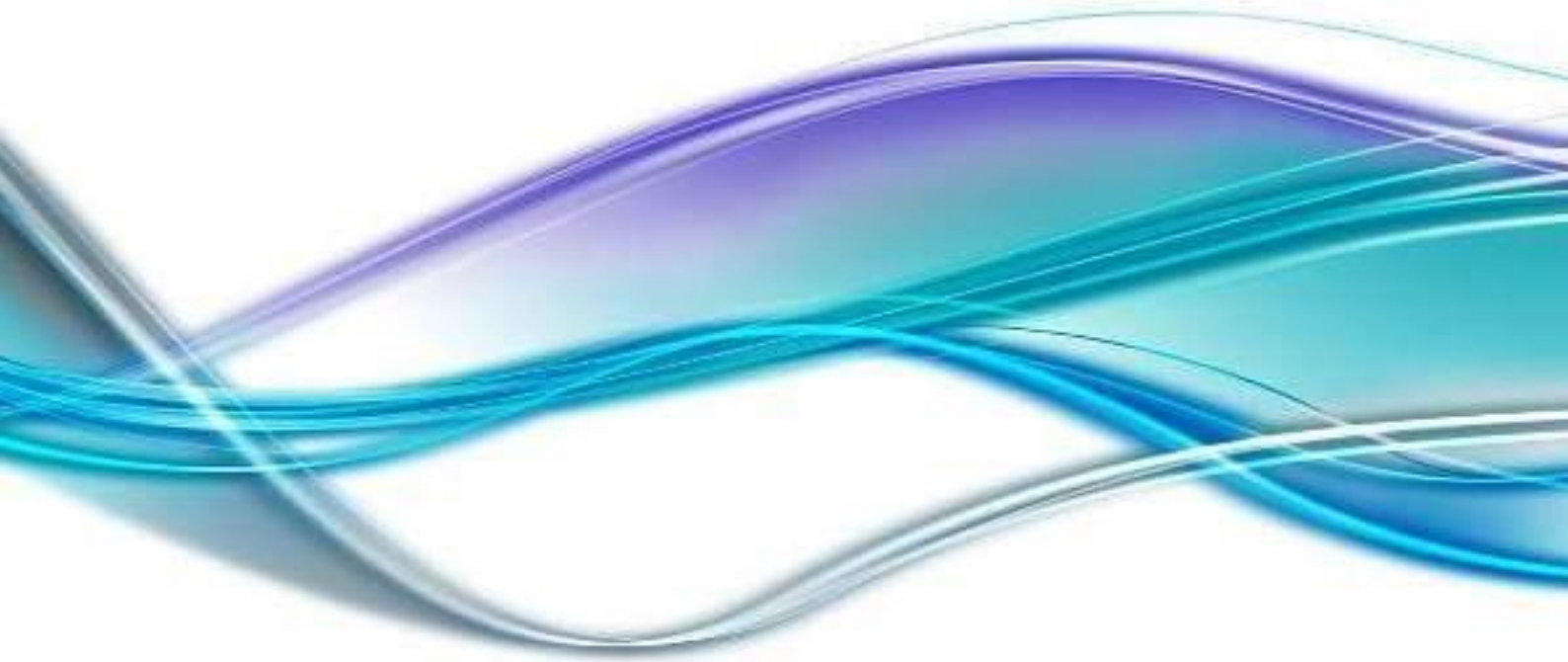
Setup Reference guide for KX-NS1000 (Tested with NS1000 Ver6.01) "British Telecom H-SIPT" trunk service with Built-in Router



Panasonic

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◆ SUMMARY

This document is a reference for configuring "**BT H-SIPT**" SIP trunks onto KX-NS1000 systems and includes the settings required for Incoming Call DDI routing and Outgoing Call CLI presentation.
SIP trunk specific account details are provided to you by **British Telecom**.

◆ Attention:

This document was created based on the results of test environment accounts.
Panasonic cannot guarantee SIP Trunk operation in all environments, however as a result of completing this Inter-Operability Test Panasonic will provide technical support for any issues experienced an assist as far as possible in providing a resolution.
Please obtain relevant information from Service provider before configuration of SIP trunks.
Panasonic will not be held liable for any information provided in this guidance document.
Information used in this document is for interoperability testing.
Information and Specifications in this document are subject to change without notice.

◆ Note

NS Series v6.01 Firmware is essential for correct operation of BT H-SIPT Trunks. Special Bit programming is also required – see section (3).

Sales Company Login mode required for Special Bit programming

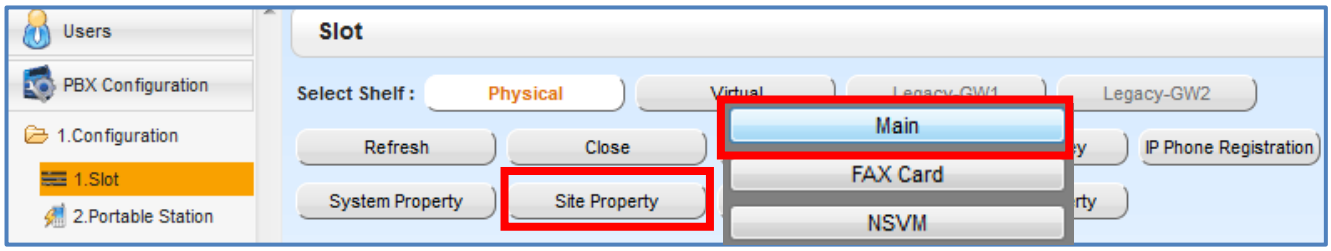
P-Asserted-Identity (PAI) Header is required

Configure the PAI to enable – see section (4)

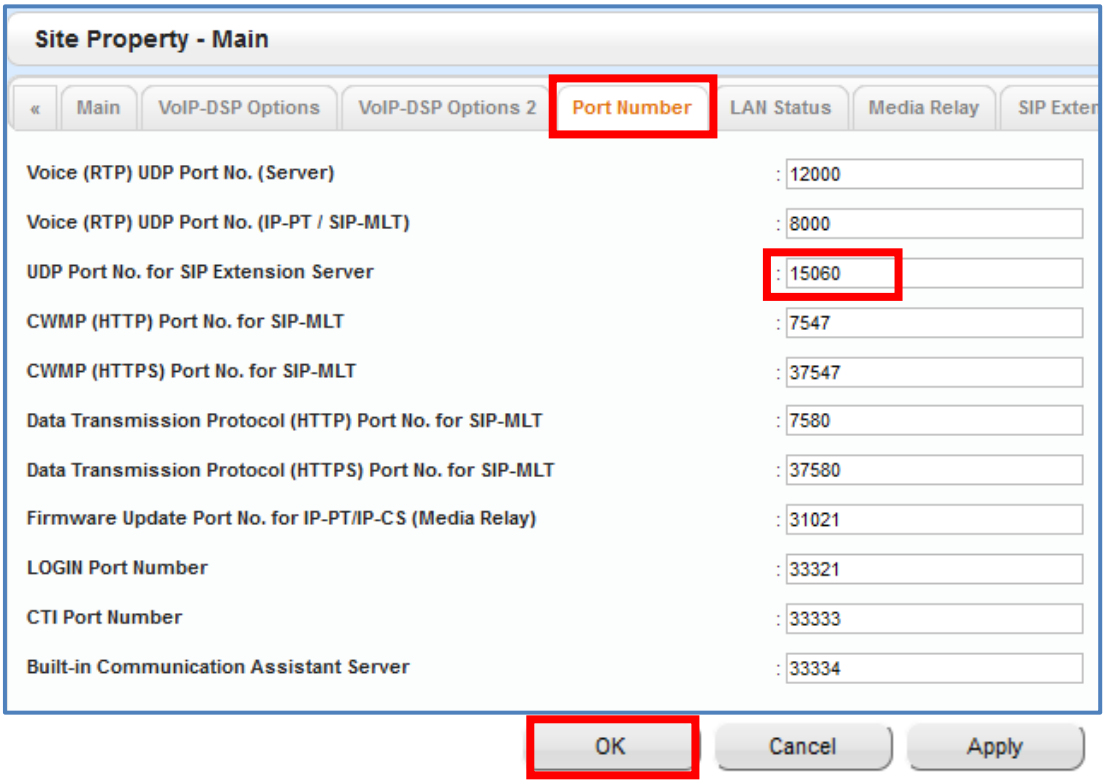
◆ Table of Contents

(1) SIP Trunk and Extension Port Number Configuration

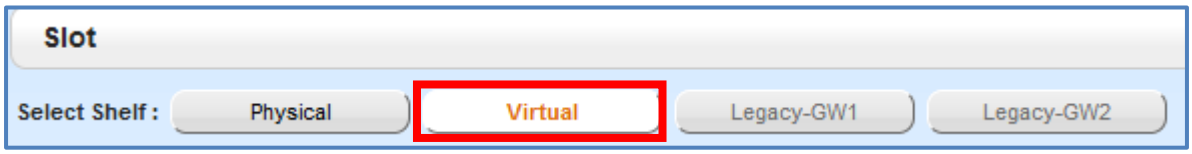
Go to **[1.Configuration - 1.Slot]** hover over **[Site Property]** and select **[Main]**.



