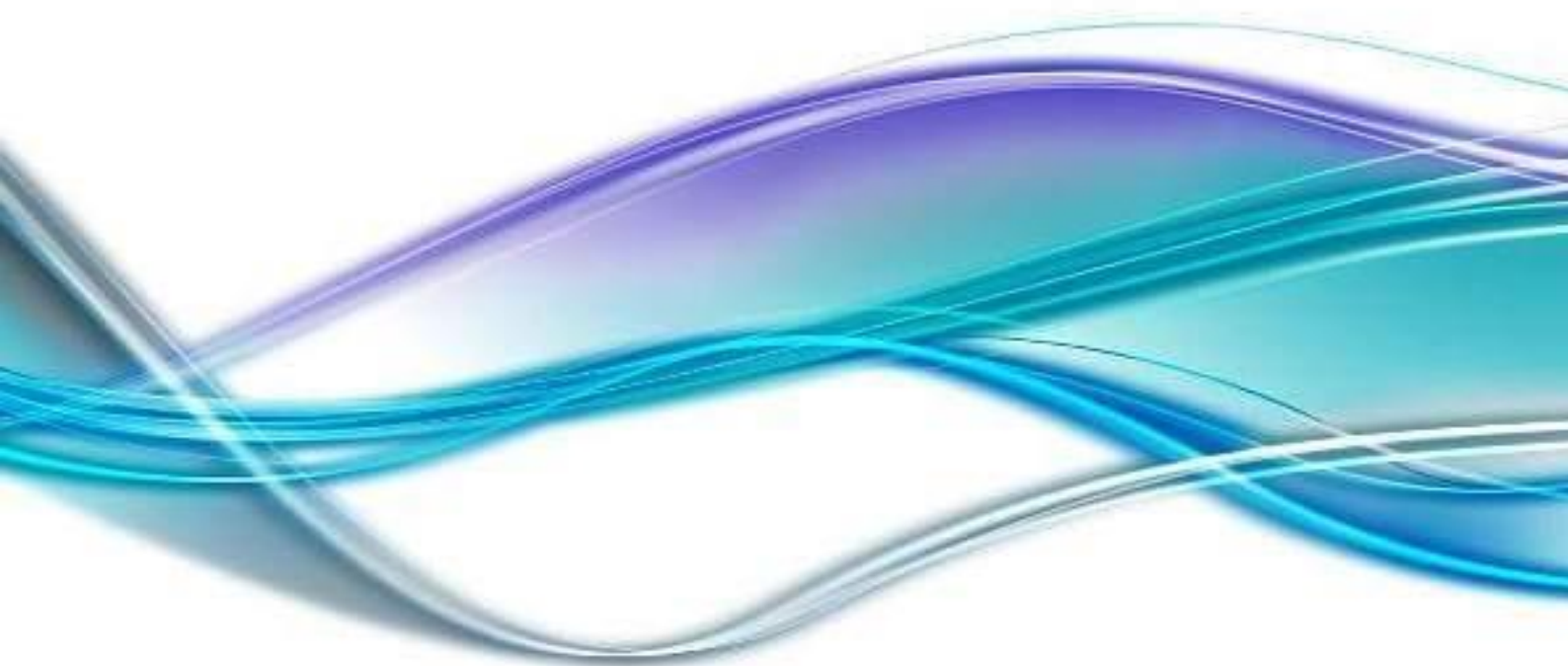


Setup Reference guide for KX-NCP/TDE series
Version 8 Firmware
“British Telecom” SIP Trunk service
(with External Router)



Panasonic

Version 1.0 (PSCEU) 5 October 2015

◆ SUMMARY

This document is a reference for configuring “**British Telecom**” SIP trunks with Panasonic KX-NS Series 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 BT.

The BT Sip services covered by this Inter-Operability Test include:

- **BT Wholesale SIP Trunks (WSIPT)**
- **BT Global Services One Voice SIP Trunk UK**

◆ 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 and 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

SIP Registration

As per British Telecom procedures, the example configurations use a Global IP Address for authentication.

Transfer Function

British Telecom does not support REFER transfer method – use CO to CO Transfer.

FAX

Recommended G.711 Inband codec.

