TelQuest International
973-808-4588

Panasonic KX-NS700
3rd Party SIP Phone / Iphone Setup
Telquest Tech Support

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

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

The same for the 3rd Party SIP Phone.

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

We provide no Tech Support for your router or 3rd Party SIP Phone.

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 understands 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)			

Licenses
KX-NSM701 = 1 SIP Phone
KX-NSM705 = 5 SIP Phones

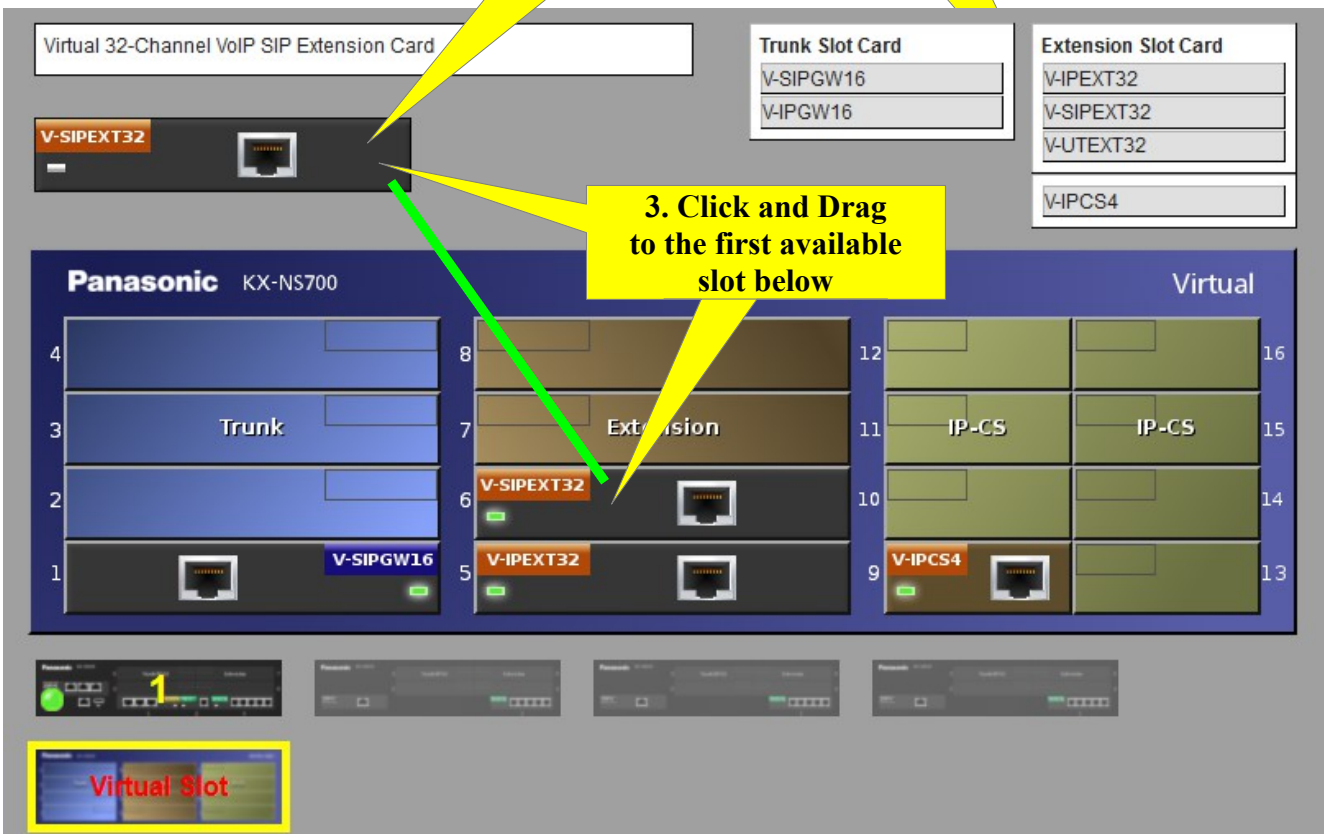Start the Panasonic Web Maintenance Console program and connect to the KSU.

