



SBX IP 320™

**Nomad SP Soft Phone Setup
Guide for SBX IP 320**



VERTICAL™

Setup Guide for Nomad SP soft phone on Vertical SBX IP 320

The following IP phones are supported by SBX IP 320:

- IP7008D, IP7024D, IP7024LD
- NomadIP Wireless
- Nomad SP Soft Phone

This guide is specifically for setting up the Nomad SP Soft Phone

Minimum requirements:

System

- SBX IP 320 system with VOIP card
- Static IP address for VOIP card. If NAT is used, it must be a 1-to-1 NAT.
- Separate IP address for the KSU's LAN port for system administration
Note: No VoIP communication takes place on the KSU LAN port
- KSU version 1.0Cf
- VOIP card software version B.1Dq

Installed Environment

- CAT5E or higher patch cords from VOIP card to LAN Switch
- No hubs
- Adequate bandwidth for the anticipated number of H.323 VoIP calls

IP endpoint licensing

Nomad SP requires a per-seat license. Two seats are included automatically. You do not have to install activation codes for these two seats.

IP7000 series and NomadIP wireless phones require no license.

Note:

Entering IP address information to the KSU database from a digital phone is performed differently from programming IP settings in an IP remote phone.

Digital Keypad on the KSU: Enter digits in groups of three, with no punctuation or decimal.

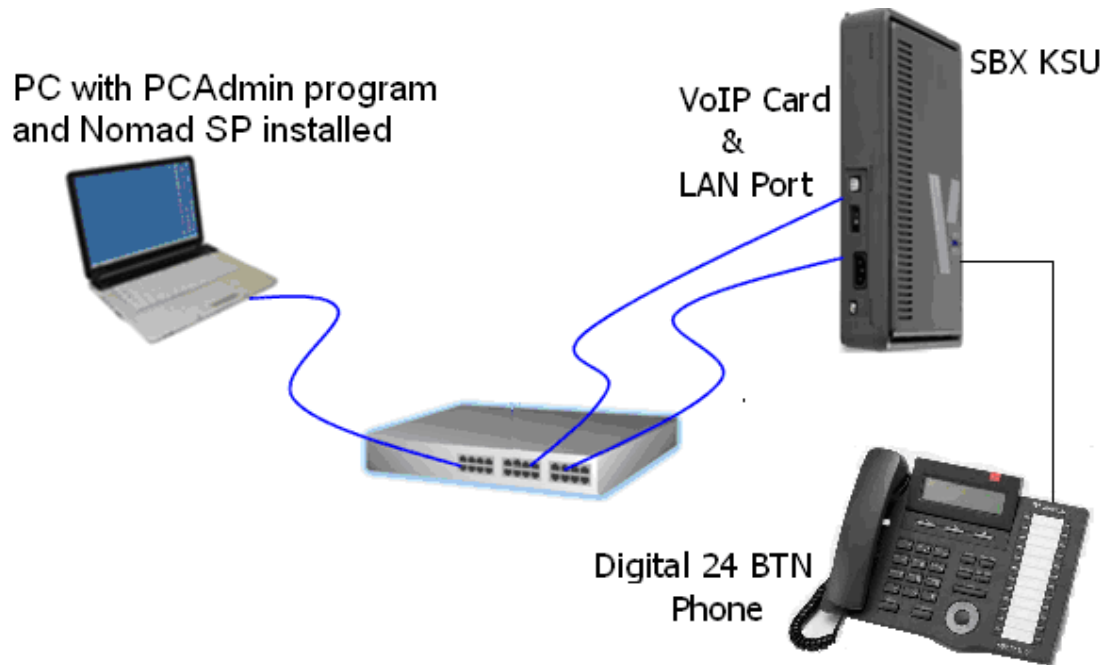
Example: To program the address 192.168.1.3, dial 192168001001 >
Save

IP phone: Enter digits with an asterisk [*] as the decimal.

Example: To program the address 192.168.1.10, dial 192*168*1*10 >
Save.

IP Addressing and Network Setup

For a typical test-bench or demonstration setup, you need to connect the PC and VoIP card, as well as the KSU's LAN port, to a LAN switch. Each connection should be done via a straight-through CAT5e patch cord as shown here:



You will also need a 24-button SBX digital telephone to set up the system.

