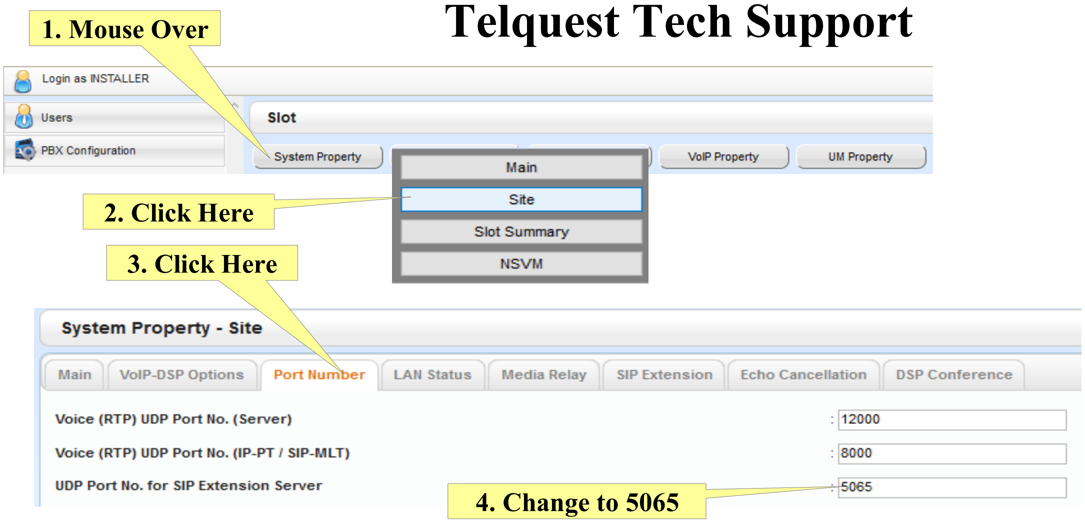
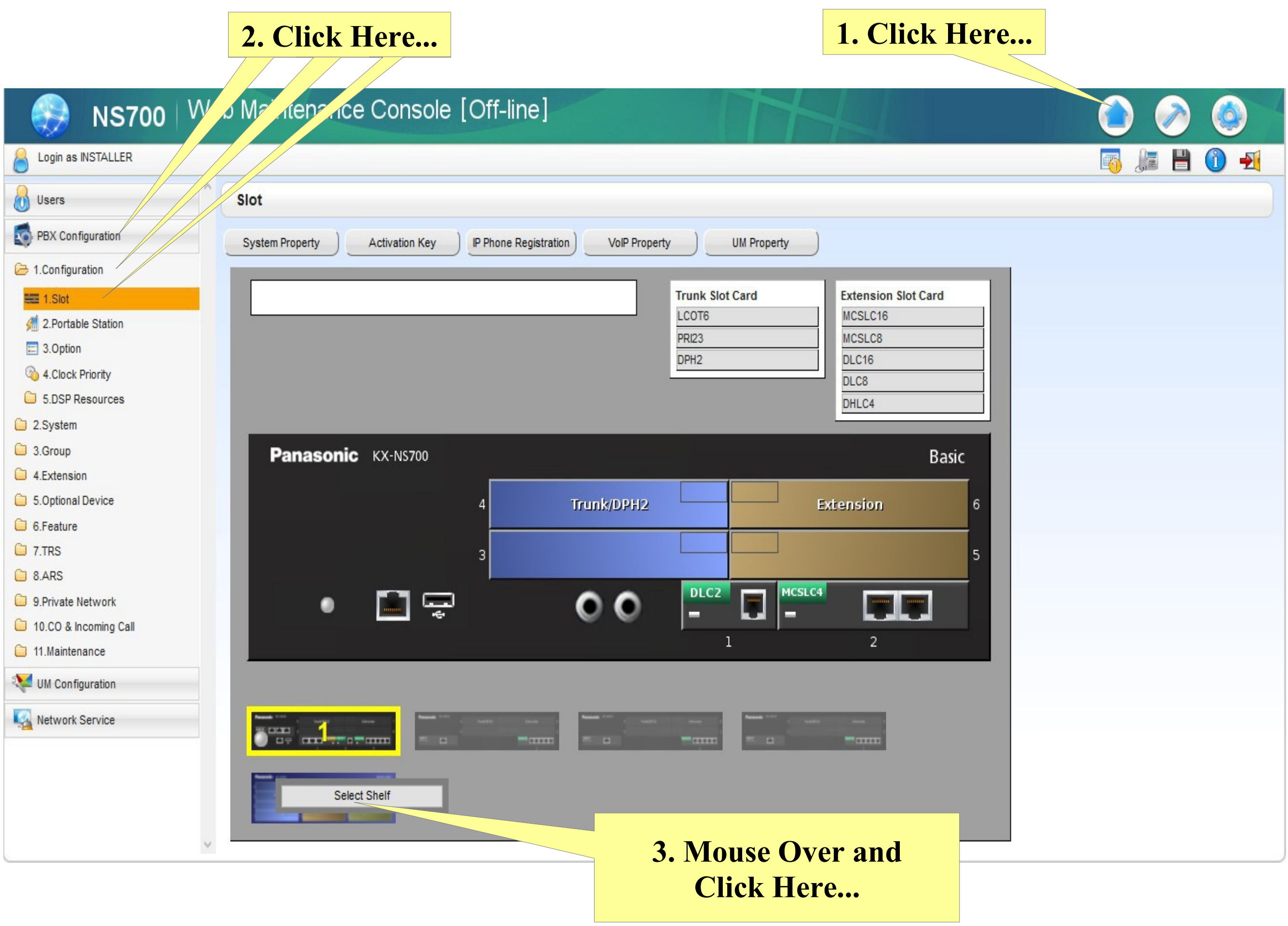
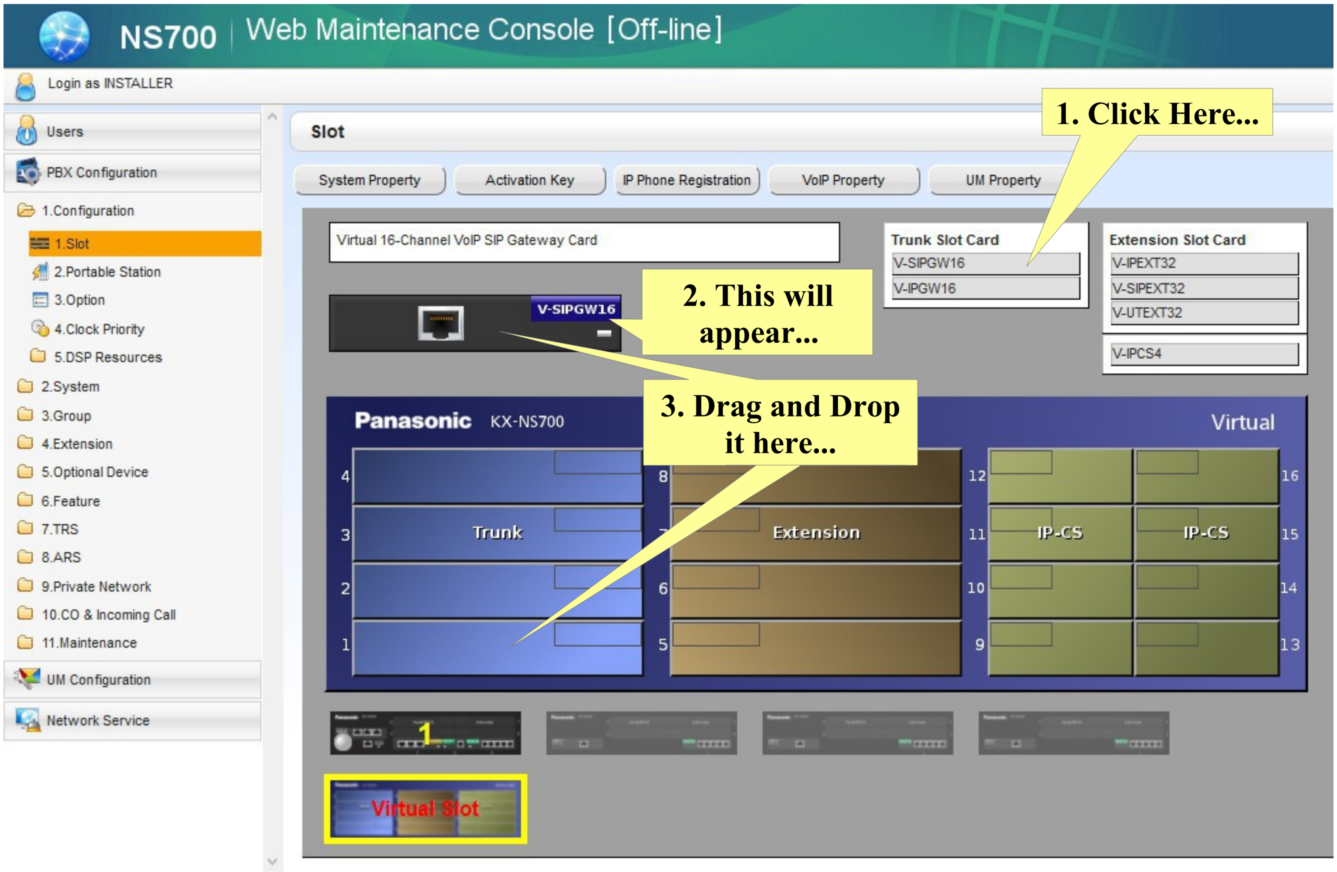
TelQuest International
973-808-4588