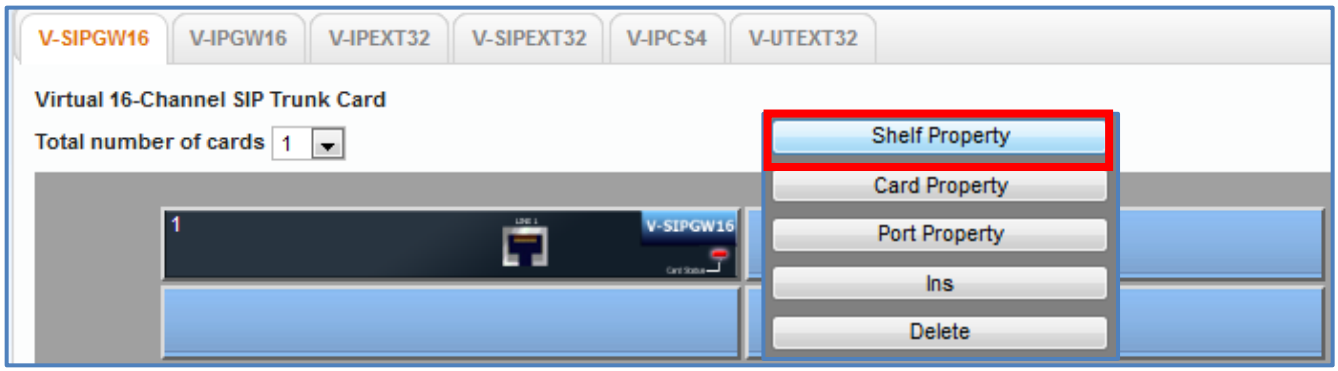
Click **[Port Number]** tab and change **[UDP Port No. for SIP Extension Server]** (Default: 5060) to a different value *(e.g.15060)* and click **[OK]**.



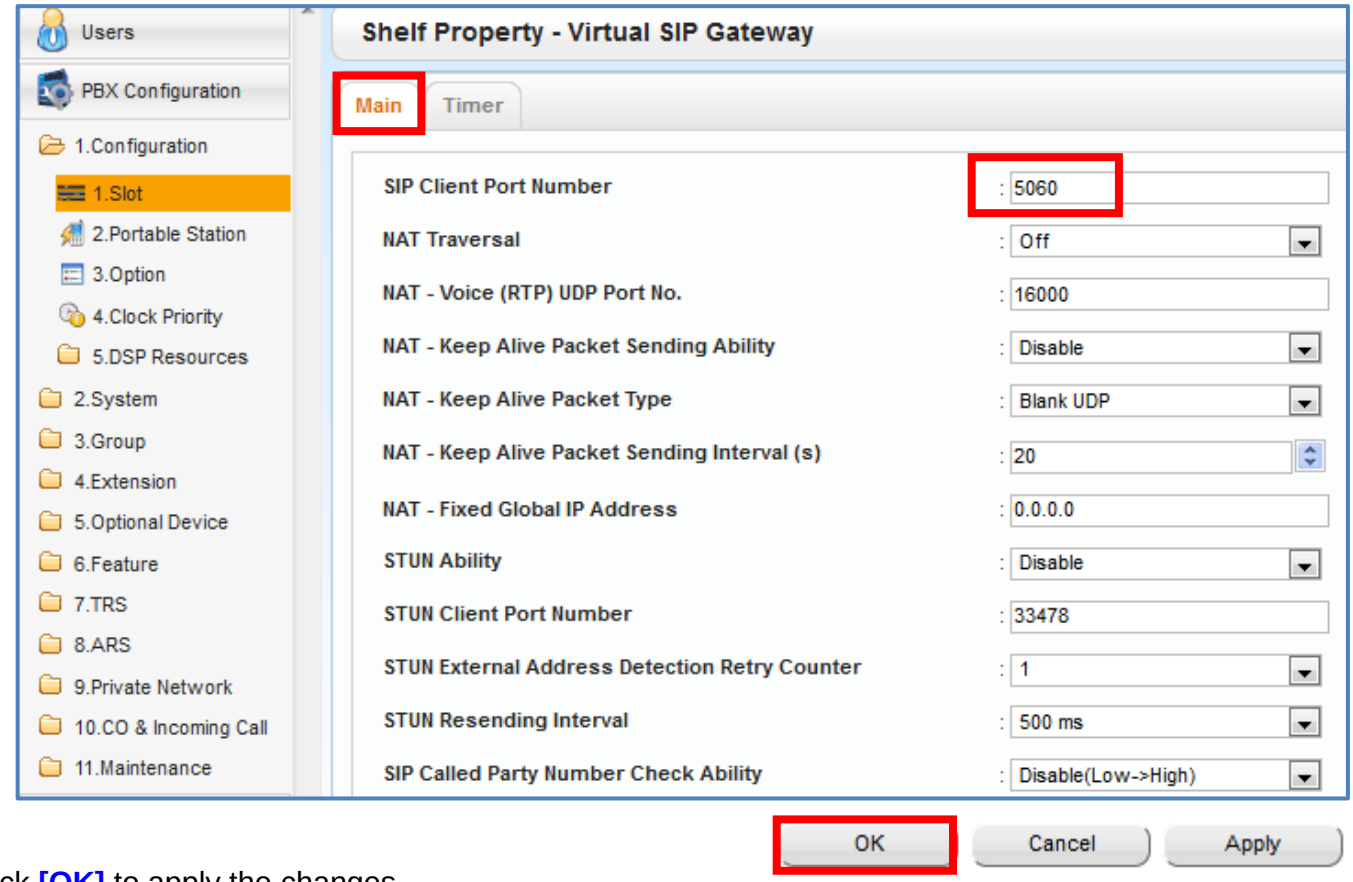
Go to **[1.Configuration - 1.Slot]** Select **[Virtual]**



First, place the **V-SIPGW16** Card into **[OUS]** condition.
Hover over **[V-SIPGW16]** and click **[Shelf Property]**.



Select **[Main]** tab and change the one item.
[SIP Client Port Number] (Default: 35060) to ***5060***



Click **[OK]** to apply the changes.

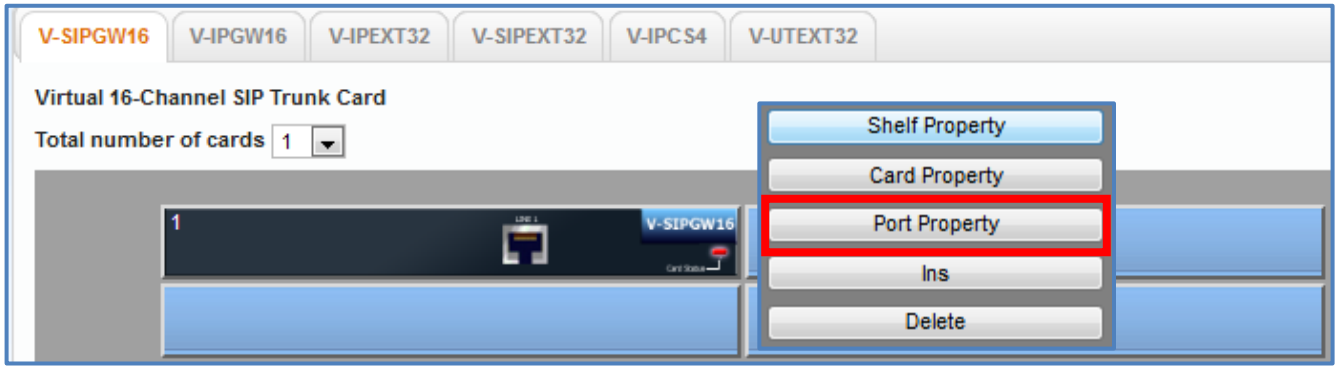
Note: Need to Save the System data and Restart the PBX after making these port changes.