You may use the following IP addressing information to set up a closed demo of the IP phone.

NOTE: These addresses will not always function in a wide-area network or the Internet, they are for testing and demonstration purposes only:

	VOIP card	KSU LAN port	Your PC
IP Address	192.168.1.4	192.168.1.3	192.168.1.2
Subnet Mask	255.255.255.0	255.255.255.0	255.255.255.0
Default Gateway	192.168.1.1	192.168.1.1	192.168.1.1

Preparation:

1. Before starting, verify that your VOIP card is installed into the system properly and that the card is recognized in the KSU database.
2. KSU DIP switches must be set to enable the system to retain programming changes.
3. Set your PC IP address, default gateway, and subnet mask as shown in the table on the previous page.
4. Set the KSU's IP addressing using PGM 108 when logged into KSU administration from the 24-button digital attendant station (station 100 by default). This assigns the IP address to the KSU's LAN port. The configuration for the VOIP card begins here.

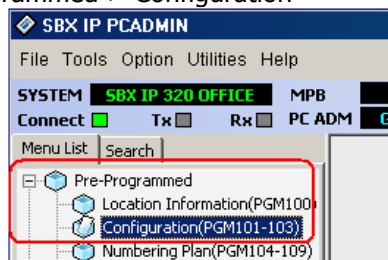
PCAdmin Connection

Follow the PCAdmin documentation to establish connection to the SBX system. Remember that when connecting to the SBX using a LAN switch, a straight-through patch cable, not a crossover cable, is required.

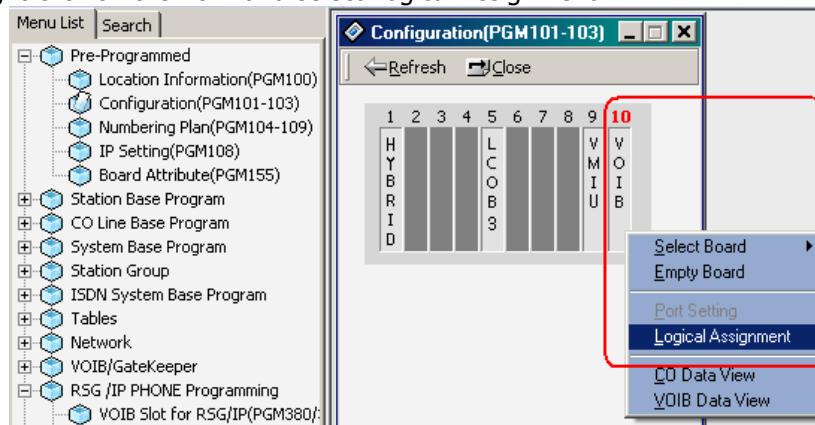
Configuring The VoIP Card Using PCAdmin

(Note: Digital phone-based programming is shown on page 11)

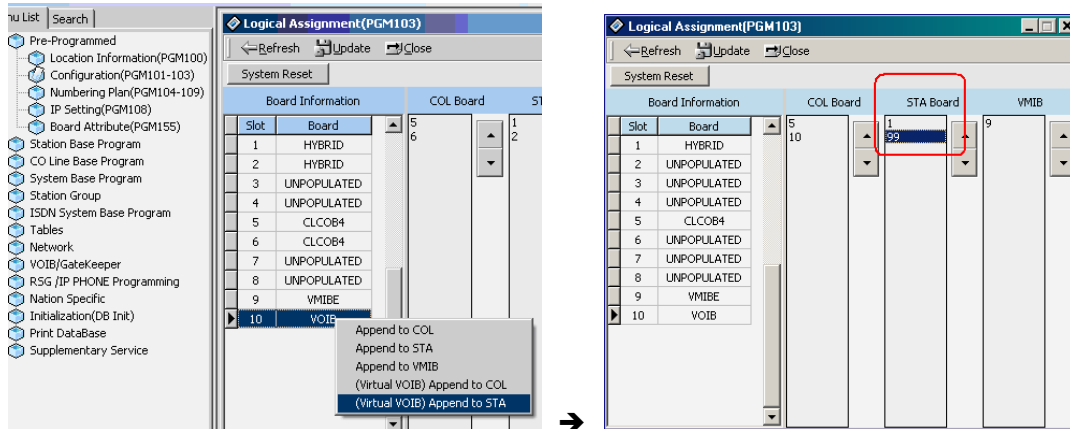
1. Double-click Pre-programmed > Configuration



