

zoomphone

# Configuration Guide For EnGenius DuraFon Roam BSC



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## Revision History

Version	Date	Author	Change
1.0	02/22/2022	Amul Priya Ambrose	Created original template document
1.1	8/21/2024	Austin Morrison	Filled template for DuraFon Roam BSC details
1.2	9/3/2024	EnGenius	Added sections 4 - 6 based on TekVizion's request
1.3	10/7/2024	Austin Morrison	Small changes made per Zoom
1.4	11/25/2024	Simon Du	Update DUT Software version

## DUT and Zoom Software Versions

Vendor	Equipment	Software Version
EnGenius	DuraFon Roam BSC	0.0.3.2/0.0.3.3 (Debug)
		1.0.3.2 /1.0.3.3 (Prod)
Zoom	Zoom app Desktop	6.1.10
	Zoom app Mobile	6.1.7

## Features Supported by DuraFon Roam BSC

- Custom Time
- Sync time with NTP server
- TLS and SRTP
- Make and Receive Calls
- Call Hold and Resume
- Long Duration call
- SIP Session Timer
- Call Waiting
- DTMF - RFC4733, Inband, & SIP INFO
- Consultative/Warm Transfer
- 3-party Conference
- VoiceMail
- Call History

- Call Flip
- Call Park/Retrieve

## 1. Overview

This document outlines the configuration best practices for the DuraFon Roam BSC as a Zoom generic SIP phone.

NOTE: This report does not outline steps on how to register and associate the DuraFon Roam BU and Handsets to the BSC. For details on how to do this, contact EnGenius support at [support@engeniustech.com](mailto:support@engeniustech.com)

## 2. Configuration Steps - Zoom Web Portal

This section provides instructions on how to configure DuraFon Roam BSC in the Zoom Web Portal.

This section is mainly for adding phone devices (BSC) and assigning Zoom users to the devices.

### Prerequisites:

- Zoom Phone account: a valid Zoom Phone subscription is required in order to assign a BSC endpoint.
- Zoom approval for provisioning of BSC as Generic SIP devices. Administrators should contact Zoom Account Executive to start an approval process.

Login to Zoom Web portal at <https://zoom.us/>.

The following Zoom SIP Device configurations are included in this section:

1. Create Zoom Users
2. Add Device

## 2.1 Create Zoom Users

Zoom Users are created in order to login to Zoom clients on desktop or mobile. It can also be assigned to a SIP Device. The steps for creating a user are as follows:

1. Navigate to **ADMIN -> User Management -> Users**. Click **+ Add Users** to create new Zoom users. Provide the desired email address(es), select a 'User Type' and fill out the user details as desired.

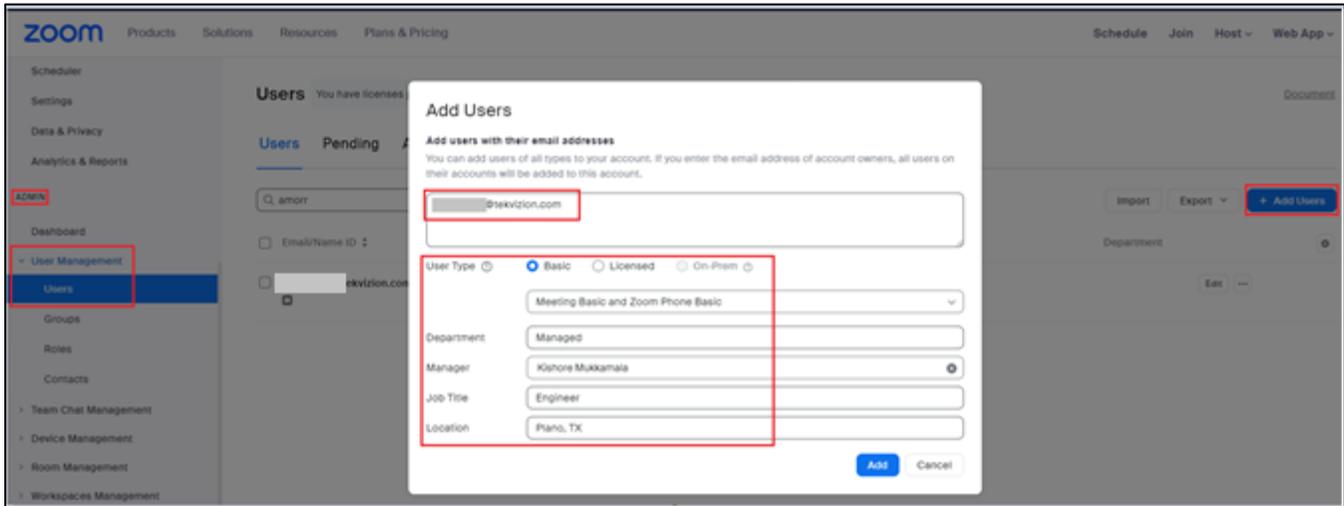


Figure 1 : Add Users

2. A Zoom activation email is sent to the email address used in creating the user, follow the instruction to active the zoom account