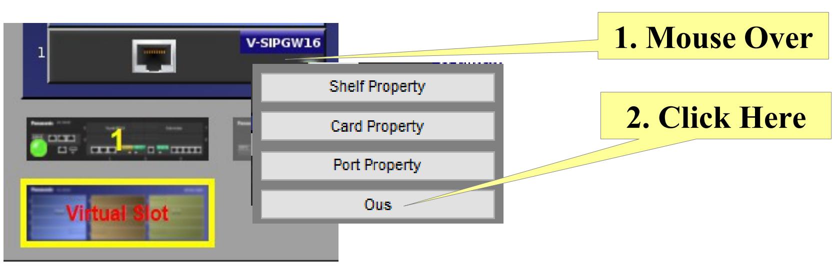
Panasonic KX-NS700
Trusted IP SIP Trunk Service
aka: Non Registering SIP Trunk
Telquest Tech Support





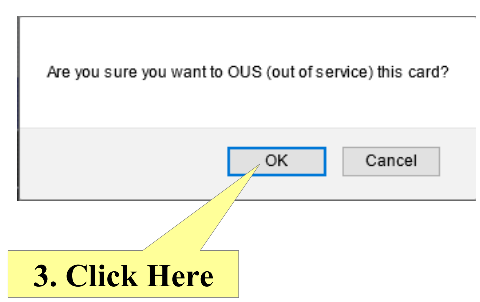
This screen will appear: V-SIPGW16 = Virtual SIP Trunk Card for 16 Trunks and or Channels



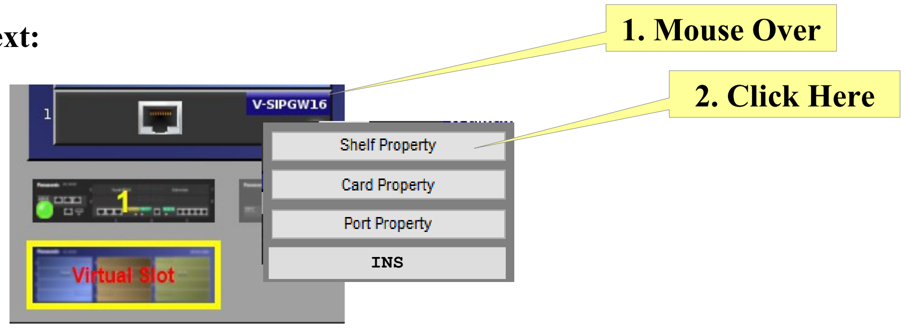


You need to take the card out of service before you make the changes on Page 3.

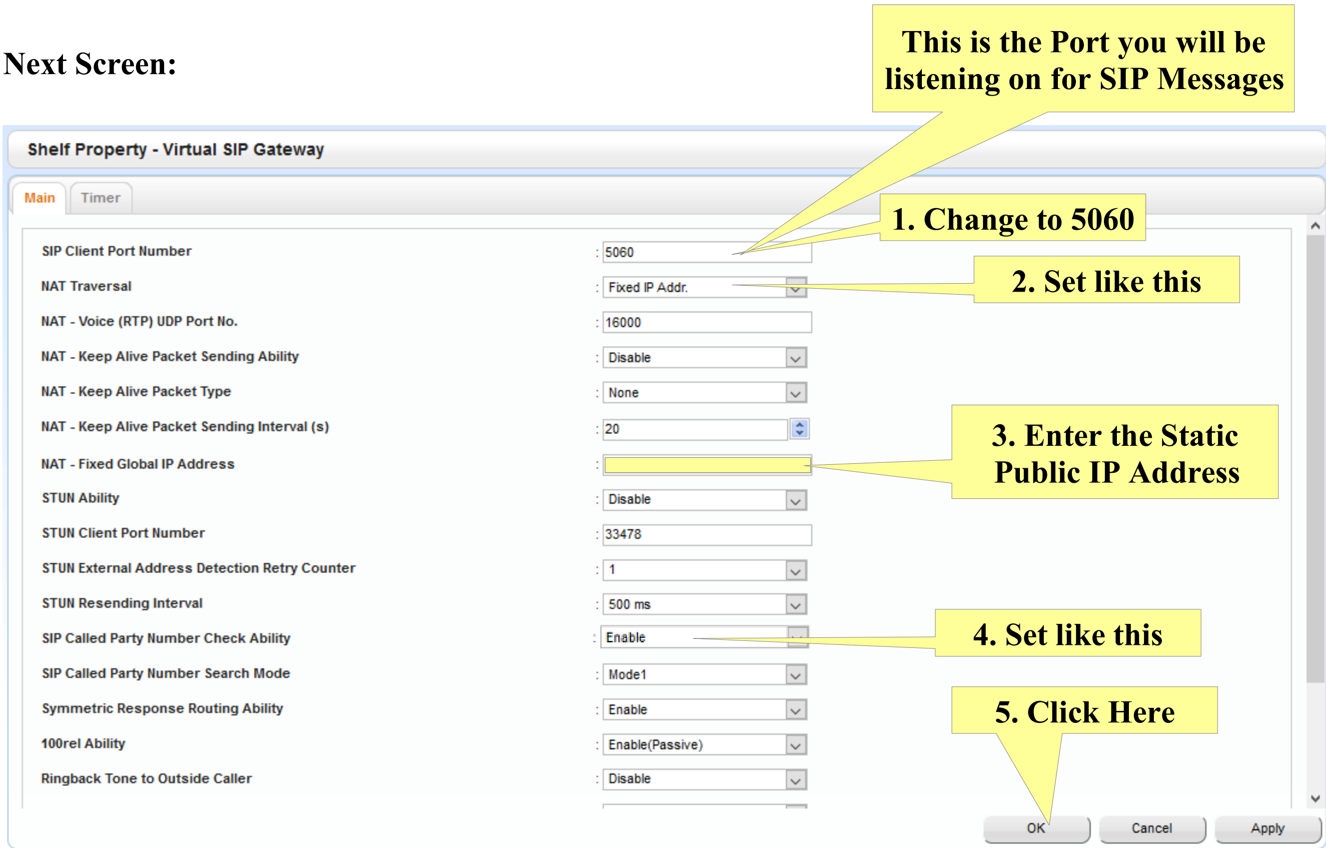
When you are done, you need to Reset the KSU.



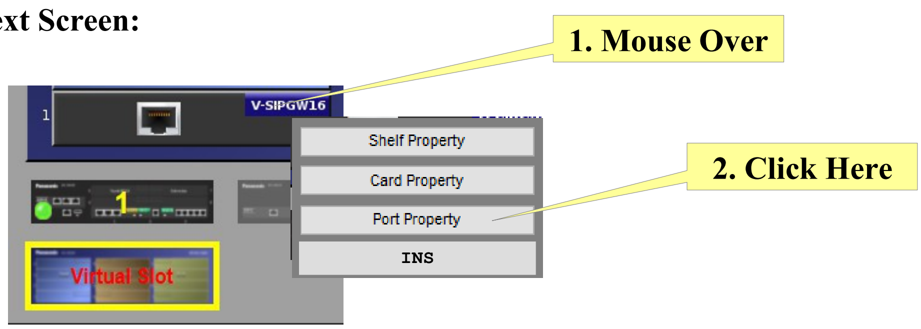
Next:



Next Screen:

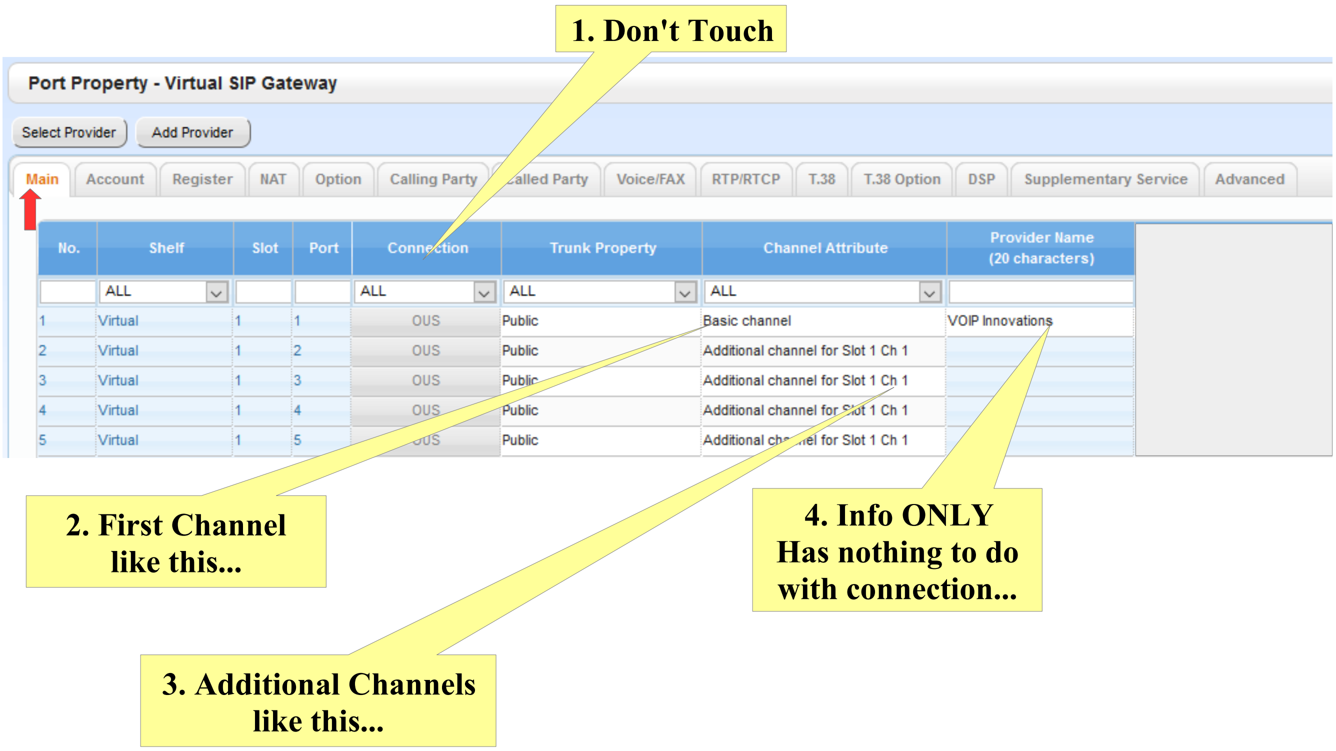


Next Screen:

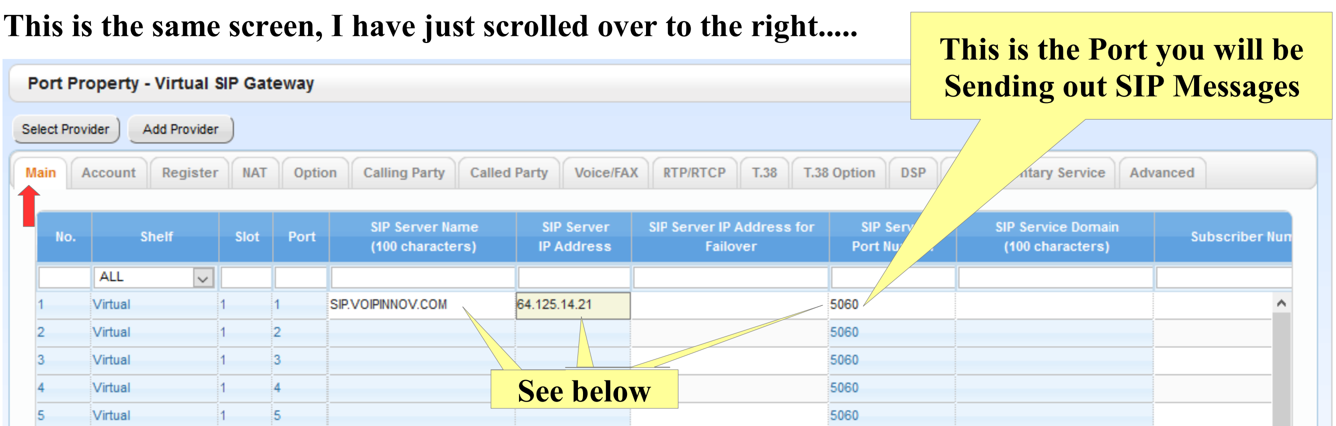


Next Screen: I have cut down the screen to show only the areas of concern....

This example is set up for a SIP Trunk with a total of 5 Channels



This is the same screen, I have just scrolled over to the right.....

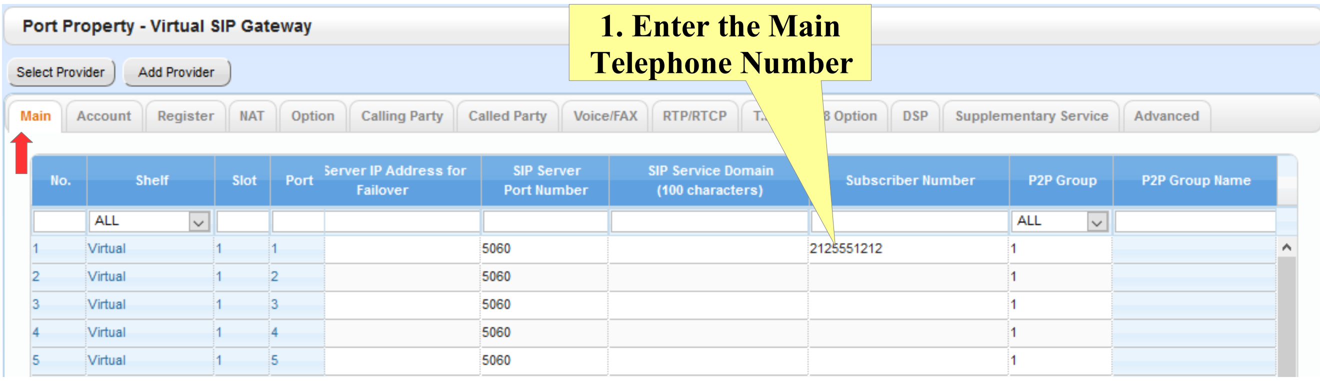


You only need to enter either the SIP Server Name <u>OR</u> the SIP Server IP Address.

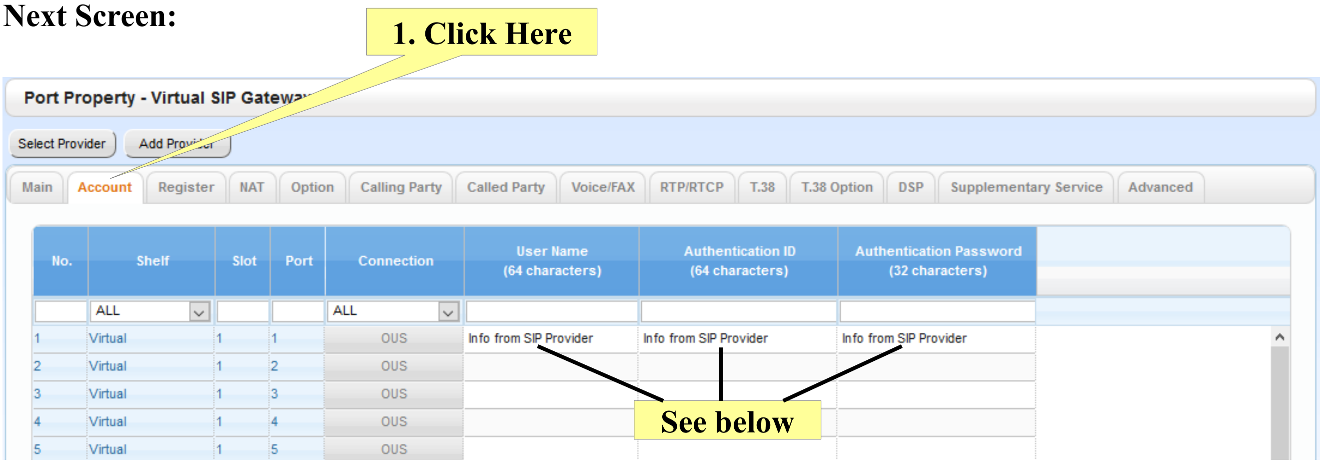
You <u>DO NOT</u> need to enter both.

Enter which ever the SIP Provider has given to you as well as the SIP Server Port Number.

This is the same screen, I have just scrolled over more to the right.....



Next Screen:



Enter the information provided by the SIP Provider.
Note: 1
They do not always call their info by the same Names shown above.

Note: 2
It has been noted that you MUST enter information in these 3 areas for calls to go out.
At the very least, enter the Main Telephone Number in all 3 areas.

