艾泰科技

UTT Technologies

HiPER 811

Quick Guide

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Version: 1.2

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Warning

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

Table of Contents

About This Guide

Note

For best use of our product, it is strongly recommended that you update Windows Internet Explorer browser to 6.0 or above.

0.1 Conventions

0.1.1 Conventions for page path

Lever one menu > lever two menu（bold）means the menu path to open some configuration page. E.g. **System admin > Time** means that in web interface, first click level one menu **system admin**, then click level two menu **Time** to open clock management page.

0.1.2 Common Button

Following common action buttons are used in this doc.

Apply : Save and apply current settings.

Cancel : Cancel current settings and recover to the previous saved settings.

Refresh : Refresh the information on page.

Help : Acquire related help information.

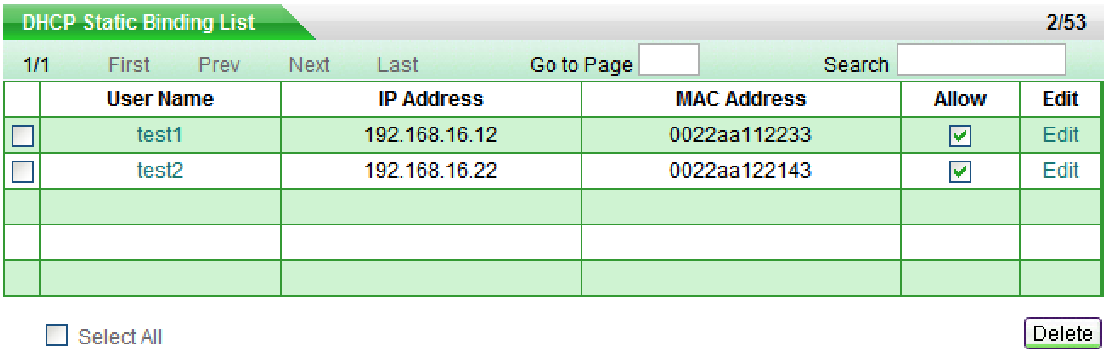
Delete : Delete the selected entry(s) with the corresponding settings.

0.1.3 List

In web page there are two kinds of lists: Editable list and read-only list.

0.1.3.1 Editable List

Editable list is used to display, edit and delete configuration item. Let us take **DHCP Static Binding List** (see Table 0-1) as an example to explain the functions.



DHCP Static Binding List 2/53

1/1 First Prev Next Last Go to Page Search

□	User Name	IP Address	MAC Address	Allow	Edit
□	test1	192.168.16.12	0022aa112233	☑	Edit
□	test2	192.168.16.22	0022aa122143	☑	Edit

□ Select All

Delete

Table 0-1 DHCP Static Binding List

1/1 : Current page number/ total pages, the example means the current page is first page, and total one page.

First : Go to the first page.

Prev : Go to the previous page.

Next : Go to the next page.

Last : Go to the last page.

Go to Page ▭ : Enter page number in text field, then click **Go to** or type <Enter> to jump to that page.

Search ▭ : Enter the search text in text field, then type <Enter> to display all the matched entries, besides, you can search within results. After search, if you want to display all the entries, you only need type <Enter> in empty text field.

Note: The match criterion is that search text exists in entry's information.

2/53 : Created entry number / maximum number, the example means two DHCP static binding entries have been set up and the maximum configurable entries number is 53.

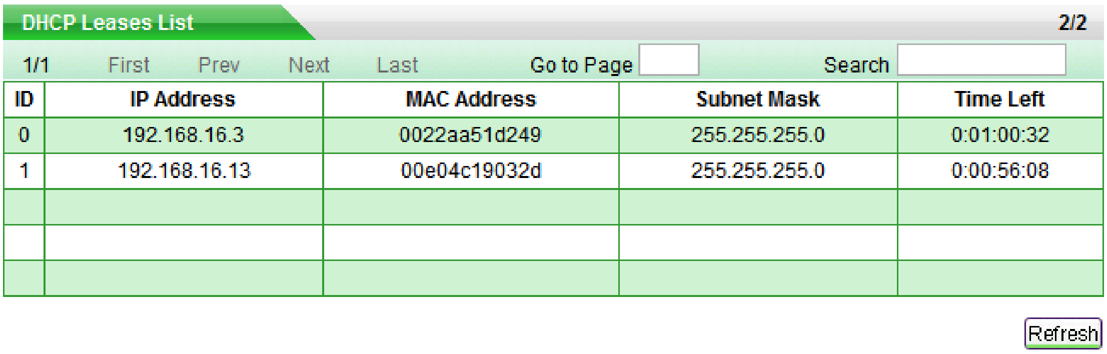
Edit : Click to open corresponding edit page.

□ Select All : Select it to select all the entries in current page. Else, unselect all the entries.

Delete : First select some entry(s) (by selecting the leftmost check box), and then click it to delete the selected entry(s).

0.1.3.2 Read-only List

Read-only list is used to display the system status information that is not editable. Let us take **DHCP Leases List** (see Table 0-2) as an example to explain the functions.



DHCP Leases List 2/2

ID	IP Address	MAC Address	Subnet Mask	Time Left
0	192.168.16.3	0022aa51d249	255.255.255.0	0:01:00:32
1	192.168.16.13	00e04c19032d	255.255.255.0	0:00:56:08

Table 0-2 DHCP Leases List

1/1 , First , Prev , Next , Last , Go to Page ▭ , Search ▭ have the same meaning of the former.

2/2: Current status entry number /maximum number，the example means there are two status information entry in the list.

Refresh : Refresh the list to view current status of the list.

0.1.3.3 Sorting Function

Except **Access Rule List** in **Advanced Setup > Access Rule** page, all the lists in web page support sorting function. Steps are as following:

Clicking the column title in list will make the list sorts the data by clicked column. The first click makes it sorted descendingly. And the secondary click makes it sorted ascendingly. The third one is descending again, and so forth. Each sorting will make the list display the first page.

0.2 Factory Default Settings

1. The following table provides the factory default settings of Interfaces.

Interface	IP Address	Subnet Mask
LAN	192.168.16.1	255.255.255.0
WAN	192.168.17.1	255.255.255.0

Table 0-3 the Factory Default Settings of Interfaces

2. The default administrator’s user name is **Default** (case sensitive) with empty password.

Chapter 1 Product Overview

The HiPER 811 security gateway/VPN firewall is a purpose-built security system designed for small-sized businesses and enterprise branch offices.

The HiPER 811 integrates a rich suite of functions, including L2TP/PPTP/IPSec VPN, NAT/PAT, firewall, bandwidth management, DHCP server/client, popular attack defense capability, system management and monitor, and so on.

1.1 Key Features

- Operation mode: NAT/NAPT, route and hybrid mode
- Internet connection type: PPPoE, Static IP and DHCP
- Supports Express Forwarding, excellent performance
- Built-in firewall，Defense against ARP spoofing, DoS/DDoS attack, port scanning, Worm.Blaster, Worm.Sasser, etc.
- Supports NAT port forwarding, DMS host
- Supports NAT ALG: ICMP, FTP, GRE, PPTP, ESP ALG, etc.
- Supports NAT sessions limit for each internal host
- Supports bandwidth limit for each internal host
- Supports IP packet filtering IP address, protocol and TCP/UDP port filtering
- Supports Web content filtering: URL and keyword filtering
- Filtering based on schedule
- IM (instant messenger) control: block or allow IM application, e.g., MSN and QQ

Messenger

- P2P (peer-to-peer) control: block or allow P2P application, e.g., BitTorrent and BitSpirit
- Supports personal policy settings to realize personal service according to need
- Provide hierarchy management structure (include personal, group and global) to flexibly manage the internal users
- Supports IP/MAC binding, blacklist and whitelist Setting
- IP/MAC intelligent binding: automatic binding and batch binding
- Supports DHCP Server and Client，DHCP static binding；
- Supports SNTP (Simple Network Time Protocol)
- Supports DDNS (Dynamic DNS)
- Supports Port-based VLAN
- Supports UPnP
- Supports port mirror
- Supports MAC address clone
- Supports static route，dynamic route protocol: RIP I and RIP II
- Supports NAT traversal of IPSec, PPTP and L2TP
- Provides Web user interface, Command line interface (Telnet)
- Remote management via Web or CLI
- Supports SYSLOG, SNMP v1 and v2c
- Configuration file backup and restore
- Firmware upgrade via TFTP or Web
- Multi-level administration privileges
- Built-in diagnostic tool: ping, traceroute, nslookup
- Real-time monitoring, logging, alarms of system activities
- Supports IPSec, L2TP and PPTP VPN
- FQDN (fully qualified domain name) support for dynamic IP address VPN connections
- Site-to-site VPN, remote access VPN (client-to-site)
- VPN pass-through of L2TP, PPTP, IPSec
- L2TP server and client, PPTP server and client

- IPSec features as followed:
  1. AutoIKE based on preshared key and manual key tunnels
  2. ESP and AH protocols
  3. DES, 3DES and AES 128/192/256 encryption algorithm
  4. MD5 and SHA-1 hash algorithm
  5. Diffie-Hellman group 1, 2 and 5
  6. Main mode and aggressive mode
  7. DPD (dead peer detection) and Anti-Replay
  8. Hub-spoke and mesh connections

1.2 Specifications

- Conforms to IEEE 802.3 Ethernet and IEEE 802.3u Fast Ethernet standards
- Supports TCP/IP, PPPoE, DHCP, ICMP, NAT, Static Route, RIPI/II, SNMP (MIB II), etc.
- Supports 4-port LAN switch, a WAN port, and a reset button
- Supports Auto-negotiation for 10/100Mbps and duplex mode for each physical port
- Supports Auto MDI/MDI-X for each physical port
- Provides status LEDs
- Environment:

  Operating Temperature: 32ºF to 104ºF (0ºC to 40ºC)

  Storage Temperature: 32ºF to 158ºF (0ºC to 70ºC)

  Operating Humidity: 10% to 90%, Non-condensing

  Storage Humidity: 10% to 90%, Non-condensing

  Power Supply: 180V to 240V AC, 50/60Hz

Chapter 2 Physical Installation

This section describes how to install the Device.

2.1 Front Panel

The LEDs and network ports are located on the front panel of the Device.

