

# TT11 VoIP Router 2FXS TA User Guide

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# 1.0 INTRODUCTION

Voice over IP is a technology that allows anyone to make a telephone call over the Internet. This is a quick user guide for the TT11 VoIP Router 2FXS Telephone Adaptor. It is intended to help you configure this device and have it ready to run within a few minutes. Please follow the user guide carefully as troubleshooting the TA can be very difficult and time consuming.

### **Before Installation**

This product can be set up using a web browser, such as Internet Explorer.

If you purchased this product to make a VoIP call, you must have either an Ethernet-based Cable or a DSL modem with an active connection to the Internet.

# 2.0 PACKAGE CONTENT

The following materials are included in the package. Please check the package to ensure that all the materials are listed below. Contact TraiTel immediately if an item is missing.



**TT11 VolP Router TA** 



**Ethernet cable** 



Phone cable



**Quick Installation Guide** 

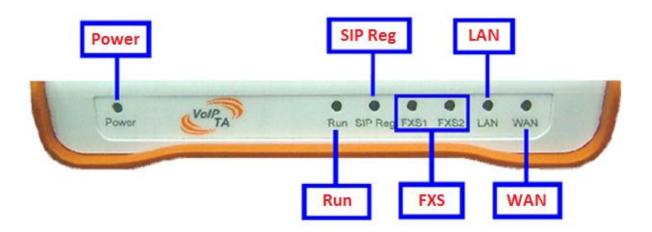


Power Adapter (12V DC)

# 3.0 SUMMARY OF LED & CONNECTOR DESCRIPTION

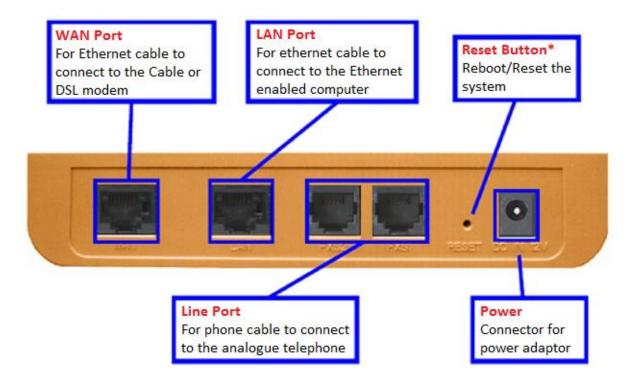
# 3.1 The Front LEDs

| Item  | Name            | Color | Status                      | Description                 |
|-------|-----------------|-------|-----------------------------|-----------------------------|
|       | D               |       | On                          | System Power on             |
| 1     | Power Green     | Green | Off                         | System Power off            |
|       |                 |       | On                          | System crash                |
| 2     | Run             | Green | Off                         | System crash                |
|       |                 |       | Flash                       | System running              |
| 2     | CID Door        |       | On                          | SIP Registration Ok         |
| 3     | SIP Reg         | Green | Off                         | SIP Registration Fail       |
|       |                 |       | On                          | FXS Channel is in use       |
| 4 FXS | Green           | Off   | FXS Channel is not in use   |                             |
|       |                 |       | Flash                       | FXS Channel is ringing      |
|       | <b>5</b> FXS Gr |       | On                          | FXS Channel is in use       |
| 5     |                 | Green | Off                         | FXS Channel is not in use   |
|       |                 | Flash | FXS Channel is ringing      |                             |
|       |                 |       | On                          | LAN port is connected       |
| 6 LAN | Green           | Off   | LAN port is not connected   |                             |
|       |                 |       | Flash                       | Packet transmit in LAN port |
|       |                 | On    | WAN port is connected       |                             |
| 7     | WAN             | Green | Off                         | WAN port is not connected   |
|       |                 | Flash | Packet transmit in WAN port |                             |



# 3.2 The Rear Ports

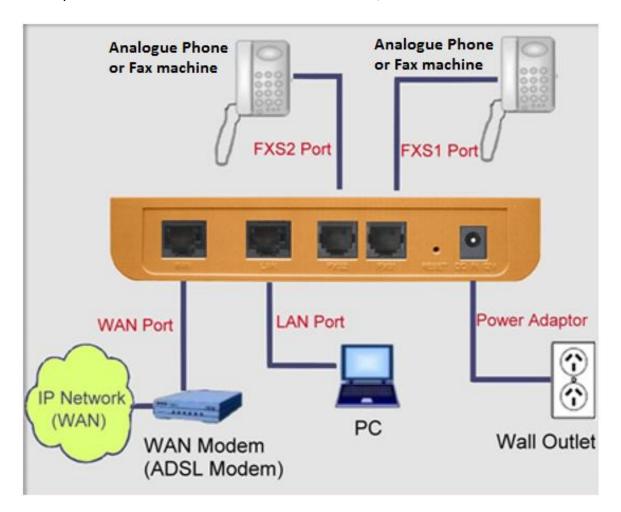
| Reset Button Mode*      |                                |                                |  |
|-------------------------|--------------------------------|--------------------------------|--|
| Situation A Situation B |                                |                                |  |
| Mode                    | Press and hold for less than 3 | Press and hold for more than 3 |  |
|                         | seconds                        | seconds                        |  |
| Result                  | Reboot the system              | Restore to default setting     |  |



