



# Configuration Guide for Patton SmartNode (Trinity 3.2x)

Template guidelines on how to create a configuration  
guide for a Patton SmartNode SIP device certified for  
Zoom Phone

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## Revision History

Version	Date	Author	Change
1.0	3/15/2022	Danny Staub	Original Draft
1.1	7/27/2022	Danny Staub	Added online or native web wizard section Edited trust statement in SIP interface of referenced web wizard Added TLS license overview and installation procedure
1.2	11/29/2022	Danny Staub	Added supported model numbers Removed Cloud Config info Added supported features Added configuration steps. i.e. Connecting to Endpoint Added Discovery Tool and Trinity manual link
1.3	1/18/2023	Danny Staub	Changed software version from 3.x to 3.2x.
1.4	1/23/2023	Danny Staub	Added fax capabilities



## 1. Overview

This section provides an overview for the document. This document provides instructions on how to configure and add your device to the Zoom Web Portal.

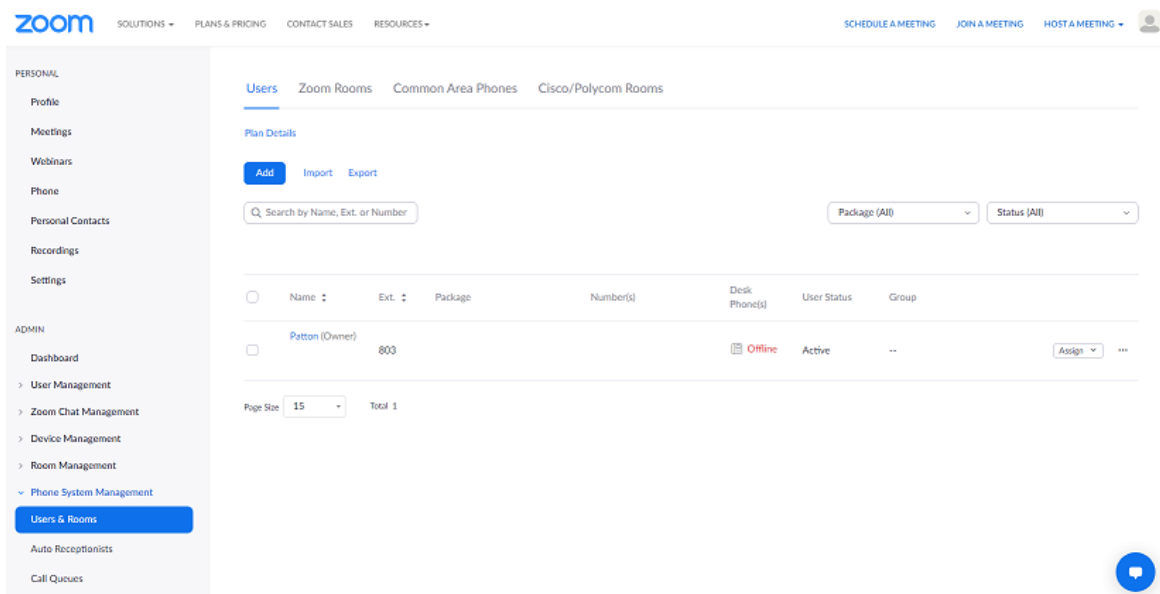
Vendor SIP Endpoints can register to Zoom Phone as a third-party SIP Endpoint and provide Telephony features and capability such as calling, paging and other phone system/PBX functions.

## 2. Configuration Steps - Zoom Web Portal

This section provides instructions on how to configure SIP Endpoint in Zoom Web Portal (does not include steps for configuring Vendor Endpoint specifically)

To register a SIP Endpoint to Zoom Phone, start by creating a new common area phone in the Zoom Web Portal. See the Zoom support site for more information.

1. **Sign into the Zoom Web Portal**
2. Click **Phone system management** > **Users & Rooms**



The screenshot displays the Zoom Web Portal interface. The top navigation bar includes the Zoom logo, menu items for SOLUTIONS, PLANS & PRICING, CONTACT SALES, and RESOURCES, and user actions for SCHEDULE A MEETING, JOIN A MEETING, and HOST A MEETING. The left sidebar is divided into PERSONAL and ADMIN sections. The ADMIN section is expanded to show 'Phone System Management', with 'Users & Rooms' selected. The main content area shows the 'Users & Rooms' page with tabs for Users, Zoom Rooms, Common Area Phones, and Cisco/Polycom Rooms. The 'Users' tab is active, displaying a 'Plan Details' section with 'Add', 'Import', and 'Export' buttons. Below this is a search bar and two dropdown menus for 'Package (All)' and 'Status (All)'. A table lists users with columns for Name, Ext., Package, Number(s), Desk Phone(s), User Status, and Group. One user, 'Patton (Owner)', is listed with extension 803, status 'Offline', and 'Active'. A table footer shows 'Page Size 15' and 'Total 1'. A chat icon is visible in the bottom right corner.