(2) Provisioning the SIP Trunk

V-SIPGW – Port Property

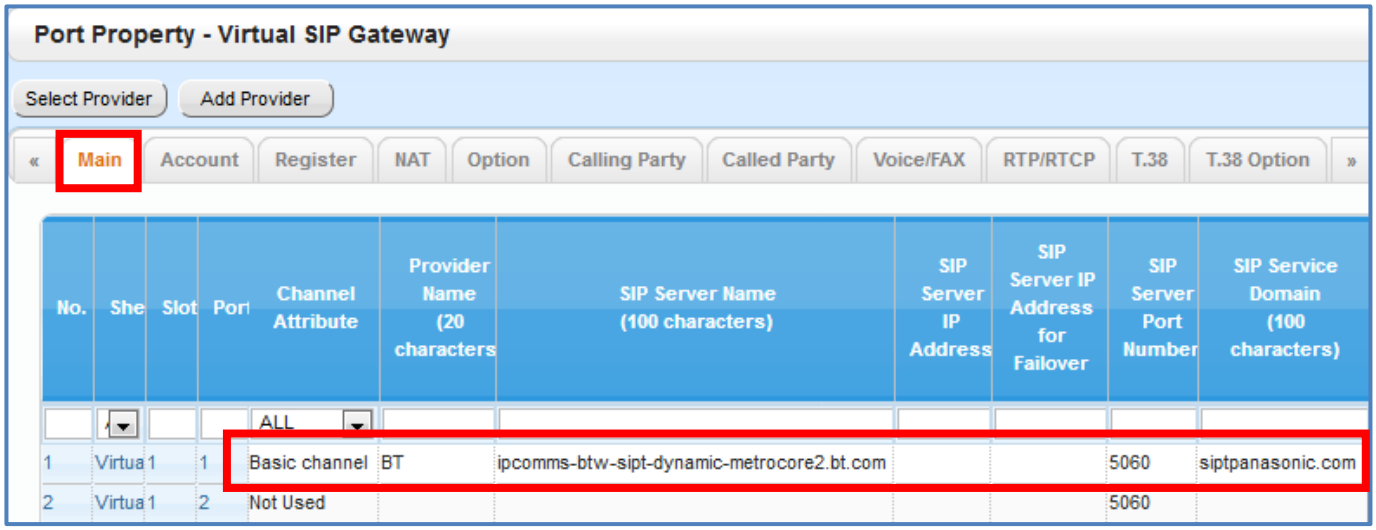
Go to **[1.Configuration - 1.Slot]** Select **[Virtual]**

Hover over **[V-SIPGW16]** and select **[Port Property]**



[Main] Tab

1. **Channel Attribute:** ***Basic Channel***
2. **Provider Name:** ***Enter a name – reference only***
3. **SIP Server Location - Name:** ***ipcomms-btw-sipt-dynamic-metrocore2.bt.com***
4. **SIP Server IP Address:** *Not required*
5. **SIP Server IP Address for Failover:** *Not required*
6. **SIP Server port Number:** *Leave at 5060*
7. **SIP Service Domain:** ***siptpanasonic.com***
8. **Subscriber Number:** *Not required*



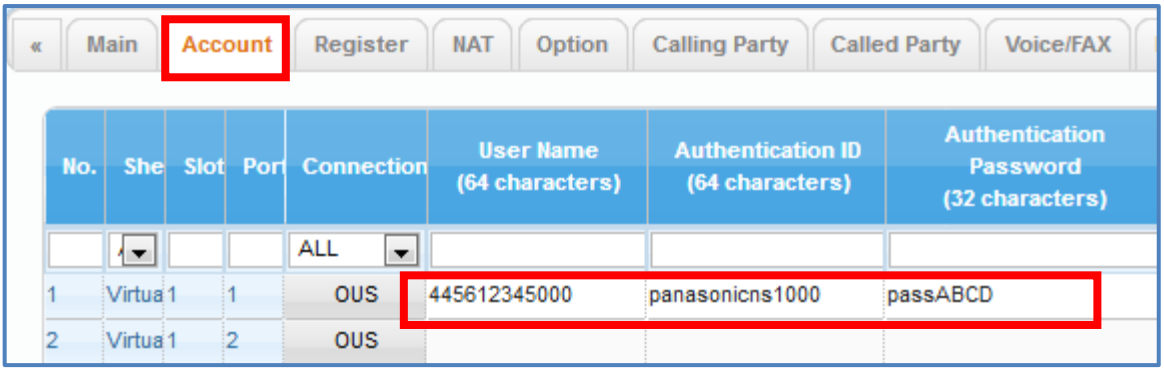
SIP Trunk – Port Property continued

[Account] Tab

1. User name: *Enter the Pilot number as supplied by BT.*
(Note this is pilot number without @ siptpanasonic.com)
For example: Pilot number = 445612345000
Enter: 445612345000

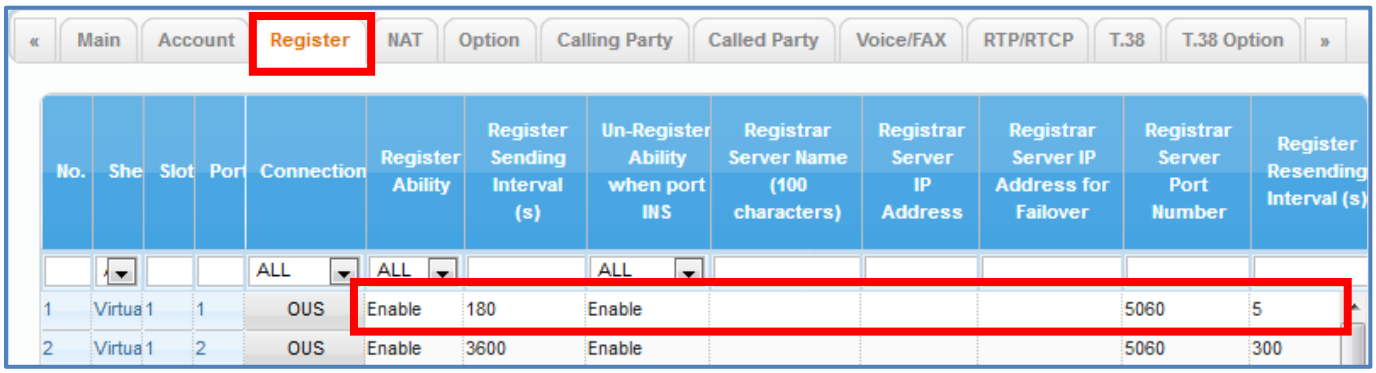
2. Authentication ID: *Enter the Authentication username as supplied by BT.*
(Note this is username without @ siptpanasonic.com)
For example: Authentication username = panasonicns1000
Enter: panasonicns1000

3. Authentication Password: *Enter the password as supplied by BT.*
For example: password = passABCD
Enter: passABCD



[Register] Tab

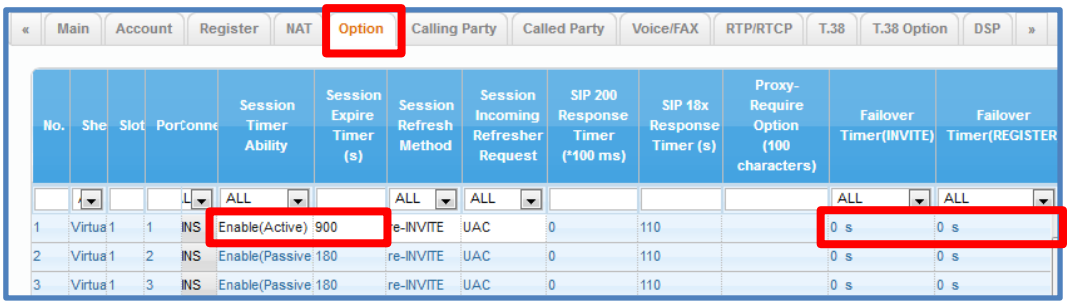
1. Register Ability: *Leave enabled*
2. Register Interval: ***180***
3. Un-Register Ability: *Leave enabled*
4. Registrar Server - Name: *Not required*
5. Registrar Server IP Address: *Not required*
6. Registrar Server IP Address for Failover: *Not required*
7. Registrar Server port number: *Leave at 5060*
8. Registrar Resending Interval(s): ***5***



Click **[Apply]** to apply the changes.

