

Panasonic KX-NS700 3rd Party SIP Phone / Remote KX-TGP-500 Telquest Tech Support

This Help Sheet explains how to set up the KX-NS700 KSU to allow a 3rd Party SIP Phone to work.

The router info is basic and it is up to you determine how to make the changes in your particular router.

The Panasonic KX-TGP Cordless is considered a 3rd Party SIP Phone by the KSU.

It is up to you to program your 3rd Party SIP Phone to work properly.

We provide no Tech Support for your router.

We also assume that you are a qualified Telecom Tech with Panasonic programming experience.

If you are unable to understand this Help Sheet then you will need to bring in a local person that is an experienced, qualified Panasonic technician and has an understanding of IT Networking.

You will need to know the following information before you can proceed.

The Static Public IP Address of the router that the KSU is connected to.

If it is not a Static IP Address then you will need to either get a Static IP Address from your Internet Provider or look into subscribing to a Dynamic DNS URL from www.dydns.com

If you look into getting a Dynamic DNS URL then be sure that your router supports it.

You will also need 2 Static LAN IP Addresses along with the LAN Subnet Mask and Router Address.

Setting up and changing the Default KSU IP Addresses is not covered in this Help Sheet.

You must also have a SIP Extension License for EACH remote 3rd Party SIP Phone.

Activated feature	Pre-installed	Activation key	Features in total
IP Trunk (ch)	0	0	0
IP Proprietary Telephone/IP Softphone/ P-SIP Extension (ch)	0	0	0
IP Proprietary Telephone/P-SIP Extension (ch)	4	0	4
SIP Extension (ch)	0	1	1
Expansion Capacity	0	0	0
IP-CS channel expansion (CS unit)			
One-look Network			
QSIG Network			
Two-way Recording Control			
Message Backup			
UM Port (ch)			

License Examples
 KX-NSM701 = 1 SIP Phone
 KX-NSM705 = 5 SIP Phones

Start the Panasonic Web Maintenance Console program and connect to the KSU.

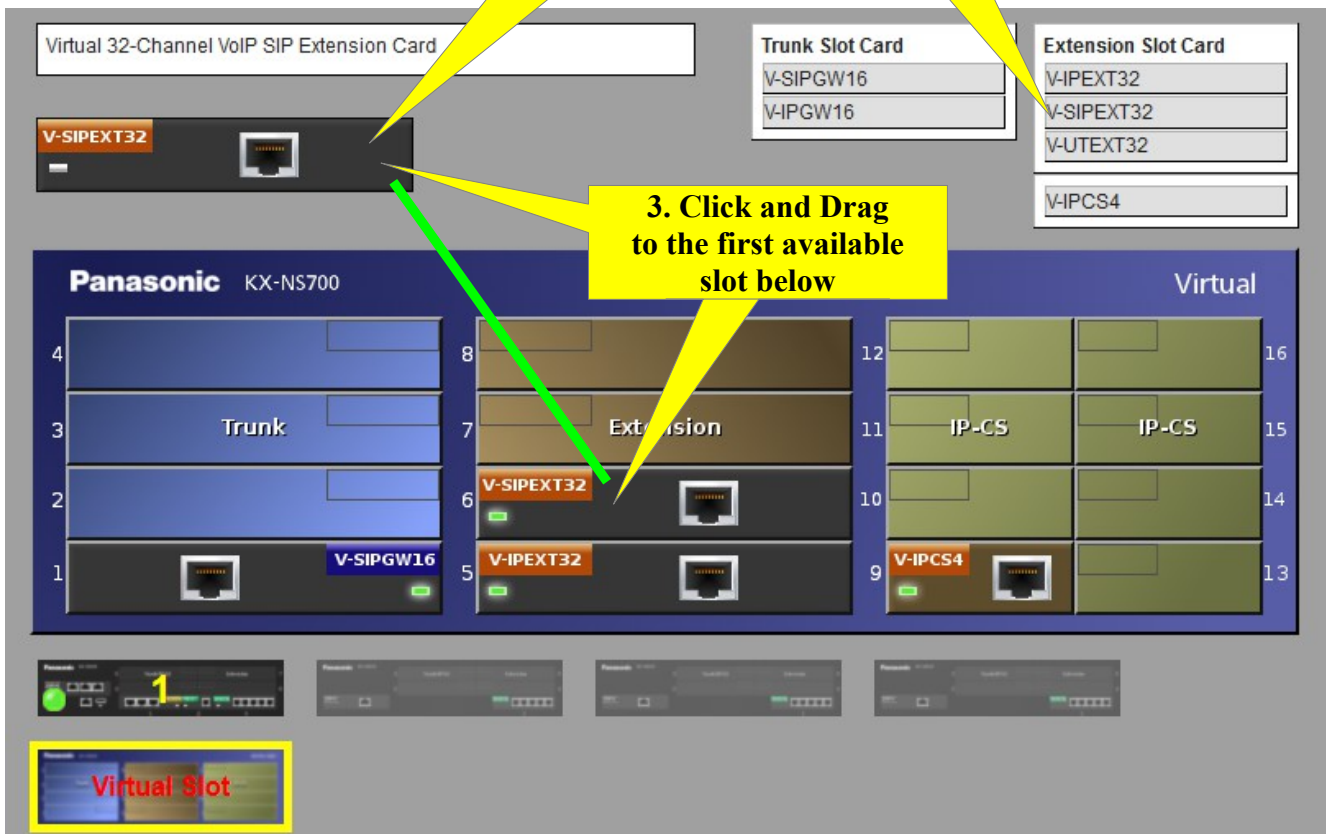
At the bottom of the screen, Mouse Over the Virtual Slot and then click on Select Shelf.