3. Navigate to **Phone System Management > Users & Rooms**. Find the aforementioned user and select it.

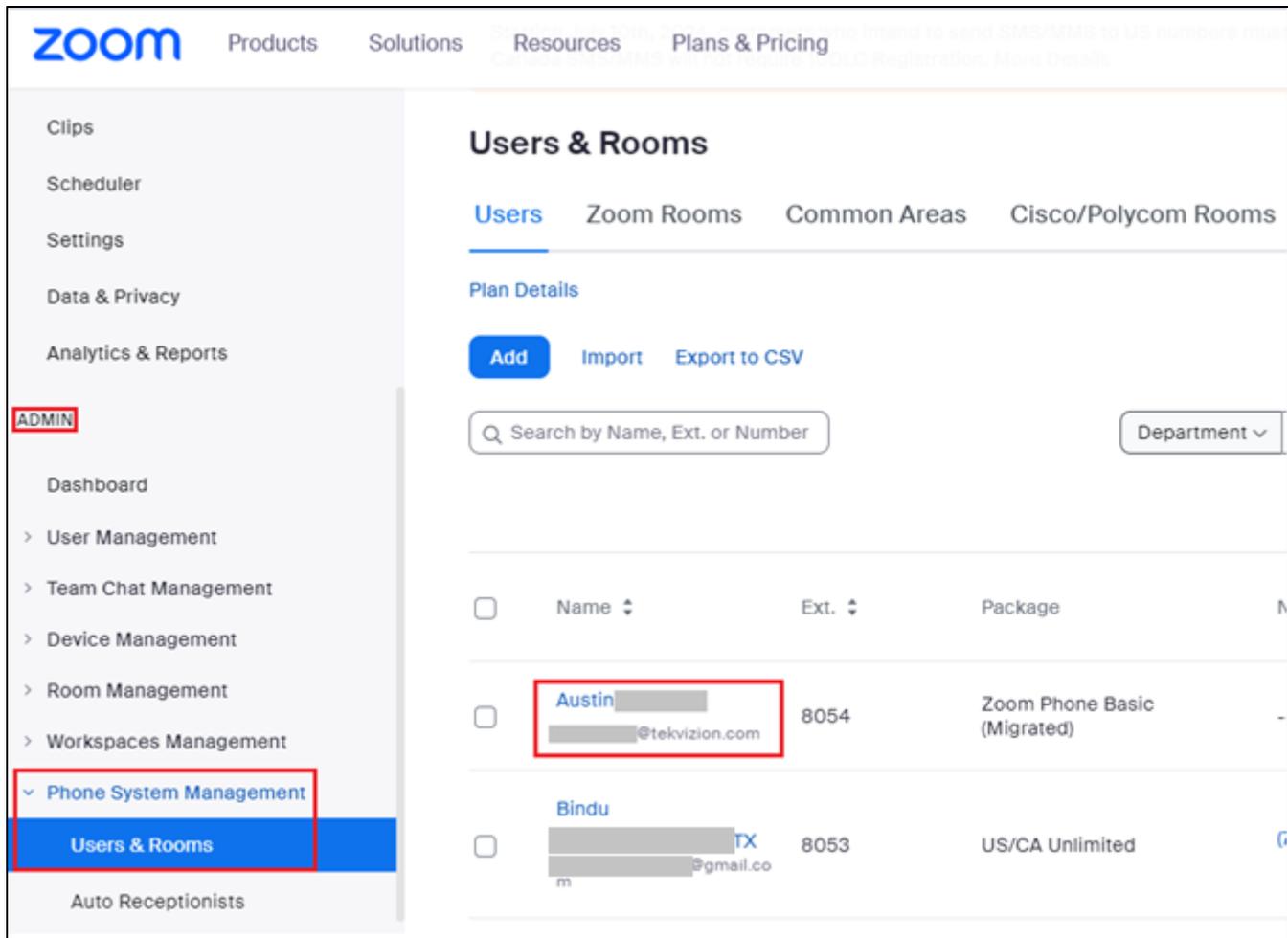


Figure 2 : Users and Rooms

4. Next to the **Package** field under **Profile**, select the **Assign** option.

The screenshot shows the Zoom Admin console interface. The top navigation bar includes the Zoom logo and links for Products, Solutions, Resources, and Plans & Pricing. A left sidebar contains various management options, with 'Users & Rooms' highlighted in blue at the bottom. The main content area displays the user profile for 'Austin [redacted]@tekvision.com'. Below the user name, there are tabs for 'Profile', 'Policy', 'History', and 'User Settings', with 'Profile' selected. The profile details include: Site (Main Site), Package (Zoom Phone Basic (Migrated) with an 'Assign' button), Extension Number (8054 with an 'Edit' link), Emergency Address (Default: [redacted] with a link to 'Personal Emergency Address'), User Status (Active), and Country/Region (United States (+1)).