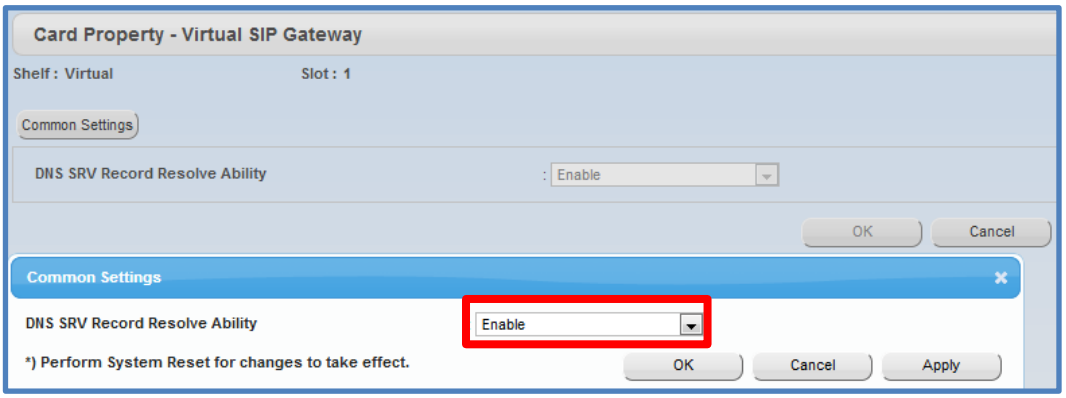
[Options] Tab

1. **Session Timer Ability:** ***Enable(Active)***
2. **Sessions Expire Timer:** ***900***
3. **Failover Timer (INVITE):** ***Leave at 0 (IMPORTANT)***
4. **Failover Timer (REGISTER):** ***Leave at 0 (IMPORTANT)***



Click **[Apply]** to apply the changes.

NOTE: do not change the Card Property > Common Settings DNS SRV Record Resolve Ability



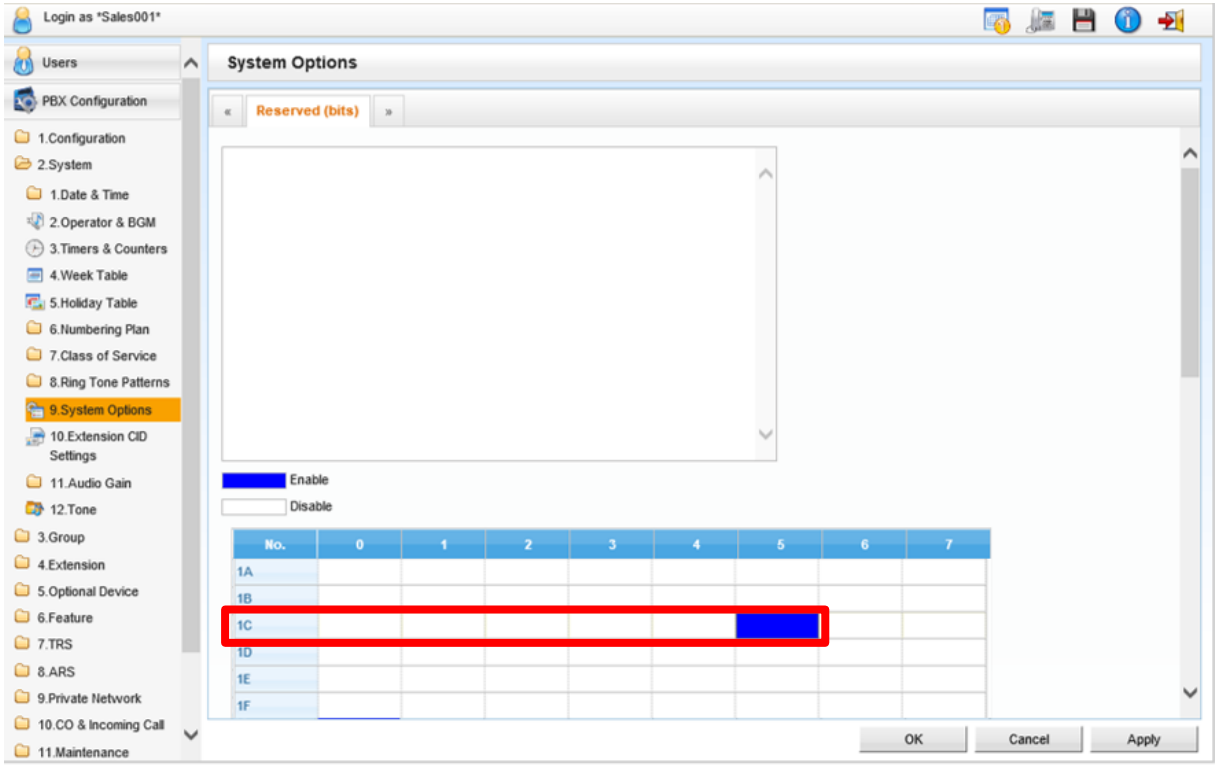
(3) Special Bit Programming

When using BT H-SIPT trunk service, the PBX needs to be configured with a specific Special Option Bit to modify the behavior of the Session Refresh mechanism.

Login to the PBX in Sales Company Mode: *Sales001* (for details contact Technical Support).

2. System > 9. System Options > Reserved (bits)

Scroll down to row 1C and click the box in column 5 to **[Enable]** the Special Bit.



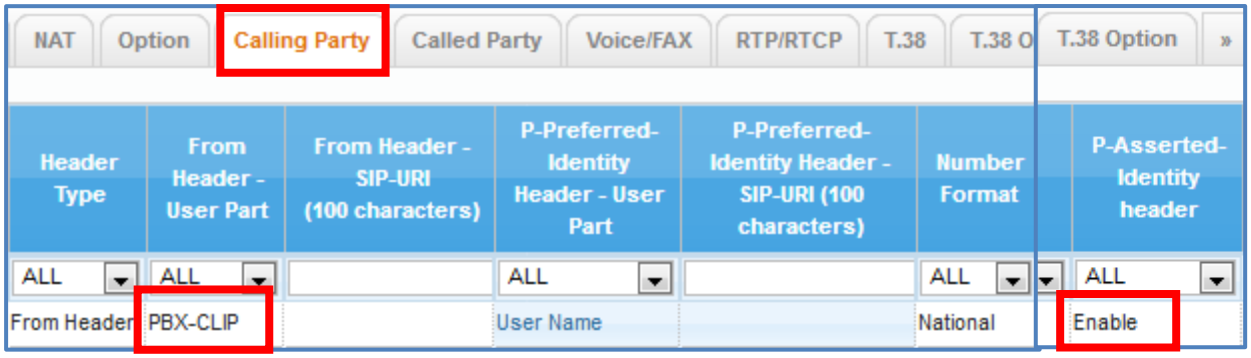
Click **[OK]** to apply the changes.