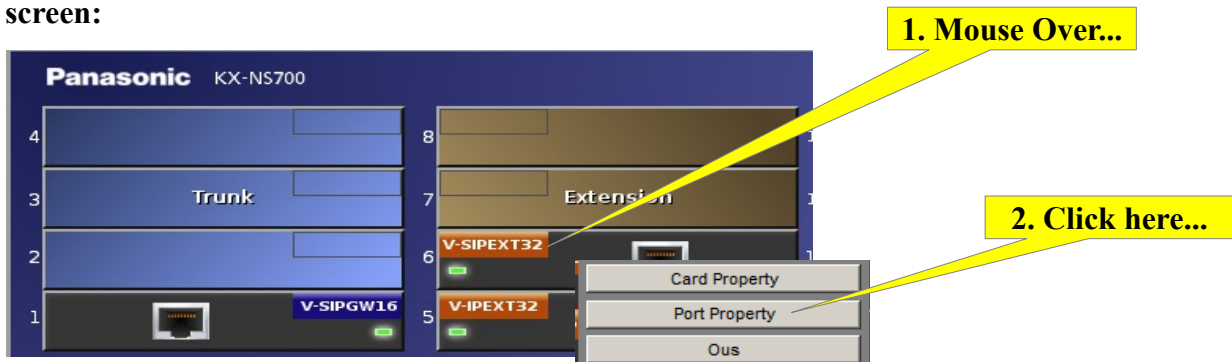
Next Screen:

2. This will appear...

1. Click here...

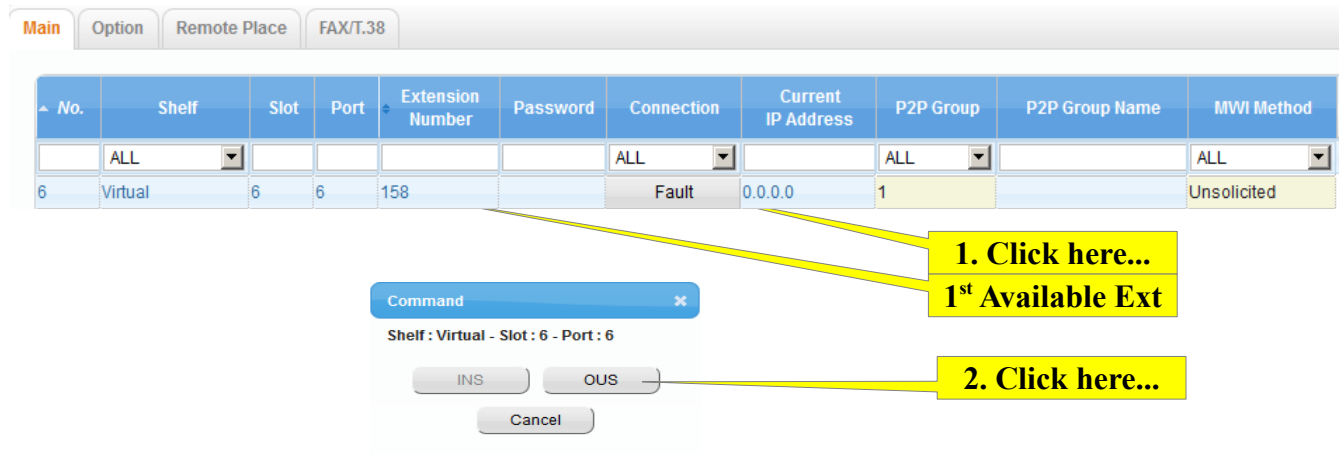


Same screen:

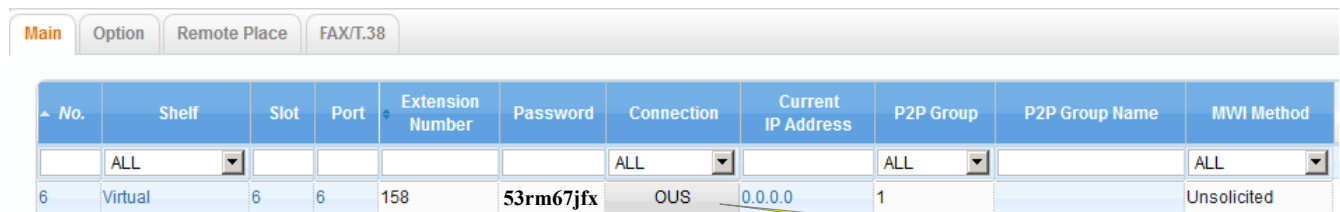


Next screen:

I have cut the screens down to minimize the view.



Same screen:



Now Out of Service

Be security aware.
Do not use 1234 or anything simple.
Use something like
27jw947x or 53rm67jfx

1. Add a password.
This will be the SIP Password
used for SIP Registration
AKA: SIP Authentication

Same screen:

1. Click here...

No.	Shelf	Slot	Port	Extension Number	Password	Connection	Current IP Address	P2P Group	P2P Group Name	MWI Method
6	Virtual	6	6	158	53rm67jfx	OUS	0.0.0.0	1		Unsolicited

Next screen:

1. Click here...

No.	Shelf	Slot	Port	Extension Number	Password	Connection	Phone Location
6	Virtual	6	6	158	53rm67jfx	OUS	Local
7	Virtual	6	7	159		Fault	Local
8	Virtual	6	8	160		Fault	Local

2. Select Remote (MRG)

MRG=Media Relay Gateway

Same screen:

No.	Shelf	Slot	Port	Extension Number	Password	Connection	Phone Location
6	Virtual	6	6	158	53rm67jfx	OUS	Remote (MRG)

It will look like this when done...

View 1-20 of 32

OK Cancel Apply

3. Click here...

Same screen:

Main		Option		Remote Place		FAX/T.38	
No.	Shelf	Slot	Port	Extension Number	Password	Connection	Phone Location
	ALL					ALL	ALL
6	Virtual	6	6	158	53rm67jfx	OUS	Remote (MRG)

4. Click here...

Command [x]

Shelf: Virtual - Slot: 6 - Port: 6

INS OUS

Cancel

5. Click here...

Same screen:

No.	Shelf	Slot	Port	Extension Number	Password	Connection	Phone Location
	ALL					ALL	ALL
6	Virtual	6	6	158	53rm67jfx	Fault	Remote (MRG)

