

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

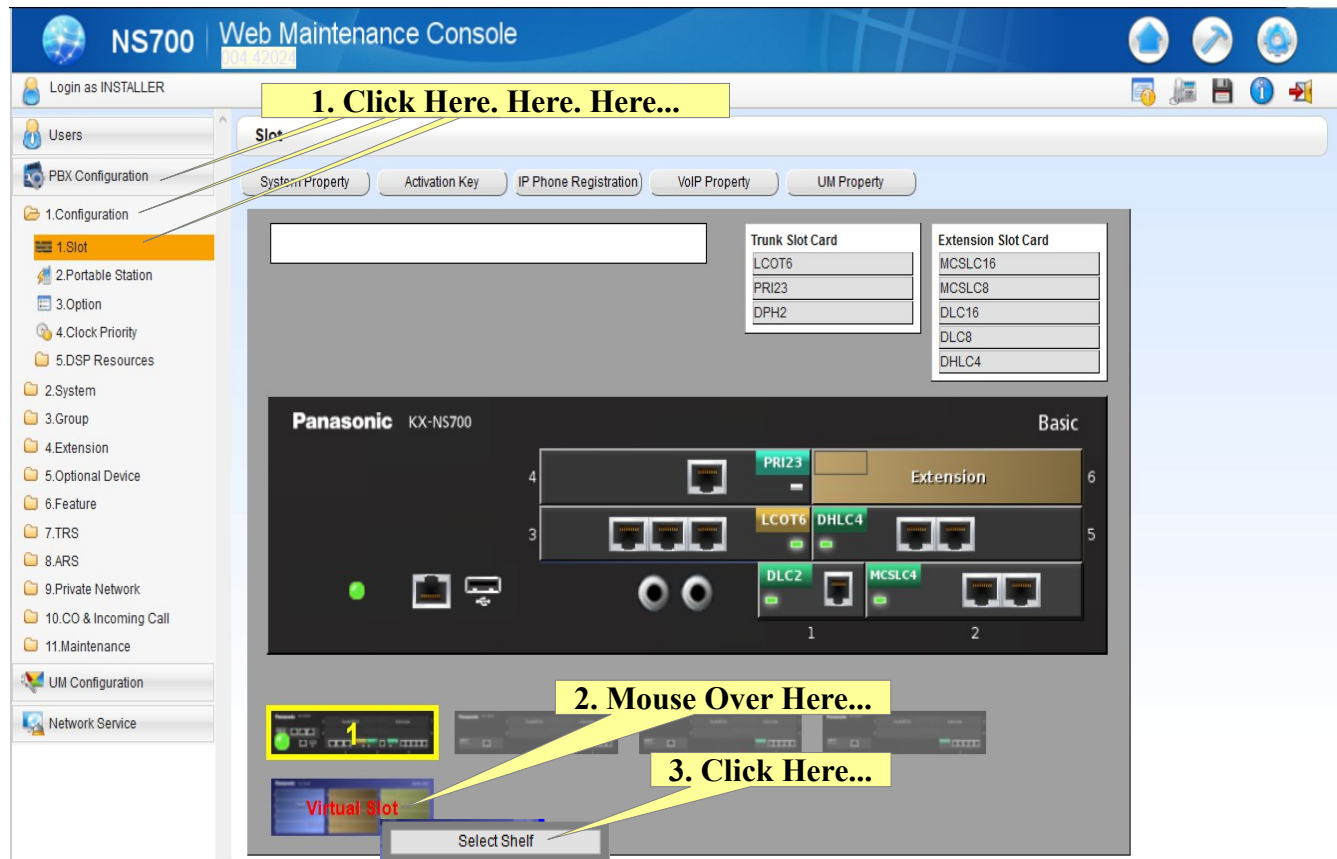
**You must have a Router to Router VPN established between the 2 locations.  
You must have/purchase IP Trunk Channel Activation Keys.**

**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.**

**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 allows both Locations A&B to have the same extension numbers.  
You must first dial a 1 or 2 Digit Access Code and then the extension number.  
If you just want to dial an extension number at the opposite location without an  
Access Code, we have a different Help Sheet for that.**