(4) Outgoing Call CLI

Select **[Calling Party] Tab**

From Header - User Part: ***PBX-CLIP***

P-Asserted-Identity header: ***Enable***



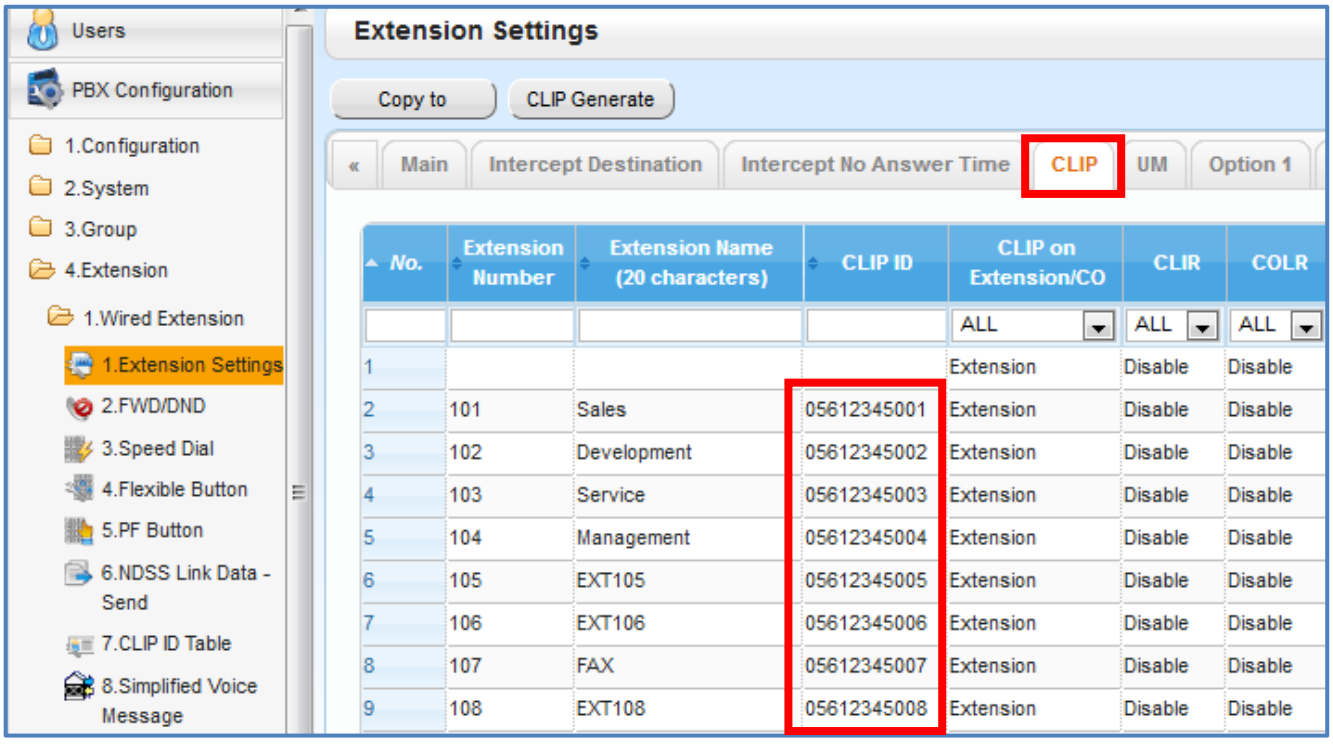
Click **[OK]**.

Select **[INS]** on the **[V-SIPGW16]** card to bring the SIP trunk ports into service.

Go to **[4.Extension] - [1.Wired Extension] - [1.Extension Settings]** and select **[CLIP] tab**

Enter a valid CLI number for each required extension in the ***CLIP ID*** field.

1. **Extension Name:** *Enter: Sales*
2. **CLIP ID:** *Enter:* ***05612345001***

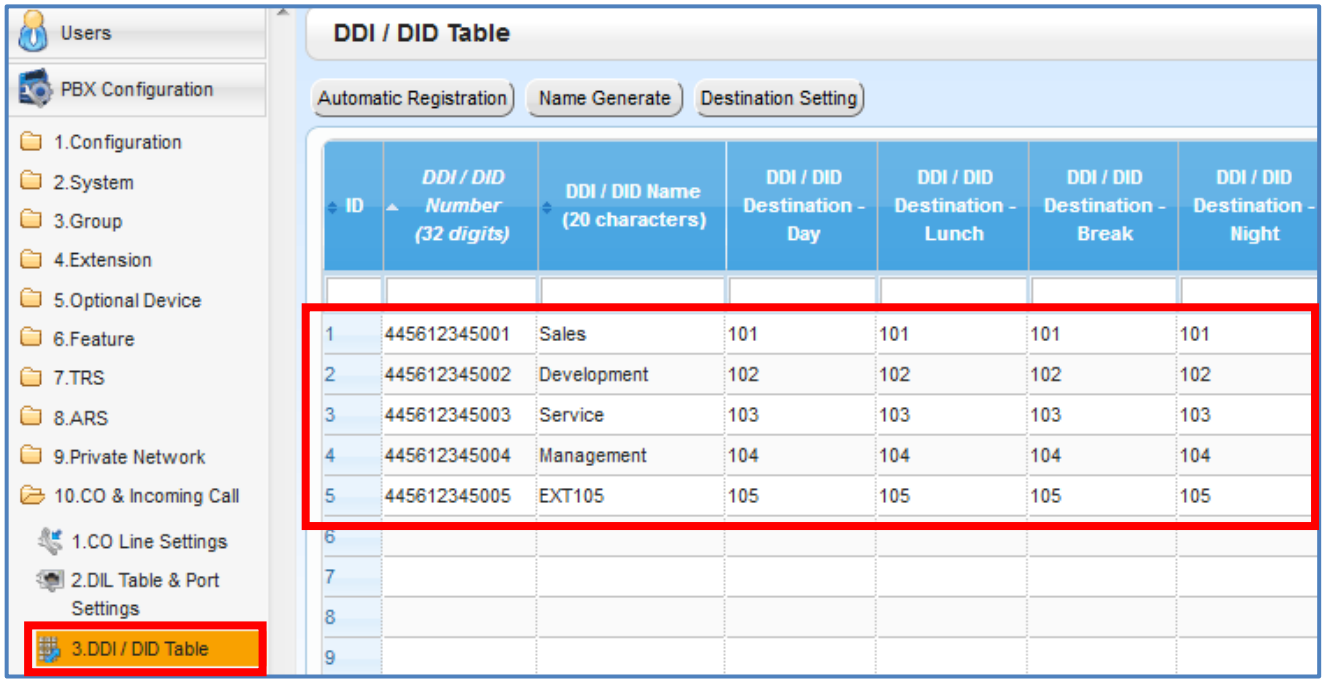


Click **[OK]**

(5) Incoming Call Routing

Go to **[10.CO & Incoming call]** and select **[3.DDI /DID Table]**

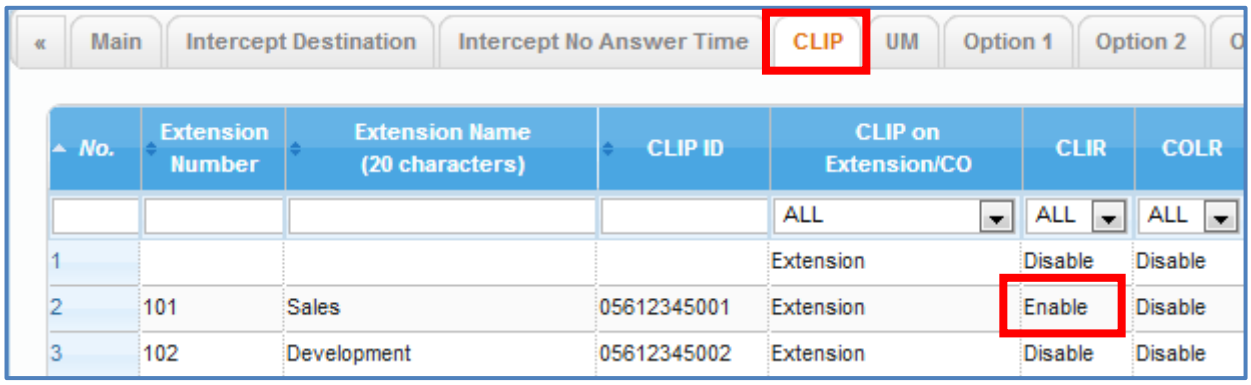
1. **DDI/DID Number:** *Enter the DDI number in the format (as below)*
   Example: 05612345001
   *Enter: **445612345001***
2. **DDI/DID Name:** *Determined by the installer (optional setting)*
3. **DDI/DID Destination:** *Determined by the installer (extension number, group etc)*



Click **[OK]**

(6) CLIR Outgoing Call (Withholding Number)