Figure 3 : Assigning Package pt. 1

5. Select the desired package – for example, **US/CA Unlimited Calling Plan** was used. Click **Save** to complete.

The screenshot shows the Zoom Admin console interface. On the left is a navigation sidebar with categories like 'Settings', 'Data & Privacy', 'Analytics & Reports', and 'ADMIN'. The 'Users & Rooms' section is highlighted in blue. The main content area shows the user profile for 'Austin [redacted]@tekvision.com'. Below the user name are tabs for 'Profile', 'Policy', 'History', and 'User Settings'. The 'Profile' tab is active. The 'Package' field is highlighted with a red box and contains the text 'US/CA Unlimited Calling Plan (14 Available)'. Below this field are 'Save' and 'Cancel' buttons, with the 'Save' button also highlighted by a red box. Other fields include 'Site' (Main Site), 'Extension Number' (8054), 'Emergency Address' (Default: [redacted]), 'User Status' (Active), and 'Country/Region' (United States (+1)).

Figure 4 : Assigning Package pt. 2

- 6. In the same field, next to **Number(s)**, select **Assign**. A pop-up page is brought up with a list of your tenant's available phone numbers. Check the radio box next to the desired number and choose **Confirm** to complete. **NOTE:** A Calling Plan license or equivalent is required in order to assign PSTN DIDs.

