

# Panasonic KX-TGP500 VoIP DECT Telephones configure for Asterisk

## Configuring the Panasonic KX-TGP500 Telephones for use with Asterisk.

The Administrator's Manual

Panasonic Product Page for the KX-TGP500

Firmware and Manuals from the Panasonic Site

DECT telephones offer advantages for wireless because they use different frequencies than WiFi. I have 3 telephones registered with the base unit and the base unit is registered with an Asterisk ver.13 PBX as SIP extension 7005 using voicemail box 8005. *(This means that when the extension is called, all 3 telephones ring. The phones can be configured to ring individually on different extensions. That is up to the user.)* This DECT set is working with the Asterisk ver.13 configurations found in my previous post, title: Configuration Files for Asterisk v.13 and AllStar Link . The network it is configured for is a HSMM-Mesh Network, so if it were to be configured for a normal LAN the host names would change to IP addresses.

**Quick Start:** A newly purchased KX-TGP500 base unit that is "open" (that is not pre-configured by a provider) and a KX-TPA50 handset need to be powered on. The handset needs to be registered with the

## **base. To register the phone with the base you need to do the following:**

1. Open the menu of the handset by pressing down on the joystick on the telephone
2. Then press #130 on the telephone dial pad
3. There is a button located on the DECT base unit. Press it down for 4 seconds
4. Then press OK on the Telephone, which will be the button to the right of the word menu just under the screen.
5. Then dial 0000 on the telephone. Once it returns to the normal screen the handset should be registered and show you a number beside the battery symbol in the screen.

This needs to be done for each phone being registered.

To open the HTML configuration for the base unit, you need to press the joystick on the telephone down and then select the "tool box", "Network Settings", "Embedded Web", and then "On". The phone will sound a long tone. Then from a web browser sharing the same LAN, type in the IP address of the DECT base unit. You can find this IP address on the telephone by pressing down on the joystick and selecting the tool box icon, then Network Settings, then IP settings. Log into the DECT Base unit HTML configuration with the default username Admin and default password adminpass. Select the VoIP tab on the top menu, and then "line 1" under "SIP Menu" from the left sidebar menu. You should now be on a page that looks like this image:







KX-TGP500B04 - Mozilla Firefox

KA7U.us - FireFTP    KX-TGP500B04

10.45.111.82/CgiStart.cgi?Page    Search

**Panasonic**

**KX-TGP500B04**

Status   Network   System   **VoIP**   Telephone   Maintenance

Web Port Close

**VoIP**

SIP Settings

- Line 1
- Line 2
- Line 3
- Line 4
- Line 5
- Line 6
- Line 7
- Line 8

VoIP Settings

- Line 1
- Line 2
- Line 3
- Line 4
- Line 5
- Line 6
- Line 7
- Line 8

**Phone Number**

Phone Number: 7005

Line ID:

**SIP Server**

Registrar Server Address: KA7U-2

Registrar Server Port: 5060 [1-65535]

Proxy Server Address: KA7U-2

Proxy Server Port: 5060 [1-65535]

Presence Server Address:

Presence Server Port: 5060 [1-65535]

**Outbound Proxy Server**

Outbound Proxy Server Address:

Outbound Proxy Server Port: 5060 [1-65535]

**SIP Service Domain**

Service Domain: KA7U-2

**SIP Source Port**

Source Port: 5060 [1024-49151]

**SIP Authentication**

Authentication ID: 7005

Authentication Password:

**DNS**

Enable DNS SRV lookup: ☒ Yes ☐ No

SRV lookup Prefix for UDP: \_sip.\_udp.

SRV lookup Prefix for TCP: \_sip.\_tcp.

**Timer Settings**

T1 Timer: 500 milliseconds

T2 Timer: 4 seconds

INVITE Retry Count: 6

Non-INVITE Retry Count: 10

**Quality of Service (QoS)**

SIP Packet QoS (DSCP): Best Effort (default) (000 000)

**SIP extensions**

Supports 100rel (RFC 3262): ☒ Yes ☐ No

Supports Session Timer (RFC 4028): 0 seconds [60-65535, 0: Disable]

**Keep Alive**

Keep Alive Interval: 30 seconds [10-300, 0: Disable]

**Security**

Enable SSAP (SIP Source Address Filter): ☐ Yes ☒ No

Save Cancel

You

may want to change the addresses from ka7u-2 to your host name or IP address and the extension number is the authentication ID in my Asterisk PBX. The authentication password is the "secret" for the extension as listed in sip.conf.

This should be enough configuration for the DECT phone system to work with Asterisk ver. 13 PBX. There are many other configurations according to your needs.

Ron Morell

KA7U