

zoomphone

# Configuration Guide For Snom D7XX series



## Table of Contents

Table of Contents	2
Revision History	3
DUT and Zoom Software Versions	3
Features Supported by Snom D7XX series	3
1. Overview	5
2. Configuration Steps - Zoom Web Portal	5
<b>1 Create Zoom Users</b>	6
<b>2 Add SIP Devices</b>	10
3. Snom D7XX Provisioning	12
<b>3.1 Deployment Topology Diagram</b>	13
<b>3.2 Network</b>	13
<b>3.3 Firmware Upgrade</b>	13
<b>3.4 Provisioning</b>	14
<b>3.4.1 Provisioning through a HTTP server</b>	15
<b>3.4.2 Provisioning through Phone's Web Interface</b>	16
<b>3.4.3 Provisioning through Phone's Web Interface</b>	23
4. Troubleshooting	24
5. FAQ	24
6. Resources	24

## Revision History

Version	Date	Author	Change
1.0	09/26/2022	Abelardo Guajardo	Created document for D7XX Configurations
1.1	09/29/2022	Abelardo Guajardo	Updated document based on comments
1.2	10/12/2022	Amul Priya Ambrose	Modified configuration screenshots
1.3	03/28/2023	Albert Ulanday	Modified instructions to 2.2 Add Sip Devices

## DUT and Zoom Software Versions

	Equipment	Software Version
Snom (Device Under Test)	D785	10.1.119.10
Zoom	Zoom app Desktop	5.11.11 (8425)
	Zoom app Mobile	5.11.9 (7938)

## Features Supported by Snom D7XX series

- Multiple Line Keys
- Multiple Users per Device
- Custom Time Format and Zone
- Sync time with NTP server
- Enable or disable phone web admin portal
- TLS and SRTP
- Make and Receive Calls
- Inbound and Outbound Call via Opus codec negotiation
- Call Hold and Resume
- Long Duration call
- SIP Session Timer
- Call Waiting
- DND
- Call Forward Always
- Call Forward No Answer
- Call Forward Busy
- Blind/Cold Transfer

- Consultative/Warm Transfer
- 3-party Conference
- VoiceMail
- Call History
- Call Flip
- Auto Receptionist IVR
- Call Park/Retrieve

## 1. Overview

This document outlines the configuration best practices for the Snom D7XX as Zoom generic SIP phone.

## 2. Configuration Steps - Zoom Web Portal

This section provides instructions on how to configure Snom D7XX in Zoom Web Portal

This section is mainly for adding phone devices D7XX and assign Zoom users to the devices

### Prerequisites:

- Zoom Phone account: a valid Zoom Phone subscription is required in order to assign an Snom D7XX endpoint.
- Zoom approval for provisioning of Snom D785 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

## 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 SIP Device. The steps for creating a user are as follows:

1. Navigate to **User Management > Users**. Click **+ Add Users** to create new Zoom users.

The screenshot shows the Zoom Admin console interface. The left sidebar contains navigation options: PERSONAL (Profile, Meetings, Webinars, Phone, Personal Contacts, Recordings, Settings), ADMIN (Dashboard, User Management, Group Management, Device Management), and a shield icon for Security Management. The 'User Management' section is expanded, and the 'Users' option is selected. The main content area displays the 'Add Users' dialog box. The dialog title is 'Add Users'. Below the title is the instruction: 'Add users with their email addresses. You can add users of all types to your account. If you enter the email address of account owners, all users on their accounts will be added to this account.' There is an input field for an email address, currently containing '@gmail.com'. Below the email field are three radio buttons for 'User Type': 'Basic', 'Licensed' (which is selected), and 'On-Prem'. A dropdown menu shows 'Meeting (13 available)'. Below this are three checkboxes for license types: 'Large Meeting (0 available) Buy Licenses' and 'Webinar (0 available) Buy Licenses'. At the bottom of the dialog is a form with four fields: 'Department' (Managed), 'Manager' (Kis), 'Job Title' (Engineer), and 'Location' (Pland). At the bottom right of the dialog are 'Add' and 'Cancel' buttons. In the background, the 'Users' page is visible, showing a table with 'Import', 'Export', and '+ Add Users' buttons, and a list of users with 'Edit' buttons.