# Connecting the TT11 VoIP Router 2FXS TA to Your Network

- **A.** Connect the power adapter to this jack. The power LED will light to indicate proper operation.
- **B.** Connect an Ethernet cable to the WAN port when connecting to the Internet access device such as a Cable or DSL modem. The WAN LED will indicate the proper connection.
- **C.** Connect an Ethernet cable to the LAN port when connecting to a PC or an office/home network. The LAN LED will indicate the proper connection.
- **D.** Connect the phone cable to an available FXS port when connecting an analog telephone.
- **E.** Connect the phone cable to an available FXS port when connecting an analog telephone.

When you have connected all the cables to the VoIP TA, it will look similar to this:



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# 5.0 USING THE CONFIGURATION MENU

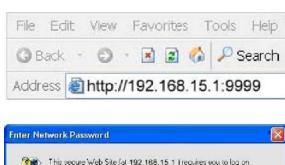
The configuration menu of TT11 VoIP Router 2FXS TA can be accessed using a convenient and user-friendly web browser.

If you have an account with TraiTel, please log in at <a href="www.traitel.com">www.traitel.com</a>, select "Voice" then "Configure SIP device". If you have multiple SIP devices, you **must** create a unique subaccount for each device. Sub-accounts can be created by going to "Settings" then "Sub-Accounts".

Once you have logged in to your TraiTel account, please continue here.

# 5.1 Accessing Configuration Menu

- Open the web browser (i.e. Internet Explorer, Netscape...)
- Enter the IP Address of the router, which by default is 192.168.15.1 followed by :9999
- The default username and password are "admin" and "admin".
- Click **OK**





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## 5.2 Main Menu



Once you have logged on to the TT11 VoIP Router TA through the web browser, you can begin the set up according to your requirements. On the configuration main menu, the left navigation panel links you to the set up pages directly. They include:

- Status
- **System** (Provision, Firmware, Restart, Backup/Restore, User Management)
- Networks
- VoIP (SIP Settings, Line Settings, IAX settings, Call Control, Dialing Plan, CDR)
- Advanced (Remote Access, Virtual Server, Firewall, MAC Filter, IP Filter, Port
   Filter) The following sections provide an overview of the settings.

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# 5.3 Status – Device Information and Line Status

|                     |                       | Status                   |        |
|---------------------|-----------------------|--------------------------|--------|
| Device Information  |                       |                          |        |
| System Up-Time      |                       | 0 Hour 10 Min            |        |
| System Current Time |                       | Tue May 11 12:18:01 2010 |        |
| Build Time          |                       | Man Sep 1 17:12:36 2008  |        |
| Firmware Version    | 01.00.00 (Sep 1 2008) |                          |        |
| WAN MAC Address     | 00:D0:E9:01:EF:4B     |                          |        |
| LAN MAC Address     | 00:D0:E9:01:EF:4C     |                          |        |
| Register Status     |                       |                          |        |
|                     | <b>)</b>              | SIP Register Status      |        |
|                     | -                     | IAX Register Status      |        |
| Line Status :       |                       | Line 1                   | Line 2 |
|                     |                       | IDLE                     | IDLE   |

**System Up-Time** Records system up-time.

**System Current Time** Shows the system current time. See the Time Zone

section for more information.

**Build Time** Shows the build time of the software.

**Firmware Version** Shows the firmware version.

WAN MAC Address Shows the WAN MAC address.

LAN MAC Address Shows the LAN MAC address.

SIP Register Status A hotlink to SIP settings status.

IAX Register Status A hotlink to IAX settings status.

**Line 1 Status** Shows line 1 register status (FXS).

**Line 2 Status** Shows line 2 register status (FXS).

# 5.4 Status – LAN

| LAN                  |                |
|----------------------|----------------|
| IP Address           | 192.168.15.1   |
| Subnet Mask          | 255.255.255.0  |
| DHCP Server          | Enabled        |
| DHCP Server Start IP | 192.168.15.100 |
| DHCP Server End IP   | 192.168.15.200 |

IP Address Shows the LAN port IP address.

**Subnet Mask** Shows the LAN port subnet mask.

**DHCP Server** Shows the DHCP server status — Enable or Disable

**DHCP Server Start IP** Shows the start IP address that DHCP server distributes.

DHCP Server End IP Shows the end IP address that DHCP server

distributes.