3. Click the **Common Area Phones or Phones & Devices** tab

The screenshot shows the Zoom Admin console interface. The top navigation bar includes 'zoom', 'SOLUTIONS', 'PLANS & PRICING', 'CONTACT SALES', 'RESOURCES', 'SCHEDULE A MEETING', 'JOIN A MEETING', and 'HOST A MEETING'. The left sidebar is divided into 'PERSONAL' and 'ADMIN' sections. Under 'ADMIN', 'Users & Rooms' is highlighted. The main content area is titled 'Common Area Phones' and features a search bar, filter buttons for 'Device (All)', 'Package (All)', 'Brand (All)', and 'Status (All)', and a table of phone devices. The table has columns for 'Display Name', 'Ext.', 'Package(s)', 'Number(s)', 'Device Type', 'MAC Address', 'Status', and 'Firmware Version'. Two devices are listed: 'Patton #1' with extension 802, status 'Offline Provision', and 'Patton #3' with extension 804, status 'Online Provision'. Below the table, there is a 'Page Size' dropdown set to 15 and a 'Total 2' indicator.

4. Click **Add** and enter the following information

## Add Common Area Phone

Display Name

Description (Optional)

Extension Number   
Extension Number is required

Package [Assign](#)

Country/Region

Time Zone

MAC Address

Device Type

- Site** (only visible if you have multiple sites): Select the site you want the device to belong to
- Display Name:** Enter a display name to identify the device
- Description (Optional):** Enter a description to help you identify the location of the device

- d. **Extension Number:** Enter an extension number to assign it to the device
  - e. **MAC Address:** Enter the 12-digit MAC address of the Endpoint. The MAC can be found on the product label
  - f. **Device Type:** Select **Other**
    - i. **Note:** If you don't have the other option, contact your Zoom sales representative.  
By default, support for a generic SIP profile is not enabled
  - g. **Emergency Address** (only visible if you don't have multiple sites): Select an emergency address to assign to the desk phone. If you selected a site for common area phone, the site's emergency address will be applied to the phone
5. Click **Save**
  6. Click **Provision** to view the SIP credentials. You will need this information to complete the provisioning

### Provisioning

MAC Address 00-a0-ba-0f

Device Type Other

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.

You'll need following information for manual provisioning.

**SIP Account 1:**

1. SIP Domain: 183.zoom.us
2. Outbound Proxy: 80.183.zoom.us:5091
3. User Name: 78.183.zoom.us:219
4. Authorization ID: 78.183.zoom.us:7
5. Password: [REDACTED]

Please download [DigiCert Global Root CA](#), [DigiCert Global Root G2](#), [DigiCert Global Root G3](#) and import to your IP phone if they are not in the trust list of the device.

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

Close

### 3. Configuration Steps - Vendor Endpoint

This section provides instructions on how to check for and install feature licenses, how to connect to the device, and how to configure your Patton SmartNode SIP Endpoint to register to Zoom. The following SmartNode Endpoints are supported:

- SN5540 series
- SN5570 series
- SN4140 series
- SN200 series

#### Supported Features

- SIPv2 & SIPv2 over TCP
- SIPv2 TLS
- SIPv2 over IPv6
- SIP call transfer, redirect
- Overlap or en-bloc dialing
- DTMF in-band, out-of-band
- Configurable tones Call Routing & Services
- Regular expression number matching
- Regular expression number manipulation
- Least Cost Routing
- Number blocking
- Short-Dialing
- Digit collection
- Distribution-Groups and Hunt-groups
- Fax - T.38 and G711 Passthrough

#### TLS Licensing

A TLS license is needed to communication to the ZOOM service.

- SNSW-SIP-TLS

The following units will have this license pre-installed from the factory.

- SN5540 series
- SN5570 series

The following units require a TLS license (SNSW-SIP-TLS) to be purchased and installed. Please contact [sales@patton.com](mailto:sales@patton.com) for more information. (Licenses can also be purchased and pre-installed in the factory before shipping.)

- SN4140 series
- SN200 series

## How to install a TLS license file

If you order licenses from Patton, you will receive an e-mail with a set of CLI commands - one command for each feature. Copy the commands and paste them into an open Telnet, SSH, or console connection. This unlocks the corresponding licensed feature.