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**. Click **Add**

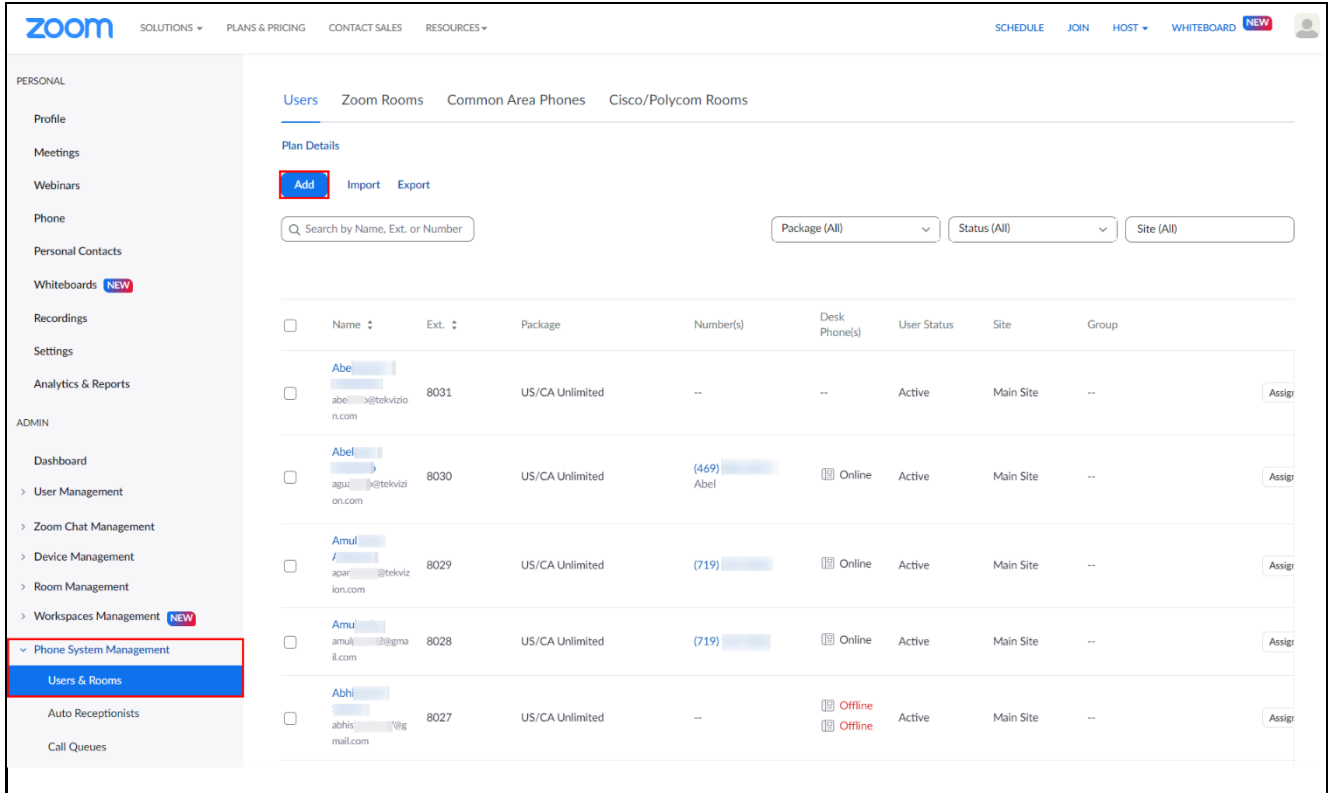


Figure 2 : Add Users and Rooms

- Click **Choose** beside Users and when the pop-up window opens, select the proper user and **Confirm**

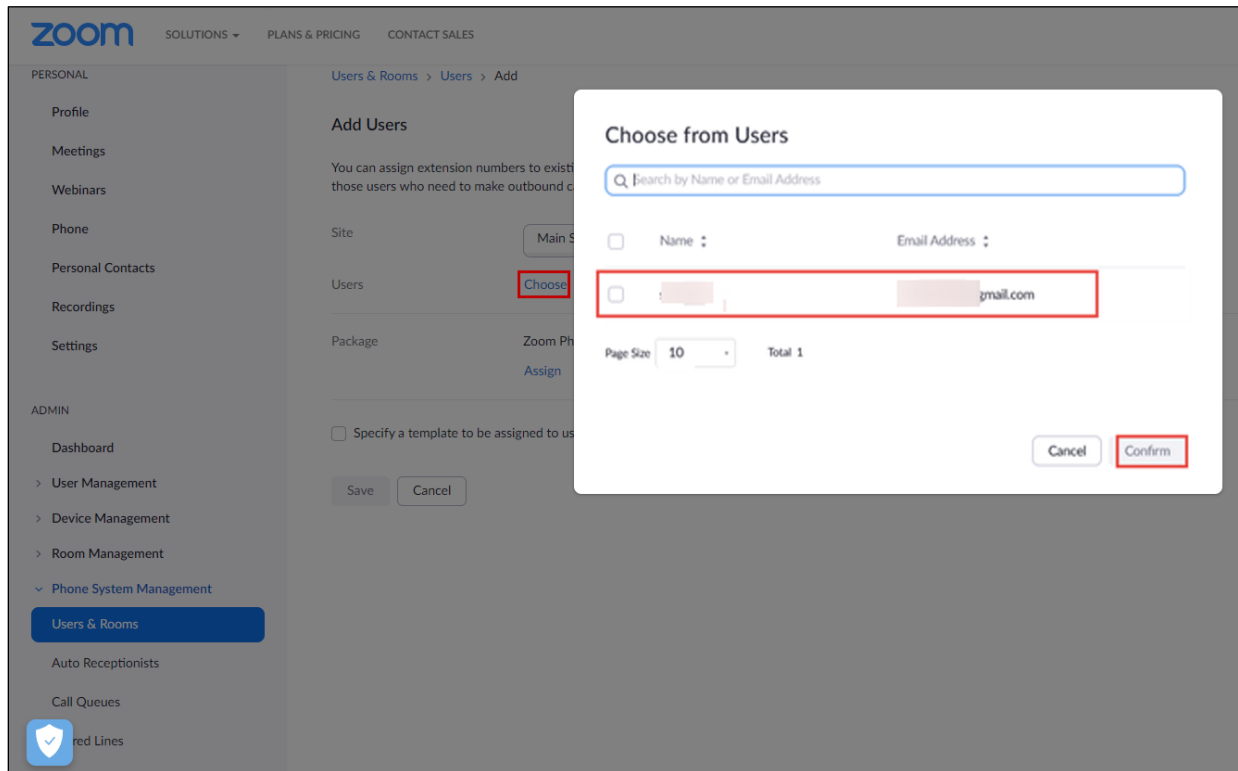


Figure 3 : Choose user

- Click **Assign** beside Package and at new window, select proper Calling plan, **US/CA Unlimited Calling Plan** was picked up, click **Save** to complete adding users under phone system Management