# 5.5 Status – WAN and DNS

| WAN             |               |
|-----------------|---------------|
| Connection Type | DHCP          |
| IP Address      | 192.168.10.6  |
| Subnet Mask     | 255.255.255.0 |
| Default Gateway | 192.168.10.1  |
| DHCP Server IP  | 192.168.10.1  |
| DNS             |               |
| DNS Servers IP  | 192.168.10.1  |

**Connection Type** Shows the network connection type of WAN port.

IP Address Shows the WAN port IP address.

**Subnet Mask** Shows the WAN port subnet mask

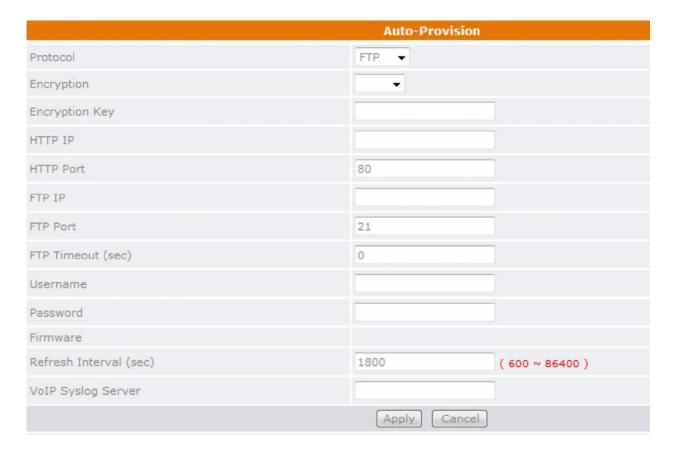
**Default Gateway** Shows the IP address of default gateway.

**DHCP Server IP** Shows the DHCP server IP address.

**DNS Servers IP** Shows the DNS server IP address.

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# 5.6 System – Provision



There are 2 kinds of protocol for auto-provision. Please select FTP or HTTP. Click **Apply** to update the modification.

IP, Port, Username, Password, Firmware

Auto-provisioning is an advanced feature of the TT11VoIP Router TA. For further information on using this function, please contact your ISP.

# 5.7 System – Firmware



**Firmware Type** Select the firmware type.

Select the saved firmware filename from your

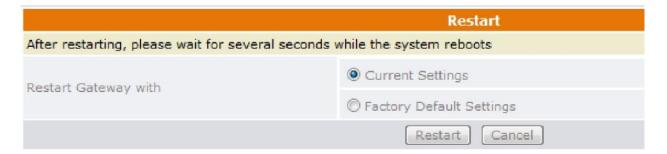
Firmware Filename computer's folder.

**Restore Factory Default Setting** Enable or disable the function of **Restore Factory** 

Default Setting.

Status Show status

# 5.8 System – Restart



Click Restart to update the modification.

Restart Gateway with Select restart this gateway with Current Setting or

**Factory Default Settings.** 

#### 5.9 System - Backup/Restore



**Backup Configuration** Can save the backup configuration file into your

computer. ("dialplan" for dialing plan or "xconfig" for

others)

**Restore Configuration** Restores the saved configuration file.

#### 5.10 System - User Management



Click **Apply** to update the modification.

**Admin ID** Enter the admin ID.

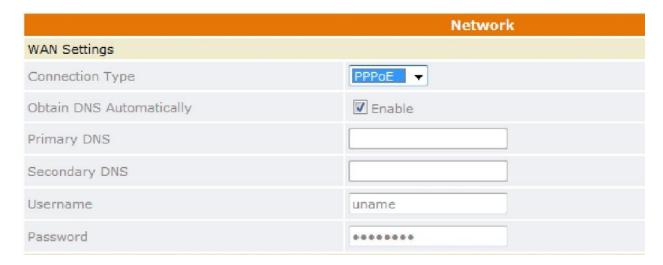
**Admin Password** Enter or change the admin password.

**Guest ID** Enter the guest ID.

**Guest Password** Enter or change the guest password.

Email: <a href="mailto:customer-service@traitel.com">customer-service@traitel.com</a>

# 5.11 Networks – PPPoE WAN Setting



Select PPPoE as network connection type if your ISP uses PPPoE. Most DSL users use PPPoE.

**Obtain DNS Automatically** Enable this to obtain DNS automatically.

Primary DNS Enter the primary DNS server IP address.

**Secondary DNS** Enter the secondary DNS server IP address.

**Username** PPPoE ID/username proved by your ISP.

Password PPPoE password.

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# 5.12 Networks – Static WAN Setting

|                          | Network       |
|--------------------------|---------------|
| WAN Settings             |               |
| Connection Type          | STATIC -      |
| IP Address               | 192.168.12.1  |
| Subnet Mask              | 255.255.255.0 |
| Default Gateway          | 192.168.12.1  |
| Obtain DNS Automatically | Enable        |
| Primary DNS              |               |
| Secondary DNS            |               |

Select Static as the network connection type if all the Wide Area Network IP addresses are provided to you by your ISP.

IP Address Enter the IP address assigned to you by your ISP.