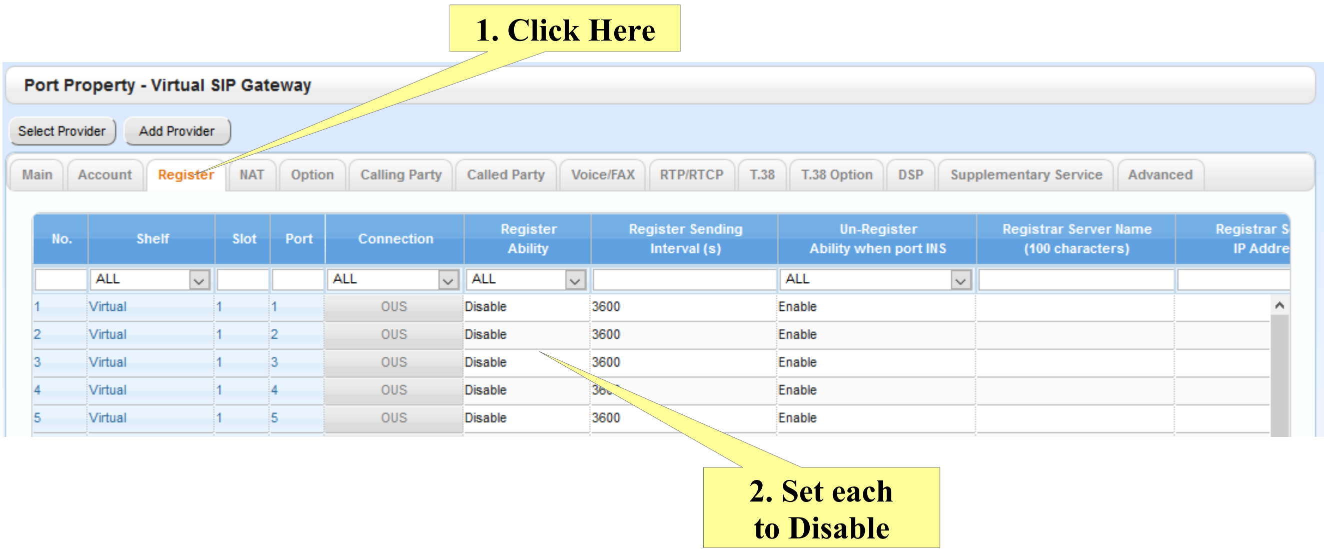
You only need to add the info to the Basic Channel (first line) as shown above.

Enter the “User Name” / Main Telephone Number.

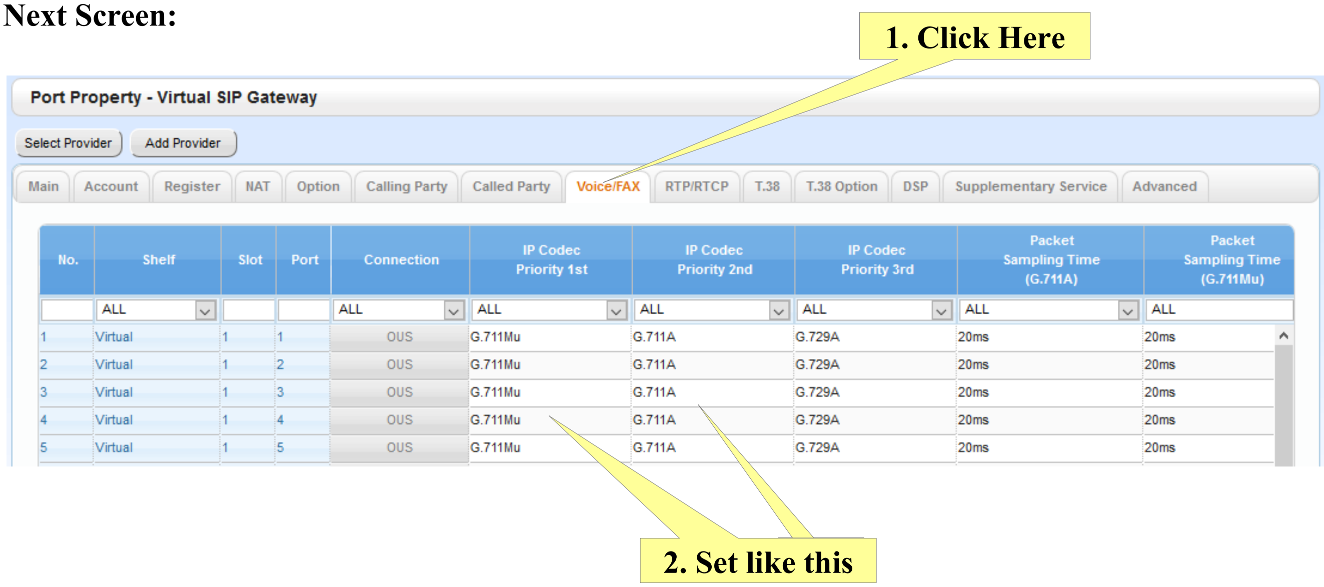
If you do not have an “Authentication ID”, or “Authentication Password” just enter the “User Name” / Main Telephone Number in these 2 areas.

The NS700 will not allow you to enter just a “User Name”.

Next Screen:

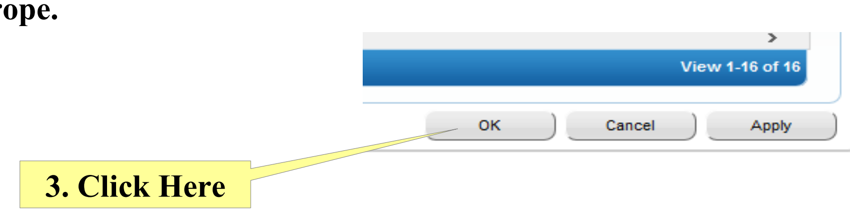


Next Screen:



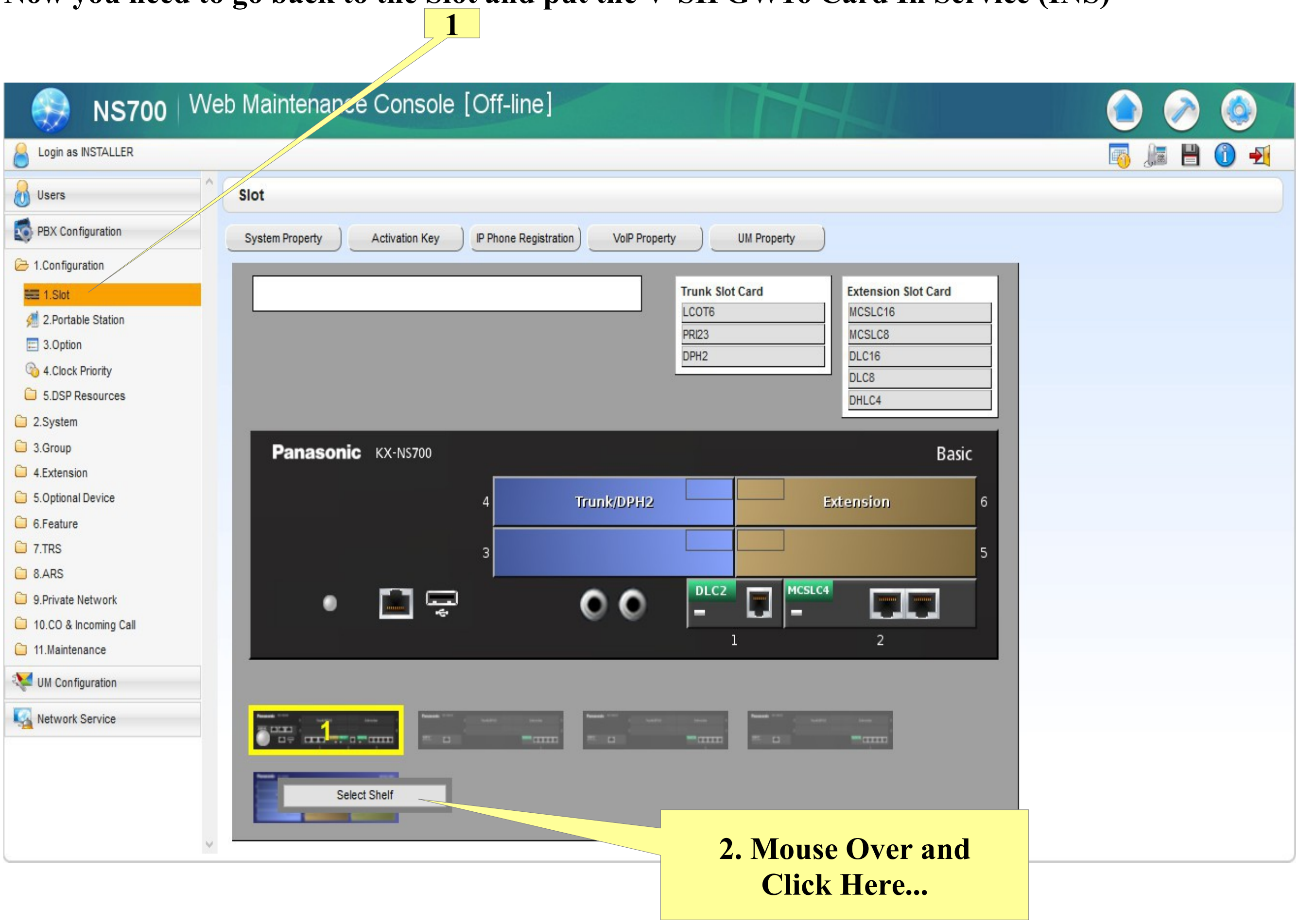
Note:
You can leave this at the default settings if you want to.
Most SIP Providers in the USA accept the G.711Mu Codec.

