



Panasonic
SIP Trunking
User Guide

nextiva.com/support

Contents

Overview	3
DSP card and Activation keys.....	3
Architecture Overview	4
Port Forwarding rules on the end router	4
Basic V-SIPGW16 Settings for Nextiva SIP Trunks.....	5
1. Install the NS Unified Web Maintenance console on your PC.....	5
2. Connect to the PBX.....	5
3. Configure the LAN Settings of the PBX	7
4. Installing V-SIPGW16 cards	8
5. Configuring the V-SIPGW16 Card	10
6. Configuring Incoming DID Call Routing	13
7. Backup and Reset	13
SIP Trunk Activation Keys	14
Useful Hints.....	14
Important Notes	14

Overview

This document outlines the configuration settings required for the Panasonic KX-NS1000 and KX-NS700 PBX (Private branch exchange) to make full use of the capabilities of Nextiva's SIP Trunking services.

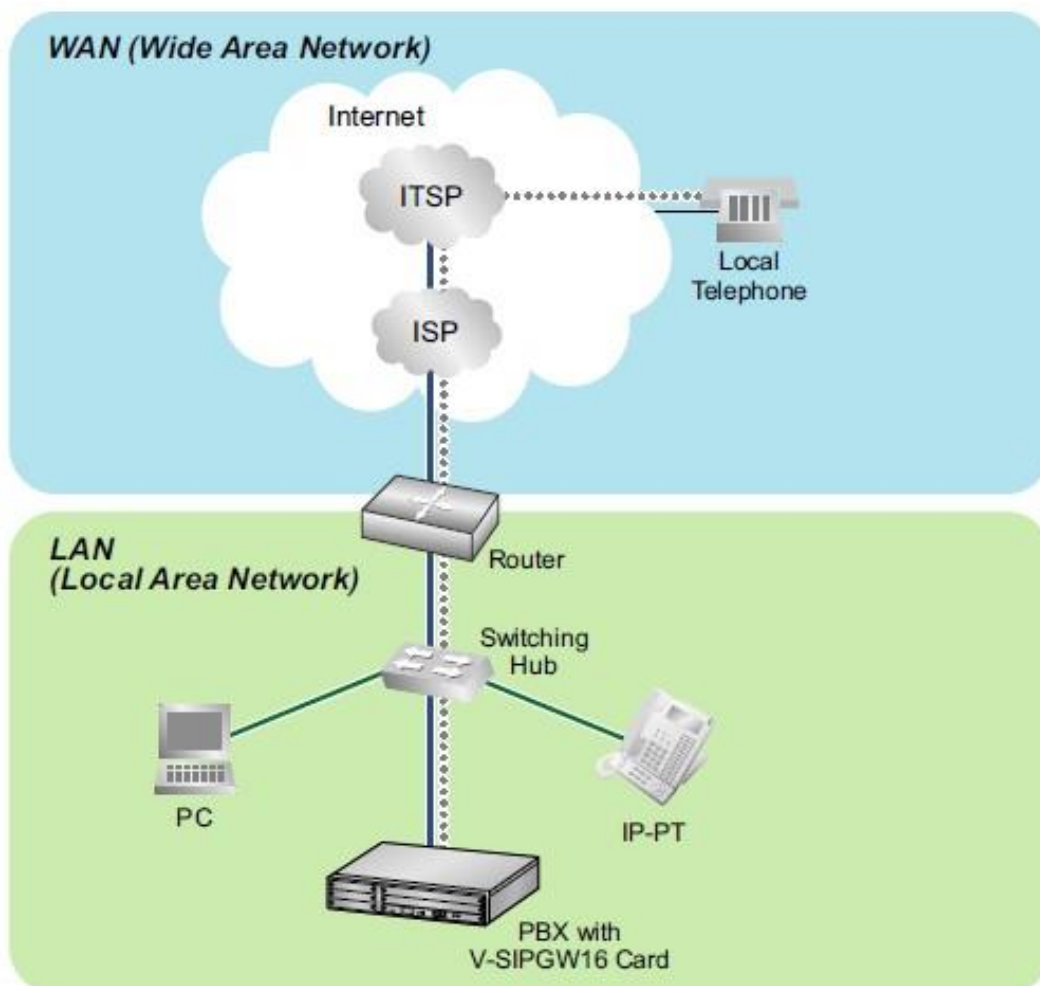
The SIP Trunking services of the Panasonic KX-NS1000/700 PBX are provided through virtual CO line cards (VSIPGW16), which can be easily integrated with Nextiva's VoIP service. This guide describes the specific configuration items for the Virtual SIP Gateway Card in addition to the basic PBX configuration related to SIP Trunking functionality.