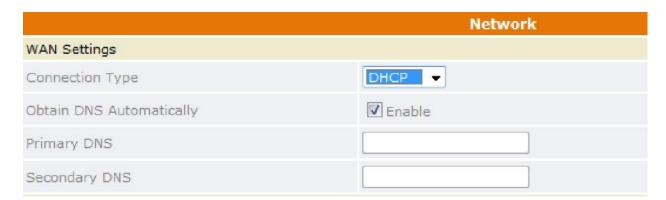
Subnet Mask Enter the subnet mask address.

**Default Gateway** Enter the default gateway IP address.

**Primary DNS** Enter the primary DNS server IP address.

**Secondary DNS** Enter the secondary DNS server IP address.

# 5.13 Networks - DHCP WAN Setting



Select DHCP as network connection type that allows the network administrator to distribute IP addresses when this gateway is plugged into a different place in the network.

# 5.14 Networks – LAN Setting

| LAN Settings           |                |
|------------------------|----------------|
| IP Address             | 192.168.15.1   |
| Subnet Mask            | 255.255.255.0  |
| DHCP Server            | Enable 🔻       |
| DHCP Server Start IP   | 192.168.15.100 |
| DHCP Server End IP     | 192.168.15.200 |
| DHCP Client Lease Time | 86400 seconds  |

IP Address LAN port IP address.

Subnet Mask LAN port Subnet Mask.

**DHCP Server** Enable or disable LAN side DHCP server.

**DHCP Server Start IP** The starting IP address for the DHCP server's IP

assignment if this function is enabled.

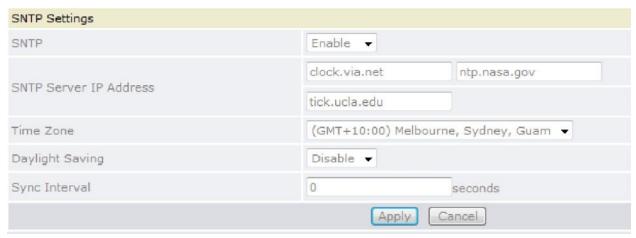
**DHCP Server End IP**The end IP address for the DHCP server's IP assignment

if this function is enabled.

**DHCP Client Lease Time**The time period for the DHCP server to expire the IP

that is assigned.

# 5.15 Networks – SNTP Setting



Click **Apply** to update the modification.

**SNTP** Enable/Disable SNTP.

**SNTP Server IP Address** Enter the SNTP server IP address. The SNTP server

allows the gateway to synchronize the local time with

the remote server.

Time Zone Choose your time zone.

**Daylight Saving** Enable or disable daylight saving.

Sync Interval Show the periodic interval the gateway waits before it

resynchronizes the gateway's time with that of the

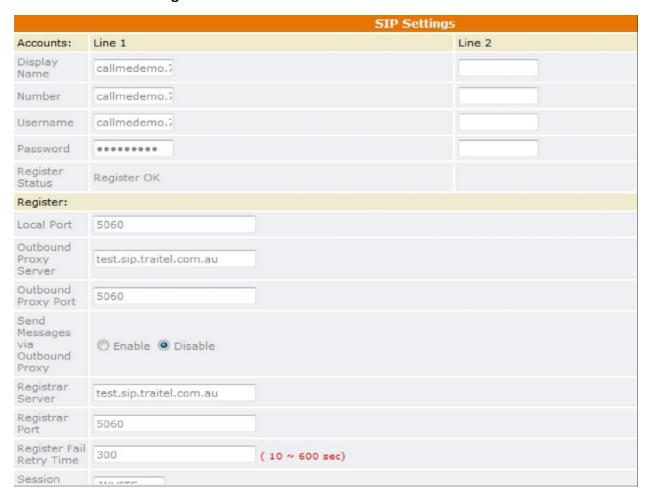
specified SNTP server.

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Email: c

# 5.16 **VoIP – SIP Settings**



# Click Apply to update the modification.

| Display Name    | The name displayed on the LCD. Note that TraiTel does not send this information to the caller. The username provided under the VoIP configuration goes here.         |
|-----------------|--|
| Number          | The number in the URI displayed on the LCD. Note that Traitel does not send this number to the caller. The username provided under the VoIP configuration goes here. |
| Username        | Username to log in to the SIP server. The username provided under the VoIP configuration goes here.  |
| Password        | User password to log in to the SIP server. Your TraiTel account main password goes here.   |
| Register Status | The current status of the SIP registration.  |

**Local Port** The local SIP port of the TA (typically 5060).

Outbound Proxy Server Outbound proxy server IP address.

Outbound Proxy Port Port number of Outbound Proxy server.

Send Messages via Outbound Proxy Enable/Disable send messages via outbound proxy.

When this feature is enabled, all messages will be sent

through the outbound proxy.

**Registrar Server** SIP Registrar server IP address.

**Registrar Port** Port number of SIP Registrar server.

Register Fail Retry Time The periodic interval at which the device retries the SIP

registration after a failure of the SIP registration.

Session Type Select Invite or Update as the Session Timer method.