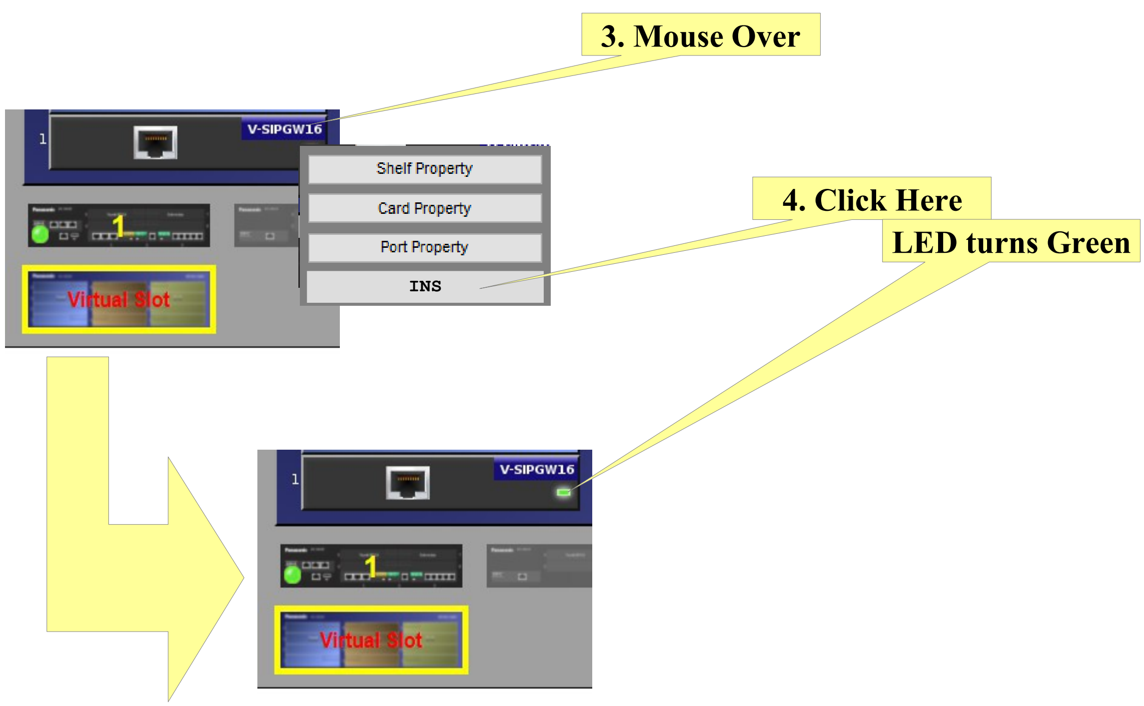
G711.A is used mainly in Europe.



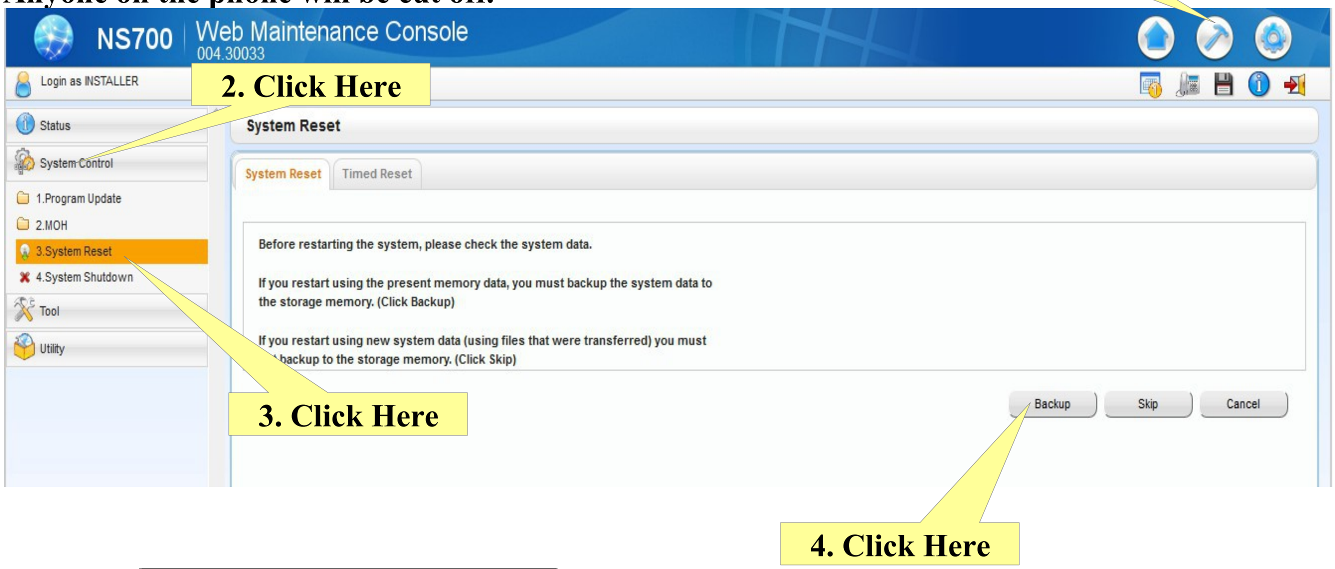
Page 7

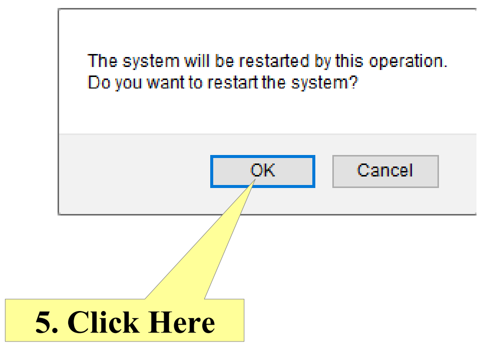
Now you need to go back to the Slot and put the V-SIPGW16 Card In Service (INS)

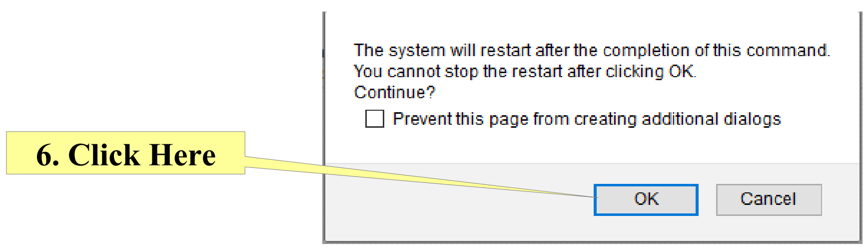




Next: You will need to Reset the KSU
The KSU will reboot and be Out of Service for about 3 minutes
Anyone on the phone will be cut off.







When the system comes back up, log back into it:

Go back to the Port Properties, as shown on Page 4, where is says “Don't Touch”.

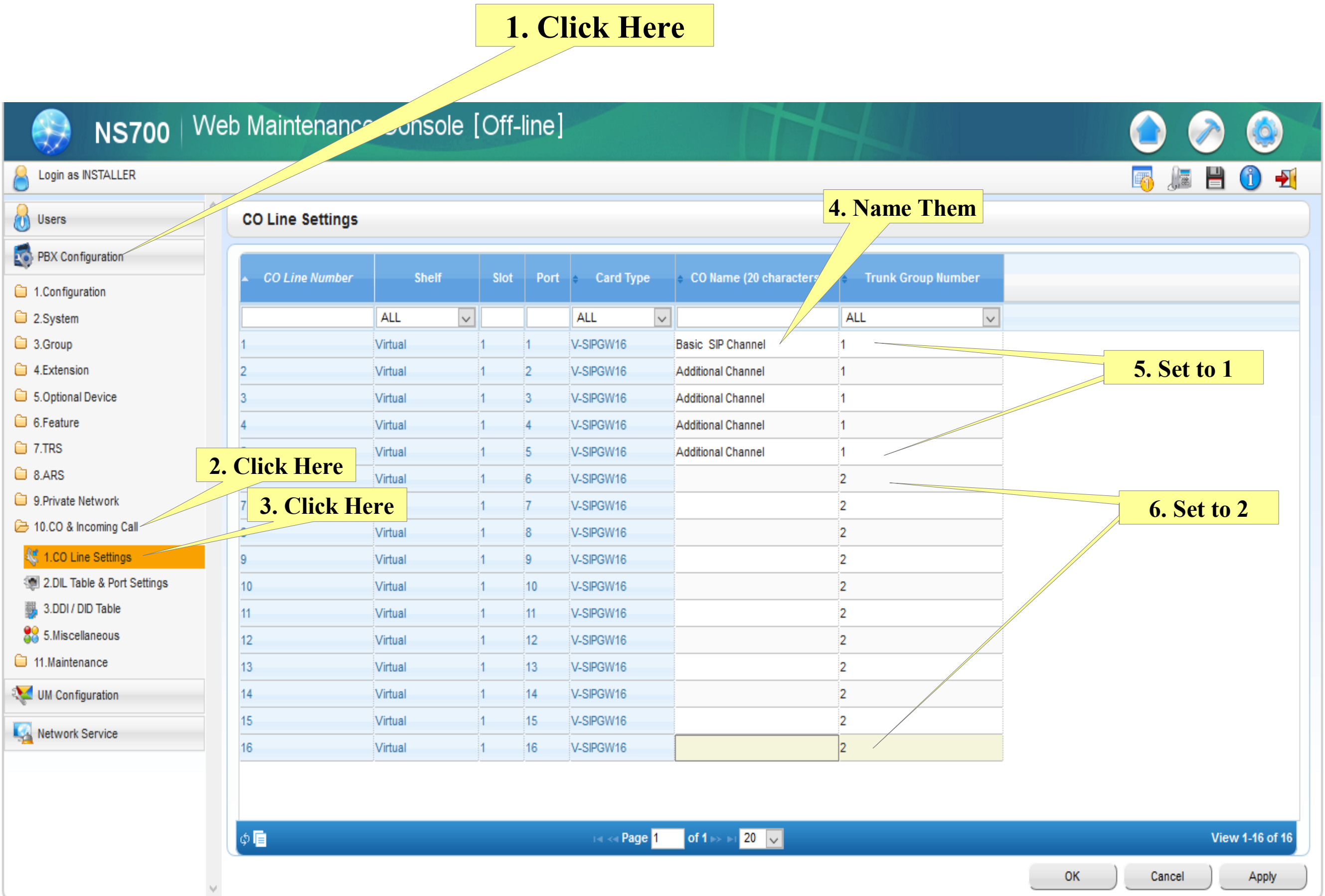
If the “Connection” shows INS (In Service) then you can start testing your SIP Service.