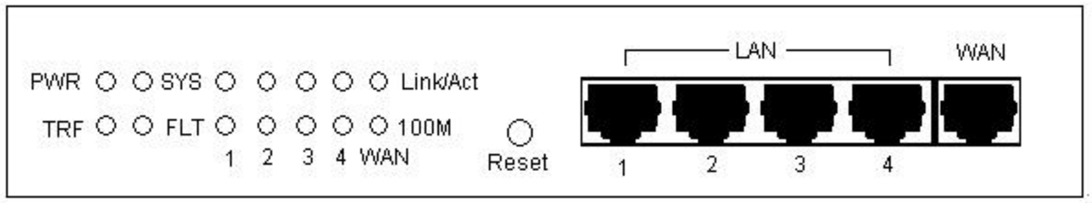


Figure 2-1 Front Panel

2.1.1 LEDs

The LEDs give real-time information of system status. The following table provides description of the LEDs status and their meaning.

LED	Status	Description
PWR	Green	The Device is powered on.
	Off	The Device is powered off.
SYS	Blinking	When system is working well, the status light will blink twice per second, and it will blink slower under heavy load.
	Off or Green	Ever-on or ever-off means system is abnormal.

TRF	Blinking	Network activity on the Device.
	Off	No activity on the Device.
FLT	Blinking	The Device is not operating correctly.
	Off	The Device is operating correctly.
Link/Act	Green	Valid link on the associated port.
	Blinking	Network activity on the associated port.
	Off	No link established on the associated port.
100M	Green	The associated port is connected at 100Mbps.
	Off	The associated port is connected at 10Mbps.

Table2-1 LEDs Description

2.1.2 Ports

Interface	**Description**
LAN (1, 2, 3, 4)	These Ethernet ports connect the Device to wired computers, hubs, switches, and other Ethernet network devices.
WAN	This port connects to a cable or DSL modem, or other Ethernet network device.

Table2-2 Ports Description

2.1.3 Reset Button

If you want to reset the Device to the factory default settings, press and hold in the Reset button for more than 5 seconds when the Device is on, then release the button. After that, the Device will restart with the factory default settings.

✓ **Note**

1. The reset operation will clear all the settings and preferences that you have configured.
2. You can also reset the Device to the factory defaults on the **System Admin > Backup & Restore** page.

2.2 Connecting the Device

Before you install the Device, please make sure your PC can connect to the Internet through your broadband service successfully. If there is any problem, please contact with your ISP for help.

After that, please install the Device according to the following steps. Don't forget to pull out the power plug and keep your hands dry.

Step 1 Power off your PC(s), Cable/DSL modem, and the Device.

Step 2 Connect the PC(s) and the Switches or Hubs on your LAN to the Device's LAN port (see Figure 2-2).

Step 3 Connect the Cable/DSL modem to the Device's WAN port (see Figure 2-2).

Step 4 Connect the power cord to the power connector on the back panel of the Switch. Then plug the other end of the power cord to a grounded three-prong AC power outlet. The Device will start to work automatically.

Step 5 Power on your network devices, PCs, Switches, Hubs, and so on.

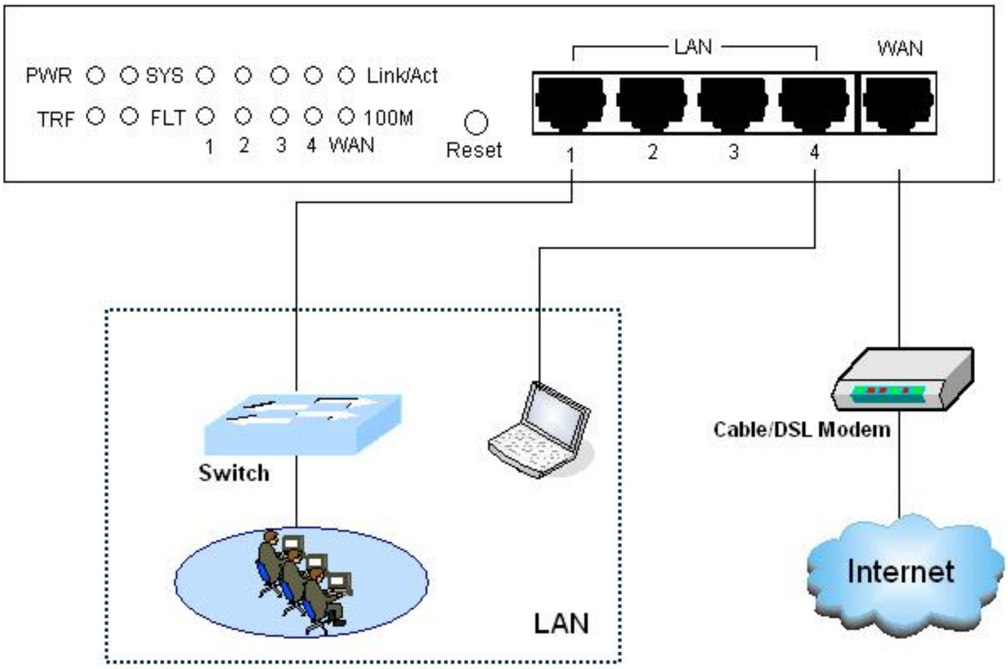


Figure 2-2 Connecting the Device

Chapter 3 Quick Setup Guide

After you have connected the Device into your network, you may configure it. This chapter describes how to configure the basic functions of your Device. It will only take you a few minutes. You can access the Internet via the Device immediately after it has been successfully configured.

3.1 Configure PC

Before set up the Device, you need to install and configure TCP/IP properties on each network PC.

Step 1 Connect the PC to the Device's LAN port.

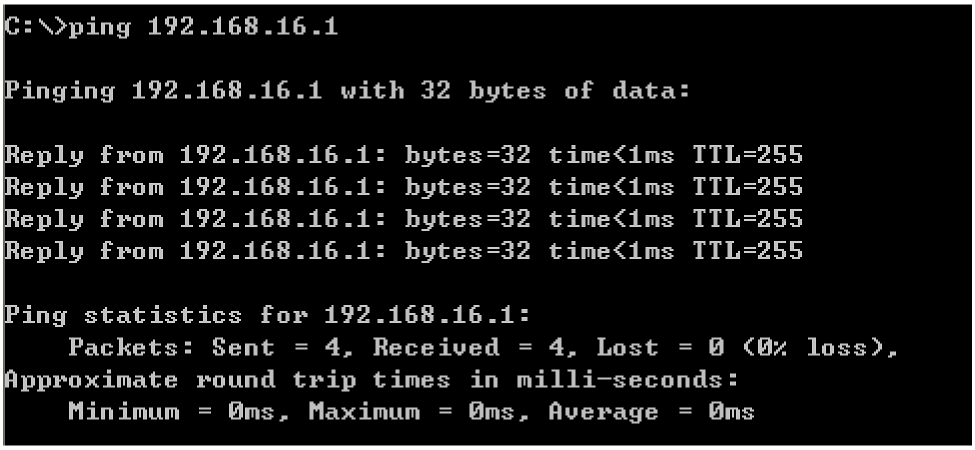
Step 2 Install TCP/IP protocol components on your PC. If it has been installed, please ignore it.

Step 3 Setup IP settings for your PC. You can setup manually or configure the PC to obtain an IP address automatically.

- Setup manually: Your PC's IP address should be within the range from 192.168.16.2 to 192.168.16.254, the default gateway should be 192.168.16.1 (LAN interface's IP address), and the DNS server should be provided by your ISP.
- Setup automatically: In the **Internet Protocol (TCP/IP) Properties** screen, select **Obtain an IP address automatically**. The Device's built-in DHCP server will automatically assign an IP address to the PC.

Step 4 To verify the network connection between your PC and Device, you can use the ping command at the command prompt on the PC: **Ping 192.168.16.1**

- If the displayed page is similar to the screenshot below, the connection between your PC and Device has been established.



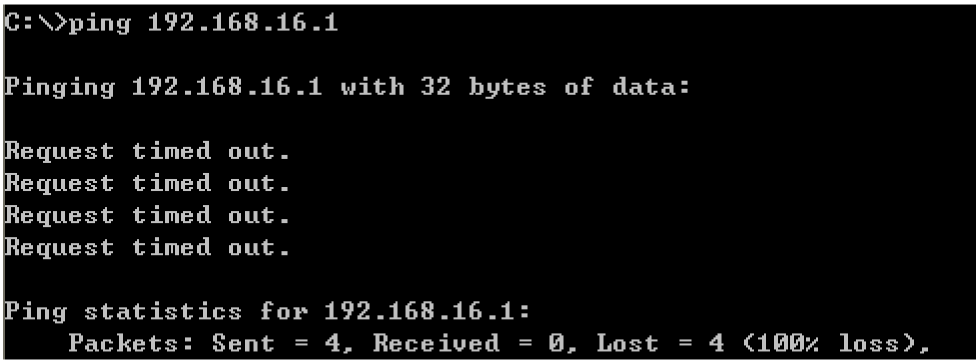
```
C:\>ping 192.168.16.1

Pinging 192.168.16.1 with 32 bytes of data:

Reply from 192.168.16.1: bytes=32 time<1ms TTL=255
Reply from 192.168.16.1: bytes=32 time<1ms TTL=255
Reply from 192.168.16.1: bytes=32 time<1ms TTL=255
Reply from 192.168.16.1: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.16.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

- If the displayed page is similar to the screenshot below, it means that your PC has not connected to the Device.



```
C:\>ping 192.168.16.1

Pinging 192.168.16.1 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.168.16.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

If it is failed to connect, please check it follow the steps below:

1. Is the connection between your PC and the Route correct?

The LEDs of LAN port which links to the device and the LED on your PC's adapter should be lit.

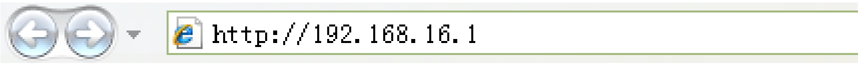
2. Is the TCP/IP configuration for your PC correct?

If the Device's IP address is 192.168.16.1, your PC's IP address should be within the range from 192.168.16.2 to 192.168.16.254, the gateway should be 192.168.16.1.

3.2 Login the Device

Once your PC is properly configured, please do the following to use the Web-based Utility.