Session Refresher Select UAC (User Agent Client) or UAS (User Agent

Server) as the Session Timer refresher.

Session Expires The time interval in which the TA periodically refreshes

SIP sessions by sending repeated Invite or Update

requests, depending on the session type.

**Register Expires** The time after which the registration on the SIP

Registrar expires. The TA must send SIP Register to

keep the registration at half the setting time.

**UDP Timeout** Timeout for SIP requests (100 ~ 3000ms). Set "0" to

disable this feature and follow the RFC 3261 rule.

**UDP Retry Times** The number of times to send SIP requests. Set to "0" to

disable this feature and follow the RFC 3261 rule.

Enable PRACK A SIP method which acknowledges provisional

responses like 180 ringing. Enable for a more reliable

connection.

**Anonymous** 1. If Disable is selected, the full URI and name are sent

to the receiver's device when the user makes a call.

2. When Full URI is selected, "Anonymous" is sent to the receiver's device. It may display anonymous or

nothing on the receiver's device.

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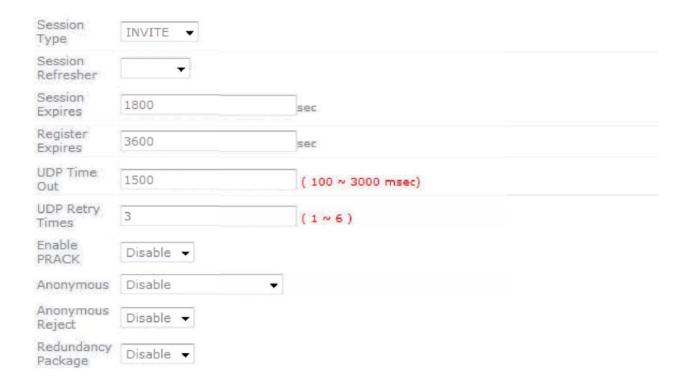
3. When Display name is selected, only the display name is replaced by "Anonymous" when the user makes a phone call. It may display anonymous or nothing on the receiver's device.

# **Anonymous Reject**

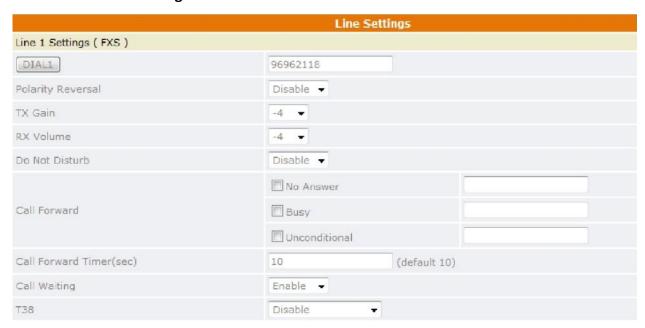
Select Enable to reject anonymous calls.

# **Redundancy Package**

Enable/Disable the B2B service which is a special platform that provides advanced VoIP services. Please contact your service provider for details.



# 5.17 VoIP – Line Settings



**Dial Button** Allows the user to dial numbers using the web

interface.

**Polarity Reversal** Enable/Disable the polarity reversal signal.

**TX Gain** Set a specific send audio level .

**RX Volume** Set a specific receive audio level.

**Do Not Disturb**Select Enable to reject incoming calls or Disable to

disable the function.

Call Forward allows you to forward incoming calls to a

pre-designated telephone number. It includes **No Answer, Busy** and **Unconditional**. Please enter the IP address, URI or number to be registered with the SIP

server.

Call Forward Timer The time elapsed before the call is considered not

answered and is forwarded to a designated number.

The default is 10 seconds.

Call Waiting Call Waiting ensures that all important calls get to you.

For example, if you are on the phone when another person tries to call you, an audible beep will inform you that someone is waiting on the other line. You can

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decide whether you want to put the current caller on hold and take the incoming call.

**T38** 

Enable/Disable T.38 support, normally for fax users. Choose "Talk after fax end" to resume the phone call after the fax process is finished.

# 5.18 **VoIP – IAX Settings**

|                              |        | IAX Settings |  |
|------------------------------|--------|--------------|--|
| Accounts:                    | Line 1 | Line 2       |  |
| Display                      |        |              |  |
| Number                       |        |              |  |
| Username                     |        |              |  |
| Password                     |        |              |  |
| Register<br>Status           |        |              |  |
| Server:                      |        |              |  |
| Port                         | 4569   |              |  |
| Server                       |        |              |  |
| Server<br>Port               | 4569   |              |  |
| Refresh<br>Interval<br>(sec) | 3600   |              |  |
|                              |        | Apply Cancel |  |

IAX- Inter Asterisk exchange protocol is a proprietary protocol of Asterisk by Digium. It is a simple protocol like SIP. Yet, it can pass through any kind of NAT due to the way that it's been designed.

