DrayTek

Vigor2760 Series

High Speed VDSL2 Router

Your reliable networking solutions partner

User's Guide

V1.0

Vigor2760 Series High Speed VDSL2 Router

User's Guide

Version: 1.0

Firmware Version: V1.0.0_RC14

(For future update, contact DrayTek)

Date: 14/12/2012

Copyright Information

Copyright Declarations

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Safety Instructions and Approval

Safety Instructions

- Read the installation guide thoroughly before you set up the router.
- The router is a complicated electronic unit that may be repaired only be authorized and qualified personnel. Do not try to open or repair the router yourself.
- Do not place the router in a damp or humid place, e.g. a bathroom.
- The router should be used in a sheltered area, within a temperature range of +5 to +40 Celsius.
- Do not expose the router to direct sunlight or other heat sources. The housing and electronic components may be damaged by direct sunlight or heat sources.
- Do not deploy the cable for LAN connection outdoor to prevent electronic shock hazards.
- Keep the package out of reach of children.
- When you want to dispose of the router, please follow local regulations on conservation of the environment.

Warranty

We warrant to the original end user (purchaser) that the router will be free from any defects in workmanship or materials for a period of two (2) years from the date of purchase from the dealer. Please keep your purchase receipt in a safe place as it serves as proof of date of purchase. During the warranty period, and upon proof of purchase, should the product have indications of failure due to faulty workmanship and/or materials, we will, at our discretion, repair or replace the defective products or components, without charge for either parts or labor, to whatever extent we deem necessary tore-store the product to proper operating condition. Any replacement will consist of a new or re-manufactured functionally equivalent product of equal value, and will be offered solely at our discretion. This warranty will not apply if the product is modified, misused, tampered with, damaged by an act of God, or subjected to abnormal working conditions. The warranty does not cover the bundled or licensed software of other vendors. Defects which do not significantly affect the usability of the product will not be covered by the warranty. We reserve the right to revise the manual and online documentation and to make changes from time to time in the contents hereof without obligation to notify any person of such revision or changes.

Be a Registered Owner

Web registration is preferred. You can register your Vigor router via http://www.draytek.com.

Firmware & Tools Updates

Due to the continuous evolution of DrayTek technology, all routers will be regularly upgraded. Please consult the DrayTek web site for more information on newest firmware, tools and documents.

http://www.draytek.com

European Community Declarations

Manufacturer: DrayTek Corp.
Address: No. 26, Fu Shing Road, HuKou County, HsinChu Industrial Park, Hsin-Chu, Taiwan 303
Product: Vigor2760 Series Router

DrayTek Corp. declares that Vigor2760 Series of routers are in compliance with the following essential requirements and other relevant provisions of R&TTE Directive 1999/5/EEC.

The product conforms to the requirements of Electro-Magnetic Compatibility (EMC) Directive 2004/108/EC by complying with the requirements set forth in EN55022/Class B and EN55024/Class B.

The product conforms to the requirements of Low Voltage (LVD) Directive 2006/95/EC by complying with the requirements set forth in EN60950-1.

Regulatory Information

Federal Communication Commission Interference Statement

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 use is encouraged to try to correct the interference by one 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 form that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device may accept any interference received, including interference that may cause undesired operation.

Please visit http://www.draytek.com/user/SupportDLRTTECE.php#

This product is designed for POTS, DSL, 2.4GHz WLAN network throughout the EC region and Switzerland with restrictions in France. Please see the user manual for the applicable networks on your product.

Table of Contents

1 Introduction

The Vigor2760 series are the routers with high speed in data transmission through DSL port and LAN ports.

With the development of NGN (Next Generation Network), you may recently hear the news about FTTx deployment in your local area or even have already subscribed the unbundling last mile service (e.g. VDSL2) from local ITSP for FTTx. As adopting FTTx, the main question for end users is whether your legacy router could fully utilize its bandwidth or not.

DrayTek launches Vigor 2760 series – High speed router, perfectly complied with VDSL2 environment including Vigor2760, Vigor2760n and Vigor2760Vn for speed-wanted customers. With high throughput performance and secured broadband connectivity provided by Vigor 2760 series, you can simultaneously engage these bandwidth-intensive applications, such as high-definition video streaming, online gaming, and Internet telephony / access..

1.1 Web Configuration Buttons Explanation

Several main buttons appeared on the web pages are defined as the following:

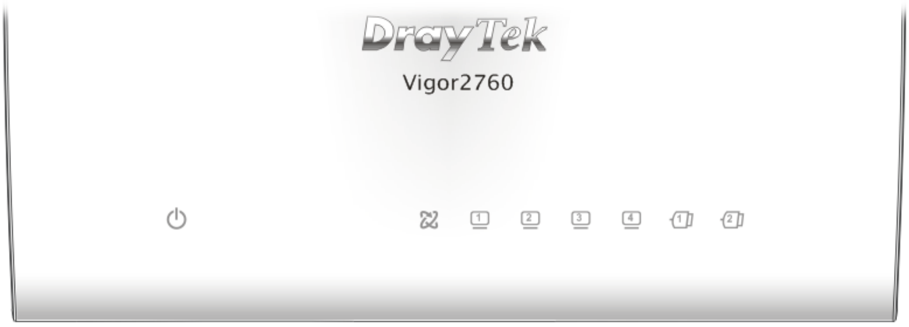
OK	Save and apply current settings.
Cancel	Cancel current settings and recover to the previous saved settings.
Clear	Clear all the selections and parameters settings, including selection from drop-down list. All the values must be reset with factory default settings.
Add	Add new settings for specified item.
Edit	Edit the settings for the selected item.
Delete	Delete the selected item with the corresponding settings.

Note: For the other buttons shown on the web pages, please refer to Chapter 4 for detailed explanation.

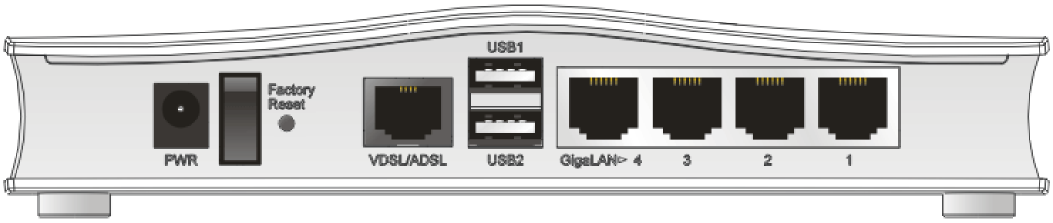
1.2 LED Indicators and Connectors

Before you use the Vigor router, please get acquainted with the LED indicators and connectors first.

1.1.1 For Vigor2760

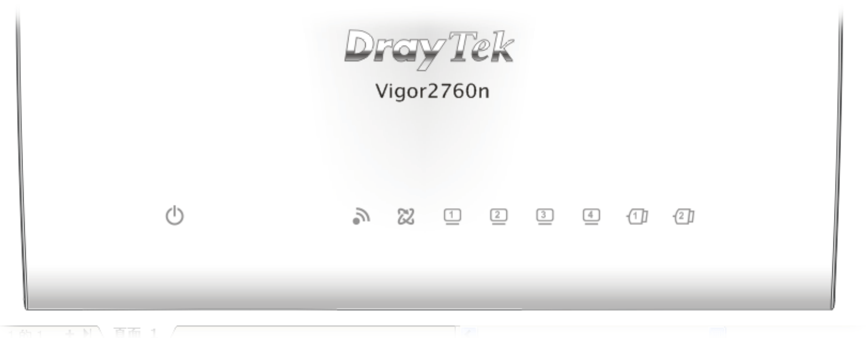


⏻ (ACT)	Blinking	The router is powered on and running normally.
	Off	The router is powered off.
DSL (Green)	On	The DSL port is connected.
	Blinking (Slowly)	The router is ready.
	Blinking (Quickly)	The connection is training.
1 ~ 4 LAN1/2/3/4	On (Green)	The port is connected.
	Blinking (Green)	The data is transmitting.
1 ~ 2 USB1/2	On	A USB device is connected and active.

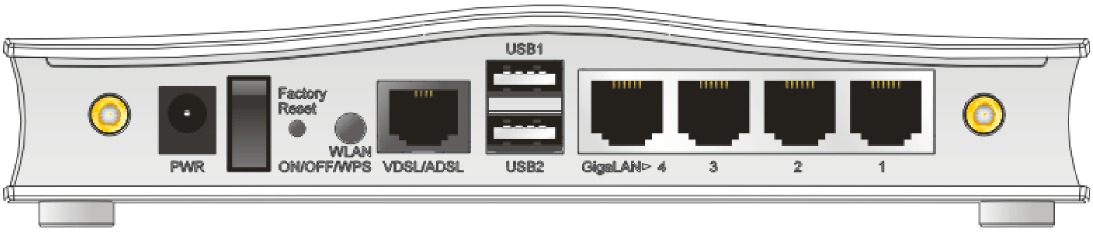


PWR	Connector for a power adapter.
I / O	Power switch.
Factory Reset	Restore the default settings. Usage: Turn on the router (ACT LED is blinking). Press the hole and keep for more than 5 seconds. When you see the ACT LED begins to blink rapidly than usual, release the button. Then the router will restart with the factory default configuration.
VDSL/ADSL	Connector for accessing the Internet.
USB (1-2)	Connector for USB storage device (Pen Driver/Mobile HD) or printer or 3G backup.
LAN (1-4)	Connectors for local network devices.

1.1.2 For Vigor2760n

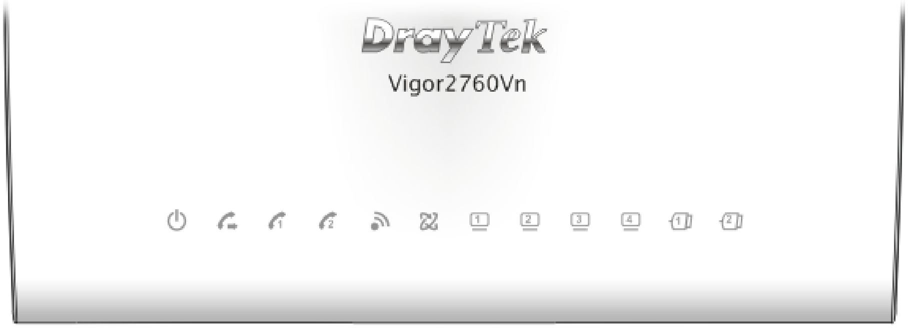


⏻ (Activity)	Blinking	The router is powered on and running normally.
	Off	The router is powered off.
(Wireless LAN On/Off/WPS)	On (Green)	The wireless access point is ready.
	Blinking (Green)	The data is transmitting via wireless connection.
	Blinking (Orange)	Blinks with one second cycle for two minutes. The WPS function is active.
	Off	The wireless access point is turned off.
DSL (Green)	On	The DSL port is connected.
	Blinking (Slowly)	The router is ready.
	Blinking (Quickly)	The router is trying to connect to Internet.
1 ~ 4 LAN1/2/3/4	On	The port is connected.
	Blinking (Green)	The data is transmitting.
1 ~ 2 USB1/2	On	A USB device is connected and active.

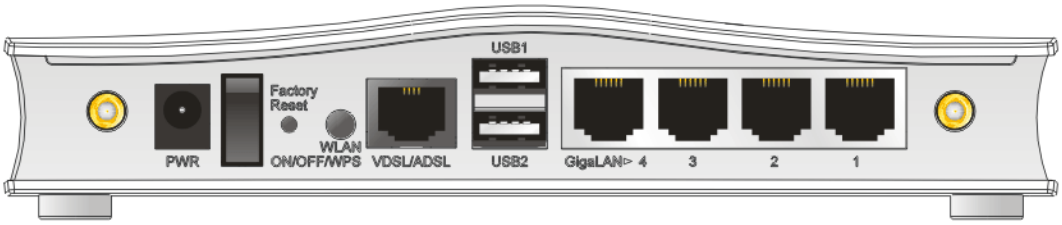


PWR	Connector for a power adapter.
I / O	Power switch.
Factory Reset	Restore the default settings. Usage: Turn on the router (ACT LED is blinking). Press the hole and keep for more than 5 seconds. When you see the ACT LED begins to blink rapidly than usual, release the button. Then the router will restart with the factory default configuration.
WLAN ON/OFF/WPS	WLAN WPS - Press this button for 2 seconds to wait for client device making network connection through WPS. When the LED lights up, the WPS connection will be on. WLAN ON/OFF - Press the button once to enable (WLAN LED on) or disable (WLAN LED off) wireless connection.
VDSL/ADSL	Connector for accessing the Internet.
USB (1-2)	Connector for USB storage device (Pen Driver/Mobile HD) or printer or 3G backup.
LAN (1-4)	Connectors for local network devices.

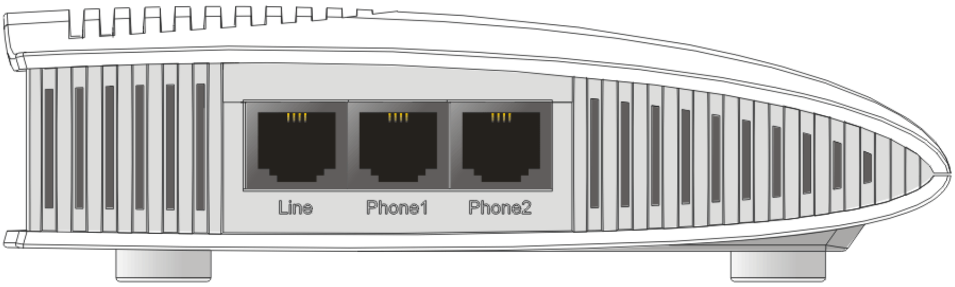
1.1.3 For Vigor2760Vn



(ACT)	Blinking	The router is powered on and running normally.
	Off	The router is powered off.
(LINE)	On	A PSTN phone call comes (in and out). However, when the phone call is disconnected, the LED will be off for awhile.
	Off	There is no PSTN phone call.
(Phone1/Phone2)	On	The phone connected to this port is off-hook.
	Off	The phone connected to this port is on-hook.
	Blinking	A phone call comes.
(Wireless LAN On/Off/WPS)	On (Green)	The wireless access point is ready.
	Blinking (Green)	The data is transmitting via wireless connection.
	Blinking (Orange)	Blinks with one second cycle for two minutes. The WPS function is active.
	Off	The wireless access point is turned off.
DSL (Green)	On	The DSL port is connected.
	Blinking (Slowly)	The router is ready.
	Blinking (Quickly)	The router is trying to connect to Internet.
~ LAN1/2/3/4	On	The port is connected.
	Blinking (Green)	The data is transmitting.
~ USB1/2	On	A USB device is connected and active.



PWR	Connector for a power adapter.
I / O	Power switch.
Factory Reset	Restore the default settings. Usage: Turn on the router (ACT LED is blinking). Press the hole and keep for more than 5 seconds. When you see the ACT LED begins to blink rapidly than usual, release the button. Then the router will restart with the factory default configuration.
WLAN ON/OFF/WPS	WLAN WPS - Press this button for 2 seconds to wait for client device making network connection through WPS. When the LED lights up, the WPS connection will be on. WLAN ON/OFF - Press the button once to enable (WLAN LED on) or disable (WLAN LED off) wireless connection.
VDSL/ADSL	Connector for accessing the Internet.
USB (1-2)	Connector for USB storage device (Pen Driver/Mobile HD) or printer or 3G backup.
LAN (1-4)	Connectors for local network devices.

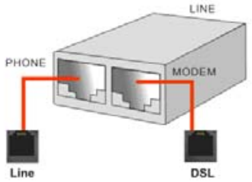


LINE	Connector for PSTN life line.
Phone1/Phone2	Connector of analog phone for VoIP communication.

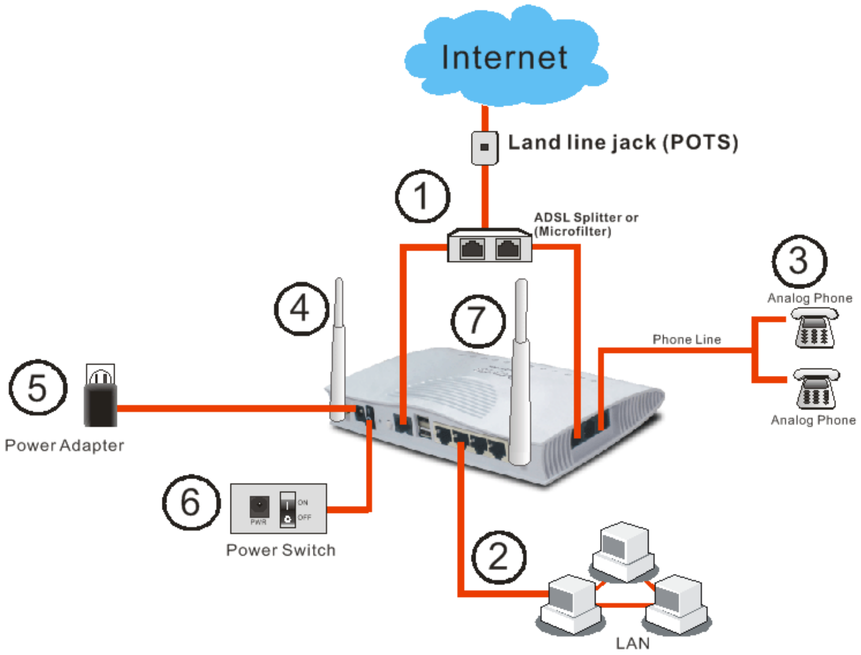
1.3 Hardware Installation

Before starting to configure the router, you have to connect your devices correctly.

1. Connect the XDSL interface to the external XDSL splitter with an XDSL line cable for all models. For Vigor2760Vn, also connect Line interface to external XDSL splitter.



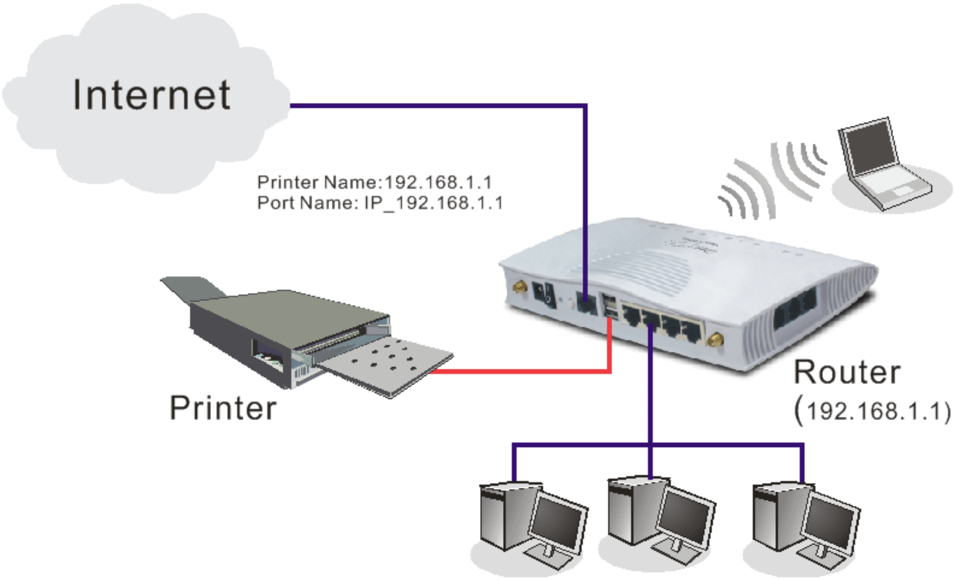
2. Connect one port of 4-port switch to your computer with a RJ-45 cable. This device allows you to connect 4 PCs directly.
3. Connect Phone port to a conventional analog telephone (for V model only).
4. Connect detachable antennas to the router for Vigor2760 series (for n model only).
5. Connect one end of the power cord to the power port of this device. Connect the other end to the wall outlet of electricity.
6. Power on the router.
7. Check the **ACT** and **DSL**, **LAN** LEDs to assure network connection.



(For the detailed information of LED status, please refer to section 1.2.)

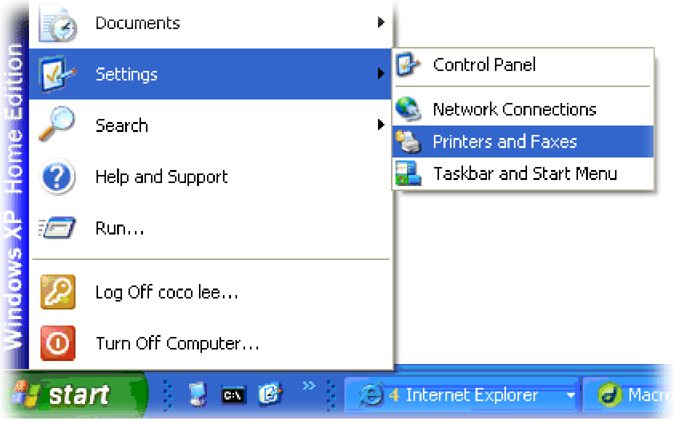
1.4 Printer Installation

You can install a printer onto the router for sharing printing. All the PCs connected this router can print documents via the router. The example provided here is made based on Windows XP/2000. For Windows 98/SE/Vista, please visit **www.draytek.com**.

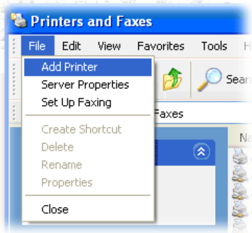


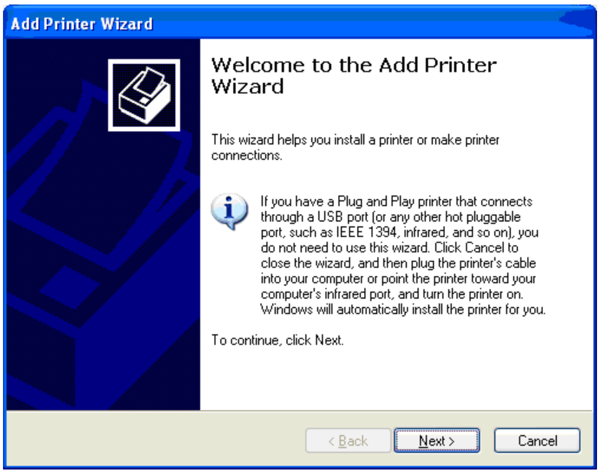
Before using it, please follow the steps below to configure settings for connected computers (or wireless clients).

1. Connect the printer with the router through USB/parallel port.
2. Open **Start->Settings-> Printer and Faxes**.



3. Open **File->Add a New Computer**. A welcome dialog will appear. Please click **Next**.





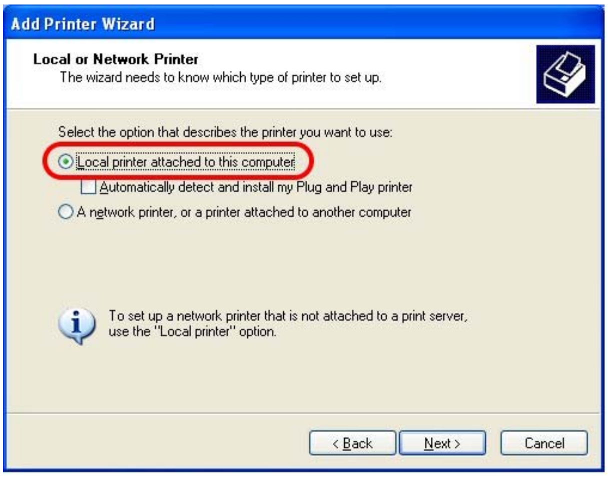
Welcome to the Add Printer Wizard

This wizard helps you install a printer or make printer connections.

If you have a Plug and Play printer that connects through a USB port (or any other hot pluggable port, such as IEEE 1394, infrared, and so on), you do not need to use this wizard. Click Cancel to close the wizard, and then plug the printer's cable into your computer or point the printer toward your computer's infrared port, and turn the printer on. Windows will automatically install the printer for you.

To continue, click Next.

4. Click Local printer attached to this computer and click Next.



Local or Network Printer
The wizard needs to know which type of printer to set up.

Select the option that describes the printer you want to use:

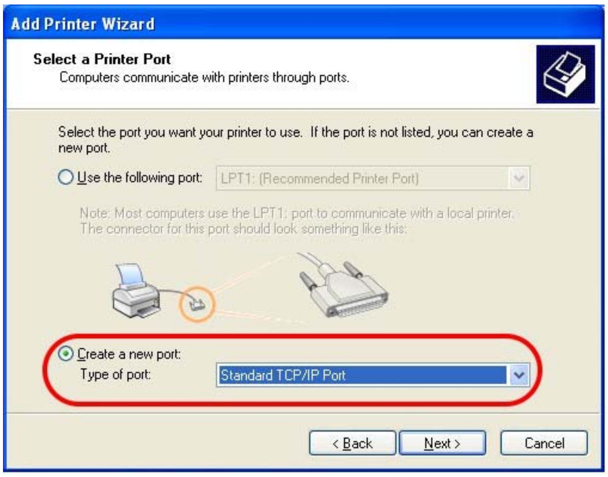
● Local printer attached to this computer

□ Automatically detect and install my Plug and Play printer

○ A network printer, or a printer attached to another computer

To set up a network printer that is not attached to a print server, use the "Local printer" option.

5. In this dialog, choose **Create a new port Type of port** and use the drop down list to select **Standard TCP/IP Port**. Click **Next**.



Select a Printer Port
Computers communicate with printers through ports.

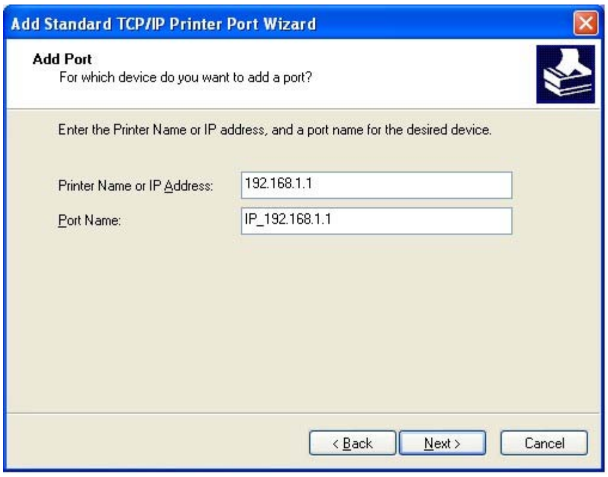
Select the port you want your printer to use. If the port is not listed, you can create a new port.

○ Use the following port: LPT1: (Recommended Printer Port)

Note: Most computers use the LPT1: port to communicate with a local printer. The connector for this port should look something like this:

● Create a new port:
Type of port: Standard TCP/IP Port

6. In the following dialog, type **192.168.1.1** (router's LAN IP) in the field of **Printer Name or IP Address** and type **IP_192.168.1.1** as the port name. Then, click **Next**.



Add Standard TCP/IP Printer Port Wizard

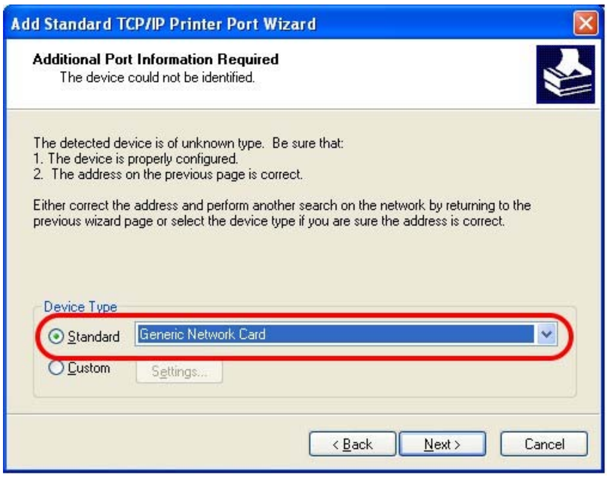
Add Port
For which device do you want to add a port?

Enter the Printer Name or IP address, and a port name for the desired device.

Printer Name or IP Address: 192.168.1.1

Port Name: IP_192.168.1.1

7. Click Standard and choose Generic Network Card.



Add Standard TCP/IP Printer Port Wizard

Additional Port Information Required
The device could not be identified.

The detected device is of unknown type. Be sure that:
1. The device is properly configured.
2. The address on the previous page is correct.

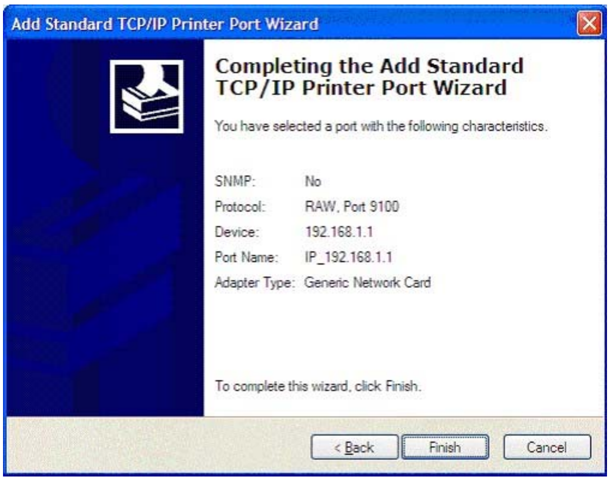
Either correct the address and perform another search on the network by returning to the previous wizard page or select the device type if you are sure the address is correct.

Device Type

● Standard Generic Network Card

○ Custom Settings...

8. Then, in the following dialog, click **Finish**.



Add Standard TCP/IP Printer Port Wizard

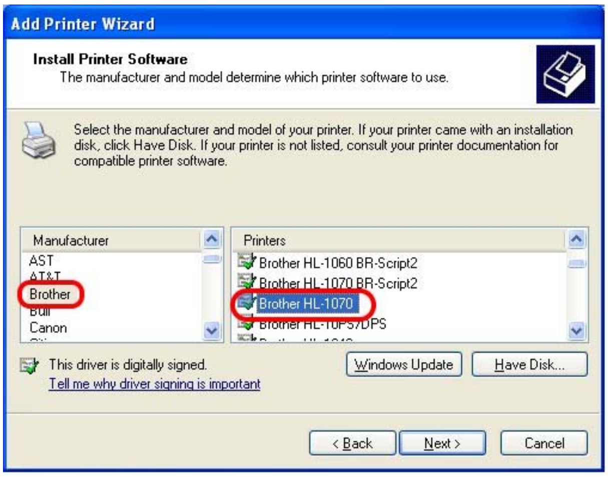
Completing the Add Standard TCP/IP Printer Port Wizard

You have selected a port with the following characteristics.

SNMP: No
Protocol: RAW, Port 9100
Device: 192.168.1.1
Port Name: IP_192.168.1.1
Adapter Type: Generic Network Card

To complete this wizard, click Finish.

9. Now, your system will ask you to choose right name of the printer that you installed onto the router. Such step can make correct driver loaded onto your PC. When you finish the selection, click **Next**.



Add Printer Wizard

Install Printer Software

The manufacturer and model determine which printer software to use.

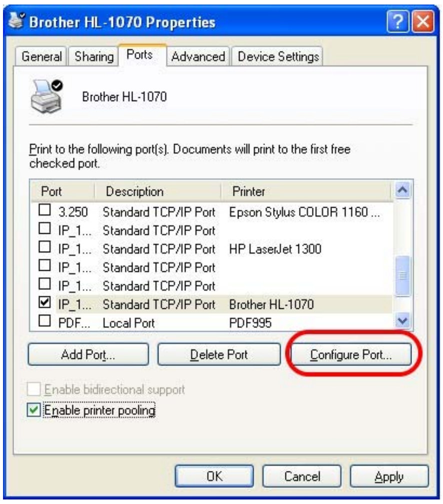
Select the manufacturer and model of your printer. If your printer came with an installation disk, click Have Disk. If your printer is not listed, consult your printer documentation for compatible printer software.

Manufacturer	Printers
AST	Brother HL-1060 BR-Script2
AT&T	Brother HL-1070 BR-Script2
Brother	Brother HL-1070
Bull	Brother HL-10PS7DPS
Canon	

This driver is digitally signed.

Tell me why driver signing is important

10. For the final stage, you need to go back to **Control Panel-> Printers** and edit the property of the new printer you have added.



Brother HL-1070 Properties

Brother HL-1070

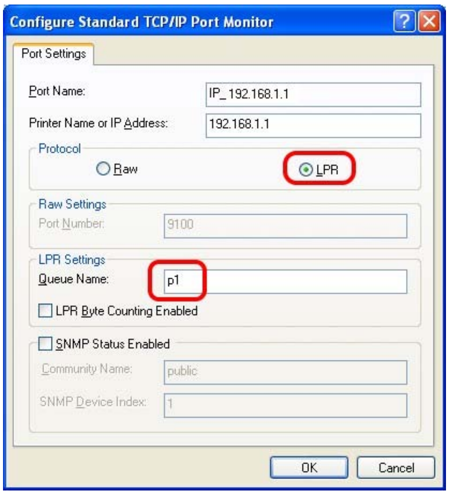
Print to the following port(s). Documents will print to the first free checked port.

Port	Description	Printer
□ 3.250	Standard TCP/IP Port	Epson Stylus COLOR 1160 ...
□ IP_1...	Standard TCP/IP Port	
□ IP_1...	Standard TCP/IP Port	HP LaserJet 1300
□ IP_1...	Standard TCP/IP Port	
□ IP_1...	Standard TCP/IP Port	
☑ IP_1...	Standard TCP/IP Port	Brother HL-1070
□ PDF...	Local Port	PDF995

□ Enable bidirectional support

☑ Enable printer pooling

11. Select "**LPR**" on Protocol, type **p1** (number 1) as Queue Name. Then click **OK**. Next please refer to the red rectangle for choosing the correct protocol and UPR name.



Configure Standard TCP/IP Port Monitor

Port Settings

Port Name: IP_192.168.1.1

Printer Name or IP Address: 192.168.1.1

Protocol: ○ Raw ● LPR

Raw Settings

Port Number: 9100

LPR Settings

Queue Name: p1

□ LPR Byte Counting Enabled

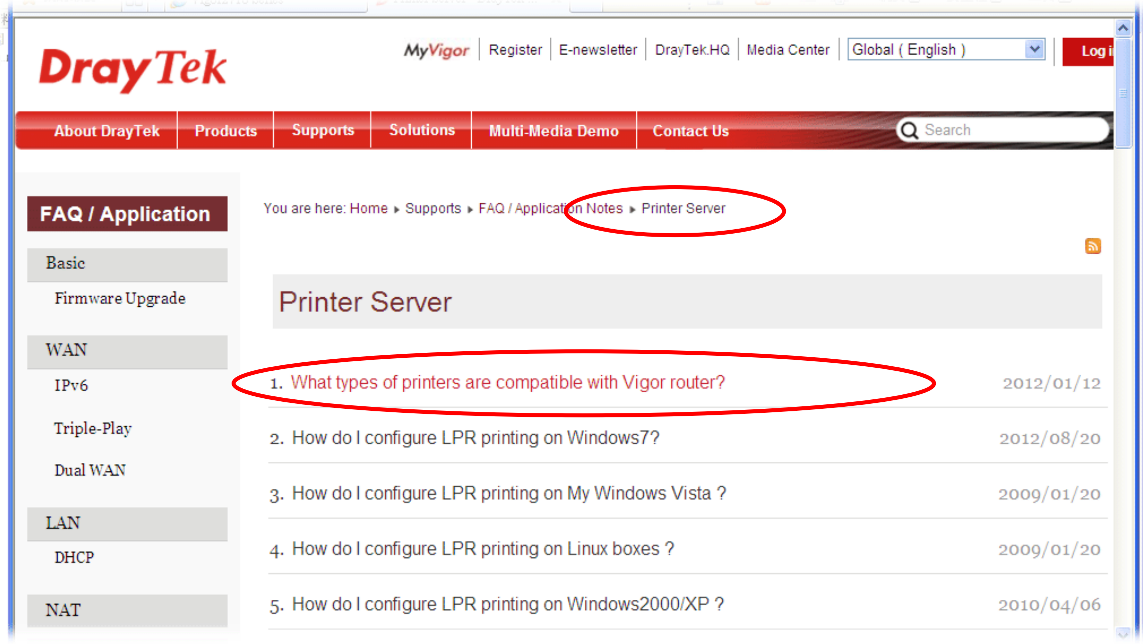
□ SNMP Status Enabled

Community Name: public

SNMP Device Index: 1

The printer can be used for printing now. Most of the printers with different manufacturers are compatible with vigor router.

Note 1: Some printers with the fax/scanning or other additional functions are not supported. If you do not know whether your printer is supported or not, please visit www.draytek.com to find out the printer list. Open **FAQ/Application Notes**; find out the link of **Printer Server** and click it; then click the **What types of printers are compatible with Vigor router?** link.



You are here: Home ▸ Supports ▸ FAQ / Application Notes ▸ Printer Server

Printer Server

1. What types of printers are compatible with Vigor router? 2012/01/12

2. How do I configure LPR printing on Windows7? 2012/08/20

3. How do I configure LPR printing on My Windows Vista ? 2009/01/20

4. How do I configure LPR printing on Linux boxes ? 2009/01/20

5. How do I configure LPR printing on Windows2000/XP ? 2010/04/06

Note 2: Vigor router supports printing request from computers via LAN ports but not DSL port.

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2 Initial Configuration

For using the router properly, it is necessary for you to change the password of web configuration for security and adjust primary basic settings for your router to run well.

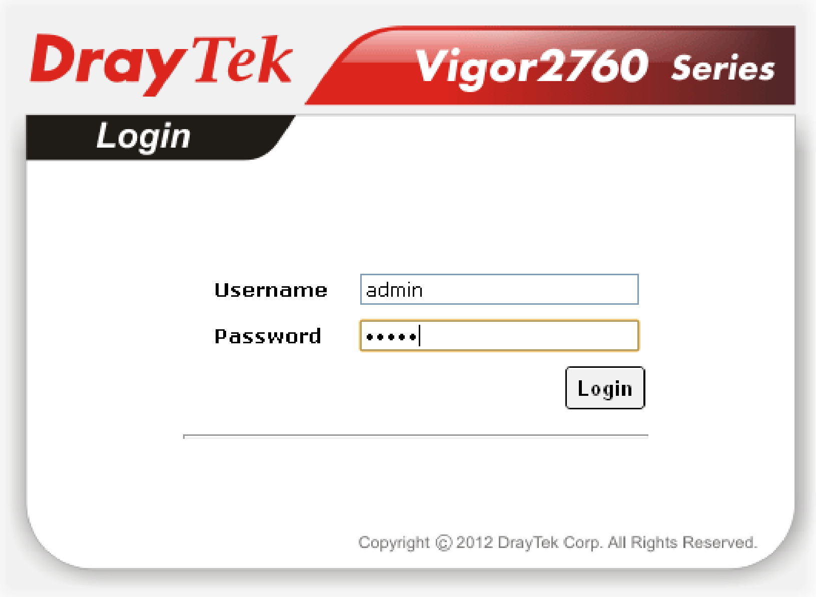
This chapter will guide you to perform initial configuration for Internet access, activating WCF license and register your Vigor router.

2.1 Accessing Web Page

1. Make sure your PC connects to the router correctly.

   You may either simply set up your computer to get IP dynamically from the router or set up the IP address of the computer to be the same subnet as **the default IP address of Vigor router 192.168.1.1**. For the detailed information, please refer to the later section - Trouble Shooting of the guide.

2. Open a web browser on your PC and type **http://192.168.1.1.** The following window will be open to ask for username and password.



Username: admin

Password: •••••

3. Please type “admin/admin” on Username/Password and click **Login** for opening the web configurator.

Notice: If you fail to access to the web configuration, please go to “Trouble Shooting” for detecting and solving your problem.

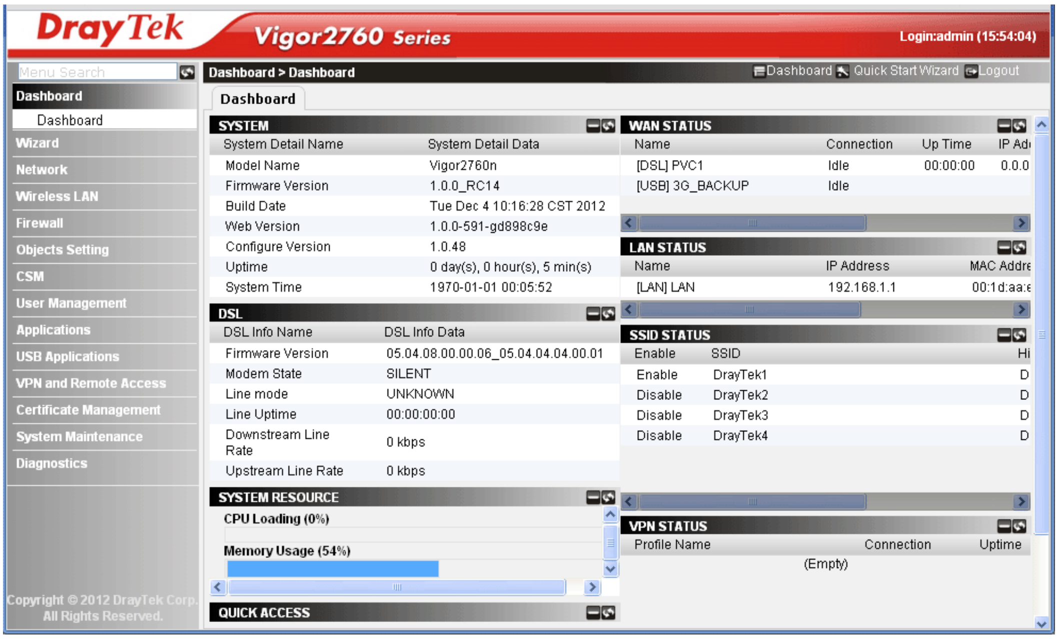
2.2 Quick Start Wizard for Connecting Internet

Notice: Quick Start Wizard for user mode operation is the same as for admin mode operation.

If your router can be under an environment with high speed NAT, the configuration provide here can help you to deploy and use the router quickly.

The **Quick Start Wizard** is designed for you to easily set up your router for Internet access. You can directly access the **Quick Start Wizard** via Web Configurator.

1. Open the web configruator of Vigor router. The **Main Screen** will appear.



SYSTEM

System Detail Name	System Detail Data
Model Name	Vigor2760n
Firmware Version	1.0.0_RC14
Build Date	Tue Dec 4 10:16:28 CST 2012
Web Version	1.0.0-591-gd898c9e
Configure Version	1.0.48
Uptime	0 day(s), 0 hour(s), 5 min(s)
System Time	1970-01-01 00:05:52

DSL

DSL Info Name	DSL Info Data
Firmware Version	05.04.08.00.00.06_05.04.04.04.00.01
Modem State	SILENT
Line mode	UNKNOWN
Line Uptime	00:00:00:00
Downstream Line Rate	0 kbps
Upstream Line Rate	0 kbps

SYSTEM RESOURCE

CPU Loading (0%)

Memory Usage (54%)

WAN STATUS

Name	Connection	Up Time	IP Ad
[DSL] PVC1	Idle	00:00:00	0.0.0
[USB] 3G_BACKUP	Idle		

LAN STATUS

Name	IP Address	MAC Addre
[LAN] LAN	192.168.1.1	00:1d:aa:e

SSID STATUS

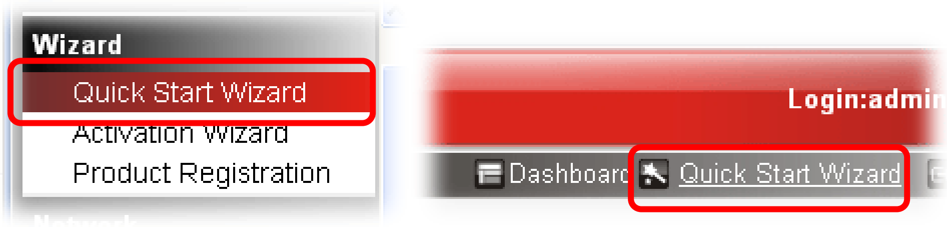
Enable	SSID	Hi
Enable	DrayTek1	D
Disable	DrayTek2	D
Disable	DrayTek3	D
Disable	DrayTek4	D

VPN STATUS

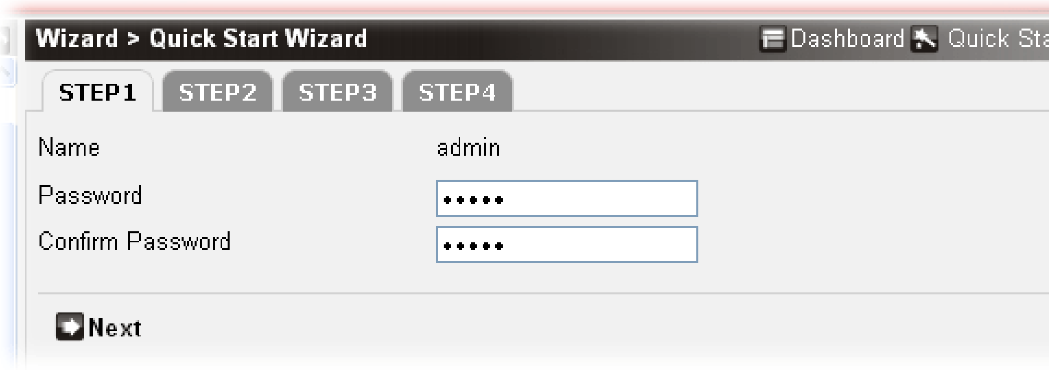
Profile Name	Connection	Uptime
(Empty)		

2. The home page will change slightly in accordance with the router you have. Here we take Vigor2760 as an example.

3. Click **Wizard** >>**Quick Start Wizard** (or click the **Quick Start Wizard** link on the quick bar on the top).



4. In the tab of **STEP1**, type the login password on the field of **Password** and retype it on the field of **Confirm Password**. After restarting the router, new password must be typed for accessing into router web page. Then, click the **Next** button for next page.

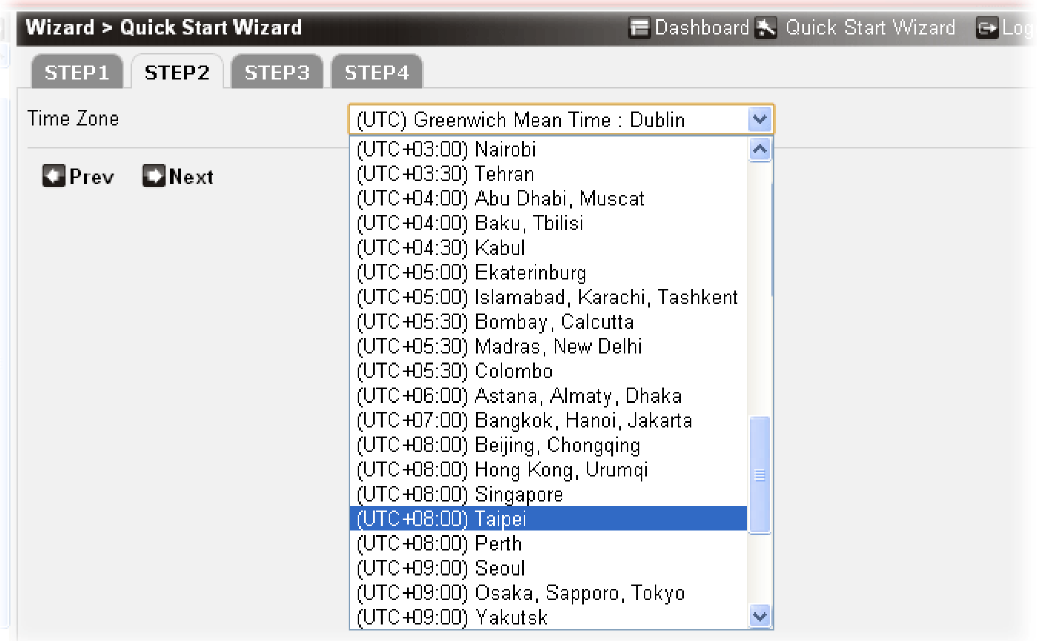


Name admin

Password •••••

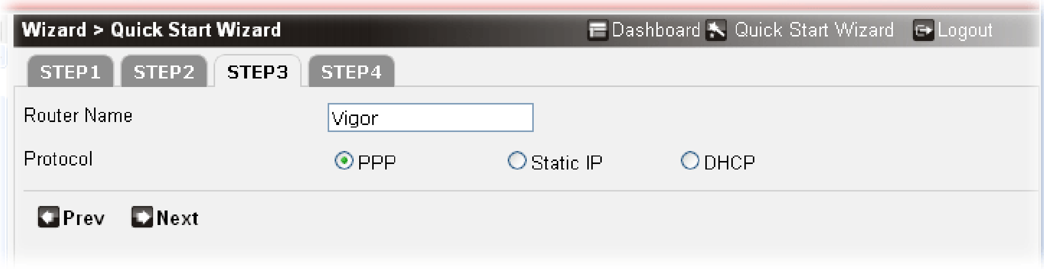
Confirm Password •••••

5. Choose the time zone for the router located. Then, click the **Next** button for next page.


Wizard > Quick Start Wizard
Dashboard
Quick Start Wizard
Log
STEP1
STEP2
STEP3
STEP4
Prev
Next
(UTC+03:00) Nairobi
(UTC+03:30) Tehran
(UTC+04:00) Abu Dhabi, Muscat
(UTC+04:00) Baku, Tbilisi
(UTC+04:30) Kabul
(UTC+05:00) Ekaterinburg
(UTC+05:00) Islamabad, Karachi, Tashkent
(UTC+05:30) Bombay, Calcutta
(UTC+05:30) Madras, New Delhi
(UTC+05:30) Colombo
(UTC+06:00) Astana, Almaty, Dhaka
(UTC+07:00) Bangkok, Hanoi, Jakarta
(UTC+08:00) Beijing, Chongqing
(UTC+08:00) Hong Kong, Urumqi
(UTC+08:00) Singapore
(UTC+08:00) Taipei
(UTC+08:00) Perth
(UTC+09:00) Seoul
(UTC+09:00) Osaka, Sapporo, Tokyo
(UTC+09:00) Yakutsk

Time Zone (UTC) Greenwich Mean Time : Dublin

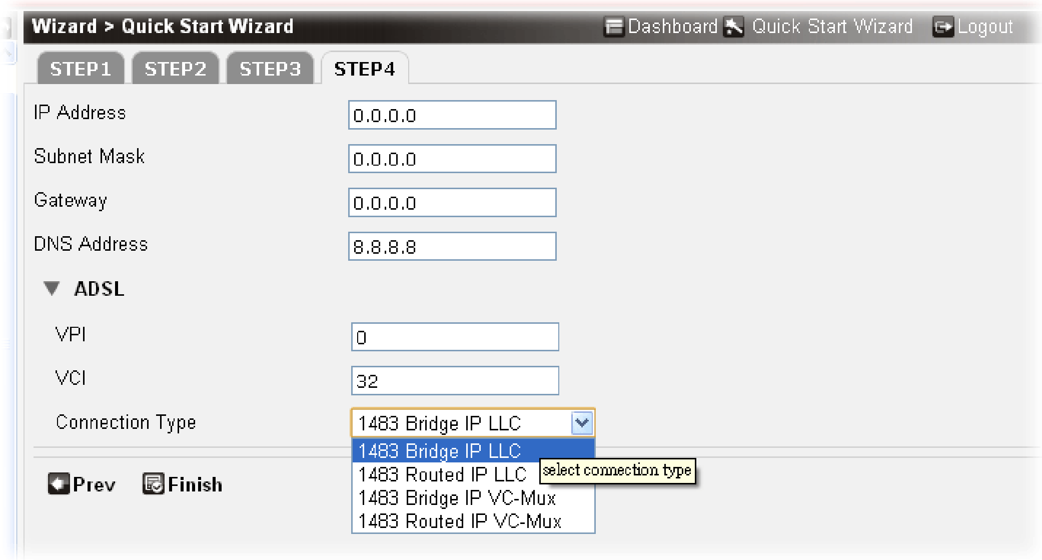
6. Type the router name and choose the protocol (PPP, Static IP or DHCP) according to the information from your ISP. For example, you should select PPP mode if the ISP provides you PPP interface. Then, click the **Next** button for next page.



Router Name: Vigor

Protocol: ● PPP ○ Static IP ○ DHCP

Static IP: if you click **Static IP**, you will get the following page. Please type in the IP address information and type the values for ADSL settings (it can be ignored if VDSL service is offered) originally provided by your ISP. Then click **Finish** to complete the configuration.



IP Address: 0.0.0.0

Subnet Mask: 0.0.0.0

Gateway: 0.0.0.0

DNS Address: 8.8.8.8

VPI: 0

VCI: 32

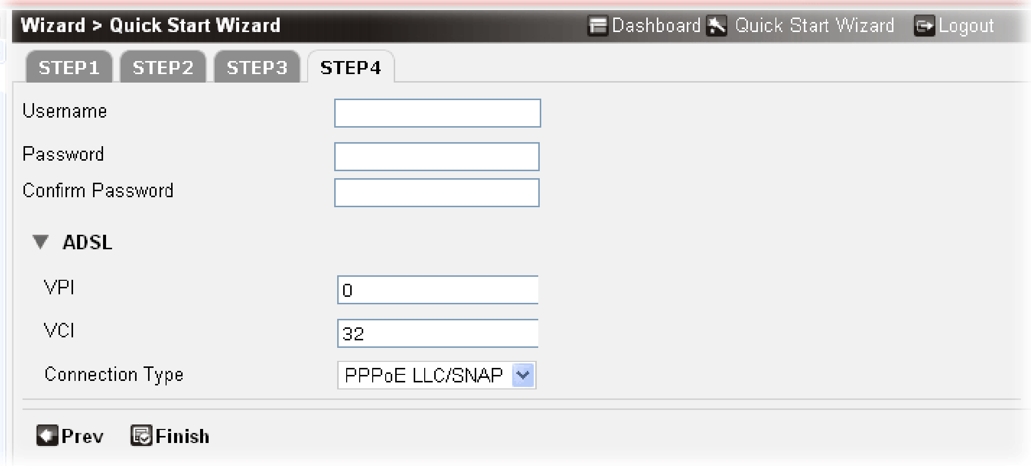
Connection Type: 1483 Bridge IP LLC

Available parameters are listed as follows:

Item	Description
IP Address	Type the IP address.
Subnet Mask	Type the subnet mask.
Gateway	Type the gateway IP address.
DNS Address	Type in the primary IP address for the router.
VPI	Stands for **Virtual Path Identifier**. It is an 8-bit header inside each ATM cell that indicates where the cell should be routed. The ATM, is a method of sending data in small packets of fixed sizes. It is used for transferring data to client computers.
VCI	Stands for **Virtual Channel Identifier.** It is a 16-bit field inside ATM cell's header that indicates the cell's next destination as it travels through the network. A virtual channel is a logical connection between two end devices on the network.