### Example: Install a license as received by e-mail from Patton

```
node>install license 10011002R1Ws63yKV5v28eVmhDsVGj/JwKqIdpC4Wr1BHaN- tenXUYF/
2gNLoihifacaTPLKcV+uQDG8LJis6EdW6uNk/ GxVObDEwPFJ5bTV3bIIFUZ1eUe+8c5OpCCd7PSAe83Ty2c/
CnZPS1EjIrv1Jrr8VhOr1DYxkEV9evBp+tSY+y9sCeXhDwt5Xq15SAP1znTLQmym7fDakvm+zltzswX/
KX13sdkR0ub9IX4Sjn6YrvkyrJ2dCGivTTB3iOBmRjV1u
```

To view the licenses installed, enter in the command

```
Node> show system licenses
```

```
11724B(cfg)#show system licenses

Local Licenses

The following licenses are available on the local device:
Serial Number: 00A0B11724B

-----
License Name      Source:  Available:  Usage:
Blt-In  +  Inst + Leased + Attd =  Total =  Alloc + Free
-----
sip-sessions      4                4                4
iprouter          Y                Y
load-balancer     Y                Y
sip-registrar     Y                Y
sip-tls-srtp      Y                Y
-----
```

## Connecting to the SmartNode Endpoint

The SmartNode Endpoints come with either 1 or 2 Ethernet ports, depending on the model. There are multiple ways to gain access to the unit.

- Ethernet port 0/0
  - o Acts as a DHCP Client and will take a DHCP address from your networks DHCP server. You can then use the SmartNode discovery tool\*, to find what IP was assigned to the device.
  - o The SN200 and SN4140 series have the static IP addresses of 192.168.200.10/24 assigned by default.
- Ethernet port 0/1
  - o Acts as a DHCP Server. You can connect this directly to your computer and it can receive a DHCP address from the SmartNode.
  - o The SN5500 series have the static IP addresses of 192.168.1.1/24 assigned by default.

Once the IP Address is known, you can access the device's GUI by entering in the IP Address into a web browser. The default username is 'administrator' and the password is left blank. (Telnet and SSH are also supported.)

\*Download the SmartNode Discovery tool from [https://patton.com/files/support/zoom/SNDiscovery\\_V107.zip](https://patton.com/files/support/zoom/SNDiscovery_V107.zip)



## Register a SmartNode Endpoint using the online or native Web Wizard

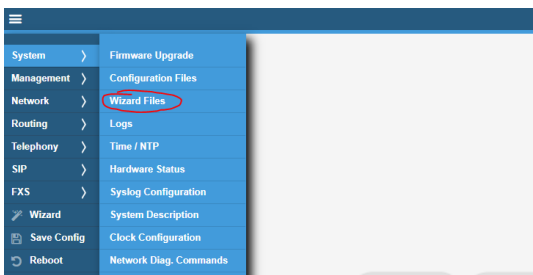
The SmartNode can be configured using a Web Wizard xml file that runs natively through the GUI of the device.

### Download Wizard

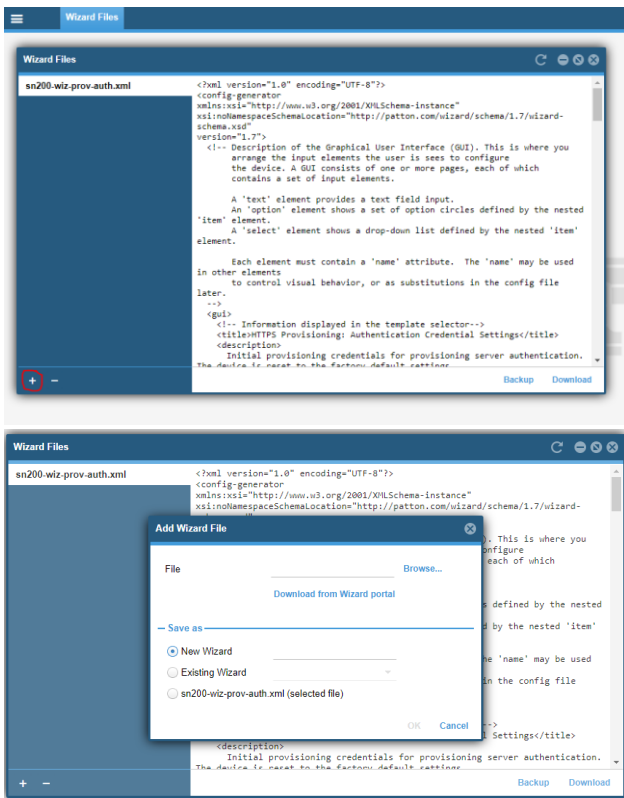
You can download this wizard from [https://patton.com/files/support/zoom/FXS\\_ZOOM\\_Wizard.zip](https://patton.com/files/support/zoom/FXS_ZOOM_Wizard.zip).

