TelQuest International
973-808-4588

Panasonic NS700
Linking 2 KSU's Together – Location A Direct Dial
Telquest Tech Support

You must have a VPN established between each of the locations.
You must have/purchase IP Trunk Channel Activation Keys.

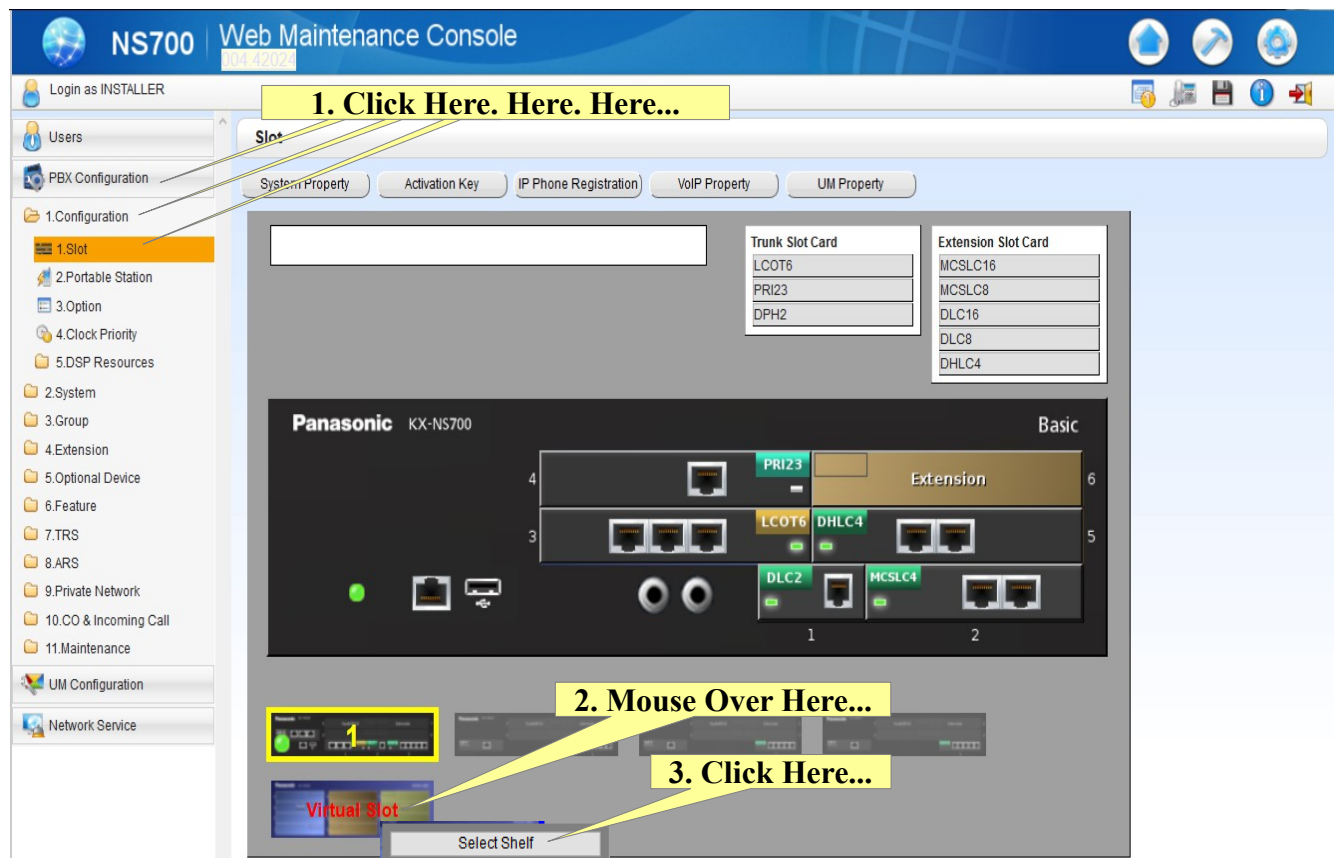**Note: It takes 2 IP Trunk Channel Activation Keys for each Port. (See Page 6)**
First, install a V-IPGW16 card
It is a Virtual Card, not a Physical Card. Extension Numbers MUST be different at each location.

Location A has extensions 101 – 111 – LAN IP Address 10.10.0.222
Location B has extensions 201 – 211 – LAN IP Address 192.168.111.101
                    This is the programming for Location A

The LAN IP Addresses used in the Help Sheet are just examples.
Yours may be different.

