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Broadvox Fusion SIP Trunks Configuration Guide

PBX Platform: KX-TDA50

Overview

This document describes the configuration procedures required for the KX-TDA50 to make full use of the capabilities of Broadvox SIP Trunks Services.

The KX-TDA50 is one of Panasonic platforms that support SIP trunks functionality. It implements the Session Initiation Protocol (SIP) through a dedicated (Trunk) Gateway card (KX-TDA5450) which offers 4-Channels of SIP trunks. Capacity of the SIP trunks can be increased by installing an additional DSP daughter card (KX-TDA5451) which provides additional 4-Channels. The maximum numbers of SIP Gateway cards to be installed into one PBX is one card.

This guide describes the specific configuration items for the 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 for the SIP Gateway card. It does not describe the purpose and use of all configuration options on the SIP Gateway card. For those details, see the KX-TDA5450 Installation Manual and the KX-TDA50 Manuals available from Panasonic Reseller Website.

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Architecture Overview

The following diagram illustrates simple VOIP networks connecting the SIP-GW4 card:
The Case of Broadvox Setup.
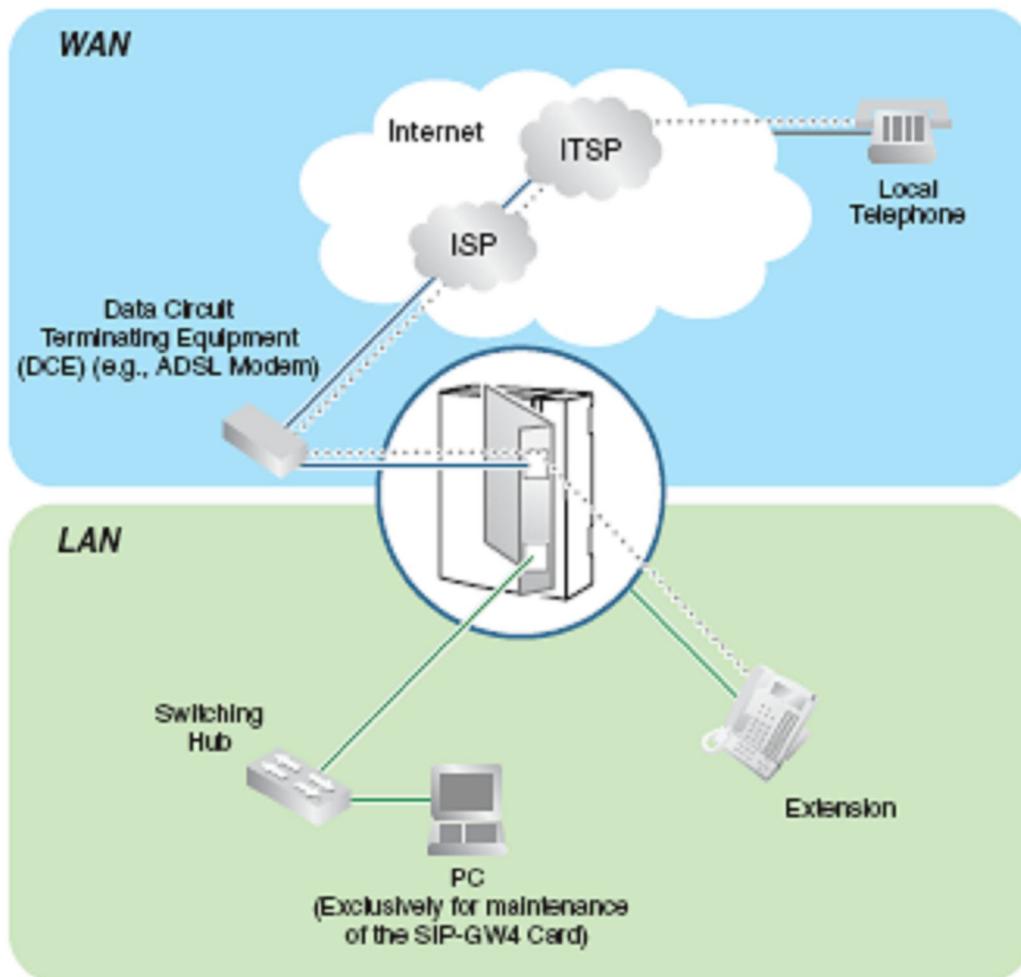
Basic SIP-GW Settings for Broadvox

1-Starting the SIP-GW4 Maintenance Utility

To start the SIP-GW4 Maintenance Utility, log in from your PC connected to the card by specifying the default IP address, username, and password.