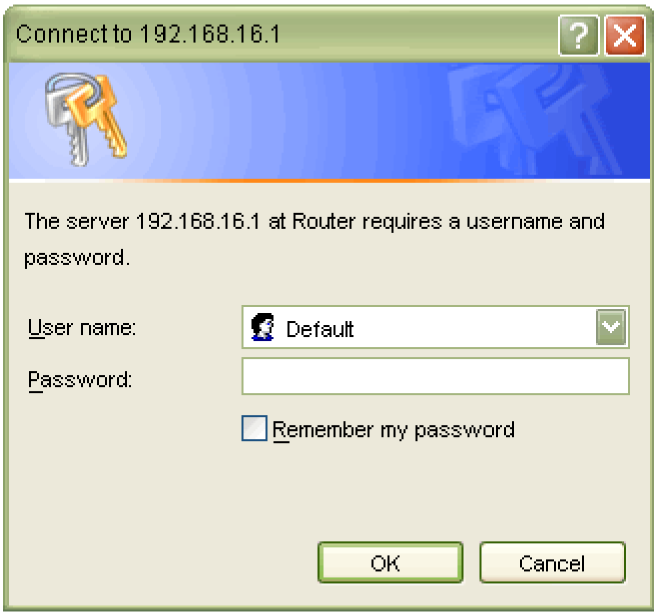
For local access of the Device's web-based utility, launch your web browser, and enter the Device's default IP address: **192.168.16.1**, in the RUL filed (see Figure 3-1). Then press the Enter key.



http://192.168.16.1

Figure 3-1 Address Bar

A login screen prompts you for your User name and Password. Enter **Default** (case sensitive) in the User name field, and keep the Password field empty (see Figure 3-2). Then click **OK**.



Connect to 192.168.16.1

The server 192.168.16.1 at Router requires a username and password.

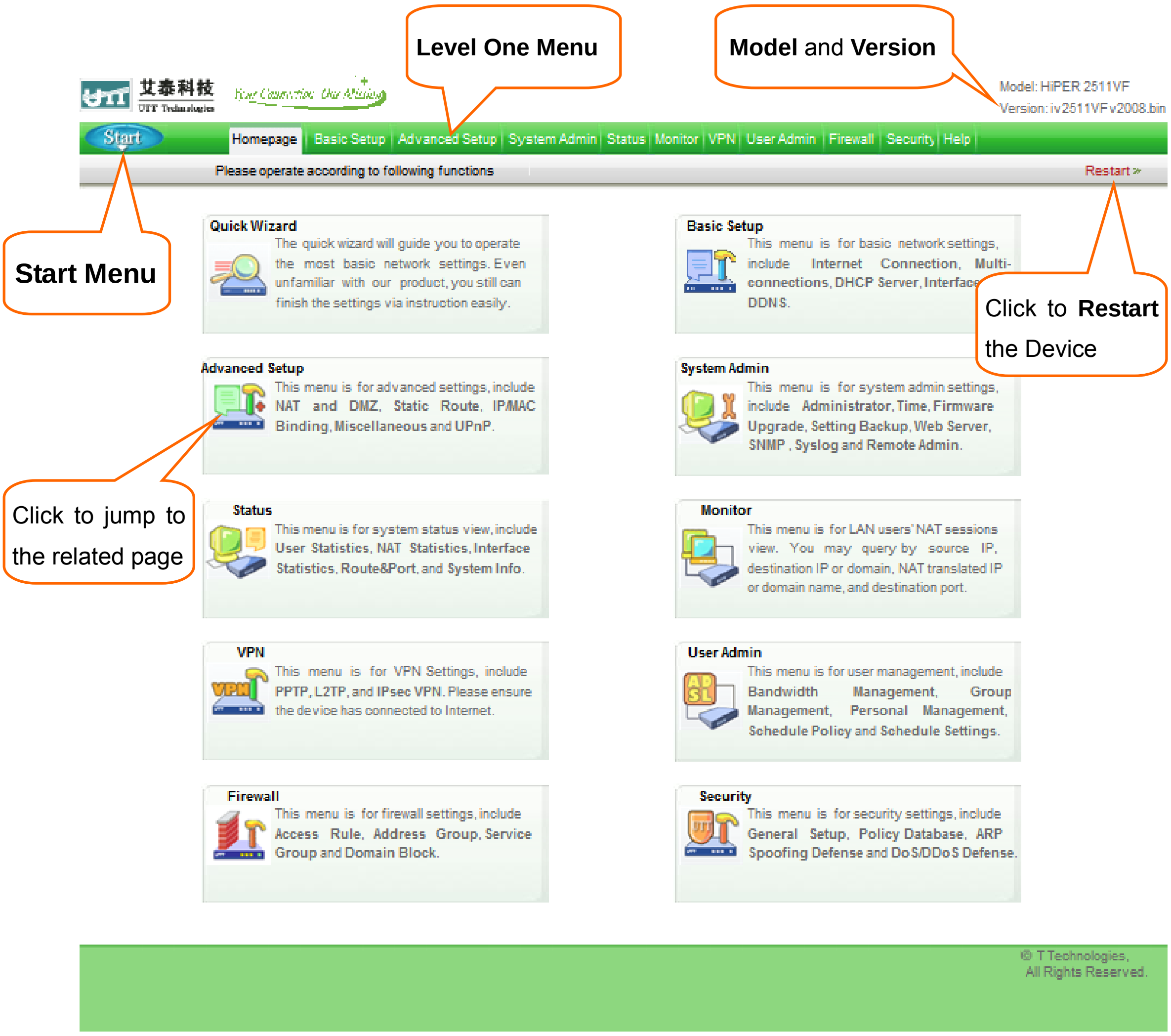
User name: Default

Password:

□ Remember my password

Figure 3-2 Login Screen

The first screen that appears is the Homepage (see Figure 3-3).


Level One Menu
Model and Version
Start Menu
Click to Restart the Device
Click to jump to the related page
艾泰科技 UTT Technologies
Your Connection Our Mission
Start
Homepage | Basic Setup | Advanced Setup | System Admin | Status | Monitor | VPN | User Admin | Firewall | Security | Help
Restart

Model: HiPER 2511VF
Version: iv2511VFv2008.bin

Please operate according to following functions

Quick Wizard
The quick wizard will guide you to operate the most basic network settings. Even unfamiliar with our product, you still can finish the settings via instruction easily.

Basic Setup
This menu is for basic network settings, include Internet Connection, Multi-connections, DHCP Server, Interface, DDNS.

Advanced Setup
This menu is for advanced settings, include NAT and DMZ, Static Route, IP/MAC Binding, Miscellaneous and UPnP.

System Admin
This menu is for system admin settings, include Administrator, Time, Firmware Upgrade, Setting Backup, Web Server, SNMP, Syslog and Remote Admin.

Status
This menu is for system status view, include User Statistics, NAT Statistics, Interface Statistics, Route&Port, and System Info.

Monitor
This menu is for LAN users' NAT sessions view. You may query by source IP, destination IP or domain, NAT translated IP or domain name, and destination port.

VPN
This menu is for VPN Settings, include PPTP, L2TP, and IPsec VPN. Please ensure the device has connected to Internet.

User Admin
This menu is for user management, include Bandwidth Management, Group Management, Personal Management, Schedule Policy and Schedule Settings.

Firewall
This menu is for firewall settings, include Access Rule, Address Group, Service Group and Domain Block.

Security
This menu is for security settings, include General Setup, Policy Database, ARP Spoofing Defense and DoS/DDoS Defense.

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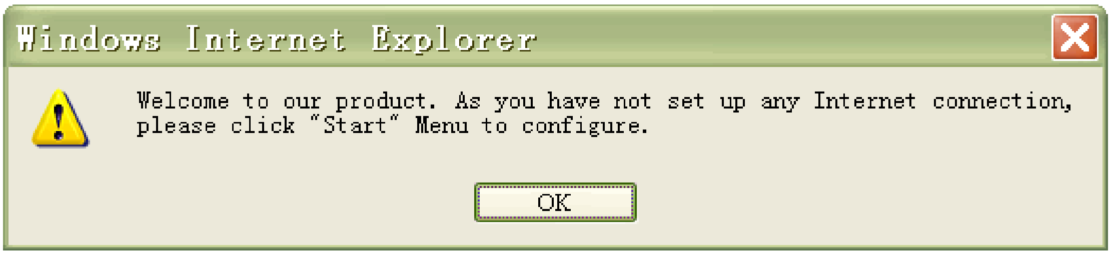
Figure 3-3 Homepage

Note

If you have not setup the Internet connection yet, the system will push a prompt dialog box as below:



Windows Internet Explorer

Welcome to our product. As you have not set up any Internet connection, please click "Start" Menu to configure.

Figure 3-4 A Dialog Box

Please click **OK**, then you can do common settings through the **Start** menu (see Figure 3-5), which including: Internet Connection, Network Security, Port Forwarding Rule, ARP Spoofing Defense, User Personal Policy, User Group Policy, Firewall Policy and System Info.

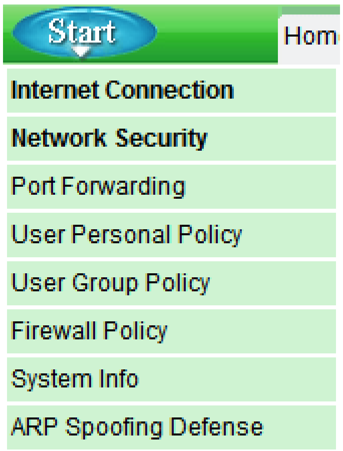


Figure 3-5 Start Menu

3.3 Internet Connection

Click **Start > Internet Connection**， it will jump to **Basic Setup > Internet Connection** page. This page lets you setup the Internet Connection, view its status, and modify or delete it.

Note

1. When you have finished the Internet connection setup, it is strongly recommended that you go to **Start > Network Security** page to do essential security settings.
2. If you change the IP address of the LAN interface during the connection setup, you should use a new address to login to the Device. And the default gateway of each LAN PC should use this new address to access Internet.

3.3.1 Internet Connection Setup

At first, please click the **Default** hyperlink of the connection entry in the **Internet Connection List** (see Figure 3-6).

Then select **Connection Type** provide by your ISP.