Note: This Help Sheet is about connecting 2 KSU's together. You can have more.
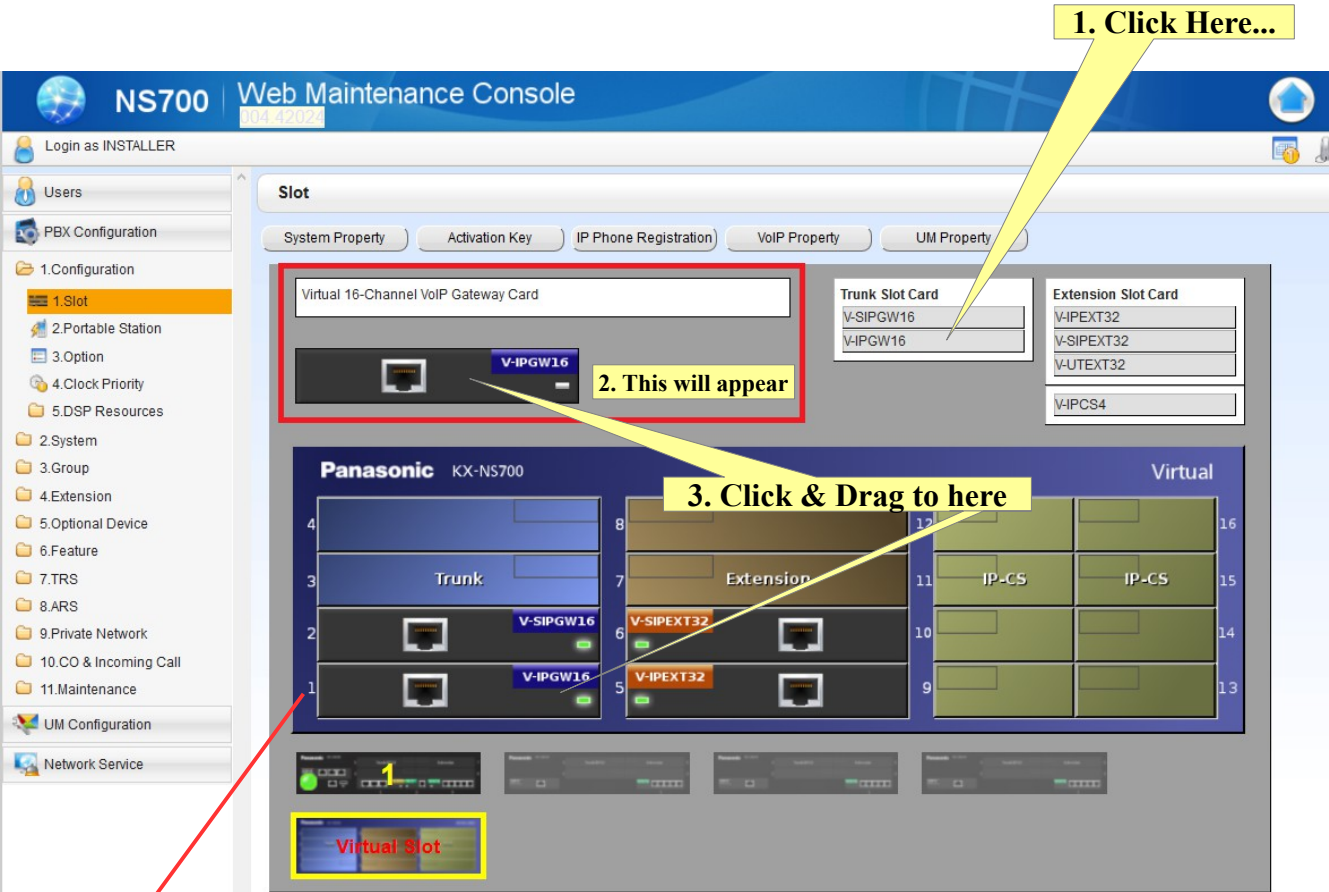   **Later on the Pages I will show you where to add info for more locations.**
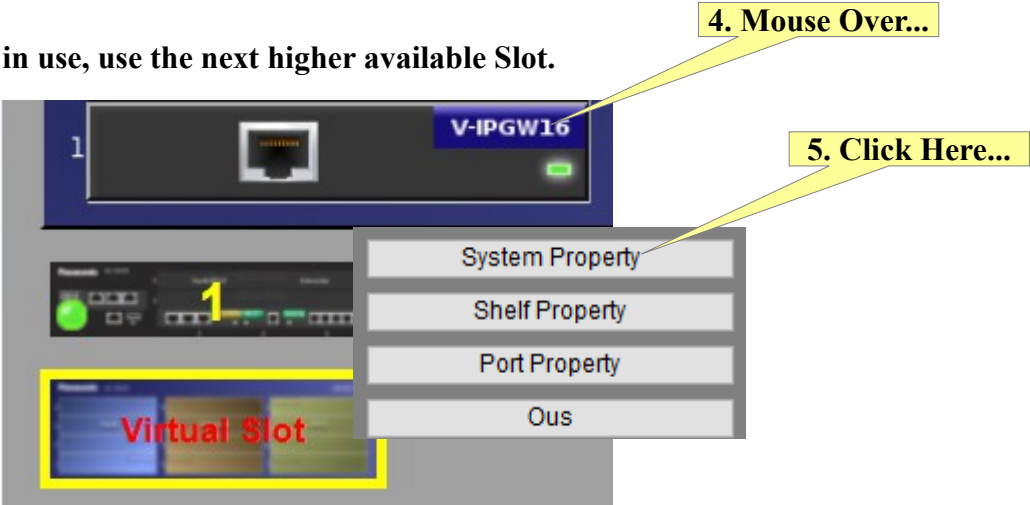
After you install the Application Key,
Click this button to activate.