Connection Type	Select a connection mode for this WAN interface.

PPP: if you click PPP as the protocol, please manually type the Username/Password and type the values for ADSL settings (it can be ignored if VDSL service is offered) provided by your ISP. Then click **Finish** to complete the configuration.



Username

Password

Confirm Password

▼ ADSL

VPI: 0

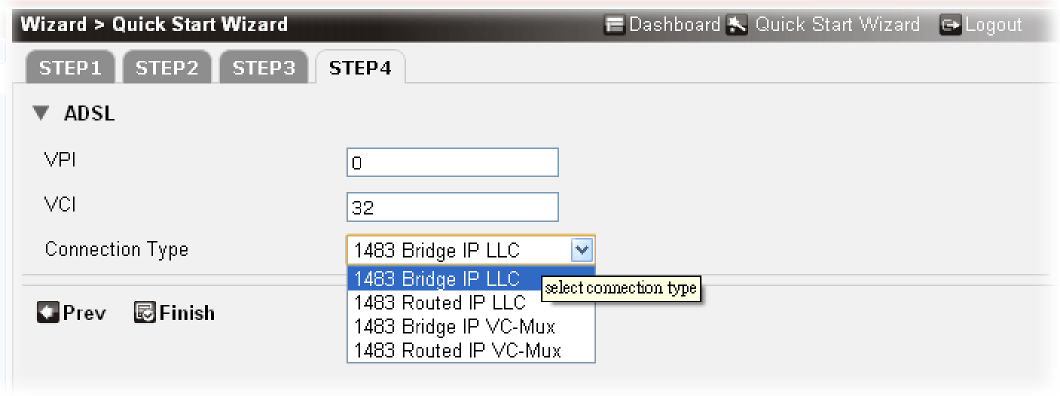
VCI: 32

Connection Type: PPPoE LLC/SNAP

Available parameters are listed as follows:

Item	Description
Username	Assign a specific valid user name provided by the ISP.
Password	Assign a valid password provided by the ISP.
Confirm Password	Type the password again for confirmation.
VPI	Stands for **Virtual Path Identifier**. It is an 8-bit header inside each ATM cell that indicates where the cell should be routed. The ATM, is a method of sending data in small packets of fixed sizes. It is used for transferring data to client computers.
VCI	Stands for **Virtual Channel Identifier.** It is a 16-bit field inside ATM cell's header that indicates the cell's next destination as it travels through the network. A virtual channel is a logical connection between two end devices on the network.
Connection Type	Select a connection mode for this WAN interface.

DHCP: if you click DHCP as the protocol, just enter the values for ADSL settings (it can be ignored if VDSL service is offered) provided by your ISP. Then click **Finish** to complete the configuration.



Wizard > Quick Start Wizard

▼ ADSL

VPI: 0

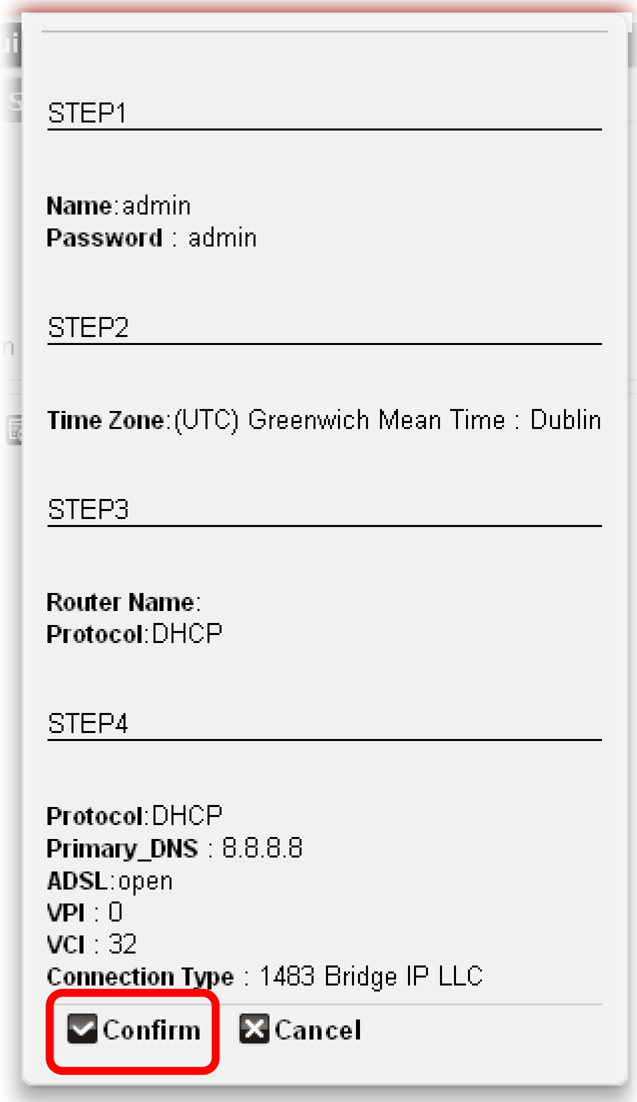
VCI: 32

Connection Type: 1483 Bridge IP LLC

Available parameters are listed as follows:

Item	Description
VPI	Stands for **Virtual Path Identifier**. It is an 8-bit header inside each ATM cell that indicates where the cell should be routed. The ATM, is a method of sending data in small packets of fixed sizes. It is used for transferring data to client computers.
VCI	Stands for **Virtual Channel Identifier.** It is a 16-bit field inside ATM cell's header that indicates the cell's next destination as it travels through the network. A virtual channel is a logical connection between two end devices on the network.
Connection Type	Select a connection mode for this WAN interface.

7. When you click **Finish** to complete the configuration, the system will display a summary screen for you to confirm. Simply click **Confirm**. Later, the Dashboard screen will appear. You can enjoy surfing on the Internet.



STEP1

Name:admin
Password : admin

STEP2

Time Zone:(UTC) Greenwich Mean Time : Dublin

STEP3

Router Name:
Protocol:DHCP

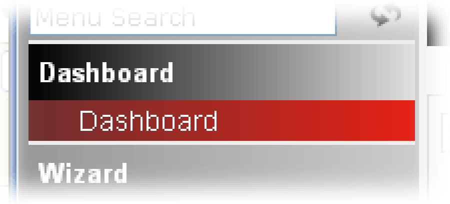
STEP4

Protocol:DHCP
Primary_DNS : 8.8.8.8
ADSL:open
VPI : 0
VCI : 32
Connection Type : 1483 Bridge IP LLC

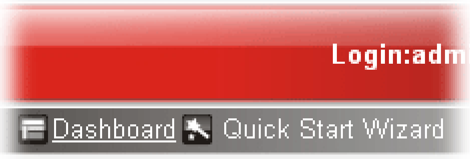
2.3 Dashboard for System Status

Dashboard shows the system status including System Information, DSL Information, System Resource, Quick Access, Physical Port Status, WAN Status, LAN Status, WiFi Station List, WiFi AP List, All VPN Status, IPSec Status, Traffic Graph, L2TP Status, PPTP Status, DDNS Status, Routing Table, ARP Table, DHCP Table, Session Table and License Table.

Open **Dashboard>>Dashboard** from the main menu on the left side of the main page (or click the **Dashboard** link on the quick bar on the top).



or

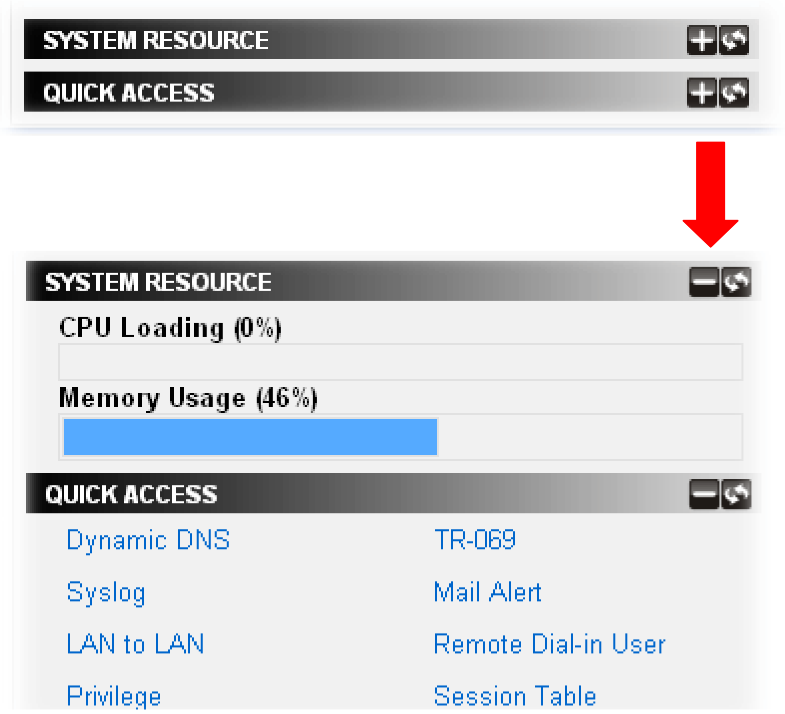


Take a look at the icons on the top-right of each status display area.

⊖ - Click it to fold the specified status display area.

⊞ - Click it to unfold the specified status display area.

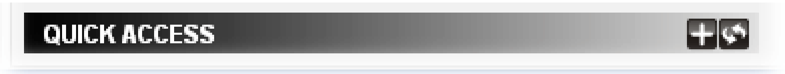
↻ - Click it to re-display the specified status display area.



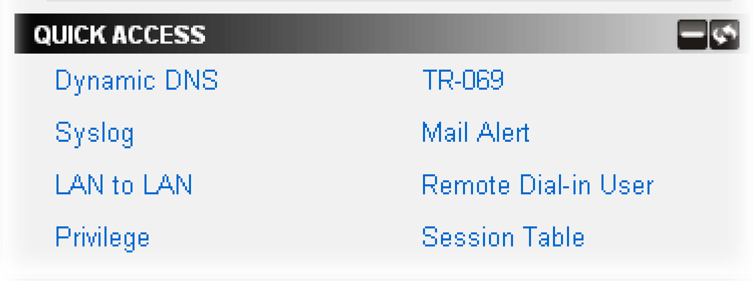
2.4 Quick Access for Common Used Menu

All the menu items can be accessed and arranged orderly on the left side of the main page for your request. However, some important and common used menu items which can be accessed in a quick way just for convenience.

Open **Dashboard>>Dashboard** from the main menu on the left side of the main page. Scroll down the web page to display the **QUICK ACCES**S Bar



Click ⊞ to unfold the bar. The functions of Dynamic DDNS, Syslog, LAN to LAN, Privilege, TR-069, Mail Alert, Remote Dial-in User and Session Table are displayed under the bar. Move your mouse cursor on any one of the links and click on it. The corresponding setting page will be open immediately.

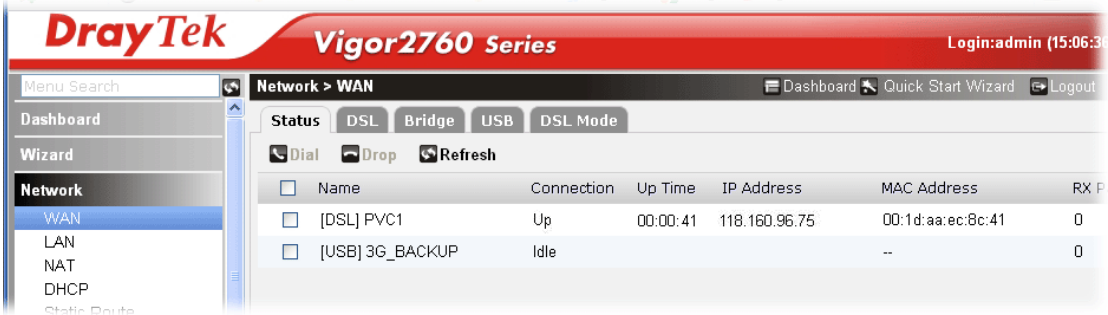


3 Applications and Tutorials

3.1 Registering the Router for Getting Relational Information in the Future

Note: After finished the network connection, you need to register your router first to get more service from DrayTek. In addition, such section should be done before activating WCF service stated in section 3.2.

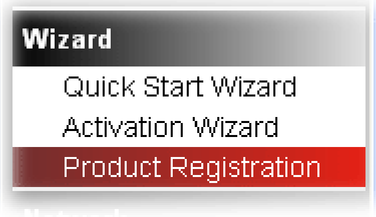
Make sure the router has been configured and connected to Internet. You can check the WAN status by opening **Network>>WAN**. For example, the following figure shows the Internet connection through WAN1 ADSL (represented by **[DSL]PVC1**) is up.



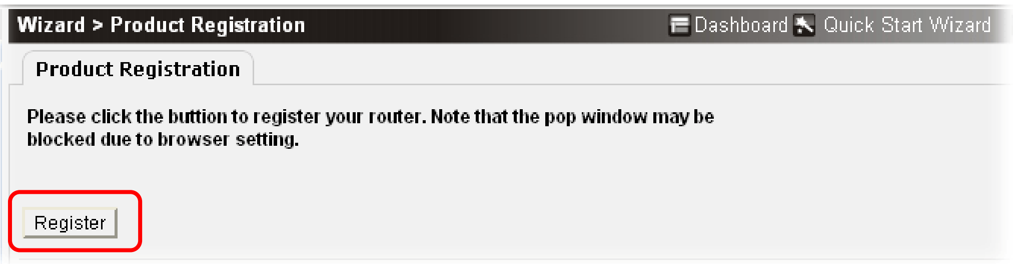
□	Name	Connection	Up Time	IP Address	MAC Address	RX P
□	[DSL] PVC1	Up	00:00:41	118.160.96.75	00:1d:aa:ec:8c:41	0
□	[USB] 3G_BACKUP	Idle			--	0

Please follow the steps below to register the router.

1 Log into the web configurator of Vigor2760 and open **Wizard>>Product Registration**.



2 From the following web page, click **Register**.



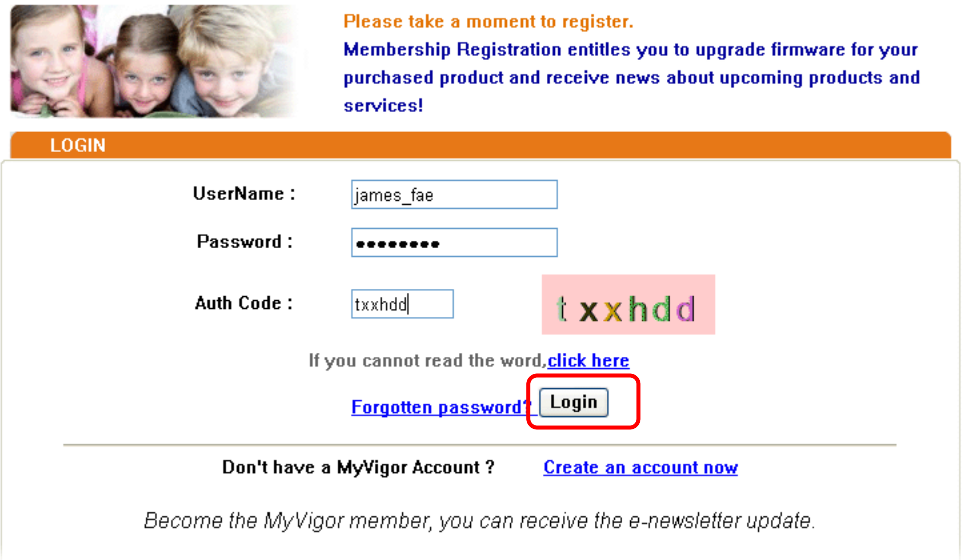
Wizard > Product Registration | Dashboard | Quick Start Wizard

Product Registration

Please click the buttion to register your router. Note that the pop window may be blocked due to browser setting.

Register

3. A **Login** page will be shown on the screen. Please type the account and password that you created previously. And click **Login**. If you do not have the account and password, simply click the link of **click here** to create a new one, then return here to continue.



Please take a moment to register.

Membership Registration entitles you to upgrade firmware for your purchased product and receive news about upcoming products and services!

LOGIN

UserName :	james_fae
Password :	●●●●●●●●
Auth Code :	txxhdd

t x x h d d

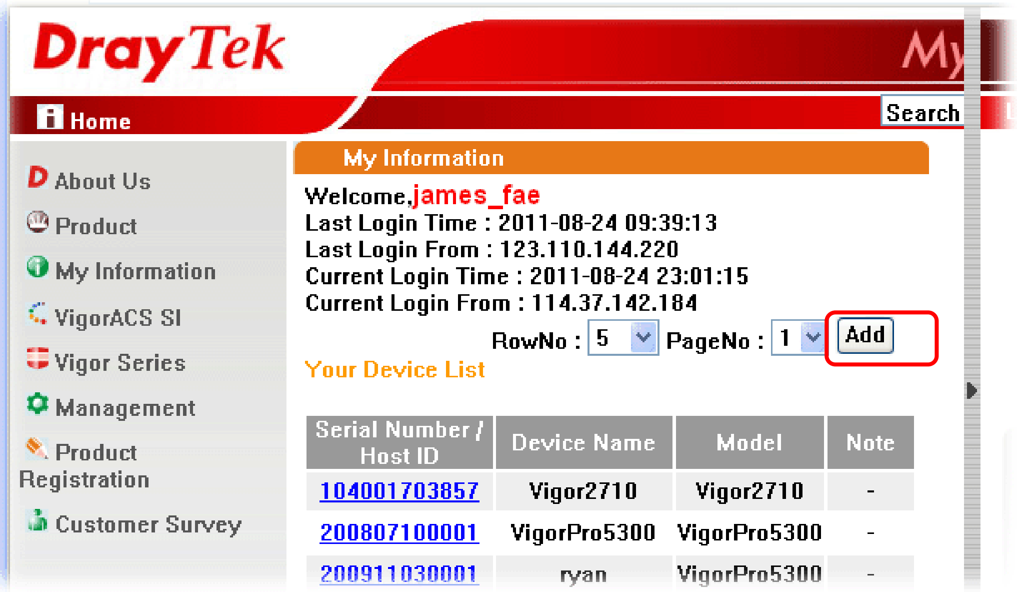
If you cannot read the word,click here

Forgotten password? Login

Don't have a MyVigor Account ? Create an account now

Become the MyVigor member, you can receive the e-newsletter update.

4. The following page will be displayed after you logging in MyVigor. From this page, please click **Add**.



My Information

Welcome,james_fae
Last Login Time : 2011-08-24 09:39:13
Last Login From : 123.110.144.220
Current Login Time : 2011-08-24 23:01:15
Current Login From : 114.37.142.184

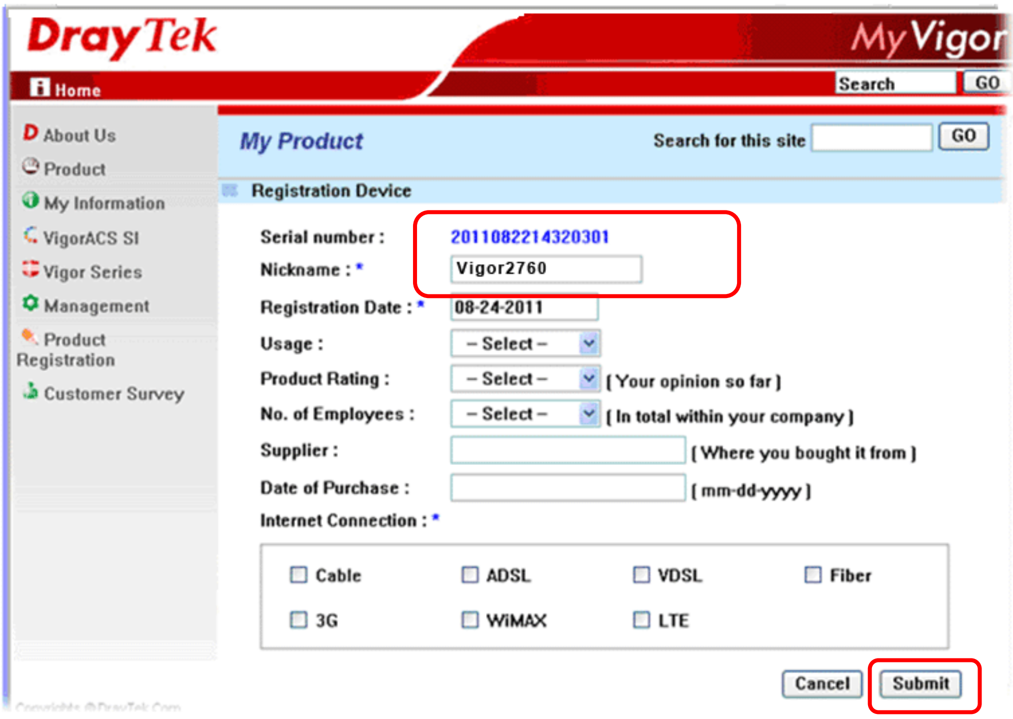
RowNo : 5 PageNo : 1 Add

Your Device List

Serial Number / Host ID	Device Name	Model	Note
104001703857	Vigor2710	Vigor2710	-
200807100001	VigorPro5300	VigorPro5300	-
200911030001	ryan	VigorPro5300	-

Note: Below the field of **Your Device List**, all the Vigor routers that you have registered to MyVigor website will be displayed in sequence.

5. When the following page appears, please type in Nickname (for the router) and choose the right registration date from the popup calendar (it appears when you click on the box of Registration Date). After adding the basic information for the router, please click **Submit**.



My Product

Search for this site GO

Registration Device

Serial number : 2011082214320301

Nickname : * Vigor2760

Registration Date : * 08-24-2011

Usage : – Select –

Product Rating : – Select – [Your opinion so far]

No. of Employees : – Select – [In total within your company]

Supplier : [Where you bought it from]

Date of Purchase : [mm-dd-yyyy]

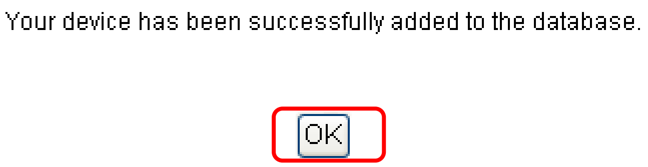
Internet Connection : *

□ Cable □ ADSL □ VDSL □ Fiber

□ 3G □ WiMAX □ LTE

Cancel Submit

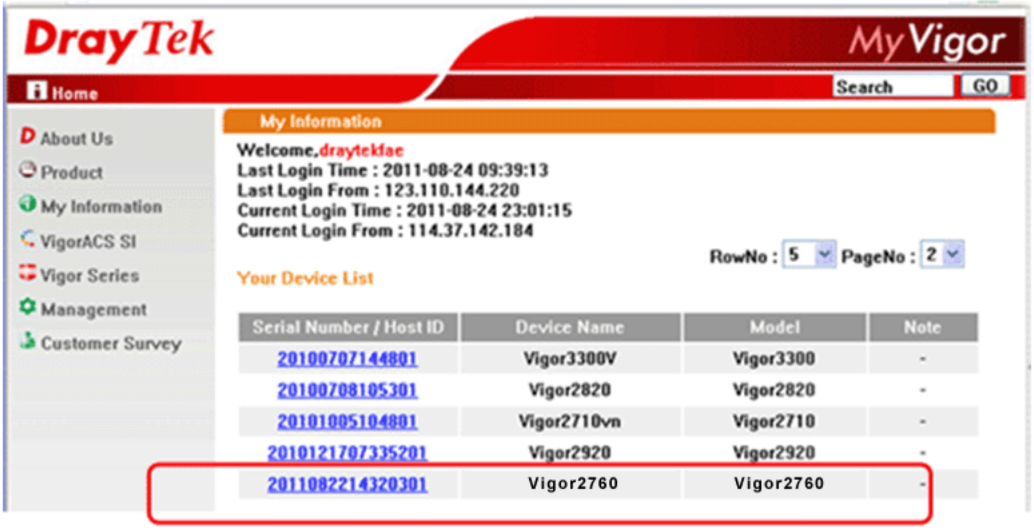
6. Now, your router information has been added to the database. Click **OK** to leave this web page and return to **My Information** web page.



Your device has been successfully added to the database.

OK

7. Take a look at the page of My Information, the new added Vigor router is listed under **Your Device List**.



Welcome,draytekfae
Last Login Time : 2011-08-24 09:39:13
Last Login From : 123.110.144.220
Current Login Time : 2011-08-24 23:01:15
Current Login From : 114.37.142.184

RowNo : 5 PageNo : 2

Your Device List

Serial Number / Host ID	Device Name	Model	Note
20100707144801	Vigor3300V	Vigor3300	-
20100708105301	Vigor2820	Vigor2820	-
20101005104801	Vigor2710vn	Vigor2710	-
2010121707335201	Vigor2920	Vigor2920	-
2011082214320301	Vigor2760	Vigor2760	-

8. Return to the web user interface of Vigor router and **refresh** the page.

3.2 Activating Web Content Filter Mechanism

We all know that the content on the Internet just like other types of media may be inappropriate sometimes. As a responsible parent or employer, you should protect those in your trust against the hazards. With Web filtering service of the Vigor router, you can protect your business from common primary threats, such as productivity, legal liability, network and security threats. For parents, you can protect your children from viewing adult websites or chat rooms.

> **Note:** Web Content Filter (WCF) is not a built-in service of Vigor router, but a service powered by Commtouch /BPjM. If you want to use such service (trial or formal edition), you have to perform the procedure of activation first. For the service of formal edition, please contact with your dealer for detailed information.

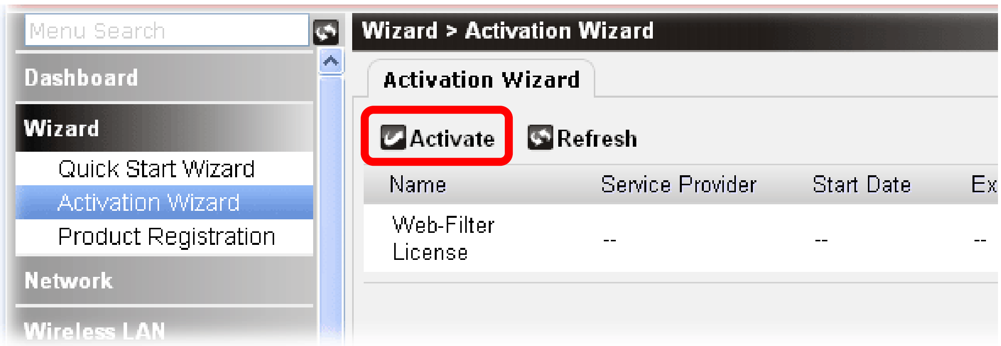
There are two methods to activate the WCF license.

- By means of Service Activation
- By means of MyVigor Website

3.2.1 By Means of Service Activation

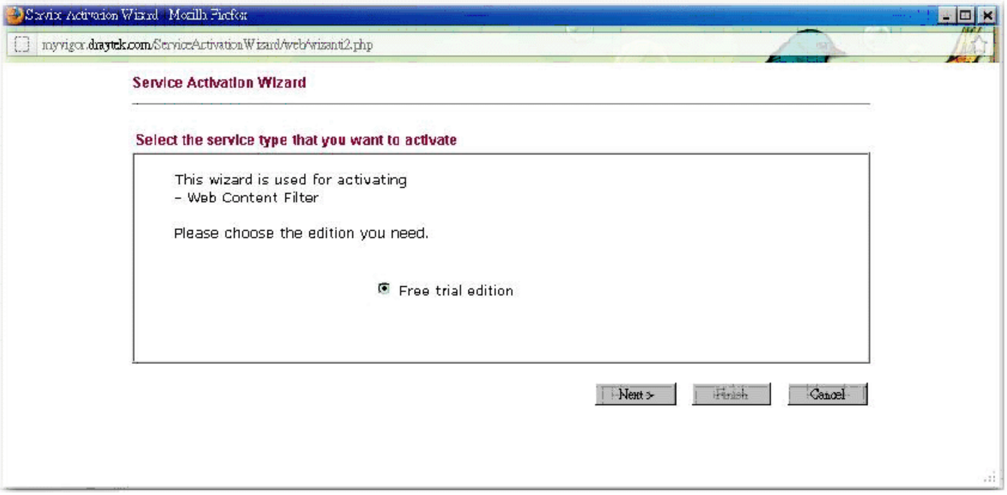
Follow the steps below to activate the WCF mechanism:

1. Open **Wizard>>Service Activation** and click **Activate**.



Name	Service Provider	Start Date	Ex
Web-Filter License	--	--	--

2. A pop up window will appear. Only Free trail edition can be activated. Click **Next**.



Service Activation Wizard - Mozilla Firefox
myvigor.draytek.com/ServiceActivationWizard/web/wizard2.php

Service Activation Wizard

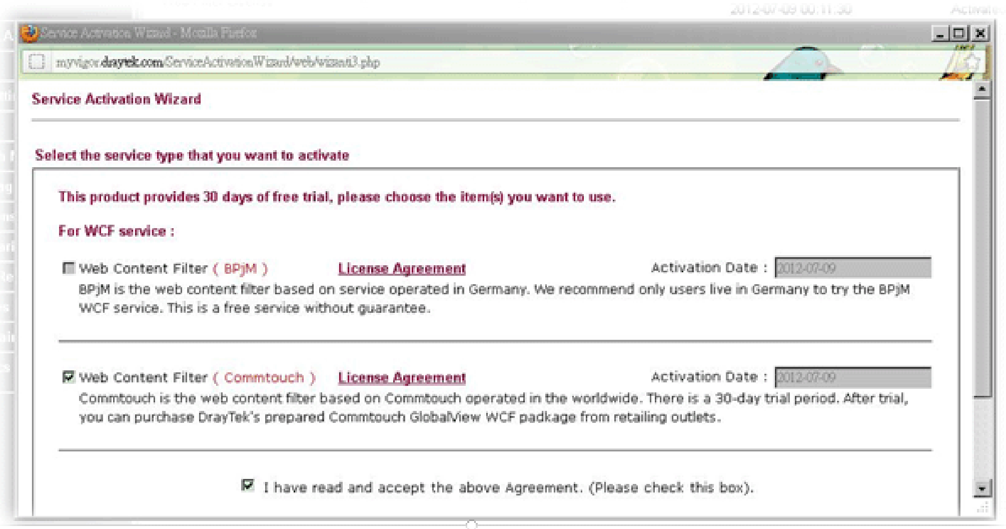
Select the service type that you want to activate

This wizard is used for activating
- Web Content Filter

Please choose the edition you need.

● Free trial edition

3. In the following window, check the box of **Web Content Filter (Commtouch)** and check the box of **I have read and accept….** The Activation Date will be determined automatically by the system. Click **Next**.



Service Activation Wizard - Mozilla Firefox
myvigor.draytek.com/ServiceActivationWizard/web/wizard3.php

Service Activation Wizard

Select the service type that you want to activate

This product provides 30 days of free trial, please choose the item(s) you want to use.

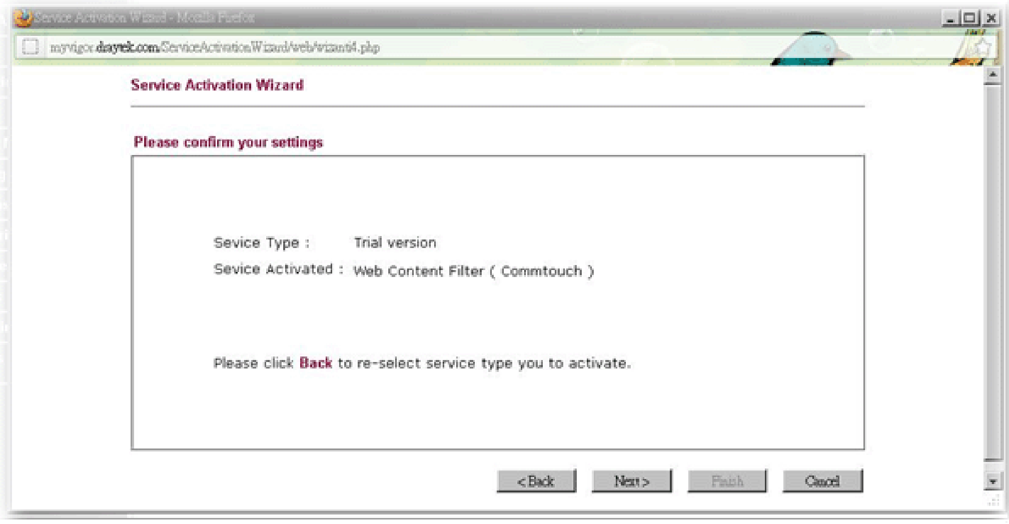
For WCF service :

□ Web Content Filter (BPjM) License Agreement Activation Date : 2012-07-09
BPjM is the web content filter based on service operated in Germany. We recommend only users live in Germany to try the BPjM WCF service. This is a free service without guarantee.

☑ Web Content Filter (Commtouch) License Agreement Activation Date : 2012-07-09
Commtouch is the web content filter based on Commtouch operated in the worldwide. There is a 30-day trial period. After trial, you can purchase DrayTek's prepared Commtouch GlobalView WCF padkage from retailing outlets.

☑ I have read and accept the above Agreement. (Please check this box).

4. Make a confirmation of activating the free trial license or not. If YES, click **Next**.



Service Activation Wizard - Mozilla Firefox
myvigor.draytek.com/ServiceActivationWizard/web/wizard4.php

Service Activation Wizard

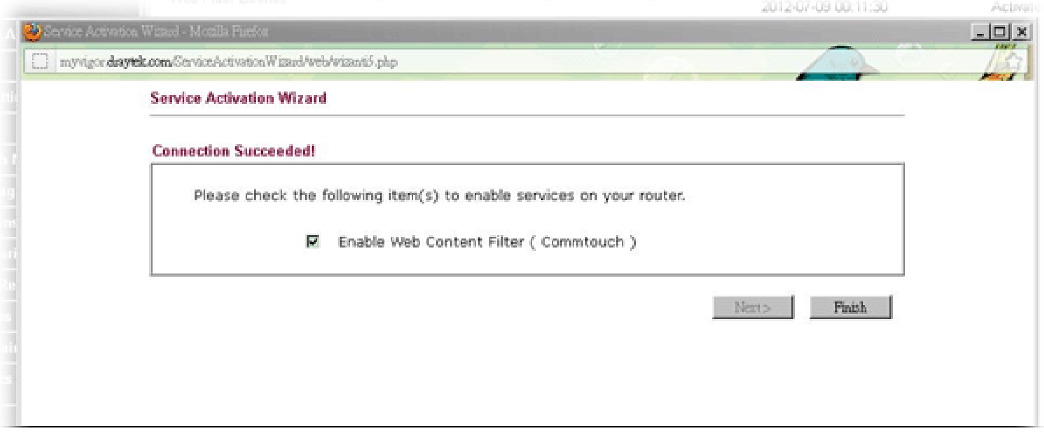
Please confirm your settings

Sevice Type : Trial version
Sevice Activated : Web Content Filter (Commtouch)

Please click Back to re-select service type you to activate.

< Back
Next >
Finish
Cancel

5. When the following web page appears, simply click **Finish**.



Service Activation Wizard - Mozilla Firefox
myvigor.draytek.com/ServiceActivationWizard/web/wizard5.php

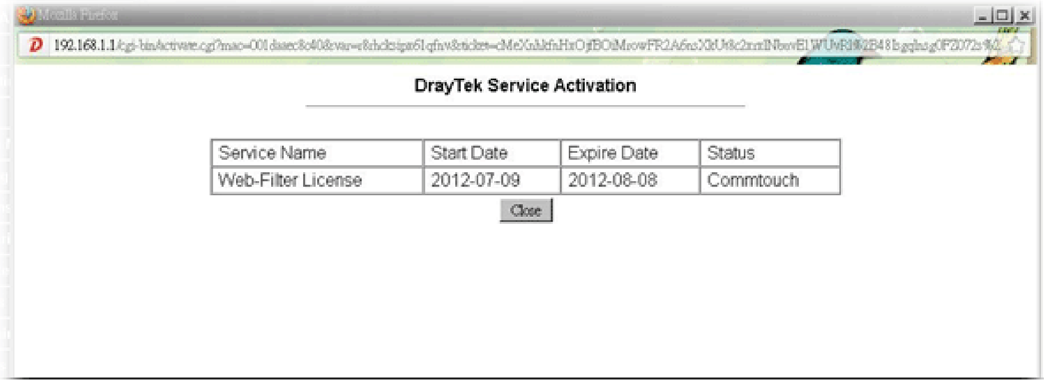
Service Activation Wizard

Connection Succeeded!

Please check the following item(s) to enable services on your router.

☑ Enable Web Content Filter (Commtouch)

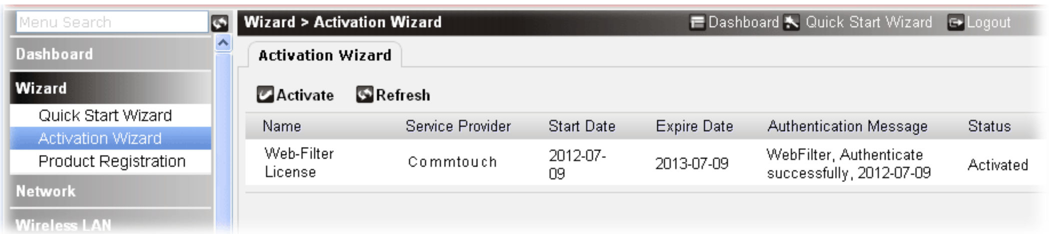
6. Now, the one month free trial of WCF mechanism has been activated correctly.



DrayTek Service Activation

Service Name	Start Date	Expire Date	Status
Web-Filter License	2012-07-09	2012-08-08	Commtouch

7. Click **Close** to return to the web configurator of Vigor router.

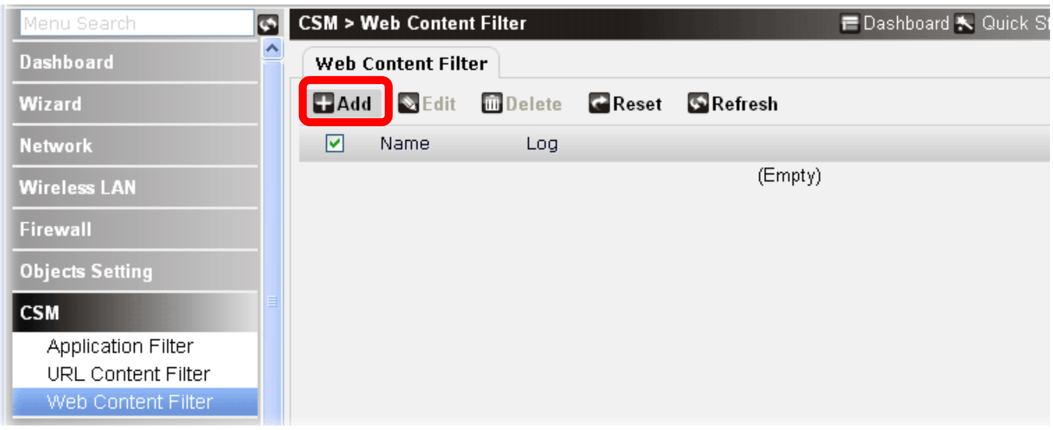


Wizard > Activation Wizard

Activation Wizard

Name	Service Provider	Start Date	Expire Date	Authentication Message	Status
Web-Filter License	Commtouch	2012-07-09	2013-07-09	WebFilter, Authenticate successfully, 2012-07-09	Activated

8. Open **CSM>>Web Content Filter**. Click **Add** to configure new WCF rule for special purpose (e.g., child protection).

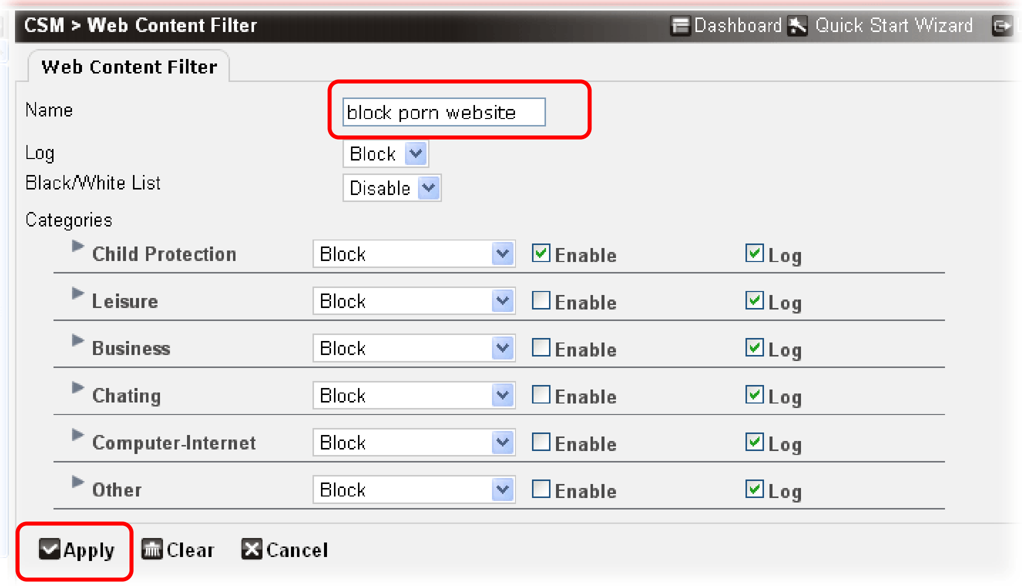


CSM > Web Content Filter

Web Content Filter

☑	Name	Log
	(Empty)	

9. In the field of **Name**, type **block porn website** as the rule name. In this case, **Child Protection** is the chosen category, so check the box of **Enable** for it and choose **Block** as the filtering way. Use the default settings for other categories in this page. When you finished, click **Apply**.

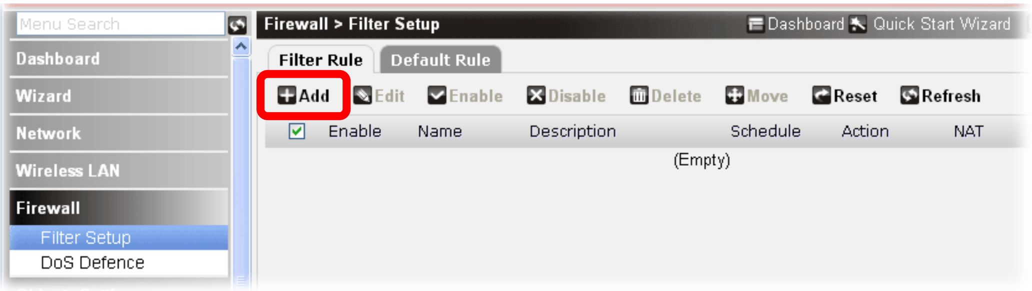


CSM > Web Content Filter

Web Content Filter

Name	block porn website		
Log	Block		
Black/White List	Disable		
Categories			
Child Protection	Block	☑ Enable	☑ Log
Leisure	Block	□ Enable	☑ Log
Business	Block	□ Enable	☑ Log
Chating	Block	□ Enable	☑ Log
Computer-Internet	Block	□ Enable	☑ Log
Other	Block	□ Enable	☑ Log

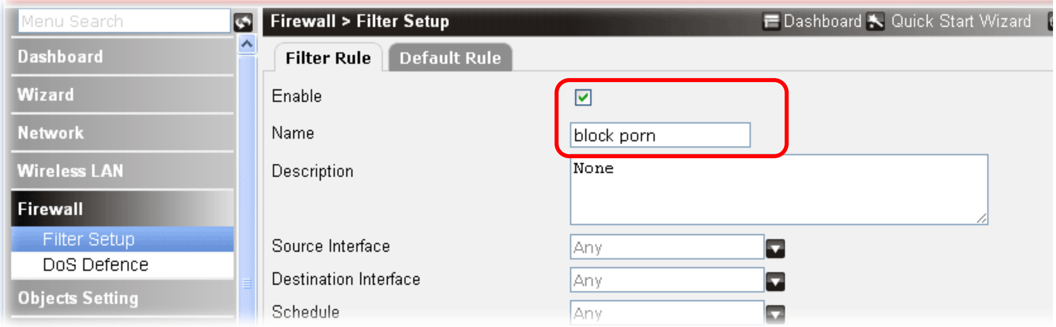
10. Next, open **Firewall>>Filter Setup** to set a rule to activate the new created WCF rule (e.g., block porn website). Click **Add**.



Firewall > Filter Setup

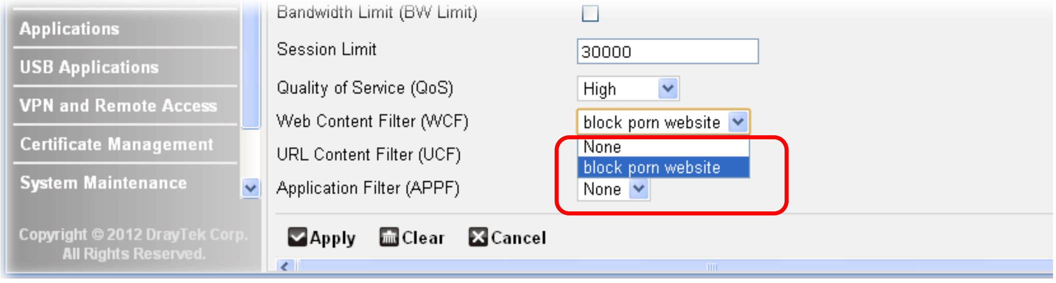
☑	Enable	Name	Description	Schedule	Action	NAT
			(Empty)			

11. In the following web page, check the box of **Enable** and type **block porn** as a firewall rule name. Choose **block porn website** as the **Web Content Filter (WCF).**



Firewall > Filter Setup

Enable	☑
Name	block porn
Description	None
Source Interface	Any
Destination Interface	Any
Schedule	Any



Bandwidth Limit (BW Limit) □

Session Limit 30000

Quality of Service (QoS) High

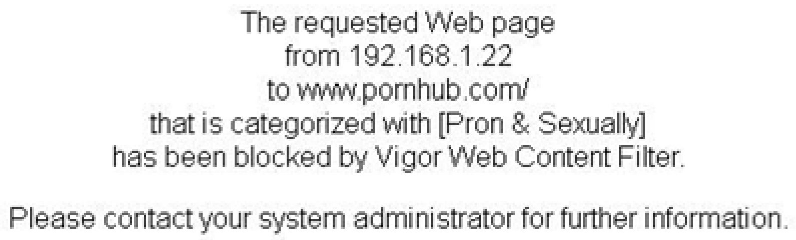
Web Content Filter (WCF) block porn website

URL Content Filter (UCF)

Application Filter (APPF) None

12. Click **Apply** to finish the page configuration.

Now, the website with porn information classified by Commtouch can be blocked easily. For example, if you try to access into www.pornhub.com or www.xvideos.com, you will get the following message:

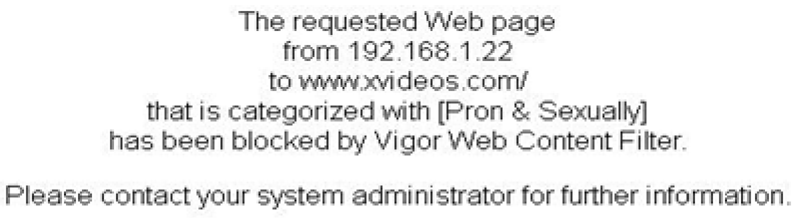


The requested Web page
from 192.168.1.22
to www.pornhub.com/
that is categorized with [Pron & Sexually]
has been blocked by Vigor Web Content Filter.

Please contact your system administrator for further information.

–

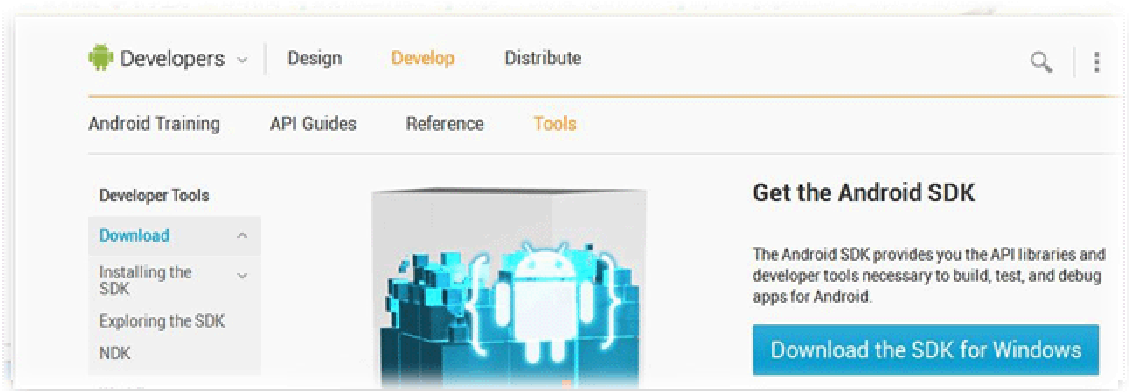
And



The requested Web page
from 192.168.1.22
to www.xvideos.com/
that is categorized with [Pron & Sexually]
has been blocked by Vigor Web Content Filter.

Please contact your system administrator for further information.

However, general website (without porn information) can be accessed normally.



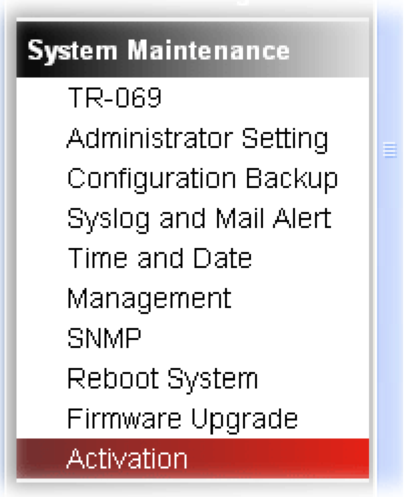
Get the Android SDK

The Android SDK provides you the API libraries and developer tools necessary to build, test, and debug apps for Android.

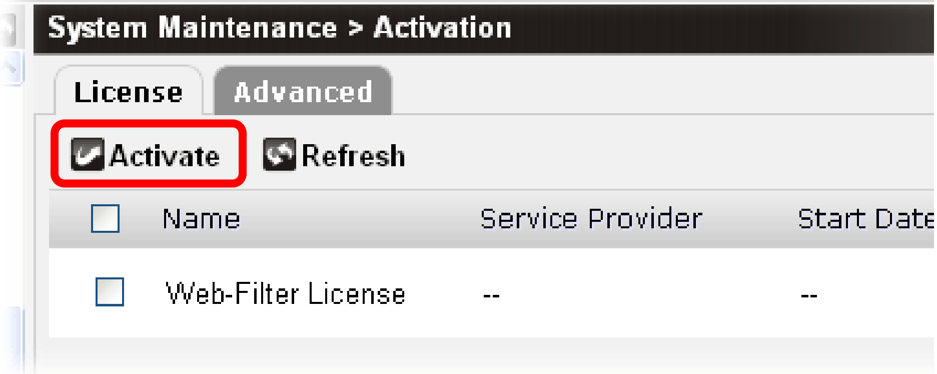
3.2.2 By Means of MyVigor Website

You have to register the user account and Vigor device (refer to section 3.1) before activating the WCF mechanism.