If the “Connection” shows OUS (Out of Service”) just click on each one and change it to INS.

Note:
When it says INS that does not mean that the SIP Service is working.
You could have a single or multiple errors in your SIP configuration and it will still indicate INS.

What it does mean is that the KSU is ready to use the SIP Service.

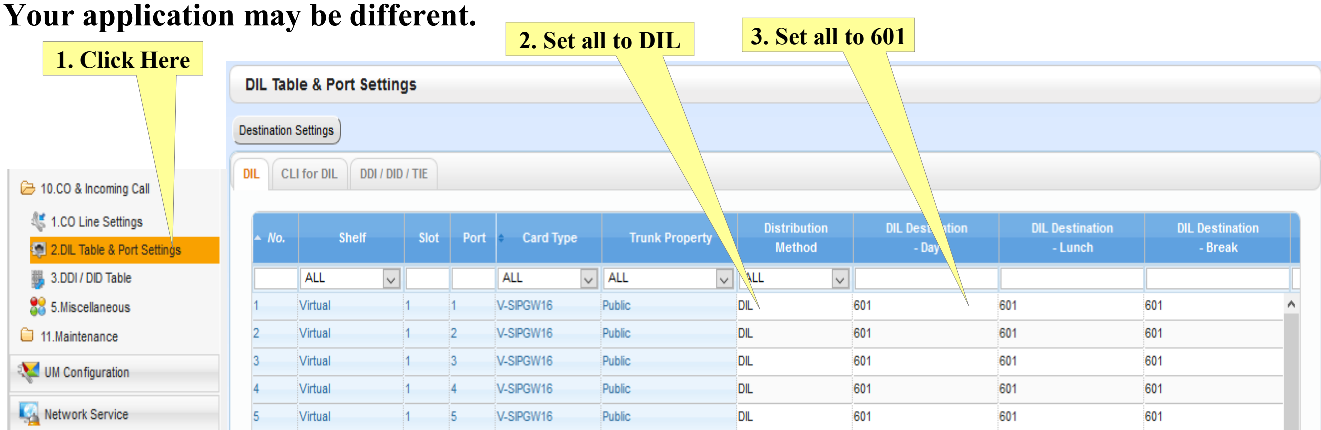
Assigning SIP Service to Dial 9
The NS700 uses Trunk Group Number 1 as the Dial 9 Access Trunks.



Unused Trunks are assigned to Trunk Group Number 2 so they cannot be accessed by Dial 9.

Assign SIP Service to ring phones:
This is a simple, basic set up to send incoming calls to an Incoming Call Distribution Group.

Your application may be different.



Port Opening/Forwarding Information

You will need to "Open" ports 16000 through 16130 UDP to the LAN IP Address of the DSP Card –1 (See "Get the IP Address of the DSP Card -1" below)
This is to allow RTP (Voice Packets) to reach the KSU.

You will also need to "Open" port 5060 UDP to the KSU's LAN IP Address. (See "A" below)
This allows SIP Signaling to reach the KSU.

Testing

To test outgoing calls, press the Intercom Button on any telephone.
Dial 9 and a telephone number and the call should go through.

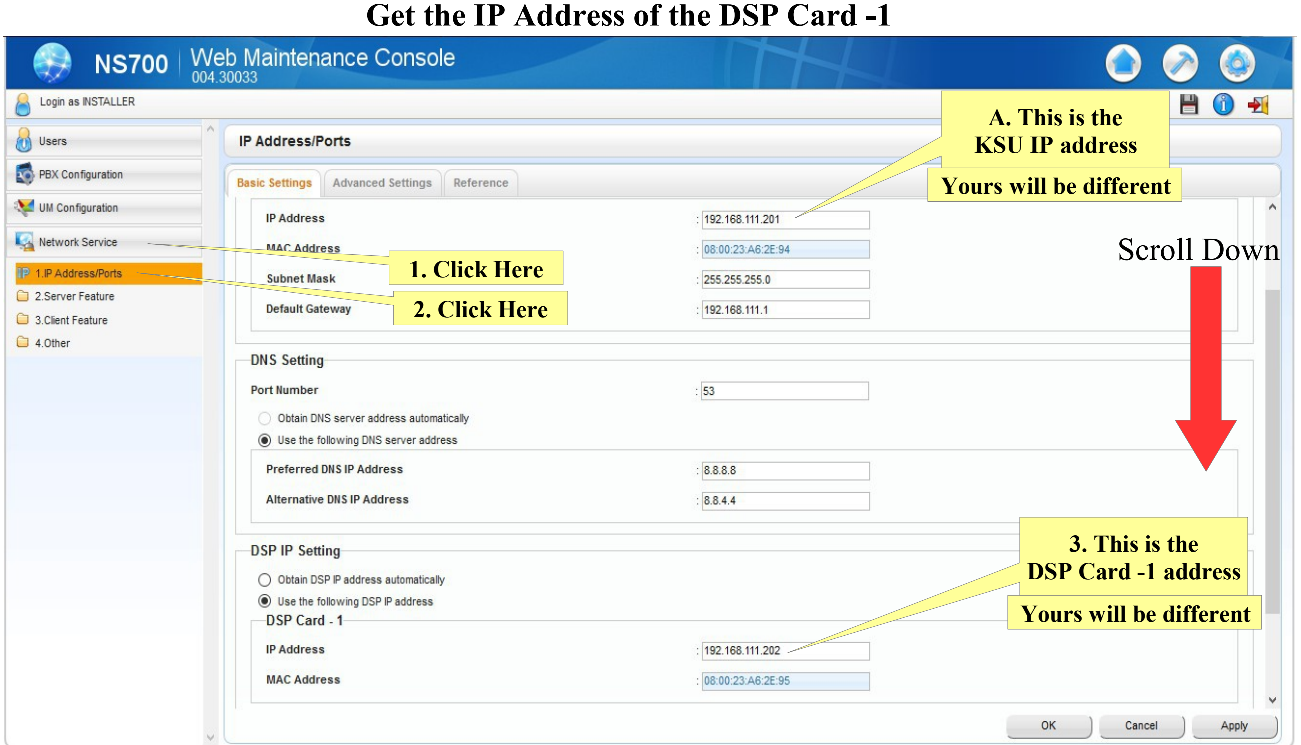
Note:
Some SIP Service Providers require you to dial, 1 then the area code and then a 7 digit number.
Example: 18885551212

Some MAY allow 7 digit dialing for local calls.
Ask them how to dial using their service.

To test inbound calls, just call the main number from your cell phone.]
The call should ring all the extensions (Members) of Incoming Call Distribution Group 601.

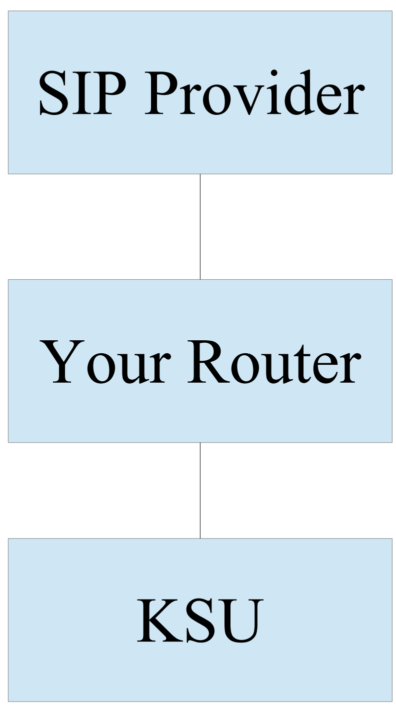
If calls fail to go through you will need to speak with the SIP Provider to see if you are reaching their server.