◆ Table of Contents

(1) SIP Trunk and Extension Port number configuration:	Page 3
(2) Provisioning a SIP trunk:	Page 6
(3) Incoming Call Routing:	Page 9
(4) Outgoing Call CLI:	Page 10
(5) CLIR Outgoing Call (Withholding number):	Page 10

(1) SIP Trunk and Extension Port Number Configuration

- Note:

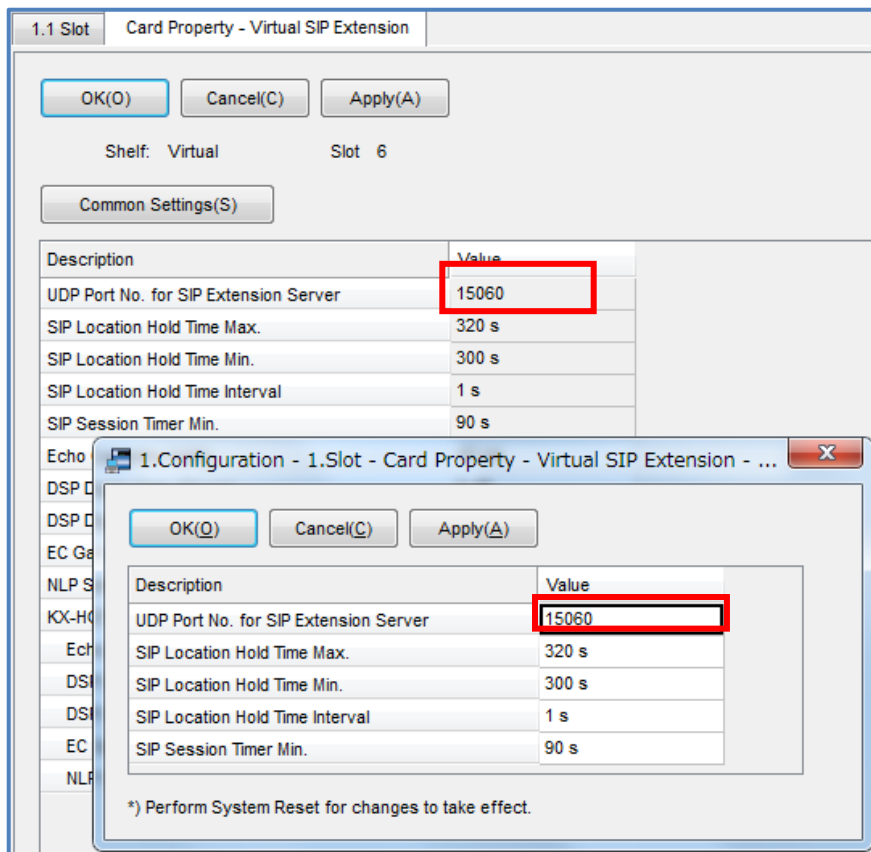
If it is already installed a virtual slot of SIP-Extension (V-SIPEXT32), need to configure before change to the SIP trunk port number 5060.

SIP Trunk Port number for British Telecom must be **5060** therefore SIP Extension ports are reconfigured, in this example to port **15060**.

Click **[1. Slot]** Move mouse over **[Site Property]** and click **[Main]**.



Click **[Port Number]** tab and change **[UDP Port No. for SIP Extension Server]** (Default:5060) to **other number**. (i.e.15060). and click **[OK]**.



Go to [1.Configuration – 1.Slot]

Click [Virtual] and move mouse over [V-SIPGW16], and click [Ous]. Click [OK] pop-up window.

Move mouse over [V-SIPGW16] again, and click [Shelf Property].