1. Open **System Maintenance>> Activation**.

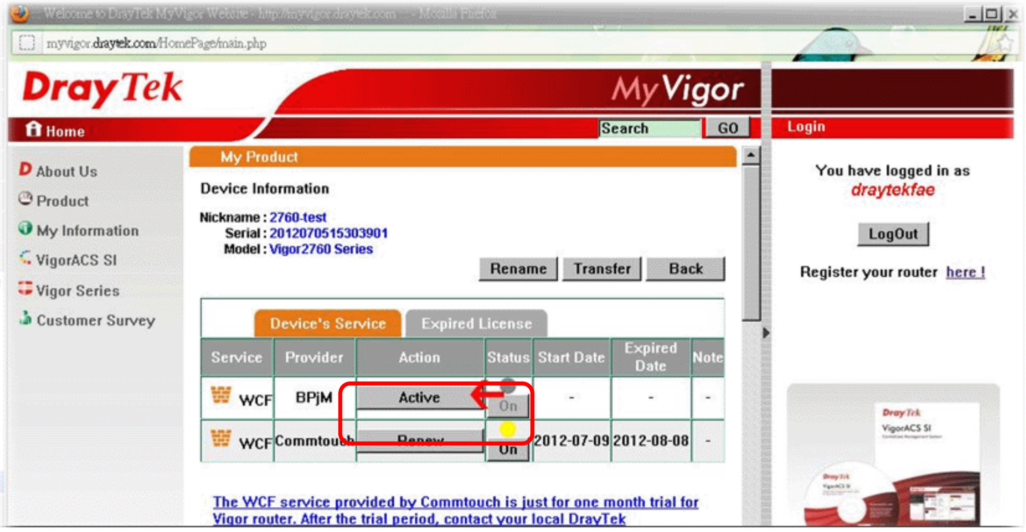


2. From the following web page, click **Activate**.



□	Name	Service Provider	Start Date
□	Web-Filter License	--	--

4. You will get the following page. Here we take BPjM license as an example. If the trial version has not been activated, you will see a **Trial** button in this page. Yet, if the trial version has been activated, the **Active** button will be shown instead. Click **Active.**



Device Information

Nickname : 2760-test
Serial : 2012070515303901
Model : Vigor2760 Series

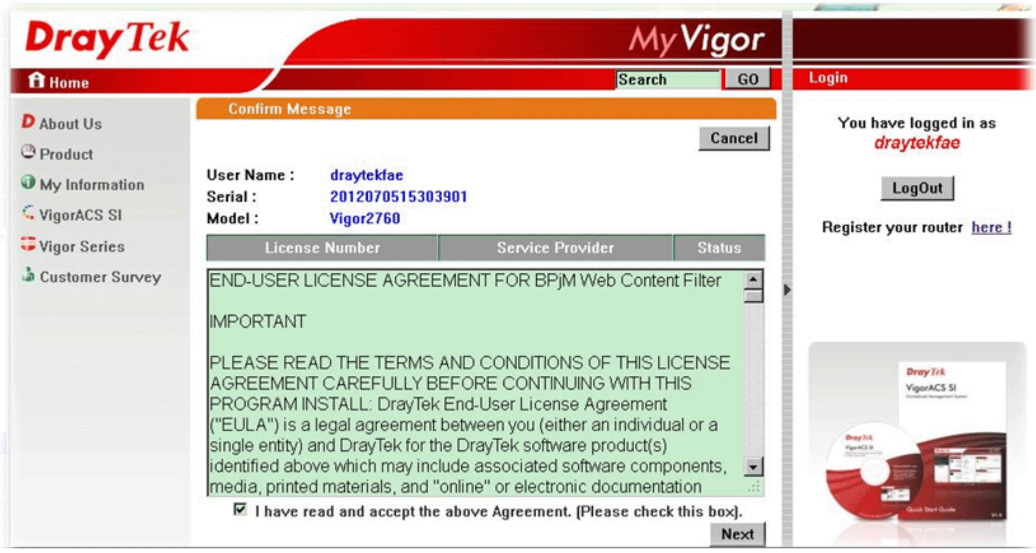
Service	Provider	Action	Status	Start Date	Expired Date	Note
WCF	BPjM	Active	On	-	-	-
WCF	Commtouch	Renew	On	2012-07-09	2012-08-08	-

The WCF service provided by Commtouch is just for one month trial for Vigor router. After the trial period, contact your local DrayTek

You have logged in as draytekfae

Register your router here !

5. In the following page, check the box of **I have read and …** and click **Next**.



User Name : draytekfae
Serial : 2012070515303901
Model : Vigor2760

END-USER LICENSE AGREEMENT FOR BPjM Web Content Filter

IMPORTANT

PLEASE READ THE TERMS AND CONDITIONS OF THIS LICENSE AGREEMENT CAREFULLY BEFORE CONTINUING WITH THIS PROGRAM INSTALL: DrayTek End-User License Agreement ("EULA") is a legal agreement between you (either an individual or a single entity) and DrayTek for the DrayTek software product(s) identified above which may include associated software components, media, printed materials, and "online" or electronic documentation

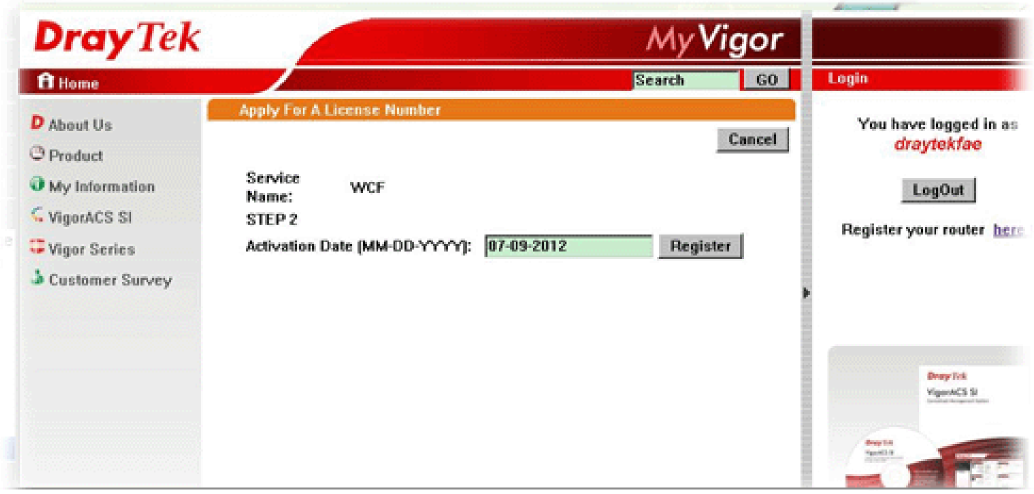
☑ I have read and accept the above Agreement. (Please check this box).

You have logged in as draytekfae

LogOut

Register your router here !

6. In the following page, the **Activation Date** will be displayed automatically. Click **Register**.



Service Name: WCF

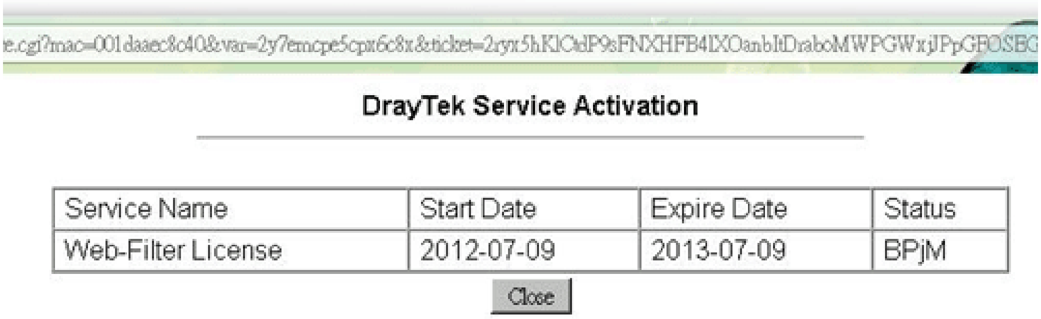
STEP 2

Activation Date (MM-DD-YYYY): 07-09-2012

You have logged in as draytekfae

Register your router here

7. Now, the system displays successful activation of the chosen license.

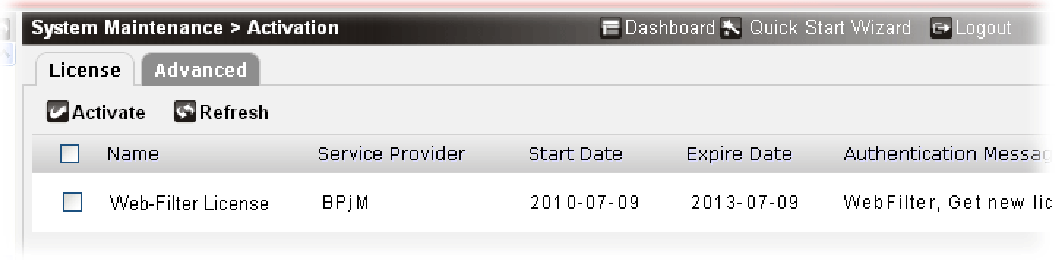


e.cgi?mac=001daaec8c408&var=2y7emcpe5cpx6c8x&ticket=2ryx5hKICtdP9sFNXHFB4IXOanbltDraboMWPGWxjJPpGBOSBG

DrayTek Service Activation

Service Name	Start Date	Expire Date	Status
Web-Filter License	2012-07-09	2013-07-09	BPjM

8. Click **Close** to return to the web configurator of Vigor router. The license has been activated and displayed on the web page.



□	Name	Service Provider	Start Date	Expire Date	Authentication Messag
□	Web-Filter License	BPjM	2010-07-09	2013-07-09	WebFilter, Get new lic

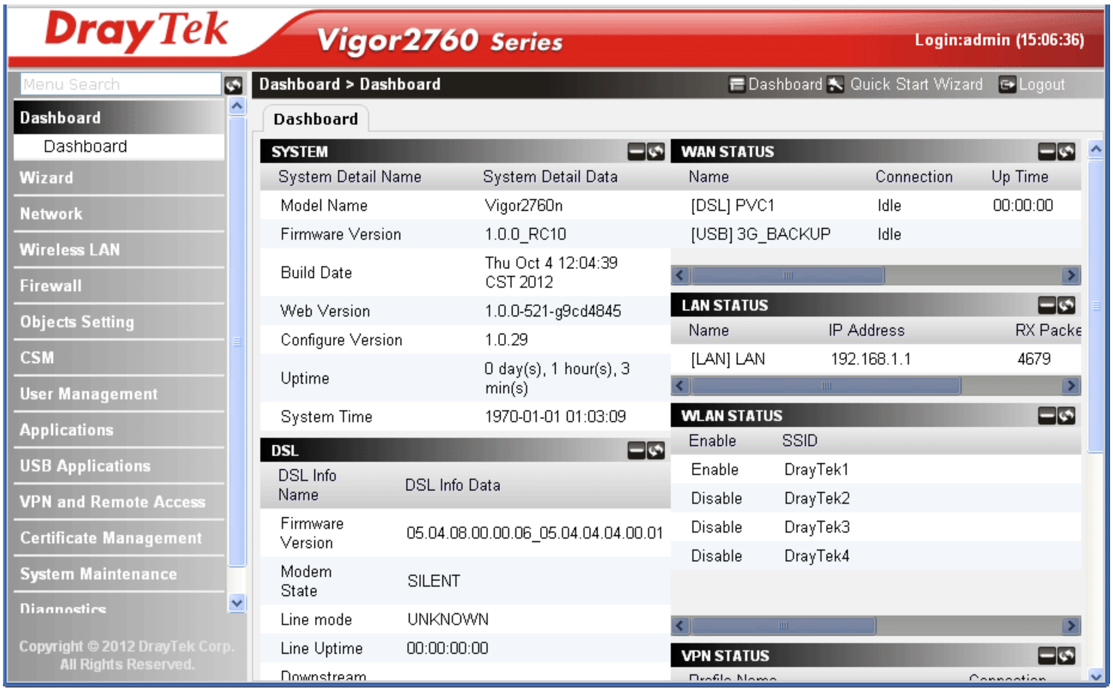
This page is left blank.

4 Advanced Web Configuration

This chapter will guide users to execute advanced (full) configuration.

1. Open a web browser on your PC and type **http://192.168.1.1.** The window will ask for typing username and password.
2. Please type “**admin/admin**” on Username/Password for administration operation.

Now, the **Main Screen** will appear.



SYSTEM

System Detail Name	System Detail Data
Model Name	Vigor2760n
Firmware Version	1.0.0_RC10
Build Date	Thu Oct 4 12:04:39 CST 2012
Web Version	1.0.0-521-g9cd4845
Configure Version	1.0.29
Uptime	0 day(s), 1 hour(s), 3 min(s)
System Time	1970-01-01 01:03:09

DSL

DSL Info Name	DSL Info Data
Firmware Version	05.04.08.00.00.06_05.04.04.04.00.01
Modem State	SILENT
Line mode	UNKNOWN
Line Uptime	00:00:00:00
Downstream	

WAN STATUS

Name	Connection	Up Time
[DSL] PVC1	Idle	00:00:00
[USB] 3G_BACKUP	Idle	

LAN STATUS

Name	IP Address	RX Packe
[LAN] LAN	192.168.1.1	4679

WLAN STATUS

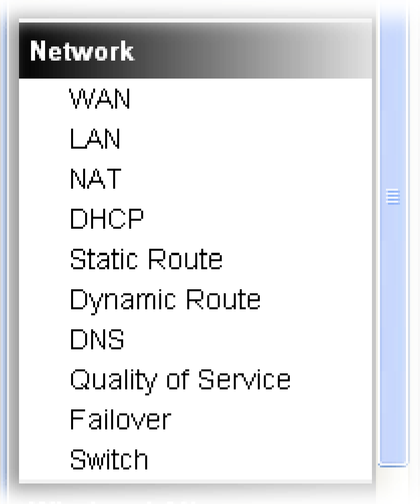
Enable	SSID
Enable	DrayTek1
Disable	DrayTek2
Disable	DrayTek3
Disable	DrayTek4

VPN STATUS

Profile Name	Connection

4.1 Network

This menu allows you to configure network settings such as WAN, LAN, NAT, DHCP, Static Route, Dynamic Route, DNS, Quality of Service, Failover and Switch.



4.1.1 WAN

Quick Start Wizard offers user an easy method to quick setup the connection mode for the router. Moreover, if you want to adjust more settings for different WAN modes, please go to **Internet Access** group.

4.1.1.1 Basics of Internet Protocol (IP) Network

IP means Internet Protocol. Every device in an IP-based Network including routers, print server, and host PCs, needs an IP address to identify its location on the network. To avoid address conflicts, IP addresses are publicly registered with the Network Information Centre (NIC). Having a unique IP address is mandatory for those devices participated in the public network but not in the private TCP/IP local area networks (LANs), such as host PCs under the management of a router since they do not need to be accessed by the public. Hence, the NIC has reserved certain addresses that will never be registered publicly. These are known as ***private*** IP addresses, and are listed in the following ranges:

From 10.0.0.0 to 10.255.255.255
From 172.16.0.0 to 172.31.255.255
From 192.168.0.0 to 192.168.255.255

4.1.1.2 What are Public IP Address and Private IP Address

As the router plays a role to manage and further protect its LAN, it interconnects groups of host PCs. Each of them has a private IP address assigned by the built-in DHCP server of the Vigor router. The router itself will also use the default **private IP** address: 192.168.1.1 to communicate with the local hosts. Meanwhile, Vigor router will communicate with other network devices through a **public IP** address. When the data flow passing through, the Network Address Translation (NAT) function of the router will dedicate to translate public/private addresses, and the packets will be delivered to the correct host PC in the local area network. Thus, all the host PCs can share a common Internet connection.

4.1.1.3 Get Your Public IP Address from ISP

In DSL deployment, the PPP (Point to Point)-style authentication and authorization is required for bridging customer premises equipment (CPE). Point to Point Protocol over Ethernet (PPPoE) connects a network of hosts via an access device to a remote access concentrator or aggregation concentrator. This implementation provides users with significant ease of use. Meanwhile it provides access control, billing, and type of service according to user requirement.

When a router begins to connect to your ISP, a serial of discovery process will occur to ask for a connection. Then a session will be created. Your user ID and password is authenticated via **PAP** or **CHAP** with **RADIUS** authentication system. And your IP address, DNS server, and other related information will usually be assigned by your ISP.

4.1.1.4 Network Connection by 3G USB Modem

Since 3G mobile communication through Access Point is popular more and more, Vigor router adds the function of 3G network connection to offer the user more convenience.

There are two available USB ports in Vigor router. With an optional USB 3G modem installed into one of them (Vigor router supports only one dongle at one time), it can be treated as a backup WAN interface when the specified WAN interface (e.g., DSL connection) is down due to some reason, and then the backup WAN will take over all the job of data communication. Later, if the specified WAN interface is active again, the backup one will disconnect automatically. Note that you have to specify the function of the 3G USB modem to be backup or failover WAN from **Network>>Failover**.

The supported 3G USB Modem will be listed on DrayTek web site. Please visit www.draytek.com for more detailed information.

4.1.1.5 Several Connection Protocols Used for the Router

PPPoE stands for **Point-to-Point Protocol over Ethernet**. It relies on two widely accepted standards: PPP and Ethernet. It connects users through an Ethernet to the Internet with a common broadband medium, such as a single DSL line, wireless device or cable modem. All the users over the Ethernet can share a common connection. And the PPPoA stands for Point-to-Point Protocol over ATM. PPPoA uses the PPP dial-up protocol with ATM as the transport.

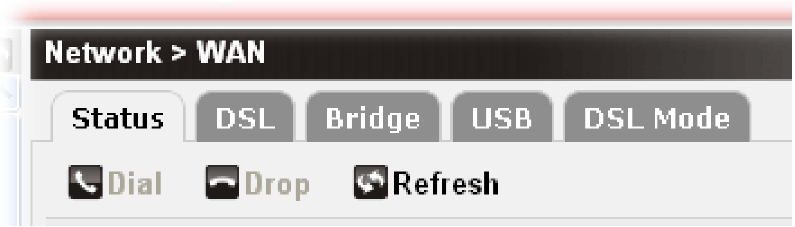
PPPoE or **PPPoA** is used for most of DSL modem users. All local users can share one PPPoE or PPPoA connection for accessing the Internet. Your service provider will provide you information about user name, password, and authentication mode.

DHCP stands for Dynamic Host Configuration Protocol. The router by factory default acts a DHCP server for your network so it automatically dispatch related IP settings to any local user configured as a DHCP client. It is highly recommended that you leave the router enabled as a DHCP server if you do not have a DHCP server for your network.

DHCP allows a user to obtain an IP address automatically from a DHCP server on the Internet. If you choose **DHCP** mode, the DHCP server of your ISP will assign a dynamic IP address for your router automatically. It is not necessary for you to assign any setting,

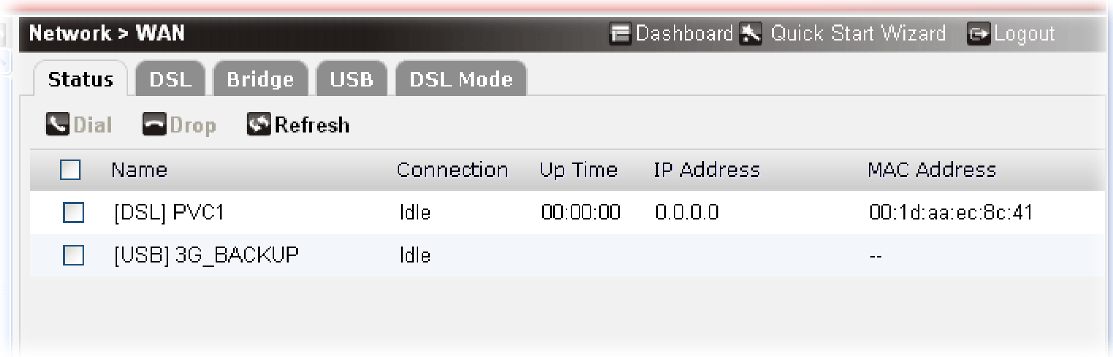
For **Static/RFC1483_ROUTED/RFC1483 BRIDGE** IP mode, you usually receive a fixed public IP address or a public subnet, namely multiple public IP addresses from your DSL or Cable ISP service providers. In most cases, a Cable service provider will offer a fixed public IP, while a DSL service provider will offer a public subnet. If you have a public subnet, you could assign an IP address or many IP address to the WAN interface.

Below shows the configuration tabs for **WAN**, including Status, DSL, Bridge, USB and DSL Mode.



4.1.1.6 WAN Status

This page displays current status for physical WAN connection. [DSL]PVC1 indicates the network connection via DSL interface; [USB] 3G_BACKUP indicates the backup network connection via USB interface.



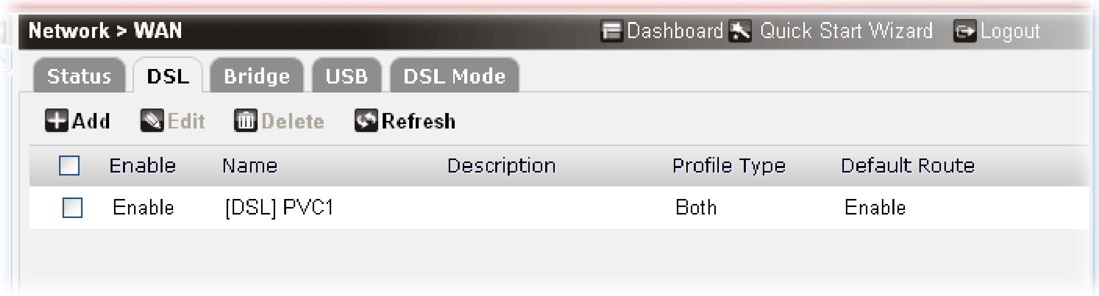
□	Name	Connection	Up Time	IP Address	MAC Address
□	[DSL] PVC1	Idle	00:00:00	0.0.0.0	00:1d:aa:ec:8c:41
□	[USB] 3G_BACKUP	Idle			--

Each item will be explained as follows:

Item	Description
Dial	Click it to start the network connection via DSL or USB interface. Before clicking it, check the interface you want.
Drop	Click it to terminate the network connection via DSL or USB interface.
Refresh	Click it to refresh the web page.
Name	Display the profile name for DSL/USB interface.
Connection	Display the status of such WAN connection. **Idle** – the network connection has not established. **UP** – the network connection is established successfully.
UP Time	Display the network connection time via the WAN interface.
IP Address	Display the WAN IP address of the router.
MAC Address	Display the MAC address of the router.
Rx Packet	Display the total received packets via such WAN interface.
Tx Packet	Display the total transmission packets via such WAN interface.

4.1.1.7 WAN DSL

This page allows you to configure DSL settings for WAN interface.



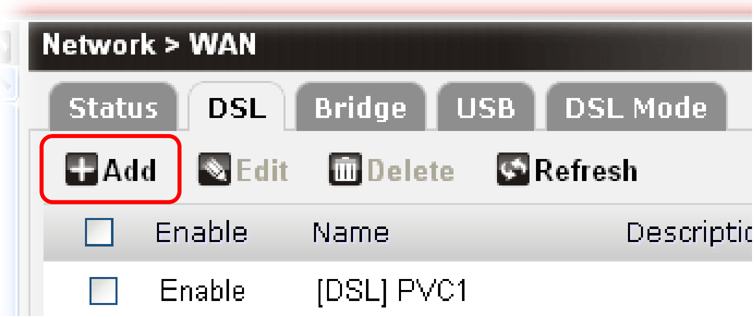
□	Enable	Name	Description	Profile Type	Default Route
□	Enable	[DSL] PVC1		Both	Enable

Each item will be explained as follows:

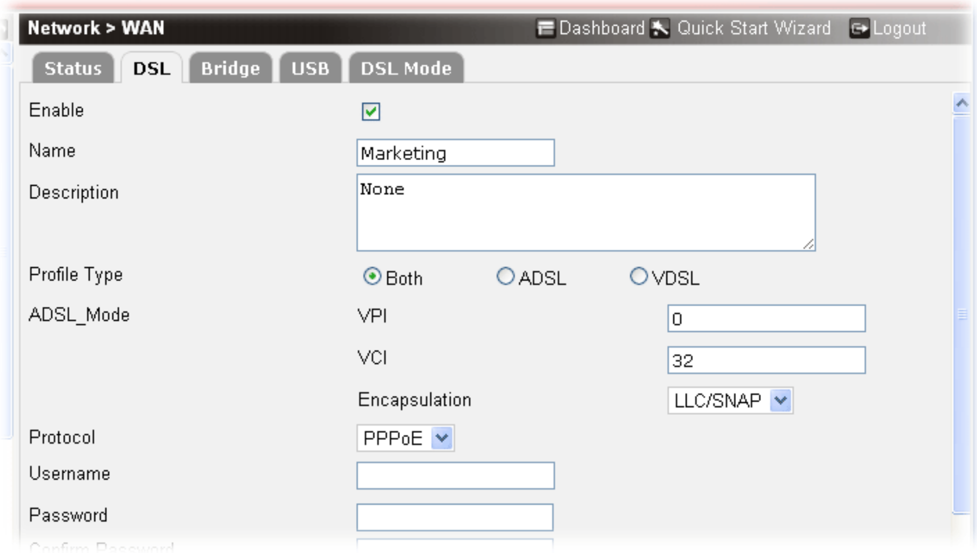
Item	Description
Add	Create new WAN profiles.
Edit	Edit the selected WAN profile. To edit the profile, simply check the profile box you want to edit and then click this button.
Delete	Remove the selected WAN profile.
Refresh	Click it to refresh the web page.
Enable	Display the activation status for such DSL interface. **Enable** – The DSL interface is activated. **Disable** – The DSL interface is not activated.
Name	Display the profile name for DSL/USB interface.
Description	Display a brief description for such profile.
Profile Type	Display the nature (ADSL, VDSL or both) for such profile.
Default Route	Display if the default route is applied to such WAN profile or not. **Enable** – The default route is applied to the WAN profile. **Disable** – The default route is not applied to the WAN profile.

To add a new WAN profile, please do the following:

1. Click the **Add** button.



2. The following setting page will appear.



Enable ☑

Name Marketing

Description None

Profile Type ● Both ○ ADSL ○ VDSL

ADSL_Mode VPI 0

VCI 32

Encapsulation LLC/SNAP

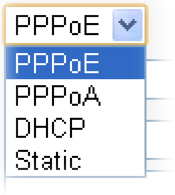
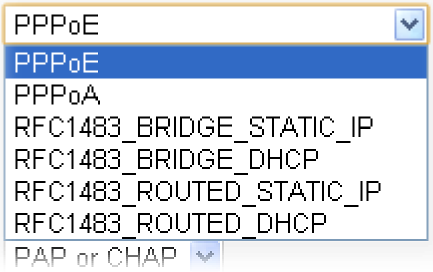
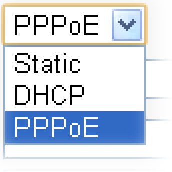
Protocol PPPoE

Username

Password

Available parameters are listed below:

Item	Description
Enable	Check the box to enable such profile.
Name	Type a name for such profile.
Description	If required, type brief description for such profile.
Profile Type	**Both** – Choose it to configure the settings including ADSL and VDSL. **ADSL** – Choose it to configure the settings specified for ADSL. **VDSL** – Choose it to configure the settings specified for VDSL. Note that the type you choose will result in different web settings offered by this web page.
ADSL_Mode	This setting is available when **Both/ADSL** is chosen as **Profile Type**. **VPI -** Stands for **Virtual Path Identifier**. It is an 8-bit header inside each ATM cell that indicates where the cell should be routed. The ATM, is a method of sending data in small packets of fixed sizes. It is used for transferring data to client computers. **VCI -** Stands for **Virtual Channel Identifier.** It is a 16-bit field inside ATM cell's header that indicates the cell's next destination as it travels through the network. A virtual channel is a logical connection between two end devices on the network. **Encapsulation -** Choose a proper type for this channel. The types will be different according to the protocol setting that you choose.
Protocol	The following protocols are available when **Both** is chosen as **Profile Type**.

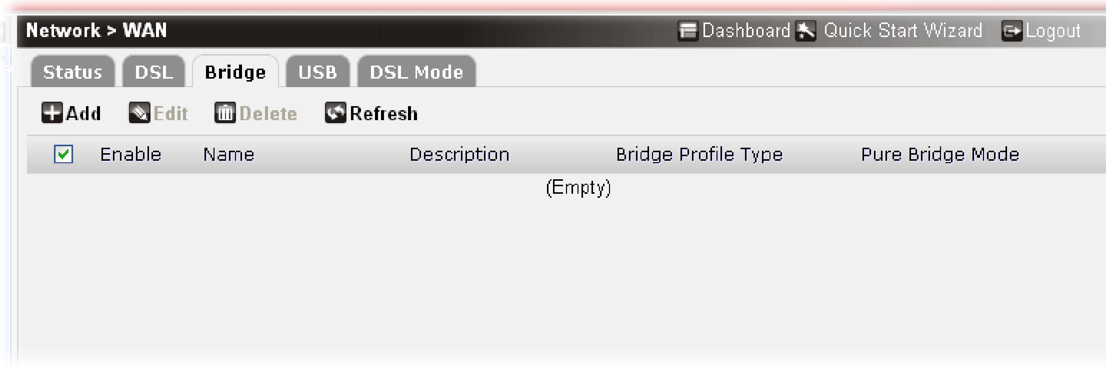
	 The following protocols are available when **ADSL** is chosen as **Profile Type**.  PPPoE PPPoE PPPoA RFC1483_BRIDGE_STATIC_IP RFC1483_BRIDGE_DHCP RFC1483_ROUTED_STATIC_IP RFC1483_ROUTED_DHCP PAP or CHAP The following protocols are available when **VDSL** is chosen as **Profile Type**. 
	When PPPoE/PPPoA is selected
	Username - Type in the username provided by ISP in this field. **Password** - Type in the password provided by ISP in this field. **Confirm Password** - Type in the password again for confirmation. **PPP Authentication** - Select **PAP only** or **PAP or CHAP** for PPP. **PPP Fixed IP** - Type a fixed IP address for PPP connection.
	When Static/RFC1483_ROUTED /RFC1483 BRIDGE under ADSL/VDSL is selected
	IP Address – Type an IP address for the protocol. **Subnet Mask –**Type a subnet mask value for the protocol. **Gateway –** Type an IP address to the gateway for the protocol
MTU	It means Max Transmit Unit for packet. The default setting will be 1442 or 1500 based on the protocol you select.
Default Route	Check the box to enable the default route for such WAN profile.
Always On	If you want to connect to Internet all the time, check the

	Always On box.
VLAN Encapsulation	Enable the function of VLAN with tag. The router will add specific VLAN number to all packets while sending them out. Please type the tag value and specify the priority for the packets sending by the router. **VLAN ID** –Type the value as the VLAN ID number. The range is form 1 to 4000. **Priority (802.11) -** Type the packet priority number for such VLAN. The range is from 0 to 7.
PPPoE Pass-through Settings	The router offers PPPoE dial-up connection. Besides, you also can establish the PPPoE connection directly from local clients to your ISP via the Vigor router. Thus, the PC can access Internet through such direction. Check the box to enable such function. **PPPoE Pass-through Interface –** It is available when **PPPoE Pass-through Settings** is enabled.
Advanced Settings	**ATM QoS** – Such configuration is applied to upstream packets. Such information will be provided by ISP. Please contact with your ISP for detailed information. Select a proper QoS type for the channel according to the information that your ISP provides. **Peak Cell Rate** –The default setting is “0”. **Cell Delay Variation** –The default setting is “0”. **Minimum Cell Rate –** The default setting is “0”.. **Sustainable Cell Rate** – The value of Sustainable Cell Rate (SCR) must be smaller than PCR(Peak Cell Rate). **Maximum Burst Size** – The default setting is “0”. **MAC Address** – Check to box to display the MAC address field and type the MAC address here. **Management -** Enable the checkbox to allow system administrators to login from the Internet. There are several servers provided by the system to allow you managing the router from Internet. Check the box(es) to specify.
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to return to previous web page.

3. After finished the settings above, click **Apply** to save the settings then click **Cancel** to return to previous page.

4.1.1.8 WAN Bridge

Bridge connections can be configured on the Vigor router, making the router work partially as a bridge modem. It can be configured from the **Bridge** tab located in the **Network >> WAN** web page.

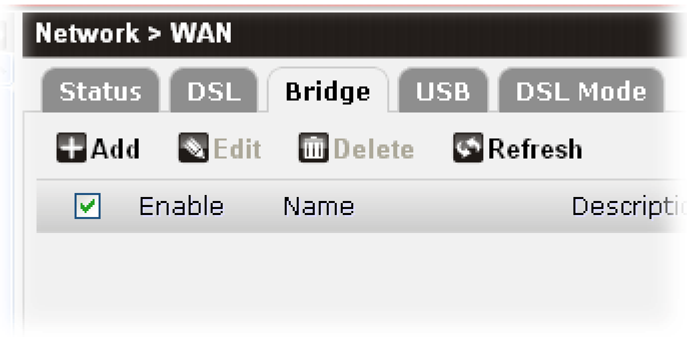


Each item will be explained as follows:

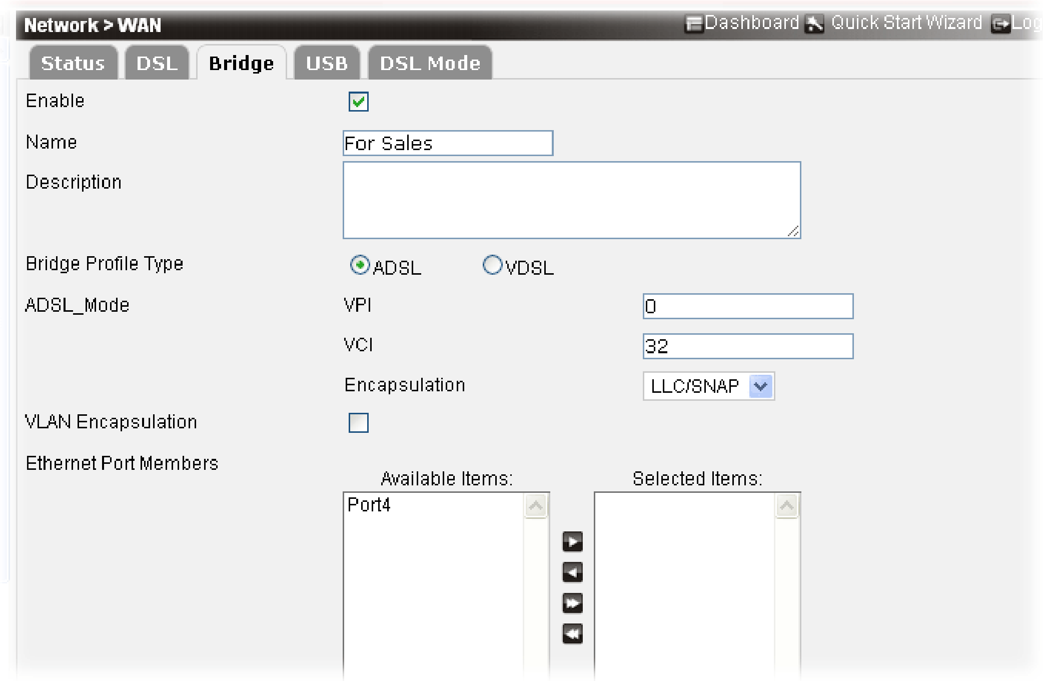
Item	**Description**
Add	Create new WAN profiles.
Edit	Edit the selected WAN profile. To edit the profile, simply check the profile box you want to edit and then click this button.
Delete	Remove the selected WAN profile.
Refresh	Click it to refresh the web page.
Enable	Display the activation status for such DSL interface. Enable – The DSL interface is activated. Disable – The DSL interface is not activated.
Name	Display the profile name for DSL/USB interface.
Description	Display a brief description for such profile.
Bridge Profile	Display which type of DSL network (ADSL or VDSL) this bridge will connect to.

To add a new WAN profile, please do the following:

1. Click the **Add** button.



2. The following setting page will appear.



Enable ☑

Name: For Sales

Description

Bridge Profile Type ● ADSL ○ VDSL

ADSL_Mode
VPI: 0
VCI: 32
Encapsulation: LLC/SNAP

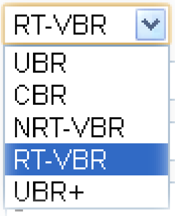
VLAN Encapsulation □

Ethernet Port Members
Available Items: Port4
Selected Items:

Available parameters are listed below:

Item	Description
Enable	Check the box to enable such profile.
Name	Type a name for such profile.
Description	If required, type brief description for such profile.
Bridge Profile Type	Please select which type of DSL network this bridge will connect to. The bridge interface will operate only when the configuration here matches the current DSL mode of the Vigor router. **ADSL** – Choose it to configure the settings specified for ADSL. **VDSL** – Choose it to configure the settings specified for VDSL. Note that the type you choose will result in different web settings offered by this web page.
ADSL_Mode	This setting is available when **ADSL** is chosen as **Profile Type**. **VPI -** Stands for **Virtual Path Identifier**. It is an 8-bit header inside each ATM cell that indicates where the cell should be routed. The ATM, is a method of sending data in small packets of fixed sizes. It is used for transferring data to client computers. **VCI -** Stands for **Virtual Channel Identifier.** It is a 16-bit field inside ATM cell's header that indicates the cell's next destination as it travels through the network. A virtual channel is a logical connection between two end devices on the network.

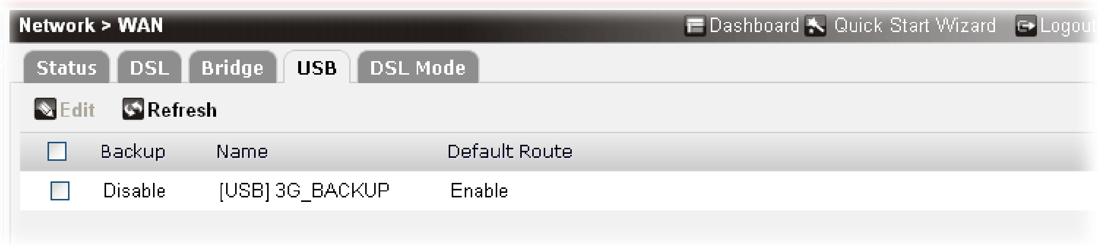
	Encapsulation - Choose a proper type for this channel. The types will be different according to the protocol setting that you choose.
VLAN Encapsulation	Enable the function of VLAN with tag. The router will add specific VLAN number to all packets while sending them out. Please type the tag value and specify the priority for the packets sending by the router. **VLAN ID** –Type the value as the VLAN ID number. The range is form 0 to 4095. **Priority (802.11) -** Type the packet priority number for such VLAN. The range is from 0 to 7.
Ethernet Port Members	**Note: In default, there is no item displayed here.** All the Ethernet Port Members (from port1 to port4) are dedicated to the default LAN profile. Before configuring the settings for new LAN profiles or Bridge profiles, please reconfigure the default LAN profile (enter **Ethernet** tab located in the **Network** >> **LAN** page) to release some port members first. Otherwise, you may not be able to complete the profile configurations for the new interface. Use the "**>**" button to move the selected item listed in Available Items onto Selected Items for choosing the suitable port for the new profile. **Available Item**s – Display the available port member. **Selected Items** – Display the port member selected for such group. Note that the LAN Port (port1 to port4) selected here can not be used in other profiles.
Wireless SSID Members	**Note: In default, there is no item displayed here.** All the Wireless SSID Members (SSID1 – SSID4 and WDS1 – WDS4) are dedicated to the default LAN profile. Before configuring the settings for new LAN profiles or Bridge profiles, please reconfigure the default LAN profile (enter **Ethernet** tab located in the **Network** >> **LAN** page) to release some port members first. Otherwise, you may not be able to complete the profile configurations for the new interface. Then, use the "**>**" button to move the selected item listed in Available Items onto Selected Items for choosing the suitable wireless SSID members to be used in the new profile. **Available Item**s – Display the available wireless SSID member. **Selected Items** – Display the wireless SSID member selected for such profile. Note that the wireless SSIDs selected here can not be used in other profiles.
ATM QoS	Such configuration is applied to upstream packets. Such information will be provided by ISP. Please contact with your ISP for detailed information. Select a proper QoS type

	for the channel according to the information that your ISP provides.  The following options appear according to the QoS type you select. **Peak Cell Rate** –The default setting is “0”. **Cell Delay Variation** –The default setting is “0”. **Minimum Cell Rate –** The default setting is “0”.. **Sustainable Cell Rate** – The value of Sustainable Cell Rate (SCR) must be smaller than PCR(Peak Cell Rate). **Maximum Burst Size** – The default setting is “0”.
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to return to previous web page.

3. After finished the settings above, click **Apply** to save the settings.

4.1.1.9 WAN USB

If your router connects to a 3G modem and you want to access Internet via 3G modem, choose 3G as connection type and type the required information in this web page.



□	Backup	Name	Default Route
□	Disable	[USB] 3G_BACKUP	Enable

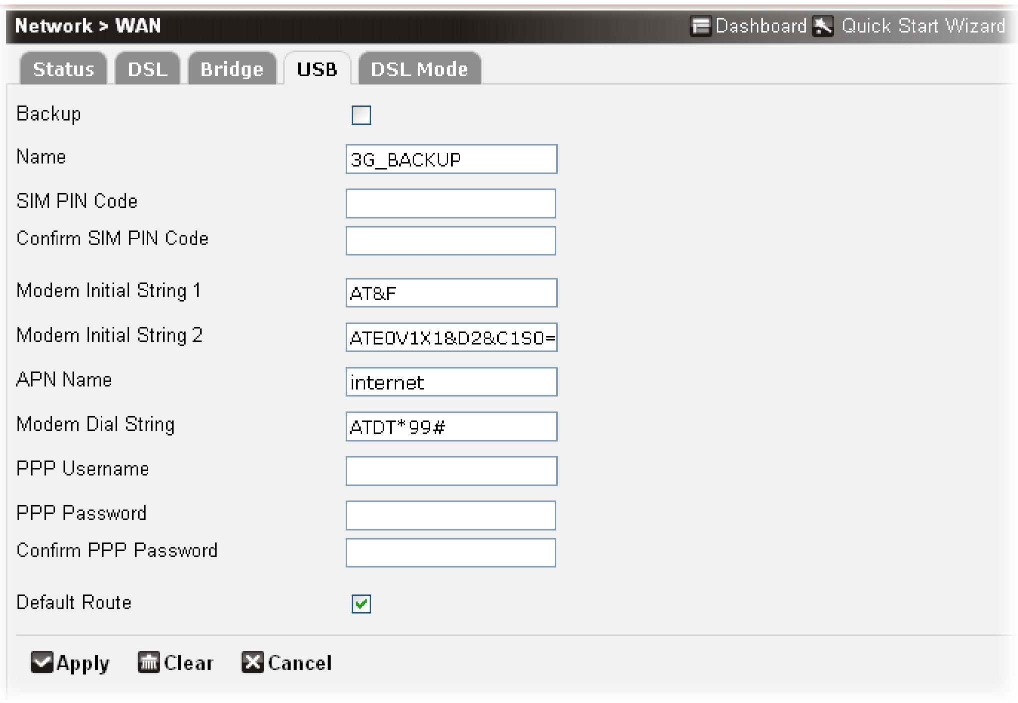
Each item will be explained as follows:

Item	Description
Edit	Edit the selected WAN profile. To edit the profile, simply check the profile box you want to edit and then click this button.
Refresh	Click it to refresh the web page.
Backup	Display if current backup WAN interface is enabled or not.
Name	Display the profile name for USB interface.
Default Route	Display if the default route is applied to such WAN profile or not. **Enable** – The default route is applied to the WAN profile. **Disable** – The default route is not applied to the WAN

	profile.

To edit a WAN profile, please do the following:

1. Choose the profile you want and click the check box.
2. Click **Edit** to open the following page.



Backup	□
Name	3G_BACKUP
SIM PIN Code	
Confirm SIM PIN Code	
Modem Initial String 1	AT&F
Modem Initial String 2	ATE0V1X1&D2&C1S0=
APN Name	internet
Modem Dial String	ATDT*99#
PPP Username	
PPP Password	
Confirm PPP Password	
Default Route	☑

Available parameters are listed below:

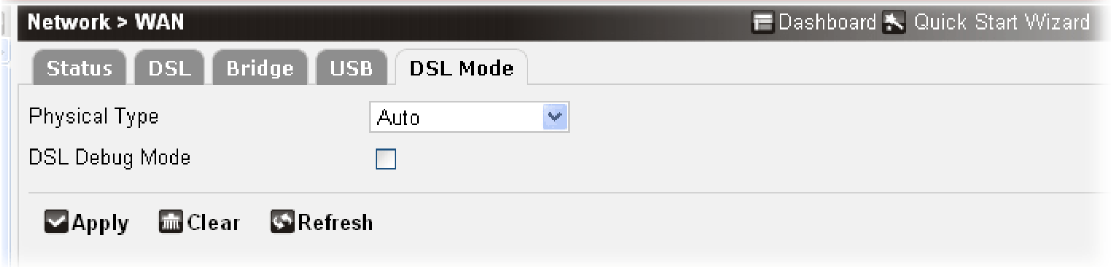
Item	Description
Backup	Check the box to enable such profile.
Name	Type the name of the profile.
SIM Pin Code	Type PIN code of the SIM card that will be used to access Internet.
Modem Initial String 1/2	Such value is used to initialize USB modem. Please use the default value. If you have any question, please contact to your ISP. The initial string 1 is shared with APN. In some cases, users may need another initial ***AT*** command to restrict 3G band or do any special settings.
APN Name	APN (Access Point Name) is provided by your ISP for identifying different access points. Simply click **Apply** to apply such name. Finally, you have to click **OK** to save the setting.
Modem Dial String	Such value is used to dial through USB mode. Please use the default value. If you have any question, please contact to your ISP.
PPP Username	Type the PPP username (optional).
PPP Password	Type the PPP password (optional).

Confirm PPP Password	Type the password again for confirmation.
Default Route	Check the box to enable the default route for such WAN profile.
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to return to previous web page.

3. After finished the settings above, click **Apply** to save the settings then click **Cancel** to return to previous page.

4.1.1.10 WAN DSL Mode

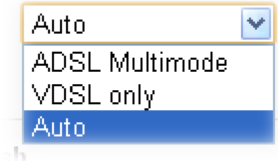
The DSL mode tab is used to configure which xDSL mode is used by the router. Please configure this according to the DSL type provided by the ISP. The DSL mode configured in the profiles under the DSL Mode tab will work only if they match the configurations here.



Physical Type: Auto

DSL Debug Mode: □

Available parameters are listed below:

Item	Description
Physical Type	Use the drop down list to specify the physical type of the WAN interface.  **Auto:** The router will detect which mode that the ISP is using. Usually it might be ADSL1/2/2+ or VDSL2. **ADSL Multimode**: The DSL physical type can be ADSL, ADSL2 or ADSL2+. **VDSL only**: The DSL interface is fixed with VDSL only.
DSL Debug Mode	Check it to enable the debug mode to find out the problem via DSL synchronization.
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Refresh	Click it to refresh the web page.

4.1.2 LAN

4.1.2.1 Basics of LAN

Local Area Network (LAN) is a group of subnets regulated and ruled by router. The design of network structure is related to what type of public IP addresses coming from your ISP.

The most generic function of Vigor router is NAT. It creates a private subnet of your own. As mentioned previously, the router will talk to other public hosts on the Internet by using public IP address and talking to local hosts by using its private IP address. What NAT does is to translate the packets from public IP address to private IP address to forward the right packets to the right host and vice versa. Besides, Vigor router has a built-in DHCP server that assigns private IP address to each local host.

In some special case, you may have a public IP subnet from your ISP such as 220.135.240.0/24. This means that you can set up a public subnet or call second subnet that each host is equipped with a public IP address. As a part of the public subnet, the Vigor router will serve for IP routing to help hosts in the public subnet to communicate with other public hosts or servers outside. Therefore, the router should be set as the gateway for public hosts.

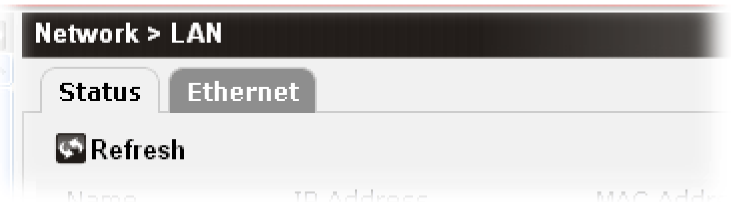
4.1.2.2 What is Routing Information Protocol (RIP)

Vigor router will exchange routing information with neighboring routers using the RIP to accomplish IP routing. This allows users to change the information of the router such as IP address and the routers will automatically inform for each other.

4.1.2.3 What is Static Route

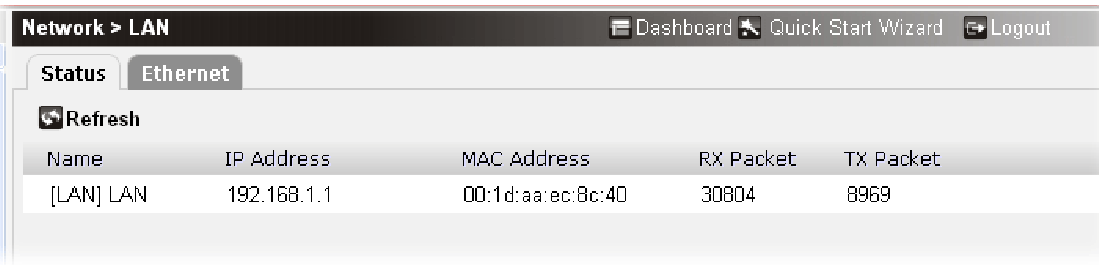
When you have several subnets in your LAN, sometimes a more effective and quicker way for connection is the **Static routes** function rather than other method. You may simply set rules to forward data from one specified subnet to another specified subnet without the presence of RIP.

Below shows the configuration tabs for **LAN**, including Status and Ethernet.



4.1.2.4 LAN Status

This page allows you to check LAN status of the router.



Name	IP Address	MAC Address	RX Packet	TX Packet
[LAN] LAN	192.168.1.1	00:1d:aa:ec:8c:40	30804	8969

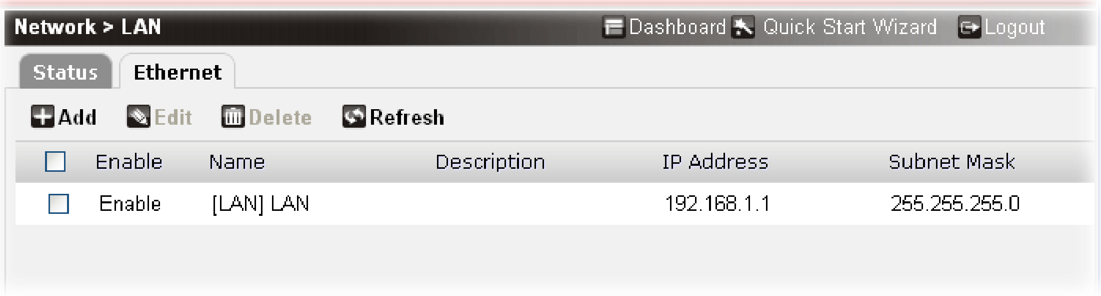
Each item will be explained as follows:

Item	Description
Refresh	Click it to refresh the web page.
Name	Display the profile name for LAN interface.
IP Address	Display the LAN IP address of the router.
MAC Address	Display the MAC address of the router.
RX Packet	Display the total received packets via such LAN interface.
TX Packet	Display the total transmission packets via such LAN interface.

4.1.2.5 Ethernet

This page can define the details settings of the LAN ports in a profile, including IP settings, physical interface members (LAN ports on the front panel of the router) and wireless interfaces (SSID and WDS settings).

Currently, two LAN interfaces may be configured for the Vigor2760. Each LAN interface can be configured to support different firewall settings, servers, and applications according to the settings in other configuration web pages



□	Enable	Name	Description	IP Address	Subnet Mask
□	Enable	[LAN] LAN		192.168.1.1	255.255.255.0

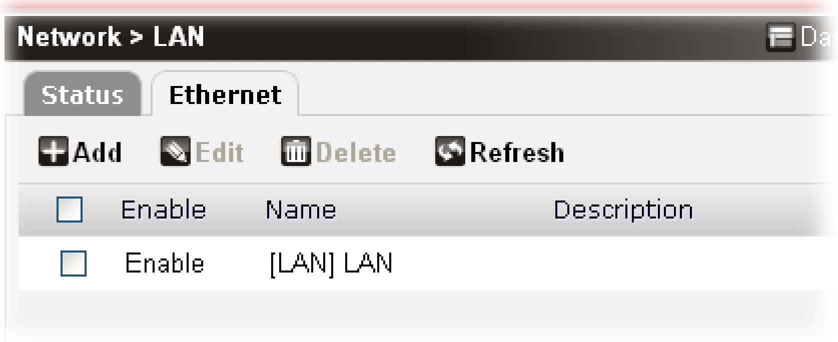
Available parameters are listed below:

Item	Description
Add	Create new LAN profiles.
Edit	Edit the selected LAN profile. To edit the profile, simply check the profile box you want to edit and then click this button.
Delete	Remove the selected LAN profile.

Refresh	Click it to refresh the web page.
Enable	Display the activation status for such interface. **Enable** – The LAN profile is activated. **Disable** –The LAN profile is not activated.
Name	Display the profile name for LAN interface.
Description	Display a brief description for such profile.
IP Address	Display the IP address of such LAN interface.
Subnet Mask	Display the subnet mask address of such LAN interface.

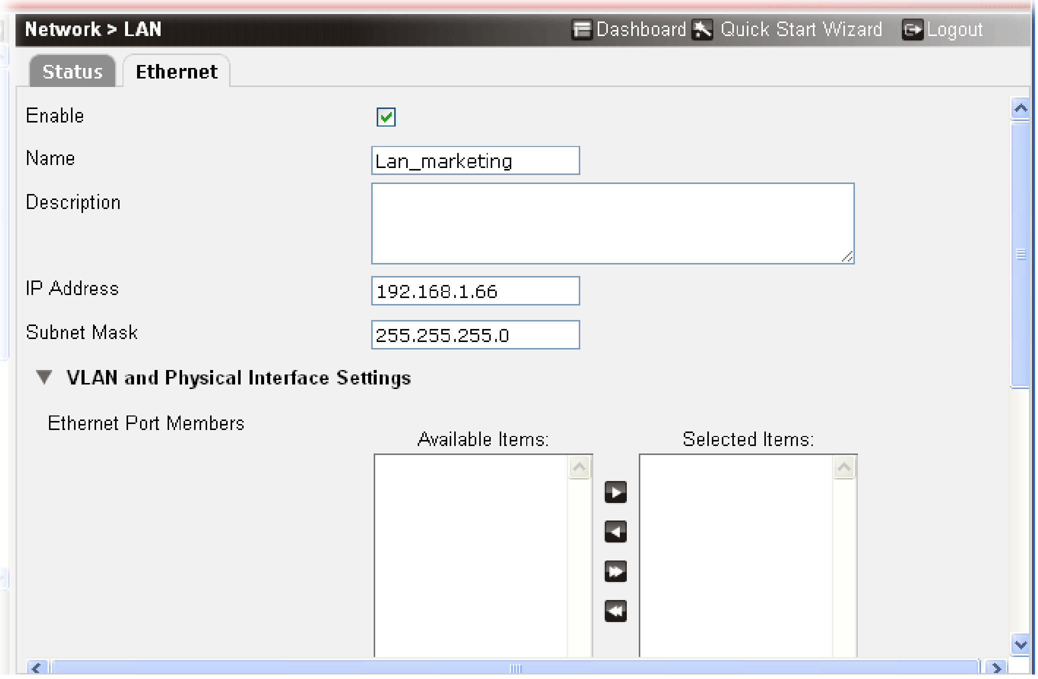
To add LAN profile, please do the following:

1. Click **Add.**



□	Enable	Name	Description
□	Enable	[LAN] LAN	

2. The following page appears.



Enable ☑

Name Lan_marketing

Description

IP Address 192.168.1.66

Subnet Mask 255.255.255.0

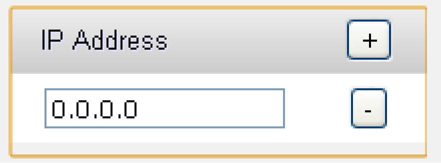
▼ VLAN and Physical Interface Settings

Ethernet Port Members

Available parameters are listed below:

Item	Description
Enable	Check the box to enable such profile.
Name	Type a name for such profile.