NS700 Web Maintenance Console  
Login as INSTALLER

Slot

System Property   Activation Key   IP Phone Registration   VoIP Property   UM Property

Virtual 16-Channel VoIP Gateway Card

Trunk Slot Card

- V-SIPGW16
- V-IPGW16

Extension Slot Card

- V-IPEXT32
- V-SIPEXT32
- V-UTEXT32
- V-IPCS4

2. This will appear

3. Click & Drag to here

Virtual Slot

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

4. Mouse Over...

5. Click Here...

System Property

Shelf Property

Port Property

Ous

Virtual Slot

## Page 3 Location A

This screen will appear:

1. Click Here...

The screenshot shows the NS700 Web Maintenance Console interface. The left sidebar contains a navigation menu with '1. Slot' selected. The main content area is titled 'System Property - Main' and has tabs for 'Main', 'System Status', and 'V-IP6W'. Under the 'Main' tab, there are four configuration items, each with a dropdown menu:

- 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...

The screenshot shows the NS700 Web Maintenance Console interface. The left sidebar contains a navigation menu with '1. Slot' selected. The main content area is titled 'System Property - Main' and has tabs for 'Main', 'System Status', and 'V-IPGW'. Under the 'V-IPGW' tab, there are two sub-tabs: 'GW Settings' and 'DN2IP'. Below these, there are two configuration items:

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

This screen will appear:

The screenshot shows the NS700 Web Maintenance Console interface. The left sidebar contains a navigation menu with '1. Slot' selected. The main content area is titled 'System Property - Main - V-IPGW - GW Settings' and has tabs for 'Main', 'Option 1', 'Option 2', and 'Option 3'. Under the 'Main' tab, there is a table with the following data:

No.	GW Name (20 characters)	GW IP Address	GW Group	Connection for IP-GW	Protocol	Progress Tone Send Mode
1	To Location B	192.168.111.101	None	Enable(TDA)	TCP	Internal
2			None	Enable(TDA)	TCP	Internal

1. The Name of Location B

2. The LAN IP Address of Location B

3. Click Here...

OK Cancel Apply

## Page 4 Location A

This screen will appear:

1. Click Here...

NS700 Web Maintenance Console  
005.00112

Login as INSTALLER

System Property - Main

Main System Status V4PGW

GW Settings DN2IP

Call Signaling Model: Direct

Gatekeeper Connection Checking Interval (\*60s): 0

This screen will appear:

1. Set like this...

2. Set like this...+

NS700 Web Maintenance Console  
005.00112

Login as INSTALLER

System Property - V-IPGW - DN2IP

No.	Leading Number (Digits)	Remaining Number of Digits	GW No./GW Group Selection	GW Group	GW No.
		ALL	ALL	ALL	ALL
1	21	2	GW No.	1	1
2	22	2	GW No.	1	1
3	23	2	GW No.	1	1
4	24	2	GW No.	1	1
5	25	2	GW No.	1	1
6	26	2	GW No.	1	1
7	27	2	GW No.	1	1
8	28	2	GW No.	1	1
9	29	29	GW No.	1	1
10	20	2	GW No.	1	1

If you want to access CO Lines from Location B, include 29

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...

## Page 5 Location A

### Set the Private network:

The screenshot shows the NS700 Web Maintenance Console interface. The left sidebar lists configuration categories, with 'Private Network' and '1.TIE Table' selected. The main area displays the 'TIE Table' configuration for 'Own PBX Code (7 digits)'. A table lists 15 rows with columns for ID, Leading Number (3 digits), Priority 1 - Digits, Priority 1 - Added Number (32 digits), and Priority 1 - Trunk Group. Row 9 has a '1' in the 'Priority 1 - Digits' column, which is highlighted with a blue arrow and the word 'Different'. Yellow callouts provide instructions: '6. Set to 1' points to the 'Own PBX Code' field; '3. Set 1-10 like this...' points to the 'Priority 1 - Digits' column; '4. Set like this...' points to the 'Priority 1 - Trunk Group' column; '5. Set like this...' points to the 'Priority 1 - Added Number' column; '1. Click Here...' points to the '1.TIE Table' menu item; and '2. Click Here...' points to the 'TIE Table' sub-menu item. The bottom right of the console has 'OK', 'Cancel', and 'Apply' buttons.