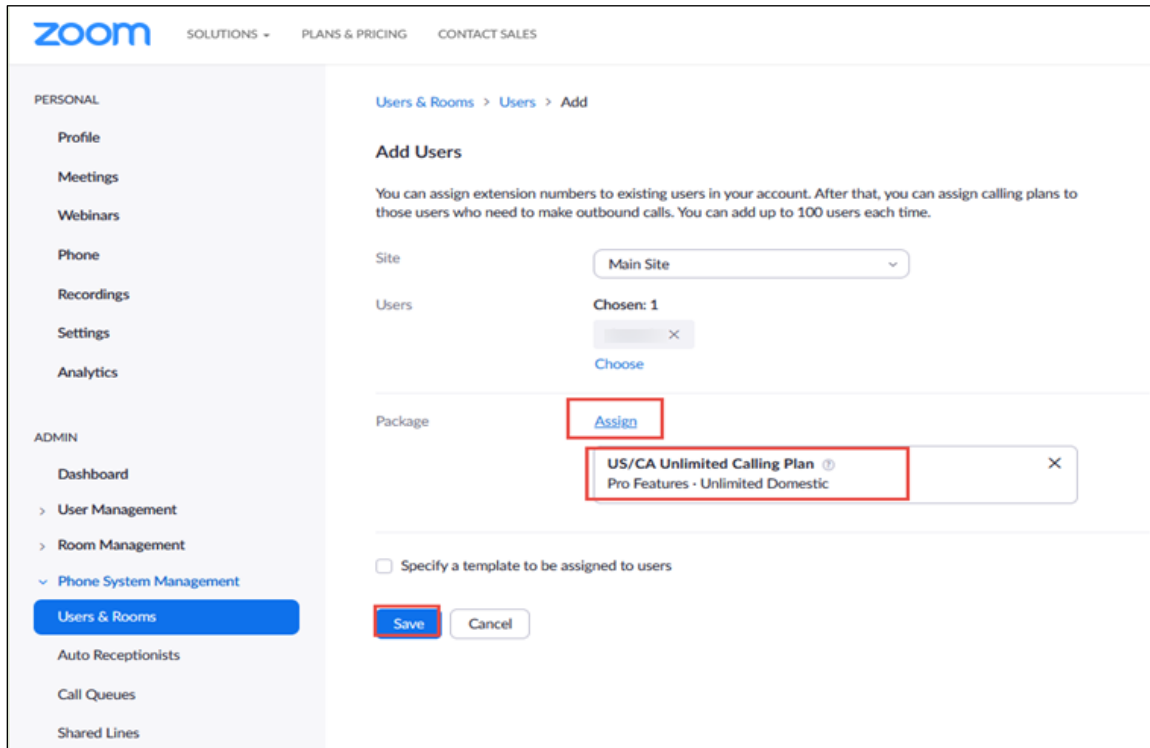


Figure 4 : Assign Calling Plan

6. Select the newly added user, click **Assign** and select **Assign Numbers**

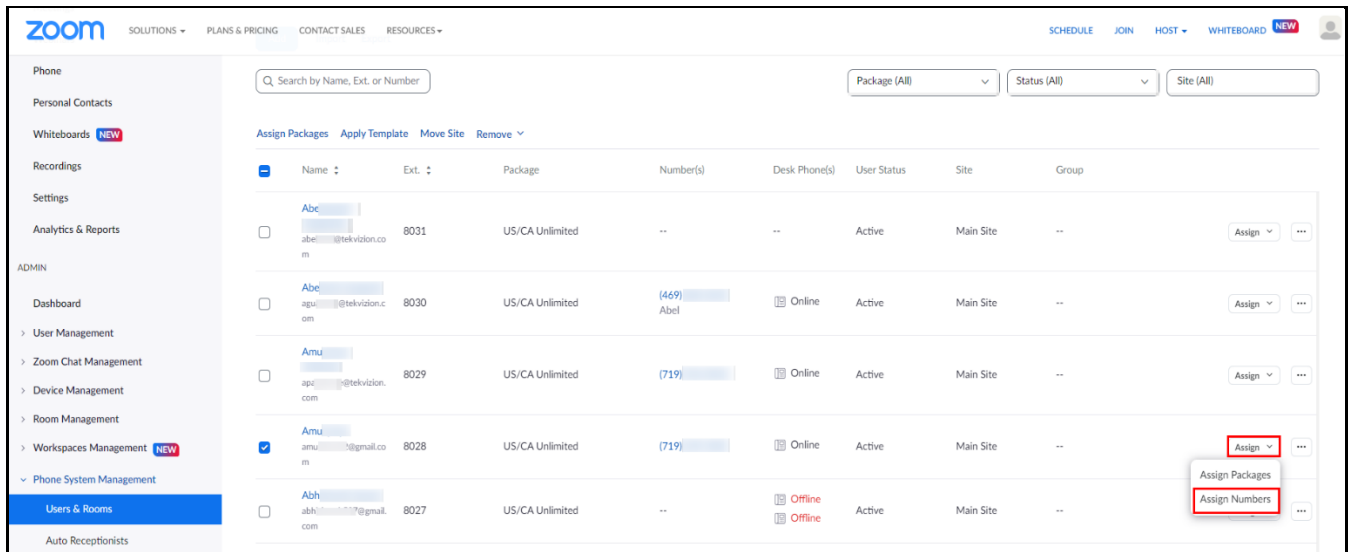


Figure 5 : Assign Numbers

7. Select the desired DID and click **confirm** to assign the DID to the user

**Assign Numbers**

Country/Region  
United States

Q Search Site (All) Number Type (All) Get Numbers

Number	Area	Number Type	Capability	Site
<input checked="" type="checkbox"/> (719)	Canon City, Colorado, United States	Toll Number	Incoming & Outgoing	Main Site
<input type="checkbox"/>	United States	Toll Number	Incoming & Outgoing	Main Site
<input type="checkbox"/>	United States	Toll Number	Incoming & Outgoing	Main Site
<input type="checkbox"/>	United States	Toll Number	Incoming & Outgoing	Main Site
<input type="checkbox"/>	United States	Toll Number	Incoming & Outgoing	Main Site
<input type="checkbox"/>	United States	Toll Number	Incoming & Outgoing	Main Site
<input type="checkbox"/>	United States	Toll Number	Incoming & Outgoing	Main Site
<input type="checkbox"/>	United States	Toll Number	Incoming & Outgoing	Main Site
<input type="checkbox"/>	United States	Toll Number	Incoming & Outgoing	Main Site
<input type="checkbox"/>	United States	Toll Number	Incoming & Outgoing	Main Site

Page 1 of 2 Page Size 10 Total 12

Cancel Confirm

Figure 6 : Select DID Number

## 2 Add SIP Devices

- Navigate to **ADMIN -> Phone System Management -> Phones & Devices**. Click **Add**
  - Set **Display Name**: **SNOM D785** is set as an example
  - Set **MAC Address**: add the Snom D7XX MAC Address here
  - Set **Device Type**: select **Other**
  - Click **Assign** under **Assigned To** and select the newly created user in previous steps
  - Click **Save**