Get the IP Address of the DSP Card -1



Special Note

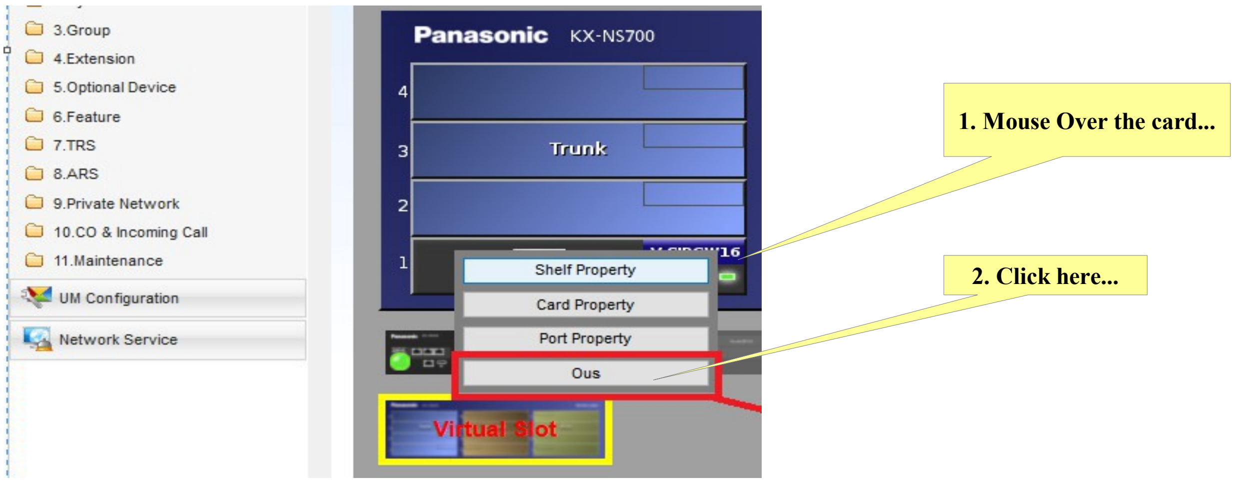
Since the Audio (RTP) Packets come in to the KSU via the DSP Cards IP Address, you need a router to do the Port Forwarding between the KSU and the SIP Providers Interface box.



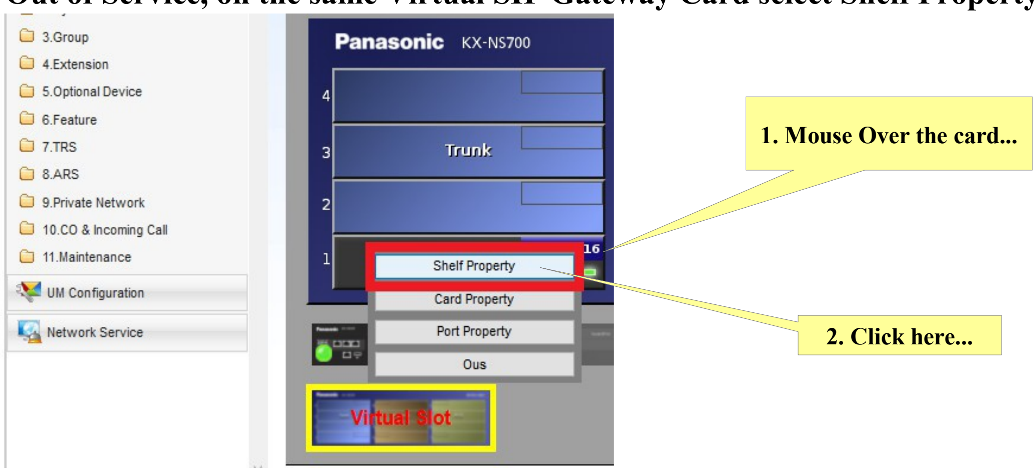
Special DID Numbers Information

If you have DID Numbers on your SIP Service then you need to do the following

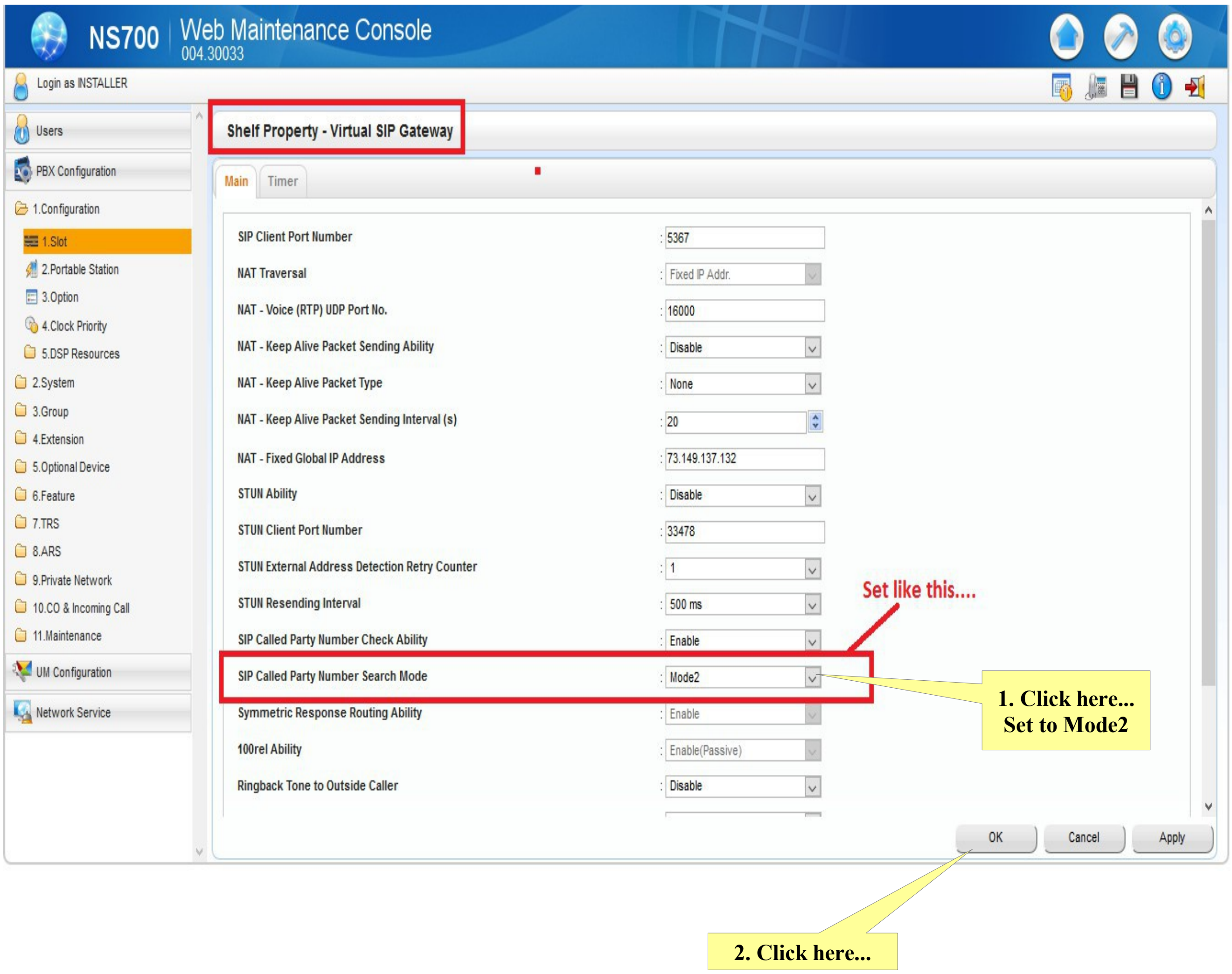
Go to the Virtual SIP Gateway Card and put it Out of Service (OUS)



Now that the card is Out of Service, on the same Virtual SIP Gateway Card select Shelf Property