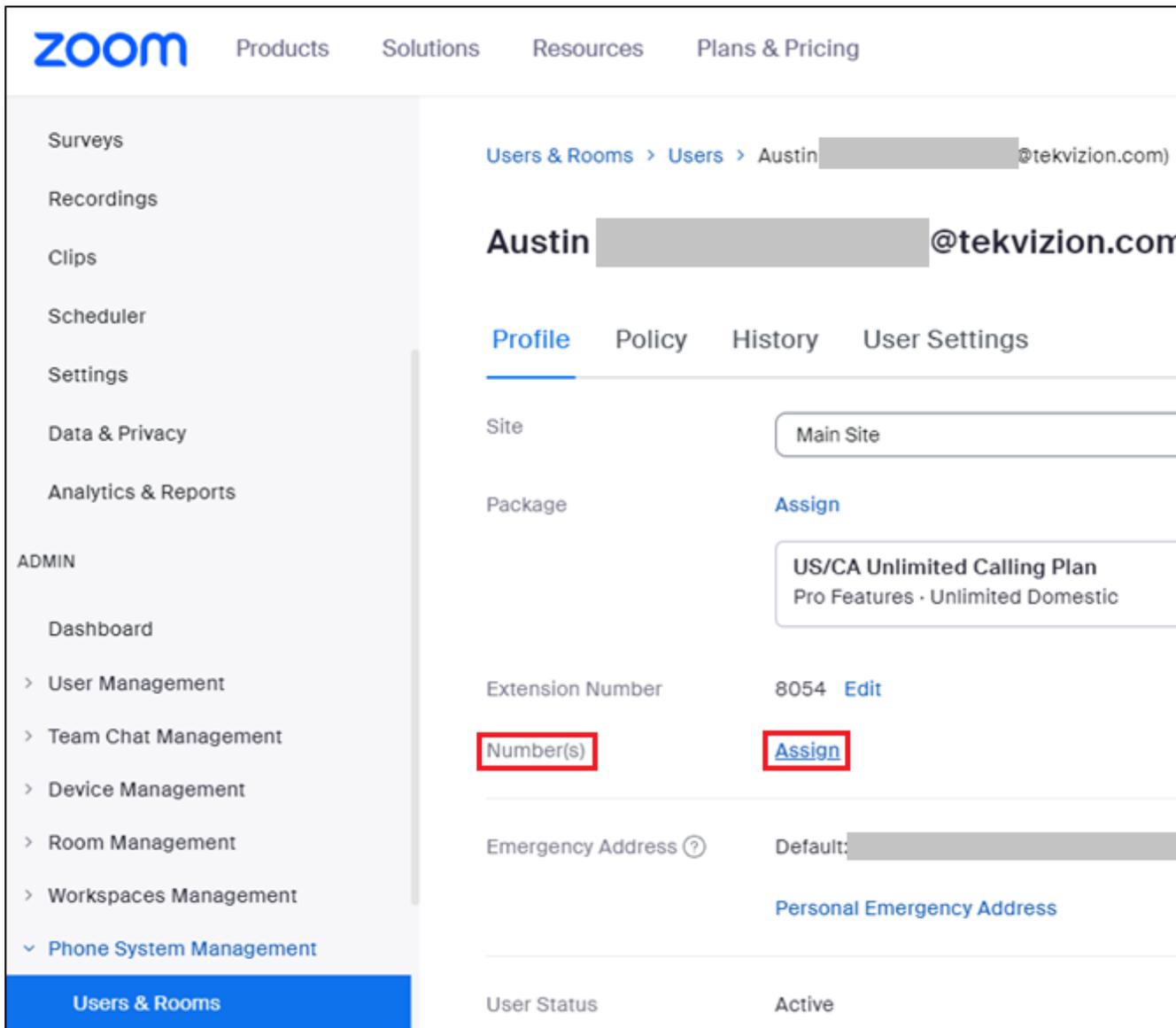


Figure 5 : Assigning Numbers pt. 1

- 7. Check the radio box next to the desired number and choose **Confirm** to complete. **NOTE:** A Calling Plan license or equivalent is required in order to assign PSTN DIDs.

The screenshot shows the Zoom Admin console interface. On the left is a navigation sidebar with categories like Surveys, Recordings, Clips, Scheduler, Settings, Data & Privacy, Analytics & Reports, and ADMIN. The 'Phone System Management' section is expanded, and 'Users & Rooms' is selected. The main content area shows the configuration for 'Austin'. Under the 'Profile' tab, there is a table of available PSTN DIDs. The number 4535 is selected with a checked radio button. At the bottom right, the 'Confirm' button is highlighted with a red box.

Number	Location	Type	Direction	Site
[redacted] 4510	United States	Toll Number	Outgoing	Main Site
[redacted] 4513	United States	Toll Number	Incoming & Outgoing	Main Site
[redacted] 6010	Texas, United States	Toll Number	Incoming & Outgoing	Main Site
[redacted] 0085	United States	Toll Number	Incoming & Outgoing	Main Site
[redacted] 5245	Colorado, United States	Toll Number	Incoming & Outgoing	Main Site
<input checked="" type="checkbox"/> [redacted] 4535	Colorado, United States	Toll Number	Incoming & Outgoing	Main Site
[redacted] 5903	Colorado, United States	Toll Number	Incoming & Outgoing	Main Site
[redacted] 3301	Colorado, United States	Toll Number	Incoming & Outgoing	Main Site

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**Confirm**   Cancel

Figure 6 : Assigning Numbers pt. 2

## 2.2 Add SIP Devices

1. Navigate to **ADMIN -> Phone System Management -> Phones & Devices**. Click **Add**
  - Set **Display Name**: **DuraFon Roam BSC 1** is set as an example
  - Set **MAC Address**: add the BSC MAC Address here
  - Set **Device Type**: select **Other** as the phone type is not certified yet
  - Set **Assigned to**: Select **Assign** (not shown in the image below) and select the newly created user in previous steps. Select **Add**.
  - Click **Save**