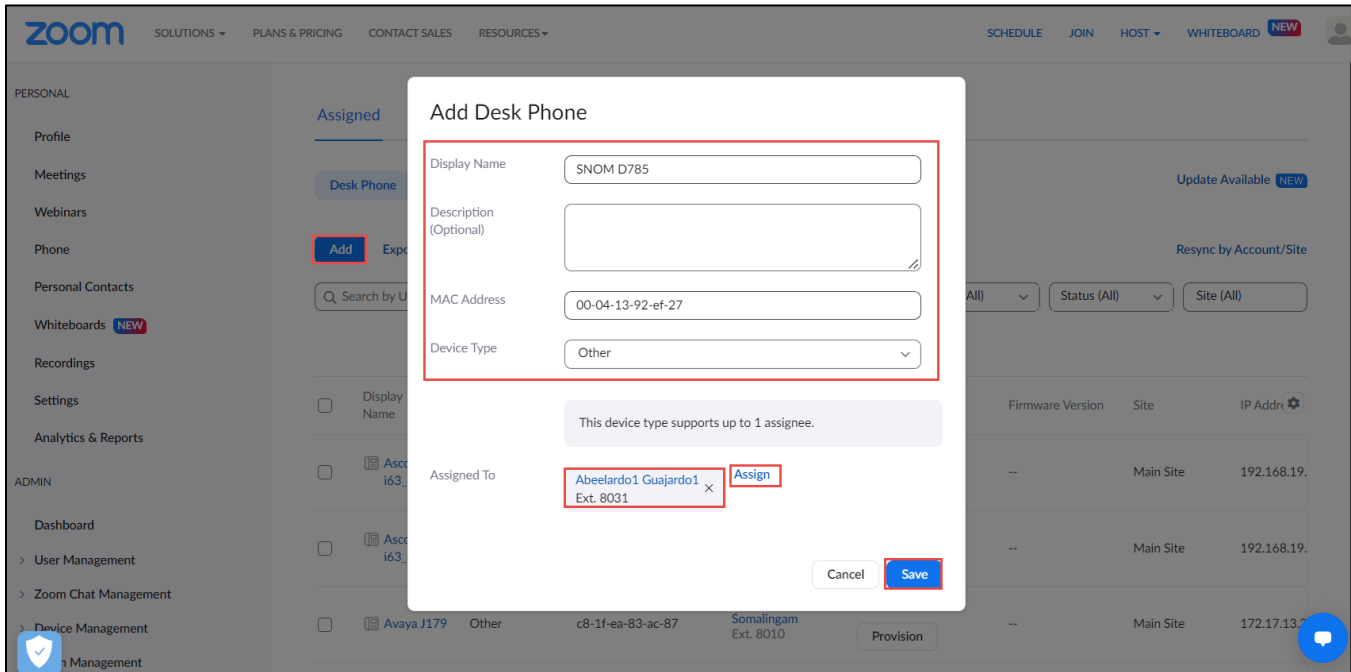


Figure 7 : Add Desk Phone

2. Select the Display Name of the newly created Desk Phone to navigate to its profile and click the **Actions** and select **Provision** button. The SIP Account detail is displayed which will be used in the Snom D7XX provisioning ([section Provisioning through Phone's Web Interface](#))
3. Download the Certificates and import to the device, so that device will be considered in the trust list. (Importing the certificates to the phone is described later in ([section 3.4.3 Apply trusted certificates](#)))

The screenshot displays the Zoom Admin console interface. On the left is a navigation sidebar with categories like Profile, Meetings, Webinars, Phone, Personal Contacts, Whiteboards, Recordings, Settings, Analytics & Reports, ADMIN, Dashboard, and Phone System Management. The main content area is titled 'Provisioning' and shows details for a device with MAC Address '00-04-13-92-ef-27' and Device Type 'Other'. A yellow warning box states: 'You will need to enable TLS1.2 for SIP registration and enable SRTP for secure calling on your IP phone. Please refer to your manufacturer's instructions for these processes.' Below this, a section titled 'You'll need following information for manual provisioning.' contains a list of SIP Account 1 details: 1. SIP Domain: 70[redacted], 2. Outbound Proxy: us0[redacted]:5091, 3. User Name: 979[redacted], 4. Authorization ID: 821[redacted], 5. Password: q3[redacted]. A note below the list instructs to download 'DigiCert Global Root CA, DigiCert Global Root G2, DigiCert Global Root G3' and import them to the IP phone. A 'Close' button is at the bottom right of the provisioning panel.

Figure 8 : Provisioning

### 3. Snom D7XX Provisioning

This section provides instructions on how to configure Snom D7XX to register to Zoom Phone Services.

### 3.1 Deployment Topology Diagram

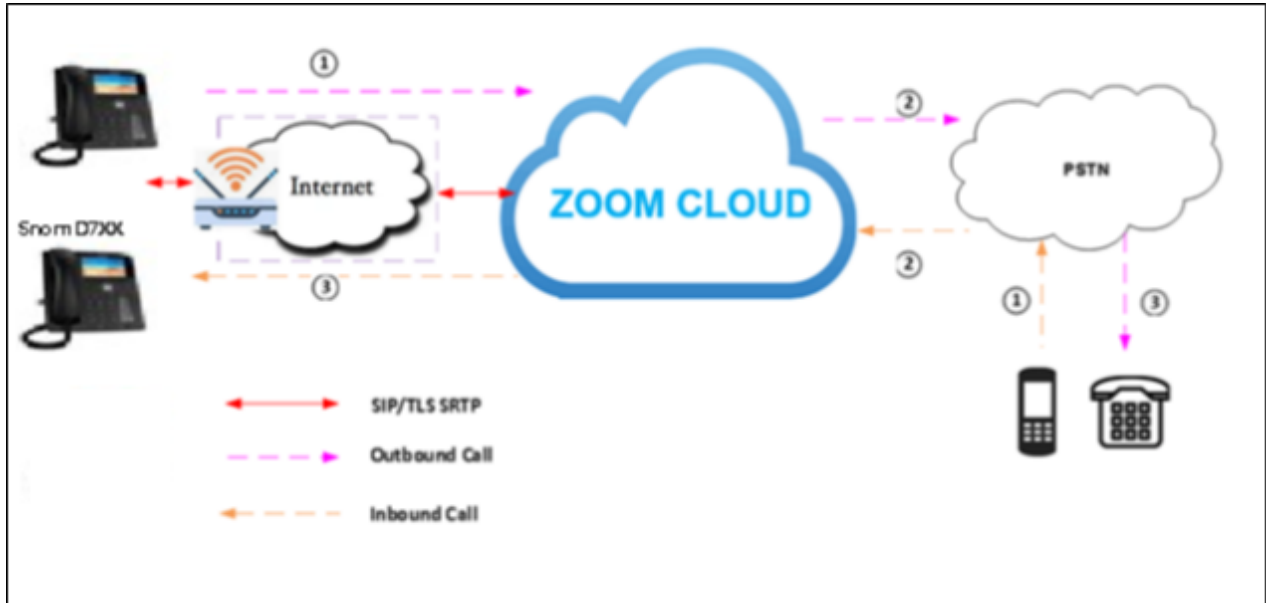


Figure 9 : Network Diagram

### 3.2 Network

By default, Snom D7XX has DHCP mode enabled, if the router to which phone is connected does not support DHCP, you can configure static IP manually. You can find the IP address of D7XX by navigating the physical phone: **Settings** -> **Information** -> **System Info**

### 3.3 Firmware Upgrade

This section ensures the phone is upgraded with the required firmware. The firmware used for this test is **10.1.119.10**.

- From the phone's home page, Navigate to: **Setup-> Software Update**
- Please enter a complete URL and click **Load** (Phone may have to restart to get applied with the changes)

**Manual Software Update** snom

**HTTP Password not set!**

You may explicitly specify which software version you want to run on this phone. Fill in the http URL which is pointing to the firmware you want to use. Please use only a complete http URL (like `http://www.example.com/firmware.bin`). The phone will reboot after you press the load button.