DSP card and Activation keys

- ✓ The PBX must be equipped with a DSP card in order to provide communication between the TDM side of the PBX and the Nextiva SIP trunks²
- ✓ Activation keys for SIP-Trunks must be installed in the PBX to provide SIP-trunk functionality²

To check the number of activation keys installed in the PBX and add new licenses, please refer to **Page 13** in this configuration guide.

Architecture Overview



The above diagram illustrates simple VoIP networks connecting the NS1000/700 PBX. Nextiva will provide its services over the Public Internet.

Port Forwarding rules on the end router:

- Forward Port (UDP) **35060** to the PBX IP address
- Forward Port Range (UDP) **12000 - 12511** to the VOIP-DSP#1-1 IP address
- Forward Port Range (UDP) **12512 - 13023** to the VOIP-DSP#1-2 IP address
- Forward Port Range (UDP) **13024 - 13535** to the VOIP-DSP#2-1 IP address
- Forward Port Range (UDP) **13536 - 13047** to the VOIP-DSP#2-2 IP address

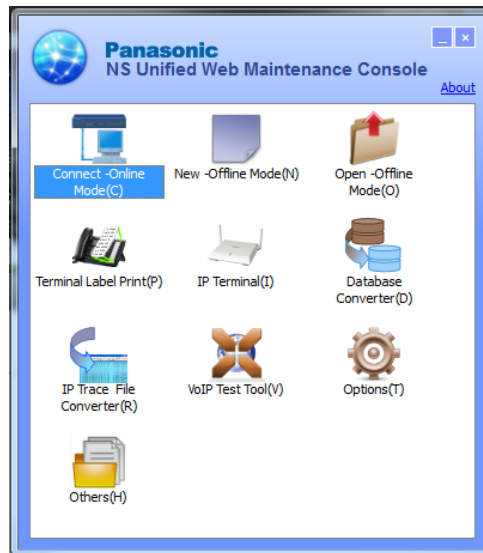
Basic V-SIPGW16 Settings for Nextiva SIP Trunking

1. Install the NS Unified Web Maintenance console on your PC

- The maintenance console is available for certified dealers. Dealers can get the latest version of the UPCMC from www.panasonicpartnerportal.com (UPCMC version 5.10.1 or higher)

2. Connect to the PBX

- Start the UPCMC.

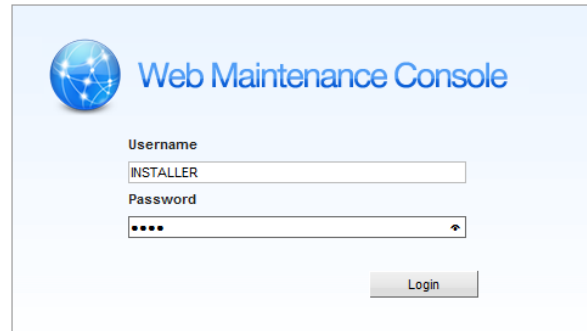


- Click **Connect** and enter the IP Address to connect to your PBX for interactive configuration.

KX-NS700

KX-NS1000

- c. Enter the username and password to log in to the PBX.
- Default Username: **INSTALLER**
 - Default Password: **1234**

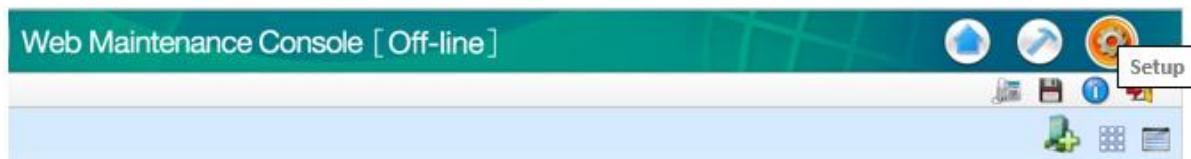


The screenshot shows the 'Web Maintenance Console' login interface. It features a blue header with a globe icon and the text 'Web Maintenance Console'. Below the header, there are two input fields: 'Username' with the text 'INSTALLER' and 'Password' with four dots. A 'Login' button is located at the bottom right of the form.