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If Slot 1 is already in use, use the next higher available Slot.

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1. Click Here...

NS700 | Web Maintenance Console

Login as INSTALLER

Users
PBX Configuration
1.Configuration
1.Slot
2.Portable Station
3.Option
4.Clock Priority
5.DSP Resources

System Property - Main

Main | System Status | V-IPGW

DSP codec G.711 only (SIP Extension) : Disable
DSP codec G.711 only (IP-GW) : Disable
DSP codec Priority-1 Value only (Others) : Disable
System Speed Dial Download For UT Extensions : 100

This screen will appear:

---

1. Click Here...

NS700 | Web Maintenance Console

Login as INSTALLER

Users
PBX Configuration
1.Configuration
1.Slot
2.Portable Station
3.Option

System Property - Main

Main | System Status | V-IPGW

GW Settings | DN2IP

Call Signaling Model : Direct
Gatekeeper Connection Checking Interval (*60s) : 0

This screen will appear:

NS700 | Web Maintenance Console

Login as INSTALLER

Users
PBX Configuration
1.Configuration
1.Slot
2.Portable Station
3.Option
4.Clock Priority
5.DSP Resources

System Property - Main - V-IPGW - GW Settings

1. The Name of Location B

2. The LAN IP Address of Location B

Main | Option 1 | Option 2 | Option 3

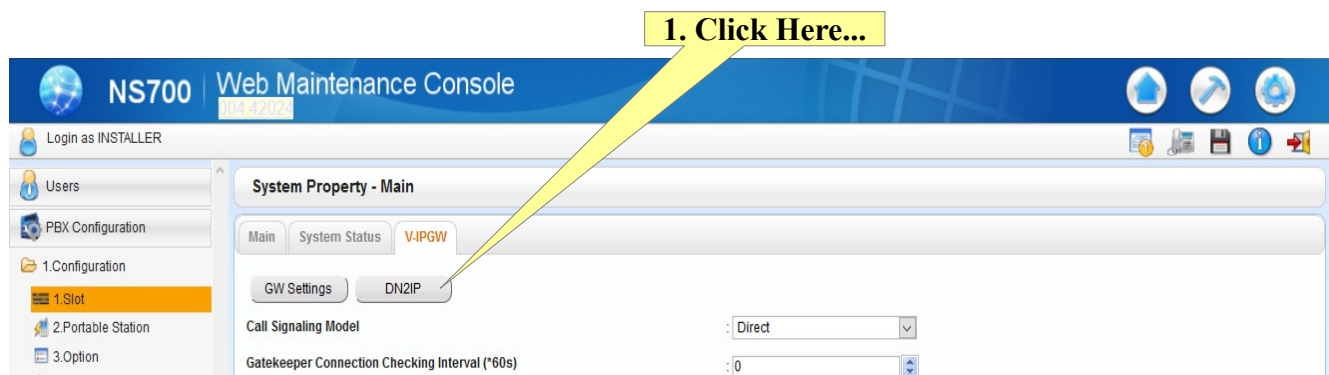| No.	GW Name (20 characters)	GW Address	GW Group	Connection for IP-GW	Protocol	Program Send Mode
			ALL	ALL	ALL	ALL
1	To Location B	192.168.111.204	None	Enable(TDA)	TCP	Internal
2	To Lacation C	10.10.2.123	None	Enable(TDA)	TCP	Internal
3	To Lacation D	192.168.5.14	None	Enable(TDA)	TCP	Internal
4	To Lacation E	10.20.4.25	None	Enable(TDA)	TCP	Internal

Gateway Number

3. Click Here...

This screen will appear:

If you have additional Locations, add them here...