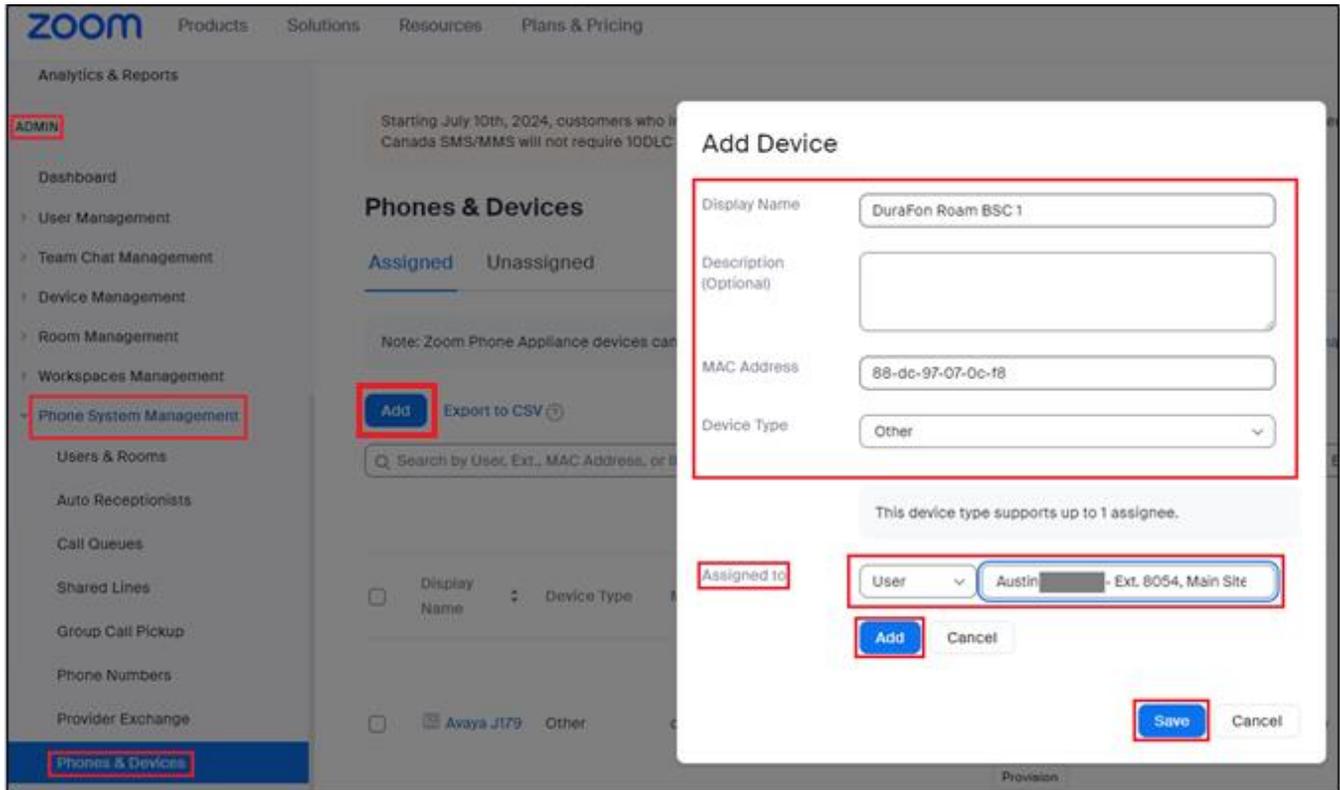


Figure 7 : Add Desk Phone

2. Select the **Actions** drop-down box and then select **Provision** (not shown in image below). A pop-up page will appear with the provisioning details. Check the radio box to accept risks as the device is not yet certified. Upon selection, the SIP Account details is displayed which will be used in the DuraFon Roam BSC provisioning. ([section Provisioning](#))

The screenshot shows the Zoom Admin console interface. On the left, the 'Phone System Management' menu is expanded, and 'Phones & Devices' is selected. The 'DuraFon Roam BSC' device page is open, showing various fields like 'Device Type', 'IP Address', and 'Provision Template'. The 'Actions' dropdown menu is highlighted with a red box. The modal window displays the following information:

Device Type: Other

**Warning:** This device is not supported by Zoom. You must manually enable TLS 1.2 for SIP registration and SRTP for secure calling on your IP phone. Please refer to your manufacturer's instructions for enabling these configurations. Failure to properly configure this device may expose your calls to security threats.

By using this device without manually enabling these features, you accept all risks associated with it.

You'll need following information for manual provisioning.

**SIP Account 1:**

1. SIP Domain: 7000766863.zoom.us
2. Outbound Proxy: us01sip0h.sc.zoom.us:5091
3. User Name: [Redacted]
4. Authorization ID: [Redacted]
5. Password: [Redacted]

Please download [DigiCert Global Root CA](#), [DigiCert Global Root G2](#), [DigiCert TLS RSA4096 Root G5](#) and import to your IP phone if they are not in the trust list of the device.

**Note:** Zoom support team will not be able to troubleshoot or configure IP phone that are provisioned in this manner. Some Zoom Phone feature may not work on manually provisioned phones. It may vary depending on your desk phone model.

Close

Figure 8 : Provisioning

### 3. Engenius DuraFon Roam BSC Provisioning

This section provides instructions on how to configure BSC to register to Zoom Phone Services.

NOTE: This section assumes that DuraFon Roam BU & Handset registration & association is already completed.

