Panasonic: SIP Trunks Configuration Guide (KX-TDE/NCP)
OVERVIEW

This document describes the configuration procedures required for the KX-TDE100/200/600 and NCP500/1000 to make full use of the capabilities of Intermedia SIP Trunks Services.

The SIP trunks services of the TDE/NCP PBX are provided through virtual CO line cards (V-SIPGW16) which are designed to be easily integrated into an Internet Telephony Service provided by an ITSP (Internet Telephony Service Provider).

This guide describes the specific configuration items for the virtual SIP Gateway card in addition to the PBX basic configuration related to SIP trunks Functionality. It also describes basic Network configuration to familiarize dealers with the network setup. It does not describe the purpose and use of all configuration options on the virtual SIP Gateway card. For those details, see the KX-NCP500/1000 and KX-TDE100/200/600 Programming Manual for Virtual SIP CO Line Card and the KX-TDE100/200/600 and KX-NCP500/1000 Manuals available from Panasonic reseller website.

DSP card and Activation keys

- The PBX has to be equipped with a DSP card in order to provide communication between the TDM side of the PBX and the SIP trunks.
- Activation keys for SIP-Trunks have to be installed in the PBX to provide the SIP-trunks functionality.

To check the number of activation keys installed into the PBX and add new licenses please refer to Page 12 in this guide.

ARCHITECTURE OVERVIEW

The following diagram illustrates simple VOIP networks connecting the TDE/NCP PBX: The Case of Intermedia Setup: Intermedia will provide its services over the Public Internet.
BASIC V-SIPGW16 SETTINGS FOR INTERMEDIA TRUNKS

1. **Install the PBX Maintenance console into your PC**

The maintenance console should be available to certified dealers; Dealers can get the latest version of the UPCMC from www.psnareseller.com (UPCMC version 7.2.1.0 or higher).

2. **Connect to the PBX**
   - Start the UPCMC.
Click Connect and choose the method of connection using either LAN, RS-232, or Modem to Connect to your PBX for interactive configuration.

** We will be using the LAN method throughout this guide**

Provide the IP address of the MPR card and the password of the INSTALLER Level.

Go to 1-Configuration, 1-Slot, move your mouse over the MPR card and select the card property.

Make sure that the default gateway should be the end router LAN IP address
Make sure that you have a valid DSP-VOIP LAN address.
3. Installing V-SIP W16 card

- Go to 1-Configuration, 1-Slot, move your mouse towards the IPCMPR virtual shelf and click on select shelf.

Highlight the V-SIPGW16 card from the cards list in the left side.
• Drag the VSIPGW16 card into the trunk portion of the virtual shelf by using the PC mouse lift button.
• Release the Mouse lift button and click ‘Yes’ on the dialogue box.
• Take the V-SIPGW16 card OUS in order to be able to enter the following settings.

4. Configuring the VSIP-GW16 card

a- Shelf Property settings: Move the computer mouse over the VSIPGW16 card and choose Shelf property.

Take the V-SIPGW16 card Out of service (OUS) in order to be able to change the shelf property settings required for Intermedia Trunks.
Click Apply and then OK to exit the shelf property settings screen.

**b-Card Property settings:**
- Move the computer mouse over the VSIPGW16 card and choose Card property.
- Click on Common settings.
- DNS Server IP address method is Manual.
- Provide your ISP DNS servers IP addresses. (Contact your ISP to obtain DNS IP addresses if needed)

Click Apply and then OK.
- Click Cancel on the card property-Virtual SIP gateway screen to exit this screen.
c-Port Property settings:

Move the computer mouse over the VSIPGW16 card and choose port property

**BASIC CHANNEL SETUP:**

Please locate the Intermedia SIP Trunks account details from your Intermedia account Welcome letter/email....

**Main tab:**

According to the standard Intermedia SIP trunk account, we need to configure the Basic Channel Port as follows:

"Please Note: the information provided below is just a sample, please locate your account details in your Intermedia welcome letter/email"

1. Port 1 channel attribute = Basic channel
2. Provider name = Intermedia
3. SIP Server Name = "usbc.intermedia.com"
4. SIP server port number = 6060
5. SIP service Domain = "Blank"
6. Subscriber number = 1234567890 (Intermedia Account DID/BTN)

**Account tab:**

1. user name == (Please provide your account sip username)
2. Authentication ID == same as Username
3. Password == (Please provide your account Authentication Password, Case sensitive entry)

**Register Tab:**

Same as default

**NAT Tab:**

Same as default

**Option Tab:**

Diversion Header = Enable
Calling Party tab:
Same as default

Called party Tab:
Same as default

Voice/Fax Tab:
Changes from Default settings:
1. 1st Codec Priority = G.729a
2. 2nd Codec Priority = G.711u
3. 3rd Codec Priority = None

RTP/RTCP Tab:
Same as default

T.38, T.38 Option
Same as default

DSP
Same as default

Supplementary services:
Changes from Default settings:
1. CNIP (Receive) = Yes (All Channels, Basic and Additional)

Additional DID’s
Please set the channel attribute for number of ports depending on the number of active SIP lines as “additional channel for channel 1”

For example, if there are 3 Simultaneous calls can be received on this trunk, the number of V-SIPGW ports to be set as an “additional channel for channel 1”, will be 2 ports.
ESSENTIAL PBX CONFIGURATION:

Please locate your DID information in the Intermedia Welcome letter/account Portal.

To Assign the DID numbers destinations, Go to 10-3.CO & Incoming Call □ DID table.

SIP trunks Activation keys:

1. The DSP card installed onto the PBX MPR Card has preinstalled number of SIP trunks activation keys (DSP4 and DSP16 have 4 IP trunks and DSP64 has 16 IP trunks).
2. To obtain additional activation keys, you need to purchase the appropriate activation key codes (For IP Trunks) and access the Key Management System. You can download the activation keys as an activation key file from the Key Management System. To download the activation keys, enter the MPR ID number shown on the IPCMPR Card in the PBX, and activation key number and registration ID provided on each activation key code.
3. To check the Number of Activation Keys Installed into your system.

Go to 1- Configuration, 1-Slot, click on Activation Keys (Top of the PBX image)

MINIMUM SYSTEM SOFTWARE REQUIREMENTS:

<table>
<thead>
<tr>
<th></th>
<th>V7.2.1.0 or higher</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPCMC</td>
<td>V5.0002 or higher</td>
</tr>
<tr>
<td>NCP</td>
<td>V5.0002 or higher</td>
</tr>
<tr>
<td>TDE 100/200</td>
<td>V5.0002 or higher</td>
</tr>
<tr>
<td>TDE600</td>
<td>V5.0002 or higher</td>
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</tbody>
</table>

Useful Hints:

1. Update your system software once the update is available through the dealer website to make use of added features and improved functionality.
2. Update your PCMC (Maintenance Tool) with the latest version available on the BTS website and through Panasonic Tech support department.
3. Back up your configuration file with the Good known settings.
4. Consult with your network administrator prior to installation to guarantee a smooth setup for your system over the existing network.

Important Notes:

1- E911: Please Work Closely with Intermedia team to ensure that E911 service is configured and tested properly.