| Display Name     | Name displayed on the LCD for the caller.                                 |
|------------------|---|
| Number           | The number in the URI displayed on the LCD for the caller.                |
| Username         | User name to log into the IAX server.                                     |
| Password         | User password to log into the IAX server.                                 |
| Register Status  | The current status of the IAX Registration                                |
| Port             | TT11 VoIP Router TA supports IAX2 protocol. Normally IAX2 uses Port 4569. |
| Server           | The Asterisk server's IP address  |
| Server Port      | The port number for the Asterisk server. Default is 4569                  |
| Refresh Interval | The time interval at which the phone periodically refreshes IAX sessions. |

# 5.19 VoIP – Call Control

| Call Control             |                     |                    |  |
|--------------------------|---------------------|--------------------|--|
| Dialing:                 |                     |                    |  |
| Dial Timeout(sec)        | 1                   | (max 120 sec)      |  |
| Ring Timeout(sec)        | 30                  | (max 120 sec)      |  |
| First Digit Timeout(sec) | 20                  |                    |  |
| Inter Digit Timeout(sec) | 3                   |                    |  |
| DTMF Method              | RTP Relay ▼         |                    |  |
| Payload Type             | 101                 | (96 ~ 127)         |  |
| Voice:                   |                     |                    |  |
| Echo Cancel              | Enable ▼            |                    |  |
| Voice Activity Detection | Disable 🔻           |                    |  |
| Default Codec            | G.711 u-law ▼ Adva  | nce Codec Settings |  |
| ULAW Size(ms)            | 20ms •              |                    |  |
| ALAW Size(ms)            | 20ms •              |                    |  |
| G729 Size(ms)            | 20ms ▼              |                    |  |
| G726 Size(ms)            | 20ms •              |                    |  |
| iLBC Frames per Packet   | 1 •                 |                    |  |
| iLBC Mode                | 30ms 13.3Kbit/sec ▼ |                    |  |
| Call:                    |                     |                    |  |
| Country                  | Australia 🔻         |                    |  |
| Caller ID Display        | DT_DR(BELLCORE FSK) | •                  |  |
| 3-Way Conference         | Disable 💌           |                    |  |
| Call Transfer            | Enable ▼            |                    |  |
| Outgoing IP Call         | Enable 🔻            |                    |  |
| Incoming IP Call         | Enable ▼            |                    |  |
| RTP:                     |                     |                    |  |
| RTP Timeout(sec)         | 0                   |                    |  |
| RTP Port                 | 41000               |                    |  |
| RTP TOS                  | 5 ▼                 |                    |  |
| RTP TOS(lower 5 bits)    | 0                   | range(031)         |  |
| NAT Traversed:           |                     |                    |  |
| STUN                     | Disable ▼           |                    |  |
| Stun Server              |                     |                    |  |
| UPNP                     | Disable ▼           |                    |  |
| NAT Keep Alive Time      | 0 (sec)             |                    |  |
|                          | Apply Cano          | el                 |  |

Click **Apply** to update the modification.

# **Dial Timeout**

The TT11 VoIP Router TA will automatically cancel a call out if the caller does not pick up the phone within the set time.

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Ring Timeout The TT11 VoIP Router will automatically reject a call if

the call is not picked up within the set time.

First Digit Timeout Specifies the maximum duration for the first digit to be

keyed in.

Inter Digit Timeout Specifies the maximum duration between successive

digits before the dialed in numbers are sent out.

**DTMF Method** Please choose RTP Relay, Voice or SIP Info.

Payload Type The Payload type for the DTMF method "RTP Relay".

**Echo Cancel** The algorithm for cancelling echo within the voice

stream. Enabling this function is recommended.

**Voice Activity Detection** The voice activity detection (VAD) is a component of

the DSP software that examines a caller's incoming signal and determines if the signal contains sufficient energy and is likely to be speech rather than a click.

**Default Codec** Default voice codec.

**ULAW, ALAW, G.729, G.726 Size** One RTP packet is sent out on every specified time

cycle.

**iLBC Frames per Packet**Selectable amount of frames for each RTP packet.

**iLBC Mode**One RTP packet is sent out on every specified time

cycle.

**Country** Defines the user location to fit local Telco system

requirements.

**Caller ID Display** Select the method of Caller ID generation.

**3-Way Conference** Enable/Disable 3 way conference. Hook-flash to start.

Call Transfer Enable to transfer the call after it hangs up from a 3

way conference. The TT11 must be the initiator of the 3

way conference call.

Outgoing IP Call Enable/Disable outgoing IP call.

**Incoming IP Call** Enable/Disable incoming IP call.

RTP Timeout (sec) The timer for terminating the SIP session if the gateway

is aware of the absence of an RTP stream.

RTP Port Initial port number for sending RTP packets.

**RTP TOS**Type of service value for Quality of Service.

RTP TOS (lower 5 bits) The lower 5 bits of the TOS field  $(0^{\sim}31)$ .