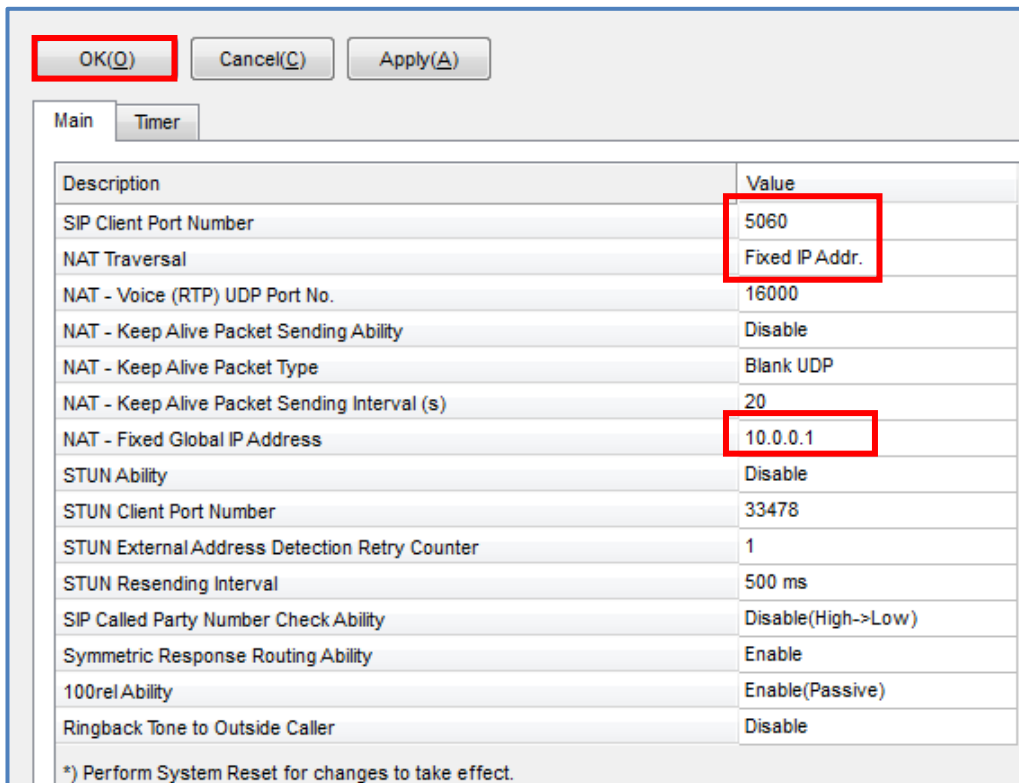


Select [Main] tab and change the two items.

[SIP Client Port Number] (Default:35060) to **5060**

[NAT – Traversal] **Fixed IP Addr.**

[NAT – Fixed Global IP] **10.0.0.1 (Enter your actual Global IP address)**



and click [OK].

Move mouse over [V-SIPGW16] again, and click [Ins].

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

Port Forwarding

For External router setup, configure Port Forwarding on the router as follows:

udp port 5060 – to TDE/NCP LAN IP address (e.g. 192.168.0.101)

udp port range 16000-16127 (RTP) – to TDE/NCP DSP1 LAN IP address (192.168.0.102)

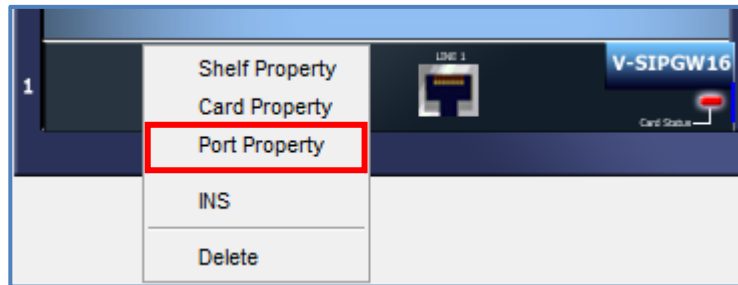
IMPORTANT!

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

(2) Provisioning the SIP Trunk

SIP Trunk – Port Property

Move mouse over **[V-SIPGW16]** and click **[Ous]** and Select **[Port Property]**



SIP Trunk – Port Property continued

[Main] Tab

- 1. Channel Attribute: *Basic Channel*
- 2. Provider Name: *Enter a name – reference only*
- 3. SIP Server Location – Name: *Not required*
- 4. SIP Server Location – IP Address: *192.65.221.26 – (British Telecom provided)*
- 5. SIP Server port Number: *Leave at 5060*
- 6. SIP Service Domain: *Not required*
- 7. Subscriber Number: *Not required*

Main												
Account												
Register												
NAT												
Option												
Calling Party												
Called Party												
Voice/FAX												
RTP/RTCP												
T.38												
T.38 Option												
DSP												
No.	Sk	Po	Connection	Channel Attribute	Provider Name (20 characters)	SIP Server Location		SIP Server Port Number	SIP Service Domain (100 characters)	Subscriber Number		
						Name (100 characters)	IP Address					
1	1	1	OUS	Basic channel	BT-Trunk		192.65.221.26	5060				
2	1	2	OUS	Additional channel f...				5060				

Note: NCP/TDE series PBX is not supported a Redundancy function.