- d. Complete the Easy Setup Wizard configuration (if starting at factory default).

3. Configure the LAN Settings of the PBX

- a. Click on **Setup**.



- b. Go to Network Service → 1.IP Address/Ports → Basic Settings tab

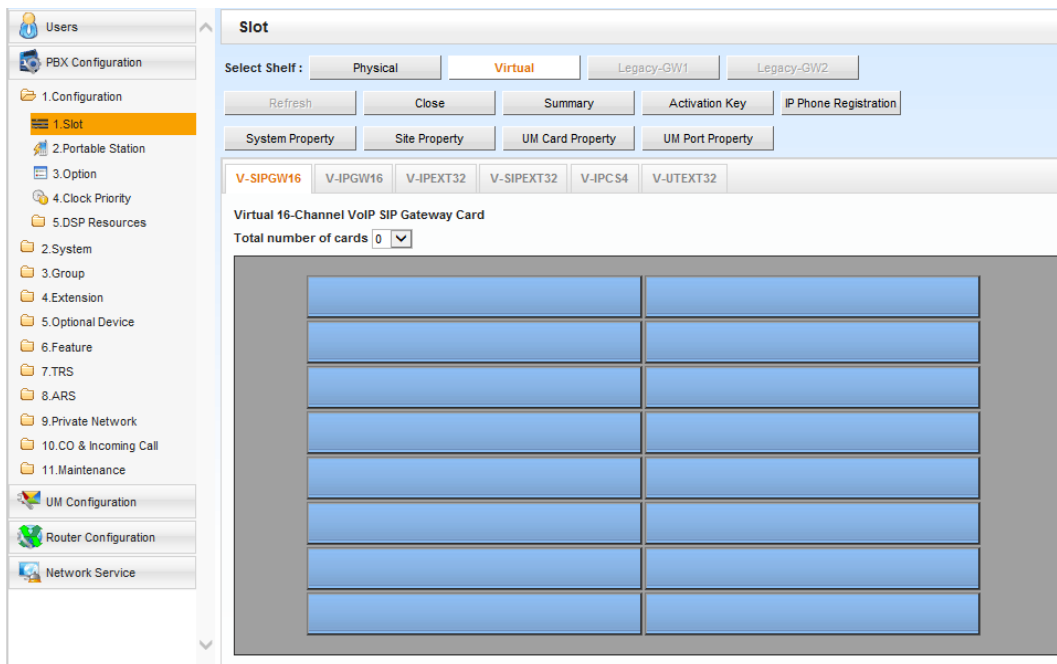
- c. Based on your Local LAN, assign static IP addresses to the PBX. The default gateway should be the end router's network IP address.

- IP Address: **provided by LAN administrator**
- Subnet Mask: **provided by LAN administrator**
- Default Gateway: **provided by LAN administrator**
- Preferred DNS IP Address: **provided by LAN administrator**
- Alternative DNS IP Address: **provided by LAN administrator**
- DSP Card #1 – 1: **provided by LAN administrator**
- DSP Card #1 – 2: **provided by LAN administrator**
- **(NS1000 Only)**
- DSP Card #2 – 1: **provided by LAN administrator**
- DSP Card #2 – 2: **provided by LAN administrator**

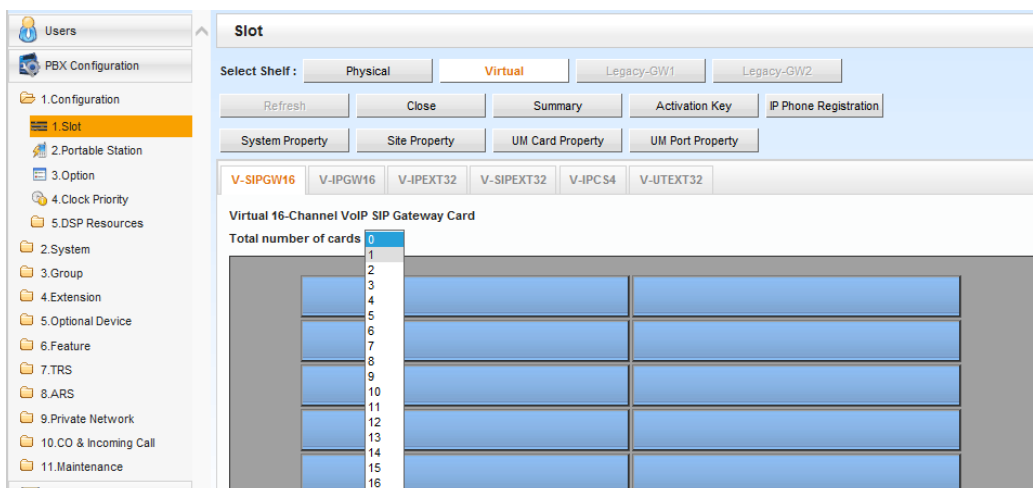
- d. Select **Apply**, then click **OK**.
4. **Installing V-SIPGW16 cards**