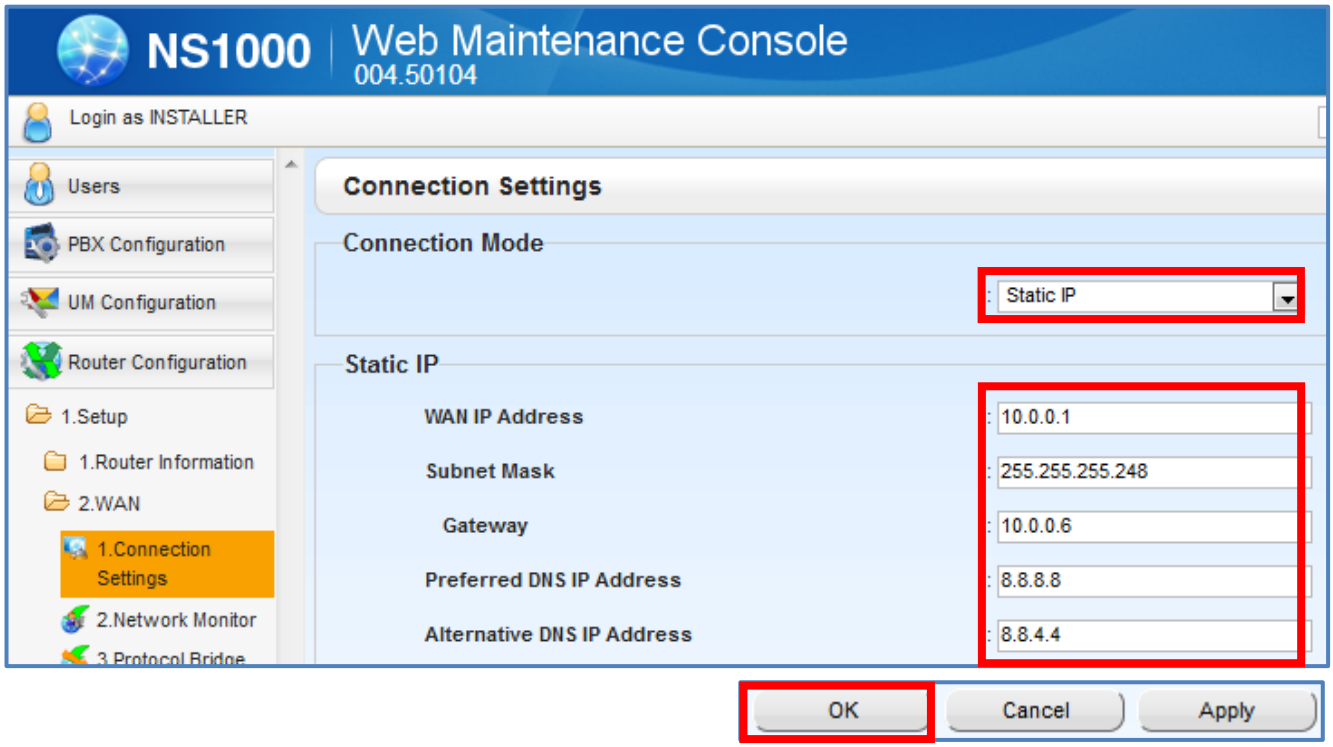
Go to **[4.Extension] - [1.Wired Extension] - [1.Extension Settings]** and select **[CLIP] tab**
Under **CLIR:** select ***Enable*** and Click **[OK]**.



(7) Built-in Router and WAN Settings

NS1000 has a Built-in Router and filtering functions (*Ver3.2 or later*) so advanced routing configuration can be managed by the NS1000 and the internet router/modem simply providing internet access.

Go to **[Router Configuration] - [1.Setup] - [2.WAN] - [1.Connection Settings]**



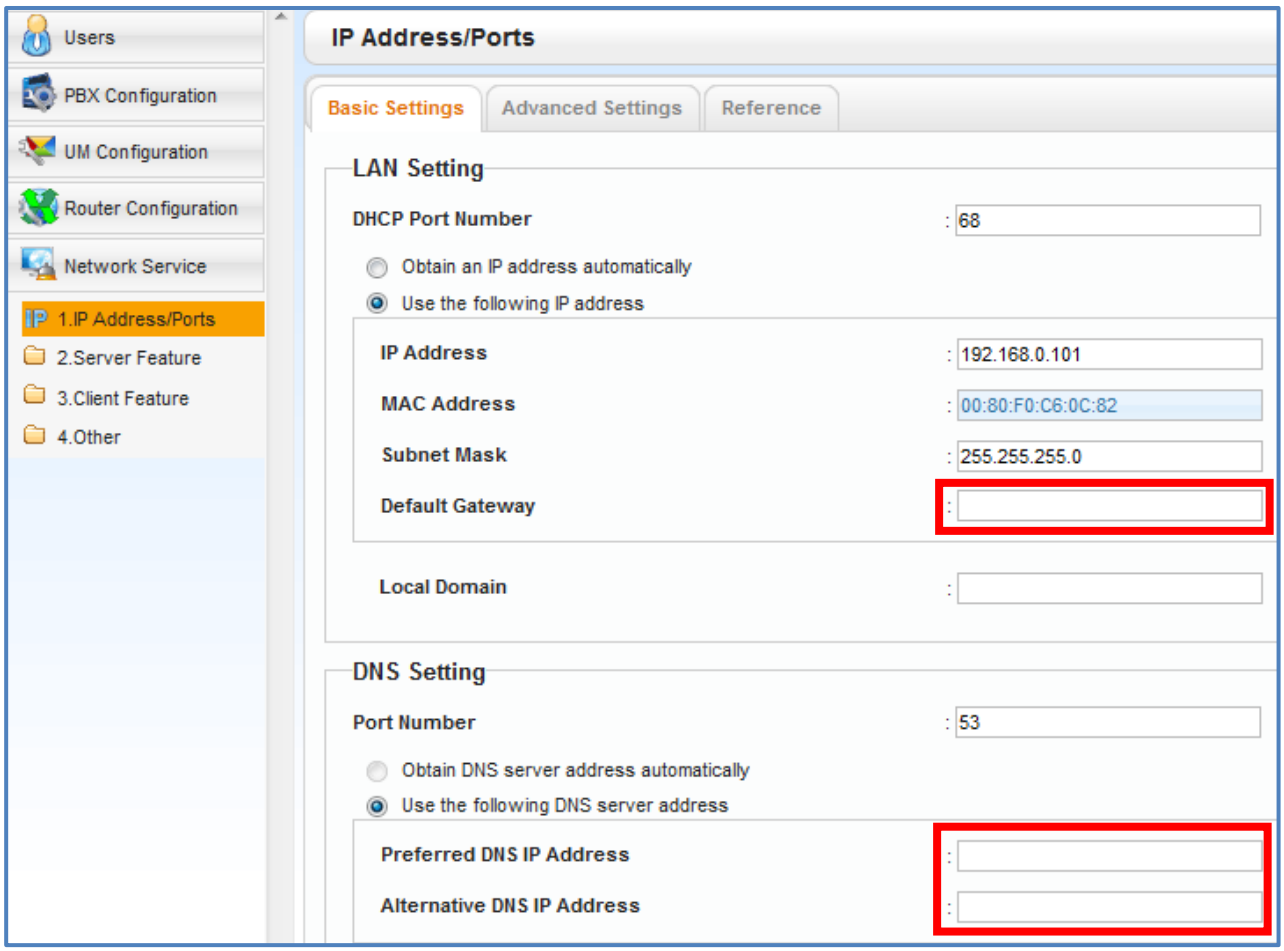
Connection Mode: *Select the appropriate the Connection Type.*
In this example, we use the Static IP address option.

WAN IP Address: ***Enter your actual IP address.***
Subnet Mask: ***Enter the appropriate subnet mask.***
Gateway: ***Enter the actual Gateway IP address.***
Preferred DNS IP Address: ***Enter the actual DNS IP address.***
Alternative DNS IP Address: ***Enter the actual Alternative DNS IP address.***

Click **[OK]**.

LAN Setting.

Go to **[Network Service] - [1.IP Address/Ports]**



Default Gateway: ***Blank***

**** Delete the "LAN Default Gateway IP address" if it's entered IP address.***

Note: NS1000 will work as the router, Not need the LAN Gateway.

DNS IP Address: ***Blank***

**** Delete the "Preferred DNS" and "Alternative DNS" if it's entered IP address.***

Note: To use DNS address entered [Router Configuration], this field must be blank. .

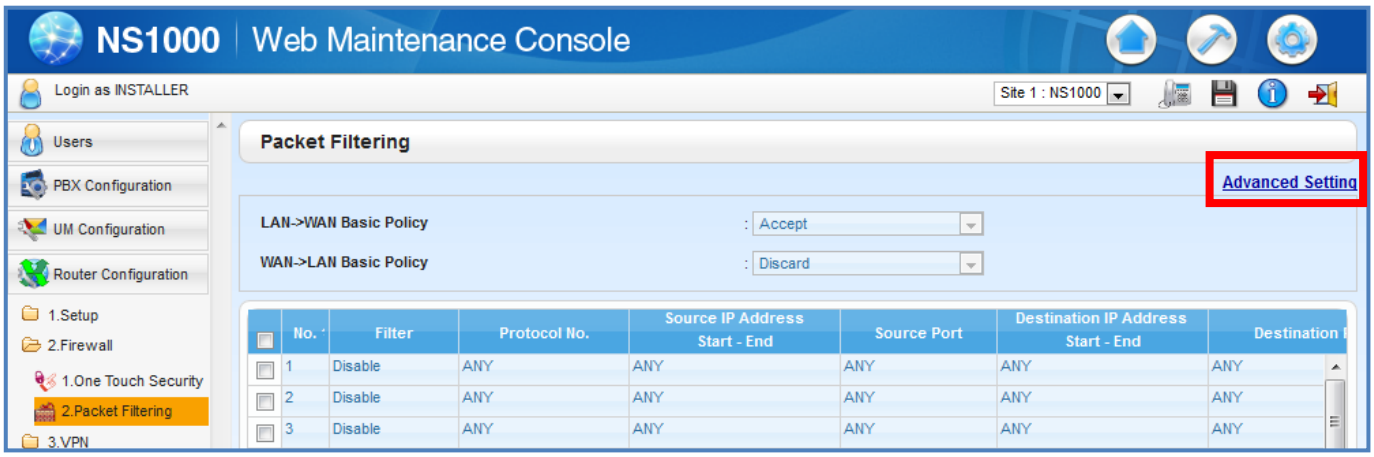
Click **[OK]**.