Description	If required, type brief description for such profile.
IP Address	Type the IP address of the LAN interface.
Subnet Mask	Type the subnet mask address of the LAN interface.
VLAN and Physical Interface Settings	
Ethernet Port Members	**Note: In default, there is no item displayed here.** All the Ethernet Port Members (from port1 to port4) are dedicated to the default LAN profile. Before configuring the settings for new LAN profiles or Bridge profiles, please reconfigure the default LAN profile (enter **Ethernet** tab located in the **Network** >> **LAN** page) to release some port members first. Otherwise, you may not be able to complete the profile configurations for the new interface. Use the "**>**" button to move the selected item listed in Available Items onto Selected Items for choosing the suitable port for the new profile. **Available Item**s – Display the available port member. **Selected Items** – Display the port member selected for such group. Note that the LAN Port (port1 to port4) selected here can not be used in other profiles.
Wireless SSID Members	**Note: In default, there is no item displayed here.** All the Wireless SSID Members (SSID1 – SSID4 and WDS1 – WDS4) are dedicated to the default LAN profile. Before configuring the settings for new LAN profiles or Bridge profiles, please reconfigure the default LAN profile (enter **Ethernet** tab located in the **Network** >> **LAN** page) to release some port members first. Otherwise, you may not be able to complete the profile configurations for the new interface. Then, use the "**>**" button to move the selected item listed in Available Items onto Selected Items for choosing the suitable wireless SSID members to be used in the new profile. **Available Item**s – Display the available wireless SSID member. **Selected Items** – Display the wireless SSID member selected for such profile. Note that the wireless SSIDs selected here can not be used in other profiles.
Transparent Firewall	If it is selected, the network traffic received via this LAN interface will go through firewall processing. Firewall processing details may be defined in the Firewall related configuration web pages.
Advanced Settings	
Alias IP Address	All the IP address (es) defined here will be allowed to access to the interface defined in this profile.

	 IP Address + 0.0.0.0 -
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to return to previous web page.

3. After finished the settings above, click **Apply** to save the settings.

4.1.3 NAT

Usually, the router serves as an NAT (Network Address Translation) router. NAT is a mechanism that one or more private IP addresses can be mapped into a single public one. Public IP address is usually assigned by your ISP, for which you may get charged. Private IP addresses are recognized only among internal hosts.

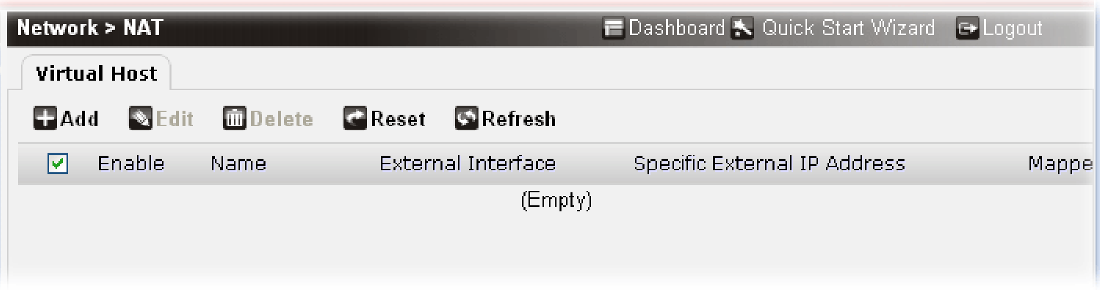
When the outgoing packets destined to some public server on the Internet reach the NAT router, the router will change its source address into the public IP address of the router, select the available public port, and then forward it. At the same time, the router shall list an entry in a table to memorize this address/port-mapping relationship. When the public server response, the incoming traffic, of course, is destined to the router's public IP address and the router will do the inversion based on its table. Therefore, the internal host can communicate with external host smoothly.

The benefit of the NAT includes:

- **Save cost on applying public IP address and apply efficient usage of IP address.** NAT allows the internal IP addresses of local hosts to be translated into one public IP address, thus you can have only one IP address on behalf of the entire internal hosts.
- **Enhance security of the internal network by obscuring the IP address.** There are many attacks aiming victims based on the IP address. Since the attacker cannot be aware of any private IP addresses, the NAT function can protect the internal network.

On NAT page, you will see the private IP address defined in RFC-1918. Usually we use the 192.168.1.0/24 subnet for the router. As stated before, the NAT facility can map one or more IP addresses and/or service ports into different specified services. In other words, the NAT function can be achieved by using port mapping methods.

Below shows the web page of **Network** >>**NAT**:



☑	Enable	Name	External Interface	Specific External IP Address	Mappe
			(Empty)		

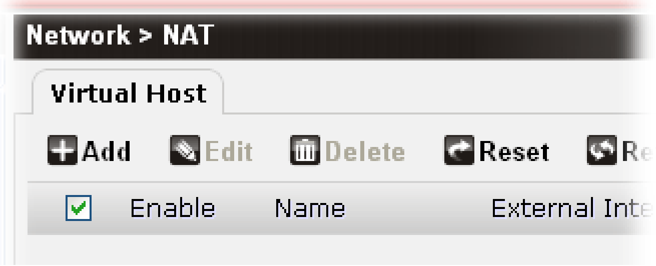
Available parameters are listed below:

Item	Description

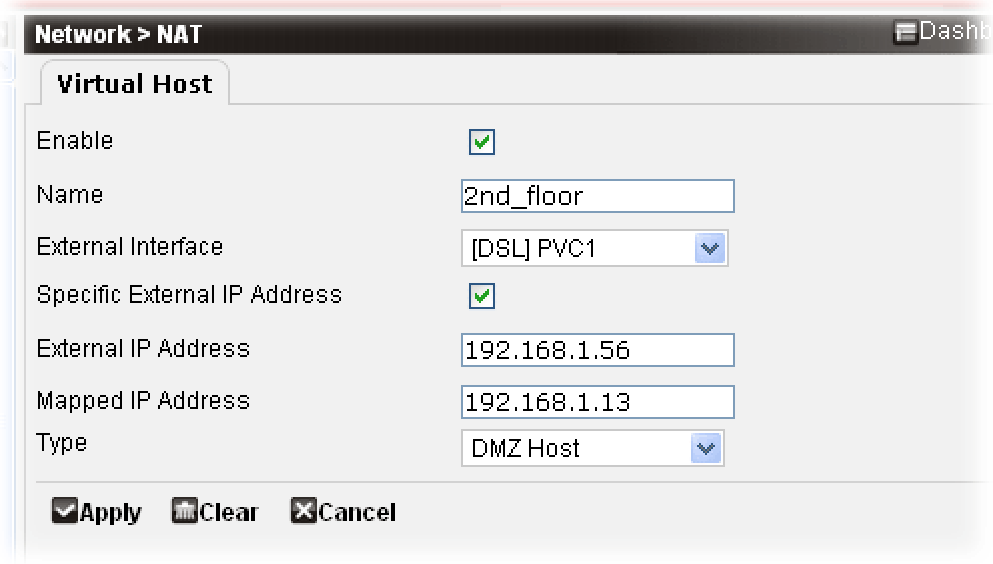
Add	Create new NAT profiles.
Edit	Edit the selected NAT profile. To edit the profile, simply check the profile box you want to edit and then click this button.
Delete	Remove the selected NAT profile.
Reset	Click it to rest to factory default settings.
Refresh	Click it to refresh the web page.
Enable	Display the activation status for such interface. **Enable** – The NAT profile is activated. **Disable** –The NAT profile is not activated.
Name	Display the profile name for NAT.
External Interface	Display the WAN interface (for external connection) applied by such virtual host profile.
Specific External IP Address	Display the activation status of the function. **Enable** – The function is activated. **Disable** – The function is not activated.
Mapped IP Address	Display the LAN IP address that the Destination IP will be transferred to.

To add a NAT profile, please do the following:

1. Click **Add.**



2. The following page appears.

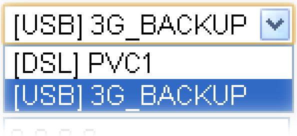


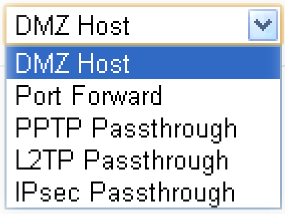
Network > NAT

Virtual Host

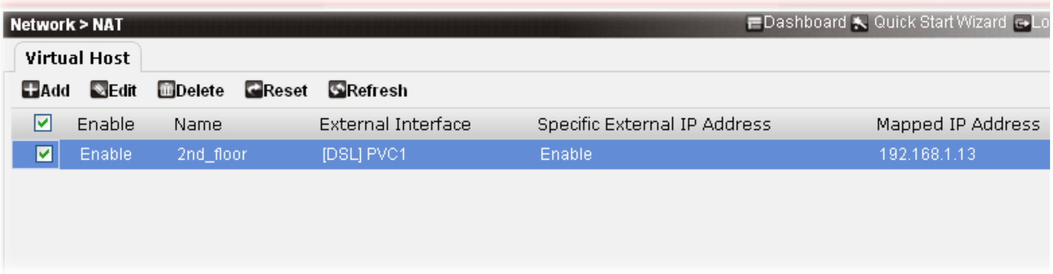
Enable	☑
Name	2nd_floor
External Interface	[DSL] PVC1
Specific External IP Address	☑
External IP Address	192.168.1.56
Mapped IP Address	192.168.1.13
Type	DMZ Host

Available parameters are listed below:

Item	Description
Enable	Check the box to enable such profile.
Name	Type a name for such profile.
External Interface	It is used to specify the WAN interface (for external connection) for applying such virtual host profile. The default setting is PVC1.  [USB] 3G_BACKUP [DSL] PVC1 [USB] 3G_BACKUP
Specific External IP Address	Check the box to specify a specific IP address for such profile. It means when the destination IP matches with the condition specified here, it will be transformed into the Mapped IP Address. If the box is not checked, it means any packet from any destination IP via the external interface will be transformed into Mapped IP Address. **External IP Address -** Type the IP address of the LAN interface.
Mapped IP Address	Such LAN IP address is the one that the Destination IP will be transferred to.
Type	Note that the type you choose will result in different web settings offered by this web page.

	 DMZ Host DMZ Host Port Forward PPTP Passthrough L2TP Passthrough IPsec Passthrough **DMZ Host -** It allows a defined internal user to be totally exposed to the Internet, which usually helps some special applications such as Netmeeting or Internet Games etc.
	When Port Forward is selected
	Port redirection is usually set up for server related service inside the local network (LAN), such as web servers, FTP servers, E-mail servers etc. Most of the case, you need a public IP address for each server and this public IP address/domain name are recognized by all users. Since the server is actually located inside the LAN, the network well protected by NAT of the router, and identified by its private IP address/port, the goal of port redirection function is to forward all access request with public IP address from external users to the mapping private IP address/port of the server. **Protocol** –Select the transport layer protocol (TCP or UDP). **Start External Port/End External Port** – Specify which public port or port range (start and end) can be redirected to the specified Mapped Port(s) of the internal host. **Start Mapped Port/End Mapped Port** – Simply specify the private port number of the service offered by the internal host. The End Mapped Port value will be calculated based on the external port range and added automatically by the router.
	When PPTP /L2TP /IPsec Passthrough is selected
	PPTP/L2TP/IPsec Passthrough is prepared for general users to get more conveniences. If they want to connect the VPN server on LAN from external interface, they can choose any one of these types for such profile. The default values for each type will be shown immediately whenever the type is selected. **Protocol** –Select the transport layer protocol (TCP or UDP). **Start External Port/End External Port** –Specify which public port (start and end) or port range can be redirected to the specified Mapped Port(s) of the internal host. **Start Mapped Port/End Mapped Port** –Specify the private port number (start and end) or port range of the service offered by the internal host.
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to return to previous web page.

3. After finished the settings above, click **Apply** to save the settings then click **Cancel** to return to previous page.



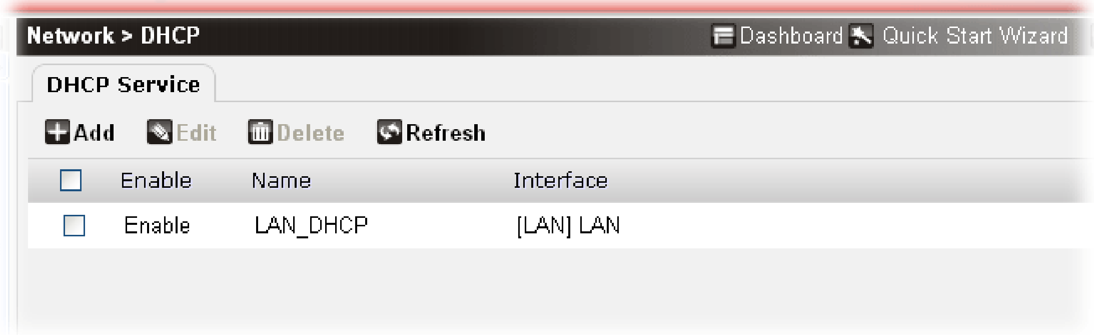
☑	Enable	Name	External Interface	Specific External IP Address	Mapped IP Address
☑	Enable	2nd_floor	[DSL] PVC1	Enable	192.168.1.13

4.1.4 DHCP

DHCP stands for Dynamic Host Configuration Protocol. DHCP allows a user to obtain an IP address automatically from a DHCP server on the Internet.

The router by factory default acts a DHCP server for your network so it automatically dispatch related IP settings to any local user configured as a DHCP client. It is highly recommended that you leave the router enabled as a DHCP server if you do not have a DHCP server for your network.

At least, one profile must be kept in this page. If you just want to have the default profile, note that do not disable the default LAN_DHCP profile, otherwise, the system may not run well.



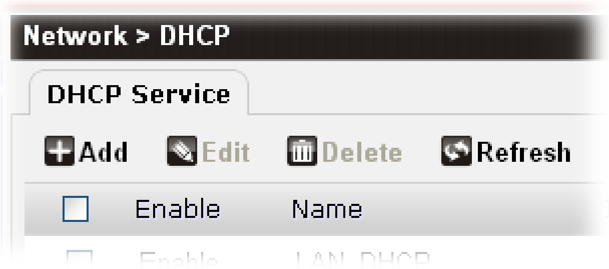
□	Enable	Name	Interface
□	Enable	LAN_DHCP	[LAN] LAN

Available parameters are listed below:

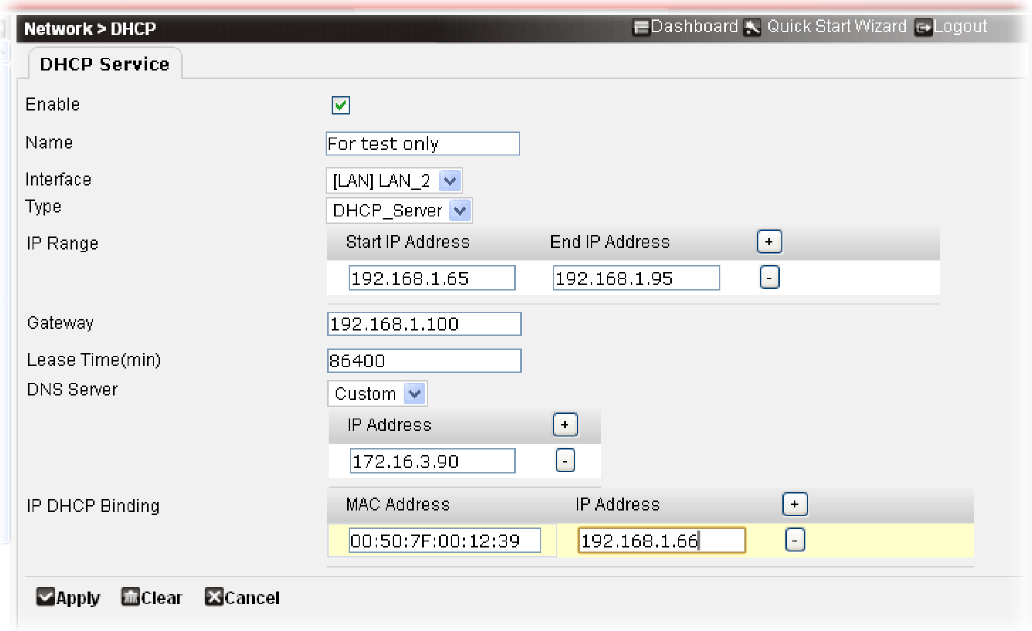
Item	Description
Add	Create new DHCP profiles.
Edit	Edit the selected DHCP profile. To edit the profile, simply check the profile box you want to edit and then click this button.
Delete	Remove the selected DHCP profile.
Refresh	Click it to refresh the web page.
Enable	Display the activation status for such interface. **Enable** – The DHCP profile is activated. **Disable** –The DHCP profile is not activated.
Name	Display the profile name for DHCP.
Interface	Display the interface of such DHCP profile.

To add a NAT profile, please do the following:

1. Click **Add.**



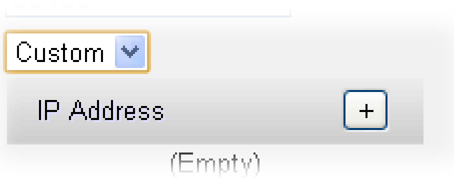
2. The following page appears.



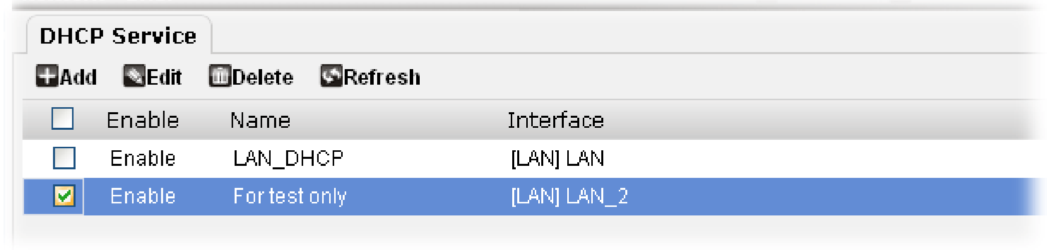
Enable	☑
Name	For test only
Interface	[LAN] LAN_2
Type	DHCP_Server
IP Range	Start IP Address: 192.168.1.65 End IP Address: 192.168.1.95
Gateway	192.168.1.100
Lease Time(min)	86400
DNS Server	Custom IP Address: 172.16.3.90
IP DHCP Binding	MAC Address: 00:50:7F:00:12:39 IP Address: 192.168.1.66

Available parameters are listed below:

Item	Description
Enable	Check the box to enable such profile.
Name	Type a name for such profile.
Interface	Use the drop down list to specify one LAN profile (which can be created from **Network>>LAN>>Ethernet**). If you cannot find any selection here, simply open **Network>>LN>>Ethernet** to create new ones. Each DHCP service setting belongs to one LAN profile.
Type	**DHCP_Server** – If it is selected, such profile will be used to enable the DHCP server. It can respond to the client with the gateway and DNS server. **DHCP_Relay** – If it is selected, it means the real DHCP server is one of the internal hosts. The client must inquire to the relay agent which DHCP server will be used. Therefore, you have to configure Forward to and the Server IP additionally. **Forward To** – Use the drop down list to choose a LAN

	profile for locating the DHCP server. **Server IP Address** – Type the IP address of the DHCP server.
IP Range	Click the plus button to set an IP group with starting and ending addresses which will be dispatched to the hosts in LAN by DHCP server. **Start IP Address** – Enter a value of the IP address for the DHCP server to start with when issuing IP addresses. **End IP Address** – Enter a value of the IP address for the DHCP server to end with when issuing IP addresses.
Gateway	Type the IP address of the DHCP server.
Lease Time (min)	It allows you to set the leased time for the specified PC.
DNS Server	Choose **Local** or **Custom** as the DNS server for such DHCP server profile. **Local -** The system will use the IP address specify in **Network>>DNS** as the DNS server for the clients within the IP range. If not, simply choose Custom and define IP address as the DNS server. **Custom** –You can specify another DNS server IP address (es) here if your ISP often provides you more than one DNS Server. If your ISP does not provide it, the router will automatically apply default primary DNS Server IP address. 
IP DHCP Binding	This function is used to bind the IP and MAC address in LAN to have a strengthening control in network. When this function is enabled, all the assigned IP and MAC address binding together cannot be changed. If you modified the binding IP or MAC address, it might cause you not access into the Internet. When the client with the MAC address specified in this page has the request of IP address from the DHCP server, the bound IP of the MAC address will be assigned to that client. **MAC Address** –Type the MAC address that is used to bind with the assigned IP address. **IP Address** –Type the IP address that will be used for the specified MAC address.
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to return to previous web page.

3. After finished the settings above, click **Apply** to save the settings.



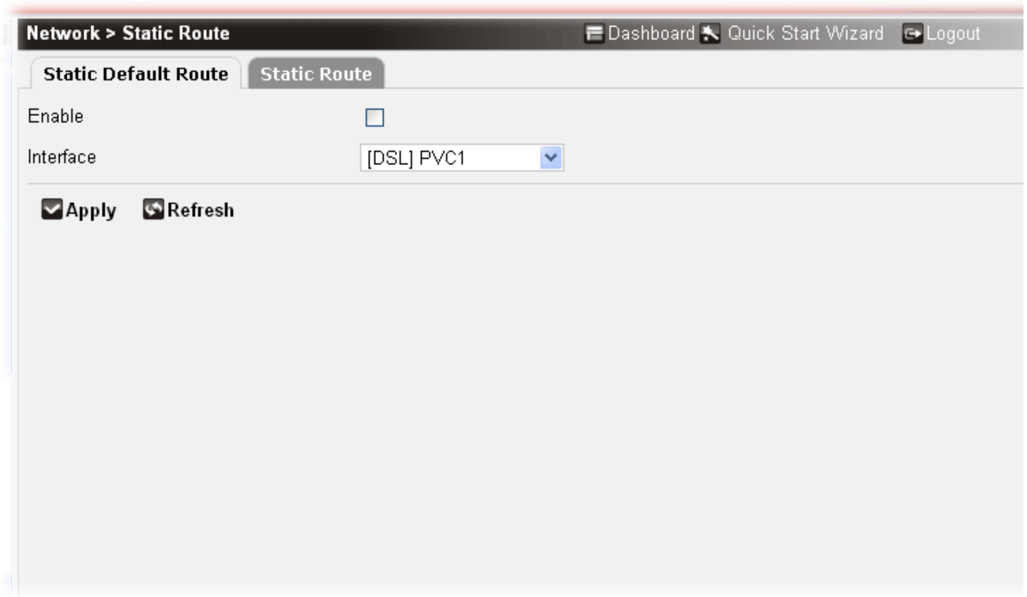
□	Enable	Name	Interface
□	Enable	LAN_DHCP	[LAN] LAN
☑	Enable	For test only	[LAN] LAN_2

4.1.5 Static Route

The static route is used to specify a gateway for certain LAN users for outgoing traffic.

4.1.5.1 Static Default Route

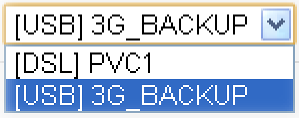
This page is used to enable the function of default static route and specify the interface to apply the default route. You can change the default whenever you want. If this function is not enabled, the router will use other successful DSL connection as the default route.



Enable □

Interface [DSL] PVC1

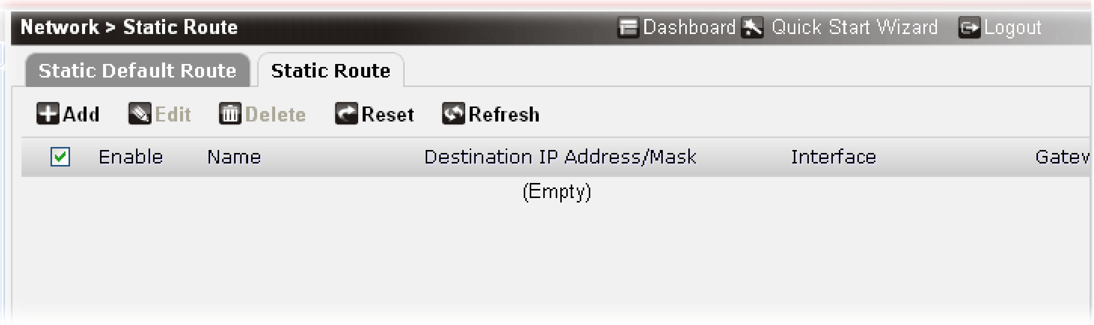
Available parameters are listed below:

Item	Description
Enable	Check this box to enable the function of static route.
Interface	Specify an interface for the static route.  [USB] 3G_BACKUP [DSL] PVC1 [USB] 3G_BACKUP

4.1.5.2 Static Route

When you have several subnets in your LAN, sometimes a more effective and quicker way for connection is the **Static route** function rather than other method. You may simply set rules to forward data from one specified subnet to another specified subnet without the presence of RIP.

This page allows you to create several static routes to be selected for the route. Click **Network>>Static Route>>Static Route** to get the following page:



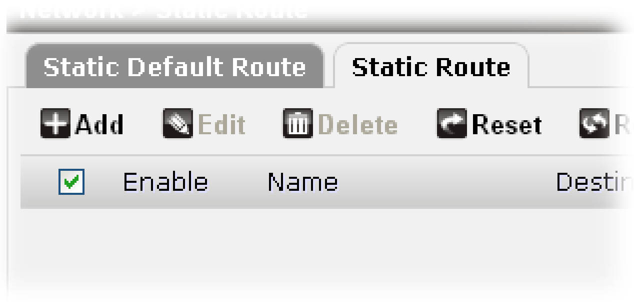
☑	Enable	Name	Destination IP Address/Mask	Interface	Gatev
			(Empty)		

Each item will be explained as follows:

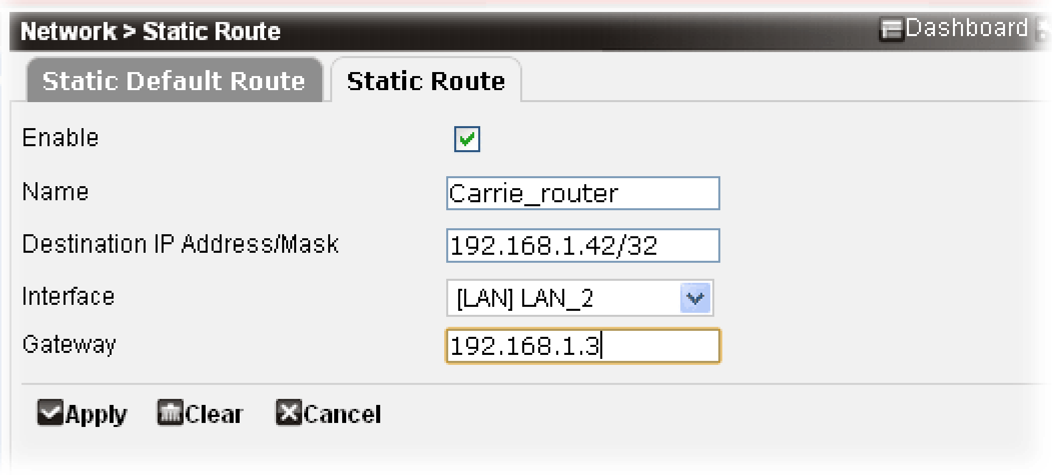
Item	Description
Add	Create new NAT profiles.
Edit	Edit the selected NAT profile. To edit the profile, simply check the profile box you want to edit and then click this button.
Delete	Remove the selected NAT profile.
Reset	Click it to rest to factory default settings.
Refresh	Click it to refresh the web page.
Enable	Display the activation status for such interface. **Enable** – The profile is activated. **Disable** –The profile is not activated.
Name	Display the profile name for the static route.
Destination IP Address/Mask	Display the destination address/mask of the static route.
Interface	Display the interface that such static route uses.
Gateway	Display the IP address receiving the packets from destination IP address/mask.

To add a static route profile, please do the following:

1. Click **Add.**



2. The following page appears.



Enable ☑

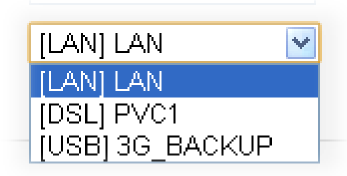
Name: Carrie_router

Destination IP Address/Mask: 192.168.1.42/32

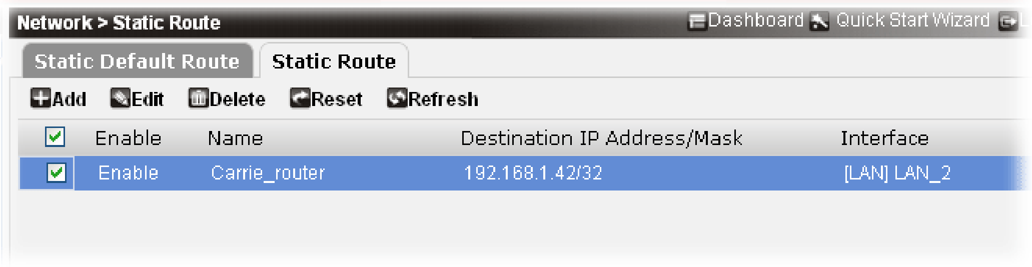
Interface: [LAN] LAN_2

Gateway: 192.168.1.3

Available parameters are listed below:

Item	Description
Enable	Check the box to enable such profile.
Name	Type a name for such profile.
Destination IP Address/Mask	Type the IP address of the destination. All the packets into such IP address will be forwarded to the gateway specified in this page.
Interface	Choose an interface for the static route. 
Gateway	Type an IP address of the other router. All packets destined to destination IP address/mask will be forwarded to the gateway specified here.
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to return to previous web page.

3. After finished the settings above, click **Apply** to save the settings.



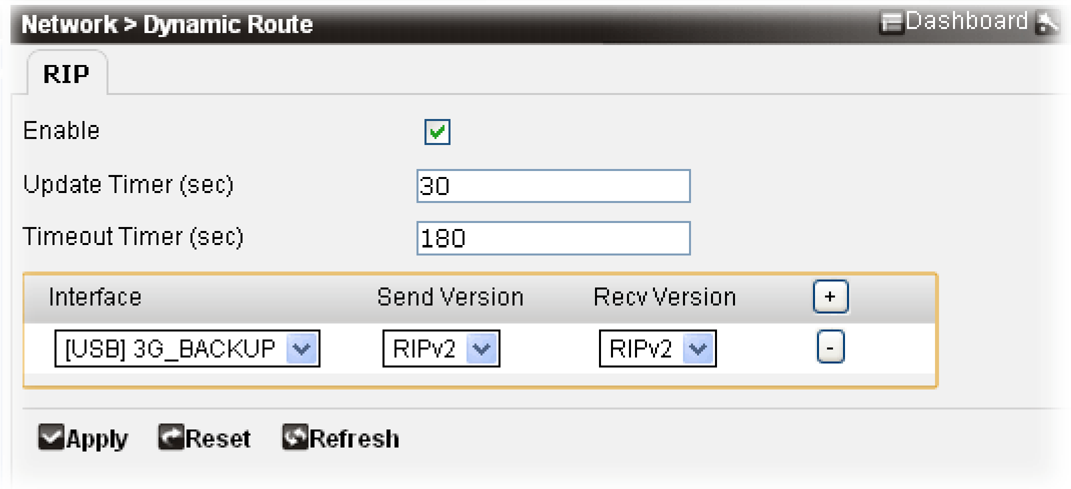
Network > Static Route

☑	Enable	Name	Destination IP Address/Mask	Interface
☑	Enable	Carrie_router	192.168.1.42/32	[LAN] LAN_2

4.1.6 Dynamic Route

The Routing Information Protocol (RIP) is a dynamic routing protocol used in local and wide area networks. The routing information packet will be sent out by web server or router periodically, and can be used to communicate with other routers. It will calculate the number of network nodes on the route to ensure there is no obstruction on the network routine. In addition, it will choose a correct route based on the method of Distance Vector Routing and use the Bellman-Ford algorithm to calculate the routing table.

Vigor router will exchange routing information with neighboring routers using the RIP (Routing Information Protocol) to accomplish IP routing. This allows users to change the information of the router such as IP address and the routers will automatically inform for each other.



Network > Dynamic Route

Enable ☑

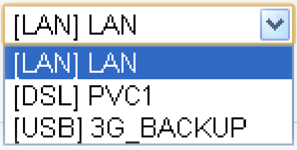
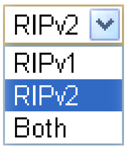
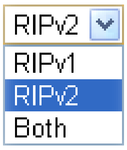
Update Timer (sec) 30

Timeout Timer (sec) 180

Interface	Send Version	Recv Version	+
[USB] 3G_BACKUP	RIPv2	RIPv2	-

Available parameters are listed below:

Item	Description
Enable	Check the box to enable such function.
Update Timer (sec)	It is used to set the time interval of sending the routing information packet out.
Timeout Timer (sec)	If the user is idle over the limitation of the timer, the **network connection will be stopped for such user.** By default, the Timeout is set to 180 seconds.
Interface	Choose an interface for the static route.

	
Send Version	It is the version of RIP for sending the packets out. Simply use the default setting. 
Recv Version	It is the version of RIP for receiving the packets out. Simply use the default setting. 
Apply	Click it to save the settings.
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to refresh the web page.

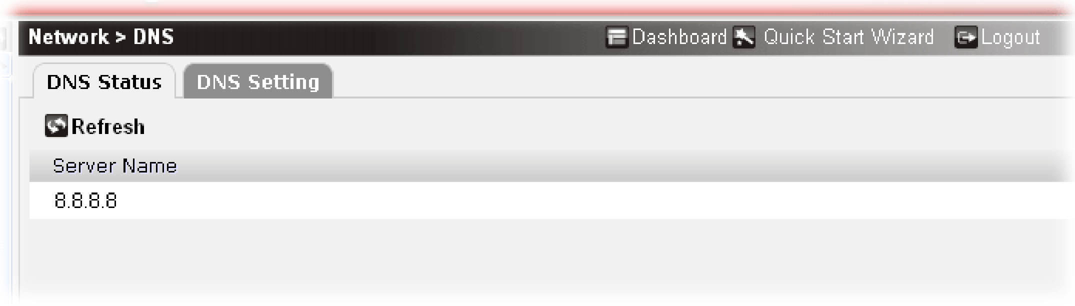
After finished the settings above, click **Apply** to save the settings.

4.1.7 DNS

DNS means Domain Name System. It just likes a bridge between the virtual host and the web URL. Through the DNS server, the web URL can be mapped into the virtual host correctly.

4.1.7.1 DNS Status

DNS Status displays the IP address for all of the DNS servers inside the router. The default IP address setting for the DNS server is “8.8.8.8”.



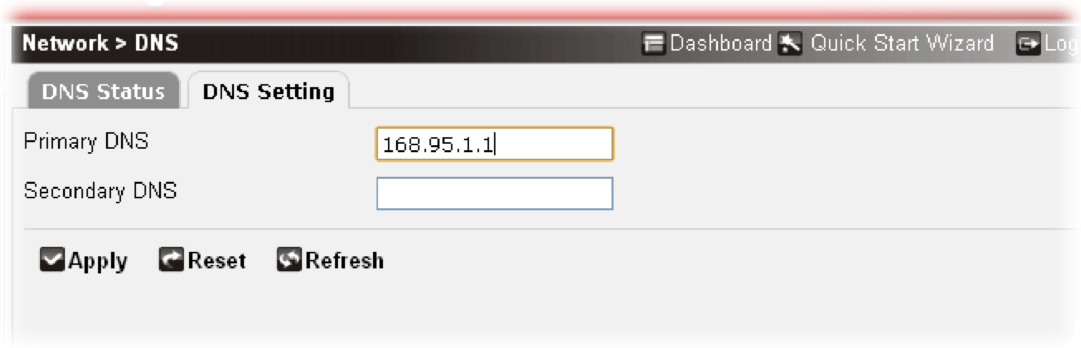
Server Name
8.8.8.8

Available parameters are listed below:

Item	Description
Server Name	Display the IP address of the DNS server.

4.1.7.2 DNS Setting

This page is used to set the DNS server (including primary DNS and secondary DNS) that the router will use.



Primary DNS: 168.95.1.1

Secondary DNS:

Available parameters are listed below:

Item	Description
Primary DNS	You must specify a DNS server IP address here because your ISP should provide you with usually more than one DNS Server. If your ISP does not provide it, the router will automatically apply default DNS Server IP address: 198.95.1.1 to this field.
Secondary DNS	You can specify secondary DNS server IP address here because your ISP often provides you more than one DNS Server. If your ISP does not provide it, the router will automatically apply default secondary DNS Server IP address: 4.2.2.1 to this field.
Apply	Click it to save the settings.
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to refresh the web page.

After finished the settings above, click **Apply** to save the settings.

4.1.8 Quality of Service

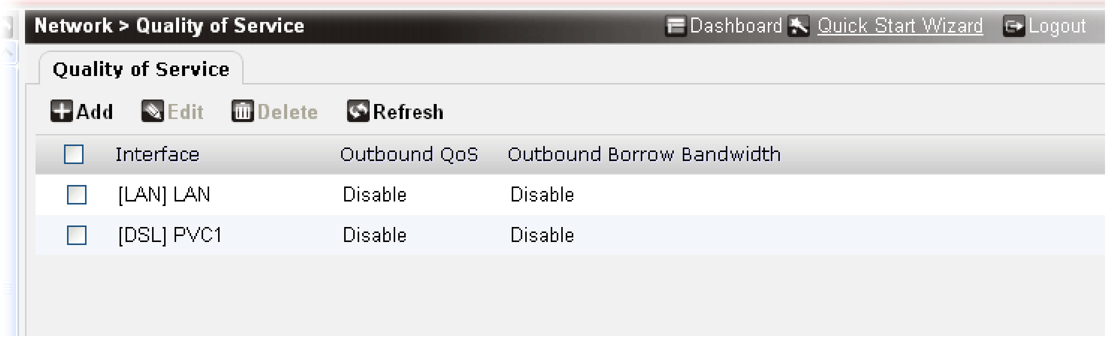
Service levels required and sufficient bandwidth to meet performance expectations is indeed one important aspect of modern enterprise network.

One reason for QoS is that numerous TCP-based applications tend to continually increase their transmission rate and consume all available bandwidth, which is called TCP slow start. If other applications are not protected by QoS, it will detract much from their performance in the overcrowded network. This is especially essential to those are low tolerant of loss, delay or jitter (delay variation).

Another reason is due to congestions at network intersections where speeds of interconnected circuits mismatch or traffic aggregates, packets will queue up and traffic can be throttled back to a lower speed. If there’s no defined priority to specify which packets should be discarded (or in another term “dropped”) from an overflowing queue, packets of sensitive applications mentioned above might be the ones to drop off. How this will affect application performance?

There are two components within Primary configuration of QoS deployment:

- Classification: Identifying low-latency or crucial applications and marking them for high-priority service level enforcement throughout the network.
- Scheduling: Based on classification of service level to assign packets to queues and associated service types



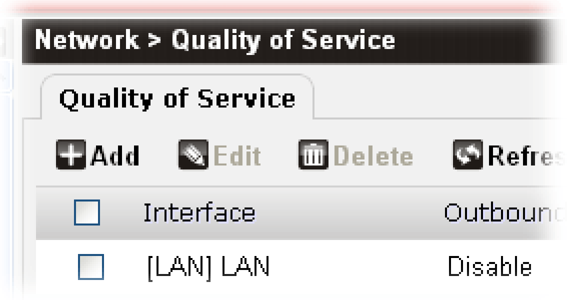
□	Interface	Outbound QoS	Outbound Borrow Bandwidth
□	[LAN] LAN	Disable	Disable
□	[DSL] PVC1	Disable	Disable

Each item will be explained as follows:

Item	Description
Add	Create new QoS profiles.
Edit	Edit the selected QoS profile. To edit the profile, simply check the profile box you want to edit and then click this button.
Delete	Remove the selected QoS profile.
Refresh	Click it to refresh the web page.
Enable	Display the activation status for such interface. **Enable** – The profile is activated. **Disable** –The profile is not activated.
Interface	Display the interface used by such profile.
Outbound QoS	Display the activation status for such interface. **Enable** – The profile is activated. **Disable** –The profile is not activated.
Outbound Borrow Bandwidth	Display the activation status for such interface. **Enable** – The profile is activated. **Disable** –The profile is not activated.

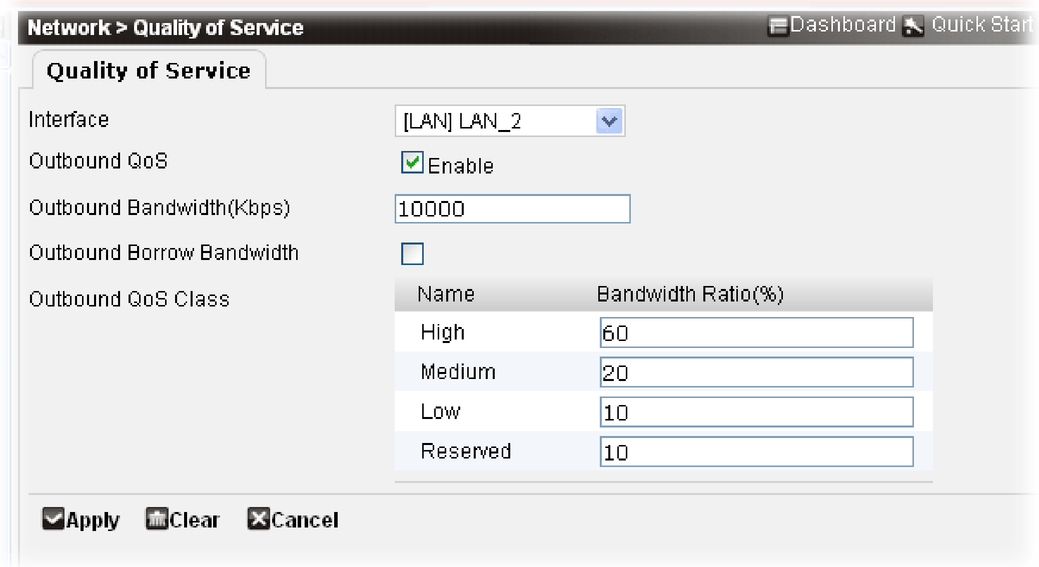
To add a static route profile, please do the following:

1. Click **Add.**



□	Interface	Outboun
□	[LAN] LAN	Disable

2. The following page appears.



Network > Quality of Service

Quality of Service

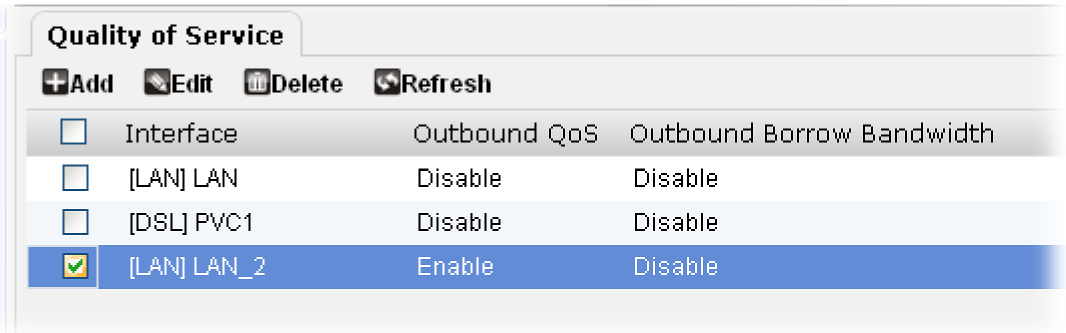
Interface	[LAN] LAN_2
Outbound QoS	☑ Enable
Outbound Bandwidth(Kbps)	10000
Outbound Borrow Bandwidth	□
Outbound QoS Class	

Name	Bandwidth Ratio(%)
High	60
Medium	20
Low	10
Reserved	10

Available parameters are listed below:

Item	Description
Interface	Choose an interface for applying the QoS function.
Outbound QoS	Check the box to make the outgoing traffic following the limitation specified in this page.
Outbound Bandwidth	Type the transmission rate to limit the outgoing traffic.
Outbound Borrow Bandwidth	Check this box to enable the bandwidth borrowed by other clients. When a client in LAN needs more bandwidth for data transmission, the reserved bandwidth can be used **temporarily** by the client in request if there is no other client occupying the bandwidth.
Outbound QoS Class	Specify the value for Low, Normal, Medium and High. High class means it owns the highest priority. Usually it will occupy the most of the bandwidth ratio.
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to return to previous web page.

3. After finished the settings above, click **Apply** to save the settings.

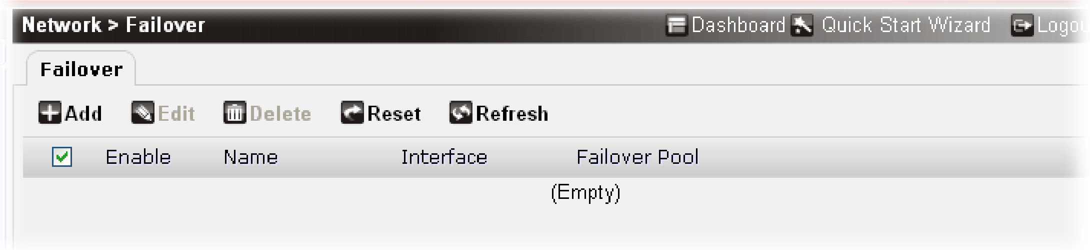


Quality of Service

□	Interface	Outbound QoS	Outbound Borrow Bandwidth
□	[LAN] LAN	Disable	Disable
□	[DSL] PVC1	Disable	Disable
☑	[LAN] LAN_2	Enable	Disable

4.1.9 Failover

This page will determine which interface will be treated as a backup interface when the original WAN interface disconnects without any reason.



Network > Failover

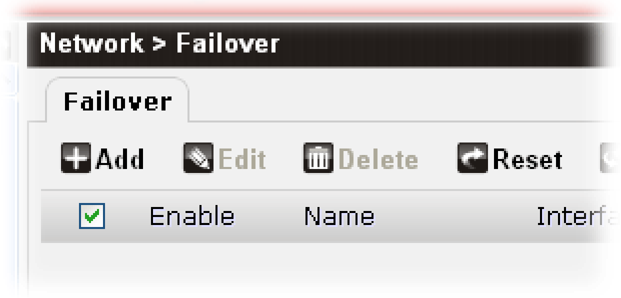
☑	Enable	Name	Interface	Failover Pool
			(Empty)	

Each item will be explained as follows:

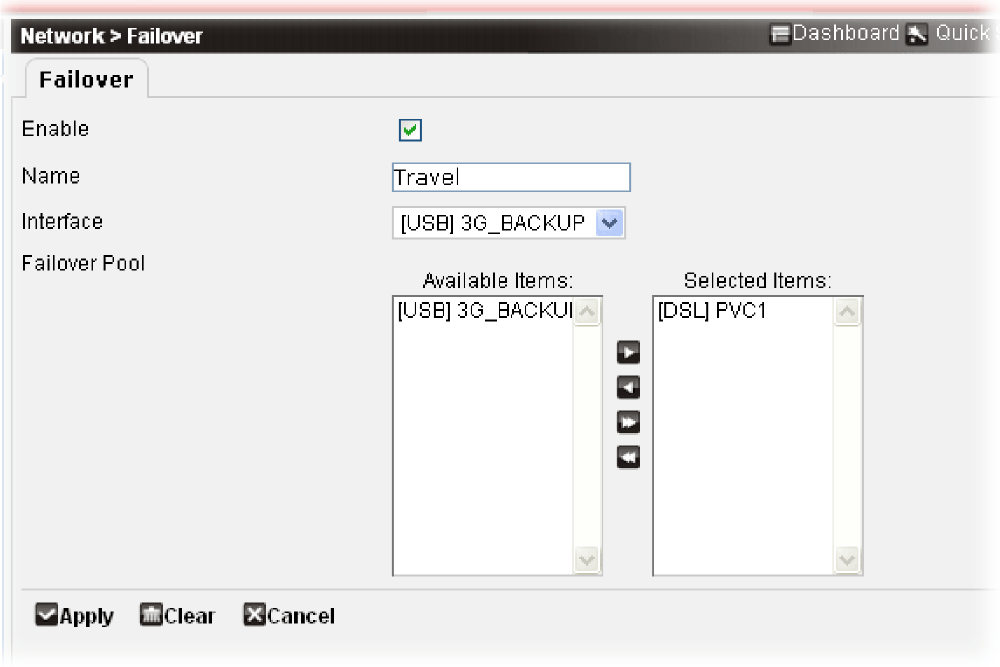
Item	Description
Add	Create new failover profiles.
Edit	Edit the selected failover profile. To edit the profile, simply check the profile box you want to edit and then click this button.
Delete	Remove the selected failover profile.
Reset	Click it to rest to factory default settings and remove all of the failover profile.
Refresh	Click it to refresh the web page.
Enable	Display the activation status for such interface. **Enable** – The profile is activated. **Disable** –The profile is not activated.
Name	Display the profile name for the static route.
Interface	Display the interface used by such profile.
Failover Pool	Display the interface(s) selected as the failover interface.

To add a static route profile, please do the following:

1. Click **Add.**



2. The following page appears.



Enable ☑

Name Travel

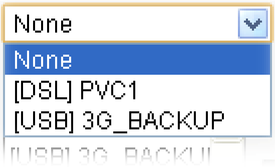
Interface [USB] 3G_BACKUP

Failover Pool

Available Items: [USB] 3G_BACKUI

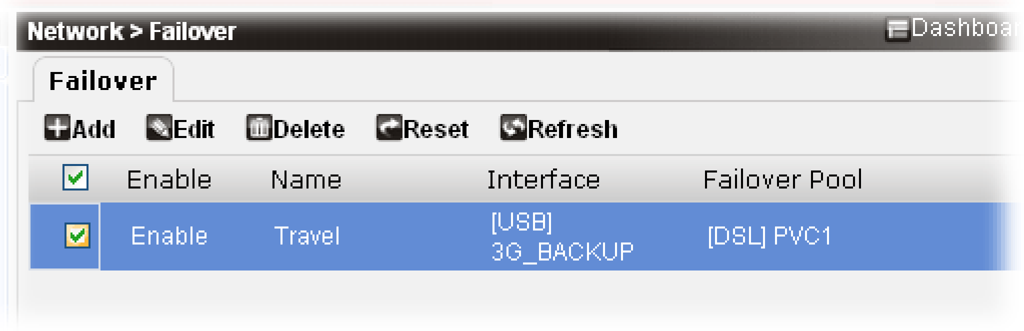
Selected Items: [DSL] PVC1

Available parameters are listed below:

Item	Description
Enable	Check the box to enable such function.
Name	Type a name of the profile.
Interface	Choose an item as the original WAN interface. 
Failover Pool	It displays all the available interfaces. The selected item shall not be the same as the one selected in Interface. The interface selected in Selected Items is the failover interface when the original WAN interface disconnects.
Apply	Click it to save the settings.

Clear	Click it to remove the modification of the web page.
Cancel	Click it to return to previous web page.

3. After finished the settings above, click **Apply** to save the settings.



Network > Failover

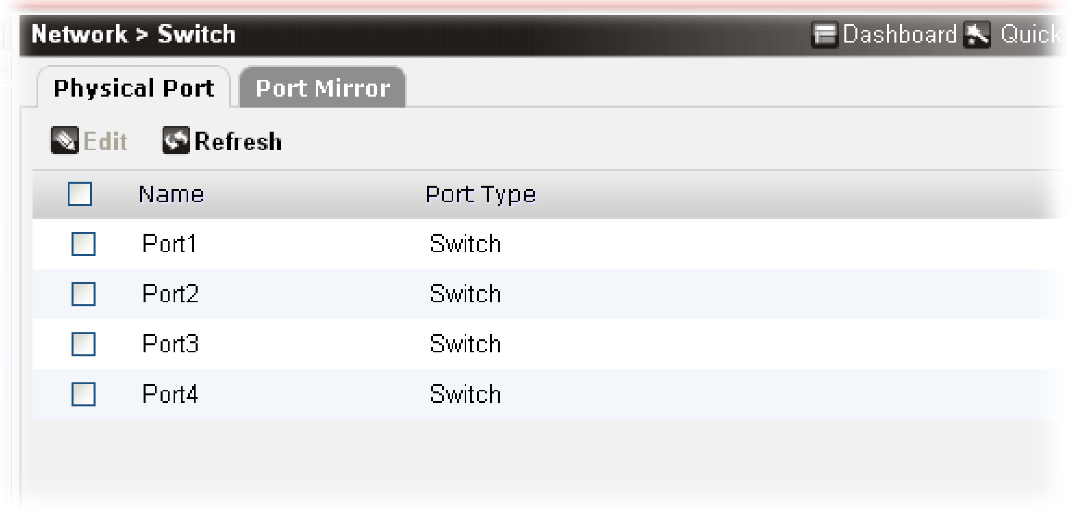
☑	Enable	Name	Interface	Failover Pool
☑	Enable	Travel	[USB] 3G_BACKUP	[DSL] PVC1

4.1.10 Switch

This page allows you to configure physical port setting and LAN port mirror settings.

4.1.10.1 Switch

This page allows you to configure the line speed of the LAN port and set the port mirror configuration.