**Manual Software Update**

Firmware  ?

**Load**

Your phone is shipped with a valid license preinstalled. It is possible to install a new license file via the manual license upload to enable additional software features or to reinstall the preinstalled license in case it is missing or damaged. If the uploaded license file is invalid (e.g. not matching the MAC address of the phone) it will be ignored and the existing license is kept.

**Manual License Upload**

License file

**Load**

**Operation**

- Home
- Directory
- Setup**
- Preferences
- Speed Dial
- Function Keys
- Identity 1
- Identity 2
- Identity 3
- Identity 4
- Identity 5
- Identity 6
- Identity 7
- Identity 8
- Identity 9
- Identity 10
- Identity 11
- Identity 12
- Action URL Settings
- Advanced
- Certificates
- Software Update**

Figure 10 : Firmware Upgrade

### 3.4 Provisioning

The Snom D785 can be provisioned in two ways:

1. Provisioning through a HTTP Server
2. Provisioning through Web Interface

### 3.4.1 Provisioning through a HTTP server

1. In a HTTP Server, upload the below file in order for the phone to download the necessary configuration files and get provisioned. They are,

From the phone's home page, Navigate to: **Setup-> Advanced -> Update**

- In the update section, configuration settings can be added for automatic updated. Or, a settings.xml file can be uploaded on the "Upload Setting File Manually".

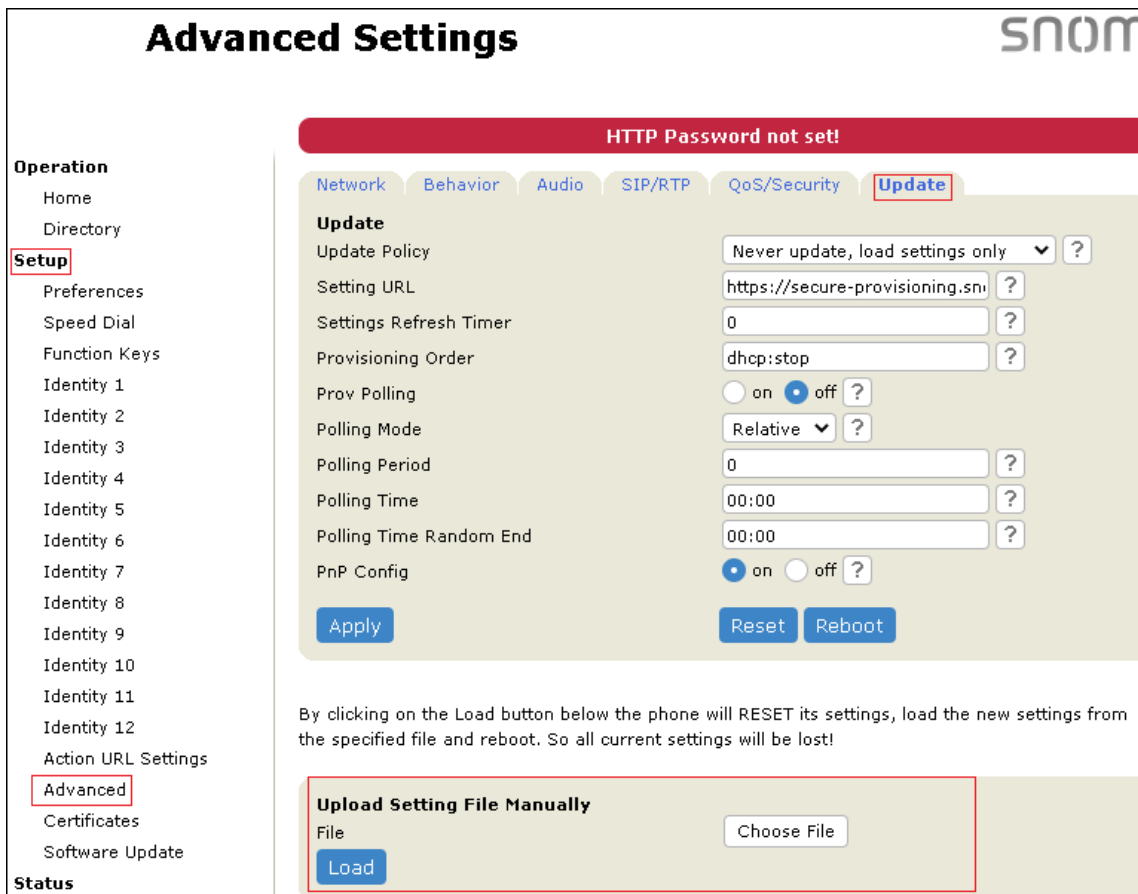


Figure 11 : Manual Provisioning

- From Web UI of phone, Click **Reset**

**Advanced Settings** SNOM

HTTP Password not set!

**Operation**

- Home
- Directory
- Setup**
- Preferences
- Speed Dial
- Function Keys
- Identity 1
- Identity 2
- Identity 3
- Identity 4
- Identity 5
- Identity 6
- Identity 7
- Identity 8
- Identity 9
- Identity 10
- Identity 11
- Identity 12
- Action URL Settings
- Advanced

**Update**

Update Policy: Never update, load settings only ?

Setting URL: https://secure-provisioning.snom ?

Settings Refresh Timer: 0 ?

Provisioning Order: dhcp:stop ?

Prov Polling:  on  off ?

Polling Mode: Relative ?

Polling Period: 0 ?

Polling Time: 00:00 ?

Polling Time Random End: 00:00 ?

PnP Config:  on  off ?

Apply Reset Reboot

By clicking on the Load button below the phone will RESET its settings, load the new settings from the specified file and reboot. So all current settings will be lost!

**Upload Setting File Manually**

Figure 12 : Factory reset

2. Give **Yes** to confirm to factory reset the phone

**Confirmation** SNOM

HTTP Password not set!

**Operation**

- Home
- Directory
- Setup**
- Preferences
- Speed Dial

**Attention!**

Please keep in mind, that all settings including call lists, directory etc. will be lost if you confirm with Yes. Are you really sure you want to reset the phone to factory defaults ?

Yes No

Figure 13 : Factory reset - (Cont.)

3. Once the Phone reboots, enter the phone's IP address in the browser's address bar (**https://ip-address**) and enter. There is no default administrator username and password. It is recommended to setup a phone's **username** and enter the **password**.