SIP Trunk – Port Property continued

[Account] Tab

1. User name: **Enter the SIP Account (User name) as supplied by British Telecom.**
 (Note this is user name without @192.65.221.26)
 For example: SIP Account (User name) = +445512340100
 Enter: +445512340100

2. Authentication ID: **Enter the Authentication ID as supplied by British Telecom.**
 (Note this is authentication ID without @192.65.221.26)
 For example: Authentication ID = +445512340100
 Enter: +445512340100

3. Authentication Password: **Not required.**

Main	Account	Register	NAT	Option	Calling Party	Called Party	Voice/FAX	RTP/RTCP	T.38
		No.	Slot	Port	Connection	User Name (64 characters)	Authentication ID (64 characters)	Authentication Password (32 characters)	
		1	1	1	OUS	+445512340100	+445512340100		
		2	1	2	OUS				

SIP Trunk – Port Property continued

[Register] Tab

1. Register Ability: **Disable**
2. Register Interval: **Leave at 3600**
3. Un-Register Ability: **Leave enabled**
4. Registrar Server – Name: **Not required**
5. Registrar Server – IP Address: **Not required**
6. Registrar Server port number: **Leave at 5060**

Main	Account	Register	NAT	Option	Calling Party	Called Party	Voice/FAX	RTP/RTCP	T.38	T.38 Option
		No.	Slot	Port	Connection	Register Ability	Register Sending Interval (s)	Un-Register Ability when p	Registrar Server	
									Name (100 characters)	IP Address
		1	1	1	OUS	Disable	3600	Enable		5060
		2	1	2	OUS	Enable	3600	Enable		5060

[Voice/FAX] Tab

- 1. IP Codec Priority 1st: **G.711A**
- 2. IP Codec Priority 2nd: **G.711Mu**
- 3. IP Codec Priority 3rd: **G.729A**

Main	Account	Register	NAT	Option	Calling Party	Called Party	Voice/FAX	RTP/RTCP	T.38	T.38 Option	
-	No.	Slot	Port	Connection	IP Codec Priority			Packet Sampling (G.711A)	Packet Sampling (G.711Mu)	Packet Sampling (G.729A)	Voice Activity for G.711
					1st	2nd	3rd				
	1	1	1	OUS	G.711A	G.711Mu	G.729A	20 ms	20 ms	20 ms	Disable
	2	1	2	OUS	G.711A	G.711Mu	G.729A	20 ms	20 ms	20 ms	Disable

[Option] Tab

- Session Timer Ability: **Enable (Active)**
- Session Expire Timer: **600**

Main	Account	Register	NAT	Option	Calling Party	Called Party	Voice/FAX	RTP/RTCP	T.38	T.38 Option
-	No.	Slot	Port	Connection	Session Refresh (Session Timer)			Proxy-Require Option (100 characters)	Diversion Header	
					Session Timer Ability	Session Expire Timer (s)	Refresh Method			
	1	1	1	OUS	Enable(Active)	600	re-INVITE		Disable	
	2	1	2	OUS	Enable(Passive)	180	re-INVITE		Disable	

1.1 Slot Port Property - Virtual SIP Gateway

OK(O) Cancel(C) Apply(A)

Command(M) Select Provider(S) Add Provider(P)

click **OK**

(3) Incoming Call Routing

Go to [\[CO & Incoming call\]](#) and select [\[3.DDI /DID Table\]](#)

- 1. **DDI/DID Number:** *Enter the DDI number in the appropriate format (see below)*
Example: 44-55-1234-0100
Enter: 445512340100
- 2. **DDI/DID Name:** *Determined by the installer (optional setting)*
- 3. **DDI/DID Destination:** *Determined by the installer (extension number, group etc)*