Network > Switch

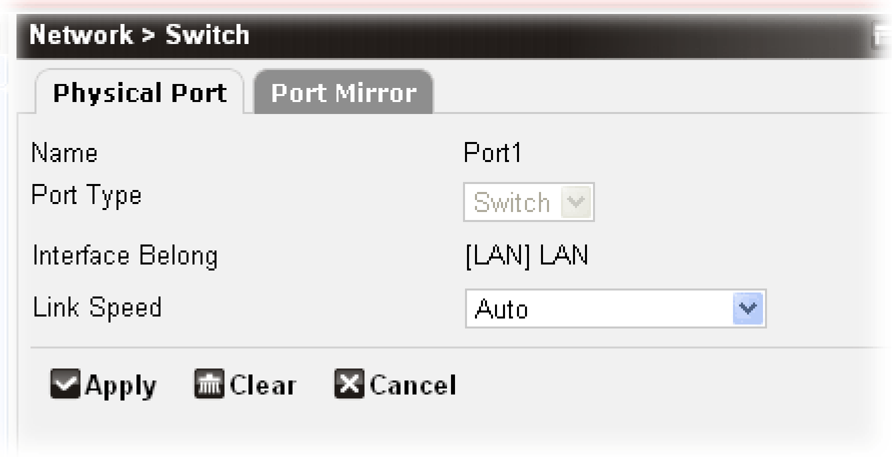
□	Name	Port Type
□	Port1	Switch
□	Port2	Switch
□	Port3	Switch
□	Port4	Switch

Available parameters are listed below:

Item	Description
Edit	Edit the selected profile. To edit the profile, simply check the profile box you want to edit and then click this button.
Refresh	Click it to refresh the web page.
Name	Display the name of the physical port.
Port Type	Display the type of the physical port. It might be Switch or xxx.

To edit the switch port setting, please do the following:

1. Choose the port you want and click the check box.
2. Click **Edit** to open the following page.



Network > Switch

Physical Port | Port Mirror

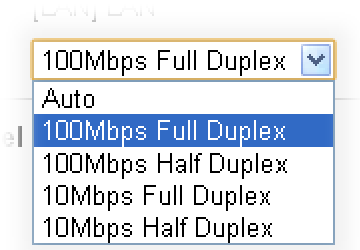
Name: Port1

Port Type: Switch

Interface Belong: [LAN] LAN

Link Speed: Auto

Available parameters are listed below:

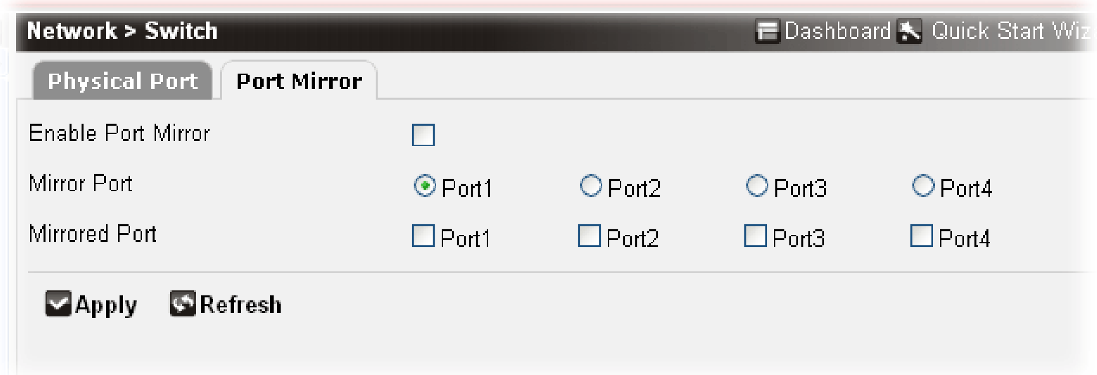
Item	Description
Name	Display the name of the physical port.
Port Type	At present, there is only one type for you to choose.
Interface Belong	Displays the name of the profile in which such physical port is currently used.
Link Speed	Choose the line speed for downloading and uploading file. Usually, keep the default setting will be better.  100Mbps Full Duplex Auto 100Mbps Full Duplex 100Mbps Half Duplex 10Mbps Full Duplex 10Mbps Half Duplex In default, **Auto** will be selected.
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to return to previous web page.

3. After finished the settings above, click **Apply** to save the settings then click **Cancel** to return to previous page.

4.1.10.2 Port Mirror

Port mirror can be applied for the users in LAN. Generally speaking, this function copies traffic from one or more specific ports to a target port. This mechanism helps manager track the network errors or abnormal packets transmission without interrupting the flow of data access the network. By the way, user can apply this function to monitor all traffics which user needs to check.

There are some advantages supported in this feature. First, it is more economical without other detecting equipments to be set up. Second, it may be able to view traffic on one or more ports within a VLAN at the same time. Third, it can transfer all data traffics to be mirrored to one analyzer connect to the mirroring port. Last, it is more convenient and easy to configure in user's interface.



Enable Port Mirror □

Mirror Port ● Port1 ○ Port2 ○ Port3 ○ Port4

Mirrored Port □ Port1 □ Port2 □ Port3 □ Port4

Available parameters are listed below:

Item	Description
Enable Port Mirror	Check the box to activate this function.
Mirror Port	Select a port to view traffic sent from mirrored ports.
Mirrored Port	Select which ports are necessary to be mirrored.
Apply	Click it to save the settings.
Refresh	Click it to clear current settings and return to the settings saved previously.

After finished the settings above, click **Apply** to save the setting.

4.2 Wireless LAN

This function is used for “n” models.

4.2.1 Basic Concepts

Over recent years, the market for wireless communications has enjoyed tremendous growth. Wireless technology now reaches or is capable of reaching virtually every location on the surface of the earth. Hundreds of millions of people exchange information every day via wireless communication products. The Vigor “n” model, a.k.a. Vigor wireless router, is designed for maximum flexibility and efficiency of a small office/home. Any authorized staff can bring a built-in WLAN client PDA or notebook into a meeting room for conference without laying a clot of LAN cable or drilling holes everywhere. Wireless LAN enables high mobility so WLAN users can simultaneously access all LAN facilities just like on a wired LAN as well as Internet access

The Vigor wireless routers are equipped with a wireless LAN interface compliant with the standard IEEE 802.11n protocol. To boost its performance further, the Vigor Router is also loaded with advanced wireless technology to lift up data rate up to 300 Mbps*. Hence, you can finally smoothly enjoy stream music and video.

Note: * The actual data throughput will vary according to the network conditions and environmental factors, including volume of network traffic, network overhead and building materials.

In an Infrastructure Mode of wireless network, Vigor wireless router plays a role as an Access Point (AP) connecting to lots of wireless clients or Stations (STA). All the STAs will share the same Internet connection via Vigor wireless router.

4.2.1.1 Security Setting Overview

Real-time Hardware Encryption: Vigor Router is equipped with a hardware AES encryption engine so it can apply the highest protection to your data without influencing user experience.

Complete Security Standard Selection: To ensure the security and privacy of your wireless communication, we provide several prevailing standards on market.

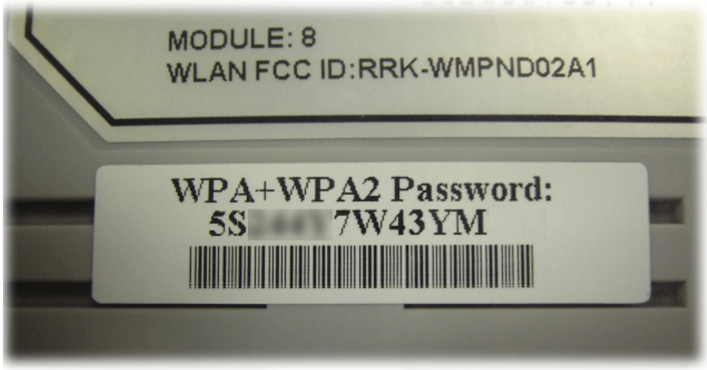
WEP (Wired Equivalent Privacy) is a legacy method to encrypt each frame transmitted via radio using either a 64-bit or 128-bit key. Usually access point will preset a set of four keys and it will communicate with each station using only one out of the four keys.

WPA (Wi-Fi Protected Access), the most dominating security mechanism in industry, is separated into two categories: WPA-personal or called WPA Pre-Share Key (WPA/PSK), and WPA-Enterprise or called WPA/802.1x.

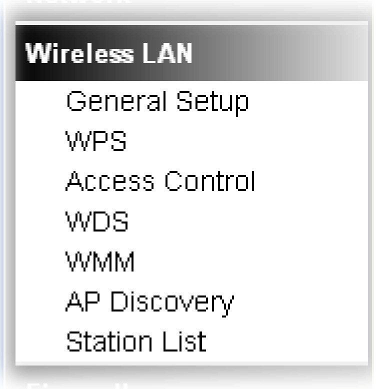
In WPA-Personal, a pre-defined key is used for encryption during data transmission. WPA applies Temporal Key Integrity Protocol (TKIP) for data encryption while WPA2 applies AES. The WPA-Enterprise combines not only encryption but also authentication.

Since WEP has been proved vulnerable, you may consider using WPA for the most secure connection. You should select the appropriate security mechanism according to your needs. No matter which security suite you select, they all will enhance the over-the-air data protection and /or privacy on your wireless network. The Vigor wireless router is very flexible and can support multiple secure connections with both WEP and WPA at the same time.

The default security mode is **Mixed (WPA/WPA2)-PSK.** Default Pre-Shared Key (PSK) is provided and stated on the label pasted on the bottom of the router. For the wireless client who wants to access into Internet through such router, please input the default PSK value for connection.



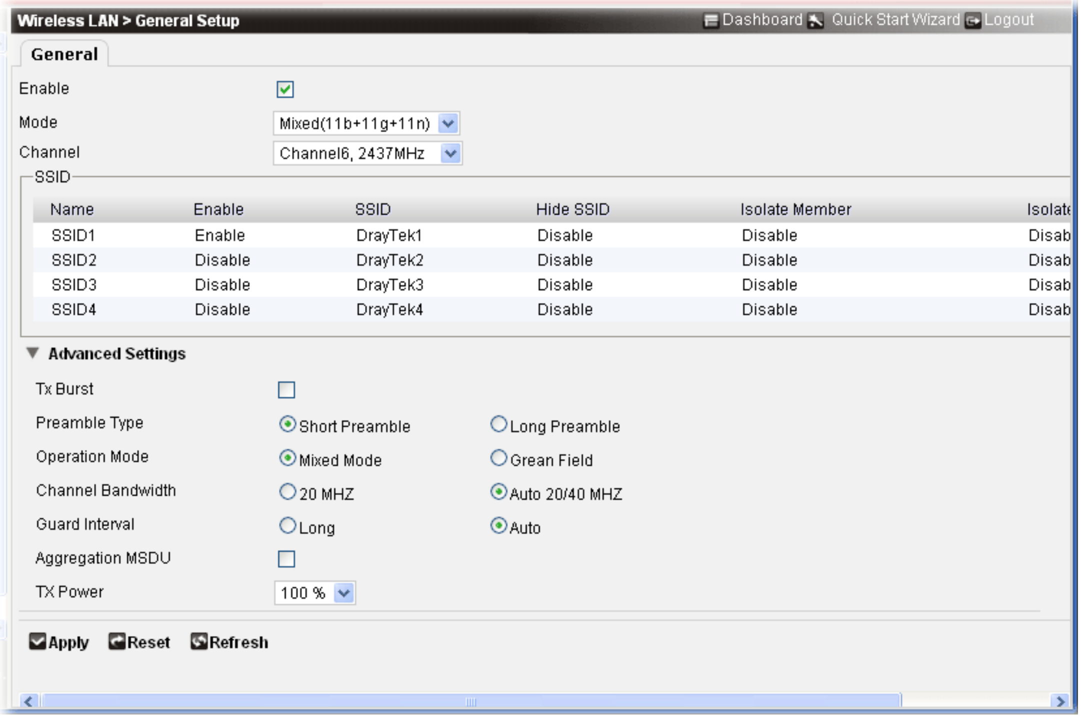
Below shows the menu items for Wireless LAN.



4.2.2 General Setup

General Setup will set up the information of this wireless network, including its SSID as identification, channel.

This page is used to enable the wireless LAN function, specify channel and set advanced wireless settings.



Enable	☑
Mode	Mixed(11b+11g+11n)
Channel	Channel6, 2437MHz

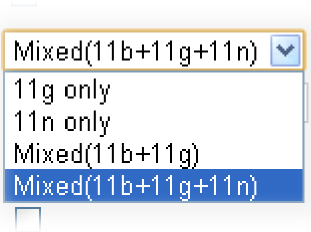
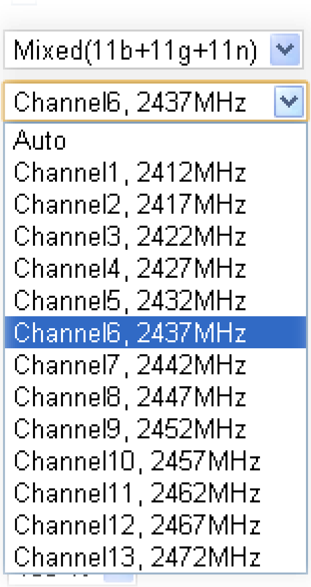
SSID

Name	Enable	SSID	Hide SSID	Isolate Member	Isolat
SSID1	Enable	DrayTek1	Disable	Disable	Disab
SSID2	Disable	DrayTek2	Disable	Disable	Disab
SSID3	Disable	DrayTek3	Disable	Disable	Disab
SSID4	Disable	DrayTek4	Disable	Disable	Disab

▼ Advanced Settings

Tx Burst	□	
Preamble Type	● Short Preamble	○ Long Preamble
Operation Mode	● Mixed Mode	○ Grean Field
Channel Bandwidth	○ 20 MHZ	● Auto 20/40 MHZ
Guard Interval	○ Long	● Auto
Aggregation MSDU	□	
TX Power	100 %	

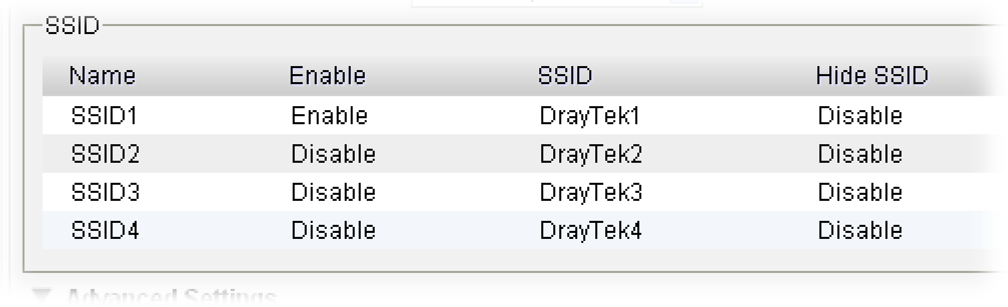
Available parameters are listed below:

Item	Description
Enable	Check it to enable the wireless LAN function.
Mode	At present, the router can connect to 11n Only, 11g Only, Mixed (11b+11g), and Mixed (11b+11g+11n) stations simultaneously. Simply choose Mixed (11b+11g+11n) mode.  Mixed(11b+11g+11n) 11g only 11n only Mixed(11b+11g) Mixed(11b+11g+11n)
Channel	Means the channel of frequency of the wireless LAN. The default channel is 6. You may switch channel if the selected channel is under serious interference. If you have no idea of choosing the frequency, please select Auto to let system determine for you.  Mixed(11b+11g+11n) Channel6, 2437MHz Auto Channel1, 2412MHz Channel2, 2417MHz Channel3, 2422MHz Channel4, 2427MHz Channel5, 2432MHz Channel6, 2437MHz Channel7, 2442MHz Channel8, 2447MHz Channel9, 2452MHz Channel10, 2457MHz Channel11, 2462MHz Channel12, 2467MHz Channel13, 2472MHz
SSID	It means the identification of the wireless LAN. SSID can be any text numbers or various special characters. The router offers 4 SSID groups to be configured for wireless LAN. The default SSID groups are named with “DrayTek1 to DrayTek4“. We suggest you to change it. These SSID groups can be configured by clicking on each SSID item. Refer to the later sections for detailed configuration.
Advanced Settings	**Tx Burst** - This feature can enhance the performance in data transmission about 40%* more (for 11g station). It is active only when both sides of Access Point and Station (in wireless client) invoke this function at the same time. That is, the wireless client must support this feature and invoke

	the function, too. **Preamble Type -** This option is to define the length of the sync field in an 802.11 packet. Most modern wireless network uses **short preamble** with 56 bit sync field instead of long preamble with 128 bit sync field. However, some original 11b wireless network devices only support **long preamble**. **Operation Mode - Mixed Mode** allows the router to transmit data with the ways supported in both 802.11a/b/g and 802.11n standards. However, the entire wireless transmission will be slowed down if 802.11g or 802.11b wireless client is connected. **Green Field** allows the router to get the highest throughput. Such mode can make the data transmission happening between 11n systems only. In addition, it does not have protection mechanism to avoid the conflict with neighboring devices of 802.11a/b/g. **Channel Bandwidth -** The router can use **20Mhz** for data transmission and receiving between the AP and the stations. Or, it can use **20Mhz or 40Mhz** for data transmission and receiving according to the station capability. Such channel can increase the performance for data transit. **Guard Interval -** It is to assure the safety of propagation delays and reflections for the sensitive digital data. If you choose **auto** as guard interval, the AP router will choose short guard interval (increasing the wireless performance) or long guard interval for data transmit based on the station capability. **Aggregation MSDU** - Aggregation MSDU can combine frames with different sizes. It is used for improving MAC layer’s performance for some brand’s clients. The default setting is **Enable.** **TX Power -** Set the power percentage for transmission signal of access point. The greater the value is, the higher intensity of the signal will be.
Apply	Click it to save the settings.
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to fresh the web page.

To edit the SSID setting, please do the following:

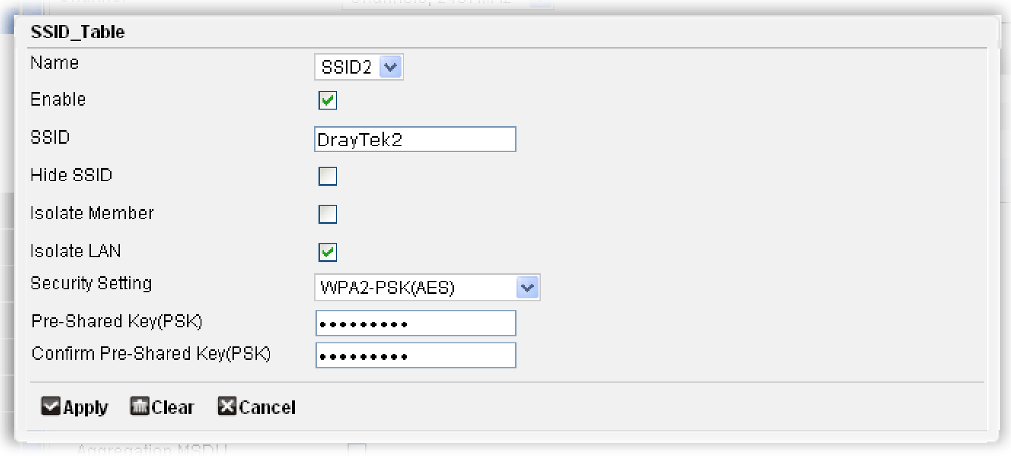
1. Move your mouse cursor on the SSID profile (from SSID1 to SSID4 based on the order) you want to edit and click on it. In this case, we choose **SSID2**.



SSID

Name	Enable	SSID	Hide SSID
SSID1	Enable	DrayTek1	Disable
SSID2	Disable	DrayTek2	Disable
SSID3	Disable	DrayTek3	Disable
SSID4	Disable	DrayTek4	Disable

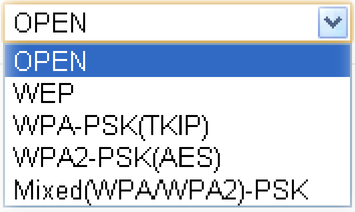
2. The following page will appear immediately.

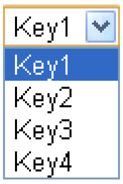


SSID_Table

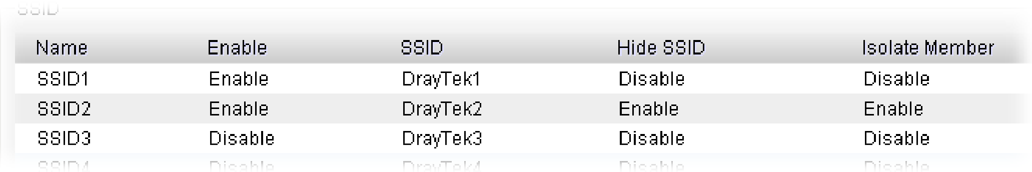
Name	SSID2
Enable	☑
SSID	DrayTek2
Hide SSID	□
Isolate Member	□
Isolate LAN	☑
Security Setting	WPA2-PSK(AES)
Pre-Shared Key(PSK)	•••••••••
Confirm Pre-Shared Key(PSK)	•••••••••

Available parameters are listed below:

Item	Description
Name	Display the selected SSID.
Enable	Check the box to enable such SSID setting.
SSID	It means the identification of the wireless LAN. SSID can be any text numbers or various special characters. The default SSID will be displayed automatically. We suggest you to change it.
Hide SSID	Uncheck the box to make the SSID being seen by wireless clients. Check the box to prevent from wireless sniffing and make it harder for unauthorized clients or STAs to join your wireless LAN.
Isolate Member	Check this box to make the wireless clients (stations) with the same SSID not accessing for each other.
Isolate LAN	Check this box to make the wireless clients (stations) not accessing the PC with wired connection.
Security Setting	Choose the wireless mode for this router.  OPEN OPEN WEP WPA-PSK(TKIP) WPA2-PSK(AES) Mixed(WPA/WPA2)-PSK **WEP** - Accepts only WEP clients and the encryption key should be entered in WEP Key. **WPA-PSK (TKIP)/WPA2-PSK(AES)** - Accepts only WPA clients and the encryption key should be entered in PSK. The WPA encrypts each frame transmitted from the radio using the key, which either PSK (Pre-Shared Key) entered manually in this field below or automatically negotiated via

	802.1x authentication. **Mixed (WPA/WPA2)-PSK** - Accepts WPA and WPA2 clients simultaneously and the encryption key should be entered in PSK.
Default Key	Such function is available when WEP is selected as Security Setting.  Choose one of the key selections as the default key. All wireless devices must support the same WEP encryption bit size and have the same key.
Key	Such function is available when WEP is selected as Security Setting. The format of WEP Key is restricted to 5 ASCII characters or 10 hexadecimal values in 64-bit encryption level, or restricted to 13 ASCII characters or 26 hexadecimal values in 128-bit encryption level. The allowed content is the ASCII characters from 33(!) to 126(~) except '#' and ',' .
Confirm Key	Such function is available when WEP is selected as Security Setting. Type the encryption key again for confirmation.
Pre-Shared Key (PSK)	Either **8~63** ASCII characters, such as 012345678..(or 64 Hexadecimal digits leading by 0x, such as "0x321253abcde...").
Confirm Pre-Shared Key (PSK)	Type the PSK again for confirmation.
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to return to previous web page.

3. After finished the settings above, click **Apply** to save the settings.



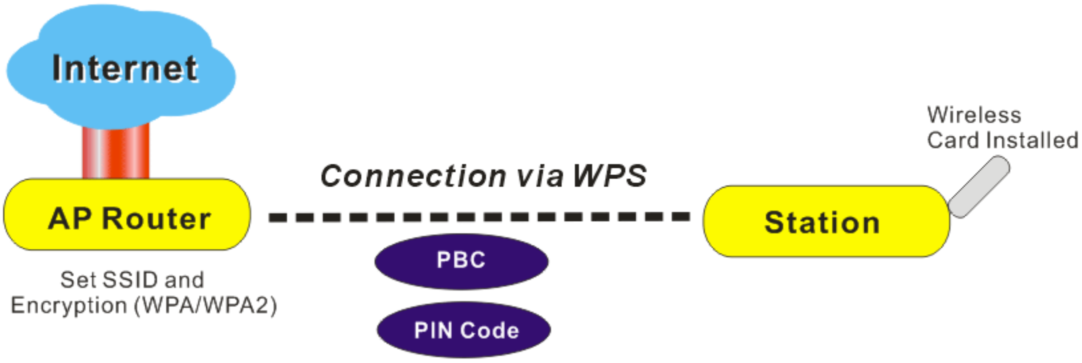
SSID

Name	Enable	SSID	Hide SSID	Isolate Member
SSID1	Enable	DrayTek1	Disable	Disable
SSID2	Enable	DrayTek2	Enable	Enable
SSID3	Disable	DrayTek3	Disable	Disable
SSID4	Disable	DrayTek4	Disable	Disable

4. Now, you have configured the SSID2 successfully.

4.2.3 WPS

WPS (Wi-Fi Protected Setup) provides easy procedure to make network connection between wireless station and wireless access point (vigor router) with the encryption of WPA and WPA2.

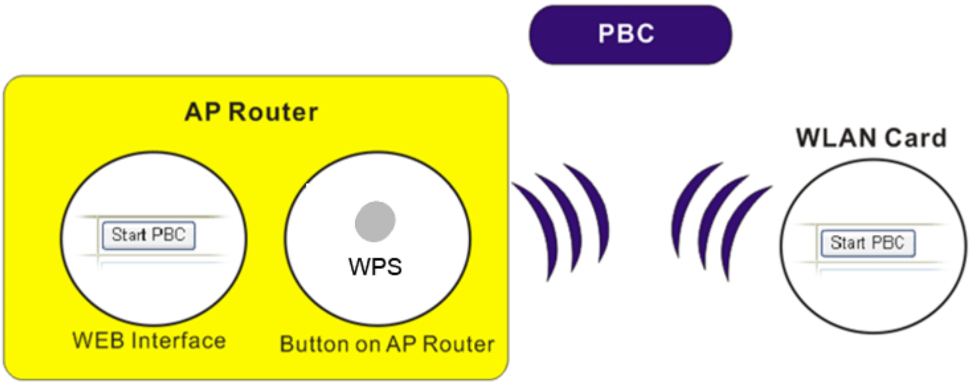


Note: Such function is available for the wireless station with WPS supported.

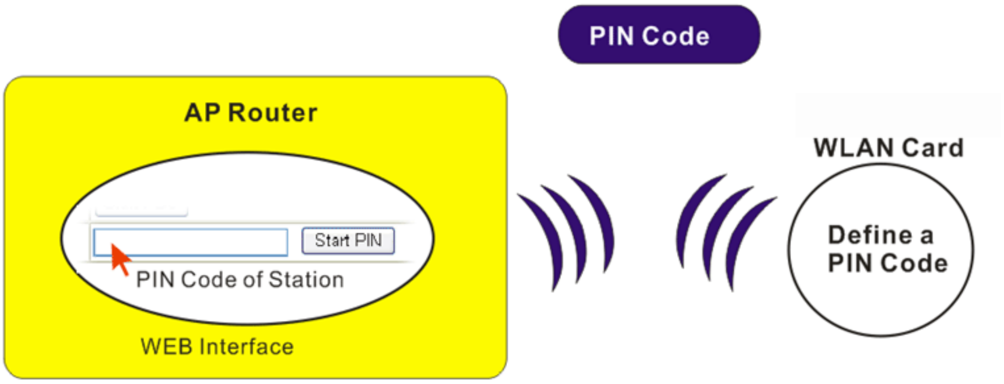
It is the simplest way to build connection between wireless network clients and vigor router. Users do not need to select any encryption mode and type any long encryption passphrase to setup a wireless client every time. He/she only needs to press a button on wireless client, and WPS will connect for client and router automatically.

There are two methods to do network connection through WPS between AP and Stations: pressing the ***Start PBC*** button or using ***PIN Code***.

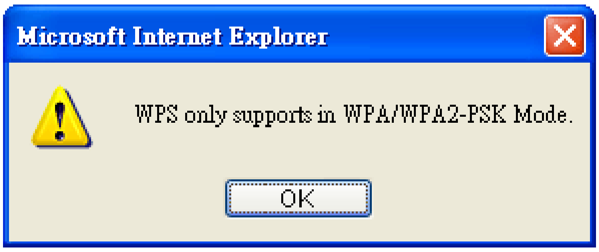
- On the side of Vigor 2760 series which served as an AP, press **WPS** button once on the front panel of the router or click **Start PBC** on web configuration interface. On the side of a station with network card installed, press **Start PBC** button of network card.



- If you want to use PIN code, you have to know the PIN code specified in wireless client. Then provide the PIN code of the wireless client you wish to connect to the vigor router.



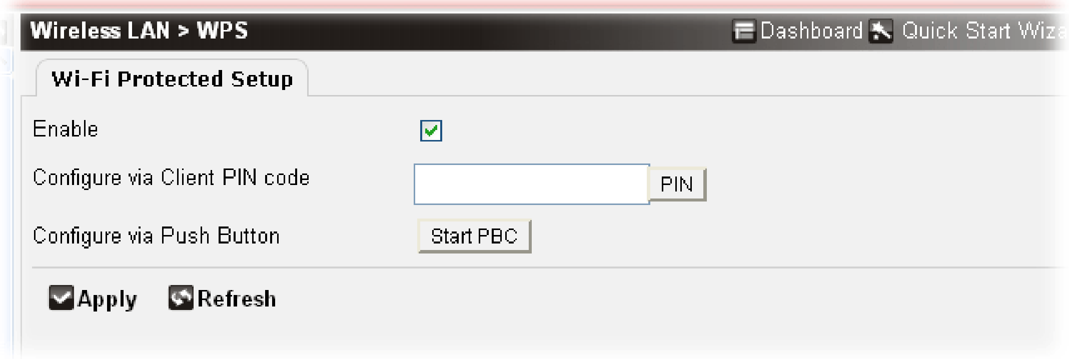
For WPS is supported in WPA-PSK or WPA2-PSK mode, if you do not choose such mode in **Wireless LAN>>Security**, you will see the following message box.



WPS only supports in WPA/WPA2-PSK Mode.

Please click **OK** and go back **Wireless LAN>>General Setup>>SSID** to choose WPA-PSK or WPA2-PSK mode and access WPS again.

Below shows **Wireless LAN>>WPS** web page:



Wi-Fi Protected Setup

Enable ☑

Configure via Client PIN code

Configure via Push Button

Available parameters are listed below:

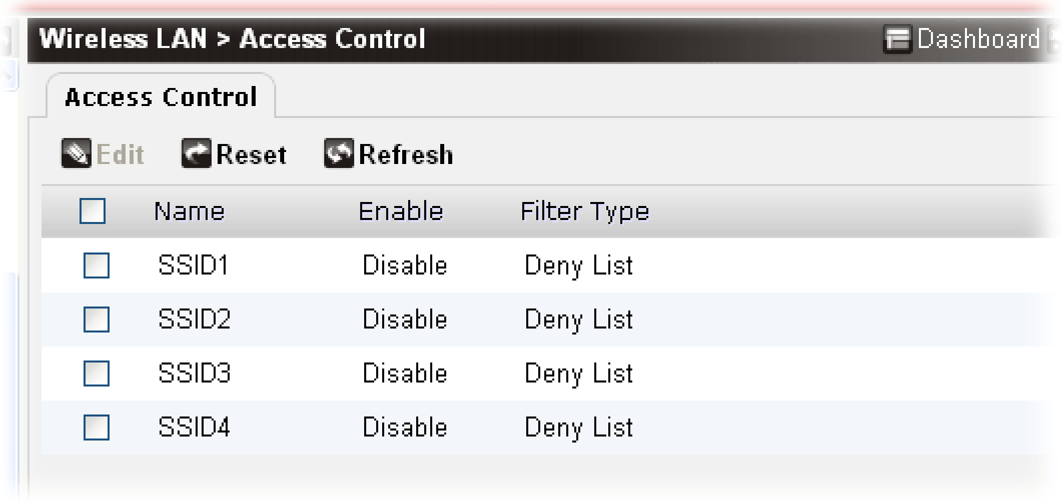
Item	Description
Enable	Check this box to enable WPS setting.
Configure via Client PIN Code	Please input the PIN code specified in wireless client you wish to connect, and click **PIN** button. The WPS LED on the router will blink fast when WPS is in progress. It will return to normal condition after two minutes. (You need to setup WPS within two minutes)
Configure via Push Button	Click **Start PBC** to invoke Push-Button style WPS setup procedure. The router will wait for WPS requests from wireless clients about two minutes. The WPS LED on the router will blink fast when WPS is in progress. It will return

	to normal condition after two minutes. (You need to setup WPS within two minutes)
Apply	Click it to save the settings.
Refresh	Click it to fresh the web page.

4.2.4 Access Control

In **Access Control**, the router may restrict wireless access to certain wireless clients only by locking their MAC address into a black or white list. The user may block wireless clients by inserting their MAC addresses into a black list, or only let them be able to connect by inserting their MAC addresses into a white list.

In the **Access Control** web page, users may configure the **Allow List/Deny List** (white/black list) modes used by each SSID and the MAC addresses applied to their lists.



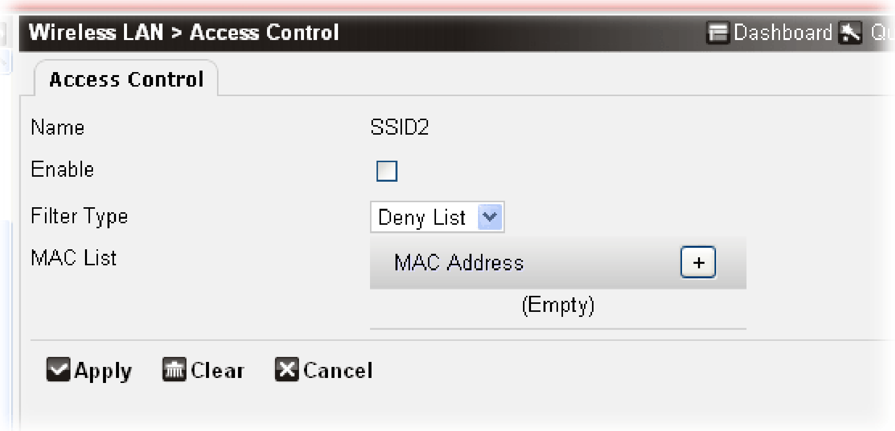
□	Name	Enable	Filter Type
□	SSID1	Disable	Deny List
□	SSID2	Disable	Deny List
□	SSID3	Disable	Deny List
□	SSID4	Disable	Deny List

Available parameters are listed below:

Item	Description
Edit	Edit the selected SSID profile. To edit the profile, simply check the profile box you want to edit and then click this button.
Reset	Click it to clear all of the setting profiles and return to factory default setting,
Refresh	Click it to refresh the web page.
Name	Display the name of the Access Control profile. Such name is assigned by the router in default.
Enable	Display the activation status for such interface. **Enable** – The profile is activated. **Disable** –The profile is not activated.
Filter Type	Display the type (Deny List or Allow List) of the profile.

To edit an Access Control profile, please do the following:

1. Choose the profile (from SSID1 to SSID4) you want and click the check box.
2. Click **Edit** to open the following page.


Wireless LAN > Access Control

Access Control

Name SSID2

Enable □

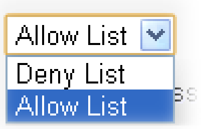
Filter Type Deny List

MAC List

MAC Address +

(Empty)

Available parameters are listed below:

Item	Description
Name	Display the name of the Access Control profile. Such name is assigned by the router in default.
Enable	Check the box to enable the Access Control profile.
Filter Type	**Allow List -** The clients displayed on MAC List are allowed to pass through the router. **Deny List** – The clients displayed on MAC List are NOT allowed to pass through the router.  Allow List Deny List Allow List
MAC List	Type the MAC address of the wireless client. Click the + button to display the entry box to fill in the MAC address.
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to return to previous web page.

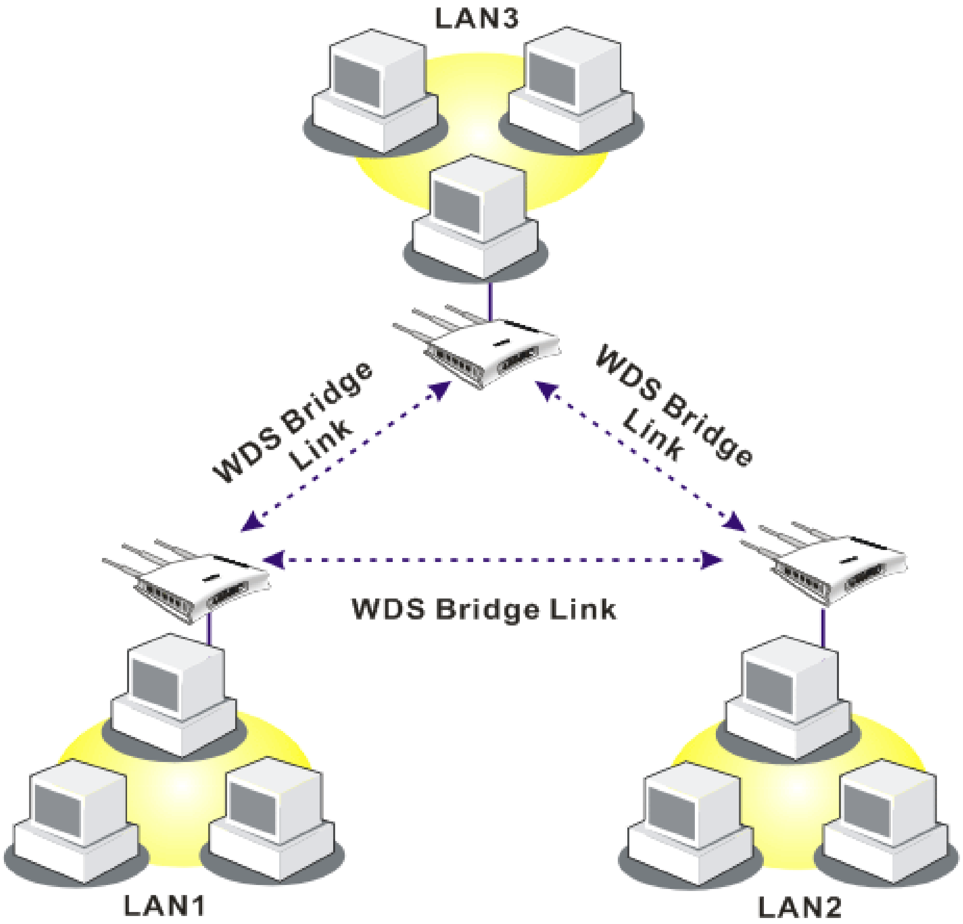
3. After finished the settings above, click **Apply** to save the settings.

4.2.5 WDS

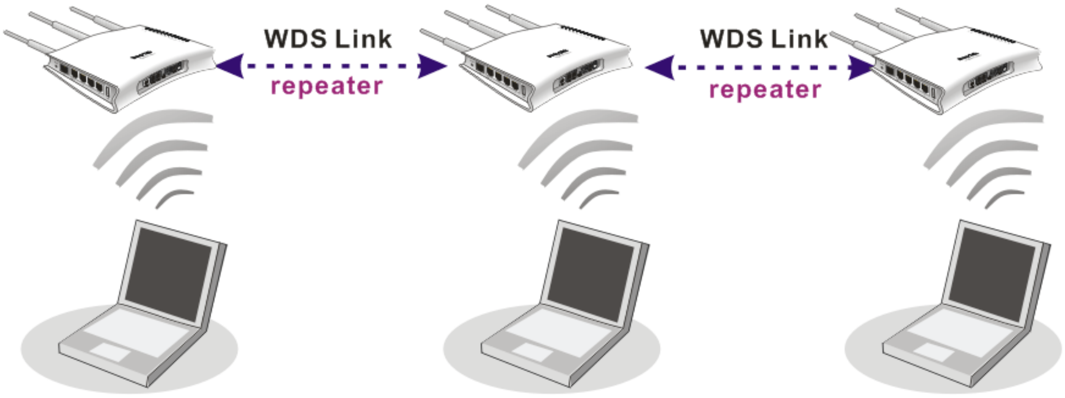
WDS means Wireless Distribution System. It is a protocol for connecting two access points (AP) wirelessly. Usually, it can be used for the following application:

- Provide bridge traffic between two LANs through the air.
- Extend the coverage range of a WLAN.

To meet the above requirement, two WDS modes are implemented in Vigor router. One is **Bridge**, the other is **Repeater**. Below shows the function of WDS-bridge interface:



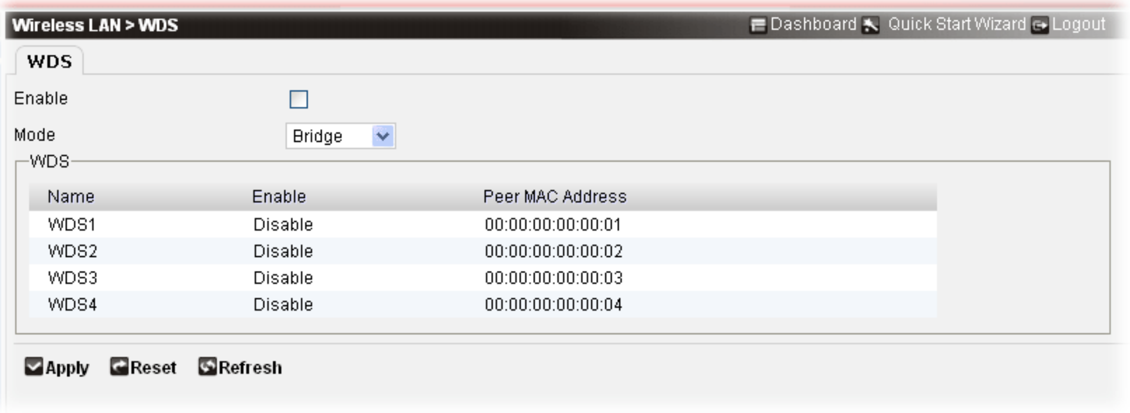
The application for the WDS-Repeater mode is depicted as below:



In **Bridge** mode, the router will connect to up to four Vigor2760 which use the same mode, and all wired Ethernet clients of every Vigor2760 will be connected together. You can use this mode to connect a network to other networks which is physically isolated. Please note that when you set to this mode, Vigor2760 will not accept regular wireless clients anymore.

In **Repeater** mode, the router will connect to up to four Vigor2760 which use the same mode, and all wired Ethernet clients of every Vigor2760 will be connected together. You can use this mode to connect a network to other networks which is physically isolated. When you use this mode, this access point is still able to accept wireless clients.

Open **Wireless LAN>>WDS** to open the following page. It allows you to enable the WDS setting, specify WDS mode (Bridge or Repeater) and modify the WDS settings.



Enable □

Mode Bridge

WDS

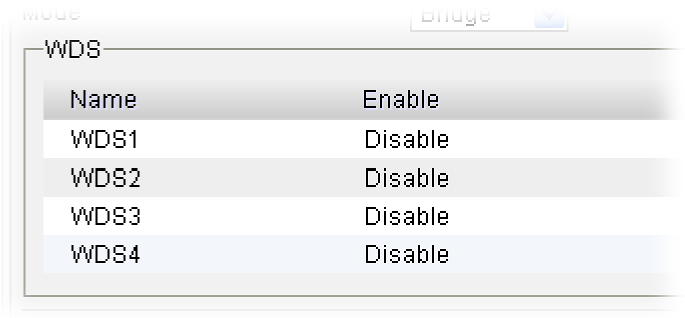
Name	Enable	Peer MAC Address
WDS1	Disable	00:00:00:00:00:01
WDS2	Disable	00:00:00:00:00:02
WDS3	Disable	00:00:00:00:00:03
WDS4	Disable	00:00:00:00:00:04

Available parameters are listed below:

Item	Description
Enable	Check this box to enable WDS setting.
Mode	Choose the mode for WDS setting. **Bridge** mode is designed to fulfill the first type of application. **Repeater** mode is for the second one.
WDS	**Name** –Display the name of the WDS profile. Such name is assigned by the router in default. **Enable** –Display the activation status for such interface. ● **Enable** – The profile is activated. ● **Disable** –The profile is not activated. **Peer MAC Address -** Display the MAC address of the peer.
Apply	Click it to save the settings.
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to clear current settings and return to the settings saved previously.

To edit a WDS profile, please do the following:

1. Move your mouse cursor on the WDS profile (from WDS1 to WDS4) you want to edit and click on it. In this case, we choose **WDS2**.

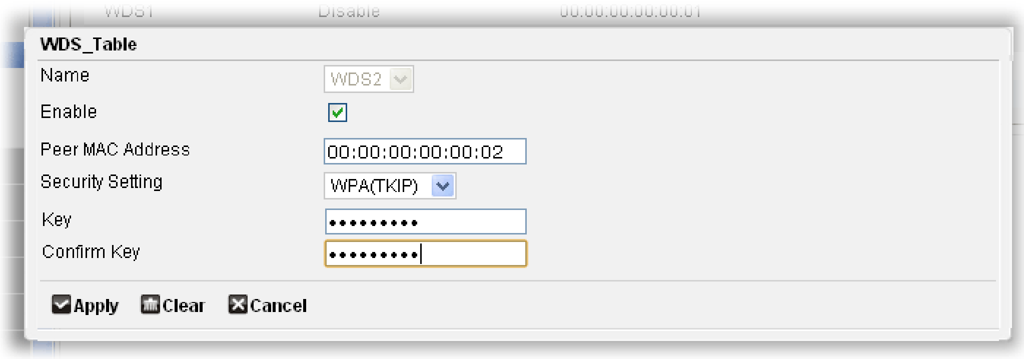


Mode Bridge

WDS

Name	Enable
WDS1	Disable
WDS2	Disable
WDS3	Disable
WDS4	Disable

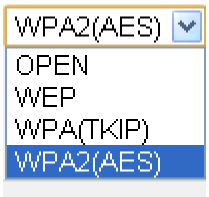
2. The following page will appear immediately.



WDS_Table

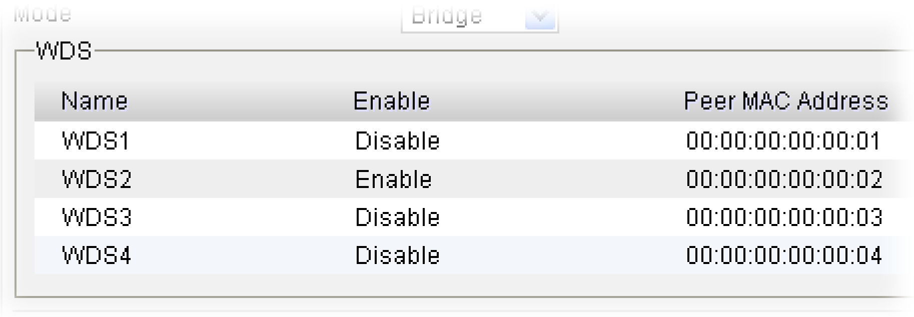
Name	WDS2
Enable	☑
Peer MAC Address	00:00:00:00:00:02
Security Setting	WPA(TKIP)
Key	•••••••••
Confirm Key	•••••••••

Available parameters are listed below:

Item	Description
Name	Display the name of the WDS profile. Such name is assigned by the router in default.
Enable	Check the box to enable the WDS profile.
Peer MAC Address	If you choose Bridge as the connecting mode, please type in the peer MAC address in these fields.
Security Setting	There are several types for security, **OPEN**, **WEP** and **WPA(TKIP)** and **WPA2(AES)**. The setting you choose here will make the following WEP or WPA key field valid or not. Choose one of the types for the router.  **WEP –** If you choose such type, you have to type the same encryption key configured in **Wireless LAN>>General Setup**. **WPA (TKIP)** and **WPA2(AES) -** You can set the encryption mode as WPA or WPA2 to establish your WDS system between AP and the router. Type 8 ~ 63 ASCII characters or 64 hexadecimal digits leading by “0x”.
Key	Such function is available when WEP/WPA is selected as Security Setting. The format of WEP Key is restricted to 5 ASCII characters or 10 hexadecimal values in 64-bit encryption level, or

	restricted to 13 ASCII characters or 26 hexadecimal values in 128-bit encryption level. The allowed content is the ASCII characters from 33(!) to 126(~) except '#' and ',' .
Confirm Key	Such function is available when WEP/WPA is selected as Security Setting. Type the encryption key again for confirmation.
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to return to previous web page.

3. After finished the settings above, click **Apply** to save the settings.



Mode Bridge

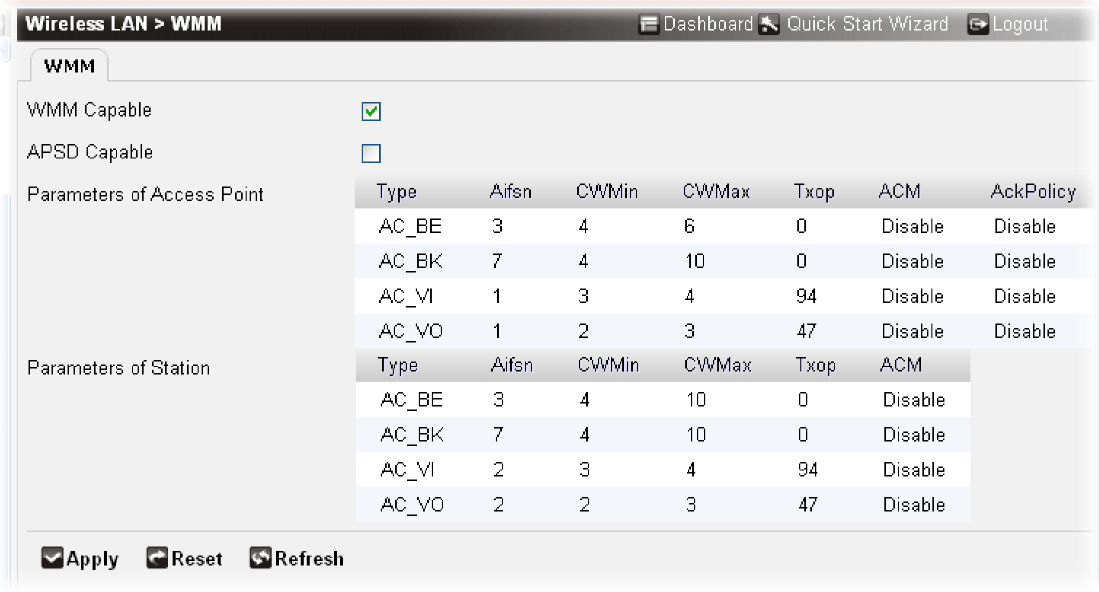
WDS

Name	Enable	Peer MAC Address
WDS1	Disable	00:00:00:00:00:01
WDS2	Enable	00:00:00:00:00:02
WDS3	Disable	00:00:00:00:00:03
WDS4	Disable	00:00:00:00:00:04

4.2.6 WMM

WMM is an abbreviation of Wi-Fi Multimedia. It defines the priority levels for four access categories derived from 802.1d (prioritization tabs). The categories are designed with specific types of traffic, voice, video, best effort and low priority data. There are four accessing categories - AC_BE , AC_BK, AC_VI and AC_VO for WMM.

APSD (automatic power-save delivery) is an enhancement over the power-save mechanisms supported by Wi-Fi networks. It allows devices to take more time in sleeping state and consume less power to improve the performance by minimizing transmission latency.



WMM Capable ☑

APSD Capable ☐

Parameters of Access Point

Type	Aifsn	CWMin	CWMax	Txop	ACM	AckPolicy
AC_BE	3	4	6	0	Disable	Disable
AC_BK	7	4	10	0	Disable	Disable
AC_VI	1	3	4	94	Disable	Disable
AC_VO	1	2	3	47	Disable	Disable

Parameters of Station

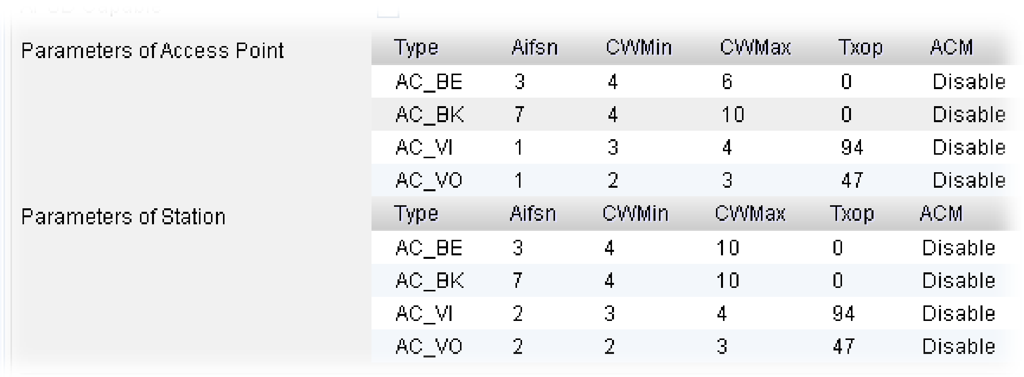
Type	Aifsn	CWMin	CWMax	Txop	ACM
AC_BE	3	4	10	0	Disable
AC_BK	7	4	10	0	Disable
AC_VI	2	3	4	94	Disable
AC_VO	2	2	3	47	Disable

Available parameters are listed below:

Item	Description
WMM Capable	To apply WMM parameters for wireless data transmission, please check this box.
APSD Capable	The default setting is not enabled.
Parameters of Access Point / Parameters of Station	Display the value for each parameter.
Apply	Click it to save the settings.
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to clear current settings and return to the settings saved previously.