#### 3.1 Deployment Topology Diagram

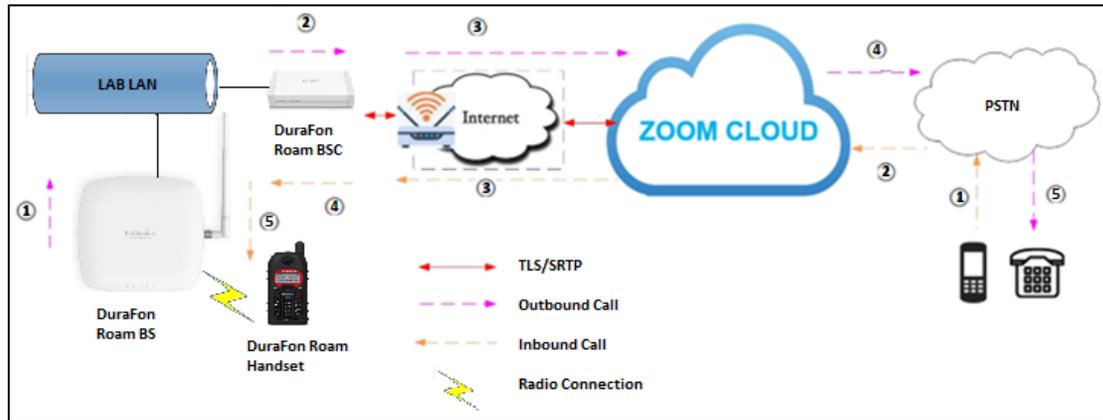


Figure 9 : Network Diagram

#### 3.2 Network

By default, BSC has DHCP mode enabled. If the router to which the device is connected does not support DHCP, you can configure static IP manually.

### 3.3 Firmware Upgrade

This section ensures the BSC is upgraded with the required firmware. The firmware used for this test is **v0.0.3.2**, which is the debug version of v1.0.3.2.

NOTE: EnGenius advises that the DuraFon Roam BU be upgraded first before upgrading the BSC. The steps for upgrading the BU are the same as below.

From the device's Web UI, Navigate to: **Tools (Tool Chest Symbol) -> Firmware.**

- Under the **Controller** field, select **Browse** and search for the firmware file in your PC's contents.
- Select **Upgrade Now**
- Selected firmware file will be upgraded to the system
- Phone may have to restart for the changes to be applied