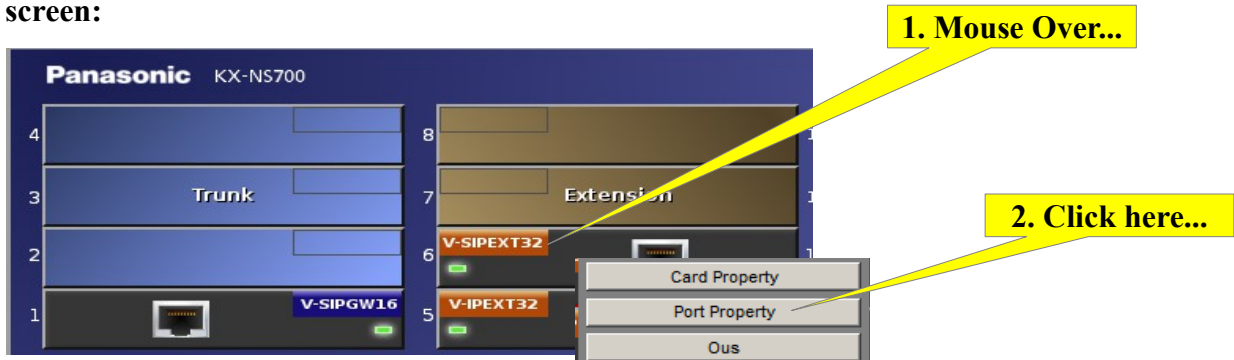At the bottom of the screen, Mouse Over the Virtual Slot and then click on **Select Shelf**.

Next Screen:

Page 3

Same screen:

1. Mouse Over...
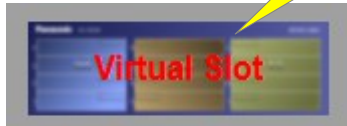
2. Click here...

Next screen:

I have cut the screens down to minimize the view.

1. Click here...
1st Available Ext

2. Click here...
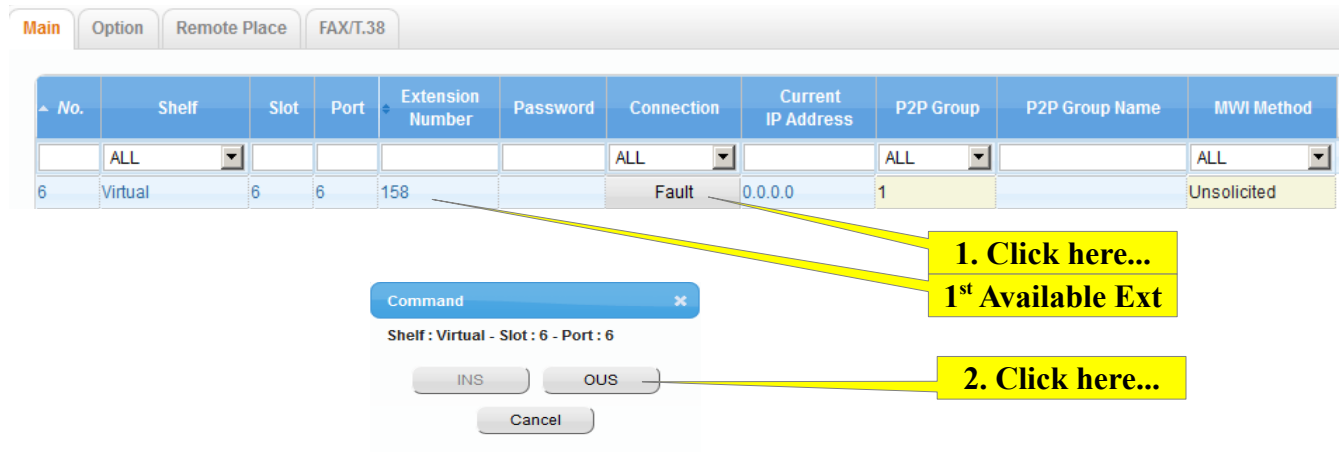
Same screen:
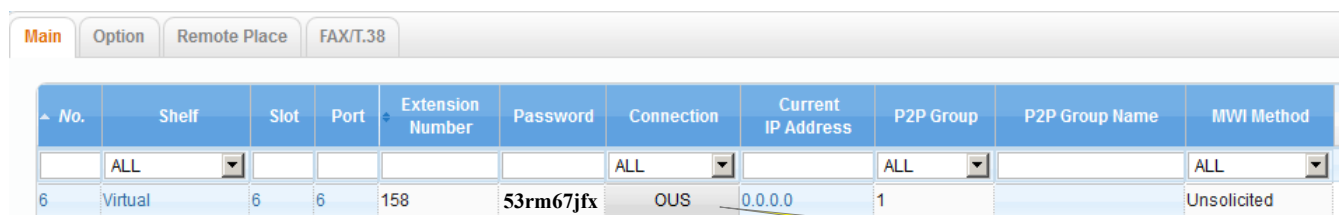
Now Out of Service

