffer:

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 Office Ringer' configuration web interface. At the top, there is a navigation menu with tabs for Home, Device, Network, SIP, SSL, Multicast, Sensor, Audiofiles, Events, DSR, Autoprovisioning, and Firmware. The main content area is titled 'CyberData Office Ringer' and is divided into several sections:

- Current Status:** Lists device information such as Serial Number (123456789), Mac Address (00:20:f7:03:fb:a4), Firmware Version (v20.0.0), and Partition details. A 'Boot From Other Partition' button is present.
- Admin Settings:** Includes fields for Username (admin), Password, and Confirm Password, along with 'Save', 'Reboot', and 'Toggle Help' buttons.
- Import Settings:** Features a 'Choose File' button (currently showing 'No file chosen') and an 'Import Config' button.
- Export Settings:** Includes an 'Export Config' button.
- Network Settings:** Shows IP Addressing (DHCP), IP Address (192.168.1.18), Subnet Mask (255.255.255.0), Default Gateway (192.168.1.1), and DNS Servers (192.168.1.1).
- Volume Settings:** Lists SIP, Multicast, Ring, and Sensor Volumes, all set to 4.
- Mode Settings:** Shows SIP Mode (Enabled), Multicast Mode (Disabled), Event Reporting (Disabled), and Nightringer (Disabled).
- Server Status:** Indicates Primary SIP Server (Registered), Backup Server 1 (Not registered), Backup Server 2 (Not registered), and Nightringer Server (Registered).
- Intrusion Sensor:** Status is Triggered.

6.0 Using the CyberData Office Ringer.

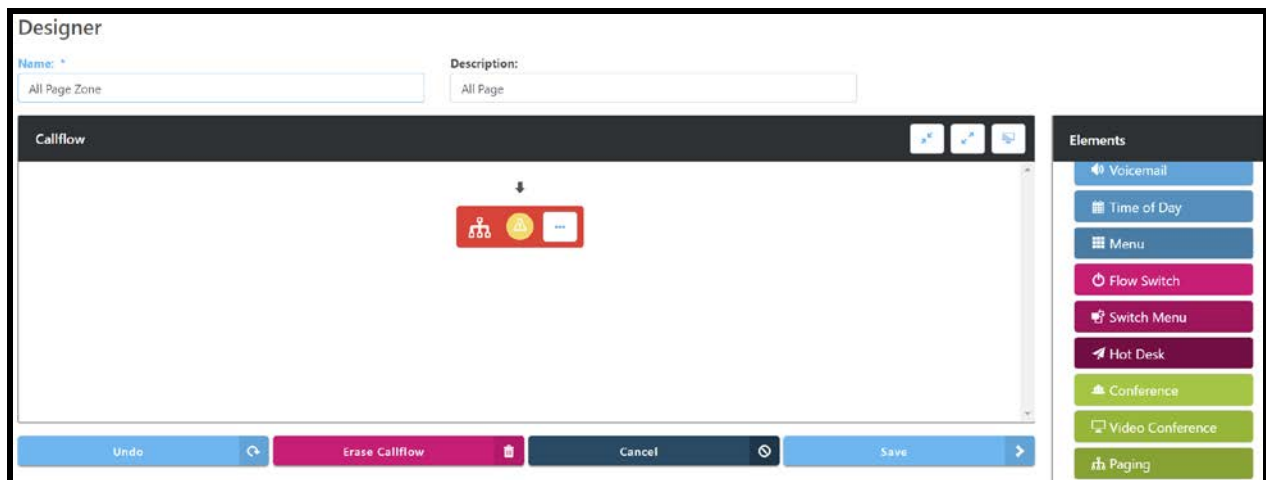
CyberData Office Ringer is designed for one-way communication. When a call is made to the device an announcement can be made. The units can be used by directly calling the SIP extension, in a page group, or with multicast. This makes the ringer's extremely versatile paging endpoints

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.