OK | Cancel | Apply

1. Click Here...

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This screen will appear:

1. Set like this...

2. Set like this...+

If you want to be able to use CO Lines from Location B, Do this...

If you want to be able to call the Operator at Location B, Do this...
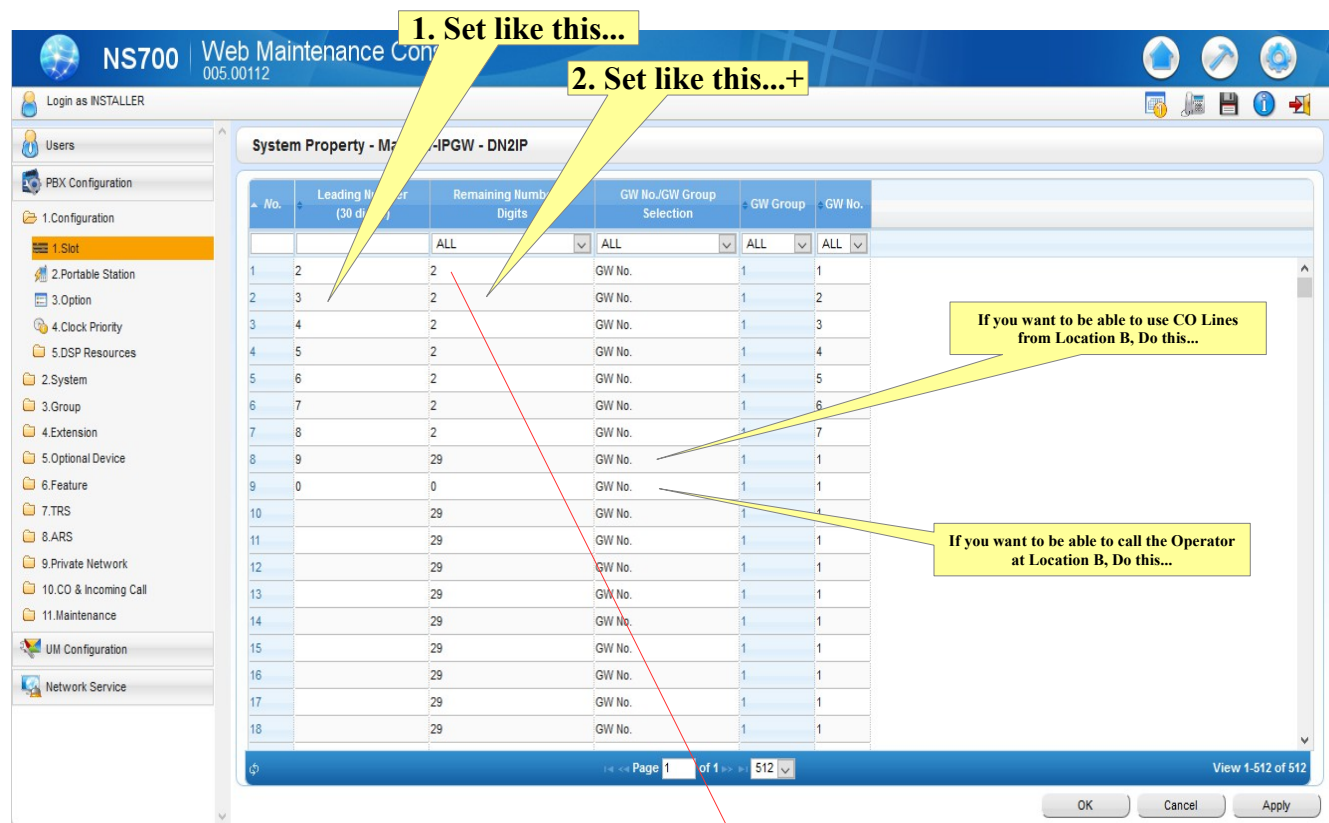
This screen will appear:

If the extensions at Location B are 3 Digits, then set these to 2
If the extensions at Location B are 4 Digits, then set these to 3
If the extensions at Location B are 5 Digits, then set these to 4 Etc...