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

Page 4

Same screen:

1. Click here...

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

Main Option Remote Place FAX/T.38

Next screen:

1. Click here...

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	Local
7	Virtual	6	7	159		Fault	Local
8	Virtual	6	8	160		Fault	Remote (MRG)
							Local

2. Select Remote (MRG)

MRG=Media Relay Gateway

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)

It will look like this when done...

View 1-20 of 32

OK   Cancel   Apply

3. Click here...

Page 5

Same screen:

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 ✖

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.

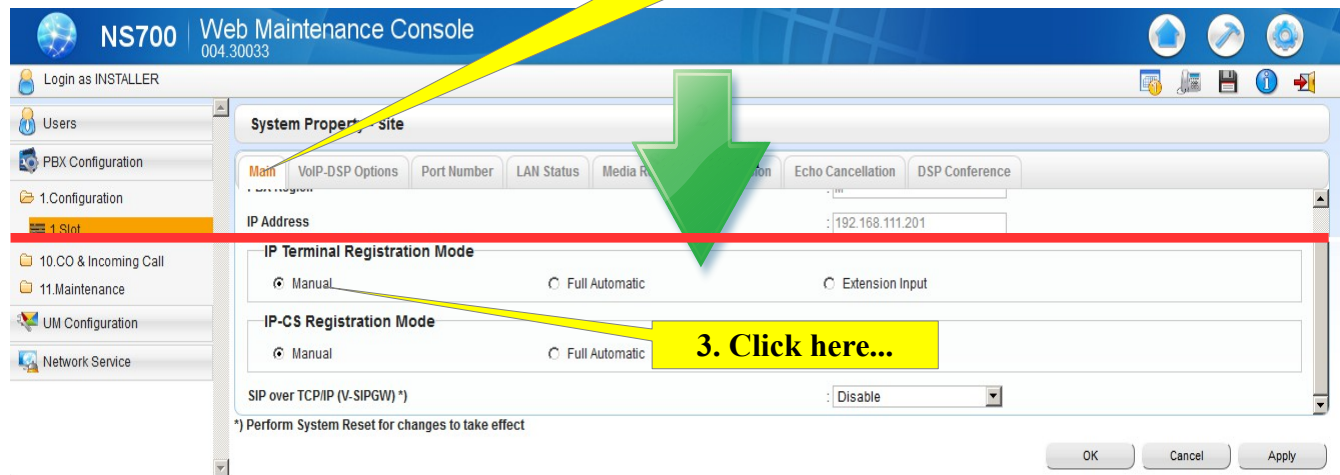**There are more areas in the programming that need to be done.**