****Note: Need to Save the System data and Restart the PBX after making these IP changes.***

(8) Packet Filtering Settings

Go to **[Router Configuration] - [2.Firewall] - [2.Packet Filtering]**

Click **[Advanced Setting]**

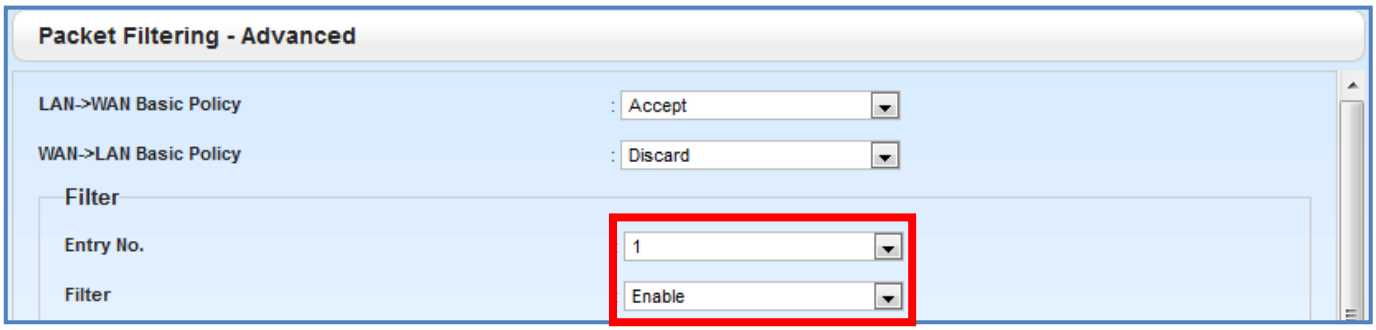


LAN->WAN Basic Policy: *Leave Accept*

WAN -> LAN Basic Policy: *Leave Discard*

Entry No.: ***Select [1]***

Filter: ***Select [Enable]***



Configure Filter 1, this is the setting pass through packet from **British Telecom** server, port 5060.

Protocol Number: ***[Protocol Name]*** *and choose* ***[UDP]***

TCP/UDP Source Port: /Port Number: ***[Port Number] / [5060] - [5060]***

TCP/UDP Destination Port /Number: ***[Port Number] / [5060] - [5060]***

Source: ***[Subnet]***

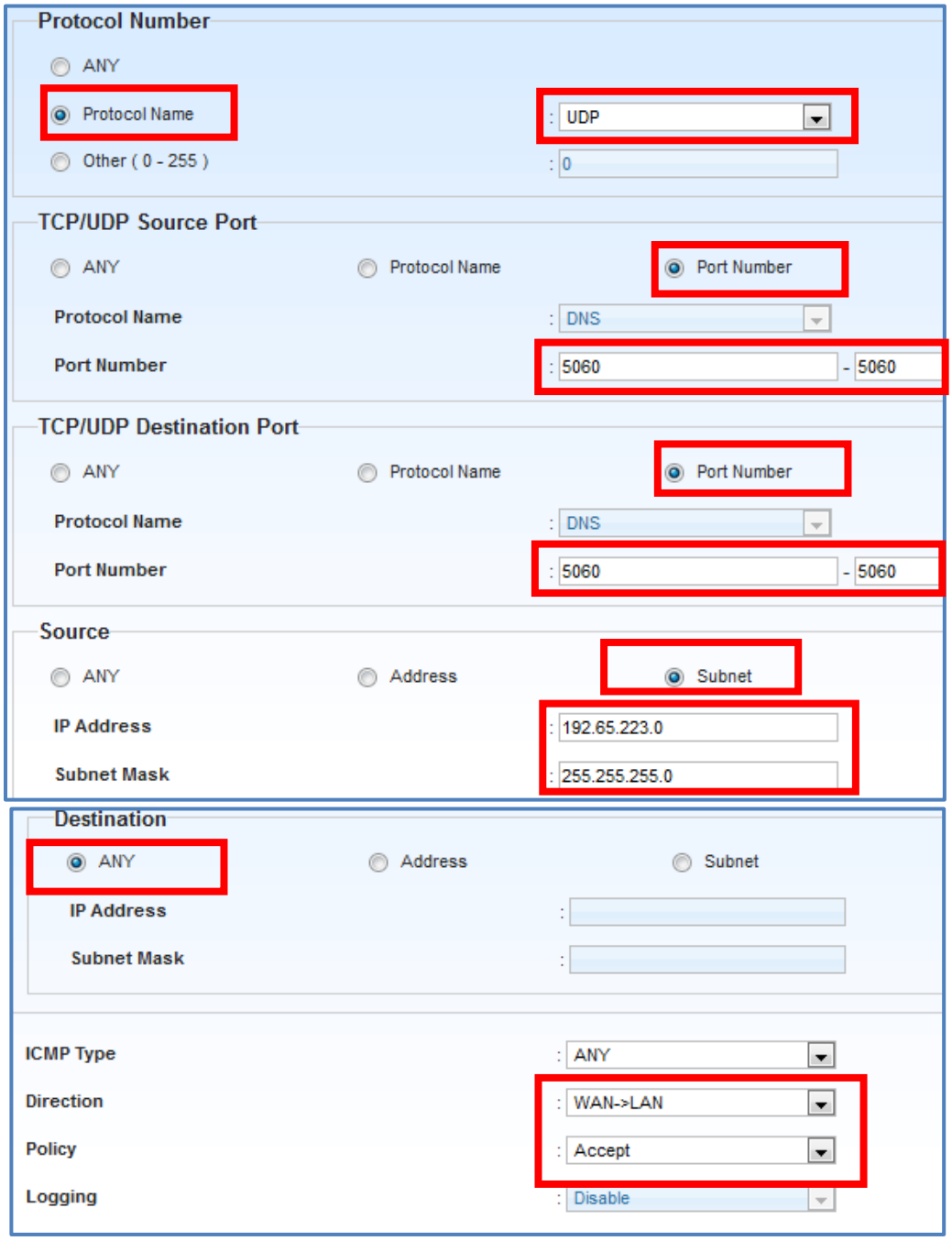
IP Address: ***[192.65.223.0] -Enter assigned Server Network address***

Subnet Mask: ***[255.255.255.0] -Enter assigned Server Subnet Mask***

Destination: ***[Any]***

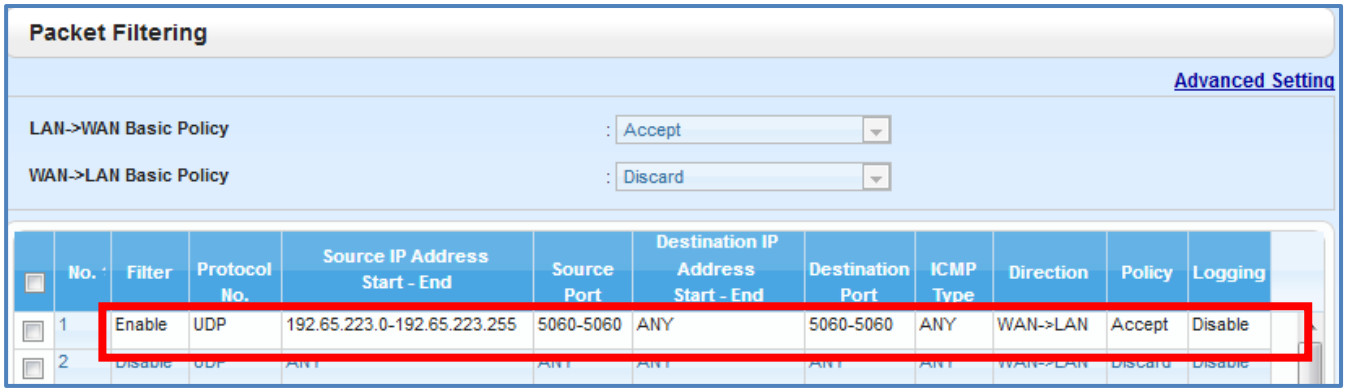
Direction: ***[WAN->LAN]***

Policy: *Leave Accept*



Click **[OK]**

Set Filter 2, this is the setting block packet from except **British Telecom** server port 5060.