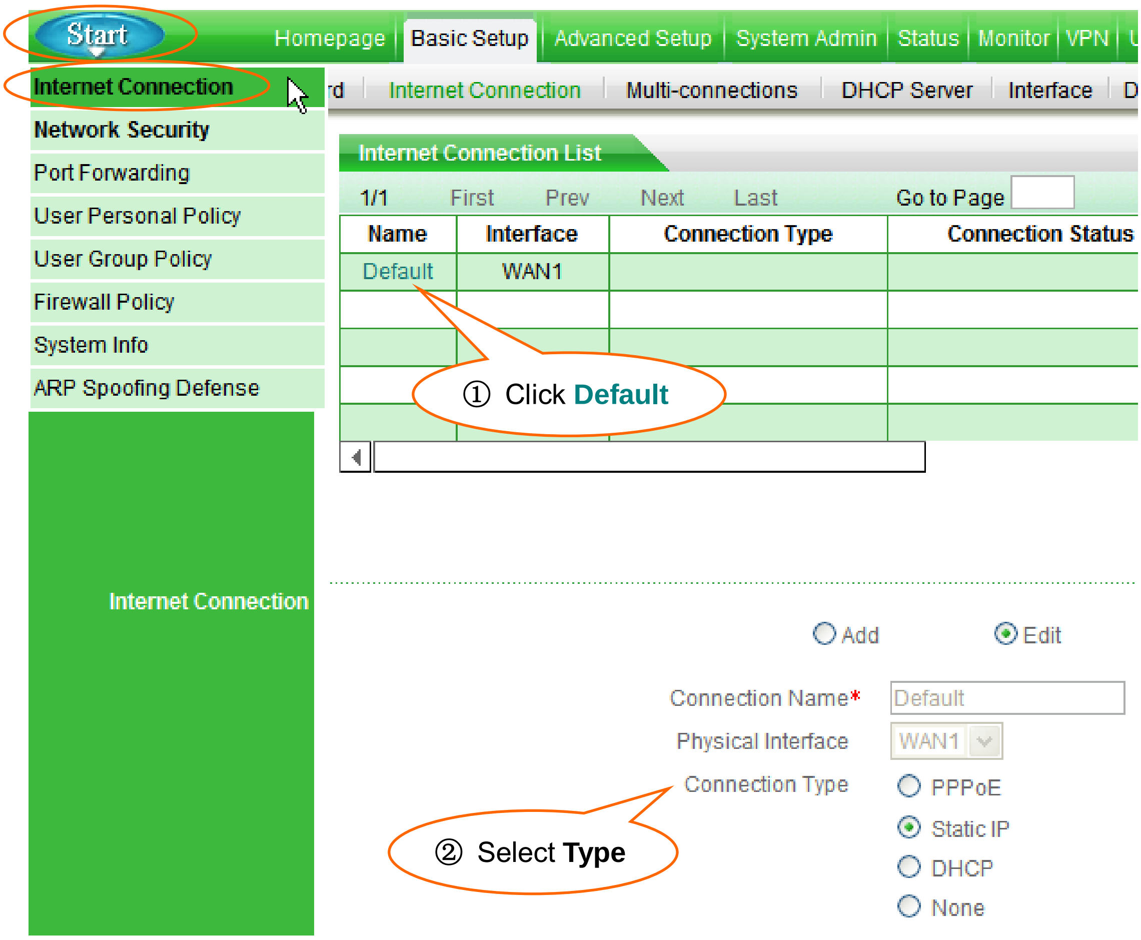
✧ **Connection Name:** The connection name is **Default**, which is reserved by system. You can't modify it.

✧ **Physical Interface:** The Default connection is bound to the WAN interface, you can't modify it.

✧ **Connection Type:** Select connection type from the radio boxes, which is provided by your ISP, available options: PPPoE, Static IP and DHCP (Obtain an IP automatically).

- **PPPoE:** Some DSL-based Internet Service Providers (ISPs) use PPPoE (Point-to-Point Protocol over Ethernet) to establish Internet connections for end-users. If you use a DSL line, check with your ISP to see if they use PPPoE, and then select **PPPoE**;

- **Static IP:** If you are required to use a permanent IP address, select **Static IP**;
- **DHCP:** If your ISP automatically assigns an IP address, select **DHCP**. Most cable modem subscribers use this connection type.



Name	Interface	Connection Type	Connection Status
Default	WAN1		

① Click **Default**

○ Add ● Edit

Connection Name* Default

Physical Interface WAN1

Connection Type ○ PPPoE ● Static IP ○ DHCP ○ None

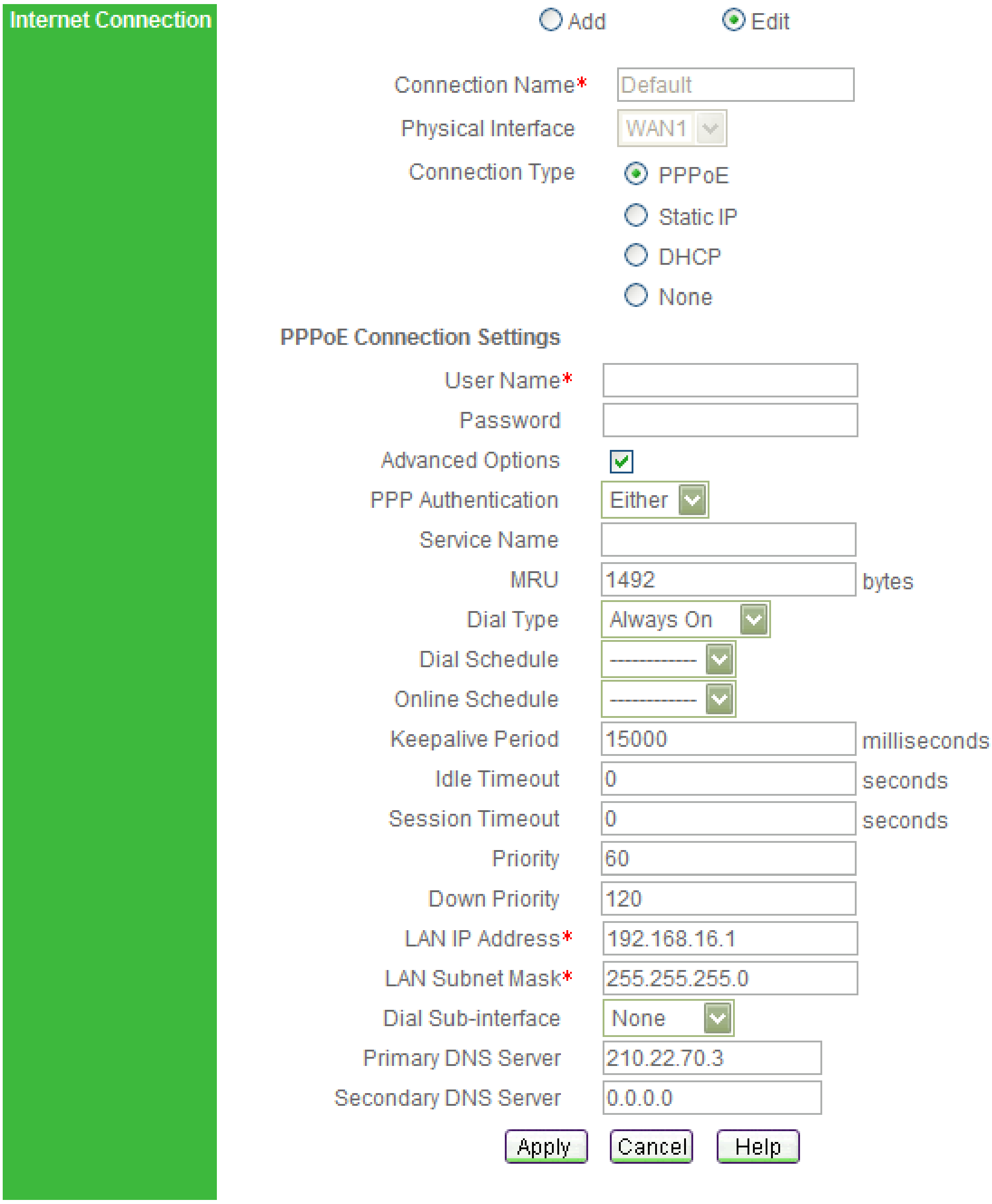
② Select **Type**

Figure 3-6 Select Connection Type

Depending on which connection type you select, you will see various settings. We will describe the settings for each connection type respectively (see chapter 3.3.1.1, 3.3.1.2 and 3.3.1.3).

3.3.1.1 PPPoE Connection

If you choose **PPPoE** connection type, you will see the following page.



Internet Connection

○ Add ● Edit

Connection Name*	Default	
Physical Interface	WAN1	
Connection Type	● PPPoE ○ Static IP ○ DHCP ○ None	

PPPoE Connection Settings

User Name*		
Password		
Advanced Options	☑	
PPP Authentication	Either	
Service Name		
MRU	1492	bytes
Dial Type	Always On	
Dial Schedule	------------	
Online Schedule	------------	
Keepalive Period	15000	milliseconds
Idle Timeout	0	seconds
Session Timeout	0	seconds
Priority	60	
Down Priority	120	
LAN IP Address*	192.168.16.1	
LAN Subnet Mask*	255.255.255.0	
Dial Sub-interface	None	
Primary DNS Server	210.22.70.3	
Secondary DNS Server	0.0.0.0	

Figure 3-7 PPPoE Connection Setup

✧ **User Name and Password**: Enter the PPPoE login user name and password provided by your ISP.

- ✧ **PPP Authentication:** Select PPP authentication mode from this drop-down box, available options: NONE, PAP, CHAP and Either.
  - **PAP:** Password Authentication Protocol;
  - **CHAP:** Challenge Handshake Authentication Protocol;
  - **None:** It means that there is no protocol will be used.
  - **Either:** It means that the Device will automatically negotiate it with the peer device.
- ✧ **LAN IP Address:** Enter the IP address for the Device's LAN interface.
- ✧ **LAN Subnet Mask:** Enter the subnet mask for the Device's LAN interface.
- ✧ **Primary DNS Server:** Enter the IP address of your ISP's primary DNS server.
- ✧ **Secondary DNS Server:** Enter the IP address of your ISP's secondary DNS server if it is available.
- ✧ **Advanced Options:** Select this check box to configure advanced parameters. In most case, you need not configure them.
- ✧ **Service Name:** Enter the Service Name, if provided by your ISP.
- ✧ **MRU:** The MRU (Maximum Receive Unit) setting specifies the largest packet size permitted for network receive. In most cases, keep the default value (1492). When dialing, the Device will automatically negotiate it with the peer device.
- ✧ **Dial Type:** Select type of dial connection from this drop-down box, available options: Always On, Manual and On Demand.
  - **Always On:** If you want the Device to establish a PPPoE session when starting up and to automatically re-establish the PPPoE session once disconnected, select this option.
  - **Manual:** If you want to dial and hang up a PPPoE session manually, select this option. In the case of **Manual** type, you should dial and hang up manually in the **Internet Connection List** on **Basic Setup > Internet Connection** page (See chapter 3.3.3).
  - **On Demand:** If you want the Device to establish a PPPoE session only when there are packets requesting to access the Internet (i.e., when a program on your computer attempts to access the Internet), select this option.

- **Dial Schedule:** If you select a schedule (set up on **User Admin > Schedule Settings** page), it will allow your Device to dial-up only in the selected schedule range. Else, the Device always can dial-up.