Set Media Relay Gateway (MRG) values:
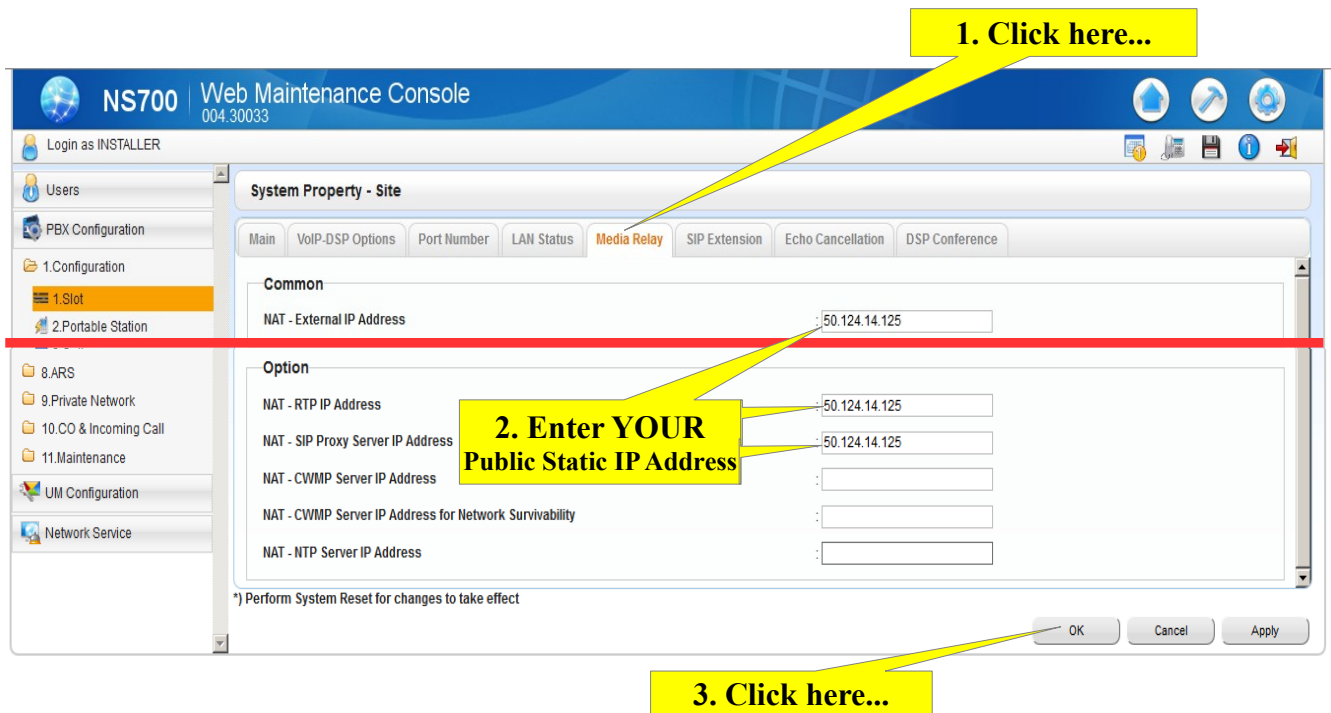

1. Click here...

2. Mouse Over...

3. Click here...

Next screen: It is cut down to save space.

1. Click here...

3. Click here...

Page 7

Next screen: It is cut down to save space.

1. Click here...

NS700 | Web Maintenance Console
004.30033

Login as INSTALLER

Users

PBX Configuration

1.Configuration
    1.Slot
    2.Portable Station

8.ARS
9.Private Network
10.CO & Incoming Call
11.Maintenance

UM Configuration

Network Service

System Property - Site

Main | VoIP-DSP Options | Port Number | LAN Status | Media Relay | SIP Extension | Echo Cancellation | DSP Conference

Common

NAT - External IP Address   50.124.14.125

Option

NAT - RTP IP Address   50.124.14.125

**2. Enter YOUR
Public Static IP Address**

NAT - SIP Proxy Server IP Address   50.124.14.125

NAT - CWMP Server IP Address   :

NAT - CWMP Server IP Address for Network Survivability   :

NAT - NTP Server IP Address   :

*) Perform System Reset for changes to take effect

OK   Cancel   Apply

3. Click here...

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.