KX-NS1000

- a. Go to PBX Configuration → 1.Configuration → 1.Slot → Virtual Shelf → V-SIPGW16 tab.

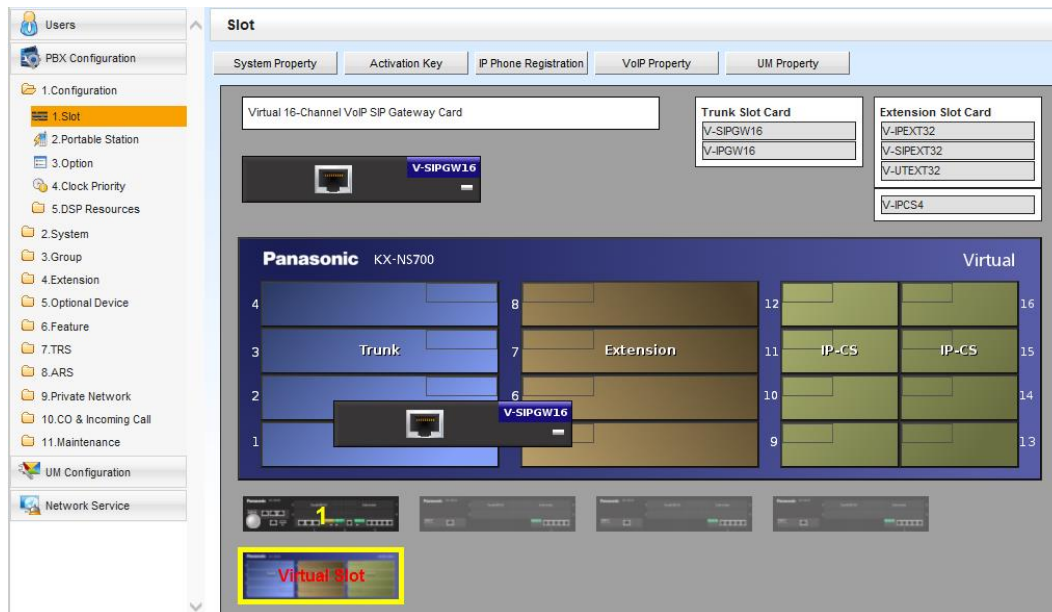


- b. Click the dropdown menu, and select the number of V-SIPGW16 Cards to add for your installation.