- **Online Schedule:** If you select a schedule rule (set up on **User Admin > Schedule Settings** page), your Device can keep the Internet connection active only in the online schedule range. Else, the connection always can keep active.

- **Keepalive Period:** When the Internet connection is connected**,** the Device will periodically send keepalive packets to the peer device per 1000 milliseconds. If the Device does not receive a response during a specified period (set by **Keepalive Period**), it will terminate the connection.

- **Idle Timeout:** This determines how long the Device keeps the Internet connection active after no Internet activity. If you set the value to zero, the Device will not terminate it.

- **Session Timeout:** This determines how long the Device keeps the Internet connection active since connected. If you set the value to zero, the Device will not disconnect it.

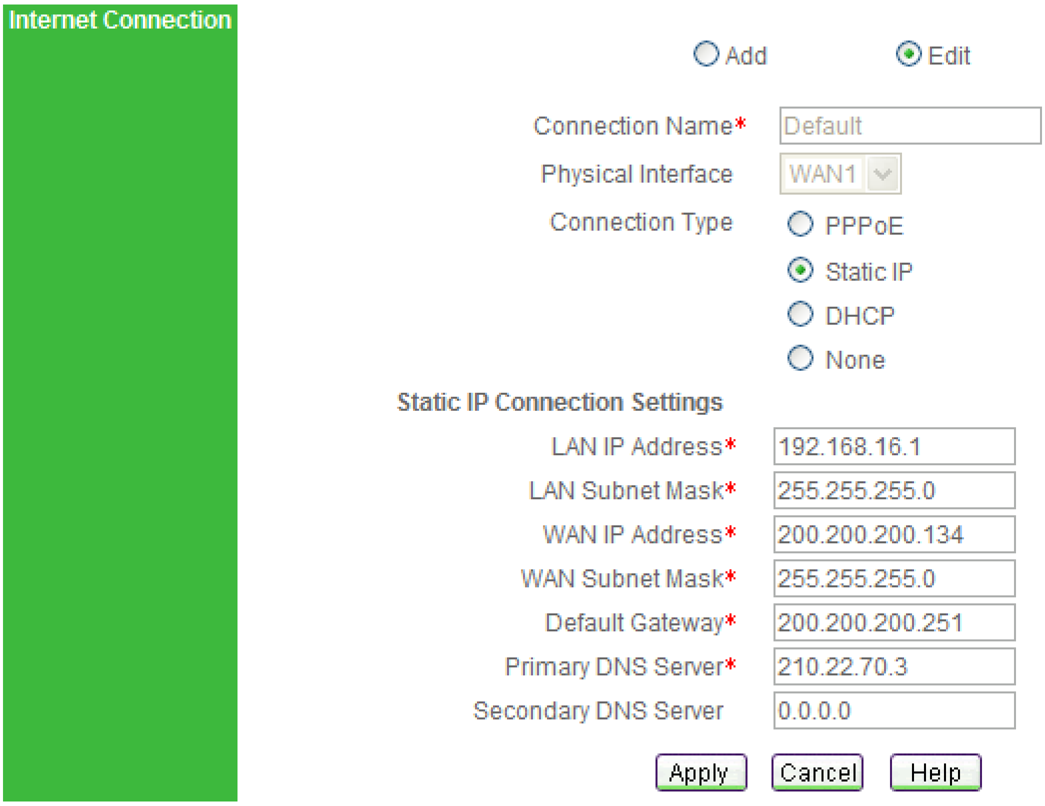
- **Priority:** It specifies the routing priority for connected connection. When there are several connections having the same destination subnet, the Device will choose the connection having the highest priority to transmit the packets. The lower value means the higher priority.

- **Down Priority:** It specifies the routing priority for disconnected connection. When there are several connections having the same destination subnet, the Device will choose the connection having the highest priority to dial-up. The lower value means the higher priority.

- **Dial Sub-interface:** This Device doesn't support it.

3.3.1.2 Static IP Connection

If you choose **Static IP** connection type, you will see the following page.



○ Add ● Edit

Connection Name* Default

Physical Interface WAN1

Connection Type ○ PPPoE ● Static IP ○ DHCP ○ None

Static IP Connection Settings

LAN IP Address* 192.168.16.1

LAN Subnet Mask* 255.255.255.0

WAN IP Address* 200.200.200.134

WAN Subnet Mask* 255.255.255.0

Default Gateway* 200.200.200.251

Primary DNS Server* 210.22.70.3

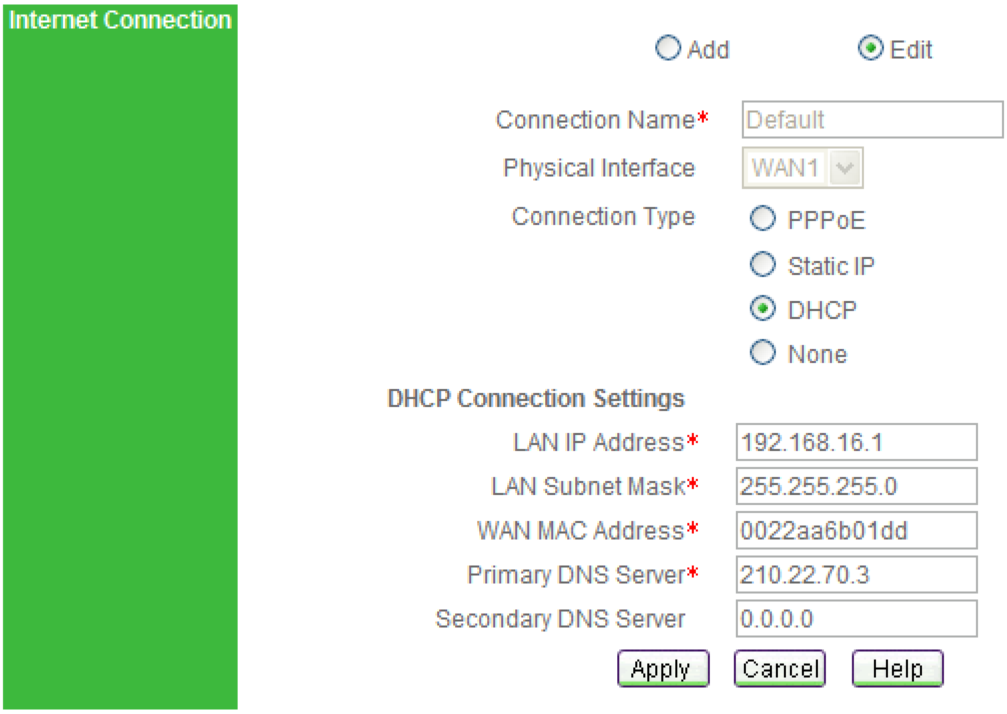
Secondary DNS Server 0.0.0.0

Figure 3-8 Static IP Connection Setup

- **LAN IP Address:** Enter the IP address for the Device’s LAN interface.
- **LAN Subnet Mask:** Enter the subnet mask for the Device’s LAN interface.
- **WAN IP Address:** Enter the IP address for the Device’s WAN interface, which is provided by your ISP.
- **WAN Subnet Mask:** Enter the subnet mask for the Device’s WAN interface, which is provided by your ISP.
- **Default Gateway:** Enter the IP address for the default gateway, which is provided by your ISP.
- **Primary DNS Server:** Enter the IP address of your ISP’s primary DNS server.
- **Secondary DNS Server:** Enter the IP address of your ISP’s secondary DNS server if it is available.

3.3.1.3 DHCP Connection

If you choose **DHCP** connection type, you will see the following page.



Internet Connection

○ Add ● Edit

Connection Name*	Default
Physical Interface	WAN1
Connection Type	○ PPPoE ○ Static IP ● DHCP ○ None

DHCP Connection Settings

LAN IP Address*	192.168.16.1
LAN Subnet Mask*	255.255.255.0
WAN MAC Address*	0022aa6b01dd
Primary DNS Server*	210.22.70.3
Secondary DNS Server	0.0.0.0

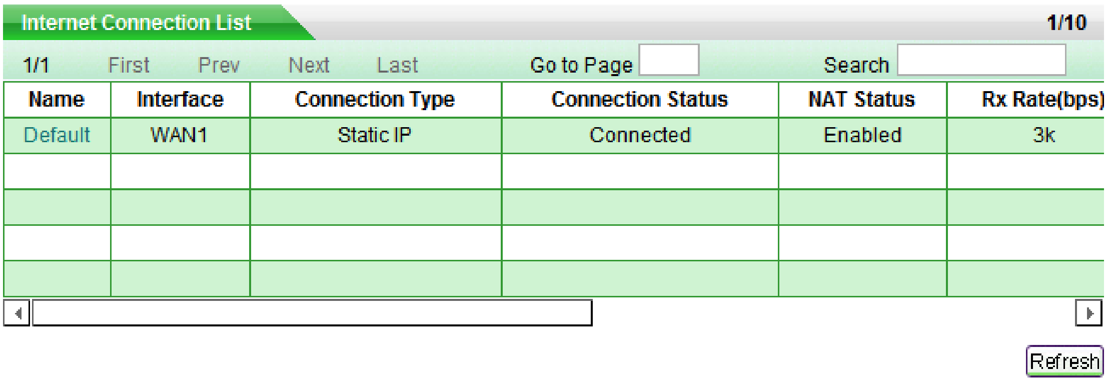
Figure 3-9 DHCP Connection Setup

- **LAN IP Address:** Enter the IP address for the Device's LAN interface.
- **LAN Subnet Mask:** Enter the subnet mask for the Device's LAN interface.
- **WAN MAC Address:** This field displays the current MAC address of the WAN interface. In most cases, you need not change it. But when using DHCP connection type, your ISP may only allow one MAC address to be registered. To bypass this restriction, you should enter the registered MAC address that is stored by your ISP.
- **Primary DNS Server:** Enter the IP address of your ISP's primary DNS server.
- **Secondary DNS Server:** Enter the IP address of your ISP's secondary DNS server if it is available.