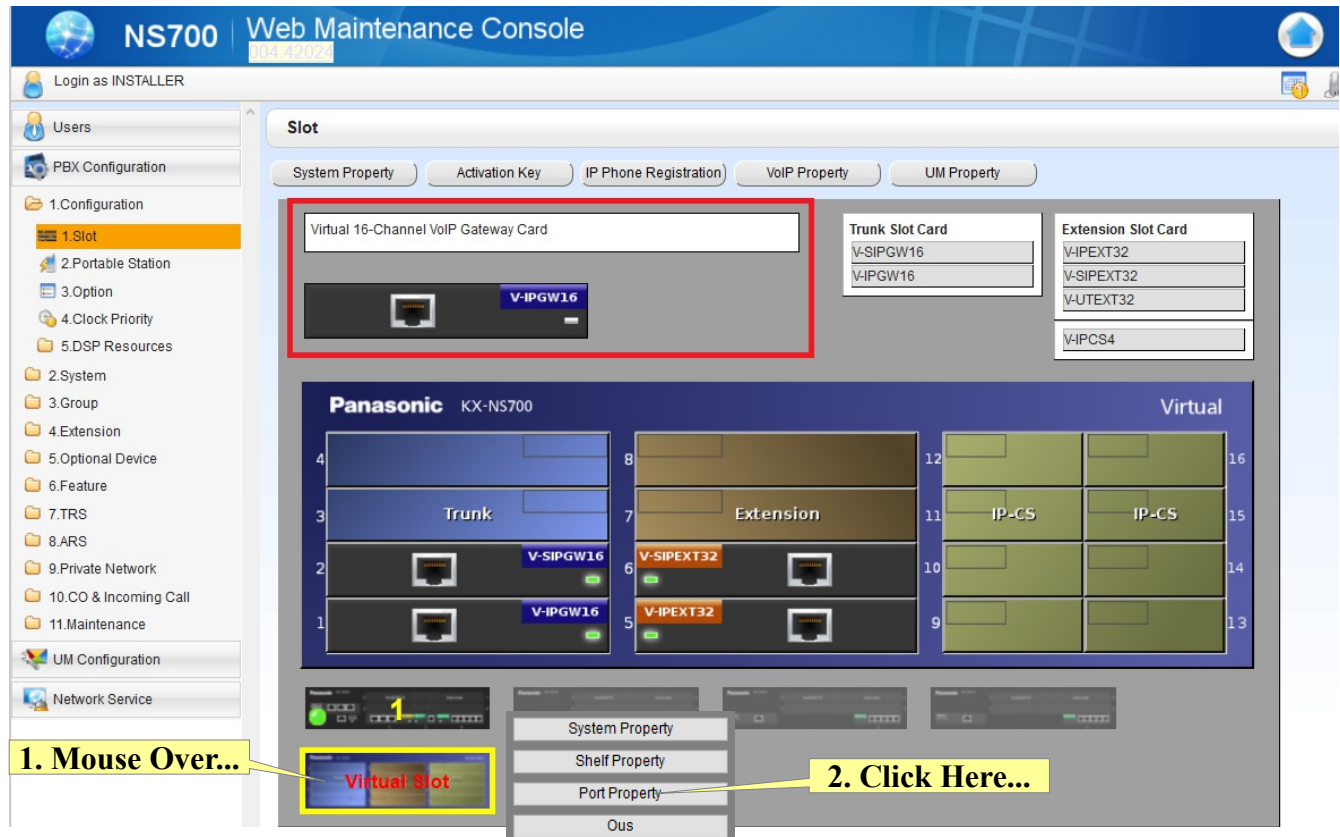
ID	Leading Number (3 digits)	Priority 1 - Digits	Priority 1 - Added Number (32 digits)	Priority 1 - Trunk Group
1	1	0	7	7
2	2	0	7	7
3	3	0	7	7
4	4	0	7	7
5	5	0	7	7
6	6	0	7	7
7	7	0	7	7
8	8	0	7	7
9	9	1	7	7
10	0	0	7	7
11		0	None	None
12		0	None	None
13		0	None	None
14		0	None	None
15		0	None	None