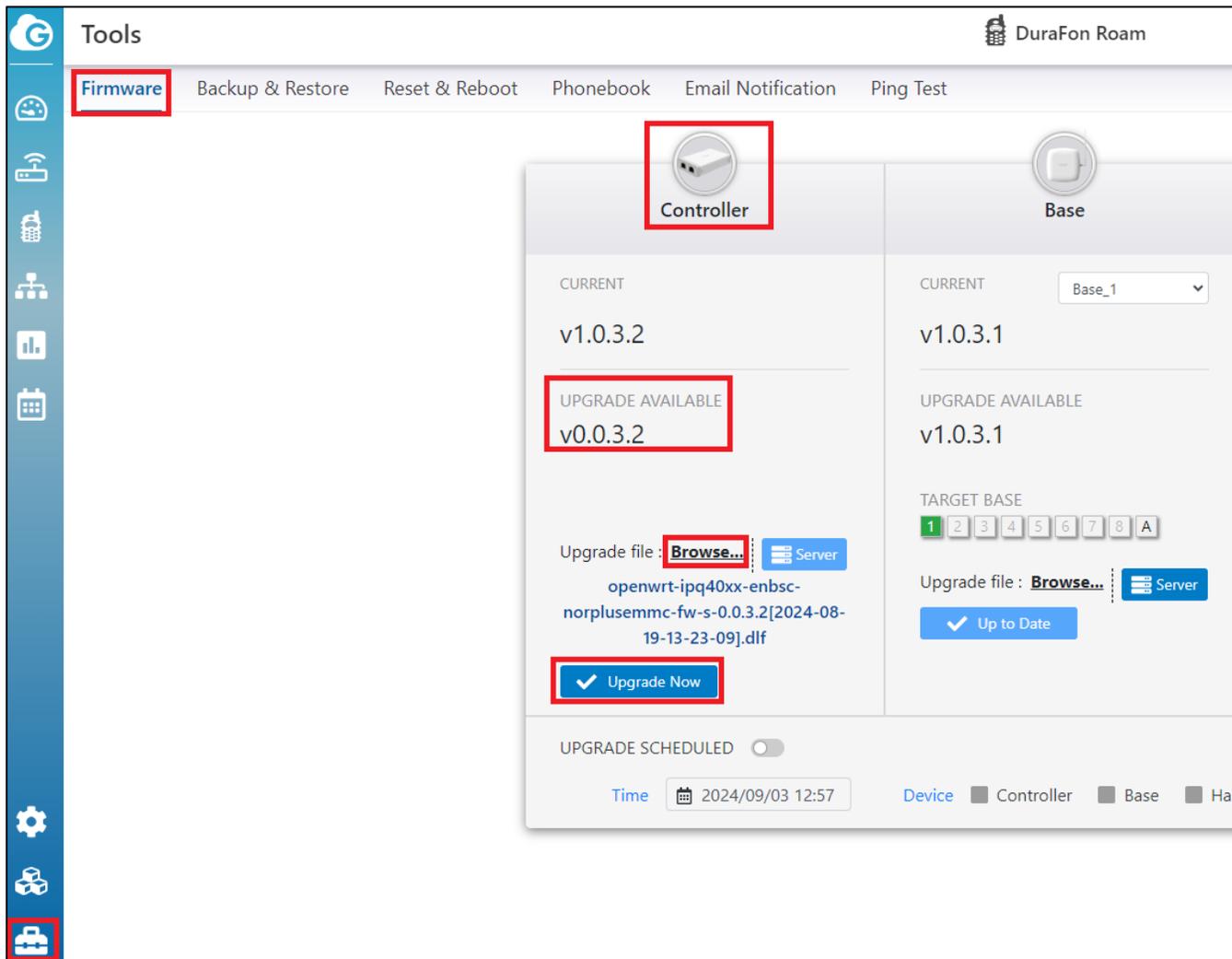


Figure 10 : Firmware Upgrade

### 3.4 Provisioning

This section explains how the device can be registered in Zoom portal using SIP Account details that is populated in Zoom portal (explained earlier in [2.2 Add SIP Devices](#))

- DuraFon Roam BSC's configuration is done via the web interface. Enter the device's IP address in the browser's address bar (<https://ip-address>) and enter. Input the device's username and password and click Login.
- Navigate to **System Settings (Cogwheel Symbol)** -> **SIP Server**. Ensure the below parameters are set.
  1. **VoIP Server** is set to the SIP Domain provided by Zoom.
  2. **SIP Transport** is set to **TLS**
  3. **SRTP** is set to **Mandatory**
  4. **SIP Outbound Proxy** is set to the Outbound Proxy provided by Zoom
  5. **SIP Outbound Proxy Port** is set to **5091**
  6. Select **Apply** to save
  7. Optional: The '+' can be selected to open the Advanced Settings to alter settings such as Codecs used, Session Timer, etc.

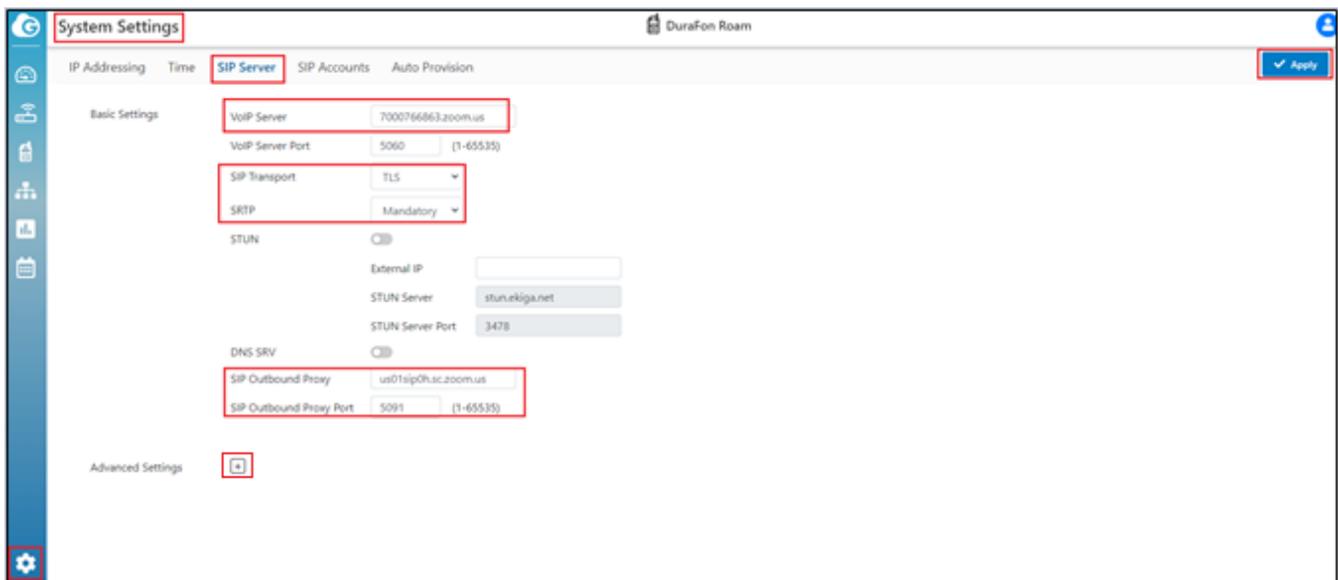


Figure 111 : SIP Server

- From **System Settings (Cogwheel Symbol)**, navigate to **SIP Accounts**. Select **Add SIP Accounts**. A pop-up window will appear. Ensure the window is set with the below parameters.
  1. **Number** is set with the User Name provided by Zoom
  2. **Display Name** is set with desired name
  3. **Auth Name** is set with the Authorization ID provided by Zoom
  4. **Password** is set with the Password provided by Zoom
  5. Select **Submit** to save