To edit the parameter of Access Point or Station, please do the following:

1. Move your mouse cursor on the parameter of Access Point or Station you want to edit and click on it.



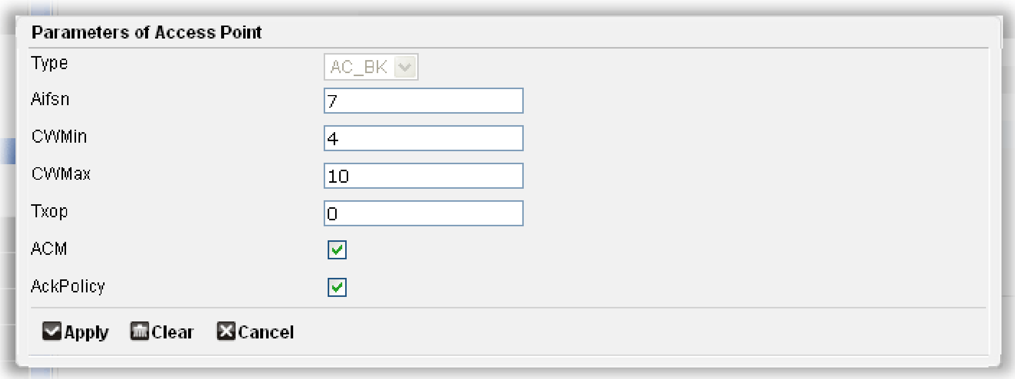
Parameters of Access Point

Type	Aifsn	CWMin	CWMax	Txop	ACM
AC_BE	3	4	6	0	Disable
AC_BK	7	4	10	0	Disable
AC_VI	1	3	4	94	Disable
AC_VO	1	2	3	47	Disable

Parameters of Station

Type	Aifsn	CWMin	CWMax	Txop	ACM
AC_BE	3	4	10	0	Disable
AC_BK	7	4	10	0	Disable
AC_VI	2	3	4	94	Disable
AC_VO	2	2	3	47	Disable

2. The following page will appear immediately.



Parameters of Access Point

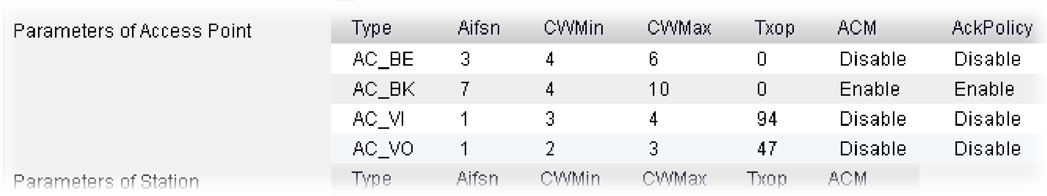
Type	AC_BK
Aifsn	7
CWMin	4
CWMax	10
Txop	0
ACM	☑
AckPolicy	☑

Available parameters are listed below:

Item	Description
Type	Display the name type of the parameter. Such name is defined by the router in default.
Aifsn	It controls how long the client waits for each data transmission. Please specify the value ranging from 1 to 15. Such parameter will influence the time delay for WMM accessing categories. For the service of voice or video image, please set small value for AC_VI and AC_VO categories For the service of e-mail or web browsing, please set large value for AC_BE and AC_BK categories.
CWMin/CWMax	**CWMin** means contention Window-Min and **CWMax** means contention Window-Max. Please specify the value ranging from 1 to 15. Be aware that CWMax value must be greater than CWMin or equals to CWMin value. Both values will influence the time delay for WMM accessing categories. The difference between AC_VI and AC_VO categories must be smaller; however, the difference between AC_BE and AC_BK categories must be greater.
Txop	It means transmission opportunity. For WMM categories of AC_VI and AC_VO that need higher priorities in data transmission, please set greater value for them to get highest transmission opportunity. Specify the value ranging from 0 to 65535.

ACM	It is an abbreviation of Admission control Mandatory. It can restrict stations from using specific category class if it is checked. **Note:** Vigor2760 provides standard WMM configuration in the web page. If you want to modify the parameters, please refer to the Wi-Fi WMM standard specification.
AckPolicy	**"**Uncheck" (default value) the box means the AP router will answer the response request while transmitting WMM packets through wireless connection. It can assure that the peer must receive the WMM packets. "Check" the box means the AP router will not answer any response request for the transmitting packets. It will have better performance with lower reliability.

3. After finished the settings above, click **Apply** to save the settings.



Parameters of Access Point	Type	Aifsn	CWMin	CWMax	Txop	ACM	AckPolicy
	AC_BE	3	4	6	0	Disable	Disable
	AC_BK	7	4	10	0	Enable	Enable
	AC_VI	1	3	4	94	Disable	Disable
	AC_VO	1	2	3	47	Disable	Disable
Parameters of Station	Type	Aifsn	CWMin	CWMax	Txop	ACM	

4. Now, the parameter has been modified.

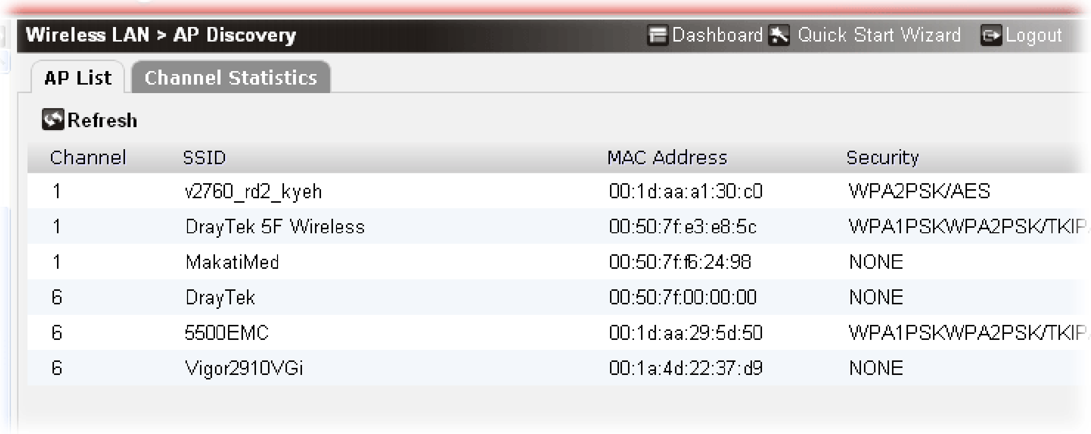
4.2.7 AP Discovery

Vigor router can scan all regulatory channels and find working APs in the neighborhood. Based on the scanning result, users will know which channel is clean for usage. Also, it can be used to facilitate finding an AP for a WDS link. Notice that during the scanning process (about 5 seconds), no client is allowed to connect to Vigor.

This page is used to scan the existence of the APs on the wireless LAN. Yet, only the AP which is in the same channel of this router can be found. Please click **Refresh** to discover all the connected APs.

4.2.7.1 AP List

This page will **scan automatically** to find out surrounding APs and display the scanned AP with SSID, channel, MAC address and Security settings.



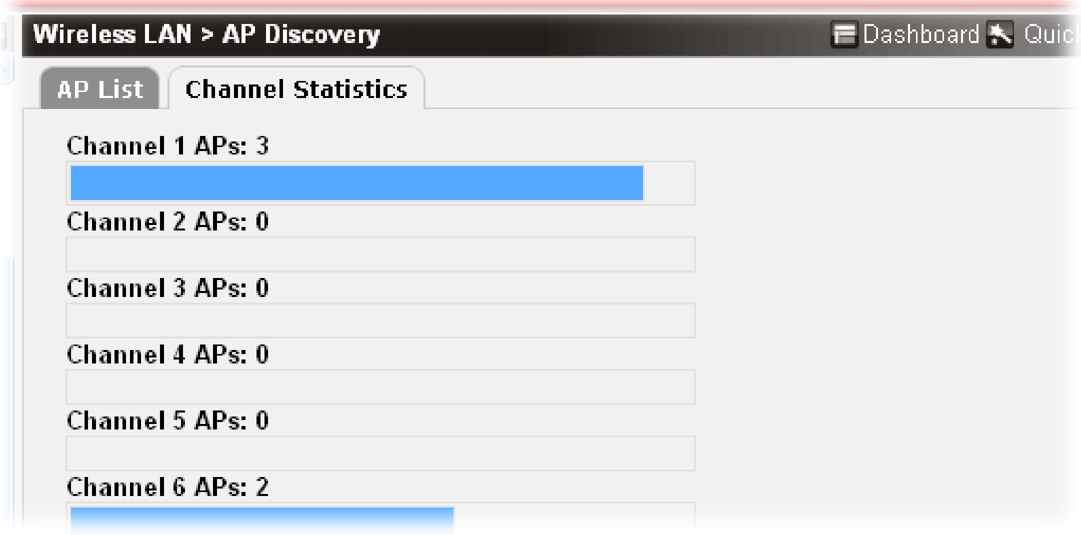
Channel	SSID	MAC Address	Security
1	v2760_rd2_kyeh	00:1d:aa:a1:30:c0	WPA2PSK/AES
1	DrayTek 5F Wireless	00:50:7f:e3:e8:5c	WPA1PSKWPA2PSK/TKIP
1	MakatiMed	00:50:7f:f6:24:98	NONE
6	DrayTek	00:50:7f:00:00:00	NONE
6	5500EMC	00:1d:aa:29:5d:50	WPA1PSKWPA2PSK/TKIP
6	Vigor2910VGi	00:1a:4d:22:37:d9	NONE

Each item will be explained as follows:

Item	Description
Refresh	Click it to fresh the web page.
Channel	Display the channel sued by the scanned AP.
SSID	Display the SSID of the scanned AP.
MAC Address	Display the MAC address of the scanned AP.
Security	Display the type of the security used by such profile.
Signal Ratio	Display the signal strength of the AP.

4.2.7.2 Channel Statistics

It displays the statistics for the channels used by the APs scanned by Vigor2760.



Channel 1 APs: 3

Channel 2 APs: 0

Channel 3 APs: 0

Channel 4 APs: 0

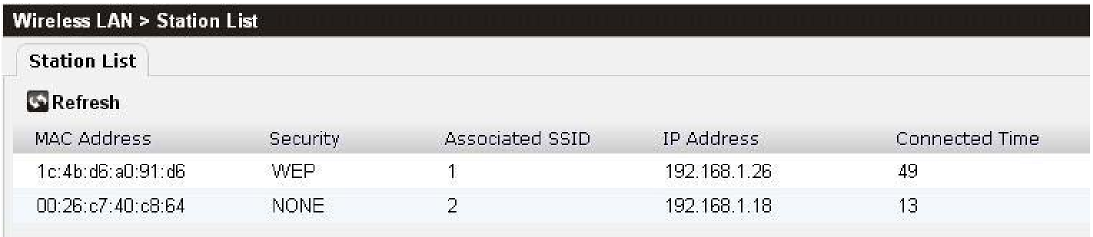
Channel 5 APs: 0

Channel 6 APs: 2

4.2.8 Station List

The router can be treated as an AP which allows the wireless stations connecting to Internet via Vigor router.

Station List provides the knowledge of connecting wireless clients now along with its status code. There is a code summary below for explanation.



MAC Address	Security	Associated SSID	IP Address	Connected Time
1c:4b:d6:a0:91:d6	WEP	1	192.168.1.26	49
00:26:c7:40:c8:64	NONE	2	192.168.1.18	13

Each item will be explained as follows:

Item	Description
Refresh	Click it to fresh the web page.
MAC Address	Display the channel sued by the scanned AP.
Security	Display the security mode used by the wireless station.
Associated SSID	Display which SSID associated with the station (client). For example, if station1 (1c:4b:d6:a0:91:d6) connects to the router through SSID1, the value displayed will be "1". If station2 (00:26:c7:40:c8:64) connects to the router through SSID2, the value displayed here will be "2" 。
IP Address	Display the IP address of the wireless station connecting to Vigor2760.
Connected Time	Display the duration of the wireless stations connecting to Vigor2760.

4.3 Firewall

4.3.1 Basics for Firewall

While the broadband users demand more bandwidth for multimedia, interactive applications, or distance learning, security has been always the most concerned. The firewall of the Vigor router helps to protect your local network against attack from unauthorized outsiders. It also restricts users in the local network from accessing the Internet. Furthermore, it can filter out specific packets that trigger the router to build an unwanted outgoing connection.

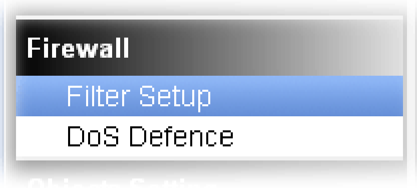
4.3.1.1 Denial of Service (DoS) Defense

The **DoS Defense** functionality helps you to detect and mitigate the DoS attack. The attacks are usually categorized into two types, the flooding-type attacks and the vulnerability attacks. The flooding-type attacks will attempt to exhaust all your system's resource while the vulnerability attacks will try to paralyze the system by offending the vulnerabilities of the protocol or operation system.

The **DoS Defense** function enables the Vigor router to inspect every incoming packet based on the attack signature database. Any malicious packet that might duplicate itself to paralyze the host in the secure LAN will be strictly blocked and a Syslog message will be sent as warning, if you set up Syslog server.

Also the Vigor router monitors the traffic. Any abnormal traffic flow violating the pre-defined parameter, such as the number of thresholds, is identified as an attack and the Vigor router will activate its defense mechanism to mitigate in a real-time manner.

Below shows the menu items for Firewall.



4.3.2 Filter Setup

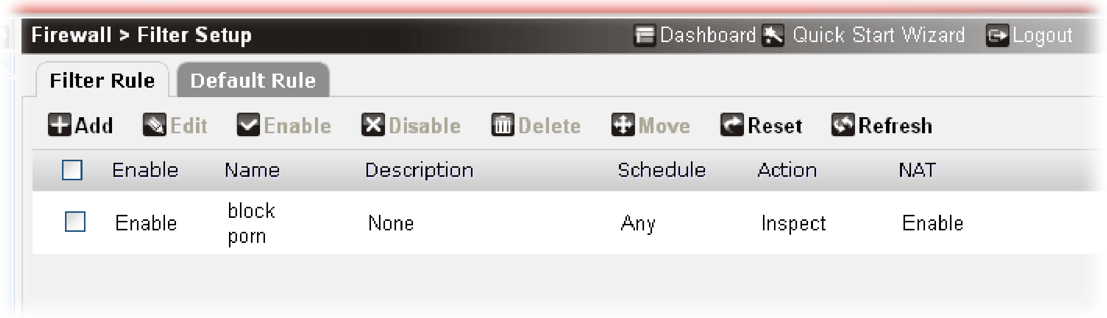
Filter Setup allows you to adjust settings of IP Filter and common options.

The Filter Setup contains Filter Rule and Default Rule configuration pages. When there is no filter rule existed, the incoming packet will be filtered by the default filter rule.

4.3.2.1 Filter Rule

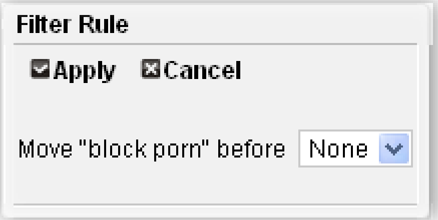
The mode of the firewall operation is that the router will filter the incoming packets from outside based on the applied filter rules one by one until matching with the set conditions. Once the packet matches with the first filter rule, the other filter rules will be ignored and will not be applied to the packet. Therefore, the sequence of the filter rules influence the operation of the firewall significantly.

You can set several filter rules.



□	Enable	Name	Description	Schedule	Action	NAT
□	Enable	block porn	None	Any	Inspect	Enable

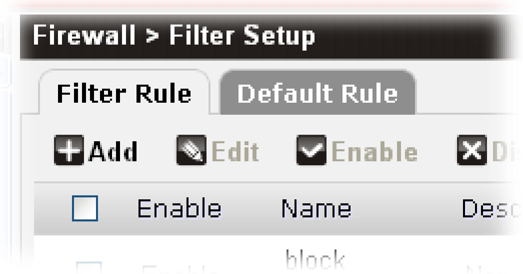
Each item will be explained as follows:

Item	Description
Add	Create a new rule profile.
Edit	Modify the selected rule profile. You have to check the rule you want and then click this button to open the edit window for modification.
Enable	Click it to enable the selected rule profile.
Disable	Click it to disable the selected rule profile. If any rule profile is disabled, it will not be available for selected by other applications.
Delete	Remove the selected rule. You have to check the rule you want and then click this button.
Move	Move the selected rule to a new place.  Move "block porn" before None
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to fresh the web page.
Enable	Display the activation status of the rule. **Enable** – The rule is activated. **Disable** – The rule is not activated.
Name	Display the name of the rule profile.
Description	Display filter set comments/description.
Schedule	Display the profile(s) that the filter rule will be valid at certain time interval
Action	Display the action to be taken when packets match the rule.
NAT	Display the activation status of NAT for such profile.

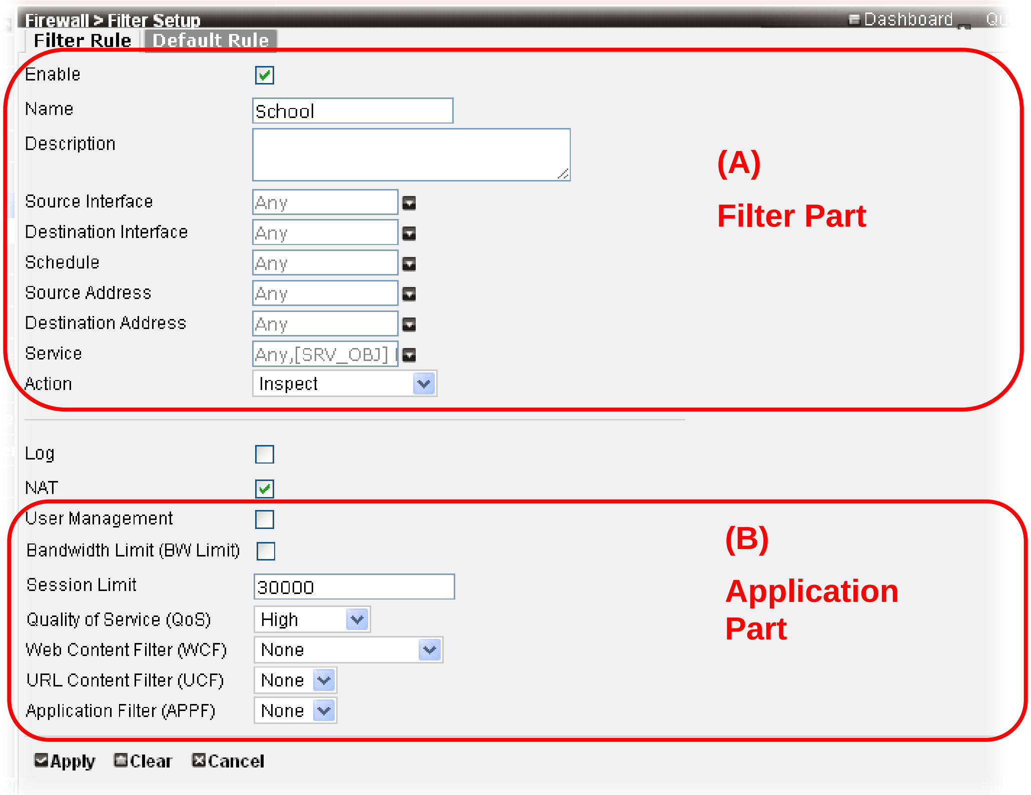
	Enable – NAT is activated. **Disable** –NAT is not activated.

To add a filter rule profile, please do the following:

1. Click **Add.**



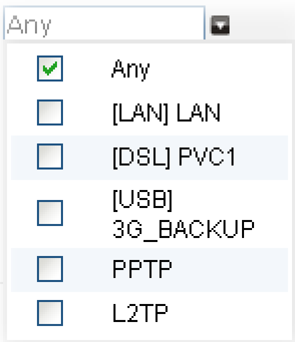
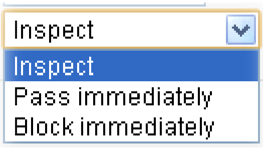
2. The following page appears.

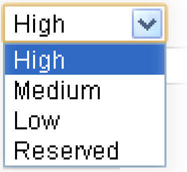


Enable	☑
Name	School
Description	
Source Interface	Any
Destination Interface	Any
Schedule	Any
Source Address	Any
Destination Address	Any
Service	Any,[SRV_OBJ]
Action	Inspect
Log	□
NAT	☑
User Management	□
Bandwidth Limit (BW Limit)	□
Session Limit	30000
Quality of Service (QoS)	High
Web Content Filter (WCF)	None
URL Content Filter (UCF)	None
Application Filter (APPF)	None

Available parameters are listed below:

Item	Description
(A) Filter Part	
Enable	Check the box to enable the profile.
Name	Type the name of the rule profile.
Description	Enter filter set comments/description. Maximum length is 14-character long.
Source Interface / Destination Interface	Set the direction of packet flow. Use the drop down list to choose the source interface and the destination interface.

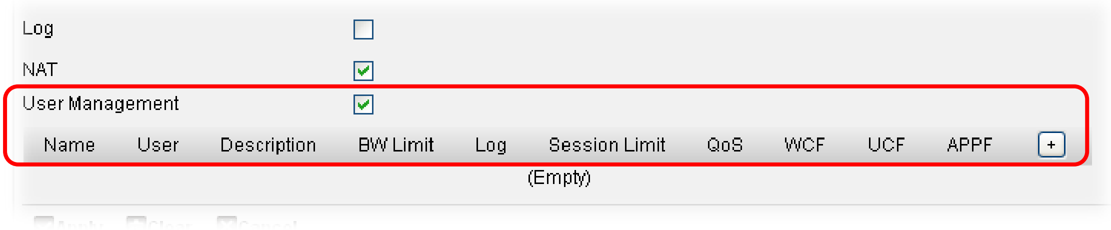
	 Any ☑ Any □ [LAN] LAN □ [DSL] PVC1 □ [USB] 3G_BACKUP □ PPTP □ L2TP
Schedule	Set PCs on LAN to work at certain time interval only. You may choose up to 4 schedules out of the 15 schedules pre-defined in **Applications** >> **Schedule** setup. The default setting of this field is **Any** and the function will always work.
Source Address / Destination Address	Set the IP address (es) which will be filtered by such rule. Use the drop down list to choose the source address and the destination address.
Service	Check the box(es) from the drop down list to choose suitable service type.
Action	Choose the action to be taken when packets match the rule. **Inspect –** The settings of filter rule can be divided into two parts, (A) Filter Part and (B) Application Part. When the **Action** is set with **Inspect**, such filter rule will check the incoming packets with the conditions listed in (A) first and then (B). If the packets doest not match with the conditions listed in (A) Filter Part, they will not be filtered by (B) but filtered by next filter rule. **Block Immediately** - Packets matching the rule settings in (A) Filter Part will be dropped immediately. **Pass Immediately** - Packets matching the rule settings in (A) Filter Part will be passed immediately. 
Log	The filtered information for any packet matches with such rule will be recorded in Syslog if such box is checked.
NAT	The NAT function will be enabled when the packet matches with such rule if such box is checked.
(B) Application Part - it takes effect when **Inspect** is chosen as **Action**.	
User Management	If you check this box, you can add more filter profiles with identity authentication. All the incoming packets must be filtered with identity authentication first. If the packets doest not pass the identity authentication, they will not be filtered with current filter rule but filtered by next filter rule directly.

Bandwidth Limit (BW Limit)	Check this box to apply the bandwidth limit. **TX Bandwidth (KB/s)** – Type a value for outgoing traffic. **RX Bandwidth (KB/s)** – Type a value for incoming traffic.
Session Limit	The number typed here is the total sessions of the packets that do not match the filter rule configured in this page. The default setting is 30000.
Quality of Service (QoS)	Choose one of the QoS class to be applied as firewall rule. High indicates highest bandwidth ratio.  For detailed information of setting QoS, please refer to the related section later.
Web Content Filter (WCF)	Select one of the **Web Content Filter** profile settings (created in **CSM>> Web Content Filter**) for applying with this router. Please set at least one profile for anti-virus in **CSM>> Web Content Filter** web page first.
URL Content Filter (UCF)	Select one of the **URL Content Filter** profile settings (created in **CSM>> URL Content Filter**) for applying with this router. Please set at least one profile for choosing in **CSM>> URL Content Filter** web page first.
Application Filter (APPF)	Select an **APPF** profile (created in **CSM>> Application Filter**) for global IM/P2P application blocking. All the hosts in LAN must follow the standard configured in the **APPF** profile selected here.
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to return to previous web page.

3. After finished the settings above, click **Apply** to save the settings. A new filter rule profile has been created.

Additional Information for User Management

When the box of **User Management** is checked, the router allows you to add more filter settings. Refer to the following figure.



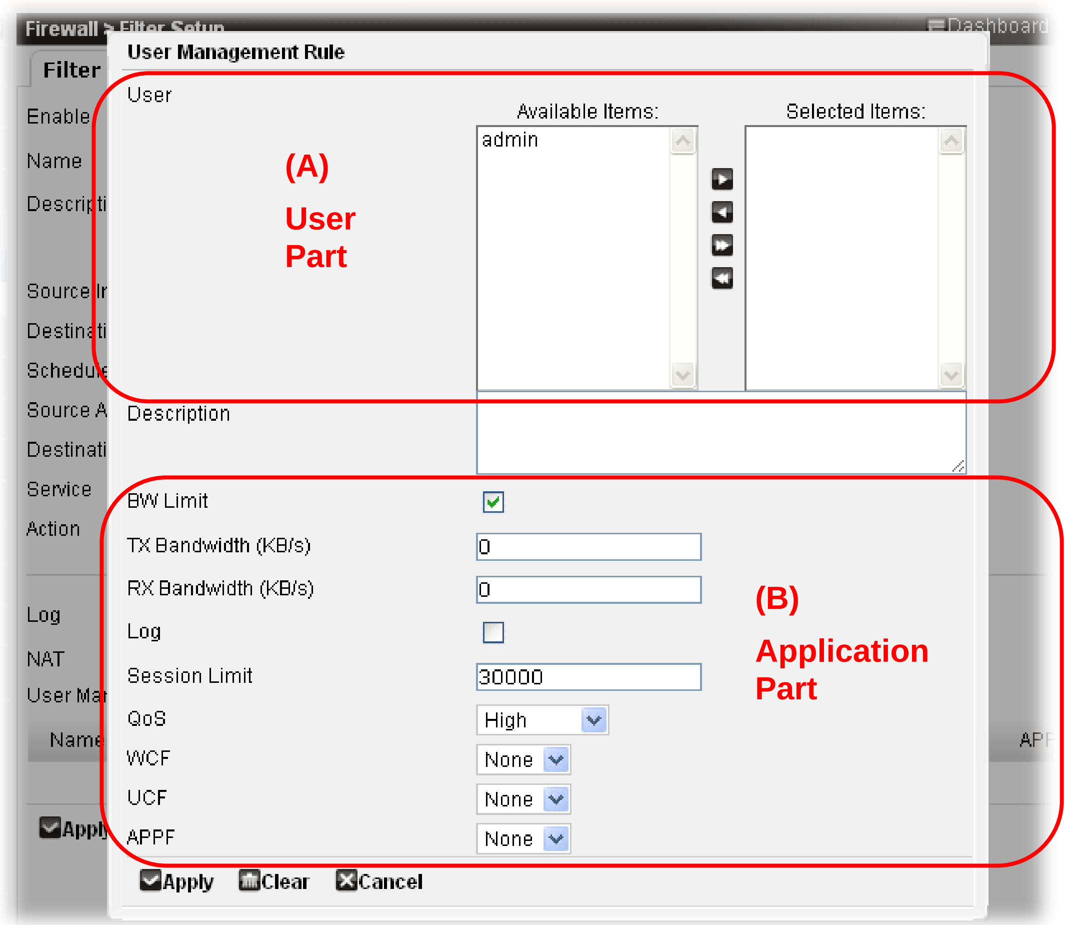
Log □

NAT ☑

User Management ☑

Name	User	Description	BW Limit	Log	Session Limit	QoS	WCF	UCF	APPF	+
					(Empty)					

Click the button + on the right side to open the following setting page.



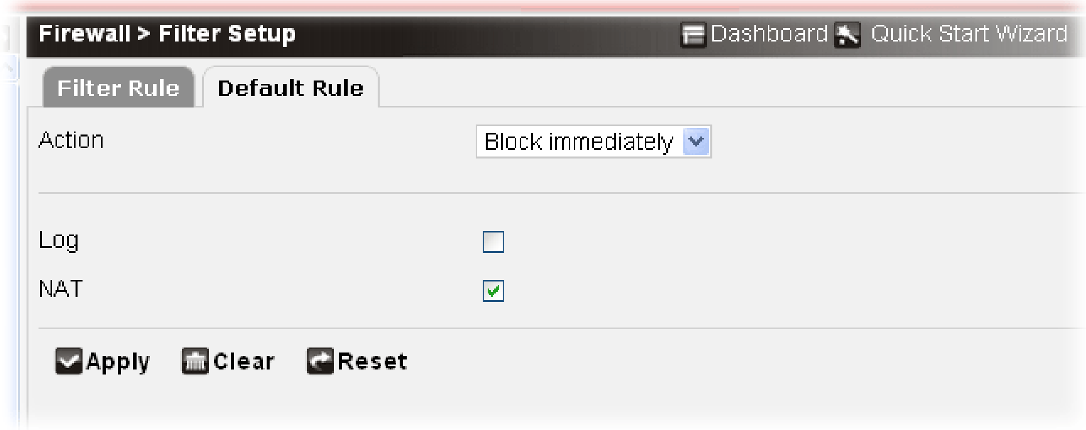
User Management Rule

User	Available Items: admin Selected Items:
Description	
BW Limit	☑
TX Bandwidth (KB/s)	0
RX Bandwidth (KB/s)	0
Log	□
Session Limit	30000
QoS	High
WCF	None
UCF	None
APPF	None

All the incoming packets must be filtered with settings in (A) User Part for identity authentication first then (B) Application Part. If the packets doest not pass the identity authentication, they will not be filtered with current filter rule (B) but filtered by next filter rule directly.

4.3.2.2 Default Rule

When there is no filter rule existed or the incoming packets cannot match with any filter conditions, they will be filtered by the default rule configured in this page.



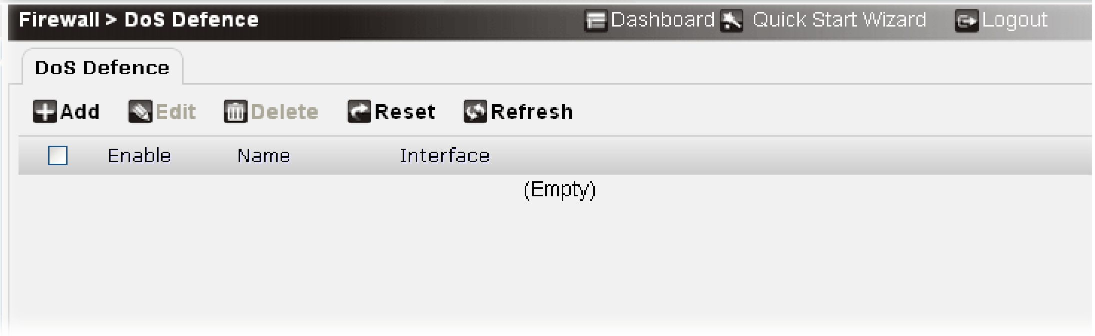
Action	Block immediately
Log	□
NAT	☑

Available parameters are listed below:

Item	Description
Action	Choose the action to be taken when packets match the default rule.
Log	Check the box to record related information on Syslog.
NAT	Check the box to enable the NAT function.
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Reset	Click it to retrieve the default settings of this page.

4.3.3 DoS Defence

As a sub-functionality of IP Filter/Firewall, there are **several** types of detect/ defense function in the **DoS Defence** setup. The DoS Defence functionality is disabled for default.

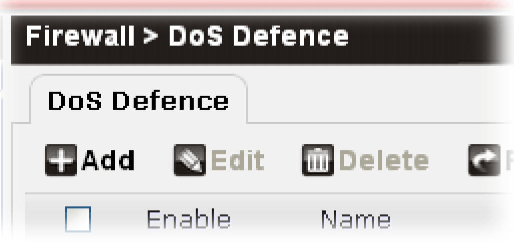


Each item will be explained as follows:

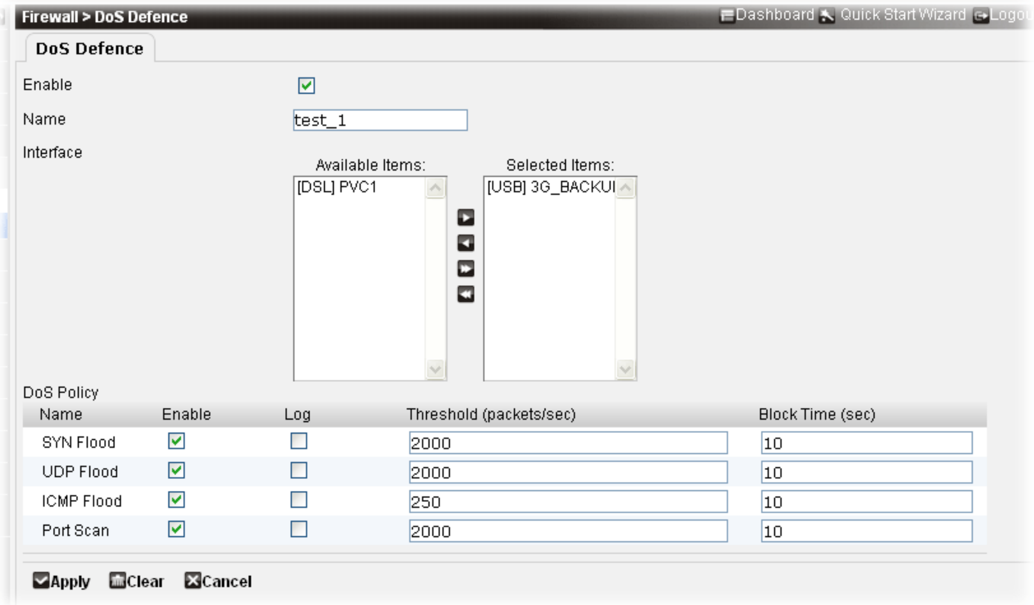
Item	Description
Add	Create a new rule profile.
Edit	Modify the selected rule profile. You have to check the rule you want and then click this button to open the edit window for modification.
Delete	Remove the selected rule. You have to check the rule you want and then click this button.
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to fresh the web page.
Enable	Display the activation status of the rule. **Enable** – The rule is activated. **Disable** – The rule is not activated.
Name	Display the name of the rule profile.
Interface	Display the interface used for such DoS defence profile.

To add a DoS Defence profile, please do the following:

1. Click **Add.**



2. The following page appears.



Enable	☑
Name	test_1
Interface	Available Items: [DSL] PVC1 Selected Items: [USB] 3G_BACKUI

DoS Policy

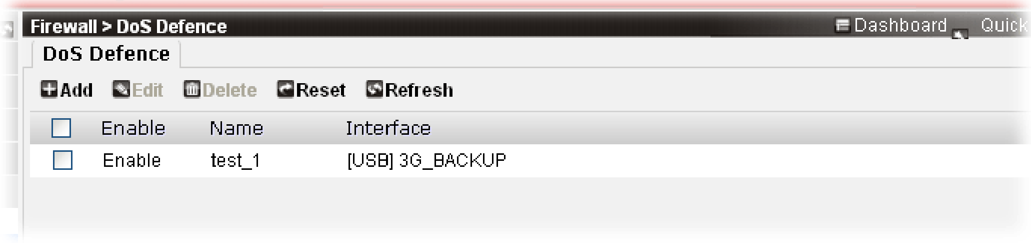
Name	Enable	Log	Threshold (packets/sec)	Block Time (sec)
SYN Flood	☑	□	2000	10
UDP Flood	☑	□	2000	10
ICMP Flood	☑	□	250	10
Port Scan	☑	□	2000	10

Available parameters are listed below:

Item	Description
Enable	Check the box to enable the profile.
Name	Type the name of the rule profile.
Interface	Choose suitable interfaces (configured in **Network>>WAN**) for applying the DoS Defence. **Available Items** – This filed lists all the available WAN interfaces. **Selected Items** – This field lists the interface chosen for applying such Dos Defence profile.
DoS Policy	**Name** – Display the name of different DoS policy. **Enable** – Check the box to activate the defence function. **Log** – Check the box to send the DoS defence data to Syslog. **Threshold** – Set a value for each DoS policy. **Block time** – Set a timeout value for each DoS policy.
SYN Flood	Check the box to activate the SYN flood defense function. Once detecting the Threshold of the TCP SYN packets from

	the Internet has exceeded the defined value, the Vigor router will start to randomly discard the subsequent TCP SYN packets for a period defined in Timeout. The goal for this is prevent the TCP SYN packets’ attempt to exhaust the limited-resource of Vigor router. By default, the threshold and block time values are set to 2000 packets per second and 10 seconds, respectively.
UDP Flood	Check the box to activate the UDP flood defense function. Once detecting the Threshold of the UDP packets from the Internet has exceeded the defined value, the Vigor router will start to randomly discard the subsequent UDP packets for a period defined in Timeout. The default setting for threshold and block time values are 2000 packets per second and 10 seconds, respectively.
ICMP Flood	Check the box to activate the ICMP flood defense function. Similar to the UDP flood defense function, once detecting the Threshold of ICMP packets from Internet has exceeded the defined value, the router will discard the ICMP echo requests coming from the Internet. The default setting for threshold and block time values are 250 packets per second and 10 seconds, respectively.
Port Scan	Port Scan attacks the Vigor router by sending lots of packets to many ports in an attempt to find ignorant services would respond. Check the box to activate the Port Scan detection. Whenever detecting this malicious exploration behavior by monitoring the port-scanning Threshold rate, the Vigor router will send out a warning. By default, the Vigor router sets the threshold and block time values are 2000 packets per second and 10 seconds, respectively.
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to return to previous web page.

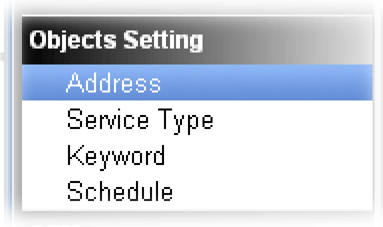
3. After finished the settings above, click **Apply** to save the settings then click **Cancel** to return to previous page.



□	Enable	Name	Interface
□	Enable	test_1	[USB] 3G_BACKUP

4.4 Objects Setting

IP address, service type, keyword and schedule can be pre-defined as object setting. The object can be applied into different setting pages to simplify the setting procedure.

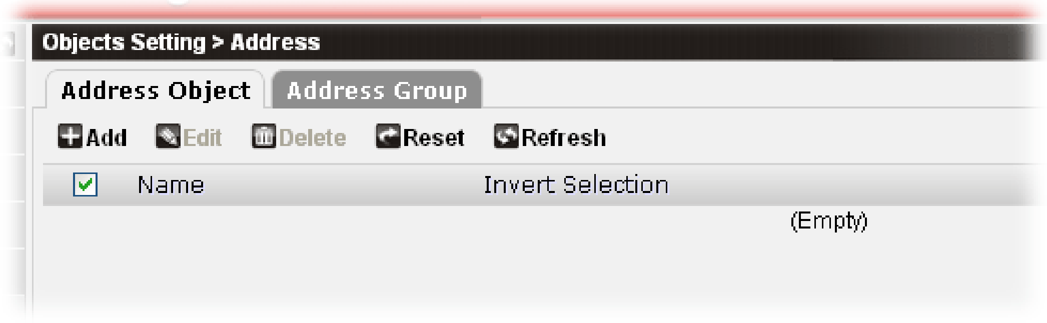


4.4.1 Address

For IPs in a range usually will be applied in configuring router's settings, we can define them with ***objects*** and bind them with ***groups*** for using conveniently. Later, we can select that object/group for applying it. For example, all the IP addresses in the same department can be defined with an IP object (a range of IP address).

4.4.1.1 Address Object

This page is simply used to define the IP address object.

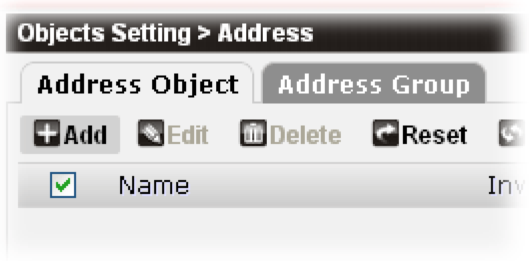


Each item will be explained as follows:

Item	Description
Add	Create a new object profile.
Edit	Modify the selected object profile. You have to check the object you want and then click this button to open the edit window for modification.
Delete	Remove the selected object. You have to check the object you want and then click this button.
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to fresh the web page.
Name	Display the name of the profile.
Invert Selection	Display if such function is enabled or disabled.

To create a new object profile, please do the following:

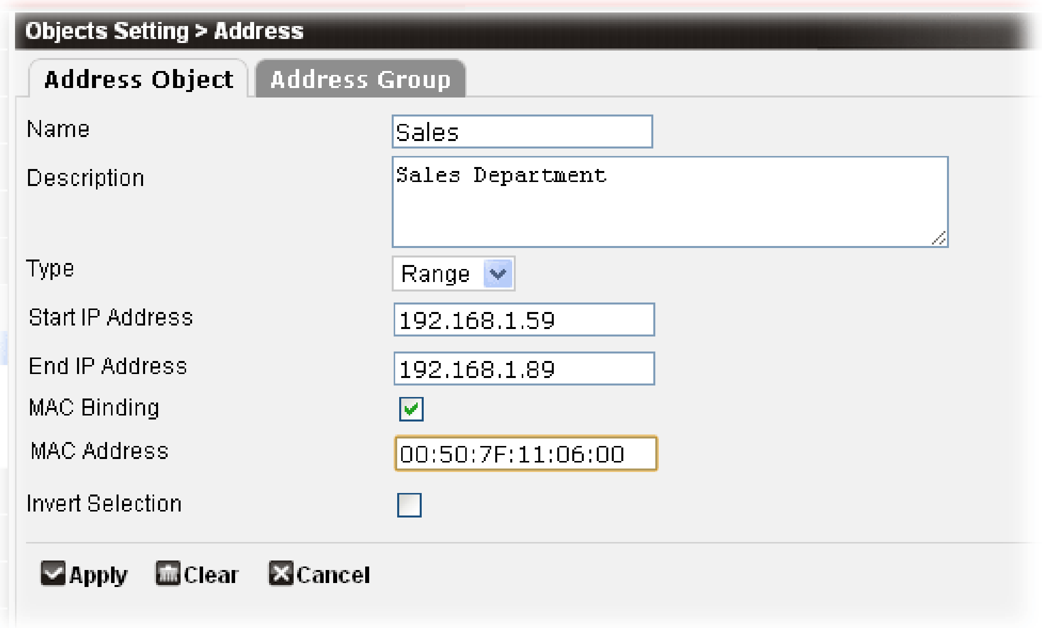
1. Click the **Add** button.


Objects Setting > Address

Address Object | Address Group

☑ Name In

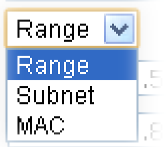
2. The following setting page will appear.

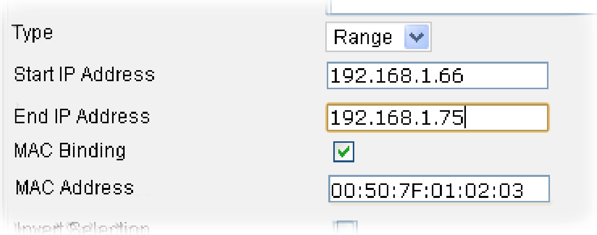
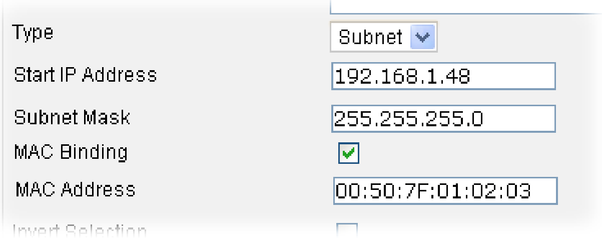
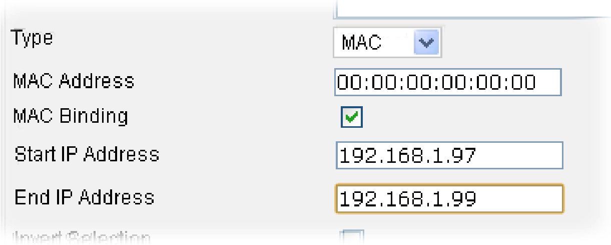

Objects Setting > Address

Address Object | Address Group

Name	Sales
Description	Sales Department
Type	Range
Start IP Address	192.168.1.59
End IP Address	192.168.1.89
MAC Binding	☑
MAC Address	00:50:7F:11:06:00
Invert Selection	□

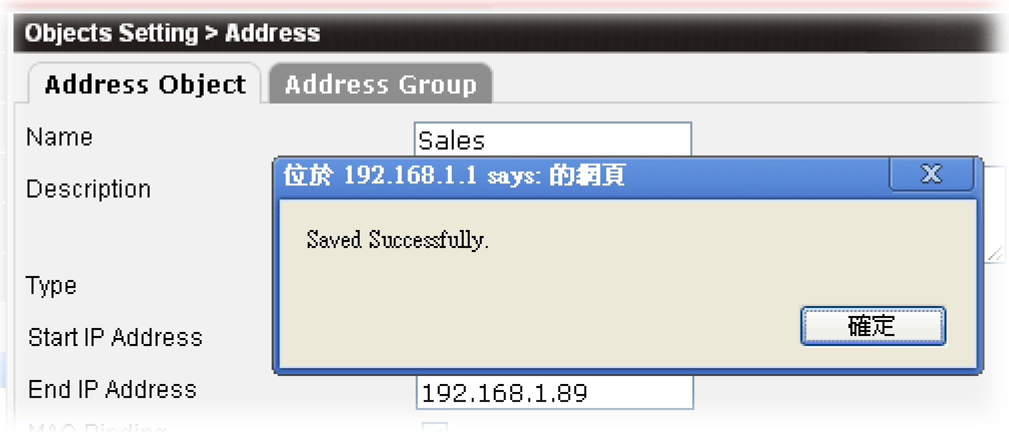
Available parameters are listed below:

Item	Description
Name	Type a name for this profile. Maximum 20 characters are allowed.
Description	Give a brief description for such profile.
Type	Determine the address type for the IP address.  Range Range Subnet MAC **Range** –The object contains several IPs within a range. If you choose this type, you have to specify **Start IP Address** and **End IP Address**. **Subnet** –The object contains one subnet for IP address. If you choose this type, you have to specify **Start IP Address** and the **Subnet Mask**. **MAC**–The object contains MAC address. If you choose this type, you have to specify a **MAC Address.**
Start IP Address	Type the start IP address for Range and Subnet type.

	Note: If you want to specify just a single IP address for the object, you have to set the same IP address in the fields of **Start IP Address** and **End IP Address**.
End IP Address	Type the end IP address if the **Range** type is selected.
Subnet Mask	Type the subnet mask if the **Subnet** type is selected.
MAC Address	Type the MAC address of the network card which will be controlled if the **MAC** type is selected.
MAC Binding	This setting changes slightly based on the Type (Range, Subnet and MAC) you choose. ● If you choose **Range** as the type and check the box of **MAC Binding**, you have to specify a MAC Address of this router in the related field.  Type: Range Start IP Address: 192.168.1.66 End IP Address: 192.168.1.75 MAC Binding: ☑ MAC Address: 00:50:7F:01:02:03 Invert Selection: □ The router will inspect if the MAC address of the incoming packets matches with the specified MAC address or not. If not, the packet will be **block**. ● If you choose **Subnet** as the type and check the box of **MAC Binding**, you have to specify a MAC Address of this router in the related field.  Type: Subnet Start IP Address: 192.168.1.48 Subnet Mask: 255.255.255.0 MAC Binding: ☑ MAC Address: 00:50:7F:01:02:03 Invert Selection: □ The router will inspect if the MAC address of the incoming packets matches with the specified MAC address or not. If not, the packet will be **block**. ● If you choose **MAC** as the type and check the box of **MAC Binding**, you have to specify a range for IP address in the related field (Start IP Address and End IP Address).  Type: MAC MAC Address: 00:00:00:00:00:00 MAC Binding: ☑ Start IP Address: 192.168.1.97 End IP Address: 192.168.1.99 Invert Selection: □ If it is checked, and **MAC** is selected as the **Type**, the router will inspect if the IP address of the incoming packets matches with the specified IP address(es) or not. If not, the

	packet will be **block**.
Invert Selection	If it is checked, all the IP addresses except the ones listed above will be applied later while it is chosen.
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to return to previous web page.

3. After finished the settings above, click **Apply** to save the file and wait for the following dialog appears.



Objects Setting > Address

Address Object | Address Group

Name: Sales

Description

Type

Start IP Address

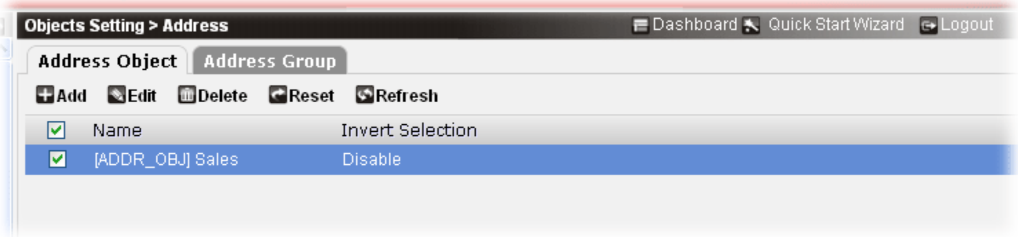
End IP Address: 192.168.1.89

位於 192.168.1.1 says: 的網頁

Saved Successfully.

確定

4. Click **OK**. A new object profile has been created.

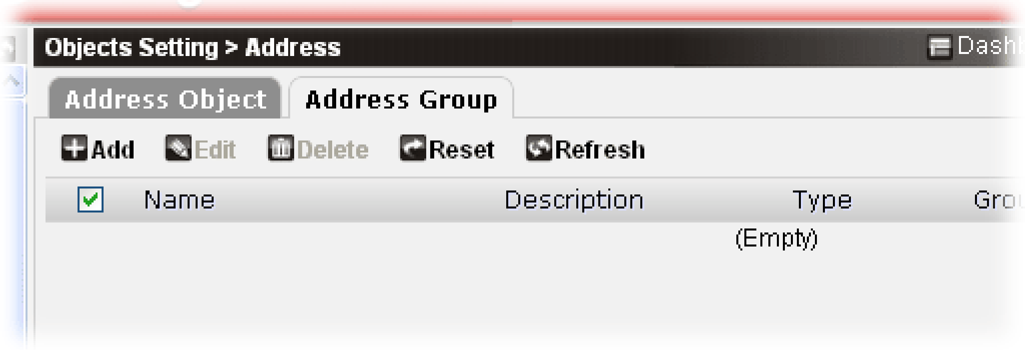


Objects Setting > Address

☑	Name	Invert Selection
☑	[ADDR_OBJ] Sales	Disable

4.4.1.2 Address Group

You can bind several IP address objects into one group.

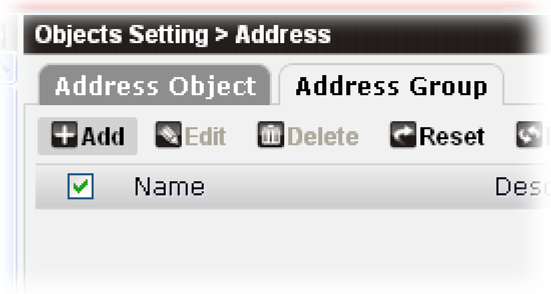


Each item will be explained as follows:

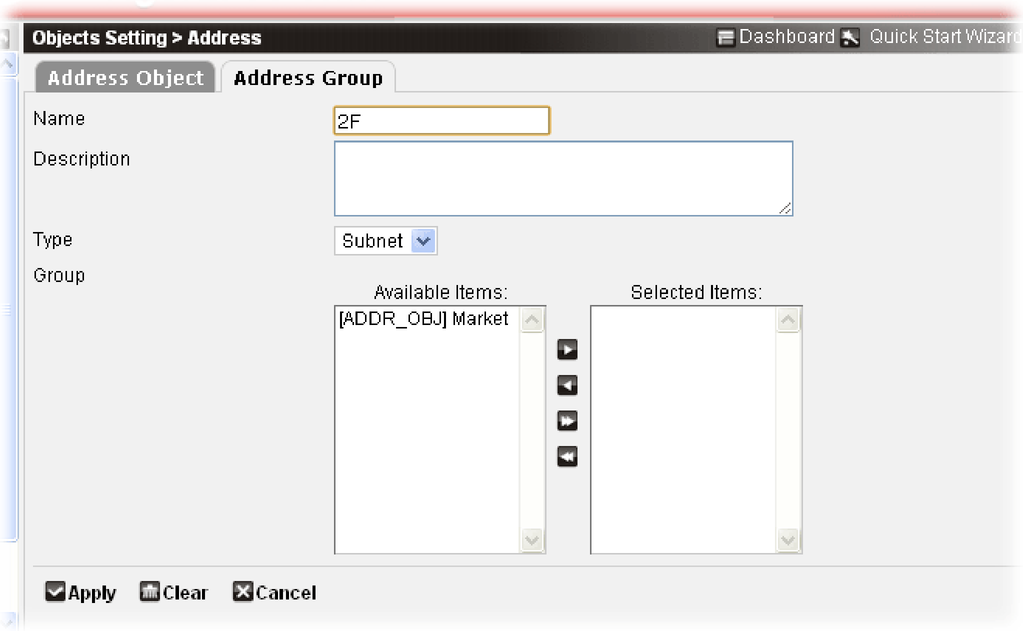
Item	Description
Add	Create a new address group profile.
Edit	Modify the selected address group profile. You have to check the group you want and then click this button to open the edit window for modification.
Delete	Remove the selected address group. You have to check the group you want and then click this button.
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to fresh the web page.
Name	Display the name of the profile.
Description	Display the brief description for such profile.
Type	Display the type (range, MAC or subnet) of the object profile.
Group	Display the IP object profiles grouped under such profile.