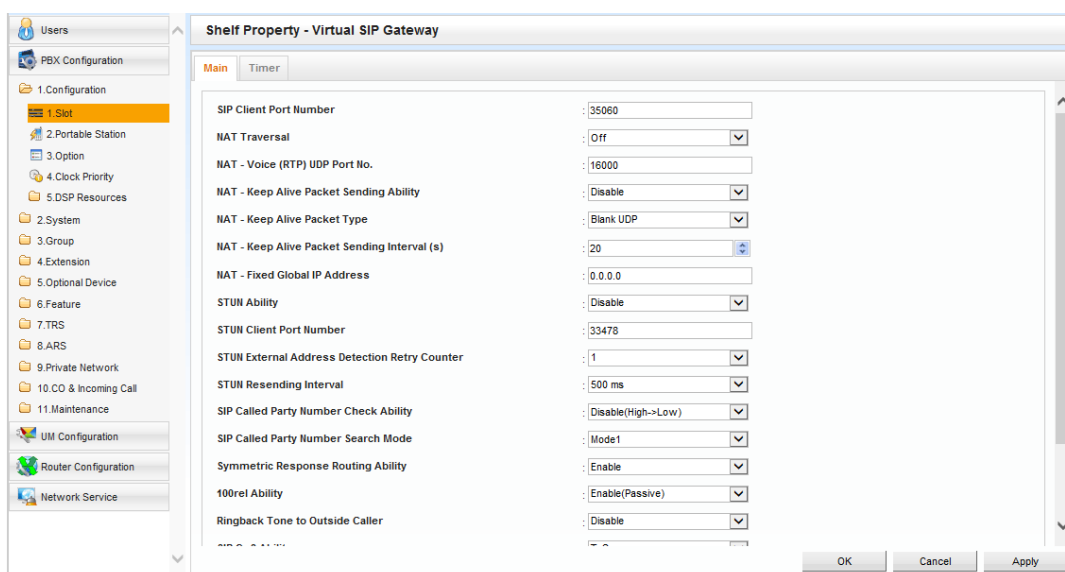
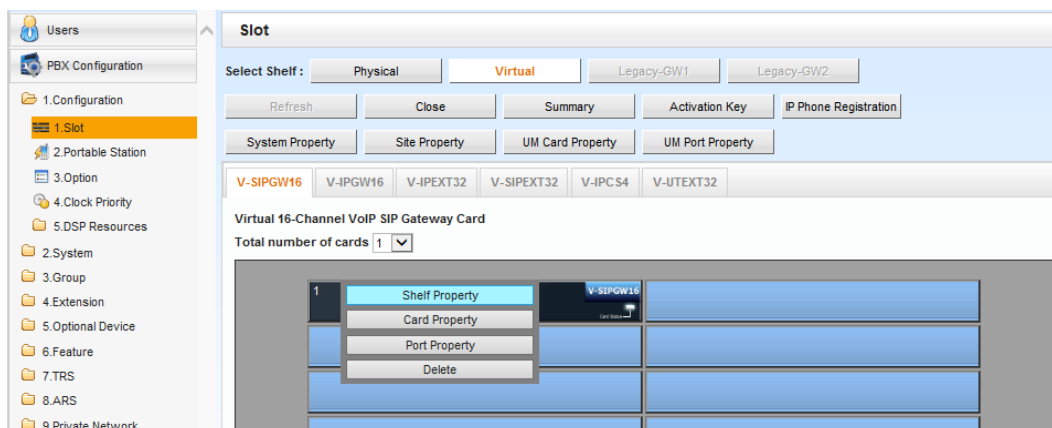
KX-NS700

- a. Go to PBX Configuration → 1.Configuration → 1.Slot → Select the Virtual Shelf
- b. Drag → Drop V-SIPGW16 Cards to the virtual Trunk slots (1 - 4) as needed and click **OK**.



5. Configuring the V-SIPGW16 Card

- a. Move your cursor over the V-SIPGW16 Card and click **O/S** to take the card out of service.
- b. **Shelf Property settings:** Move your cursor over the V-SIPGW16 Card and select **Shelf Property**.



- c. Change the following parameters from their default value:

Main Tab

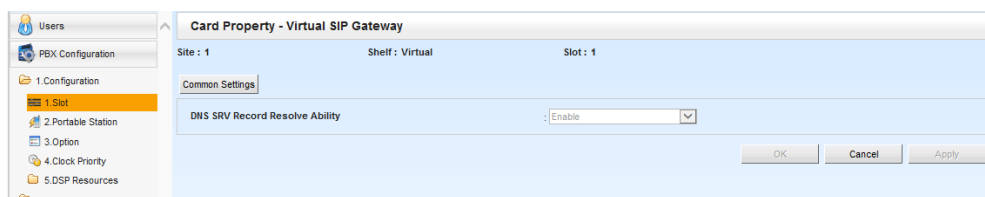
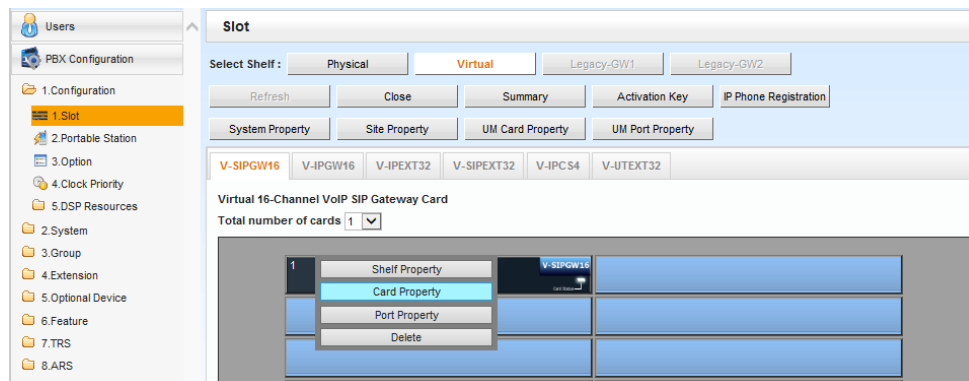
NAT – Keep Alive Packet Sending Ability: **Enable**