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

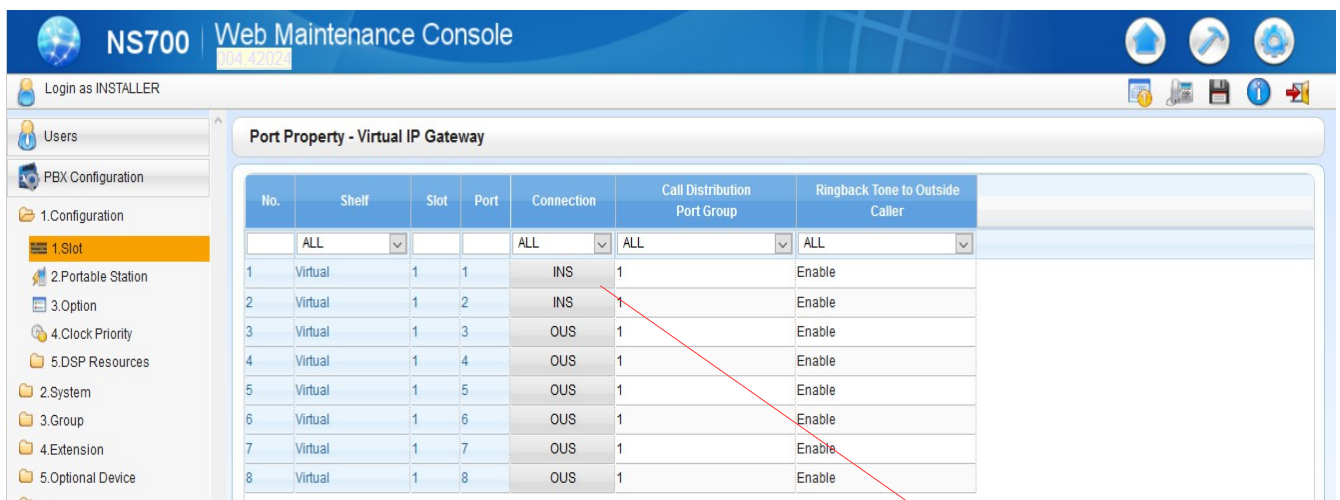


Also, click the SD Card Icon when done to SAVE your programming.

Check for In Service (INS)



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.