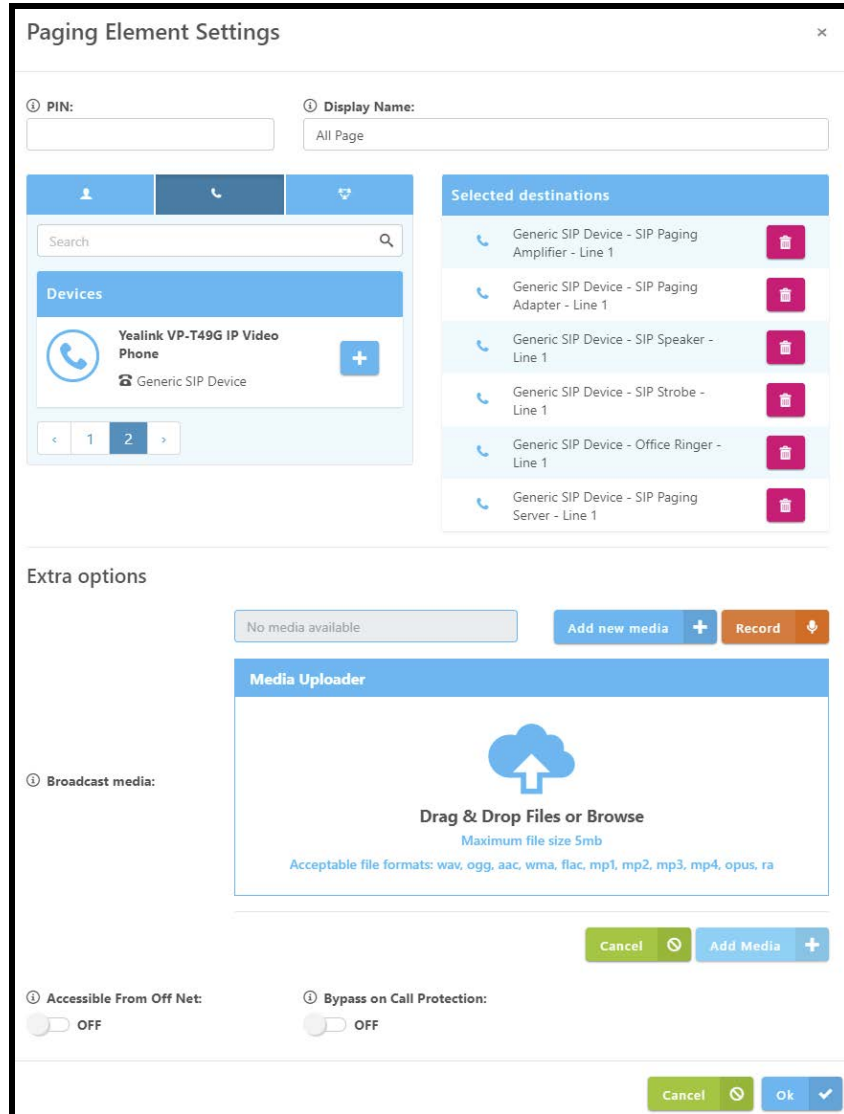
1. Select **Callflows** in Phones on Blueface.
2. Name the new callflow and set a description.
3. In the callflow designer select the Paging Element.

Figure 6-1: Page Group Designer



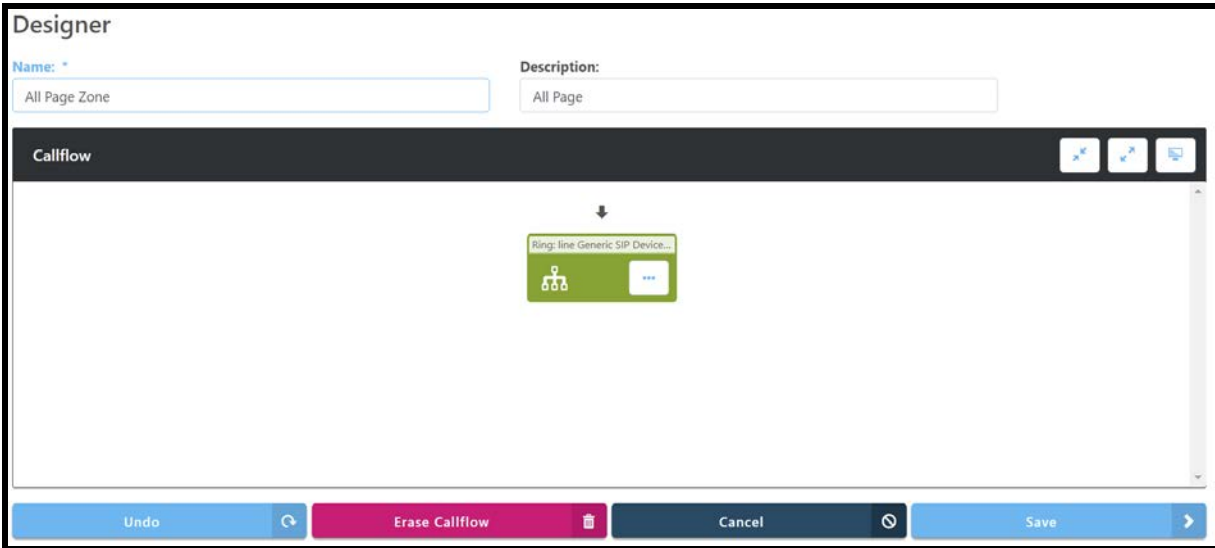
4. After adding the paging element, click on it to assign users.
5. Add all necessary users for the paging group.