### Install Wizard

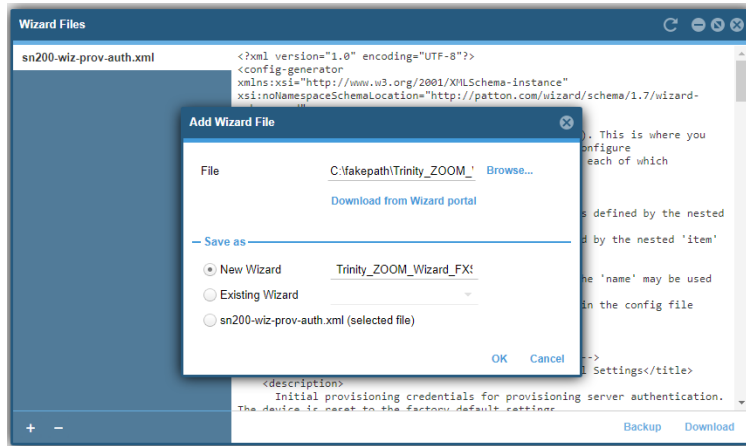
To load this wizard into a SmartNode endpoint, navigate to the unit's GUI and once logged in (administrator/Blank Password), select 'System/Wizard Files' from the menu in the upper lefthand corner.



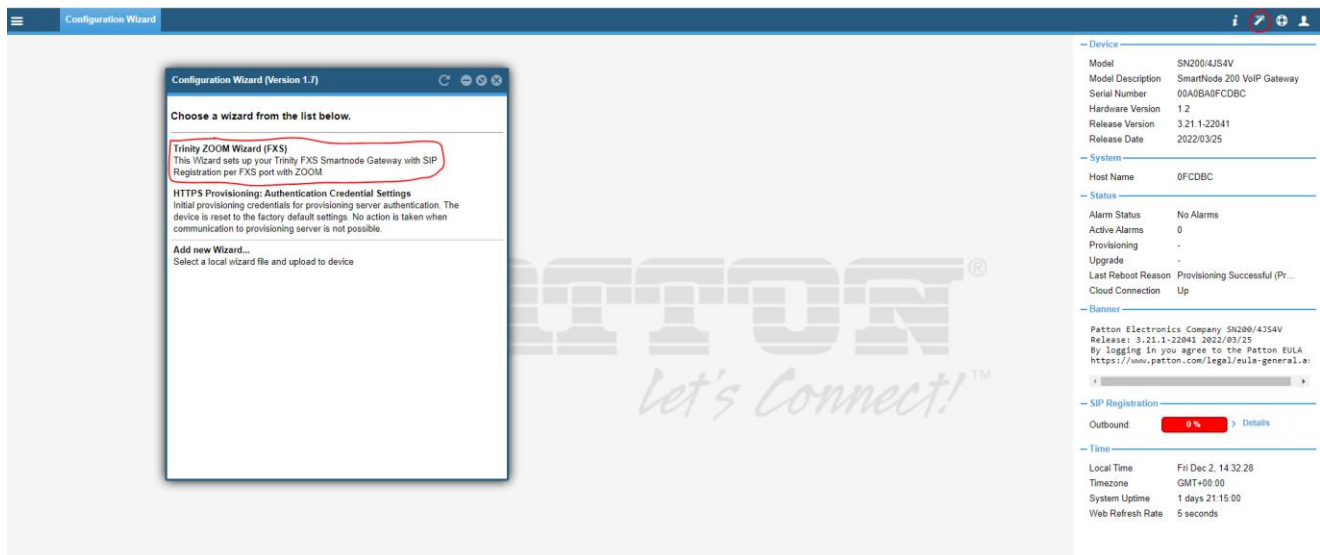
Once here, click the '+' button to add a wizard, and a popup will appear.



Browse to the wizard xml file and select it as a 'New Wizard' and then hit 'OK'.



Now you can click the wizard wand on the top righthand side of the GUI to launch the wizard selection page. From here, select the wizard you just loaded, and you will then walk through the following steps to configure the unit.



## Execute Wizard

There are 4 tabs that require input for the configuration to be generated.