To create a new object group profile, please do the following:

1. Click the **Add** button.



2. The following setting page will appear.

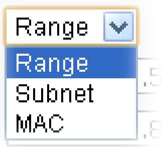


Name: 2F

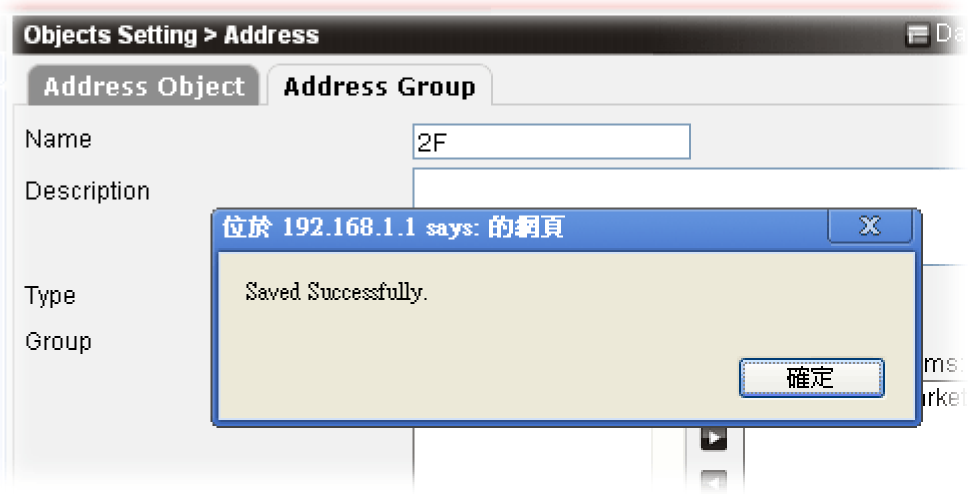
Type: Subnet

[ADDR_OBJ] Market

Available parameters are listed below:

Item	Description
Name	Type a name for this group profile. Maximum 20 characters are allowed.
Description	Give a brief description for such profile.
Type	Choose the type to display the related object profiles.  For example, if **Range** is selected as the **Type**, then all the created **Address Object** profiles based on Range will be listed in **Available Items**.
Group	Use the “>” button to move the selected item listed in Available Items onto Selected Items. **Available Item**s – Display the available object profiles. **Selected Items** – Display the object profiles selected for such group.
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to return to previous web page.

3. After finished the settings above, click **Apply** to save the file and wait for the following dialog appears.



Name: 2F

Description

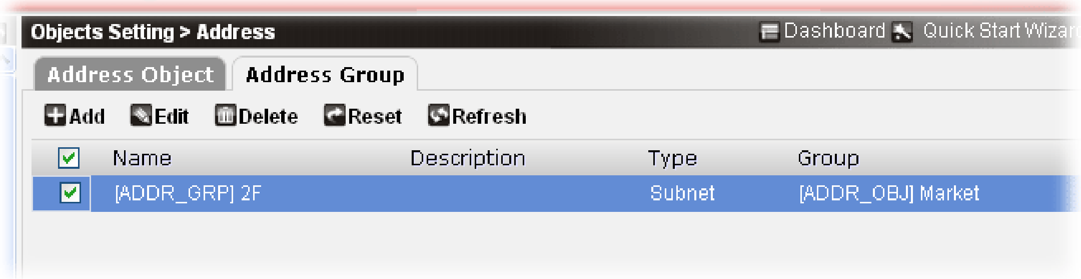
Type

Group

位於 192.168.1.1 says: 的網頁

Saved Successfully.

4. Click **OK**. A new group profile has been created.



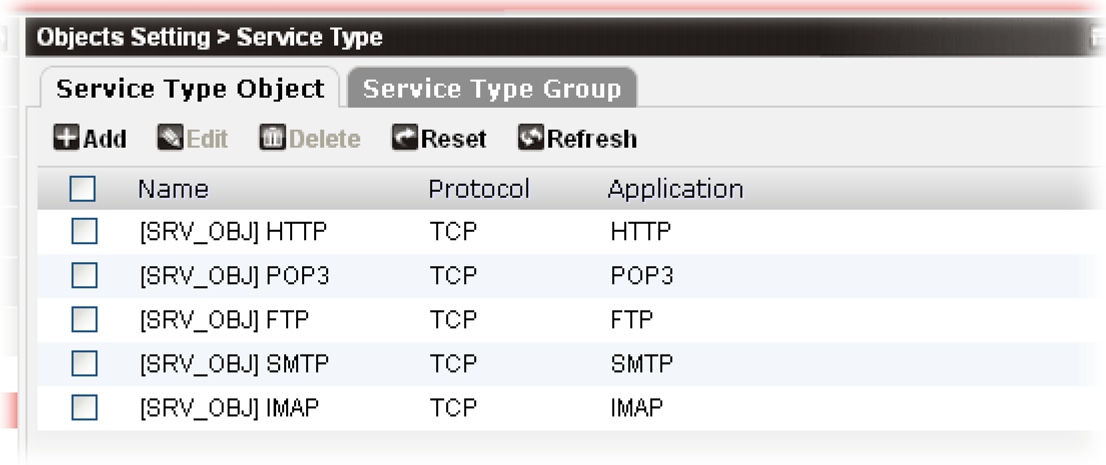
☑	Name	Description	Type	Group
☑	[ADDR_GRP] 2F		Subnet	[ADDR_OBJ] Market

4.4.2 Service Type

Service types with specified ports are usually applied in configuring router's settings. For the convenience, this feature offers several default set of service type with port value for you to use. Moreover, it allows you to define other service types by yourself.

4.4.2.1 Service Type Object

This page is simply used to define the service type object.



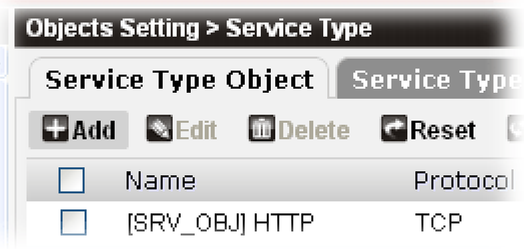
□	Name	Protocol	Application
□	[SRV_OBJ] HTTP	TCP	HTTP
□	[SRV_OBJ] POP3	TCP	POP3
□	[SRV_OBJ] FTP	TCP	FTP
□	[SRV_OBJ] SMTP	TCP	SMTP
□	[SRV_OBJ] IMAP	TCP	IMAP

Each item will be explained as follows:

Item	Description
Add	Create a new service type profile.
Edit	Modify the selected service type profile. You have to check the service type you want and then click this button to open the edit window for modification.
Delete	Remove the selected service type. You have to check the service type you want and then click this button.
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to fresh the web page.
Name	Display the name of the profile.
Protocol	Display the protocol that this profile applies to.
Application	Display the type (e.g., HTTP, POP3 and etc.) of such profile.

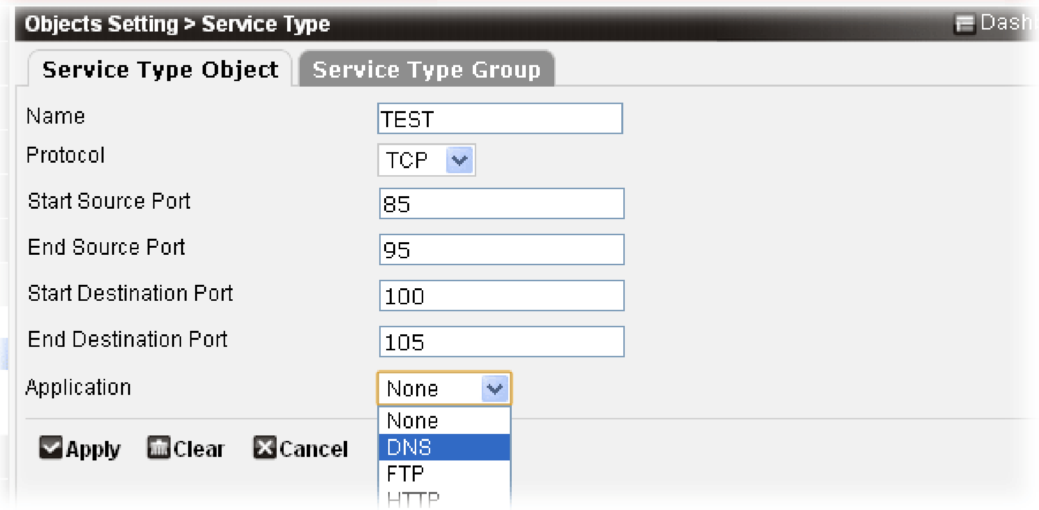
To create a new service type object profile, please do the following:

1. Click the **Add** button.



□	Name	Protocol
□	[SRV_OBJ] HTTP	TCP

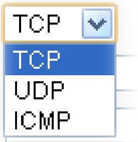
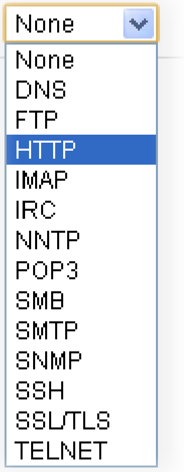
2. The following setting page will appear.



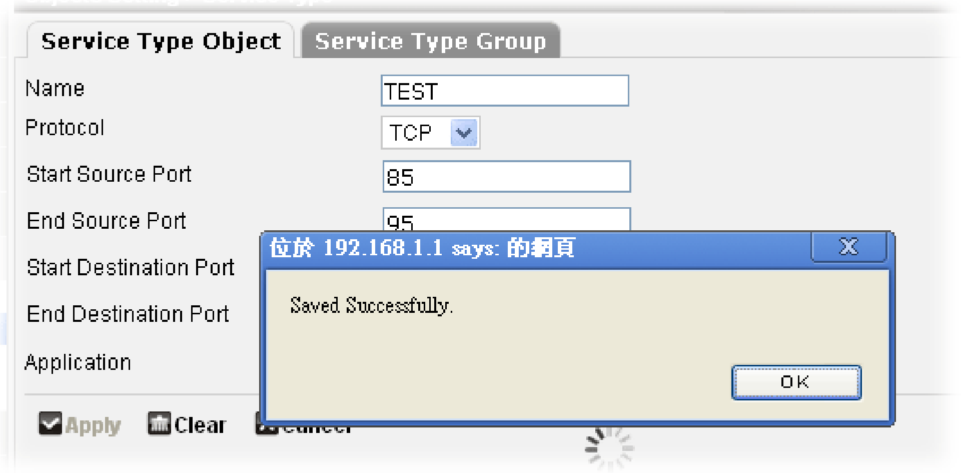
Name	TEST
Protocol	TCP
Start Source Port	85
End Source Port	95
Start Destination Port	100
End Destination Port	105
Application	None

Available parameters are listed below:

Item	Description
Name	Type a name for this profile. Maximum 15 characters are allowed.
Protocol	Specify the protocol(s) which this profile will apply to.

	
Start/End Source Port	**Source Port** and the **Destination Port** column are available for TCP/UDP protocol. It can be ignored for other protocols. Type the port values for both start source port and end source port respectively.
Start/End Destination Port	Type the port values for both start destination port and end destination port respectively.
Application	Specify the type of the service object. It will influence the effect of the firewall setting. For example, the URL Content Filter and Web Content Filter will run only when HTTP is selected in such field. If you choose None, then UCF and WCF will not run normally.  None None DNS FTP HTTP IMAP IRC NNTP POP3 SMB SMTP SNMP SSH SSL/TLS TELNET
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to return to previous web page.

3. After finished the settings above, click **Apply** to save the file and wait for the following dialog appears.



Name TEST

Protocol TCP

Start Source Port 85

End Source Port 95

Start Destination Port

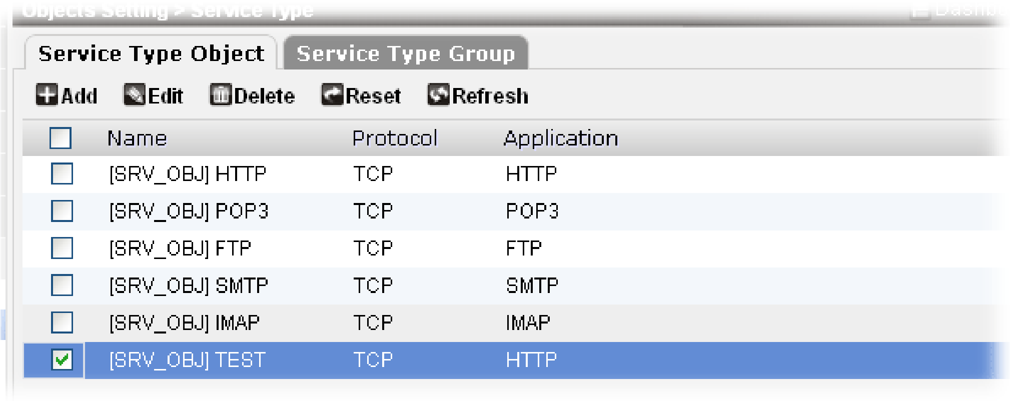
End Destination Port

Application

位於 192.168.1.1 says: 的網頁

Saved Successfully.

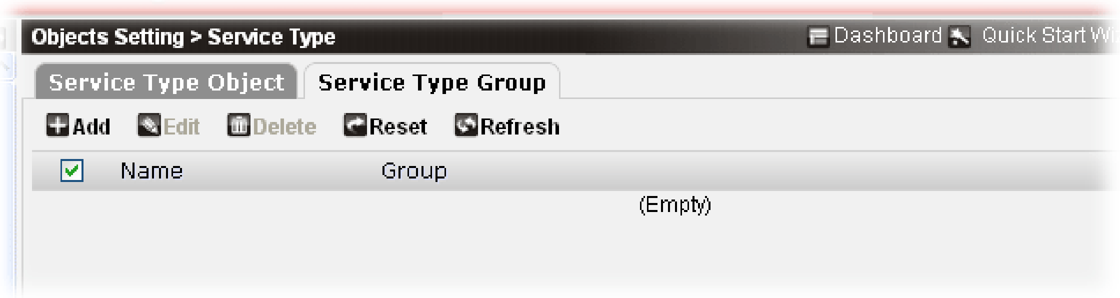
4. Click **OK**. A new object profile has been created.



☐	Name	Protocol	Application
☐	[SRV_OBJ] HTTP	TCP	HTTP
☐	[SRV_OBJ] POP3	TCP	POP3
☐	[SRV_OBJ] FTP	TCP	FTP
☐	[SRV_OBJ] SMTP	TCP	SMTP
☐	[SRV_OBJ] IMAP	TCP	IMAP
☑	[SRV_OBJ] TEST	TCP	HTTP

4.4.2.2 Service Type Group

You can bind several service type objects into one group.



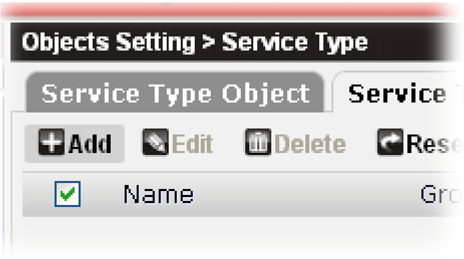
☑	Name	Group
		(Empty)

Each item will be explained as follows:

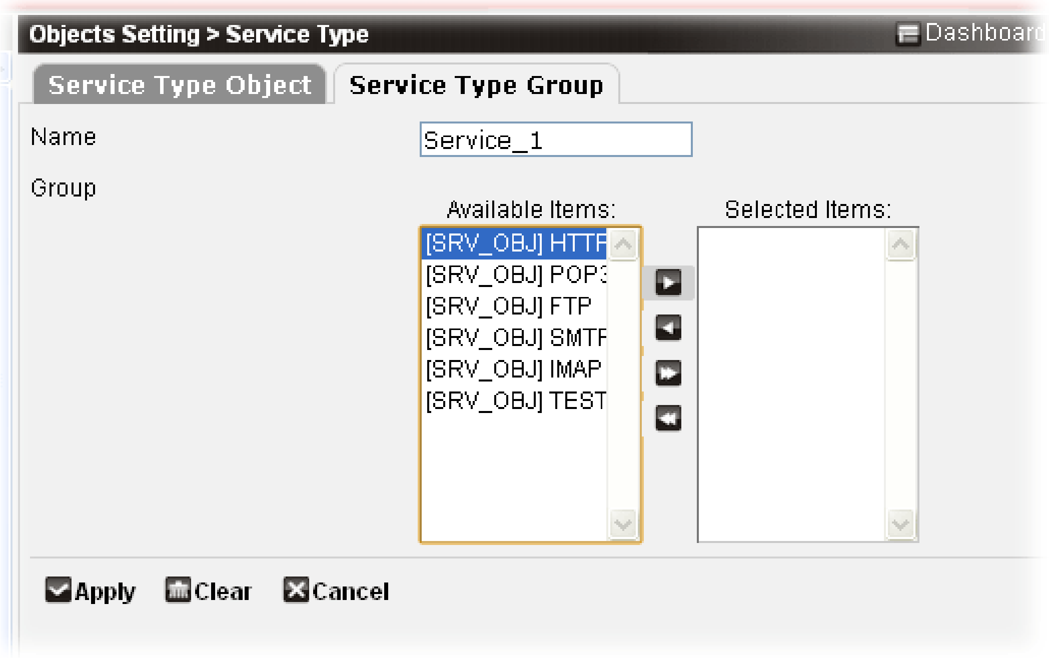
Item	Description
Add	Create a new service type group profile.
Edit	Modify the selected service type group profile. You have to check the service type group you want and then click this button to open the edit window for modification.
Delete	Remove the selected service type group. You have to check the service type group you want and then click this button.
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to fresh the web page.
Name	Display the name of the profile.
Group	Display the service type object profiles grouped under such group.

To create a new service type object group profile, please do the following:

1. Click the **Add** button.



2. The following setting page will appear.



Name: Service_1

Group

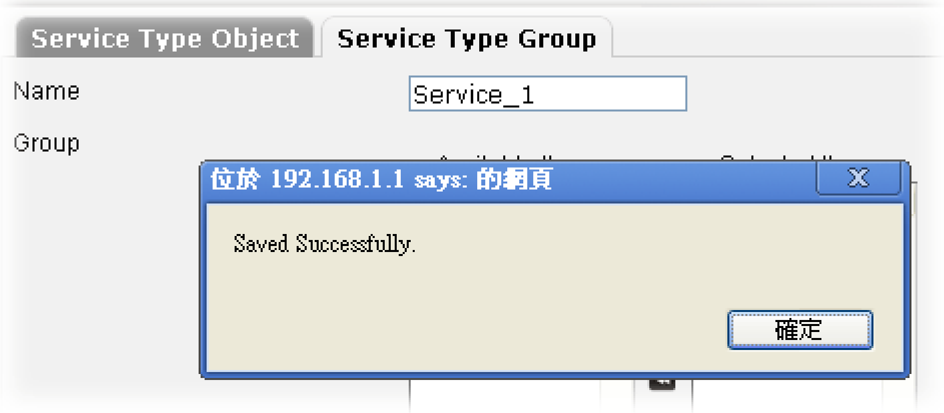
Available Items:
[SRV_OBJ] HTTP
[SRV_OBJ] POP3
[SRV_OBJ] FTP
[SRV_OBJ] SMTP
[SRV_OBJ] IMAP
[SRV_OBJ] TEST

Selected Items:

Available parameters are listed below:

Item	Description
Name	Type a name for this group profile. Maximum 15 characters are allowed.
Group	Use the "**>**" button to move the selected item listed in Available Items onto Selected Items. **Available Items** – Display the available object profiles. **Selected Items** – Display the object profiles selected for such group.
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to return to previous web page.

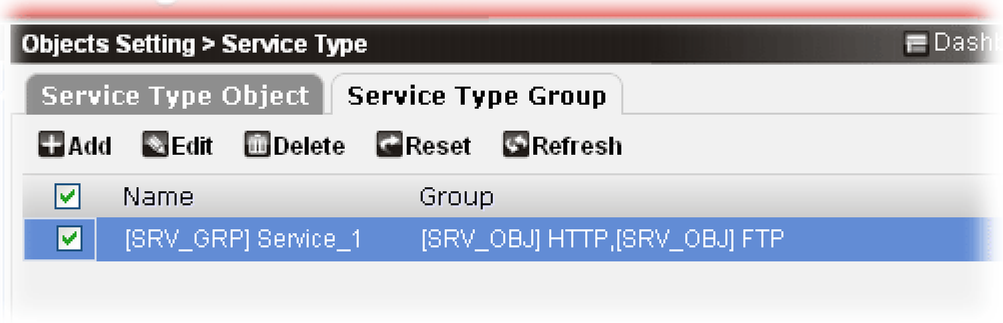
3. After finished the settings above, click **Apply** to save the file and wait for the following dialog appears.



Name: Service_1

Saved Successfully.

4. Click **OK**. A new group profile has been created.



☑	Name	Group
☑	[SRV_GRP] Service_1	[SRV_OBJ] HTTP,[SRV_OBJ] FTP

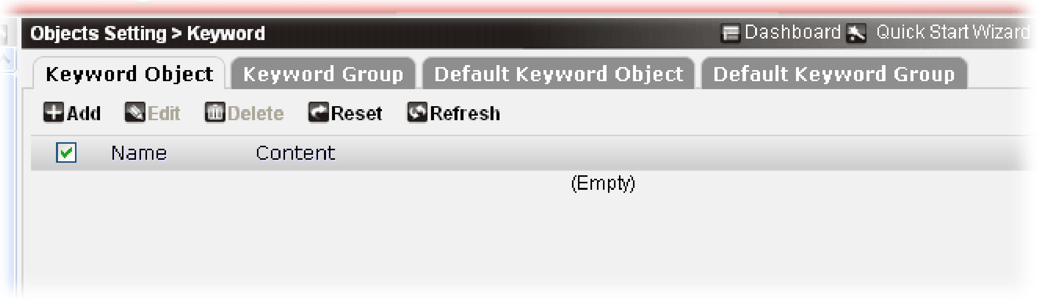
4.4.3 Keyword

You can set keyword object /key word group profiles for choosing as black /white list in **CSM >>URL Web Content Filter Profile.**

In addition, the system offer some pre-defined keyword objects and keyword groups to fit your request**.**

4.4.3.1 Keyword Object

This page is simply used to define the keyword object.



☑	Name	Content
		(Empty)

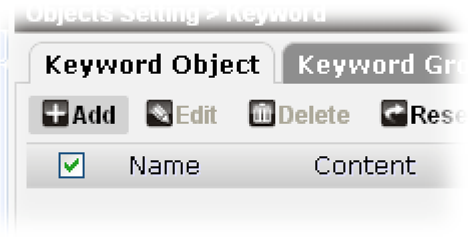
Each item will be explained as follows:

Item	Description
Add	Create a new service type group profile.
Edit	Modify the selected service type group profile. You have to check the service type group you want and then

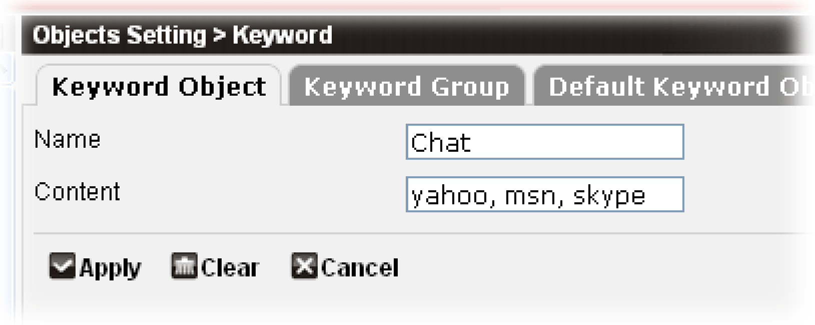
	click this button to open the edit window for modification.
Delete	Remove the selected service type group. You have to check the service type group you want and then click this button.
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to fresh the web page.
Name	Display the name of the profile.
Content	Display the content defined in this profile.

To create a new keyword object profile, please do the following:

1. Click the **Add** button.



2. The following setting page will appear.

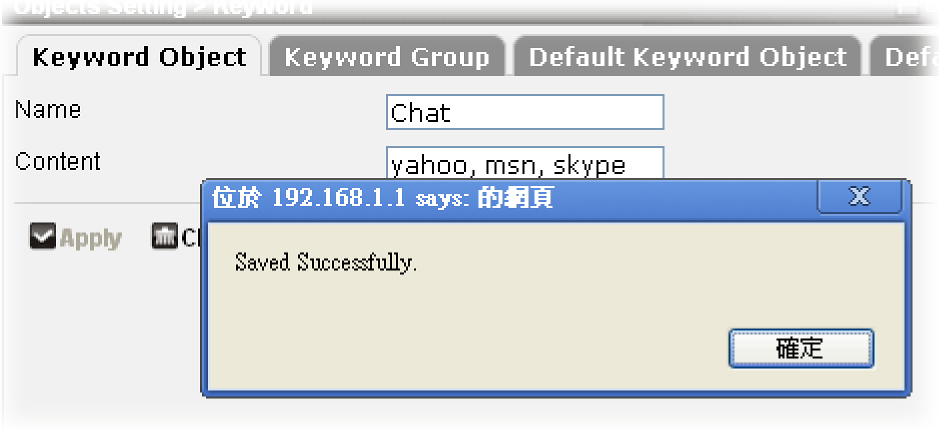


Name	Chat
Content	yahoo, msn, skype

Available parameters are listed below:

Item	Description
Name	Type a name for this group profile. Maximum 15 characters are allowed.
Content	Type the keyword one by one and separate the words with comma.
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to return to previous web page.

3. After finished the settings above, click **Apply** to save the file and wait for the following dialog appears.



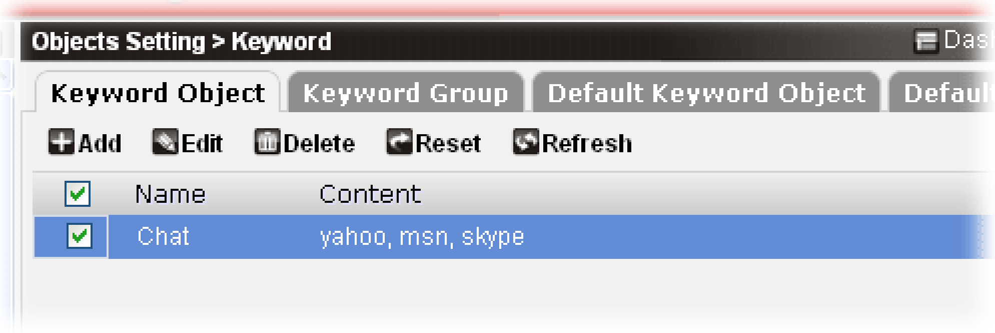
Name: Chat

Content: yahoo, msn, skype

位於 192.168.1.1 says: 的網頁

Saved Successfully.

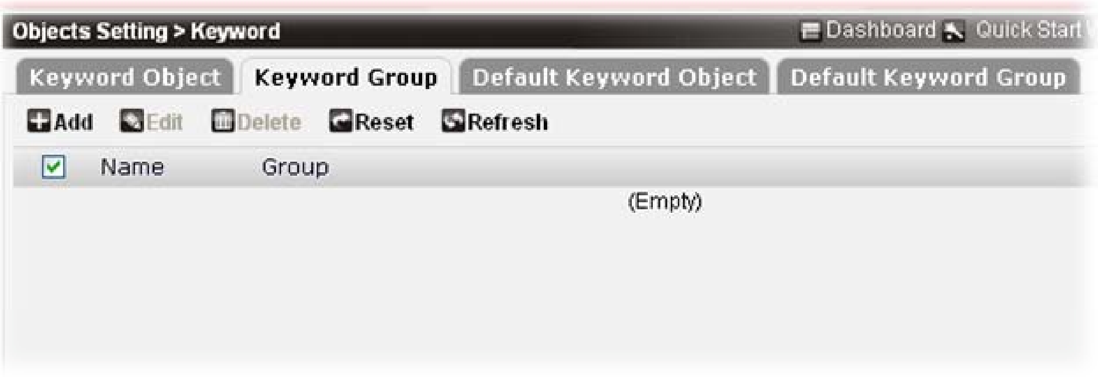
4. Click **OK**. A new object profile has been created.



☑	Name	Content
☑	Chat	yahoo, msn, skype

4.4.3.2 Keyword Group

You can bind several keyword objects into one group. The keyword groups set here will be chosen as black /white list in **CSM >>URL /Web Content Filter Profile**.



☑	Name	Group
		(Empty)

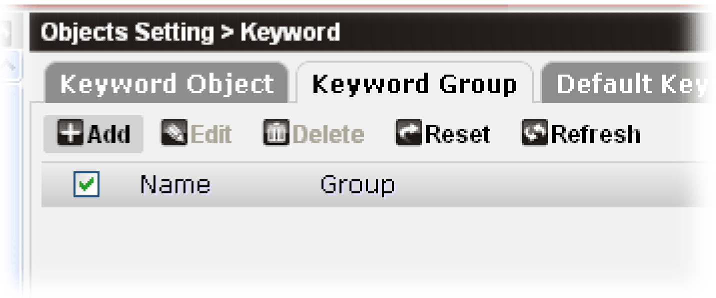
Each item will be explained as follows:

Item	Description
Add	Create a new keyword group profile.
Edit	Modify the selected keyword group profile. You have to check the keyword group you want and then click this button to open the edit window for modification.
Delete	Remove the selected keyword group.

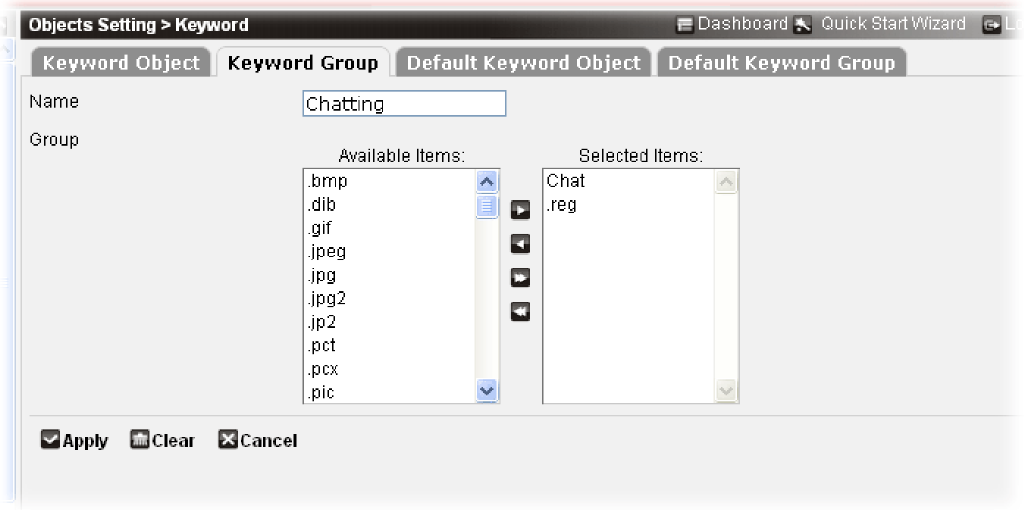
	You have to check the keyword group you want and then click this button.
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to fresh the web page.
Name	Display the name of the profile.
Group	Display the keyword object profiles grouped under such group.

To create a new keyword object group profile, please do the following:

1. Click the **Add** button.



2. The following setting page will appear.



Name: Chatting

Group

Available Items: .bmp, .dib, .gif, .jpeg, .jpg, .jpg2, .jp2, .pct, .pcx, .pic

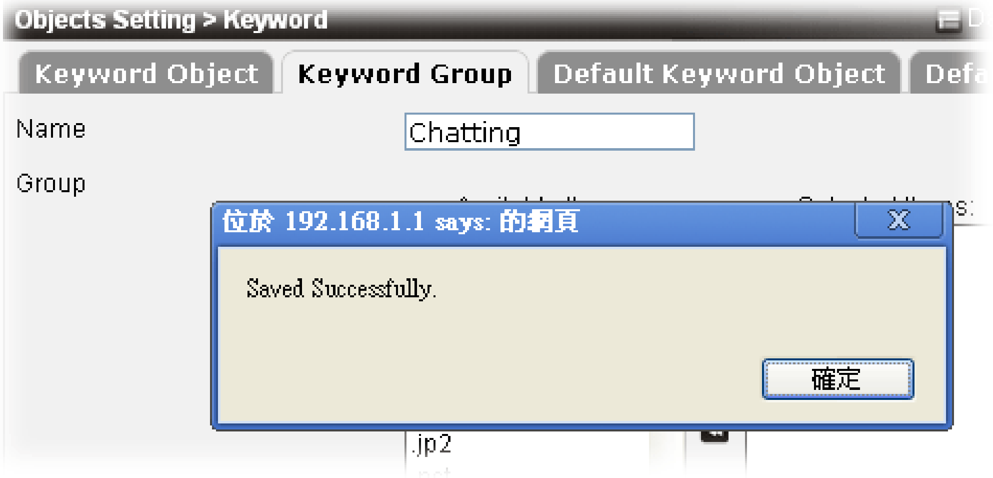
Selected Items: Chat, .reg

Available parameters are listed below:

Item	Description
Name	Type a name for this group profile. Maximum 15 characters are allowed.
Group	Use the “>” button to move the selected item listed in Available Items onto Selected Items. **Available Items** – Display the available keyword profiles. **Selected Items** – Display the keyword profiles selected for such group. **Note:** New added keyword object profiles will be displayed on the bottom on Available Items.

Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to return to previous web page.

3. After finished the settings above, click **Apply** to save the file and wait for the following dialog appears.

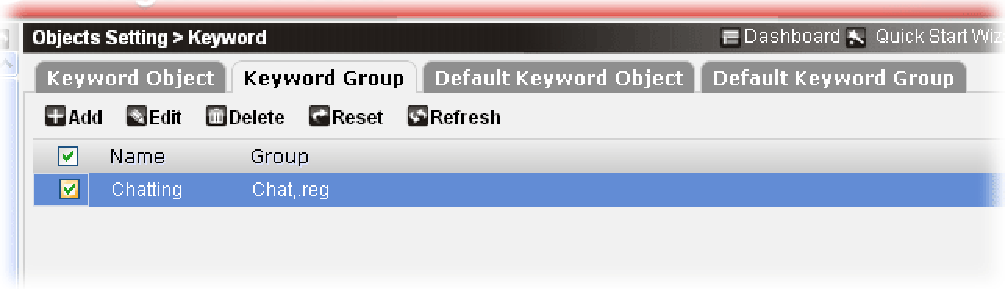


Name: Chatting

位於 192.168.1.1 says: 的網頁

Saved Successfully.

4. Click **OK**. A new group profile has been created.

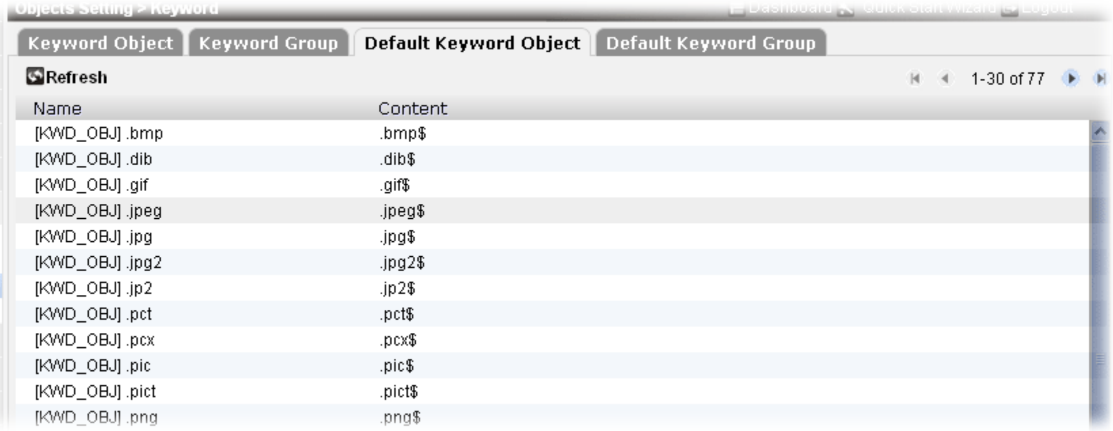


☑	Name	Group
☑	Chatting	Chat,.reg

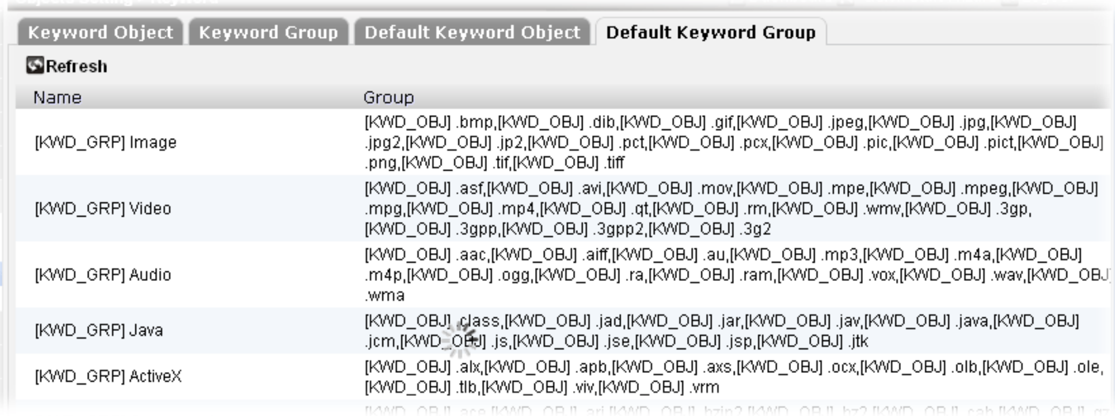
4.4.3.3 Default Keyword Object / Group

There are several keyword objects and groups pre-defined and stored in Vigor router. Click the **Default Keyword Object** and the **Default Keyword Group** tab for viewing the details.

Refer to the following two figures:



Name	Content
[KWD_OBJ] .bmp	.bmp$
[KWD_OBJ] .dib	.dib$
[KWD_OBJ] .gif	.gif$
[KWD_OBJ] .jpeg	.jpeg$
[KWD_OBJ] .jpg	.jpg$
[KWD_OBJ] .jpg2	.jpg2$
[KWD_OBJ] .jp2	.jp2$
[KWD_OBJ] .pct	.pct$
[KWD_OBJ] .pcx	.pcx$
[KWD_OBJ] .pic	.pic$
[KWD_OBJ] .pict	.pict$
[KWD_OBJ] .png	.png$



Keyword Object | Keyword Group | Default Keyword Object | Default Keyword Group

Refresh

Name	Group
[KWD_GRP] Image	[KWD_OBJ] .bmp,[KWD_OBJ] .dib,[KWD_OBJ] .gif,[KWD_OBJ] .jpeg,[KWD_OBJ] .jpg,[KWD_OBJ] .jpg2,[KWD_OBJ] .jp2,[KWD_OBJ] .pct,[KWD_OBJ] .pcx,[KWD_OBJ] .pic,[KWD_OBJ] .pict,[KWD_OBJ] .png,[KWD_OBJ] .tif,[KWD_OBJ] .tiff
[KWD_GRP] Video	[KWD_OBJ] .asf,[KWD_OBJ] .avi,[KWD_OBJ] .mov,[KWD_OBJ] .mpe,[KWD_OBJ] .mpeg,[KWD_OBJ] .mpg,[KWD_OBJ] .mp4,[KWD_OBJ] .qt,[KWD_OBJ] .rm,[KWD_OBJ] .wmv,[KWD_OBJ] .3gp, [KWD_OBJ] .3gpp,[KWD_OBJ] .3gpp2,[KWD_OBJ] .3g2
[KWD_GRP] Audio	[KWD_OBJ] .aac,[KWD_OBJ] .aiff,[KWD_OBJ] .au,[KWD_OBJ] .mp3,[KWD_OBJ] .m4a,[KWD_OBJ] .m4p,[KWD_OBJ] .ogg,[KWD_OBJ] .ra,[KWD_OBJ] .ram,[KWD_OBJ] .vox,[KWD_OBJ] .wav,[KWD_OBJ .wma
[KWD_GRP] Java	[KWD_OBJ] .class,[KWD_OBJ] .jad,[KWD_OBJ] .jar,[KWD_OBJ] .jav,[KWD_OBJ] .java,[KWD_OBJ] .jcm,[KWD_OBJ] .js,[KWD_OBJ] .jse,[KWD_OBJ] .jsp,[KWD_OBJ] .jtk
[KWD_GRP] ActiveX	[KWD_OBJ] .alx,[KWD_OBJ] .apb,[KWD_OBJ] .axs,[KWD_OBJ] .ocx,[KWD_OBJ] .olb,[KWD_OBJ] .ole, [KWD_OBJ] .tlb,[KWD_OBJ] .viv,[KWD_OBJ] .vrm

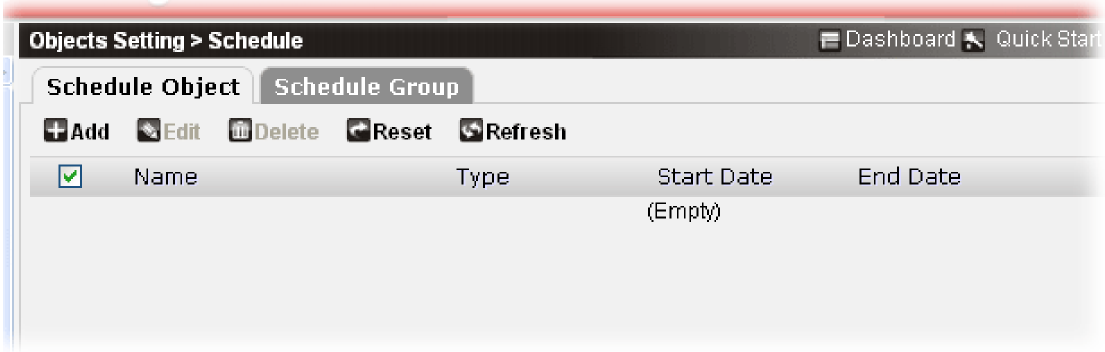
4.4.4 Schedule

The Vigor router has a built-in real time clock which can update itself manually or automatically by means of Network Time Protocols (NTP). As a result, you can not only schedule the router to dialup to the Internet at a specified time, but also restrict Internet access to certain hours so that users can connect to the Internet only during certain hours, say, business hours. The schedule is also applicable to other functions.

You have to set your time before set schedule. You can inquiry an NTP server (a time server) on the Internet to synchronize the router’s clock. This method can only be applied when the WAN connection has been built up.

4.4.4.1 Schedule Object

This page is simply used to define the keyword object.



Objects Setting > Schedule

☑	Name	Type	Start Date	End Date
			(Empty)	

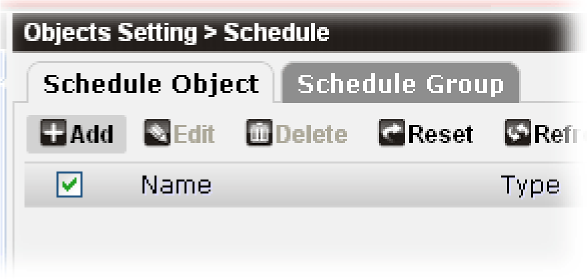
Each item will be explained as follows:

Item	Description
Add	Create a new schedule object profile.
Edit	Modify the selected schedule object profile. You have to check the schedule object you want and then click this button to open the edit window for modification.
Delete	Remove the selected schedule object. You have to check the schedule object you want and then click this button.
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to fresh the web page.

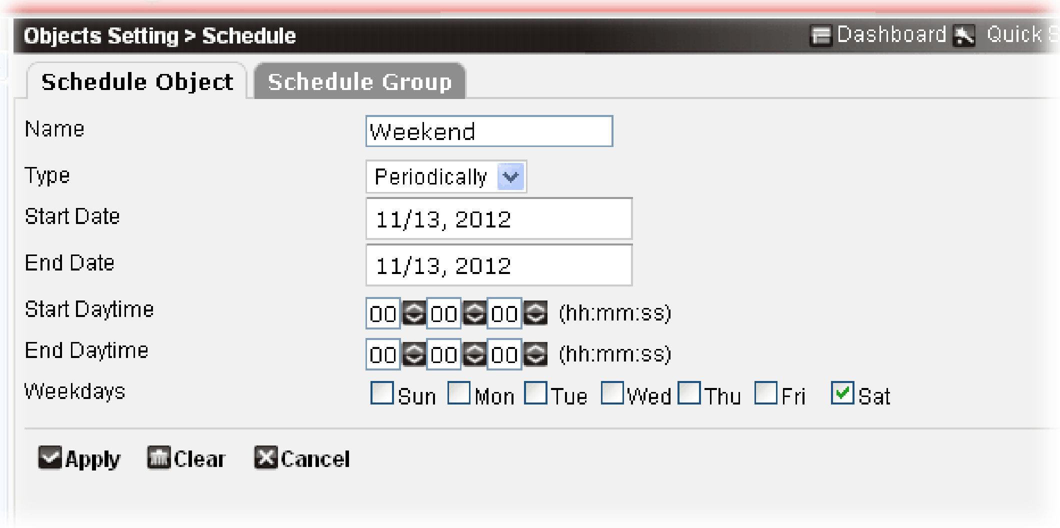
Name	Display the name of the profile.
Type	Display the type (frequency of execution) of the profile.
Start Date	Display the starting date of the schedule.
End Date	Display the ending date of the schedule.

To create a new schedule object profile, please do the following:

1. Click the **Add** button.

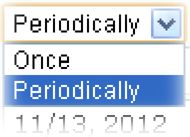


2. The following setting page will appear.



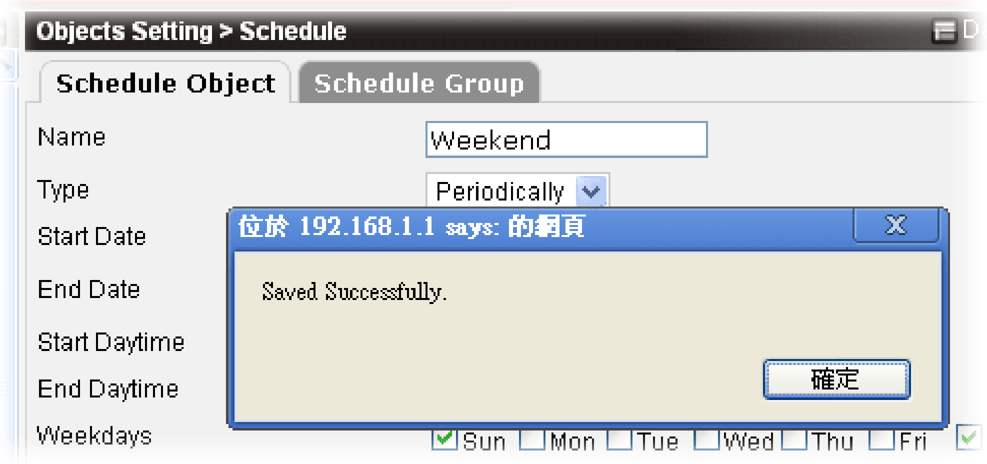
Name: Weekend
Type: Periodically
Start Date: 11/13, 2012
End Date: 11/13, 2012
Start Daytime: 00 00 00 (hh:mm:ss)
End Daytime: 00 00 00 (hh:mm:ss)
Weekdays: □Sun □Mon □Tue □Wed □Thu □Fri ☑Sat

Available parameters are listed below:

Item	Description
Name	Type a name for this group profile. Maximum 19 characters are allowed.
Type	Specify how often the schedule will be applied.  Periodically Once Periodically 11/13, 2012 **Once** -The schedule will be applied just once **Periodically** -Specify which days in one week should perform the schedule.
Start Date	Specify the starting date of the schedule.

End Date	Specify the ending date of the schedule.
Start Daytime	Specify the starting time of the schedule.
End Daytime	Specify the ending time of the schedule.
Weekdays	Check the day box to specify which days in one week should perform the schedule.
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to return to previous web page.

3. After finished the settings above, click **Apply** to save the file and wait for the following dialog appears.



Objects Setting > Schedule

Schedule Object | Schedule Group

Name: Weekend

Type: Periodically

Start Date

End Date

Start Daytime

End Daytime

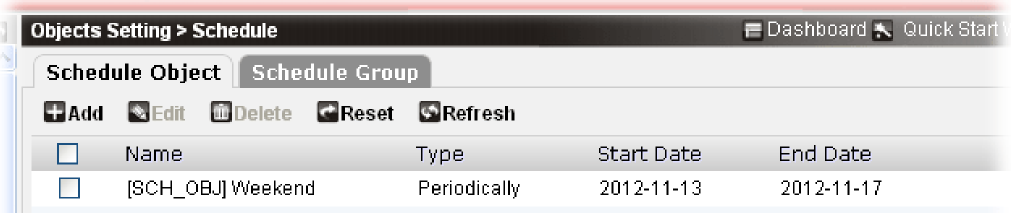
Weekdays: ☑Sun □Mon □Tue □Wed □Thu □Fri ☑

位於 192.168.1.1 says: 的網頁

Saved Successfully.

確定

4. Click **OK**. A new object profile has been created.

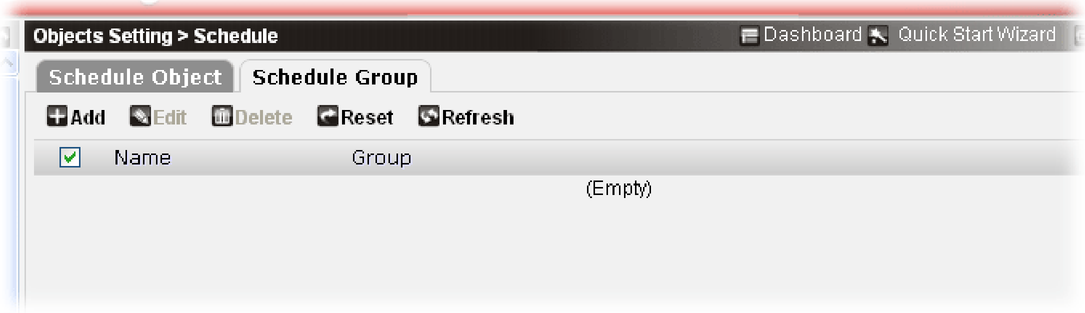


Objects Setting > Schedule

□	Name	Type	Start Date	End Date
□	[SCH_OBJ] Weekend	Periodically	2012-11-13	2012-11-17

4.4.4.2 Schedule Group

Schedule objects can be grouped under a group profile.

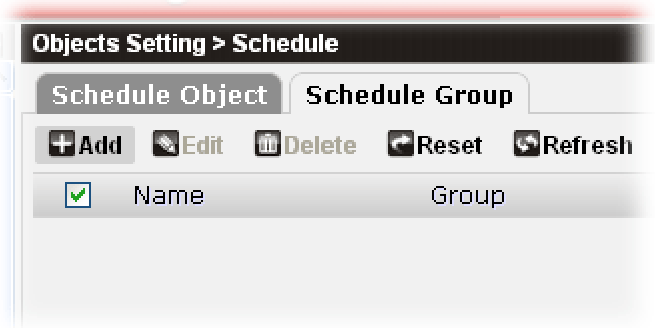


Each item will be explained as follows:

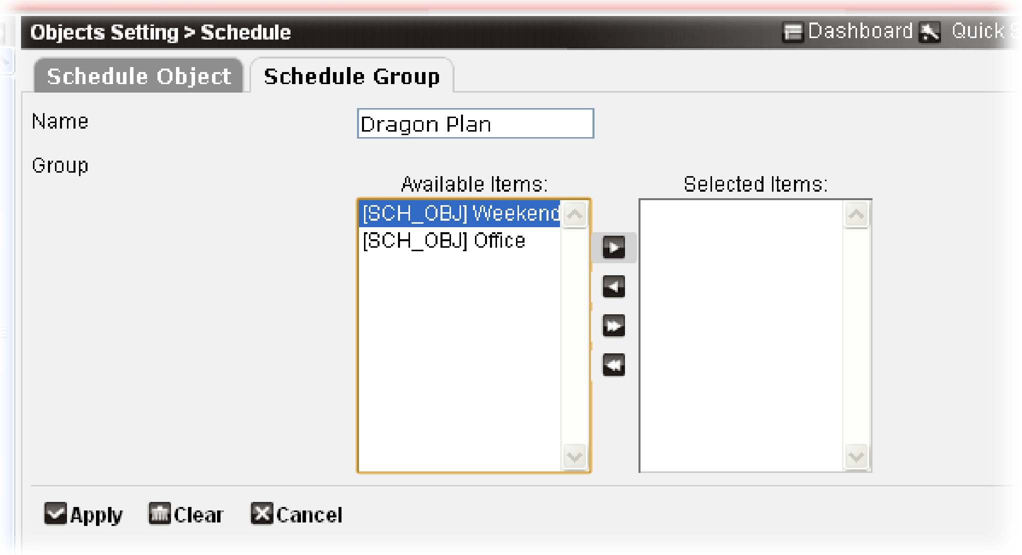
Item	Description
Add	Create a new schedule group profile.
Edit	Modify the selected schedule group profile. You have to check the schedule group you want and then click this button to open the edit window for modification.
Delete	Remove the selected schedule group. You have to check the schedule group you want and then click this button.
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to fresh the web page.
Name	Display the name of the profile.
Group	Display the schedule object profiles grouped under such group.