1. Start Internet Explorer from the Start menu.
2. Specify the URL of the SIP-GW4 Maintenance Utility with the IP address
http://192.168.0.1:8000/Exp.
3. a. The log-in screen is displayed.
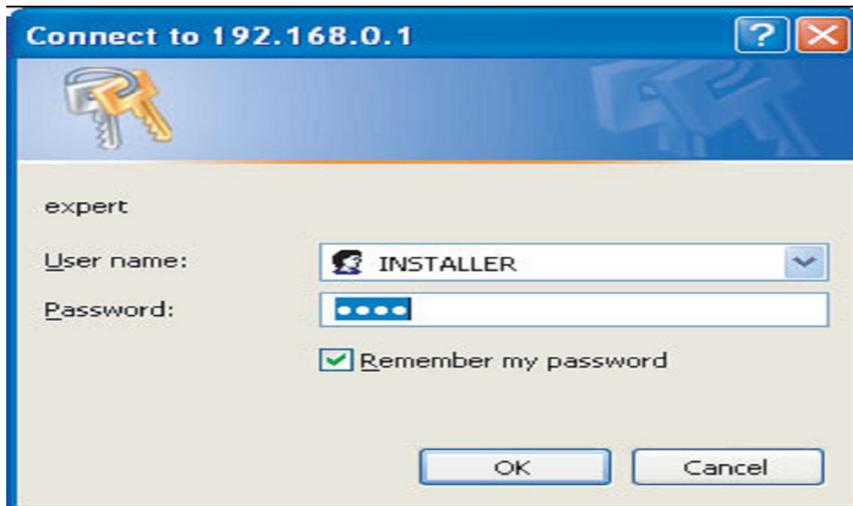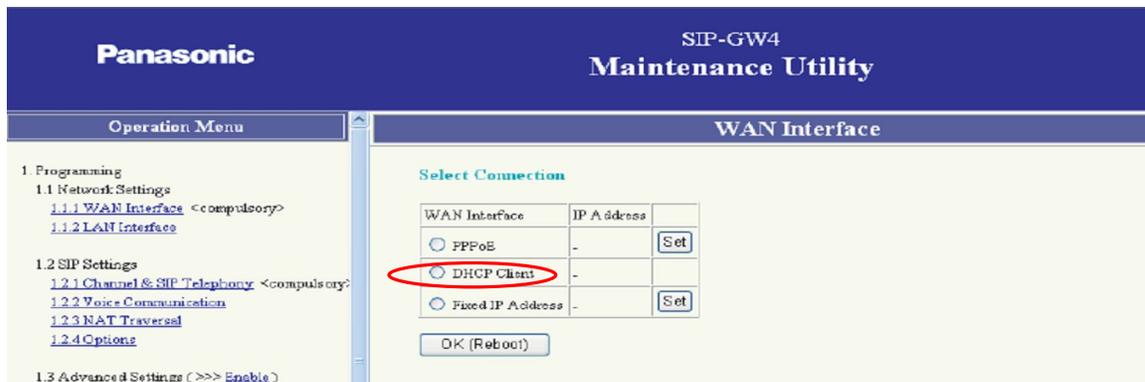

In the User name box, type INSTALLER.
b. In the Password box, type 1234.
c. Click OK.
Now the menu screen of the SIP-GW4 Maintenance Utility is displayed

2-Network Settings

WAN Interface: (i.e DHCP Client)

Note:

Please check if the WAN port will get an IP address in the same subnet as your LAN port.

Contact the Network Administrator to confirm the WAN network configuration…

For example:
LAN port: IP address 192.168.0.1, Subnet mask 24 (255.255.255.0)
WAN port: IP address 192.168.0.2, Subnet mask 24 (255.255.255.0)
If you do so, disconnect the cables from the LAN and WAN ports and reboot the SIP-GW4 card. Then, connect the cable only to the LAN port, and reassign the IP address and subnet mask address for the WAN port.