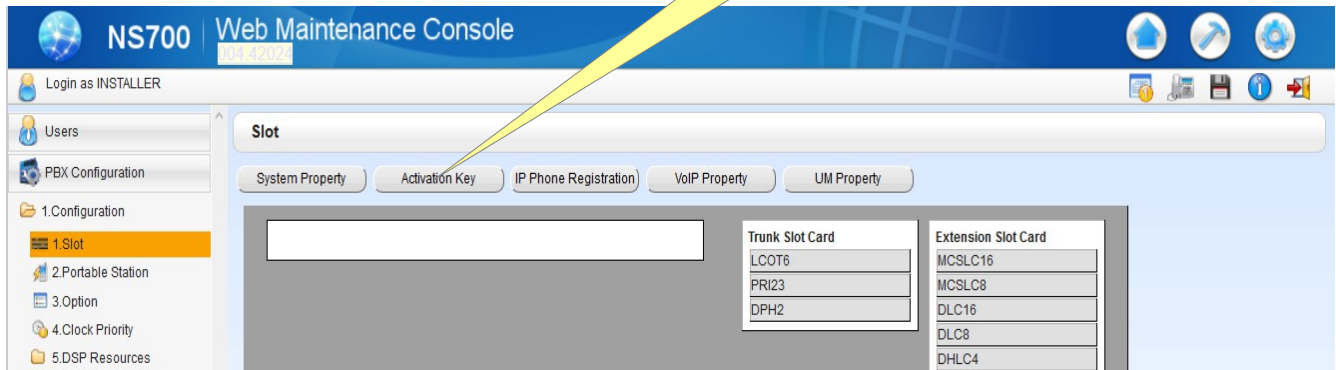
## Page 7 Location A

**Note: The installation of Activation Keys is not included in the Help sheet.**

**Set the Number of activated IP-GW**

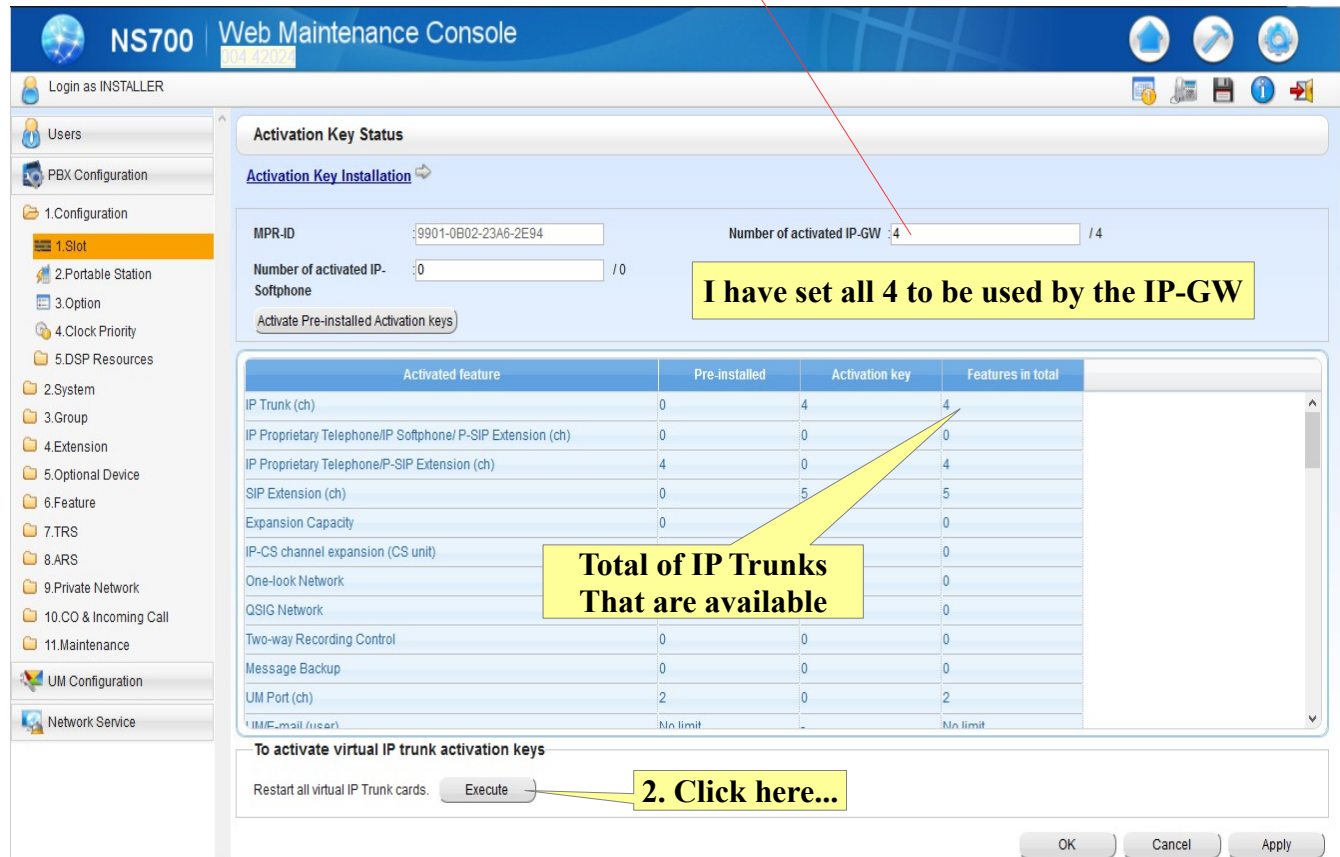
**IP-GW = IP Gateway/V-IPGW16 card**

**1. Click Here...**



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

**This screen will appear:**



## **Operation**

### **Press your Intercom Button**

**To call Extension 201 from Location A to Location B you would dial 72201**

**To call Extension 101 from Location B to Location A you would dial 71101**

**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 72915618323801**

**To call 1 561 832 3801 from Location B using Location A CO Lines you would dial 71915618323801**

**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 2201**

**To call Extension 101 from Location B to Location A you would dial 1101**

**To call 1 561 832 3801 from Location A using Location B CO Lines you would dial 2915618323801**

**To call 1 561 832 3801 from Location B using Location A CO Lines you would dial 1915618323801**

### **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.**

## Page 9 Location A

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.