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



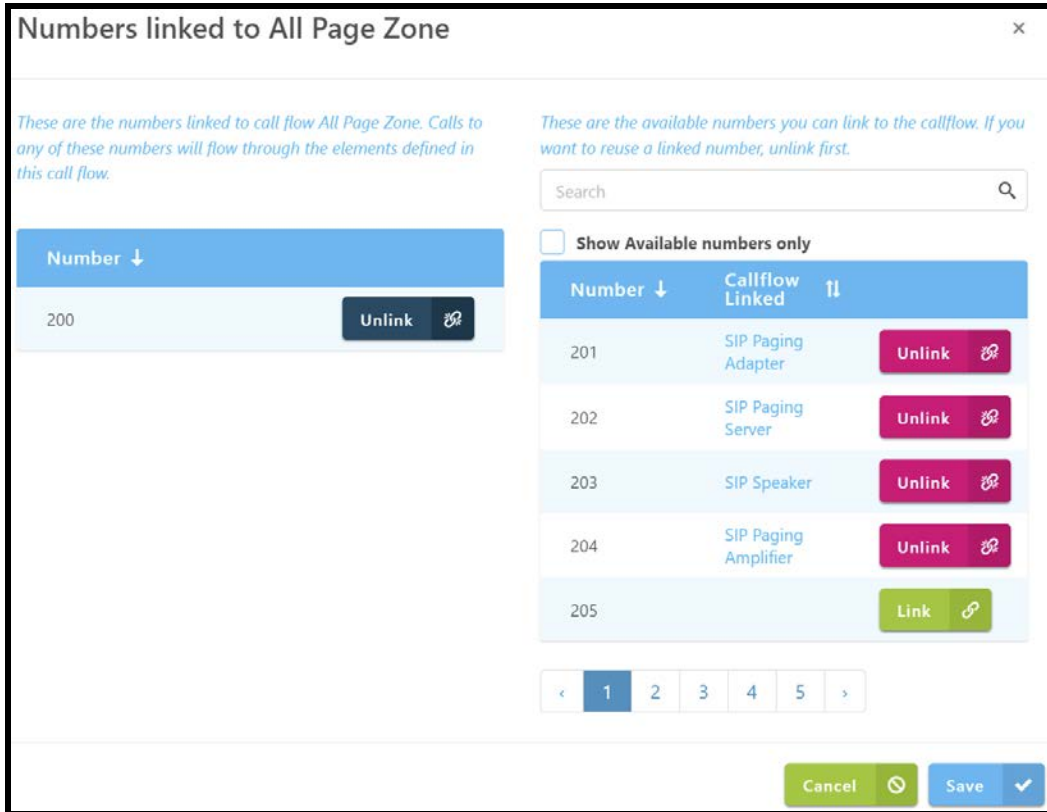
8. After saving the callflow click **Linked Numbers** to set an extension number for the paging group callflow.

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

CyberData Office Ringer

Multicast Settings

Enable Multicast Operation:

Priority	Address	Port	Name	Beep	Relay
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 checked="" type="checkbox"/>	<input type="checkbox"/>
8	239.168.3.9	10000	All Page	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9	239.168.3.10	11000	Emergency Warning	<input checked="" type="checkbox"/>	<input 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

Priority 9 streams will play at maximum volume

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