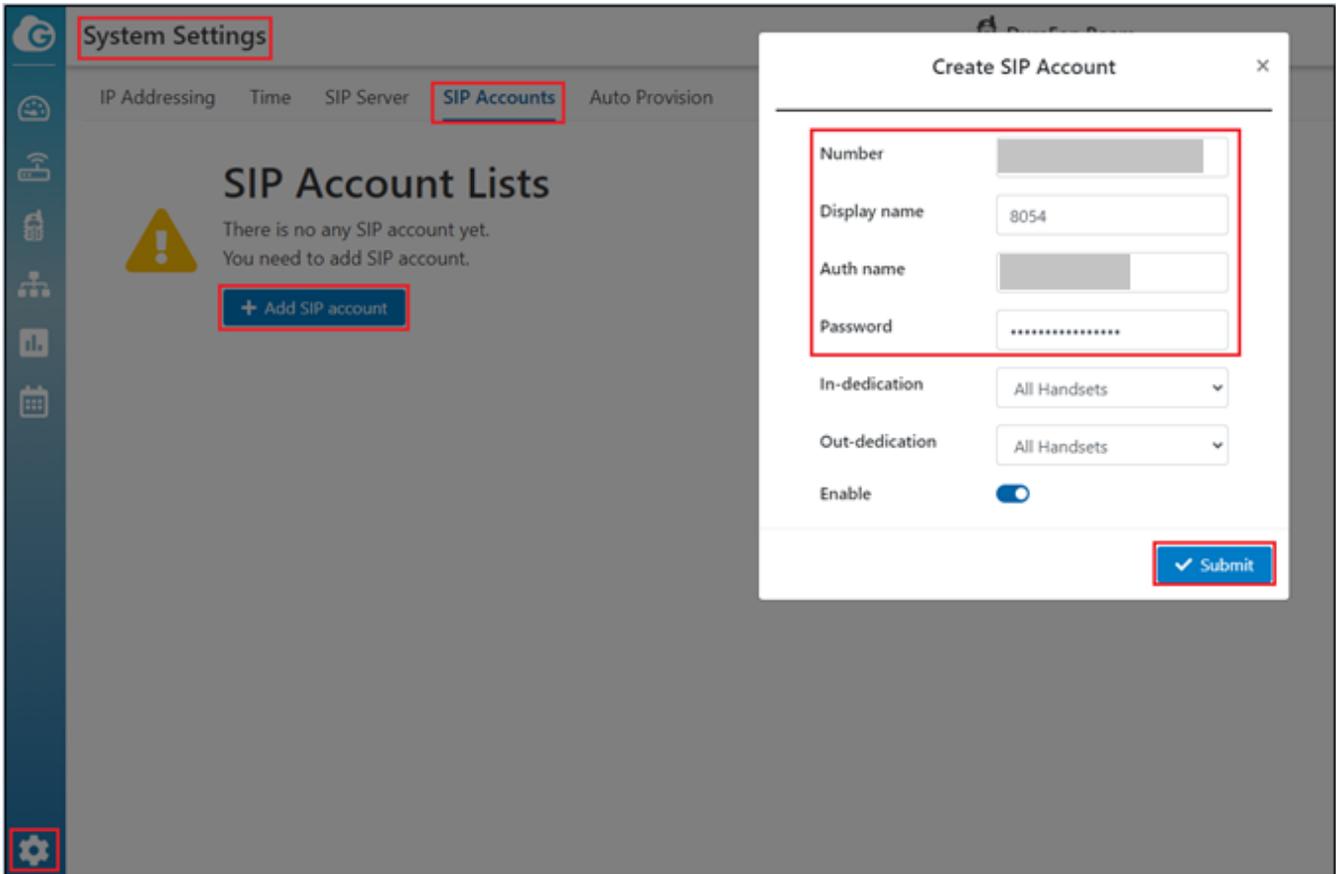


Figure 12 : SIP Accounts

## 4. Troubleshooting

Online how-to guides

- [Getting Started Guide](#)

Support:

- [support@enginustech.com](mailto:support@enginustech.com)
- [Support Page](#)

## 5. FAQ

Online FAQ

- [FAQ](#)

## 6. Resources

Firmware:

- [Firmware](#)

Partner Portal:

- [Portal](#)