No.	DDI / DID Number (32 digits)	DDI / DID Name (20 characters)	DDI / DID Destination				Tenant Number	VM Trunk Group No.	CLI Ring for DDI / DID			
			Day	Lunch	Break	Night			Day	Lunch	Break	Night
1	445512340100	Sales	201	201	201	201	1	1	Disable	Disable	Disable	D
2	445512340101	Service	202	202	202	202	1	1	Disable	Disable	Disable	D
3	445512340102	Development	203	203	203	203	1	1	Disable	Disable	Disable	D
4							1	1	Disable	Disable	Disable	D
5							1	1	Disable	Disable	Disable	D

(4) Outgoing Call CLI

Move mouse over [V-SIPGW16] click [Ous] Select [Port Property] and [Calling Party] Tab
 From Header – User Part: **PBX-CLIP**

Main		Account	Register	NAT	Option	Calling Party	Called Party	Voice/FAX	RTP/RTCP	T.38	T.38 Option	DSP
-	No.	Slot	Port	Connection	Header Type	From Header	P-Preferred-Identity Header				Number Forma	Remove Digit
						User Part	SIP-URI (100 characters)	User Part	SIP-URI (100 character)			
	1	1	1	OUS	From Header	PBX-CLIP		User Name		National	0	
	2	1	2	OUS	From Header	User Name		User Name		National	0	

Click [OK].

Go to [4.Extension, 1.Wired Extension, 1.Extension Settings] & select [CLIP]

[CLIP] tab

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

Click [OK].

System Menu		1.1 Slot	4.1.1 Extension Settings																																																						
<div style="display: flex; justify-content: space-between;"> OK(Q) Cancel(C) Apply(A) Find Next(N) Copy to </div>																																																									
<ul style="list-style-type: none"> 1. Configuration 2. System 3. Group 4. Extension <ul style="list-style-type: none"> 1. Wired Extension <ul style="list-style-type: none"> 1. Extension Settings 2. FWD/DND 3. Speed Dial 4. Flexible Button 5. PF Button 6. NDSS Link Data - Send 		<table border="1"> <thead> <tr> <th>Main</th> <th>Intercept Destination</th> <th>Intercept No Answer Time</th> <th>ISDN CLIP</th> <th>Option 1</th> <th>Option 2</th> <th>Option 3</th> <th>Option 4</th> </tr> </thead> <tbody> <tr> <td>-</td> <td>No.</td> <td>Extension Number</td> <td>Extension Name (20 characters)</td> <td>CLIP ID</td> <td>CLIP on Extension/CO</td> <td>ARS Itemised Code /2nd CLIP (10 digits)</td> <td>CLIR</td> <td>COLR</td> </tr> <tr> <td></td> <td>1</td> <td>201</td> <td></td> <td>445512340100</td> <td>Extension</td> <td></td> <td>Disable</td> <td>Disable</td> </tr> <tr> <td></td> <td>2</td> <td>202</td> <td></td> <td>445512340101</td> <td>Extension</td> <td></td> <td>Disable</td> <td>Disable</td> </tr> <tr> <td></td> <td>3</td> <td>203</td> <td></td> <td>445512340102</td> <td>Extension</td> <td></td> <td>Disable</td> <td>Disable</td> </tr> <tr> <td></td> <td>4</td> <td>204</td> <td></td> <td></td> <td>Extension</td> <td></td> <td>Disable</td> <td>Disable</td> </tr> </tbody> </table>			Main	Intercept Destination	Intercept No Answer Time	ISDN CLIP	Option 1	Option 2	Option 3	Option 4	-	No.	Extension Number	Extension Name (20 characters)	CLIP ID	CLIP on Extension/CO	ARS Itemised Code /2nd CLIP (10 digits)	CLIR	COLR		1	201		445512340100	Extension		Disable	Disable		2	202		445512340101	Extension		Disable	Disable		3	203		445512340102	Extension		Disable	Disable		4	204			Extension		Disable	Disable
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	4	204			Extension		Disable	Disable																																																	

(5) CLIR Outgoing Call (Withholding Number)

Place call to called party with a 141 prefix, call proceed to endpoint with withholding CLI information.
 (e.g.) 141 055 1234 0020

END OF DOCUMENT