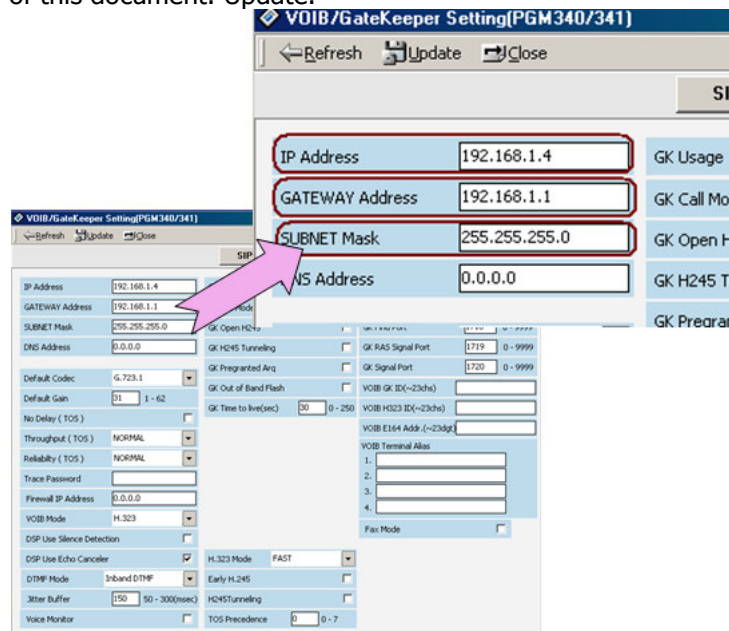
2. Right-click on the VoIB and select Logical Assignment



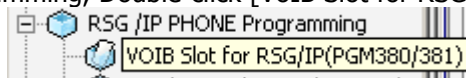
3. In Logical Assignments right click VoIB and Select (Virtual VoIB) => Append to Station. A notation of 99 will be entered in the STA Board field.



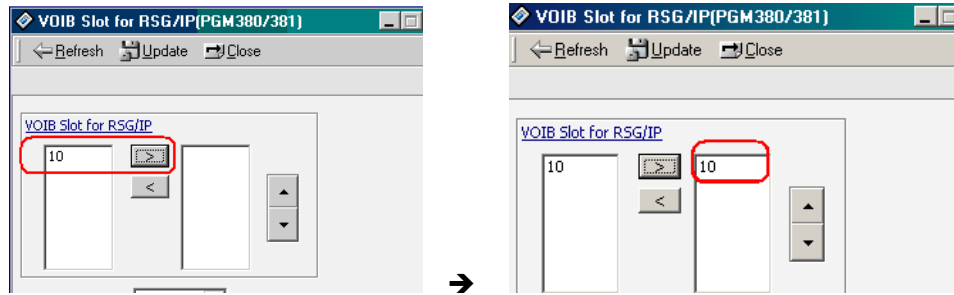
4. Update.
5. In VoIB Gateway > VoIB Gatekeeper Settings enter the IP Address, Default Gateway and Subnet Mask that you are assigning to the VOIP card per the worksheet on page 2 of this document. Update.



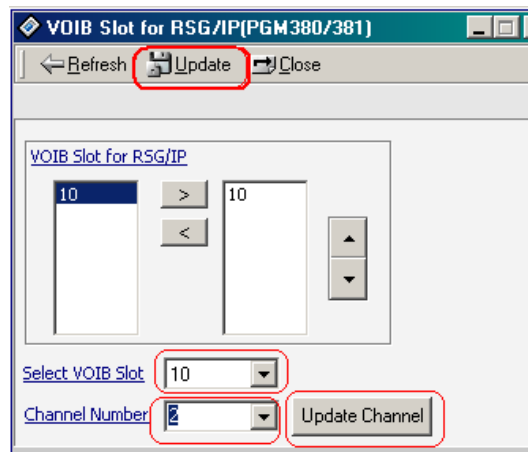
6. In RSG IP Programming, Double-click [VoIB Slot for RSG/IP]