Set to 0 for Operator

Set to 29 for accessing CO Lines at remote location
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Set the Private network:

I did not specify that you need to click the OK Button each screen.

Also, click the SD Card Icon when done to SAVE your programming.

Check for In Service (INS)

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This screen will appear:

I have 4 IP Trunk Channel Activation Keys, so you can see there are 2 Ports In Service (INS)

If I only had 2 IP Trunk Channel Activation Keys. Then only 1 Port would be In service. (INS)

INS does not indicate that there is a connection established between the 2 systems.
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Note: The installation of Activation Keys is not included in the Help sheet.

Set the Number of activated IP-GW

1. Click Here...

IP-GW = IP Gateway/V-IPGW16 card

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1. Enter the number of "IP Trunks" to be used by the IP-GW.
This should be an even number.
Minimum of 2.

I have set all 4 to be used by the IP-GW

Total of IP Trunks
That are available

2. Click here...

This screen will appear:

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Operation

Press your Intercom Button

To call Extension 201 from Location A to Location B you would dial 201

To call Extension 101 from Location B to Location A you would dial 101

To call the Operator 0 from Location A to Location B you would dial 720#

To call the Operator 0 from Location B to Location A you would dial 710#

To call 1 561 832 3801 from Location A using Location B CO Lines you would dial 7915618323801

To call 1 561 832 3801 from Location B using Location A CO Lines you would dial 7915618323801

Or

Press a Link or Link Group Button (This eliminates the need to dial the 7)

To call Extension 201 from Location A to Location B you would dial 201

To call Extension 101 from Location B to Location A you would dial 101

To call 1 561 832 3801 from Location A using Location B CO Lines you would dial 7915618323801

To call 1 561 832 3801 from Location B using Location A CO Lines you would dial 7915618323801

Additional information for your routers:

Be sure that the Router to Router VPN is wide open and does not restrict or manipulate any Ports, IP Addresses or Protocols.

You may need to Port Forward the Range of 16000 through 16125 UDP to the IP Address of the DSP Card.

This will allow two way audio between the systems.

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If you want to be able to make Outside Calls from either location using the CO Lines of the other location, you will need to do the following:

If you are using Analog CO Lines, they are in Trunk Group 1 by default.

1. Click Here...

2. Set like this...

3. Set like this...

4. Set like this...

The Dialing Plan is used to make dialing an Outside Call over the VPN easier.

It is constructed to determine when the KSU will dial the telephone number.

It can be a bit tricky.

The Dial Plan below is designed to work with the following conditions:

Leading Number: 9N11

9 is the Access Code to the other KSU

N is any digit from 2 through 9

XX is any two digits from 0 through 9

You can dial 411, 611, 911 or anything 11   **Example: 911**

Leading Number: 9NXXXXXX

9 is the Access Code to the other KSU

N is any digit from 2 through 9

XXXXXX is any six digits from 0 through 9

You can dial any 7 digit telephone number   **Example: 2351234**

Leading Number: 9PXXXXXXXXXX

9 is the Access Code to the other KSU

P is either a 1 or a 0 (This is what is used to determine a 1 Plus Long Distance call)

XXXXXXXXXX is any ten digits from 0 through 9

You can dial 1 followed by any 10 digit telephone number   **Example: 12125551212**

You cannot have 7 digit dialing and 10 digit dialing in a single Dial Plan.

A Dial Plan for 10 digit dialing would be:

Leading Number 1: 9N11

Leading Number 2: XXXXXXXXXXXX   (12 Capital X's)

Remaining Leading Numbers blank

Dialing a 7 digit number would require the End User to dial a # (POUND) at the end of the last

digit to make the call go through.

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This Dialing Plan is for:

411, 611, 911 or anything 11

7 digit telephone numbers

1 Plus Long Distance dialing

If you need the Dial Plan characters:

N = 2 3 4 5 6 7 8 9

P = 0 or 1

X = 0 1 2 3 4 5 6 7 8 9 & #

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Put the Links on Buttons

It makes it easier for the End Users if you put all your Links to the other KSU on buttons.

Just label the Buttons Link 1, Link 2 etc...

This way they can see if a Link is available, press an available link and dial a single digit followed by the remote extensions Intercom number.

I have 2 Links, so I put them on Buttons 23 and 24.

You can place the Links on any button.

Be sure to place all Links on buttons.

Or

You could also use a Group CO Button (Trunk Group 7) as shown above on Button 19.

This would require only 1 button and have access to all Links...

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One more setting...