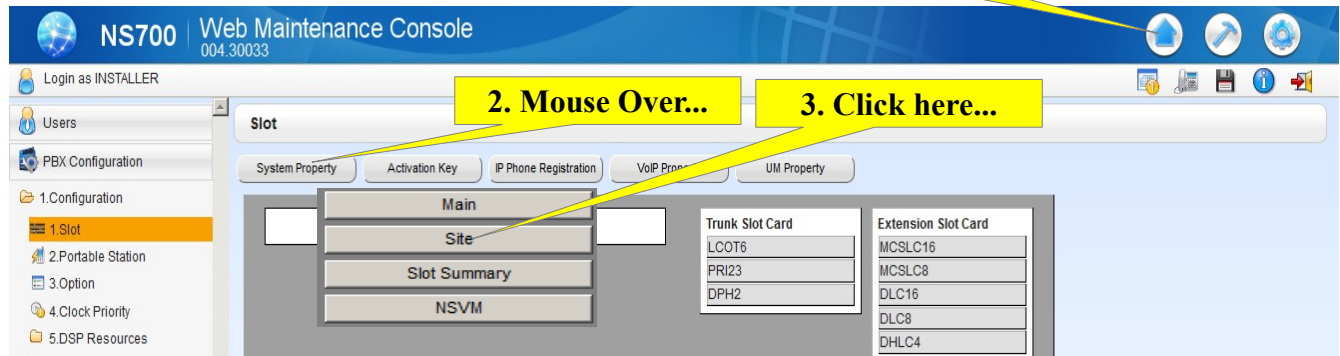
It will say Fault until the phone is Registered

That completes the programming to establish a Remote SIP Extension and its password.

There are more areas in the programming that need to be done.

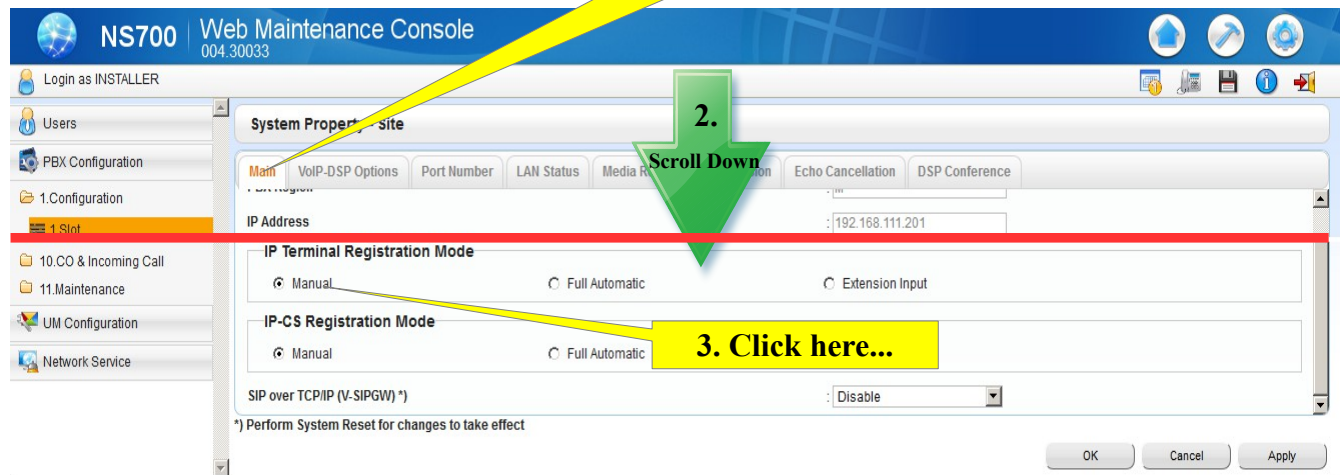
Set Media Relay Gateway (MRG) values:

1. Click here...

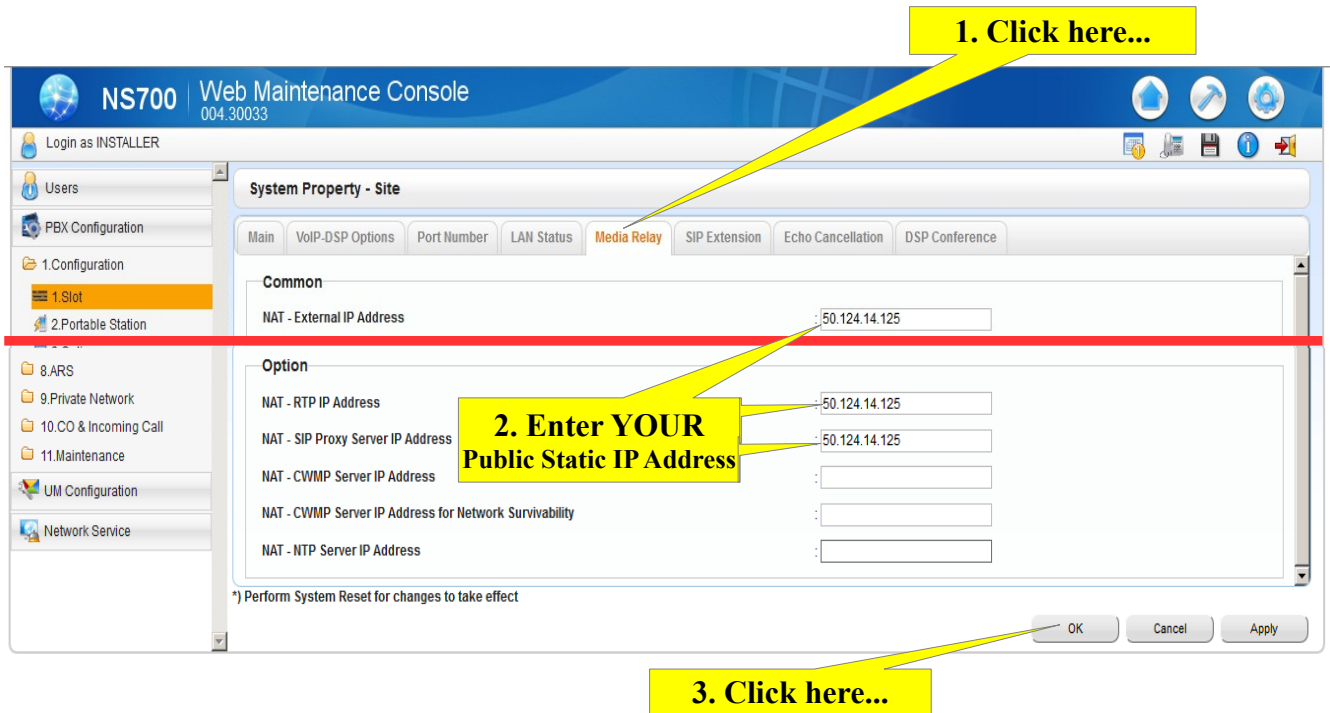


Next screen: It is cut down to save space.

1. Click here...



Next screen: It is cut down to save space.



Note:

Enter the Static Public IP Address of the router that YOUR KSU is connected to.

You must “Open / Port Forward” the following ports in the Network Router that the KSU is connected to.

This will allow the Remote SIP Phone to communicate with the KSU.

**Forward Port 15060 UDP to Port 5060 UDP to the LAN IP Address of the KSU.
(In my example it is 192.168.111.201 this is for SIP Messages)**

**Open Port Range 16000 to 16100 UDP to the LAN IP Address of the DSP Card.
(In my example it is 192.168.111.202 this is for RTP Voice)**

See Page 12 for more info.

Accessing the KXTGP-500 Web Browser

The KXTGP – 500 Web Browser is disabled by default.

To allow access to the Web Browser:

Press the Menu button IN

Dial #534 (POUND 534)

You will see “Embedded Web” in the LCD

Select ON

Press the Menu button IN

How to find the KXTGP – 500 IP Address

Press the Menu button IN

Dial #501 (POUND 501)

You will see “IP Address” in the LCD

The IP Address is just below it

Browser Default Logon Info:

Logon: admin

Password: adminpass

Enter the following information:

The image shows the 'SIP Settings [Line 1]' configuration page for a Panasonic KX-TGP500B04 phone. The page is divided into several sections, each with a title bar. The 'VoIP' tab is selected in the top navigation bar. The left sidebar shows a tree view with 'SIP Settings' selected under 'VoIP'. The main content area contains the following sections and fields:

- Phone Number**: Phone Number (158), Line ID (empty).
- SIP Server**: Registrar Server Address (192.168.111.201), Registrar Server Port (15060 [1-65535]), Proxy Server Address (empty), Proxy Server Port (5060 [1-65535]), Presence Server Address (empty), Presence Server Port (5060 [1-65535]).
- Outbound Proxy Server**: Outbound Proxy Server Address (50.124.14.125), Outbound Proxy Server Port (15060 [1-65535]).
- SIP Service Domain**: Service Domain (192.168.111.201).
- SIP Source Port**: Source Port (5060 [1024-4915]).
- SIP Authentication**: Authentication ID (158), Authentication Password (masked with dots).