3.3.2 Internet Connection List

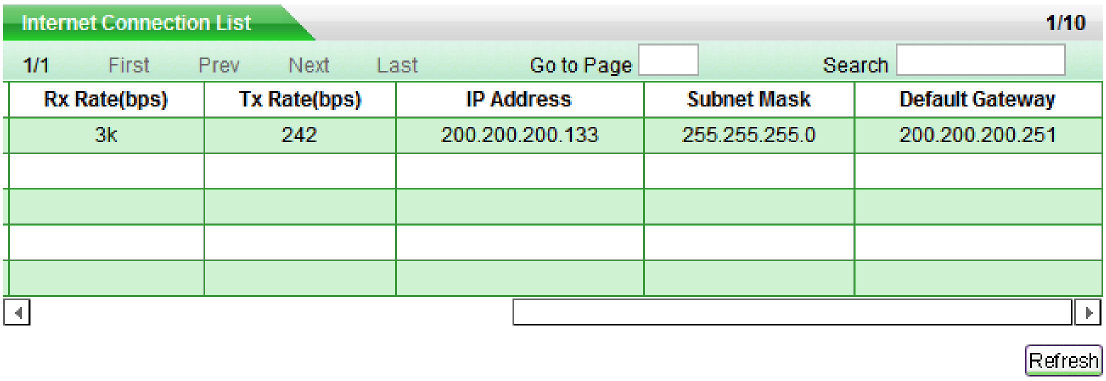
When you have configured the Default connection, you can view its status in the **Internet Connection List** (see Table 3-1).

To view current status of the connection, click **Refresh** button.



Name	Interface	Connection Type	Connection Status	NAT Status	Rx Rate(bps)
Default	WAN1	Static IP	Connected	Enabled	3k

Table 3-1 Internet Connection List



Rx Rate(bps)	Tx Rate(bps)	IP Address	Subnet Mask	Default Gateway
3k	242	200.200.200.133	255.255.255.0	200.200.200.251

Table 3-1 Internet Connection List (continued)

- ✧ **Name:** It displays the connection's name.
- ✧ **Interface:** It displays the name of the physical interface to which the connection is bound.
- ✧ **Connection Type:** It displays the connection's type. In the case of **PPPoE** type, it will also display the user name.
- ✧ **Connection Status:** It displays current status of the connection. We will describe each connection type respectively.

1. PPPoE Connection Status

There are eight kinds of status for PPPoE connection (see Table 3-2). During it is in connected status, it will also display the elapsed time (day: hour: minute: second) since connected.

Status	Description
Closed	The physical interface is inactive, or not dial-up.
Dialing	Start dialing up, but not receive response yet.
Authenticating	Server responded and is authenticating.
Connected	Authenticated succeed, and the connection is established and ready for date transmit.
Disconnecting	The PPPoE session is disconnecting.
Hang up	Either peer has hanged up.
Disconnected	PPPoE session has terminated, waiting for dialing up.
Internal Error	Undefined status.

Table 3-2 Description of Connection Status – PPPoE

2. Static IP Connection Status

There are three kinds of status for Static IP connection (see Table 3-3).

Status	Description
Closed	The physical interface is inactive.
Connected	The connection is established between the local and peer devices.
Internal Error	Undefined status.

Table 3-3 Description of Connection Status – Static IP

3. DHCP Connection Status

There are three kinds of status for DHCP connection (see Table 3-4). During it is in connected status, it will also display the time left before the lease expires (day: hour: minute: second) for current IP address, which is assigned by your ISP’s DHCP server.

Status	Description
Closed	The physical interface is inactive, or the connection has release the IP address but not request a new one yet.
Connecting	Requesting an IP address.
Connected	Have acquired an IP address, the connection is established.
Internal Error	Undefined status.

Table 3-4 Description of Connection Status – DHCP

- **NAT Status:** It displays whether the connection enable NAT function or not. The system will automatically enable NAT function during connection setup.□
- **Rx Rate(bps):** It displays current download rate of the connection during the refresh interval.
- **Tx Rate(bps):** It displays current upload rate of the connection during the refresh interval.
- **IP Address, Subnet Mask and Default Gateway:** They display the IP settings status of the Device as seen by the external users of the Internet.
  - If your connection type is **PPPoE** or **DHCP**, it will show the information currently being used, which received from your ISP's PPPoE or DHCP server.
  - If your connection type is **Static IP**, the information will be the same as your input.

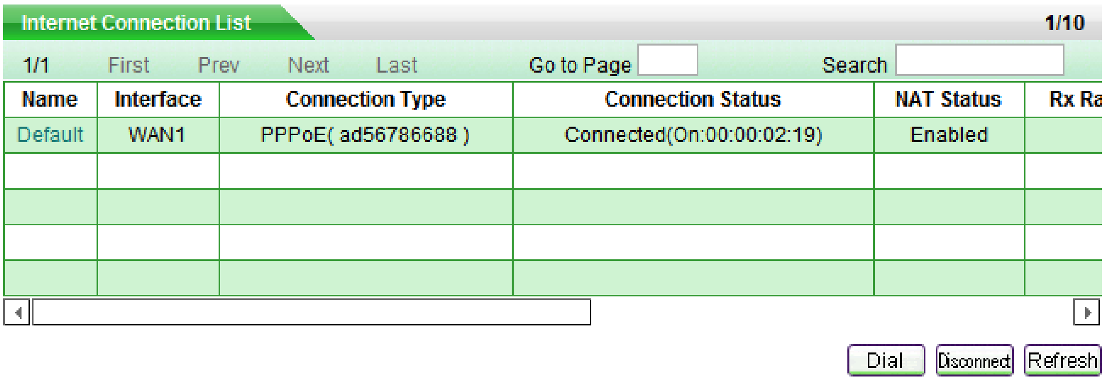
3.3.3 How to Dial and Hang up a PPPoE connection

If your connection type is **PPPoE,** when you click the **Default** hyperlink of the connection entry, the **Dial**, **Disconnect** and **Refresh** buttons will show below the list (see Table 3-5).

Note

If you have chosen **Manual** as Dial Type for your PPPoE connection (see chapter 3.3.1.1), you need click **Dial** button to dial-up the Internet connection, and click **Disconnect** button to hang it up here.

Click **Refresh** button to view current status of the connection.



Name	Interface	Connection Type	Connection Status	NAT Status	Rx Ra
Default	WAN1	PPPoE(ad56786688)	Connected(On:00:00:02:19)	Enabled	

Table 3-5 Internet Connection List - PPPoE Connection

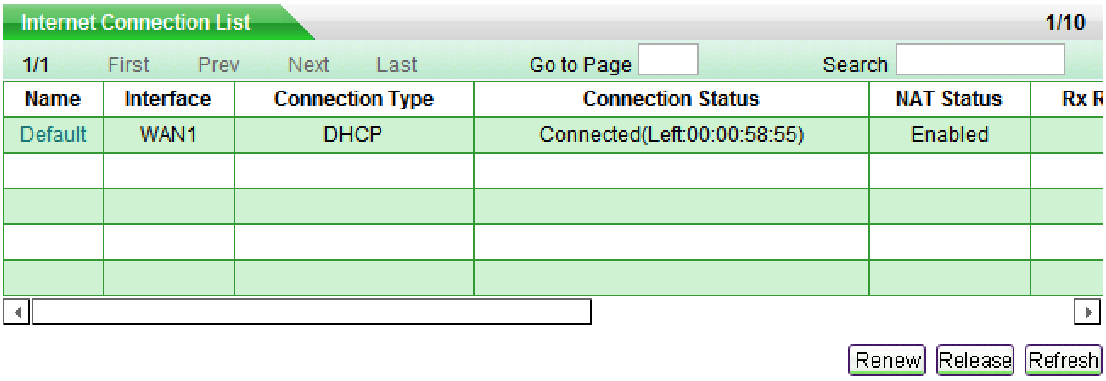
3.3.4 How to Renew and Release a DHCP Connection

If your connection type is **DHCP**, when you click the **Default** hyperlink of the connection entry, the **Renew**, **Release** and **Refresh** buttons will show below the list (see Table 3-6).

Click **Renew** button to re-acquire an IP address from the ISP’s DHCP server.

Click **Release** button to release the IP address obtained from the ISP’s DHCP server.

Click **Refresh** button to view current status of the connection.



Name	Interface	Connection Type	Connection Status	NAT Status	Rx R
Default	WAN1	DHCP	Connected(Left:00:00:58:55)	Enabled	

Table 3-6 Internet Connection List - DHCP Connection

3.3.5 How to Edit the Connection

If you want to edit the connection, do the following:

Step 1 In the **Internet Connection List**, click the **Default** hyperlink of the connection entry, the related information will display in the setup fields.

Step 2 Modify the connection settings.

Step 3 Click **Apply** button to save and apply your settings.

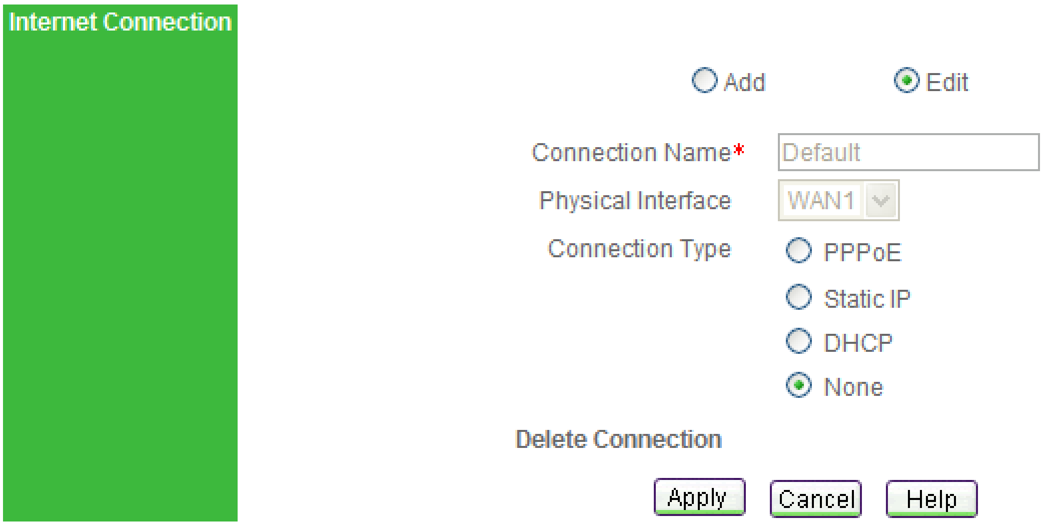
3.3.6 How to Delete the Connection

If you want to delete the connection, do the following:

Step 1 In the **Internet Connection List**, click the **Default** hyperlink of the connection entry, the related information will display in the setup fields.

Step 2 In the **Connection Type** radio boxes, select **none** (See Figure 3-10).

Step 3 Click **Apply** button to delete the connection.