### 3.4.2 Provisioning through Phone's Web Interface

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. Add SIP Devices -> Provisioning](#))



- D7XX configuration is done via web interface, enter the phone's IP address in the browser's address bar (https://ip-address) and enter
- Navigate to **Setup -> Identity 1**
  1. Identity Active: Set to **"On"**
  2. Displayname: Enter any name
  3. Account: User Name (provided by Zoom)
  4. Password: **Password** (from Zoom provisioning)
  5. Registrar: SIP Domain followed by semicolon and "transport=tls". For example: **7000766862zoom.us** (Provided by Zoom)
  6. Outbound Proxy: Outbound Proxy followed by semicolon and "transport=tls". For example: **us01sip0h.sc.zoom.us:5091;transport=tls** (Provided by Zoom)
  7. Authentication Username: **Authorization ID** (from Zoom provisioning)
  8. Click Apply

**Configuration Identity 1** snom

HTTP Password not set!

! Some settings are not yet stored permanently. [Save](#) [View Changes](#) ?

**Operation**

- Home
- Directory
- Setup**
- Preferences
- Speed Dial
- Function Keys
- Identity 1**
- Identity 2
- Identity 3
- Identity 4
- Identity 5
- Identity 6
- Identity 7
- Identity 8
- Identity 9
- Identity 10
- Identity 11
- Identity 12
- Action URL Settings
- Advanced
- Certificates
- Software Update

**Status**

- System Information
- Log
- SIP Trace
- DNS Cache
- Subscriptions
- PCAP Trace
- Memory
- Settings

**Login Information**

Identity active  on  off ?

Displayname  ?

Account  ?

Password  ?

Registrar  ?

Outbound Proxy  ?

Failover Identity  ?

Hidden Identity  on  off ?

Authentication Username  ?

Mailbox  ?

Mailbox Dial-in (if different from Mailbox)  ?

Conference Server  ?

Display Text for Idle Screen  ?

Display Number for Idle Screen  ?

Display Text for Call Forwarding Target  ?

Photo  ?

Figure 14 : Identity Settings

- Navigate to **Setup -> Advanced -> Network**. Ensure the below parameters are set.
  1. DHCP: on

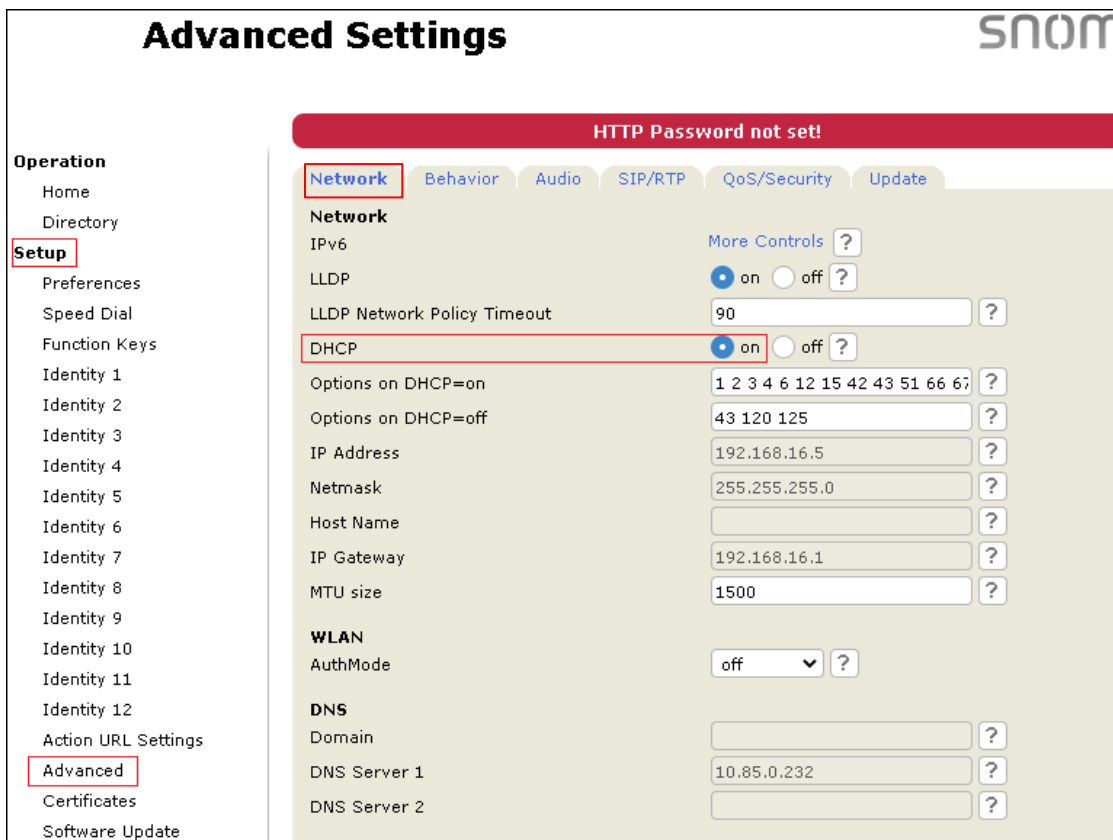


Figure 15 : Network Settings

- Navigate to **Setup -> Advanced -> SIP/RTP**. Ensure the below parameters are set.
  1. Listen on SIP TLS port: on

**Advanced Settings** snom

HTTP Password not set!

Network Behavior Audio **SIP/RTP** QoS/Security Update

**SIP**

Network Identity (Port)	<input type="text"/>	?
TLS Listener Port	<input type="text"/>	?
SIP T1 (ms)	500	?
Timer Support (RFC4028)	<input checked="" type="radio"/> on <input type="radio"/> off	?
SIP Session Timer (s)	3600	?
SIP Dirty Host TTL (s)	<input type="text"/>	?
SIP Max Forwards	70	?
ENUM Suffix	e164.arpa	?
Retry Interval after Failed Registration (s)	300	?
Use user=phone	<input checked="" type="radio"/> on <input type="radio"/> off	?
Require PRACK	<input checked="" type="radio"/> on <input type="radio"/> off	?
Send PRACK	<input checked="" type="radio"/> on <input type="radio"/> off	?
Offer GRUU	<input checked="" type="radio"/> on <input type="radio"/> off	?
Offer MPO	<input type="radio"/> on <input checked="" type="radio"/> off	?
Use Outbound	<input type="radio"/> on <input checked="" type="radio"/> off	?
Use SIP Compact Headers	<input checked="" type="radio"/> on <input type="radio"/> off	?
Listen on SIP TCP Port	<input type="radio"/> on <input checked="" type="radio"/> off	?
<b>Listen on SIP TLS Port</b>	<input checked="" type="radio"/> on <input type="radio"/> off	?