Timer Tab

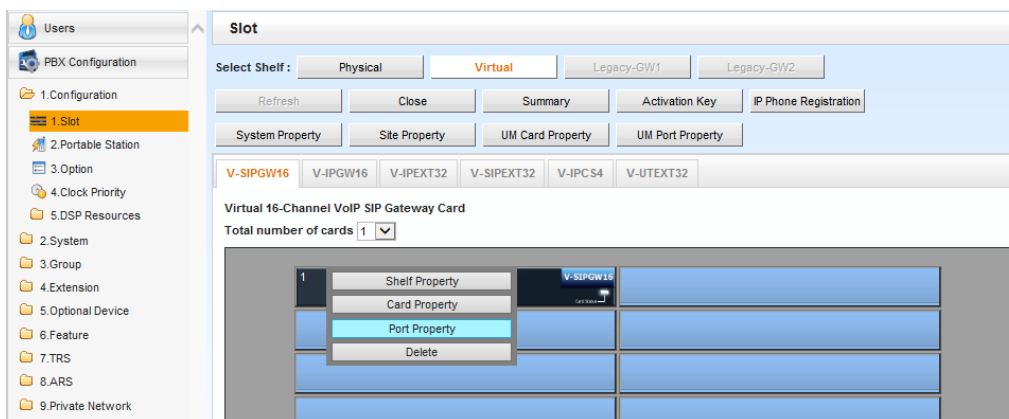
leave at factory default setting

- d. Select **Apply** and then click **OK** to exit the Shelf Property settings screen.

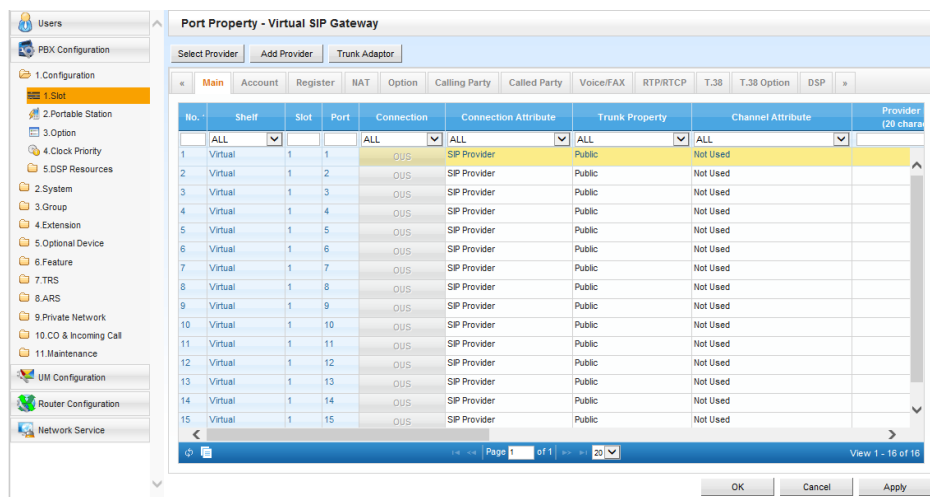
- e. **Card Property settings:**
Move your cursor over the V-SIPGW16 card and choose **Card Property**.
leave at factory default setting



- f. Select **Apply** and then click **OK** to exit the Card Property settings screen.
- g. **Port Property settings:**
Move your cursor over the V-SIPGW16 card and choose **Port Property**.



h. Change the following parameters from their default value:



Main Tab

- Connection Attribute: **Basic Channel + Additional Channels**
- Provider Name: **Nextiva**
- SIP Server Name: **pai.voipdnsservers.com**