Internet Connection

○ Add ● Edit

Connection Name* Default

Physical Interface WAN1

Connection Type
○ PPPoE
○ Static IP
○ DHCP
● None

Delete Connection

Figure 3-10 Delete the Connection

3.4 Network Security

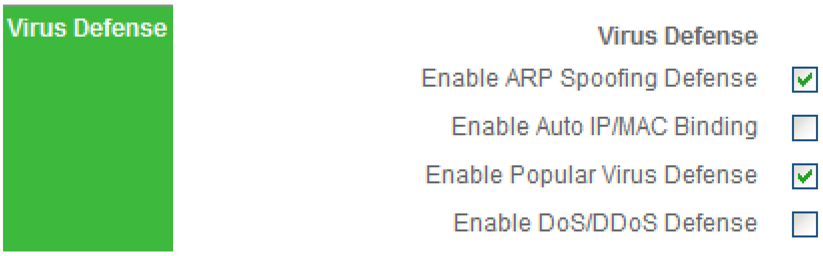
On the **Start > Network Security** page, you can do essential security settings: virus defense and rate limit. You can't go to this page if the Internet connection hasn't been configured yet.

Note

When you click **Apply** button to save and apply your settings, the system will automatically enable the **Synchronize with SNTP Server** function (you also can setup it in **System Admin >Time** page), so it will acquire standard time once connected to Internet.

3.4.1 Virus Defense

In this section (see Figure 3-11), you can do basic security settings to effectively defense ARP spoofing attack, Dos and DDoS attack, and popular virus attack (e.g., Worm.Blaster and Worm.Sasser). It will make your network robust and security.



Virus Defense

Virus Defense

Enable ARP Spoofing Defense ☑

Enable Auto IP/MAC Binding □

Enable Popular Virus Defense ☑

Enable DoS/DDoS Defense □

Figure 3-11 Virus Defense

- **Enable ARP Spoofing Defense:** To protect the Device against ARP spoofing attack effectively, select this check box, and then bind all IP/MAC address pairs of the whole LAN PCs (setup on **Security > ARP Spoofing Defense**, see chapter 3.5.2).
- **Enable Auto IP/MAC Binding:** If you select this check box, it will periodically detect active hosts connected to the device, and immediately bind all of the new valid dynamic ARP information (IP and MAC address pairs) once learned them.

✧ **Enable Popular Virus Defense:** Select this check box to protect the device against popular virus attack, e.g., Worm.Blaster and Worm.Sasser. And it will discard those TCP packets whose destination port is 135, 136, 137, 138, 139, 445, 1025, 5554 or 9996, so your LAN hosts can’t access related services provided by outside hosts, e.g., windows file sharing and print sharing services.

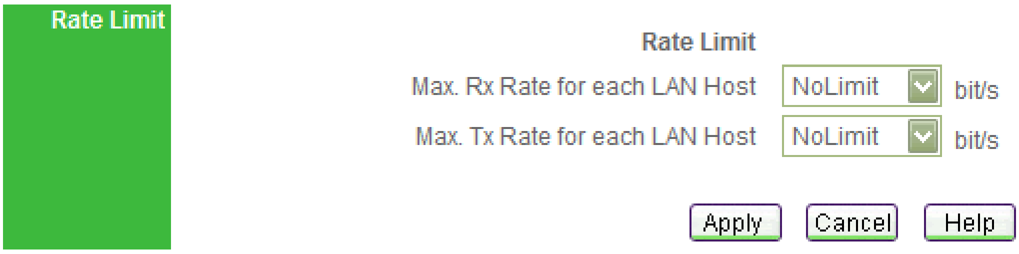
✧ **Enable DoS/DDoS Attack Defense:** Select this check box to protect the device against popular DoS and DDoS attack.

Note

If your LAN hosts’ IP addresses often change, it is recommended that you don’t select **Enable Auto IP/MAC Binding**. If you want to manually bind IP and MAC address pairs, please go to **Security > ARP Spoofing Defense** page to setup (see chapter 3.5.2).

3.4.2 Rate Limit

In this section, you can specify a bandwidth limit for each LAN host. This function lets you allocate bandwidth equally to avoid few hosts occupying too much bandwidth.



Rate Limit

Max. Rx Rate for each LAN Host: NoLimit bit/s

Max. Tx Rate for each LAN Host: NoLimit bit/s

Figure 3-12 Rate Limit

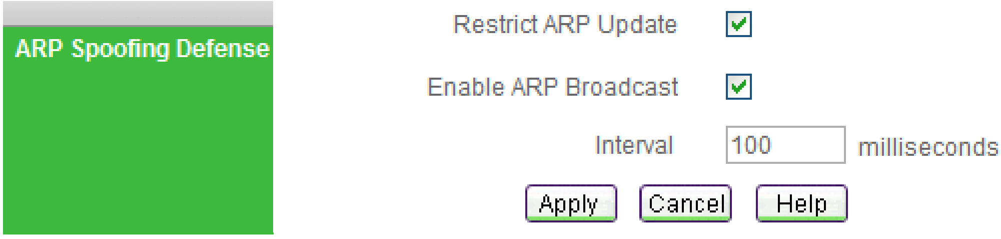
✧ **Max. Rx Rate for each LAN Host**: Select the maximum download rate for each LAN host. If you don’t want to limit the download rate, select **NoLimit**. If you want to block internal users from downloading, select **Block**.

✧ **Max. Tx Rate for each LAN Host**: Select the maximum upload rate for each LAN host. If you don’t want to limit the upload rate, select **NoLimit**. If you want to block internal users from uploading, select **Block**.

3.5 ARP Spoofing Defense

Click **Start > ARP Spoofing Defense**, it will jump to **Security > ARP Spoofing Defense** page. This page lets you setup ARP Spoofing Defense to protect the device and your LAN hosts.

3.5.1 ARP Spoofing Defense Setup



Restrict ARP Update ☑

Enable ARP Broadcast ☑

Interval 100 milliseconds

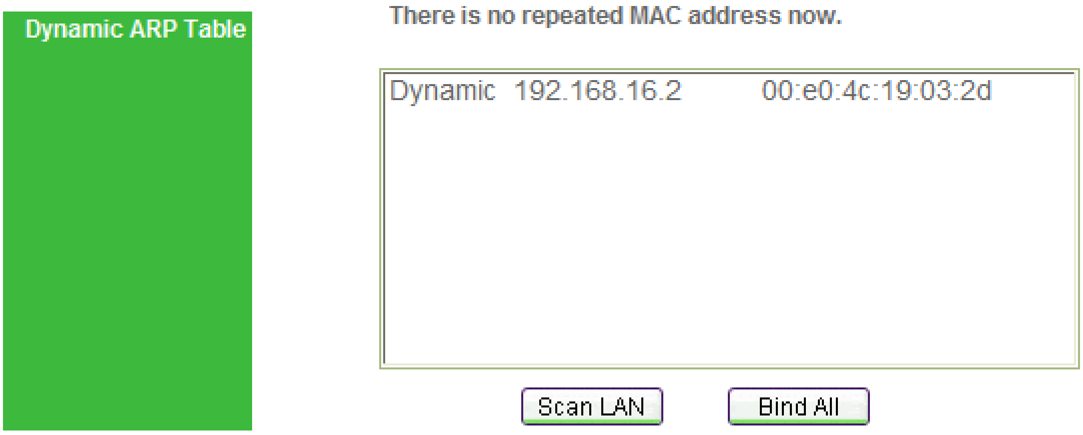
Figure 3-13 ARP Spoofing Defense

- **Restrict ARP Update:** Select this check box to disable the gratuitous ARP packets learning function, so the device will discard gratuitous ARP packets directly. This function will effectively protect the device against ARP spoofing attack.
- **Enable ARP Broadcast:** Select this check box to enable the device to periodically broadcast gratuitous ARP packets, it will inform your LAN hosts the correct MAC address of the device’s LAN interface. This function will effectively protect your LAN hosts against ARP spoofing attack.
- **Interval:** Specify the interval between Gratuitous ARP packets (how often you want the packets to be broadcast). It should be a multiple of 10 between 100 and 5000 (milliseconds).

3.5.2 Dynamic ARP Table

- Click **Scan LAN** button (see Figure 3-14), it will automatically detect active hosts connected to the device, learn and display dynamic ARP information (IP and MAC address entries).

- Click **Bind All** button to bind all current valid IP and MAC address pairs.



There is no repeated MAC address now.

```
Dynamic  192.168.16.2      00:e0:4c:19:03:2d
```

Figure 3-14 Dynamic ARP Table

Note

1. If you want to bind all IP and MAC address pairs in the whole LAN, please make sure that the hosts are turned on, and then click **Scan LAN** button, last click **Bind All** button.

2. If you click **Scan LAN** button, the system will also check if there are any repeated IP or MAC addresses in the **Dynamic ARP Table**, and then display repeated information above it: repeated MAC addresses indicate that potential ARP spoofing attack existing in your LAN, and repeated IP addresses indicate that potential IP spoofing attack or IP address conflicting existing in it.

3.5.3 How to Defense Against ARP Spoofing Attack

To defense against ARP Spoofing Attack, do the following:

Step 1 Select both **Restrict ARP Update** and **Enable ARP Broadcast** check boxes.

Step 2 Turn on all of the hosts in your LAN, and then click **Scan LAN** button to learn current dynamic ARP information.

Step 3 Click **Bind All** button to bind all current valid IP and MAC address pairs.

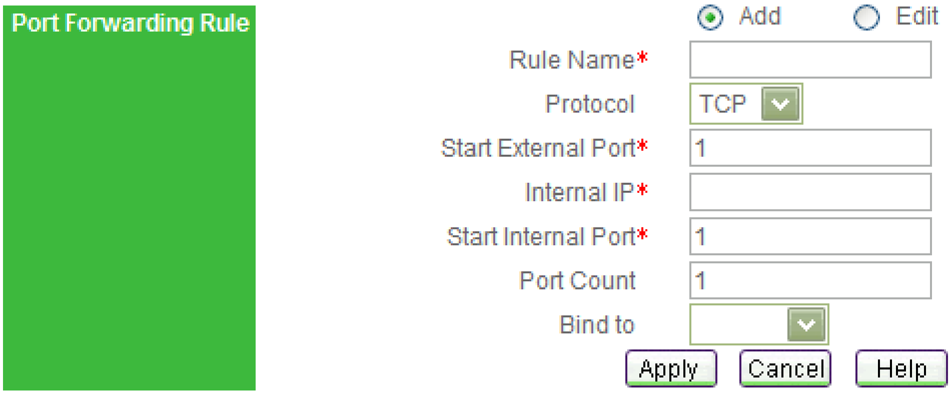
When you have finished these steps, it will protect the device and your LAN hosts against ARP Spoofing Attack.