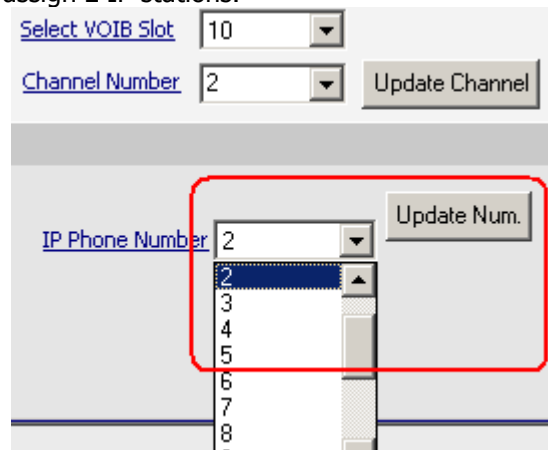
7. Select the VoIB card (10) and click the button with a ➤ sign



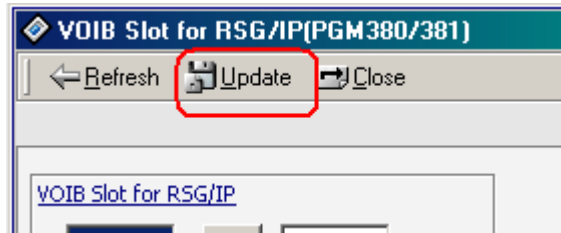
8. You will see the card slot on the right side. Click Update.
9. Select the card from the VoIB Slot dropdown. Select 2 for the number of channels to be used for IP Phones from the Channel Number dropdown. Click Update Channel.



10. Select the 2 from the IP Phone Number dropdown and click Update Num. This tells the system to assign 2 IP stations.

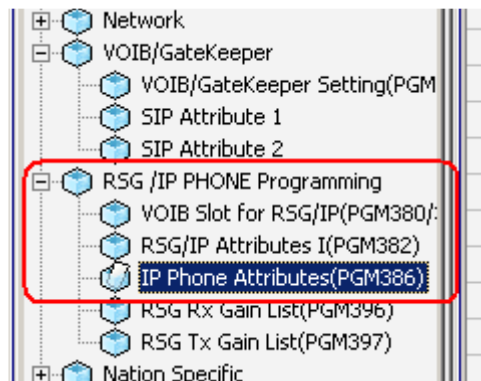


11. Update



12. Reset the KSU.

13. Log back into the system once the KSU is restarted. Double-click RSG/IP Programming > IP Phone Attributes.



14. Double-click on bin #1 or #2. Enter the MAC address for the PC on which Nomad SP is installed, then enter a UserID on the 'ID' line and a numeric password in the 'Password' line and click Update. This example shows Nomad SP being configured as the second IP station:

double-click

enter values here then 'update.'

Bin No.	MAC Address	IP Address	Port View	Port Num	NAT IP Address	NAT Port No.	STUN Enable
1	00:40:5A:13:95:09	192.168.1.5	108	5588	192.168.1.5	5588	None
2	00:00:00:00:00:00	0.0.0.0		0	0.0.0.0	0	None
3	00:00:00:00:00:00	0.0.0.0		0	0.0.0.0	0	None
4	00:00:00:00:00:00	0.0.0.0		0	0.0.0.0	0	None
9	00:00:00:00:00:00	0.0.0.0		0	0.0.0.0	0	None

Update Tool

Bin No.	MAC Address	IP Address	Port View	Port Num	NAT IP Address	NAT Port No.	STUN Enable
2	00:15:C5:3C:1D:C4	0.0.0.0		0	0.0.0.0	0	None

ID: Tim Password: 000

Update Delete Close

NOTE: You must enter the colon characters in the MAC address.

Result after configuring two MAC addresses:

Bin No.	MAC Address	IP Address	Port Vi
1	00:40:5A:13:95:09	0.0.0.0	108
2	00:15:C5:3C:1D:C4	0.0.0.0	109
3	00:00:00:00:00:00	0.0.0.0	110
4	00:00:00:00:00:00	0.0.0.0	111

The ID and Password values will be typed in from the Nomad SP soft phone when you register it from the PC to the SBX's VoIP card.