At the bottom, there are 'Save' and 'Cancel' buttons. The page is annotated with 11 yellow callout boxes:

1. Click here... (points to the 'VoIP' tab)
2. Click here... (points to the 'SIP Settings [Line 1]' title)
3. Enter Extension Number (points to the 'Phone Number' field)
4. Enter KSU LAN IP Address (points to the 'Registrar Server Address' field)
5. Enter 15060 (points to the 'Registrar Server Port' field)
6. Enter KSU Public IP Address (points to the 'Outbound Proxy Server Address' field)
7. Enter 15060 (points to the 'Outbound Proxy Server Port' field)
8. Enter KSU LAN IP Address (points to the 'SIP Source Port' field)
9. Enter Extension Number (points to the 'Authentication ID' field)
10. Enter Password See Page 3 (points to the 'Authentication Password' field)
11. Click here... (points to the 'Save' button)

Page 10

The Web Browser for the KX-TGP 500 will stay open for 30 minutes.

If you lose connectivity to the KX-TGP 500, then use Page 8 again.

At this point, the LED on the KX-TGP 500 should be Steady Green.

This indicates that it is Registered to the KSU.

You should be able to dial and ring between the KX-TGP 500 and the NS700 KSU, but there will be no voice.

There is an additional setting that needs to be entered to allow voice, but it is not available through the Web Browser.

You will need to call your Telquest salesperson to get the current link that needs to be entered via the Web Browser.

See Page 11

If the LED on the KX-TGP 500 is Flashing Orange, then it is not Registered and you need to go over all your settings.

Note: Compatibility Issues

Since there are many different types of Routers and we cannot predict which units will and will not work.

If all methods fail, you can set up a VPN between the remote site and the KSU.

The VPN method always works if it is set up properly for SIP communications.

Once you have the link from your Telquest salesperson, enter it as shown below:

The image shows a screenshot of the Panasonic KX-TGP500B04 web interface. The page title is "Provisioning Maintenance". The navigation tabs include Status, Network, System, VoIP, Telephone, and Maintenance. The Maintenance tab is selected. On the left, there is a sidebar with a "Web Port Close" button and a "Maintenance" menu containing: Firmware Maintenance, Local Firmware Update, Provisioning Maintenance (highlighted), Management Server, Reset to Defaults, and Restart. The main content area contains the following fields:

Enable Provisioning	<input checked="" type="radio"/> Yes <input type="radio"/> No
Standard File URL	<input type="text"/>
Product File URL	<input type="text"/>
Master File URL	<input type="text"/>
Cyclic Auto Resync	<input type="radio"/> Yes <input checked="" type="radio"/> No
Resync Interval	<input type="text" value="10080"/> Minute(s) [1-40320]
Header Value for Resync Content	<input type="text" value="check-sync"/>

At the bottom of the form are "Save" and "Cancel" buttons. Four yellow callout boxes with arrows point to specific elements:

- 1. Click here... (points to the Maintenance tab)
- 2. Click here... (points to the Provisioning Maintenance menu item)
- 3. Paste the link here (points to the Master File URL input field)
- 4. Click here... (points to the Save button)

The KX-TGP 500 will re-boot and should have voice when it is done.

Identify LAN and DSP IP Addresses

1. Click here...

2. Click here and here..

Web Maintenance Console

Network Service

1.IP Address/Ports

2.Server Feature

3.Client Feature

4.Other

Basic Settings | Advanced Settings | Reference

IP Address of the KSU : 192.168.111.201

MAC Address : 08:00:23:A6:2E:94

Subnet Mask : 255.255.255.0

Default Gateway : 192.168.111.1

LAN IP Address

DNS Setting

Port Number : 53

Obtain DNS server address automatically

Use the following DNS server address

Preferred DNS IP Address : 8.8.8.8

Alternative DNS IP Address : 8.8.4.4

DSP IP Setting

Obtain DSP IP address automatically

Use the following DSP IP address

DSP Card - 1

IP Address of the DSP Card : 192.168.111.202

MAC Address : 08:00:23:A6:2E:95

DSP IP Address