Note:
This only needs to be done if you <u>do not</u> use the VPN method on Page 13

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.
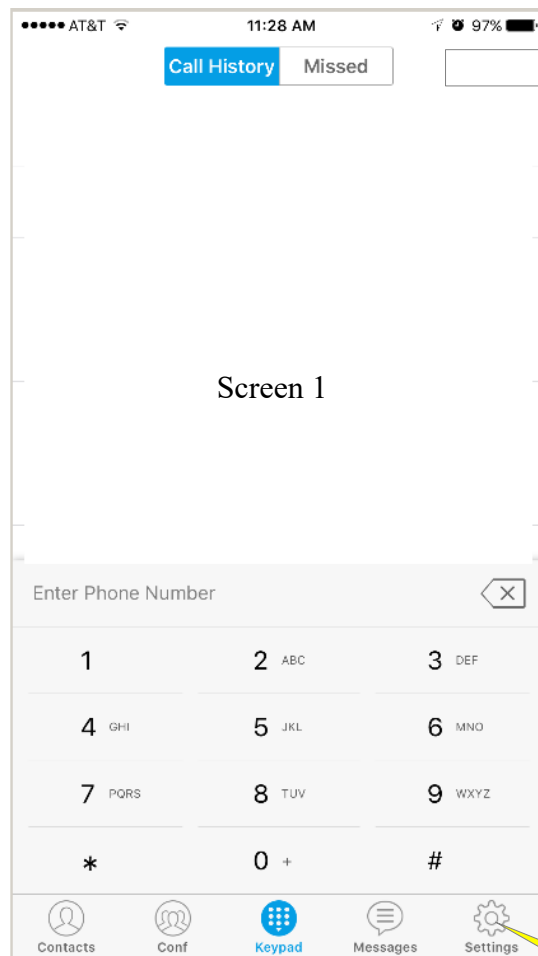
Grandstream Wave Soft Phone for Iphone Setup

Go to the App Store and search for Grandstream Wave

Download, Install and run the app. in your Iphone

Here are screen shots of how I set mine to work with the Panasonic KX-NS700 KSU

Some screens may have changed since this was written in 2/2016
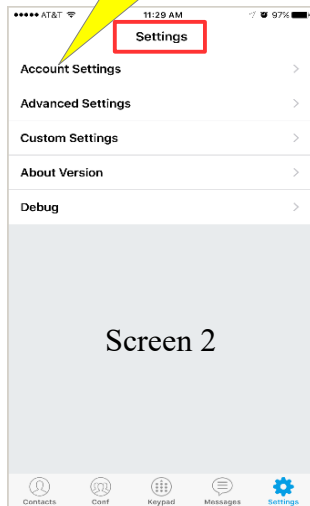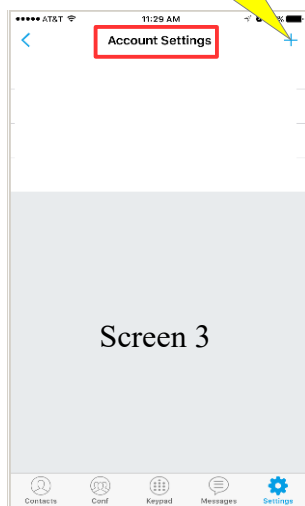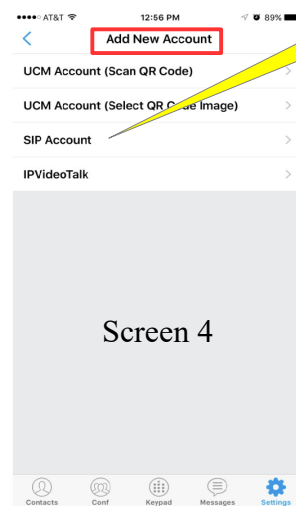
First screen:

Enter Credentials

1. Touch here...

2. Touch here...

3. Touch here...

Screen 2

Account Settings
Advanced Settings
Custom Settings
About Version
Debug

Screen 3

Account Settings

Screen 4

Add New Account
UCM Account (Scan QR Code)
UCM Account (Select QR Code Image)
SIP Account
IPVideoTalk

4. Enter all 7 Credentials...

These are EXAMPLE credentials... Yours may very well be different....

Add New Account
Account Name — 158
SIP Server — LAN IP Address of KSU
SIP User ID — 158
SIP Authentication ID — 158
Password — Same as Page 3
Display Password
Voicemail UserID — 158
Display Name — 158
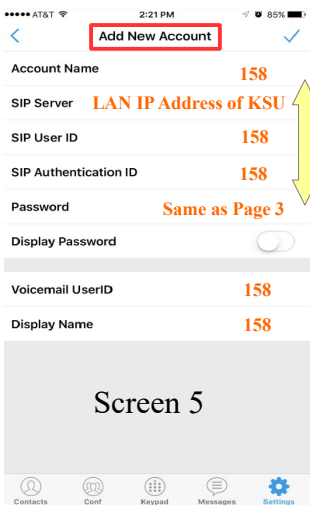
Screen 5

Note: SIP Server is the LAN IP Address of the KSU
NOT the LAN DSP IP Address of the KSU

5. Touch here...

Add New Account
Account Name — 158
SIP Server — LAN IP Address of KSU
SIP User ID — 158
SIP Authentication ID — 158
Password — Same as Page 3
Display Password
Voicemail UserID
Display Name
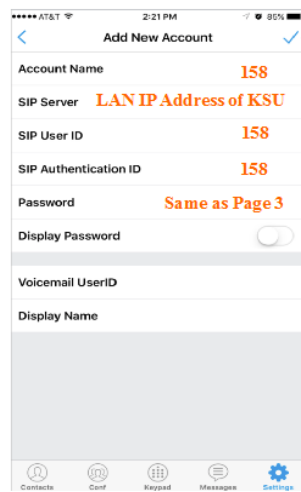
6. Touch here...

You will see a screen similar to this:

Scroll down...