Account Tab

- User Name: **provided by Nextiva**
- Authorization ID: **provided by Nextiva**
- Authorization Password: **provided by Nextiva**

Register Tab

- *leave at factory default setting*

NAT Tab

- *leave at factory default setting*

Option Tab

- *leave at factory default setting*

Calling Party Tab

- From Header - User Part: **PBX-CLIP**
- P-Asserted-Identity Header: **Enable**

Called Party Tab

- *leave at factory default setting*

Voice/FAX Tab

- *leave at factory default setting*

RTP/RTCP Tab

- *leave at factory default setting*

T.38 Tab

- *leave at factory default setting*

T.38 Option Tab

- *leave at factory default setting*

DSP Tab

- *leave at factory default setting*

Supplementary Service Tab

- CNIP (Receive): **Yes**

Advanced

- *Leave at factory default setting*

i. Select **Apply**, and then click **OK** to exit the Port Property settings screen.

6. Configuring Incoming DID Call Routing

- a. Go to PBX Configuration → 10.CO & Incoming Call → 3.DDI/DID Table

ID #	DDI / DID Number (32 digits)	DDI / DID Name (20 characters)	DDI / DID Destination - Day	DDI / DID Destination - Lunch	DDI / DID Destination - Break	DDI / DID Destina Night
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						

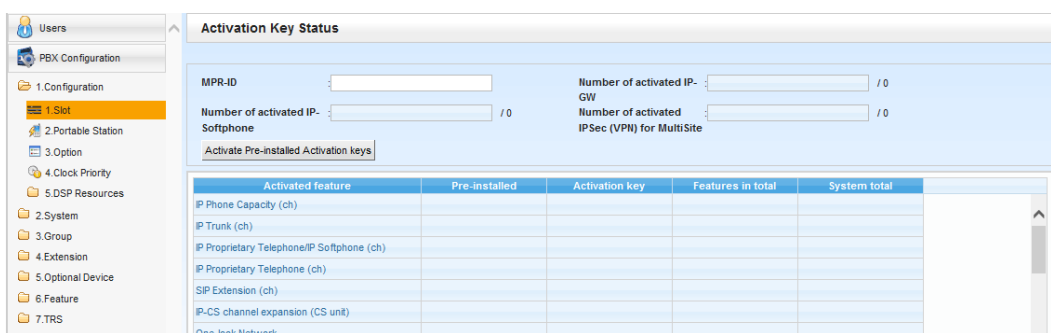
- b. Enter the 10-digit DDI / DID Numbers.
- c. Enter the desired Day/Lunch/Break/Night destination extension for each DDI / DID.
- d. Select **Apply** and then click **OK** to exit the DDI / DID Table settings screen.

7. Backup and Reset

- a. Click on Maintenance → System Control → 4.System Reset
- b. Click **Backup**.
- c. Click **OK**.
- d. Click **OK**.
- e. NS system will restart.

SIP Trunk Activation keys:

1. To obtain Activation Keys, you need to purchase the appropriate IP Trunk activation key models and access the Key Management System to register them to your PBX at <http://tde.panacare.com>.
 - **KX-NSM102:** 2-Channel IP Trunk Activation Key (2 IP Trunk)
 - **KX-NSM104:** 4-Channel IP Trunk Activation Key (4 IP Trunk)
 - **KX-NSM108:** 8-Channel IP Trunk Activation Key (8 IP Trunk)
 - **KX-NSM116:** 16-Channel IP Trunk Activation Key (16 IP Trunk)
2. You will need the MPR ID from the PBX to register the Activation Key(s) on the Key Management System.
3. To check the Number of Activation Keys Installed in your system and the MPR ID:
PBX Configuration → 1.Configuration → 1.Slot → Activation Key



Minimum System Software requirements:

NS Unified Web Maintenance Console	v5.10.1
KX-NS1000	v4.10060
KX-NS700	v4.10064

Useful Tips:

1. Update your system software once an update is available through the Dealer website to make use of added features and improved functionality.
2. Update your UPCM (Maintenance Tool) with the latest version available on the BTS website.
3. Back up your PBX configuration file with the good known settings.
4. Consult with your network administrator prior to installation to guarantee a smooth setup for your system over the existing network.

Important Notes:

E911: Please work closely with the Nextiva team to ensure that E911 service is configured and tested properly.