Figure 16 : SIP-Basic Settings

- Navigate to **Setup-> Identity 1 -> RTP**. Ensure the below parameters are set.
  1. RTP Encryption: **on**
  2. RTCP Encryption: **on**
  3. SRTP Auth-Tag: **AES-80**
  4. RTP/SAVP: **mandatory**
  5. Click **Apply**

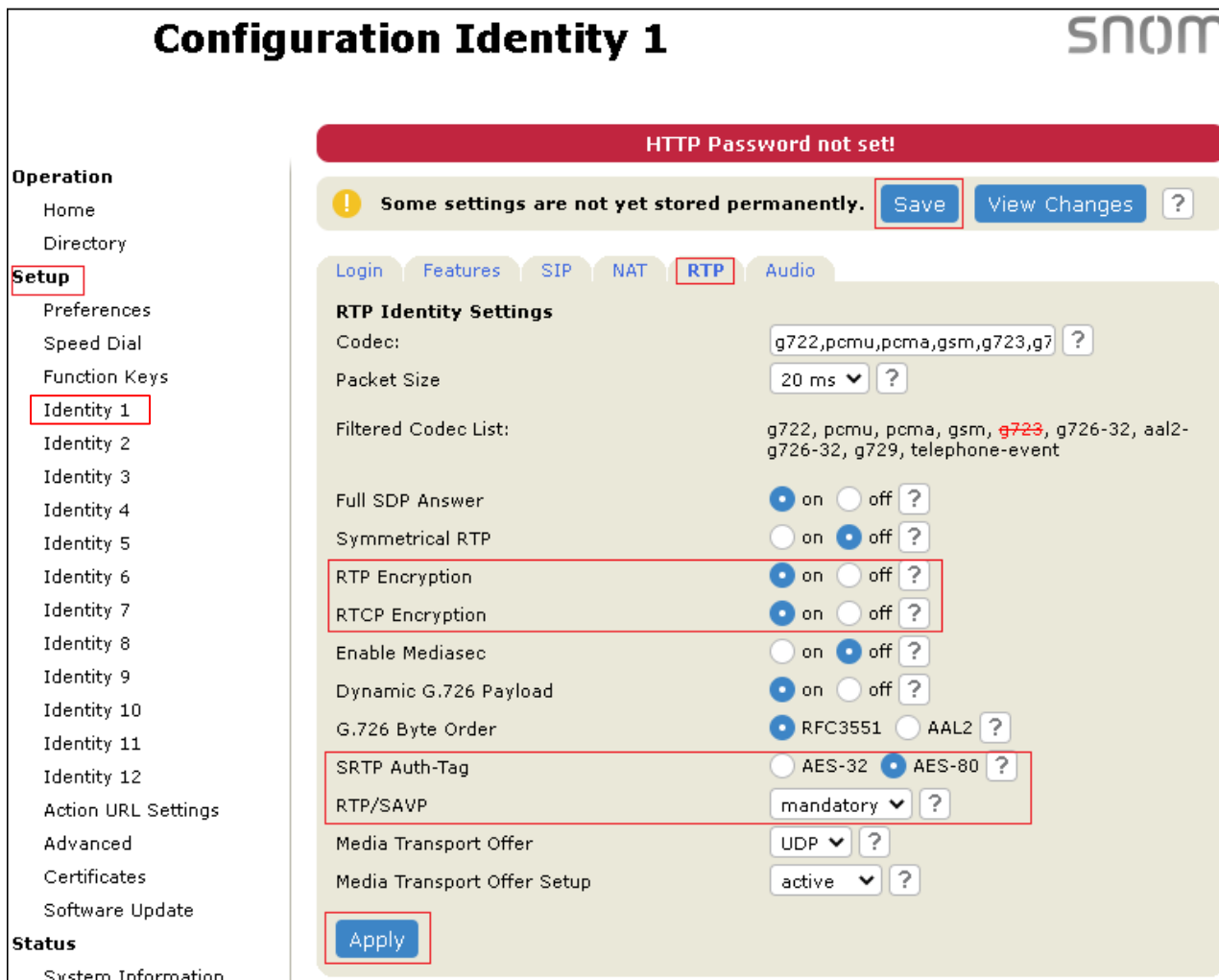


Figure 17: Audio Settings

- Under **Status-> Settings**. Ensure the below parameters are set.
  1. Search for **referred\_by\_brackets1**. Right click and change the value of referred\_by\_brackets1=on
  2. Click **Save**.
  3. If necessary, click **Reboot**

The screenshot shows the 'Settings' page for a SNOM device. On the left is a navigation menu with categories: Operation, Setup, Status, and Manual. The 'Status' category is selected, and 'Settings' is highlighted. The main content area displays a list of configuration parameters in a key-value format. At the top, there are two warning banners: 'HTTP Password not set!' and 'Apply setting changes?'. Below these are buttons for 'Reboot', 'Save', and 'View Changes'. At the bottom of the settings list, there are buttons for 'All Settings (.cfg)', 'All Settings (.xml)', and 'Changed Settings (.xml)'.

**Settings** snom

**HTTP Password not set!**

**Apply setting changes?** [Reboot](#)

**Some settings are not yet stored permanently.** [Save](#) [View Changes](#) [?](#)

[All Settings \(.cfg\)](#) [All Settings \(.xml\)](#) [Changed Settings \(.xml\)](#)

```

language=English
phone_features=ContactsDbStorage
phone_type=snomD785
codec_tos=160
mac=00041392EF27
bt_mac=000413F2EF27
support_service_codes=on
brand_variant=default
setting_server=https://secure-provisioning.snom.com:443/snomD785/{mac}.htm
pnp_config=on
ip_adr=192.168.16.5
netmask=255.255.255.0
main_network_device=eth0
update_server=192.168.16.251
dns_load_balancing=on
dns_domain=
dns_server1=10.85.0.232
dns_server2=
dhcp=on
gateway=192.168.16.1
phone_name=
utc_offset=-36000
system_time=1664286982
ntp_server=10.10.10.5
lcserver1=
http_proxy=
http_port=80
http_user=
http_pass=
http_scheme=on
https_port=443
webservice_type=http
webservice_cert=
dst=
timezone=USA-10
backlight=15
contrast=12
smart_label_text_alignment=center
label_text_alignment=center
label_contrast=8
label_backlight=15
label_backlight_idle=0
    
```