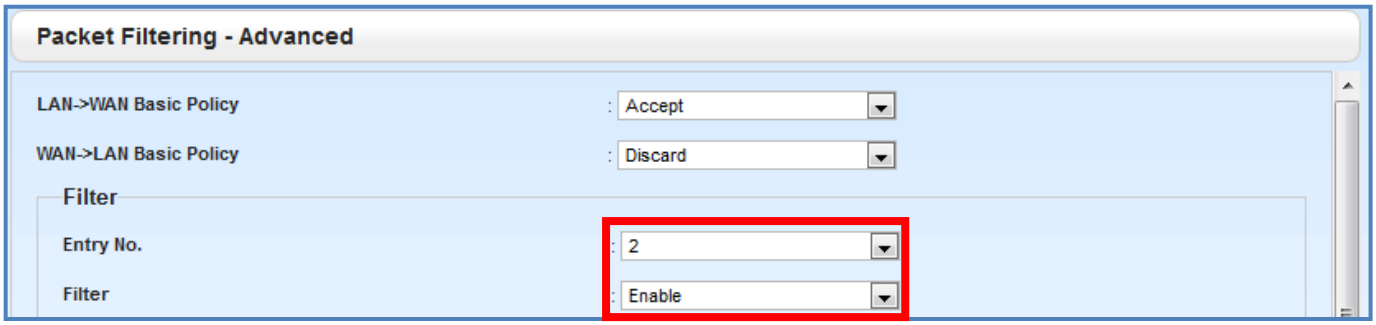
Click **[Advanced Setting]**

LAN->WAN Basic Policy: *Leave Accept*

WAN -> LAN Basic Policy: *Leave Discard*

Entry No.: ***Select [2]***

Filter: ***Select [Enable]***



Protocol Number: *[Protocol Name] and choose [UDP]*

TCP/UDP Source Port: *[Any]*

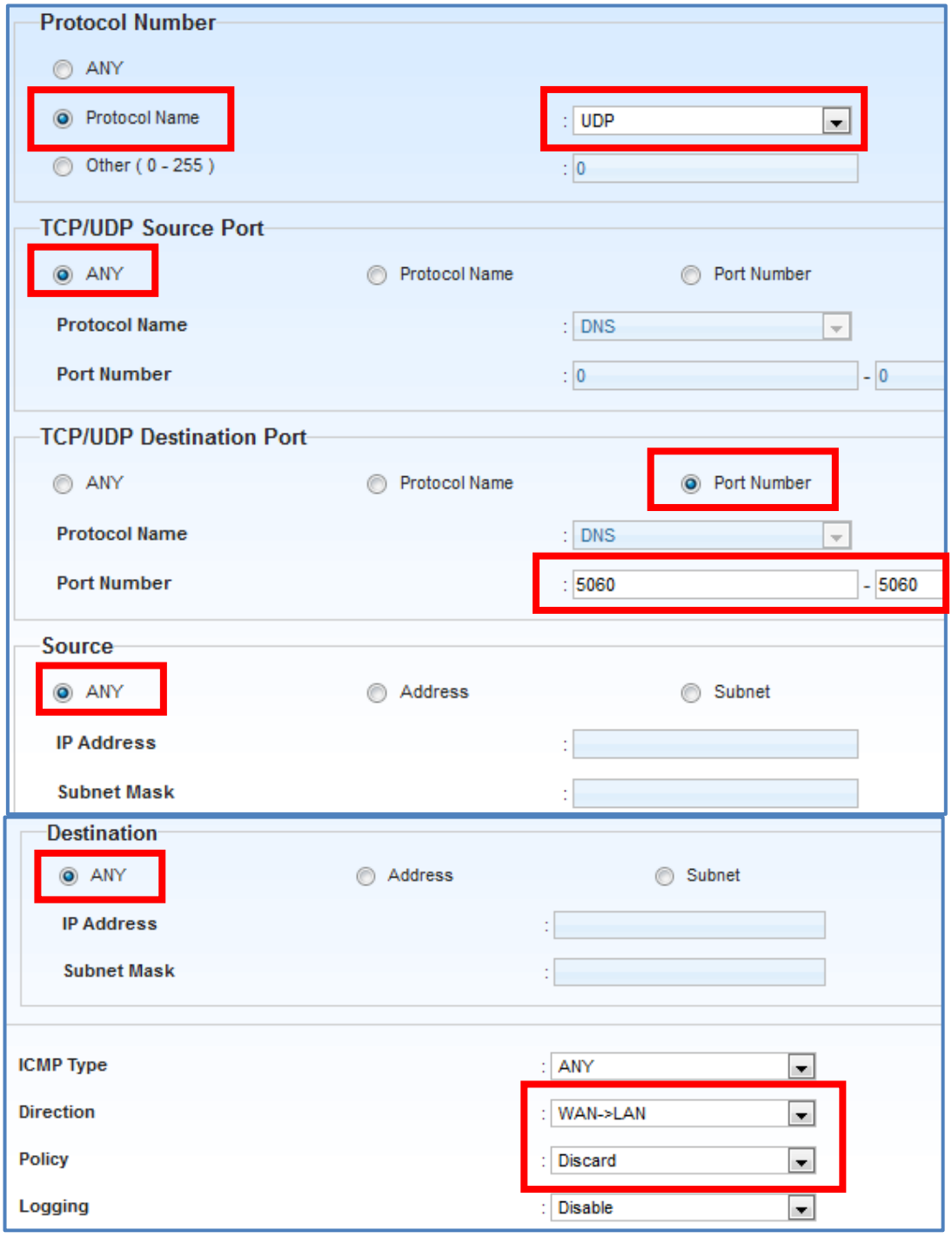
TCP/UDP Destination Port /Number: *[Port Number] / [5060] - [5060]*

Source: *[Any]*

Destination: *[Any]*

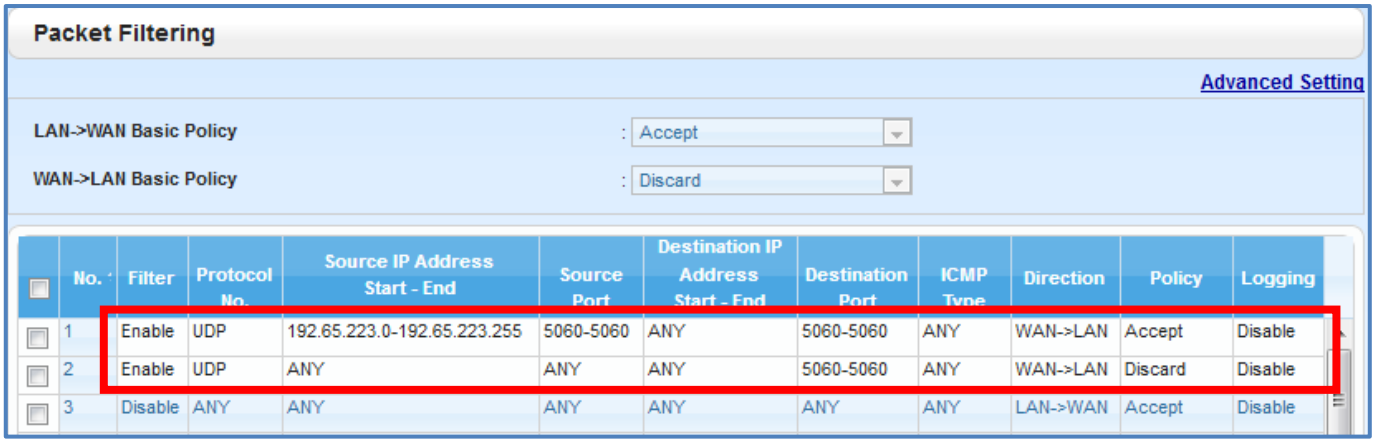
Direction: *[WAN->LAN]*

Policy: *[Discard]*



Click **[OK]** Go to following page.

Confirm the Packet Filtering Settings



Click **[OK]**

IMPORTANT!

To secure the PBX from illegal attacks, please restrict the above port forwarding ports to *only* be accessible from the *British Telecom* source Network / IP addresses.

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