3.6 Port Forwarding

Click **Start > Port Forwarding**, it will jump to **Advanced > NAT & DMZ** page. In this page, you can setup some port forwarding rules.

Port forwarding can be used to set up public services on your network. When users from the Internet make certain requests on your network, the Device can forward those requests to computers equipped to handle the requests. For example, if you set the port number 443 (HTTPS) to be forwarded to IP address 192.168.16.12, then all HTTPS requests from outside users will be forwarded to 192.168.16.12.

3.6.1 Port Forwarding Setup



Port Forwarding Rule

● Add ○ Edit

Rule Name*	
Protocol	TCP
Start External Port*	1
Internal IP*	
Start Internal Port*	1
Port Count	1
Bind to	

Figure 3-15 Port Forwarding Setup

- **Rule Name:** Enter a name. It should be between 1 and 11 characters long.
- **Protocol:** Select the protocol which it uses, available options: TCP, UDP and GRE.
- **Start External Port:** Enter the lowest port number, which the Device provides for outside users to access.
- **Internal IP:** Enter the IP address of the local server that you want outside users to access.
- **Start Internal Port:** Enter the lowest port number used by the service.
- **Port Count:** Enter the number of ports used by the service. If the service uses only one port number, enter 1. The maximum value is 20. For example, if the start internal port is 21, the start external port is 2000 and the port count is 10, then the

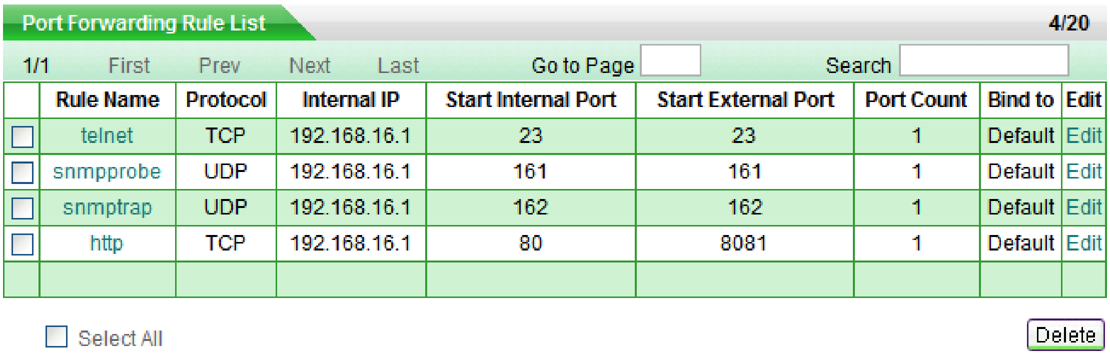
internal port range is from 21 to 30, and the external port range is from 2001 to 2010.

- **Bind to:** Select the NAT rule to which this port forwarding rule is bound. The port forwarding rule will use the NAT rule's external IP address as the external IP address.

Note

1. If you select **GRE** protocol, the start external port and start external port should be 0, and the port count should be 1.
2. The system will automatically create some port forwarding rules. You can not modify or delete them.

3.6.2 Port Forwarding Rule List



	Rule Name	Protocol	Internal IP	Start Internal Port	Start External Port	Port Count	Bind to	Edit
□	telnet	TCP	192.168.16.1	23	23	1	Default	Edit
□	snmpprobe	UDP	192.168.16.1	161	161	1	Default	Edit
□	snmptrap	UDP	192.168.16.1	162	162	1	Default	Edit
□	http	TCP	192.168.16.1	80	8081	1	Default	Edit

Table 3-7 Port Forwarding Rule List

- Add a Port Forwarding Rule: If you want to add a port forwarding rule, select **Add** radio box, and then setup it, last click **Apply** button.
- View Port Forwarding Rules: When you have created some port forwarding rules, you can view them in the **Port Forwarding Rule List**.
- Edit a Port Forwarding Rule: If you want to modify a port forwarding rule you have created, click the **Rule Name** or **Edit** hyperlink of this rule entry, the related information will display in the setup fields, and then modify it, last click **Apply** button.
- Delete Port Forwarding Rule(s): If you want to delete some port forwarding rules, select the leftmost check boxes of these entries, and then click **delete** button.

3.7 Change Administrator’s Password

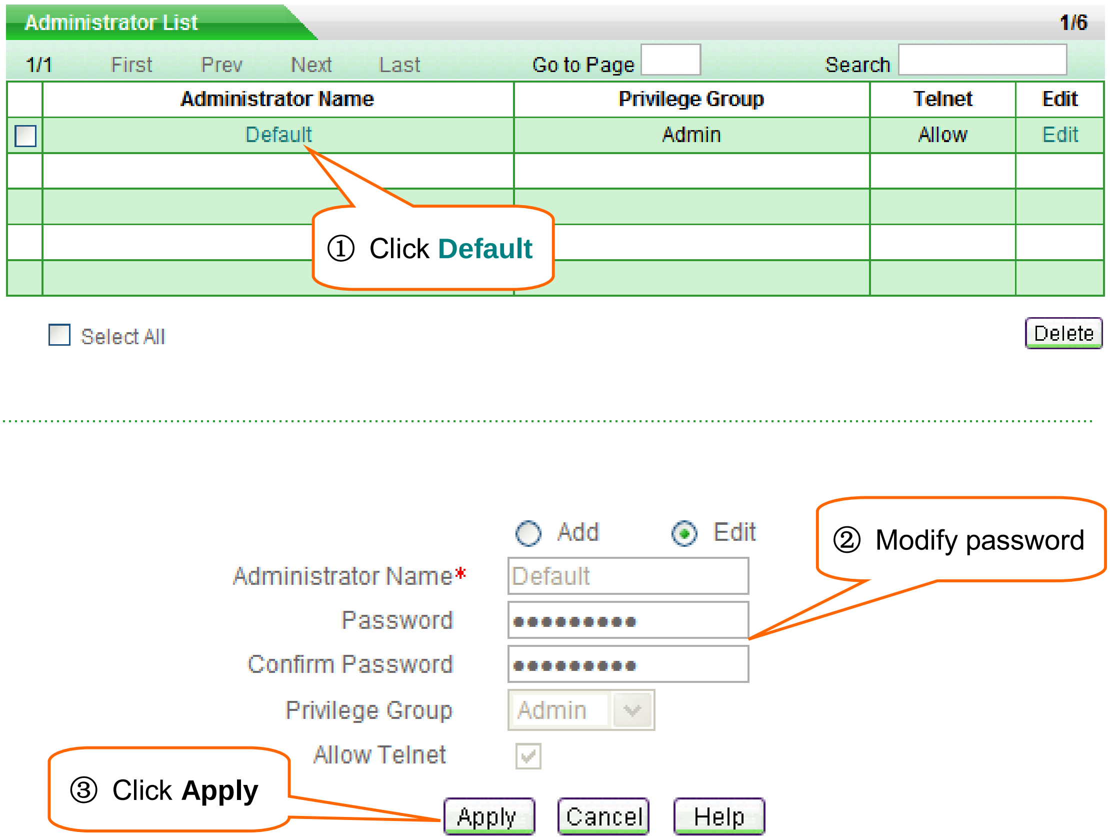
The default administrator’s user name is **Default** (case sensitive) with empty password. To ensure the Device's security, you had better change the default password and remember it. If the password has been changed, you should enter your new password when you access the Device with the user name **Default**.

If you want to change the password, go to **System > Administrator** page, do the following setup (see Figure 3-16):

Step 1 Click the **Default** or **Edit** hyperlink of the default administrator’s entry in the **Administrator List**, the related information will display in the setup fields.

Step 2 Then modify the password in the setup fields.

Step 3 Click **Apply** button to save and apply your settings.



	Administrator Name	Privilege Group	Telnet	Edit
□	Default	Admin	Allow	Edit

□ Select All

① Click **Default**

○ Add ● Edit

Administrator Name*	Default
Password	●●●●●●●●●
Confirm Password	●●●●●●●●●
Privilege Group	Admin
Allow Telnet	☑

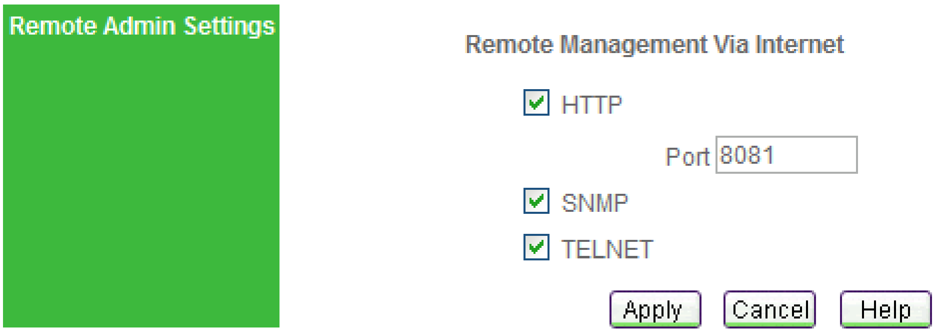
② Modify password

③ Click **Apply**

Figure 3-16 Administrator’s Password Setup

3.8 Remote Management

If you want to allow HTTP, SNMP or TELNET remote management via Internet, go to **System Admin > Remote Admin** page to setup.



Remote Admin Settings

Remote Management Via Internet

☑ HTTP

Port 8081

☑ SNMP

☑ TELNET

Figure 3-17 Remote Management

- ✧ **HTTP:** Select this check box to allow HTTP remote management. When accessing the Device from Internet, you will enter **http://** and enter the Device's WAN IP address, followed by a colon (:) and the port number. For example, if WAN IP address is 218.21.31.3 and the port number is 8081, enter in your browser: **http://218.21.31.3:8081**.
- ✧ **Port:** Enter the port number for HTTP remote management. The default value is 8081.
- ✧ **SNMP:** Select this check box to allow SNMP remote management via Internet.
- ✧ **TELNET:** Select this check box to allow TELENET remote management via Internet.

Note

To ensure security, it is strongly recommended that you don’t enable remote management functions unless necessary. If you are sure to enable them, you had better change the default password.

Appendix Contact Information

For help with the installation or operation of this Device, contact UTT Technical Support at one of the phone numbers or Internet addresses below.

- **Technical Support:** +86-4006-781-781
- **E-mail:** support@utt.com.cn
- **Official Website:** http://www.utt.com.cn
- **Official BBS:** http://www.utt.com.cn/bbs
- **Fax:** +86-21-52655269