Logging in from Nomad Soft Phone

15. Ping the VoIP card from your PC to verify that your PC can reach the VoIP card. Expect to see a result like this if your networking settings are correct:

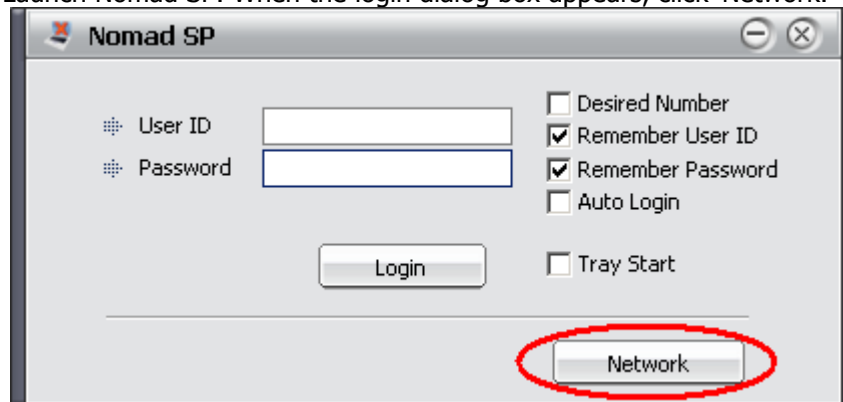
```
C:\>ping 192.168.1.4
Pinging 192.168.1.4 with 32 bytes of data:

Reply from 192.168.1.4: bytes=32 time<1ms TTL=254
Reply from 192.168.1.4: bytes=32 time<1ms TTL=254
Reply from 192.168.1.4: bytes=32 time<1ms TTL=254
Reply from 192.168.1.4: bytes=32 time<1ms TTL=254

Ping statistics for 192.168.1.4:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

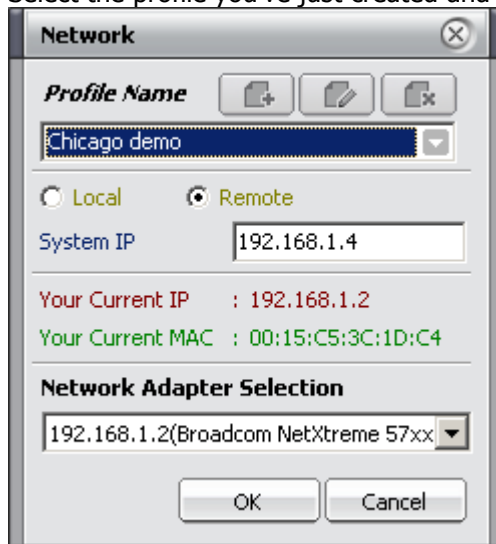
If you do not receive replies as shown above when using the ping command from the Windows command line, your IP addressing or your network connections are not set up correctly.

16. Install Nomad SP to your PC. When prompted by the installer, select **"Nomad SP for SBX and TeleniumIP."** Do not select to install Nomad VP.
17. Launch Nomad SP. When the login dialog box appears, click 'Network.'



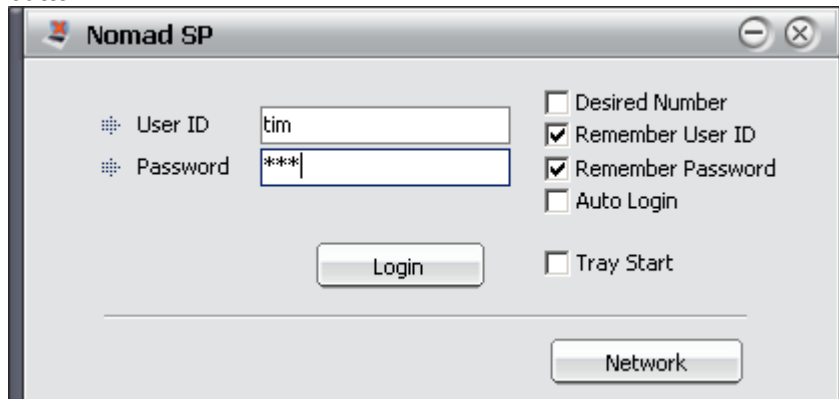
18. Click the plus button to add a new profile. Give the profile a name and click the 'Remote' radio button. Enter the IP address of your system's VoIP card in the blank for 'System IP.'

19. Select the profile you've just created and verify the information. Click OK.



The 'Network' dialog box shows the 'Profile Name' as 'Chicago demo'. The 'Local' radio button is unselected, and the 'Remote' radio button is selected. The 'System IP' is set to '192.168.1.4'. Below this, it displays 'Your Current IP : 192.168.1.2' and 'Your Current MAC : 00:15:C5:3C:1D:C4'. The 'Network Adapter Selection' dropdown is set to '192.168.1.2(Broadcom NetXtreme 57xx)'. At the bottom are 'OK' and 'Cancel' buttons.

20. Enter the UserID and password that you configured in Program 386. Click the 'login' button.



The 'Nomad SP' dialog box has fields for 'User ID' (containing 'tim') and 'Password' (containing '****'). To the right are checkboxes for 'Desired Number' (unchecked), 'Remember User ID' (checked), 'Remember Password' (checked), 'Auto Login' (unchecked), and 'Tray Start' (unchecked). A 'Login' button is centered below the password field, and a 'Network' button is at the bottom right.

In this example, the IP address and station number information appears after two IP phones have registered to the system:

IP Phone Attributes(PGM386)					
<div> ← Refresh → Close </div>					
Bin No.	MAC Address	IP Address	Port View	Port Num	NAT IP Address
1	00:40:5A:13:95:09	192.168.1.5	108	5588	192.168.1.5
2	00:40:5A:13:95:04	172.19.5.39	109	5588	172.19.5.39
3	00:00:00:00:00:00	0.0.0.0		0	0.0.0.0
4	00:00:00:00:00:00	0.0.0.0		0	0.0.0.0
5	00:00:00:00:00:00	0.0.0.0		0	0.0.0.0

21. Test the IP phone by dialing an extension number.

Programming VOIP card settings from a digital keyset

This is an alternative to PCAdmin programming shown above. Disregard this section if you have configured the IP phone using PCAdmin.

Assign station ports to the VOIP card (VOIB)

1. Enter KSU programming from the digital attendant phone
2. Press PGM
3. Dial 103 (Logical Slot Assign)
4. Press Flex Button 2 (STA)
5. What to enter will depend on what cards are installed. If there are two CHB308 cards installed the display will show 01 02
Dial 01 02 99 to assign station ports to the VOIB.
5. Save

Assign IP Address to the VoIB.

1. Press PGM
2. Dial 340 (VoIB Attributes)
3. Press Flex Button 1 (IP ADDR)
4. Dial the IP Address (eg 192.168.1.10 Dial 192168010010)
5. Save
6. Press Flex Button 2 (Gateway ADDR) - Mandatory
7. Dial Default Gateway for VoIB (eg 192.168.1.1 Dial 192168001001)
8. Save
9. Press Flex Button 3 (Subnet Mask)
10. Dial Subnet Mask (eg 255.255.255.0 Dial 255255255000)
11. Save

VoIB Slot/Port Usage Assignment

- 1 Press PGM
- 2 Dial 380 (VoIB Slot Assignment)
- 3 Press Flex Button (VoIB Slot)
- 4 Dial 10 (Slot Number to Program)
- 5 Save
- 6 Press Flex button 2 (RSG/IP channel Assign)
- 7 Dial 10 (Slot Number)
- 8 Dial 4 (or number of channels to reserve for IP Phones)
- 9 Save

VoIB IP Station Assignment

1. Press PGM
2. Dial 381 (RSG/IP No Assign)
3. Press Flex Button 2
4. Dial the number of IP Stations you wish to program (eg 04)
5. Save

Reset the system and VoIP card.

Program IP Phone Attributes – The number of bins available to program will correspond to the number of IP phones programmed in PGM 381.

1. Press PGM
2. Dial 386 (IP Phone Attrib)
3. Dial the Bin Number (eg 01 This would be the first IP Station)
4. Press Flex Button 1
5. Dial the MAC Address of the IP Phone
NOTE:
*=A, #=B, NAV Left=C, NAV Right=D, NAV Up=E, NAV Down=F
6. Save
7. Press flex button 11
8. enter a UserID
9. Save
10. Press flex button 12
11. Enter a numeric password
12. Save