- Device Management – Configure the management access username and password
- Network Settings – Configure the endpoint to use a DHCP address or statically set it
- Analog Settings – Select the amount of FXS ports in use
- ZOOM SIP Settings – Input SIP registration information received from ZOOM

### 1. Device Management tab

- a. Create a Superuser name and password

Configuration Wizard Trinity ZOOM Wizard (FXS)

Device Management Network Settings Analog Selection ZOOM SIP Settings

— User Login (optional) —

Superuser Name: \_\_\_\_\_

Superuser Password: \_\_\_\_\_

Retype Superuser Password: \_\_\_\_\_

## 2. Network Settings tab

### a. DHCP – Acts as a DHCP Client

Configuration Wizard Trinity ZOOM Wizard (FXS)

Device Management Network Settings Analog Selection ZOOM SIP Settings

— SmartNode IP Setup —

DHCP

Static

### b. Static – Manually set the IP Address

Configuration Wizard Trinity ZOOM Wizard (FXS)

Device Management Network Settings Analog Selection ZOOM SIP Settings

— SmartNode IP Setup —

DHCP

Static

IP Address: 192.168.1.1 \_\_\_\_\_

Netmask: 255.255.255.0 \_\_\_\_\_

Gateway: \_\_\_\_\_

DNS Server: \_\_\_\_\_

- **IP Address** – IP address of the SmartNode
- **Netmask** – Netmask of the SmartNode
- **Gateway** – Default Gateway IP Address
- **DNS Server** – DNS Server IP address

## 3. Analog Selection tab

### a. Select the number of FXS ports to be used

Configuration Wizard Trinity ZOOM Wizard (FXS)

Device Management Network Settings Analog Selection ZOOM SIP Settings

— Number of FXS ports —

1 ▾

4. ZOOM SIP Settings tab

- a. ZOOM SIP Domain – Provided from ZOOM
- b. ZOOM SIP Proxy – Provided from ZOOM (If using FQDN, you do not have to specify the port)
- c. SIP User X
  - i. A SIP User section is created for the amount of FXS ports chosen in the previous tab. You will need to fill in the following for each user.
    - ZOOM Username – Provided from ZOOM
    - ZOOM Authorization ID – Provided by ZOOM
    - Password – Provided by ZOOM

Configuration Wizard Trinity ZOOM Wizard (FXS)

Device Management

Network Settings

Analog Selection

ZOOM SIP Settings

ZOOM SIP Domain: \_\_\_\_\_

ZOOM SIP Proxy: \_\_\_\_\_

---

– SIP User 1 (FXS 0/0) –

Display Name: \_\_\_\_\_

ZOOM User Name: \_\_\_\_\_

ZOOM Authorization ID: \_\_\_\_\_

Password: \_\_\_\_\_

Retype Password: \_\_\_\_\_

---

– SIP User 2 (FXS 0/1) –

Display Name: \_\_\_\_\_

ZOOM User Name: \_\_\_\_\_

ZOOM Authorization ID: \_\_\_\_\_

Password: \_\_\_\_\_

Retype Password: \_\_\_\_\_

---

– SIP User 3 (FXS 0/2) –

- 5. Once all tabs are filled in, you can then Select one of the following from the lower right-hand section of the wizard.
  - a. Preview – You can preview the config before loading it and also download a copy.
  - b. Save – This will save the config and activate it on the unit as the new startup-config.

## 4. Troubleshooting

This section provides debugging information for your Patton SmartNode. Below are the debugs commands that you can run to troubleshoot or verify any issues.

Protocol	Trinity Command	Description
<b>SIP:</b>	debug sip-transport full-detail	Logs all SIP messages sent or received over the IP network
<b>ISDN BRI/PRI:</b>	debug isdn-signaling full-detail	Prints all ISDN layer 3 signaling messages
<b>FXO:</b>	debug fxo detail 4	Enables/Disables FXO port trace
	debug fxo-signaling detail 4	Enables/Disables call-control FXO signaling trace
<b>FXS:</b>	debug fxs detail 4	Enables/Disables FXS port trace
	debug fxs-signaling detail 4	Enables/Disables call-control FXS signaling trace

## 5. FAQ

Patton's Knowledge Base is available 24/7 on our website <https://www.patton.com/support/kb.asp>.

## 6. Resources

If you have any issues with your Patton SmartNode, please contact Patton Support for further assistance.

Trinity User Manual - <https://www.patton.com/manuals/trinity3.14cli.pdf>

Online Ticketing System - <https://support.patton.com> or email to [support@patton.com](mailto:support@patton.com)