STUN Enable/Disable STUN (Simple Traversal of UDP through

NAT). This function is used for NAT traversal.

**Stun Server** The IP address or host name of the STUN server.

**UPNP** Enable/Disable UPnP (Universal Plug & Play). This

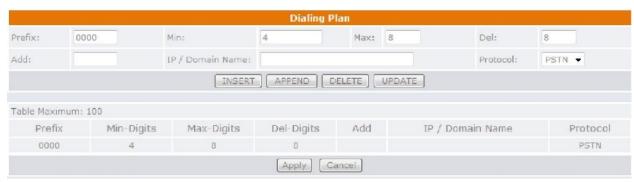
function is used for NAT traversal.

NAT Keep Alive Time The time interval that the IP phone sends the keep-

alive packet in order to ensure that NAT works

properly.

# 5.20 VoIP - Dialling Plan



Local dialing plan allows users to dial out to a VoIP Device using a pre-defined number. Users do not have to change their dialing habit. Click **Apply** to update the modification.

Prefix Numbers defined here are used as the beginning digits

of the dialing pattern. Maximum input length is 6 digits.

Min. Minimum digits user can key in.

Max. Maximum digits user can key in.

**Del.** Number of digits defined in this field will be removed

from the dialing pattern. For example, if we dialed 81352109378 and the delete digit is 2, then the actual dialed number is 352109378. First 2 digits are removed.

Maximum digit delete is 3 digits.

Add Numbers in this field are added at the beginning of the

dialing pattern. For example, if 001 is in this field, the number dialed is 001+the rest of the numbers. The

input

length is limited to 6 digits.

IP / Domain Name The IP address or domain name of the remote side VoIP

device. When the prefix number is matched, this call will go to the VoIP device with this IP address or domain

name.

**Protocol** Choose the dialing plan for SIP or IAX.

[Insert] Insert a record where the current record is located

(Current record is in a different color).

[Append] Add a new record to the bottom of the list.

[Delete] Delete the selected record.

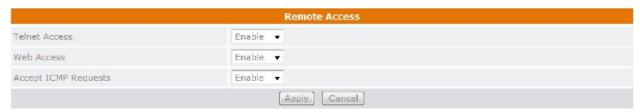
[Update] Modify the value of the selected record.

# 5.21 **VoIP – CDR**



Please click the **Refresh** button to see the updated CDR.

#### 5.22 Advanced - Remote Access



To temporarily permit remote administration of the gateway (i.e. from outside your LAN). Click **Apply** to update the modification.

#### Advanced - Virtual Server 5.23



Click **Apply** to update the modification.

Select the service you wish to configure. **Service Type** 

**Protocol** Automatic when you choose service type.

**Start Port** Enter the public start port number to configure.

**End Port** Enter the public end port number to configure.

**IP Address** Enter the IP address of a specific internal server to

which requests from the specified port are forwarded.

**DMZ** Enable/Disable the DMZ function.

**DMZ IP Address** Enter the IP address of a specific internal server which

needs to be accessible from the external network.

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# 5.24 Advanced – Firewall – MAC Filter



A MAC (Media Access Control) address is the unique networks hardware identifier for each PC on your network's interface (i.e. its Network Interface Card or Ethernet Card). Using your gateway's MAC address filter function, you can configure the switch to only accept traffic from specified machines, or else to block specific machines from accessing your LAN.

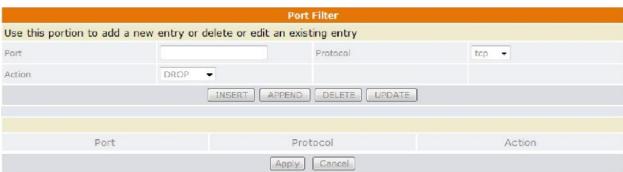
There is no pre-defined MAC address filter rule; you can add the filter rules to meet your requirements. Click **Apply** to update the modification.

# 5.25 Advanced – Firewall – IP Filter

| Use this portion to add a new entry or delete or edit an existing entry |            |                           |        |  |  |
|---|------------|---------------------------|--------|--|--|
|   |            |                           |        |  |  |
|   | _IN        | SERT APPEND DELETE UPDATE | )      |  |  |
|   | IP Address |                           | Action |  |  |
|   |            | Apply Cancel              |        |  |  |

Using your gateway's IP filter function, you can configure the switch to only accept traffic from specified machines, or else to block specific machines from accessing your LAN. Click **Apply** to update the modification.

# 5.26 Advanced – Firewall – Port Filter



Using your gateway's port filter function, you can configure the switch to only accept traffic from specified machines, or else to block specific machines from accessing your LAN. Click **Apply** to update the modification.