Screen 8

Screen 7

Screen 8

Screen 9

9. Touch here...

50.124.14.125:15060
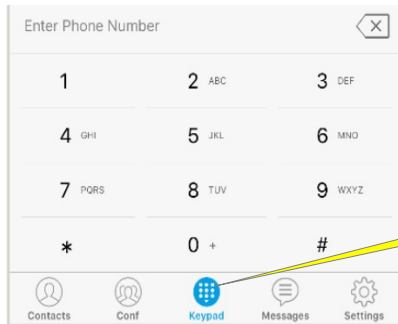
Outbound Proxy
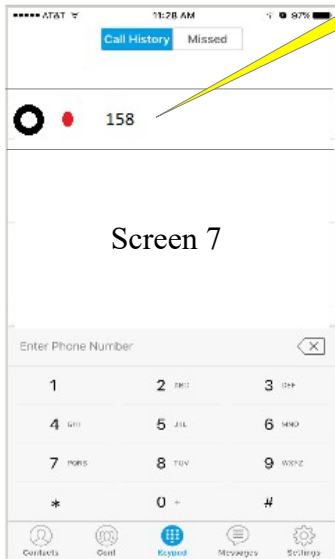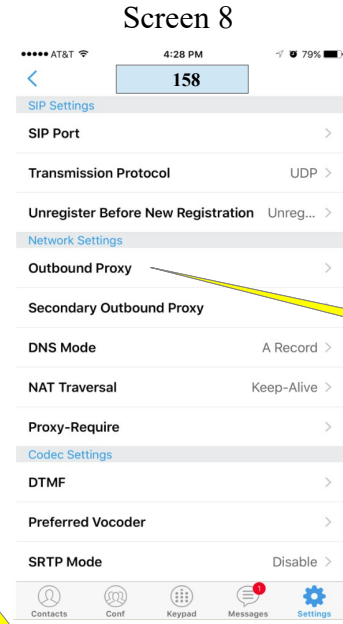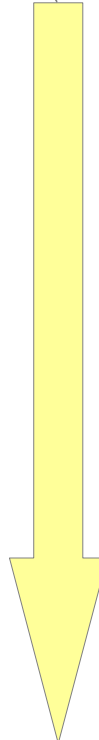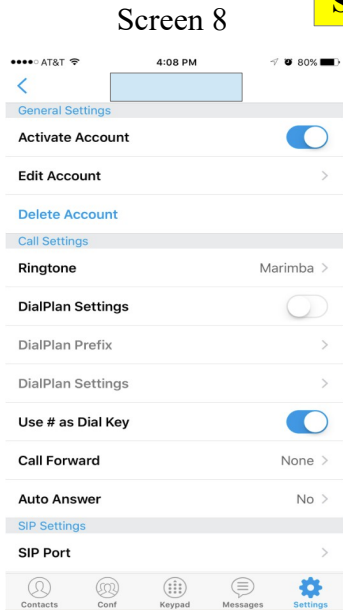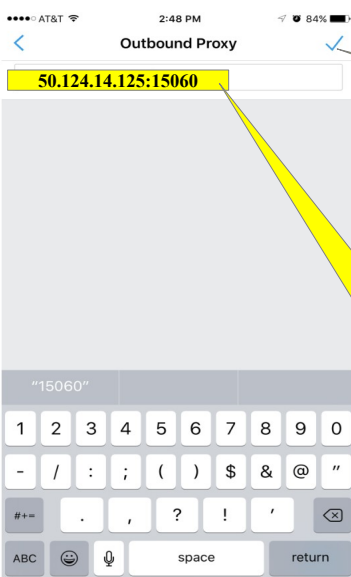
7. Touch here...

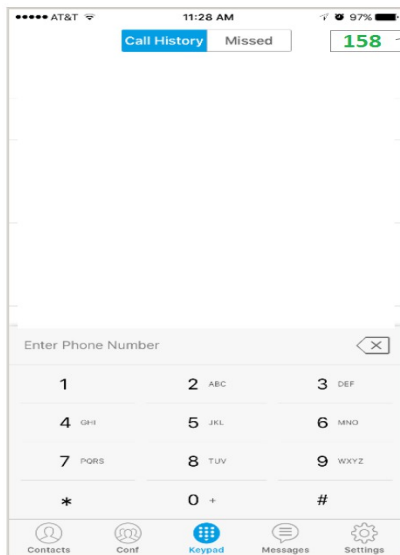**8. Enter the same Public Static IP Address as you did in Page 7 Followed by :15060**

Screen 10

10. Touch here...

If everything works, then you will see a small icon and your extension number here in Green.

Screen 11

This is where the LAN IP Address is for the KSU and DSP Card

We can not provide any additional Tech Support beyond what is found in these Help Sheets.

Note:
Even if you have everything set correctly, it may not work.

This is due to the many different types of routers and 3G/4G/LTE Networks.

Some LANS may block SIP and RTP (Voice) from working completely.

It may work in one location and then 50 feet away it may not.

You can avoid this possible problem by using a router, at the KSU location, that has a VPN (Virtual Private Network) feature.

The Iphone (at least my Iphone 6) has a built in VPN Client that can connect to the router at the KSU location.

This method, VPN, will almost always work and has the added benefit of encrypting your conversations.