**Operation**

- Home
- Directory

**Setup**

- Preferences
- Speed Dial
- Function Keys
- Identity 1
- Identity 2
- Identity 3
- Identity 4
- Identity 5
- Identity 6
- Identity 7
- Identity 8
- Identity 9
- Identity 10
- Identity 11
- Identity 12
- Action URL Settings
- Advanced
- Certificates
- Software Update

**Status**

- System Information
- Log
- SIP Trace
- DNS Cache
- Subscriptions
- PCAP Trace
- Memory
- Settings**
- Manual

Figure 18: Blind Transfer Settings

```
refer_brackets6=off  
refer_brackets7=off  
refer_brackets8=off  
refer_brackets9=off  
refer_brackets10=off  
refer_brackets11=off  
refer_brackets12=off  
referred_by_brackets1=on  
referred_by_brackets2=off  
referred_by_brackets3=off  
referred_by_brackets4=off  
referred_by_brackets5=off  
referred_by_brackets6=off  
referred_by_brackets7=off  
referred_by_brackets8=off  
referred_by_brackets9=off  
referred_by_brackets10=off  
referred_by_brackets11=off  
referred_by_brackets12=off  
user_active1=on  
user_active2=on  
user_active3=off  
user_active4=off  
user_active5=off
```

Figure 19: Blind Transfer Settings (cont.)

### 3.4.3 Provisioning through Phone's Web Interface

In order to register the phone to zoom portal, ensure that the following certificates are uploaded in the phone successfully.

- From phone's Web UI, Navigate to **Setup -> Certificates**
- From the left side of window, Navigate to **Custom Certificates**
- Click **Load** and upload the following certificates: DigiCertGlobalRootCA.crt.pem, DigiCertGlobalRootG2.crt.pem, DigiCertGlobalRootG3.crt.pem

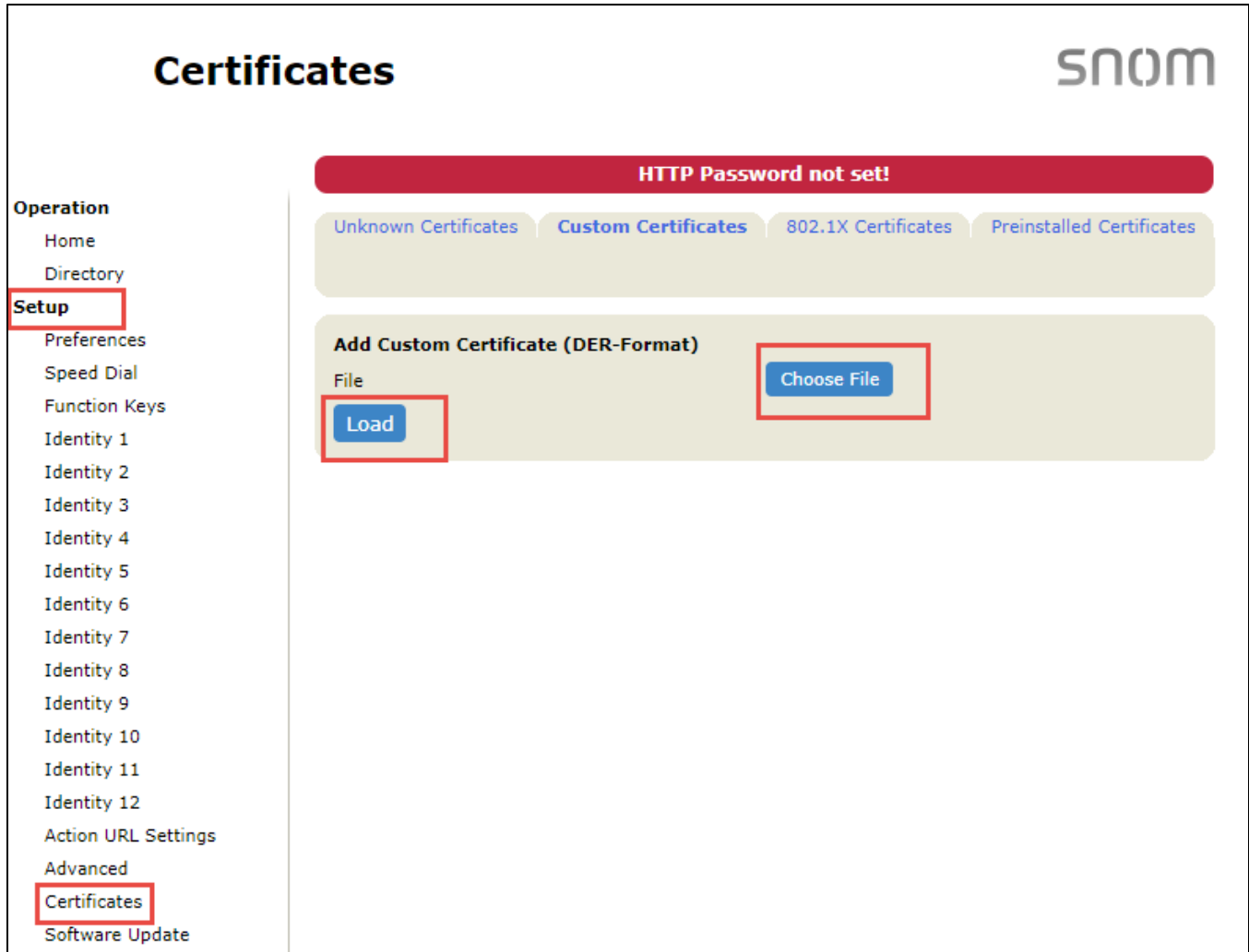


Figure 20: Trusted CA Certificates

## 4. Troubleshooting

Online Troubleshooting Guides:

- <https://service.snom.com/display/wiki/Trouble+Shooting+FAQ>

Support:

- Email: [supportusa@snom.com](mailto:supportusa@snom.com)
- Phone: (339) 227-6160 Option 2
- Helpdesk (create a ticket): <https://jira.snom.com/servicedesk/customer/user/login?destination=portals>

## 5. FAQ

Online FAQ:

- <https://service.snom.com/display/wiki/Deskphone+FAQ>

## 6. Resources

Firmware:

- <https://service.snom.com/display/wiki/Firmware+Update+Center>

Online Service Hub:

- <https://service.snom.com/>

Snom Headsets:

- <https://service.snom.com/display/wiki/Headsets>

Supported Headsets:

- <https://service.snom.com/display/wiki/Supported+Headsets>