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# 6.0 Troubleshooting

If your TT11 VoIP Router TA is not functioning properly, you can refer to this chapter first for sample troubleshooting before contacting TraiTel. This can save you time and effort but if the issues are not covered here please call or send an email to <a href="mailto:customer-service@traitel.com">customer-service@traitel.com</a>.

| ISSUE   | RECOMMENDED ACTION   |
|---|--|
| I forgot my TT11 VoIP Router TA log in and/or password.         | <ol> <li>Try the default log in and password, please refer to Chapter 5.1</li> <li>Restore the TA to its factory default settings by holding the Reset button on the back for 6 seconds or more.</li> </ol>  |
| None of the LEDs are on when I turn on the TT11 VoIP Router TA. | <ol> <li>Check if the power cord is connected properly.</li> <li>Check if there is AC power coming from the power outlet.</li> </ol>   |
| Why can't I ping any PC on the LAN?                             | <ol> <li>Check the LAN LED on the front panel. The LED should be lit on the port that has a PC connected. If it is off, check the cables between your TT11 and the PC.</li> <li>Verify the IP address and subnet mask are consistent between the router and the workstations.</li> </ol> |
| Why can't I dial my friend's SIP number?                        | <ol> <li>Check the Registrar server domain name/IP<br/>address and outbound proxy domain name/IP<br/>address (under SIP settings in the configuration<br/>menu). Ensure you have the correct name or IP<br/>address.</li> </ol>  |
|   | <ol> <li>Check the LED display on the front panel of the TT11 to see if the SIP Reg LED is lit. If it is not lit, use a web browser and access the configuration menu. Make sure that the Registrar server domain name/IP address is correct.</li> </ol>                                 |
|   | <ol> <li>Check the Register status under SIP account<br/>settings in the configuration menu (from the<br/>web browser). If your status is unregistered, it<br/>means you do not have a SIP account. Contact<br/>Your SIP service provider to get an account.</li> </ol>                  |
| Why isn't my firmware updating?                                 | <ol> <li>Your TT11 VoIP Router TA automatically detects new firmware when you plug in the power. If a new version is available the TA will automatically update the firmware.</li> <li>Check the FTP address is correct.</li> </ol>  |

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|                                 | 3. Check with TraiTel if the firmware filename is |
|---------------------------------|---|
|                                 | correct.  |
| Why do I get "Can't Upgrade     | Make sure you exit the Setting mode (phonebook,   |
| Now" on the screen when I click | menu, speed dial) before you click [Apply] in the |
| [Apply] in the configuration    | configuration menu.                               |
| menu?                           |   |

# **Appendix: Product Specification**

# Protocol

- IETF SIP (RFC3261)
- IAX2

### **Network Interface**

RJ-45 x2, 10/100BaseT

(WAN\*1 & LAN\*1)

# Phone Interface

RJ-11 x2, connect to analogue phone

# **Call Features**

- Call Transfer (attended)
- Call Forward (Busy/No Answer/Unconditional)
- Call Hold/Retrieve
- **Call Waiting**
- **ID** Display
- **Anonymous Call**
- **Anonymous Call Blocking**

# Fax Support

- G.711 pass-through
- T.38

# Codec

- G.711 μ-law
- G.711a-law
- G.723.1 (5.3k) (option)
- G.723.1 (6.3k) (option)
- G.726
- G.729a
- iLBC

# **DTMF**

- In-band DTMF
- Out-of-band DTMF (RFC2833)
- SIP INFO

# **SIP Server Support**

- Registrar Server (set from web)
- Outbound Proxy (set from web)

# Security

HTTP 1.1 basic/digest authentication for web set up MD5 for SIP authentication (RFC 2069/RFC 2617)

# **Dial Methods**

- Direct IP call without SIP proxy
- Dial number via SIP server
- Dial URI via SIP server

### Router

- Virtual Server
- Firewall
- Remote
- Access NAT
- **DHCP Server**
- DMZ

# **Voice Quality**

- VAD (Voice Activity Detection)
- CNG (Comfort Noise Generation)
- AEC (Acoustic Echo Cancellation) G.168
- Jitter buffer

# QoS

ToS field

# **Dial Signal**

DTMF dialling

# Tone

- **DTMF** Ring
- Tone
- Ring Back Tone (local and remote)
- Dial Tone
- **Busy Tone**

# **IP Assignment**

- Static IP
- DHCP **PPPoE**

# **NAT Traversal**

- UPnP
- **STUN**

# TCP/IP

- IP/TCP/UDP/DHCP/RTP/ICMP/
- HTTP/SNTP/FTP/DNS

# Configuration

- Web browser
- Auto-provisioning system

# Firmware Upgrade

- Web-based Interface
- Auto-provisioning system

### **Power**

- Input AC 100-120V/220-240V 50/60Hz
- Output DC 12V

# **Environmental**

- Operating temperature 0 ~ 40°C
- Storage temperature: -20 ~ 60°C
- Operating humidity: 20% ~ 80%

# **Physical Dimensions**

- Size: 157(I) x 121(w) x 33(h) mm
- Weight: 260g
- Colour: Orange/White

# **Certification Compliance**

- FCC Part 15 Class B
- CE Class B
- VCCI Class B
- EN60950

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