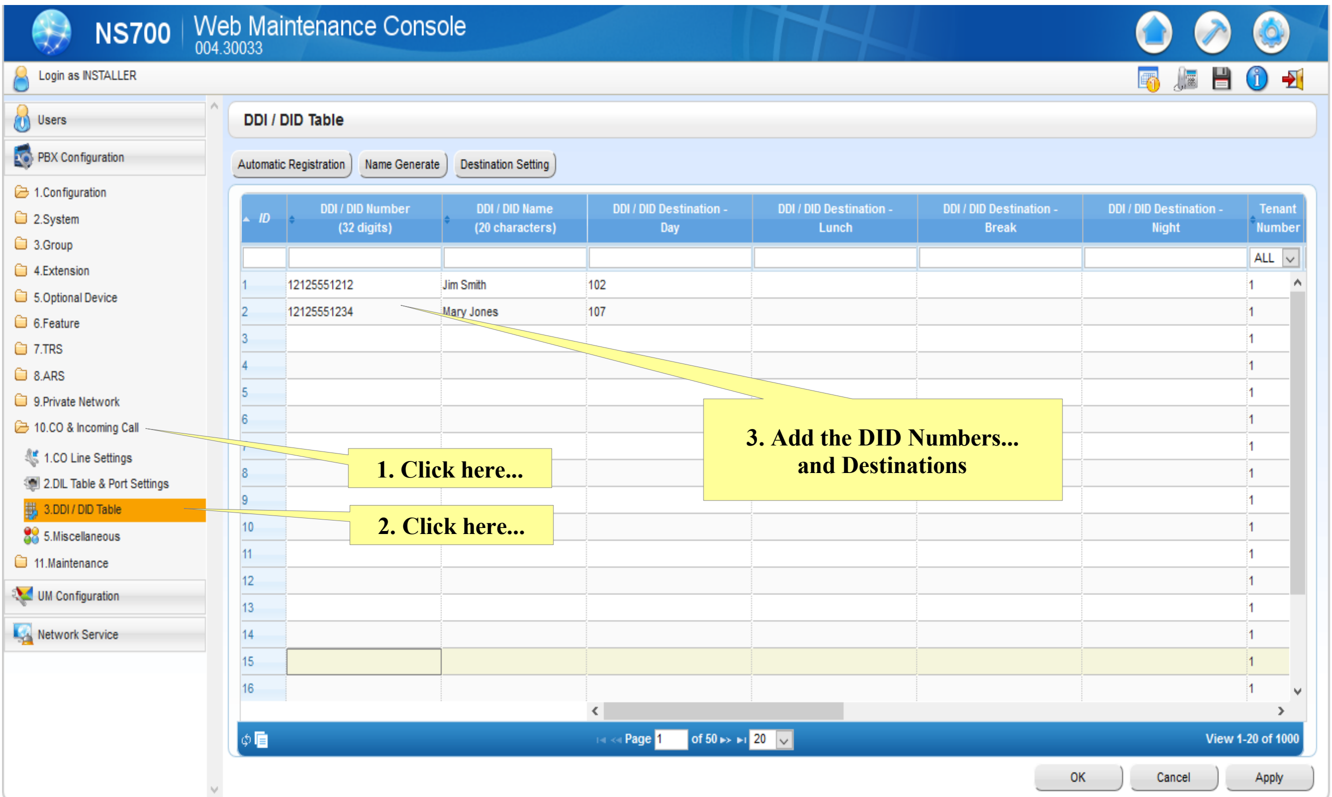


Change the SIP Called Party Number Search Mode to Mode 2



Now go back and put the Virtual SIP Gateway Card back In Service (INS)

Add the DID Numbers
This will route INBOUND CALLS to the correct extension



Note:

SIP Providers can use a few different formats for the DID Numbers.

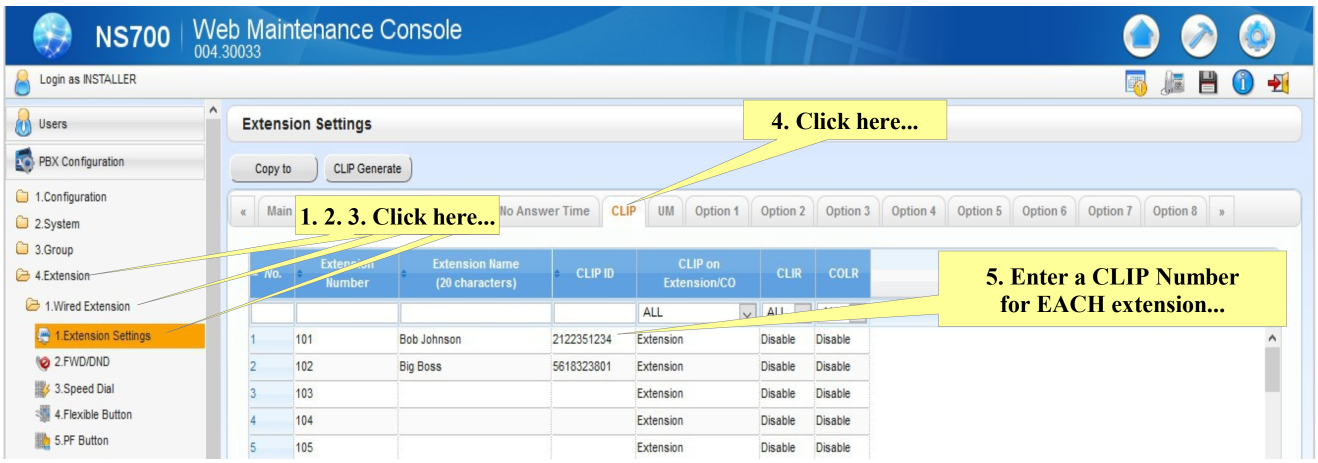
10 digits: **2125551212**
11 Digits: **12125551212**
+ with 11 digits: **+12125551212**

You must use the same format when you enter the DID Numbers or they will not work....

It is up to you to determine what format they are using.

Now you can call in and test the DID Numbers.

Add the PBX-CLIP Numbers
This will send out the correct Caller ID for each extension

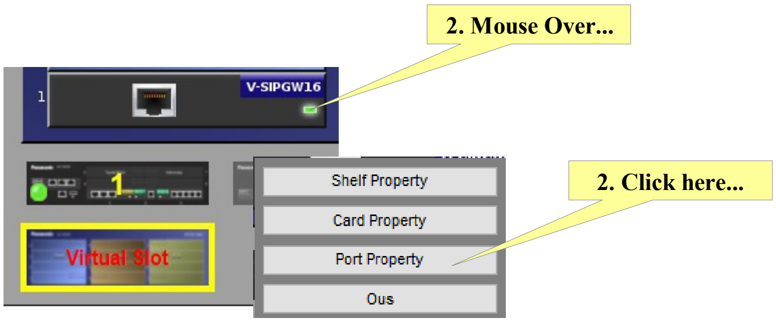


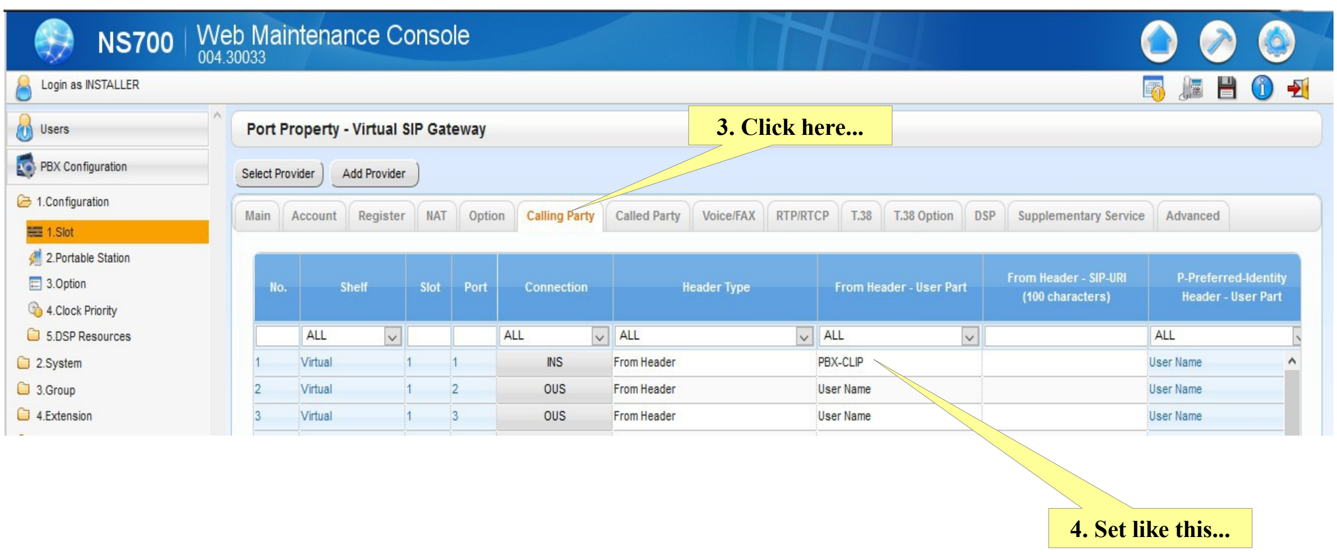
Note:
A CLIP Number is the telephone number that will be sent out when the extension makes outgoing calls.

The SIP Provider will usually only allow you to send out telephone numbers that have been assigned by them, that is the DID Numbers.

Activate the PBX-CLIP feature in the SIP Trunk

Step 1
Go to 1. Configuration then 1. Slot and select Virtual Slot





Note:
You must set EACH Port that is INS (In Service) to PBX-CLIP

My example only shows Port 1 as INS.

Testing:
Call your cell phone from an extension that has its CLIP ID set and you should see that extensions CLIP ID appear as the Caller ID in your cell phone.