**NS700 Web Maintenance Console**  
005.00112

Login as INSTALLER

**TRG Settings** 1. Click Here...

Trunk Group	Group Name (20 characters)	COS	Line Hunting Order	CO-CO Duration Time (*60s)	Extension-CO Duration Time (*60s)	Caller ID Modification Table	DialingPlanTable
1		ALL	ALL	ALL	ALL	ALL	ALL
2		7	High -> Low	10	10	1	1
3		7	High -> Low	10	10	1	1
4		7	High -> Low	10	10	1	1
5		7	High -> Low	10	10	1	1
6		7	High -> Low	10	10	1	1
7		7	High -> Low	10	10	1	2
8		7	High -> Low	10	10	1	1
9		7	High -> Low	10	10	1	1
10		7	High -> Low	10	10	1	1
11		7	High -> Low	10	10	1	1
12		7	High -> Low	10	10	1	1
13		7	High -> Low	10	10	1	1
14		7	High -> Low	10	10	1	1
15		7	High -> Low	10	10	1	1

2. Set like this...

3. Set like this...

4. Set like this...

Page 1 of 4

View 1-20 of 64

OK Cancel Apply

## **Page 10 Location A**

**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: 29N11**

**29 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: 29NXXXXXX**

**29 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: 29PXXXXXXXXXX**

**29 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: 29N11**

**Leading Number 2: XXXXXXXXXXXXX (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.**

## Page 11 Location A

**This Dialing Plan is for:  
411, 611, 911 or anything 11  
7 digit telephone numbers  
1 Plus Long Distance dialing**

NS700 Web Maintenance Console  
005.00112

Login as INSTALLER

Users  
PBX Configuration

1. Configuration  
2. System  
3. Group  
4. Dialing plan

Dialing plan

Auto Assign

2

Dialing Plan Table

No.	Leading Number (32 digits)	Removed Number of Digits	Added Number (32 digits)
1	29N11	ALL	
2	29N000000X	0	
3	29PXXXXXXXXXXXX	0	
4		0	
5		0	
6		0	
7		0	
8		0	
9		0	
10		0	
11		0	
12		0	
13		0	
14		0	
15		0	
16		0	

Page 1 of 3 View 1-20 of 50

OK Cancel Apply

**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 & #**

## Page 12 Location A

### 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.

The screenshot shows the 'Flexible Button' configuration page in the NS700 Web Maintenance Console. The page title is 'Flexible Button' and the extension number is set to '101 / Receptionist'. The 'Number of Connections NT505' is set to 'None' and the 'NT505 Location No.' is '0'. A 'Copy to' button is visible. The 'Available Keys:24' table is shown below, with columns for Key Location, Type, Parameter Selection, Extension Number, Extension Name, Dial (Max. 32 digits), Label Name (Max. 12 characters), and Optional Param (or Ringing Tone Number). Three arrows point to rows 19, 23, and 24, indicating where links are being assigned.

Key Location	Type	Parameter Selection	Extension Number	Extension Name	Dial (Max. 32 digits)	Label Name (Max. 12 characters)	Optional Param (or Ringing Tone Number)
	ALL	ALL					ALL
14	Single CO	14 :				14	Ring Tone Type
15	Single CO	15 :				15	Ring Tone Type
16	Single CO	16 :				16	Ring Tone Type
17	Single CO	17 :				17	Ring Tone Type
18	Single CO	18 :				18	Ring Tone Type
19	Group CO	7 : Link Group				19	Ring Tone Type
20	Single CO	20 :				20	Ring Tone Type
21	Single CO	21 :				21	Ring Tone Type
22	Not Stored					22	
23	Single CO	23 : Link 1				23	Ring Tone Type
24	Single CO	24 : Link 2				24	Ring Tone Type
25	Single CO	25 :				25	Ring Tone Type
26	Single CO	26 :				26	Ring Tone Type
27	Single CO	27 :				27	Ring Tone Type

You can place the Links on any button.

Be sure to place all Links on buttons.

You could also use a Group CO Button as shown above on Button 19.

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