You will need to **reboot** The Gateway card for these settings to be effective

3- Channel & SIP Telephony

1. Click **1.2.1 Channel & SIP Telephony**.

2. Specify **Channel Attribute** for each channel referring to the descriptions below.

Attribute	Description
Not Used (default)	The channel is not in use.
Basic channel	A subscriber channel. If you select this attribute, the "Set" button will become active, which allows you to configure **SIP Telephony Basic Settings** and **SIP Telephony Detailed Settings.**
Additional channel of ChN (N: 1—8)	Subordinative channel that can be added to **Basic channel** above. This setting is to be configured when several channels can be used for one subscription with an ITSP. Selects a basic channel number to which an additional channel is added.

Note
Channels 5 through 8 are only available when the SIP-DSP4 card is mounted on the SIP-GW4 card.

3. Click the **Reboot** button that appears below the table after all the required configuration, including the following SIP Telephony Basic Settings, is complete.

-SIP Telephony Basic Settings

1-System Level Configuration:
This section describes system-wide configuration items that are generally required for each KX-TDA50 to work with Broadvox.

*Operation Menu→1.2 SIP settings→1.2.1 Channel and SIP Telephony

Step	Command	Purpose
Step 1	**Set Proxy Server<compulsory>.** (i.e. *nd01-03.fs.broadvox.net*)	Set the TDA50 SIP server to the Fully Qualified Domain Name (FQDN) for the Broadvox Application Server cluster.
Step 2	**Enable Registration.** (Default)	Specifies whether to register on the SIP server or not (if required).
Step 3	**Set Registration Timer (Offer).** (180 sec)	Specifies the length of time that the card offers for Registration to the SIP server (if required).
Step 4	**Set Register Server.** (Blank)	Specifies the domain name or IP address of a Registrar server (if provided). If an ITSP provides both Proxy and Registrar Server information, specify the Registrar Server information

Step	Command	Purpose
Step 5	Set Domain name. (Blank)	Specifies the domain name (if provided besides proxy and registrar server).
Step 6	Set ITSP Name.(i.e Broadvox)	Specifies the ITSP name (optional).

2-Subscriber Level Configuration Parameters

This section identifies the SIP service subscriber-specific parameters, including registration and authentication. These settings must be unique for each account. Provisioning a subscriber to register with Broadvox allows calls to terminate to the subscriber's line. Please locate this data from your Broadvox welcome Email/Letter.

Account Settings

SIP Account <compulsory>	1112223333
Authentication ID <compulsory>	welcome
Authentication Password <compulsory>	••••••••••

Step	Command	Purpose
Step 1	Set SIP Account<compulsory>.	The register user ID must correspond with the line/port setting on Broadvox
Step 2	Set Authentication ID <compulsory>.	If the Authentication service is configured on Broadvox, these parameters must be configured to match the Broadvox settings.
Step 3	Set Authentication Password <compulsory>.	Specifies the password (compulsory).

-Codecs priority and DTMF Settings

DTMF Sending Method = RFC2833.

Codec G729-AB can be chosen as first priority if you need to reduce the Bandwidth utilization by voice communication.

*Operation Menu→1.2.2 Voice Communication

- NAT Traversal

Broadvox supports SBC therefore the NAT traversal method can be disabled..

Keep Alive for NAT binding, RTP Type= Blank UDP

*Operation Menu→1.2.3 NAT Traversal

Essential PBX Configuration:

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

Important note:
Make sure that you provide the 10 digits DID number in the DID number field to be able to make use of the additional DID's assigned by the Provider.

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Minimum System Software requirements:

UPCMC	V7.4.1.0 (Latest as of 02/25/13)
SIP-GW card	V 4.100
TDA50 MPR	V 6.000

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:

1- E911:

Please work closely with Broadvox to configure and Test E911..

2- Fax and Modem communication:

Fax or Modem communication requires additional POTS to be connected to the Panasonic PBX in order to provide service reliability. Most of Broadvox VOIP services are provided over Best Effort internet which can adversely affects Fax /Modem Transactions that are time sensitive and depend on accurate Tone detection for successful operation.