To create a new schedule object group profile, please do the following:

1. Click the **Add** button.



2. The following setting page will appear.



Name: Dragon Plan

Group

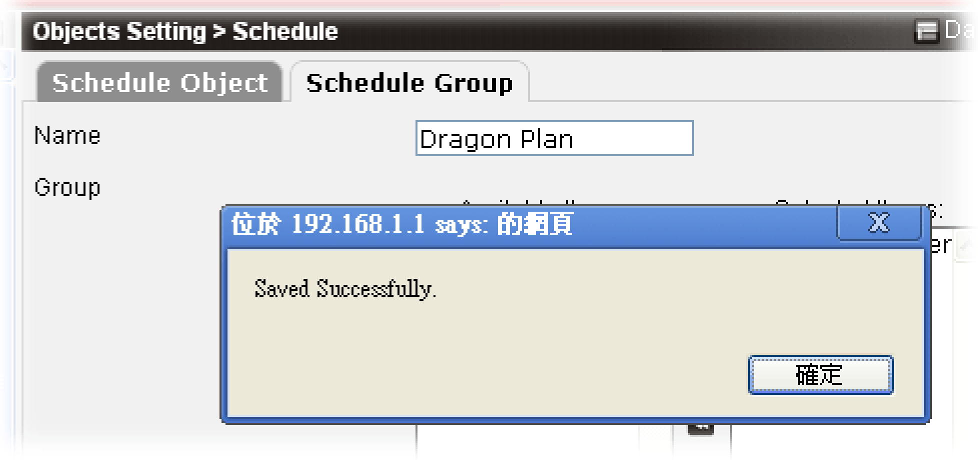
Available Items:
[SCH_OBJ] Weekend
[SCH_OBJ] Office

Selected Items:

Available parameters are listed below:

Item	Description
Name	Type a name for this group profile. Maximum 19 characters are allowed.
Group	Use the “>” button to move the selected item listed in Available Items onto Selected Items. **Available Items** – Display the available schedule profiles. **Selected Items** – Display the schedule profiles selected for such group.
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to return to previous web page.

3. After finished the settings above, click **Apply** to save the file and wait for the following dialog appears.



Name: Dragon Plan

Group

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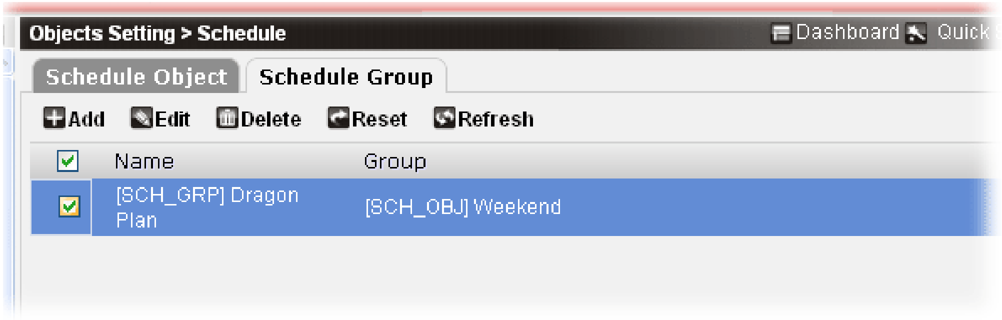
Saved Successfully.

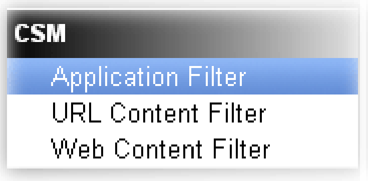
4. Click **OK**. A new group profile has been created.



☑	Name	Group
☑	[SCH_GRP] Dragon Plan	[SCH_OBJ] Weekend

4.5 CSM

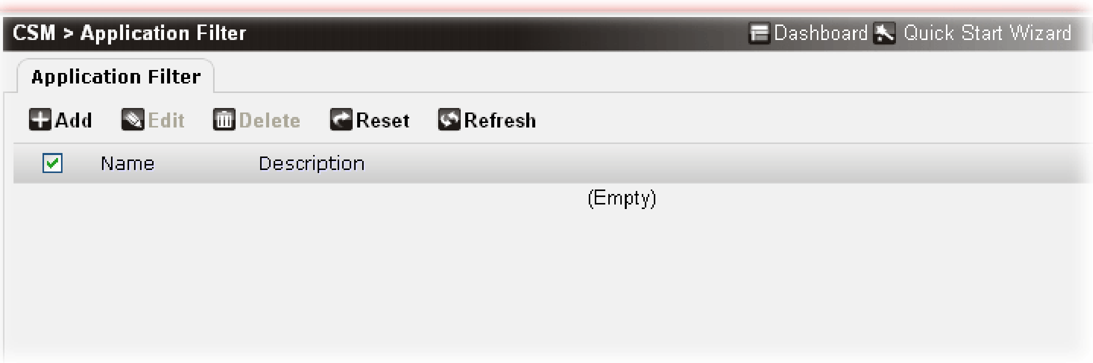
CSM is an abbreviation of **Content Security Management** which is used to control IM/P2P usage, filter the web content and URL content to reach a goal of security management.



4.5.1 Application Filter

As the popularity of all kinds of instant messenger application arises, communication can become much easier. Nevertheless, while some industry may leverage this as a great tool to connect with their customers, some industry may take reserve attitude in order to reduce employee misusage during office hour or prevent unknown security leak. It is similar situation for corporation towards peer-to-peer applications since file-sharing can be convenient but insecure at the same time. To address these needs, we provide CSM functionality.

You can define policy profiles for IM (Instant Messenger)/P2P (Peer to Peer)/Protocol/Misc application. This page allows you to set 64 profiles for different requirements. The Application Filter profile will be applied in **Filter Rule** of **Firewall>>Filter Setup** for filtering.



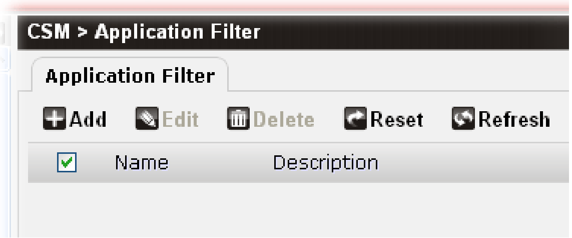
Each item will be explained as follows:

Item	Description
Add	Create a new filter profile.
Edit	Modify the selected filter profile. You have to check the filter profile you want and then click

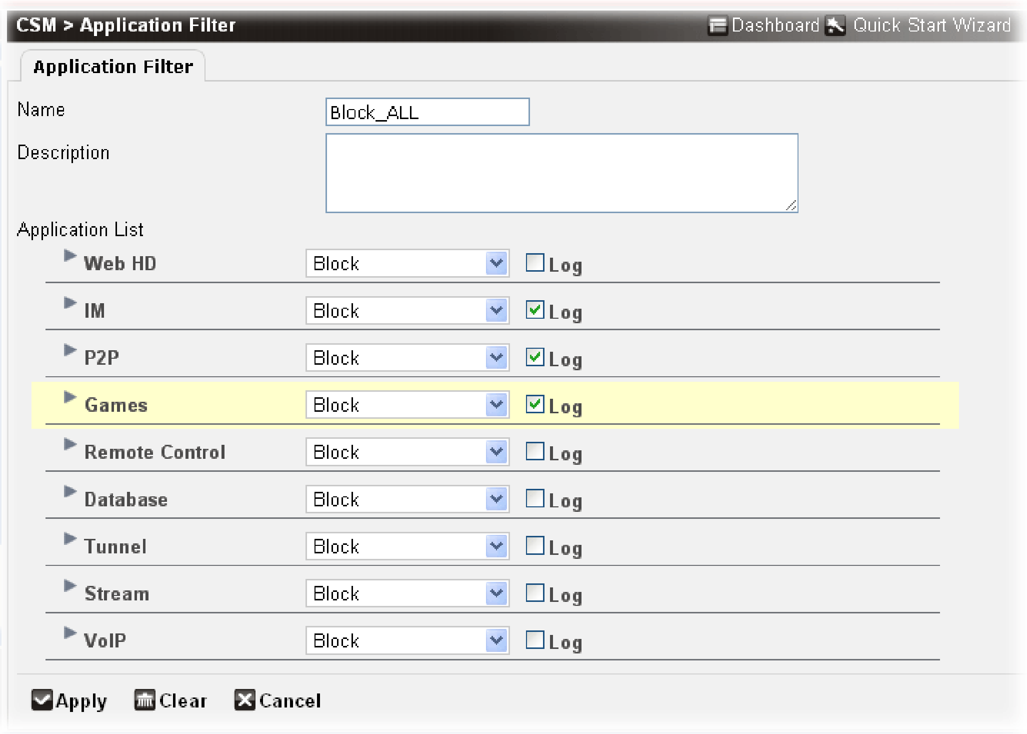
	this button to open the edit window for modification.
Delete	Remove the selected filter profile. You have to check the filter profile you want and then click this button.
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to fresh the web page.
Name	Display the name of the profile.
Description	Display the filter description.

To create a new filter profile, please do the following:

1. Click the **Add** button.



2. The following setting page will appear.



Name: Block_ALL

Description:

Application List

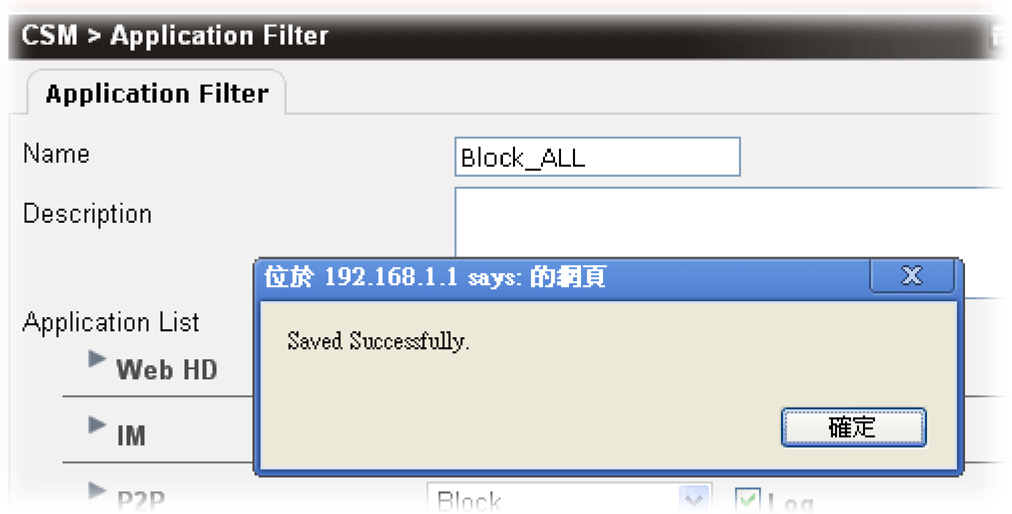
Web HD	Block	□ Log
IM	Block	☑ Log
P2P	Block	☑ Log
Games	Block	☑ Log
Remote Control	Block	□ Log
Database	Block	□ Log
Tunnel	Block	□ Log
Stream	Block	□ Log
VoIP	Block	□ Log

Available parameters are listed below:

Item	Description
Name	Type a name for this filter profile. Maximum 63 characters are allowed.
Description	Type a brief description for such profile. Maximum 63 characters are allowed.

Application List	In default, there are several types of applications listed on this page. **Block/Pass** – Use the drop down list to choose Block or Pass the data transmission for each application. **Log** – After checking the box, related record for such application will be shown in Syslog.
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to return to previous web page.

3. After finished the settings above, click **Apply** to save the file and wait for the following dialog appears.



Name: Block_ALL

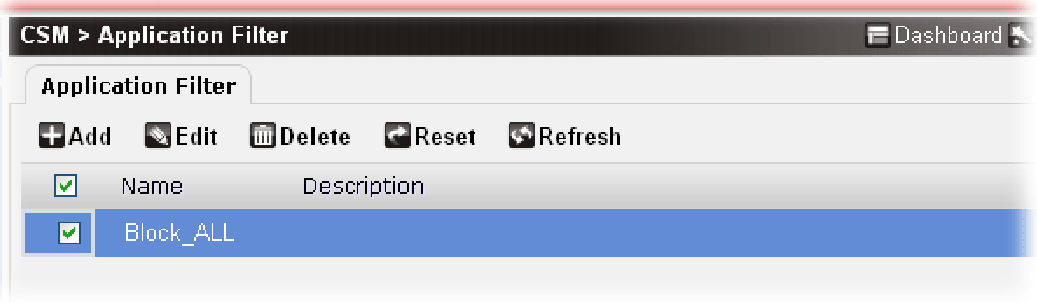
Description

位於 192.168.1.1 says: 的網頁

Saved Successfully.

確定

4. Click **OK**. A new group profile has been created.



☑	Name	Description
☑	Block_ALL	

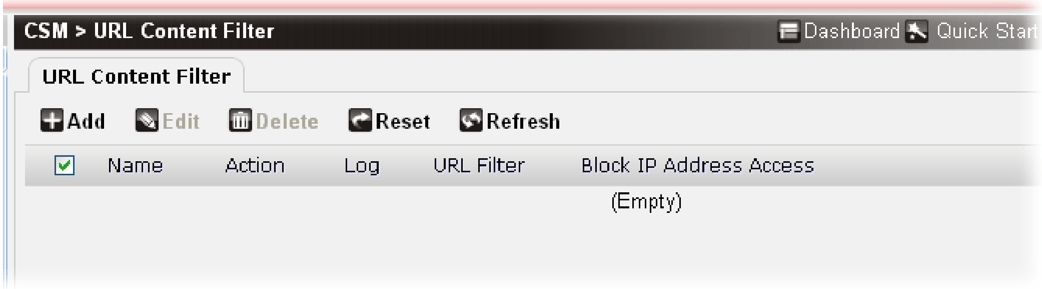
4.5.2 URL Content Filter

To provide an appropriate cyberspace to users, Vigor router equips with **URL Content Filter** not only to limit illegal traffic from/to the inappropriate web sites but also prohibit other web feature where malicious code may conceal.

Once a user type in or click on an URL with objectionable keywords, URL keyword blocking facility will decline the HTTP request to that web page thus can limit user’s access to the website. You may imagine **URL Content Filter** as a well-trained convenience-store clerk who won’t sell adult magazines to teenagers. At office, **URL Content Filter** can also provide a job-related only environment hence to increase the employee work efficiency. How can URL Content Filter work better than traditional firewall in the field of filtering? Because it checks the URL strings or some of HTTP data hiding in the payload of TCP packets while legacy firewall inspects packets based on the fields of TCP/IP headers only.

On the other hand, Vigor router can prevent user from accidentally downloading malicious codes from web pages. It's very common that malicious codes conceal in the executable objects, such as ActiveX, Java Applet, compressed files, and other executable files. Once downloading these types of files from websites, you may risk bringing threat to your system. For example, an ActiveX control object is usually used for providing interactive web feature. If malicious code hides inside, it may occupy user's system.

Note: The priority of URL Content Filter is higher than Web Content Filter.



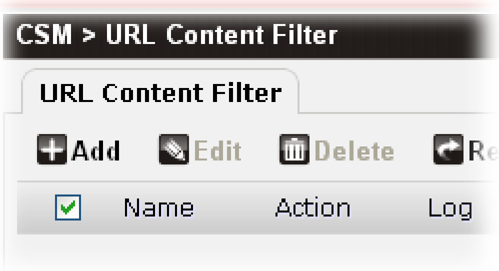
☑	Name	Action	Log	URL Filter	Block IP Address Access
					(Empty)

Each item will be explained as follows:

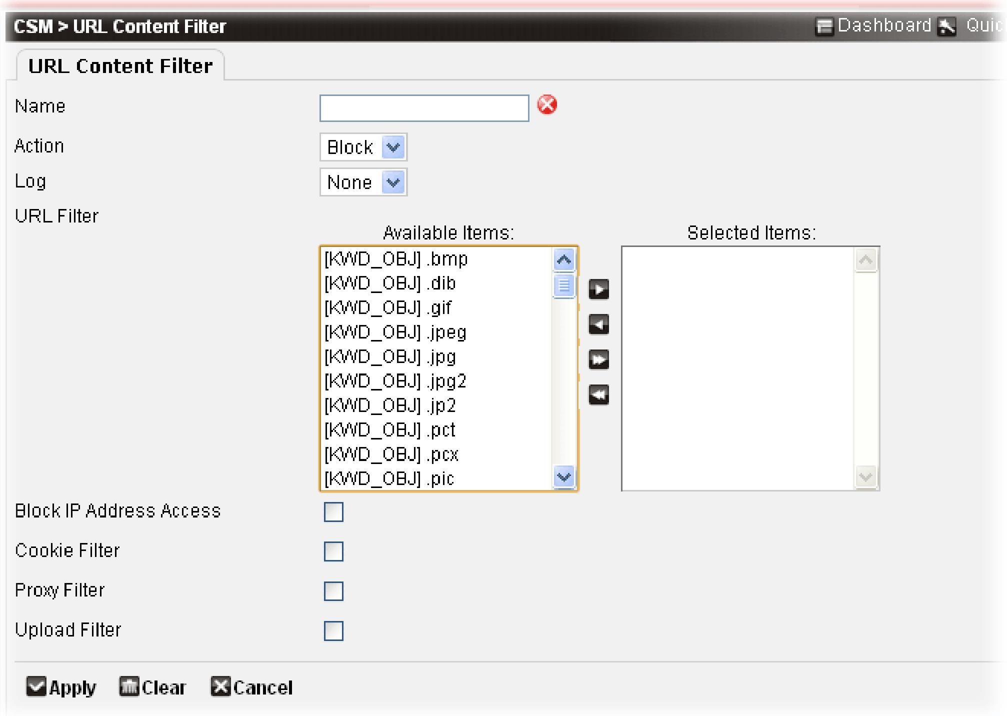
Item	Description
Add	Create a new filter profile.
Edit	Modify the selected filter profile. You have to check the filter profile you want and then click this button to open the edit window for modification.
Delete	Remove the selected filter profile. You have to check the filter profile you want and then click this button.
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to fresh the web page.
Name	Display the name of the profile.
Action	Display the action applied to the profile.
Log	Display the type of the action that the related information about that action will be recorded in Syslog.
URL Filter	Display the URL filter applied to the profile.
Block IP Address Access	Display the activation of IP address blocked or not. **Enable** – The function is enabled. **Disable** – The function is disabled.

To create a new filter profile, please do the following:

1. Click the **Add** button.



2. The following setting page will appear.



Name

Action: Block

Log: None

URL Filter

[KWD_OBJ] .bmp
[KWD_OBJ] .dib
[KWD_OBJ] .gif
[KWD_OBJ] .jpeg
[KWD_OBJ] .jpg
[KWD_OBJ] .jpg2
[KWD_OBJ] .jp2
[KWD_OBJ] .pct
[KWD_OBJ] .pcx
[KWD_OBJ] .pic

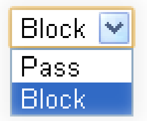
Block IP Address Access □

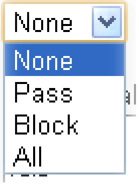
Cookie Filter □

Proxy Filter □

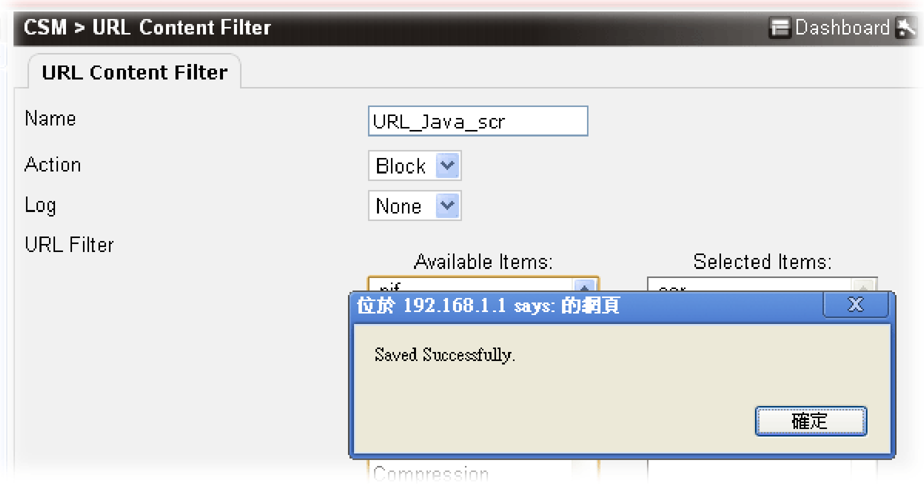
Upload Filter □

Available parameters are listed below:

Item	Description
Name	Type a name for this filter profile. Maximum 63 characters are allowed.
Action	It determines the action that this router will apply. **Pass** – The router will let all the packages that match with the conditions specified in this page passing through. **Block** –The router will block all the packages that match with the conditions specified in this page.  Block Pass Block
Log	**None** – There is no log file will be recorded for this profile. **Pass** – Only the log about Pass will be recorded in Syslog.

	Block – Only the log about Block will be recorded in Syslog. **All** – All the actions (Pass and Block) will be recorded in Syslog.  None None Pass Block All
URL Filter	The Vigor router provides several profiles for users to define keywords and each profile supports multiple keywords. The keyword could be a file extension, noun, a partial noun, or a complete URL string. Multiple keywords within a profile are separated by space, comma, or semicolon. In addition, the maximal length of each frame is 32-character long. After specifying keywords, the Vigor router will decline the connection request to the website whose URL string matched to any user-defined keyword or default keyword group. It should be noticed that the more simplified the blocking keyword list is, the more efficiently the Vigor router performs. Use the "**>**" button to move the selected item listed in Available Items onto Selected Items. **Available Item**s – Display all the available keyword objects and keyword groups including user-defined and default ones. **Selected Items** – Display the object and/or group selected for such profile.
Block IP Address Access	Check the box to deny any web surfing activity using IP address, such as http://202.6.3.2. The reason for this is to prevent someone dodges the URL Access Control. You must clear your browser cache first so that the URL content filtering facility operates properly on a web page that you visited before.
Cookie Filter	Check the box to filter out the cookie transmission from inside to outside world to protect the local user's privacy.
Proxy Filter	Check the box to reject any proxy transmission. To control efficiently the limited-bandwidth usage, it will be of great value to provide the blocking mechanism that filters out the multimedia files downloading from web pages.
Upload Filter	Check the box to block the file upload by way of web page.
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to return to previous web page.

3. After finished the settings above, click **Apply** to save the file and wait for the following dialog appears.



Name: URL_Java_scr

Action: Block

Log: None

URL Filter

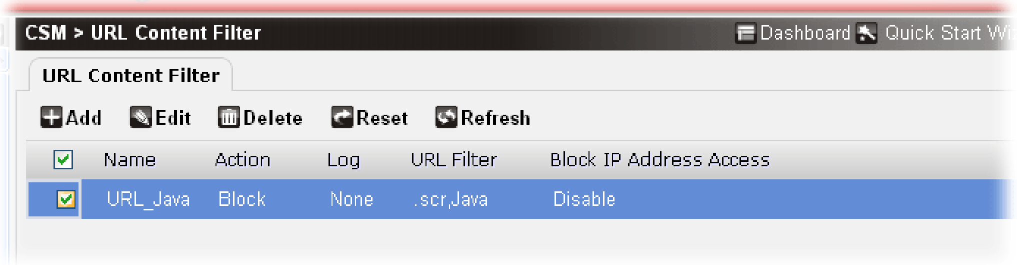
Available Items:

Selected Items:

位於 192.168.1.1 says: 的網頁

Saved Successfully.

4. Click **OK**. A new group profile has been created.



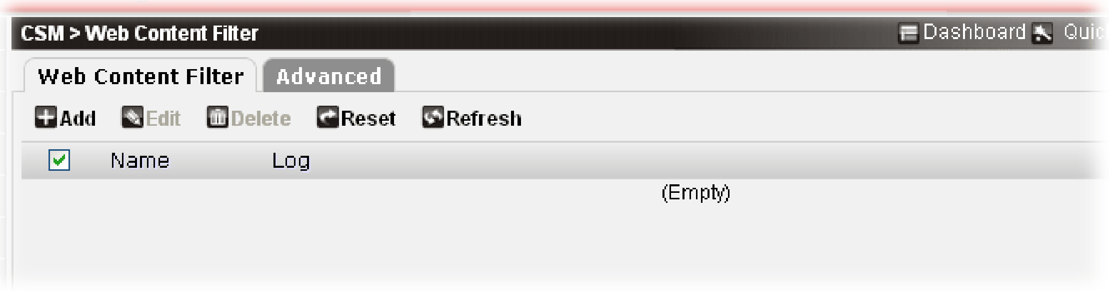
☑	Name	Action	Log	URL Filter	Block IP Address Access
☑	URL_Java	Block	None	.scr,Java	Disable

4.5.3 Web Content Filter

We all know that the content on the Internet just like other types of media may be inappropriate sometimes. As a responsible parent or employer, you should protect those in your trust against the hazards. With Web filtering service of the Vigor router, you can protect your business from common primary threats, such as productivity, legal liability, network and security threats. For parents, you can protect your children from viewing adult websites or chat rooms.

Once you have activated your Web Filtering service in Vigor router and chosen the categories of website you wish to restrict, each URL address requested (e.g.www.bbc.co.uk) will be checked against our server database. This database is updated as frequent as daily by a global team of Internet researchers. The server will look up the URL and return a category to your router. Your Vigor router will then decide whether to allow access to this site according to the categories you have selected. Please note that this action will not introduce any delay in your Web surfing because each of multiple load balanced database servers can handle millions of requests for categorization.

4.5.3.1 Web Content Filter

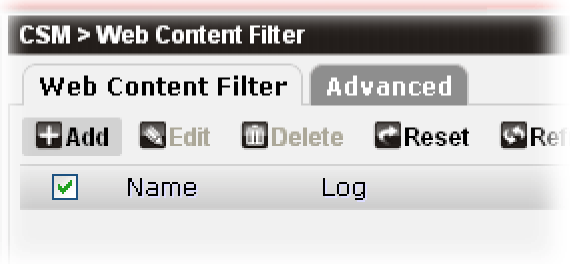


Each item will be explained as follows:

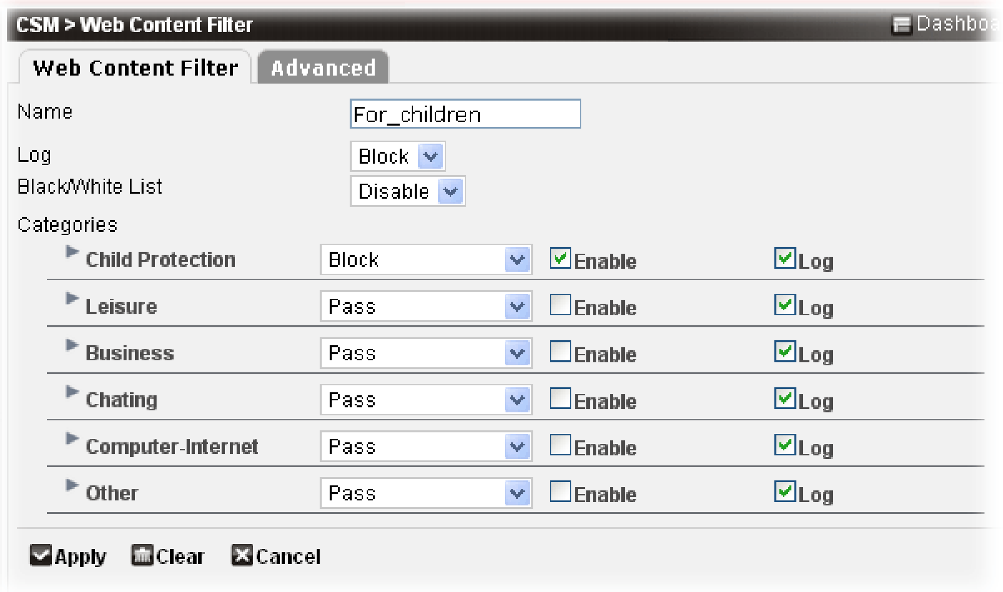
Item	Description
Add	Create a new filter profile.
Edit	Modify the selected filter profile. You have to check the filter profile you want and then click this button to open the edit window for modification.
Delete	Remove the selected filter profile. You have to check the filter profile you want and then click this button.
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to fresh the web page.
Name	Display the name of the profile.
Log	Display the type of the action that the related information about that action will be recorded in Syslog.

To create a new filter profile, please do the following:

1. Click the **Add** button.



2. The following setting page will appear.



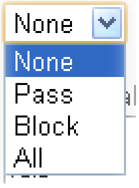
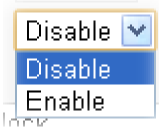
CSM > Web Content Filter

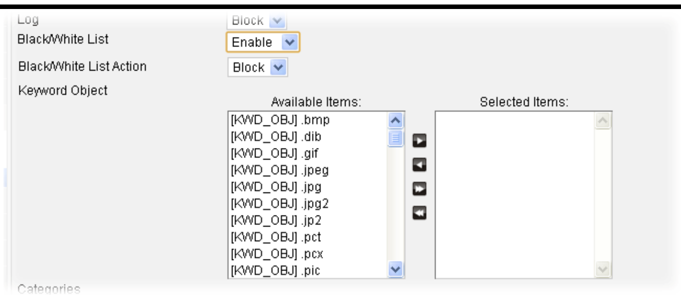
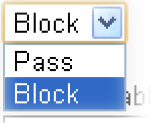
Name	For_children
Log	Block
Black/White List	Disable

Categories

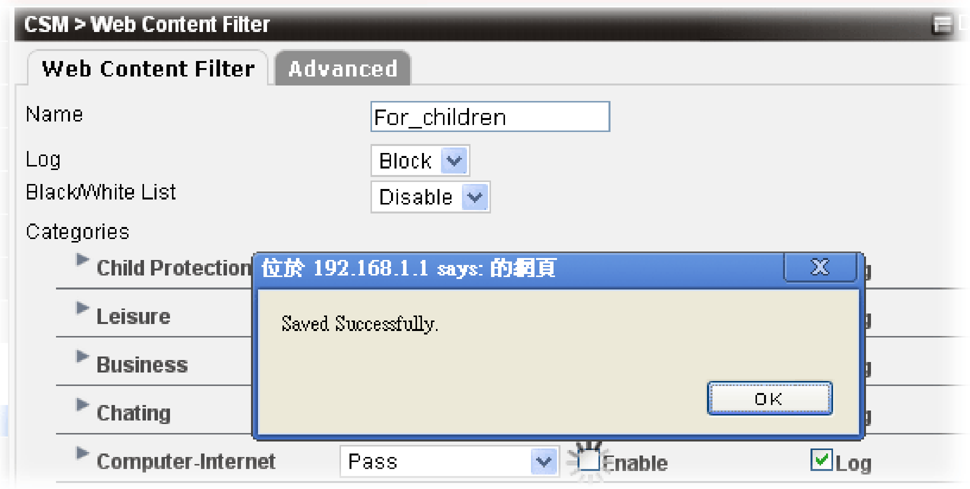
Child Protection	Block	☑Enable	☑Log
Leisure	Pass	□Enable	☑Log
Business	Pass	□Enable	☑Log
Chating	Pass	□Enable	☑Log
Computer-Internet	Pass	□Enable	☑Log
Other	Pass	□Enable	☑Log

Available parameters are listed below:

Item	Description
Name	Type a name for this filter profile. Maximum 63 characters are allowed.
Log	**None** – There is no log file will be recorded for this profile. **Pass** – Only the log about Pass will be recorded in Syslog. **Block** – Only the log about Block will be recorded in Syslog. **All** – All the actions (Pass and Block) will be recorded in Syslog. 
Black/White List	Activate black/white list function for such profile.  **Disable –** The black/white list will not be applied to such filter profile. **Enable** –Activate white/black list function for such profile. If you enable this function, you have to set **Black/White Action** and specify **keyword object(s)** additionally.

	 Log Block Black/White List Enable Black/White List Action Block Keyword Object Available Items: [KWD_OBJ] .bmp, [KWD_OBJ] .dib, [KWD_OBJ] .gif, [KWD_OBJ] .jpeg, [KWD_OBJ] .jpg, [KWD_OBJ] .jpg2, [KWD_OBJ] .jp2, [KWD_OBJ] .pct, [KWD_OBJ] .pcx, [KWD_OBJ] .pic Selected Items: Categories **Black/White List Action –** Choose the action to be performed for such profile.  ● **Pass -** allow accessing into the corresponding webpage with the categories listed on the box below. ● **Block -** restrict accessing into the corresponding webpage with the categories listed on the box below. If the web pages do not match with the specified feature set here, it will be processed with reverse action. **Keyword Object -** Use the "**>**" button to move the selected item listed in Available Items onto Selected Items. ● **Available Items** – Display all the available keyword objects and keyword groups including user-defined and default ones. ● **Selected Items** – Display the object and/or group selected for such profile.
Categories	There are several categories such as Child Protection, Leisure, Business, Chatting, Computer-Internet and Other displayed in this page. By clicking the small triangle, you can expand the categories to get more detailed items under the category. **Pass/Block** – An action to be executed for such profile. **Enable** – If you check this box, when such profile is invoked, the system will process the data related to such category/item based on the action selected here. **Log** – If you check this box, information related to such category/item will be recorded in Syslog.
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to return to previous web page.

3. After finished the settings above, click **Apply** to save the file and wait for the following dialog appears.



CSM > Web Content Filter

Web Content Filter | Advanced

Name: For_children

Log: Block

Black/White List: Disable

Categories

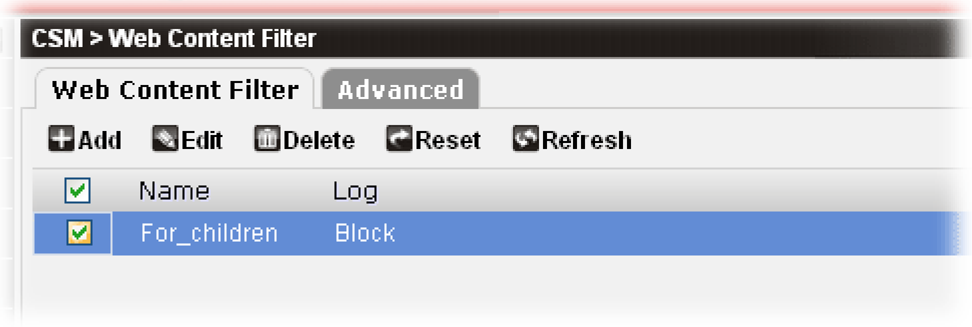
- Child Protection
- Leisure
- Business
- Chating
- Computer-Internet: Pass, □ Enable, ☑ Log

位於 192.168.1.1 says: 的網頁

Saved Successfully.

OK

4. Click **OK**. A new group profile has been created.



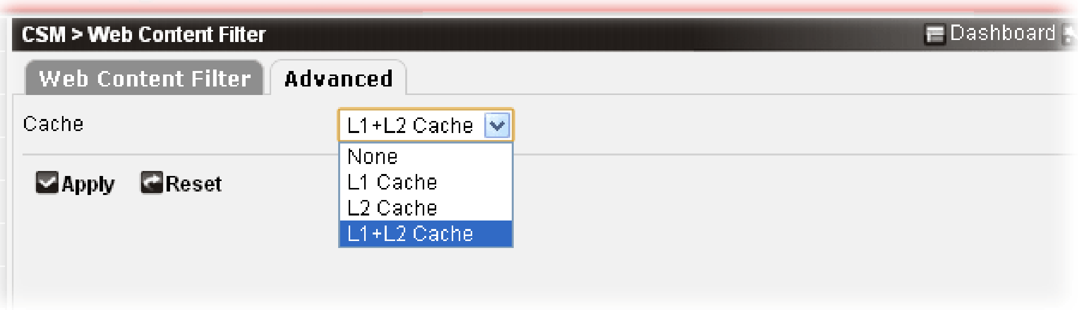
CSM > Web Content Filter

Web Content Filter | Advanced

☑	Name	Log
☑	For_children	Block

4.5.3.2 Advanced

Such page allows you to configure the processing rate for WCF mechanism.



CSM > Web Content Filter

Web Content Filter | Advanced

Cache: L1+L2 Cache

Each item will be explained as follows:

Item	Description
Cache	**None** – the router will check the URL that the user wants to access via WCF precisely, however, the processing rate is normal. Such item can provide the most accurate URL matching. **L1** – the router will check the URL that the user wants to access via WCF. If the URL has been accessed previously, it will be stored for a short time (about 1 second) in the router

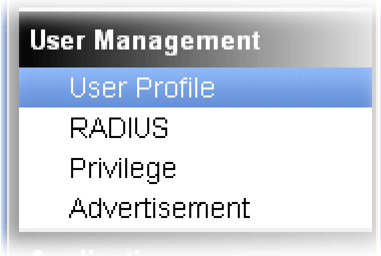
	to be accessed quickly if required. Such item can provide accurate URL matching with faster rate. **L2** – the router will check the URL that the user wants to access via WCF. If the data has been accessed previously, the IP addresses of source and destination IDs will be memorized for a short time (about 1 second) in the router. When the user tries to access the same destination ID, the router will check it by comparing the record stored. If it matches, the page will be retrieved quickly. Such item can provide URL matching with the fastest rate. **L1+L2 Cache** – the router will check the URL with fast processing rate combining the feature of L1 and L2.
Apply	Click it to save the settings.
Reset	Click it to retrieve the default settings of this page.

After finished the settings above, click **Apply** to save the file

4.6 User Management

User Management is a security feature which disallows any IP traffic (except DHCP-related packets) from a particular host until that host has correctly supplied a valid username and password. Instead of managing with IP address/MAC address, User Management function manages hosts with user account. Network administrator can give different firewall policies or rules for different hosts with different User Management accounts. This is more flexible and convenient for network management.

Moreover, the function of Advertisement allows you to display special message for your company or for personal request.



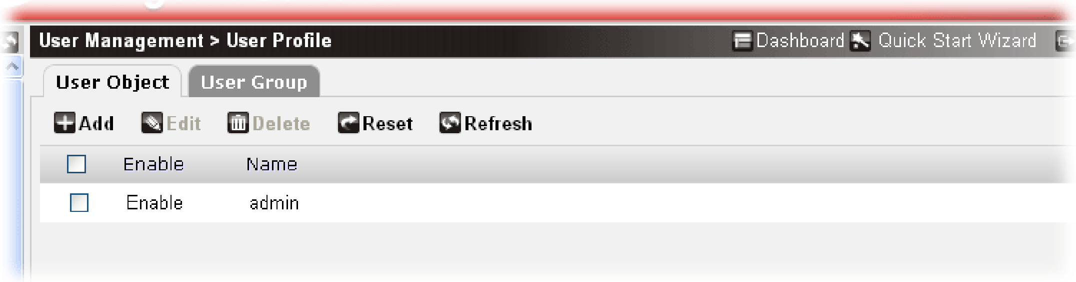
4.6.1 User Profile

You can set customized profiles for user object and user group.

The user profile (including user object and user group) can be found on **Firewall>>Filter Setup** and available for choosing as filter rule.

4.6.1.1 User Object

This page allows you to configure user object profiles.

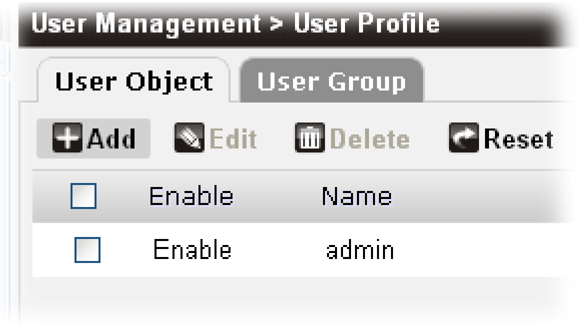


Each item will be explained as follows:

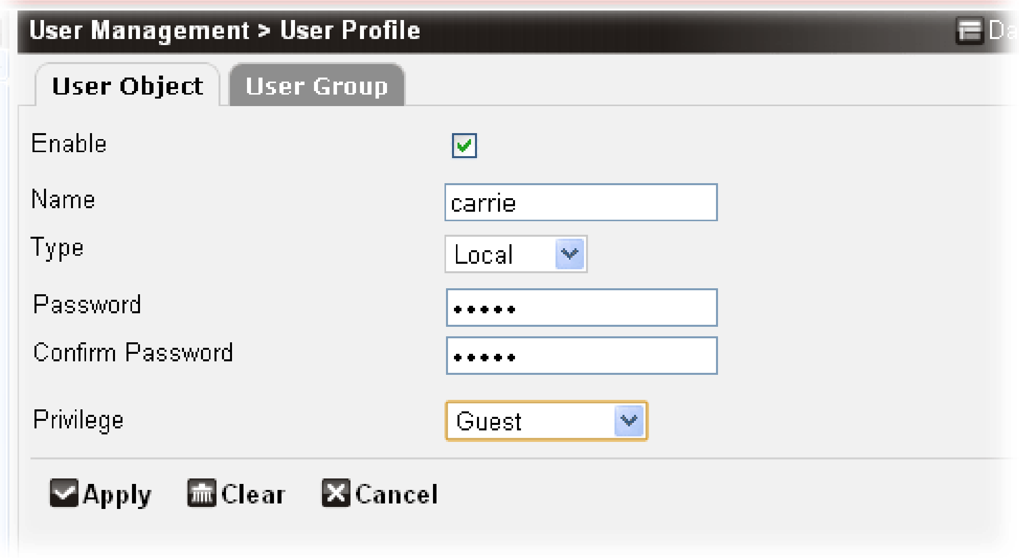
Item	Description
Add	Create a new user object profile.
Edit	Modify the selected user object profile. You have to check the user object profile you want and then click this button to open the edit window for modification.
Delete	Remove the selected user object profile. You have to check the user object profile you want and then click this button.
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to fresh the web page.
Enable	Display the activation status of the user object profile. **Enable** – The user object profile is available for choosing. **Disable** – The user object profile is not available for choosing.
Name	Display the name of the profile. The profile with a name - **admin** is defined in default.

To create a new user object profile, please do the following:

1. Click the **Add** button.



2. The following setting page will appear.



User Management > User Profile

User Object | User Group

Enable ☑

Name: carrie

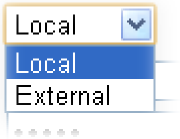
Type: Local

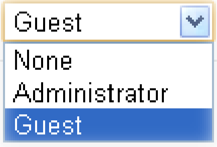
Password: •••••

Confirm Password: •••••

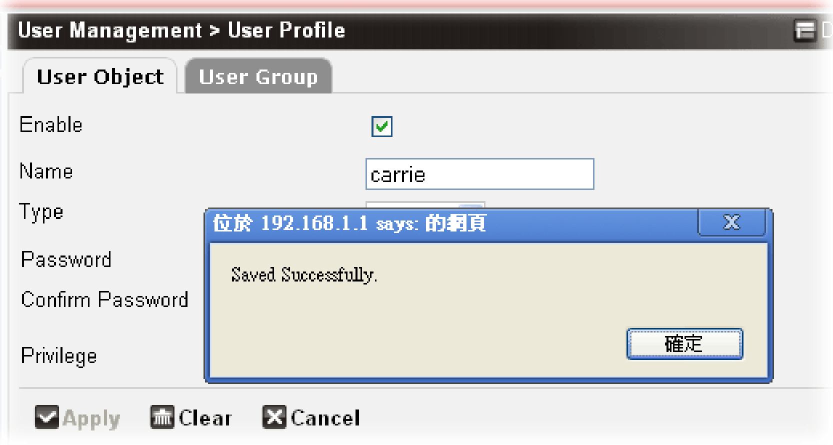
Privilege: Guest

Available parameters are listed below:

Item	Description
Enable	Check this box to enable the user object.
Name	Type a name for such user object. When a user tries to access Internet through this router, an authentication step must be performed first. The user has to type the User Name specified here to pass the authentication. When the user passes the authentication, he/she can access Internet via this router. However the accessing operation will be restricted with the conditions configured in this user profile.
Type	The router will authenticate the dial-in user by itself or by external service such as External server. If External is selected here, it is not necessary to configure the password setting below. 
Password	Type a password for such user object. When a user tries to access Internet through this router, an authentication step must be performed first. The user has to type the password specified here to pass the authentication. When the user passes the authentication, he/she can access Internet via this router with the limitation configured in this user profile.
Confirm Password	Type the password above again to make confirmation.
External Server	It is available when **External** is selected as the **Type.** Use the drop down list to choose an available external server (e.g., RADIUS server). If there is no item to be chosen, it

	means you have not created any external server yet. Simply open User Management>>RADIUS to create a new one. The user object with the type of External does not have any privilege.
Privilege	Choose the privilege from the drop down list for such user object.  **None** – No privilege. **Administrator** – The user object owns all the right that administrator has. **Guest** – The user object owns limited right to access into the web user interface of the router. Additional privileges can be defined in **User Management>>Privilege**.
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to return to previous web page.

3. After finished the settings above, click **Apply** to save the file and wait for the following dialog appears.



User Management > User Profile

Enable ☑

Name carrie

Type

Password

Confirm Password

Privilege

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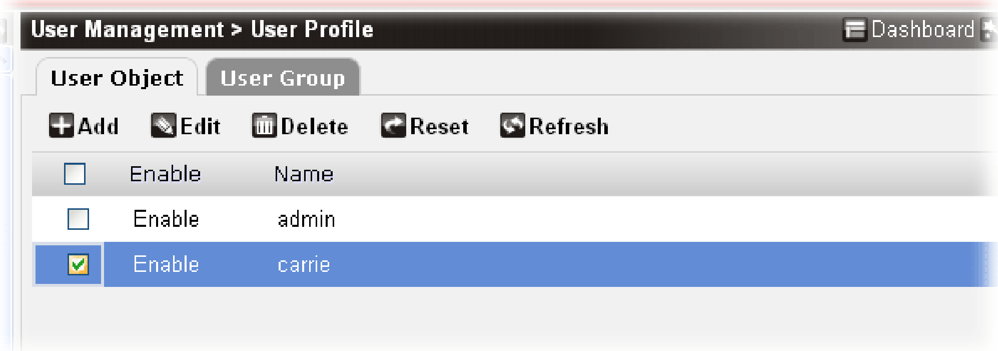
Saved Successfully.

4. Click **OK**. A new user object profile has been created.

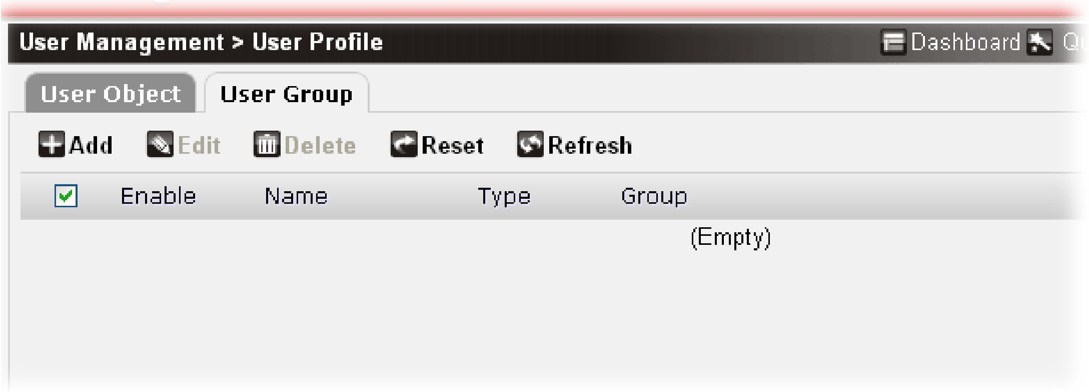


User Management > User Profile

□	Enable	Name
□	Enable	admin
☑	Enable	carrie

4.6.1.2 User Group

This page allows you to bind several user profiles into one group.

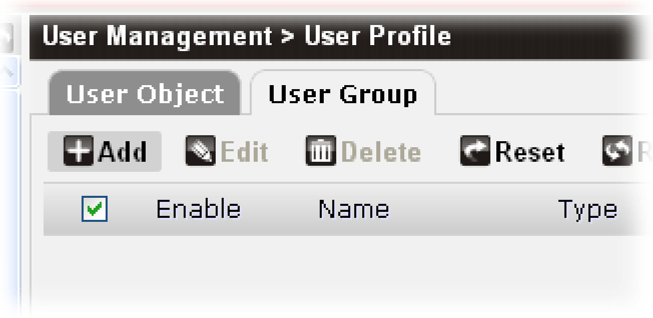


Each item will be explained as follows:

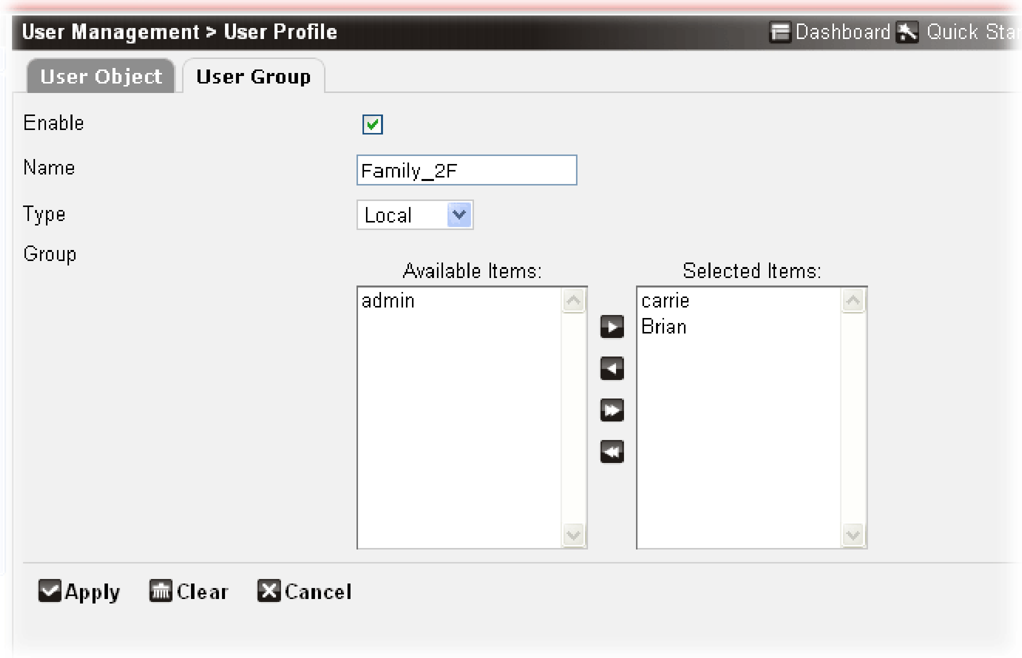
Item	Description
Add	Create a new user object group.
Edit	Modify the selected user group profile. You have to check the user group profile you want and then click this button to open the edit window for modification.
Delete	Remove the selected user group profile. You have to check the user group profile you want and then click this button.
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to fresh the web page.
Enable	Display the activation status of the user group profile. **Enable** – The user group profile is available for choosing. **Disable** – The user group profile is not available for choosing.
Name	Display the name of the profile. The profile with a name - **admin** is defined in default.
Type	Display the type of the group profile.
Group	Display the user object profiles grouped under such user group.

To create a new user group profile, please do the following:

1. Click the **Add** button.



2. The following setting page will appear.



Enable ☑

Name Family_2F

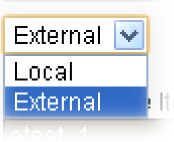
Type Local

Group

Available Items: admin

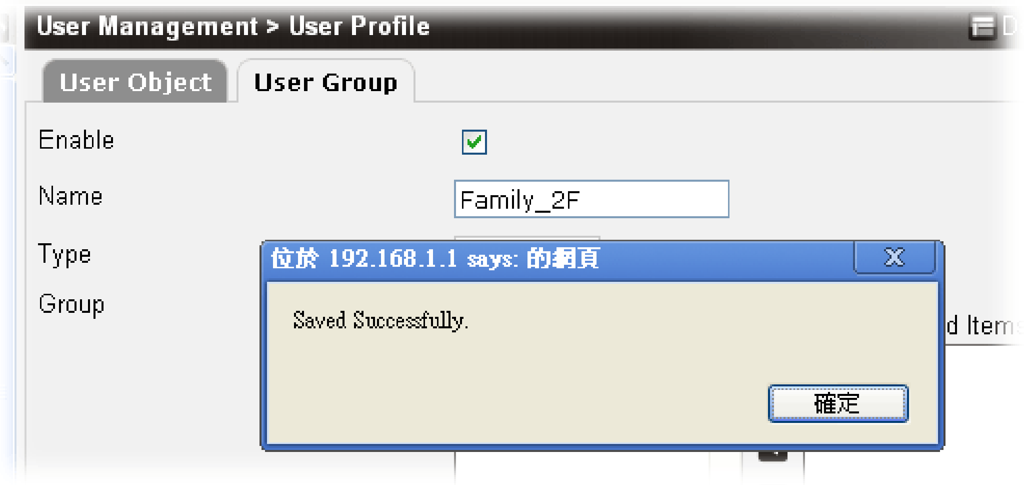
Selected Items: carrie, Brian

Available parameters are listed below:

Item	Description
Enable	Check this box to enable the user object.
Name	Type a name for such user group.
Type	Choose the type you want to display the available user objects. 
Group	Use the “>” button to move the selected item listed in Available Items onto Selected Items. **Available Item**s – Display all the available user objects based on the type you specify above. **Selected Items** – Display the user object selected for such

	group profile.
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to return to previous web page.

3. After finished the settings above, click **Apply** to save the file and wait for the following dialog appears.



Enable ☑

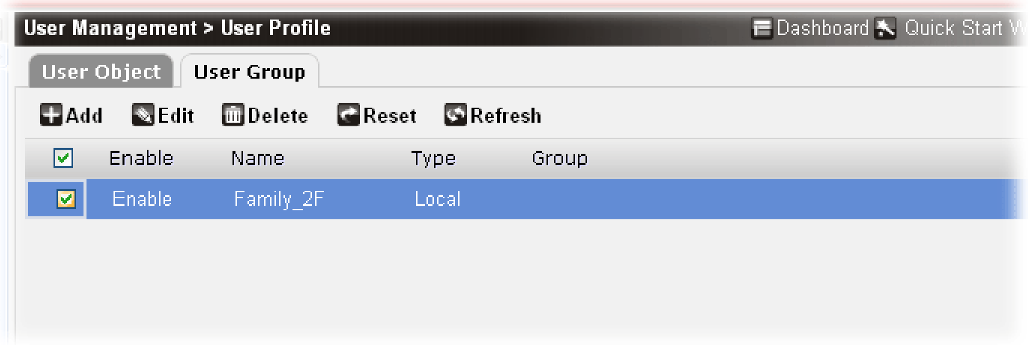
Name Family_2F

Type

Group

Saved Successfully.

4. Click **OK**. A new user group profile has been created.

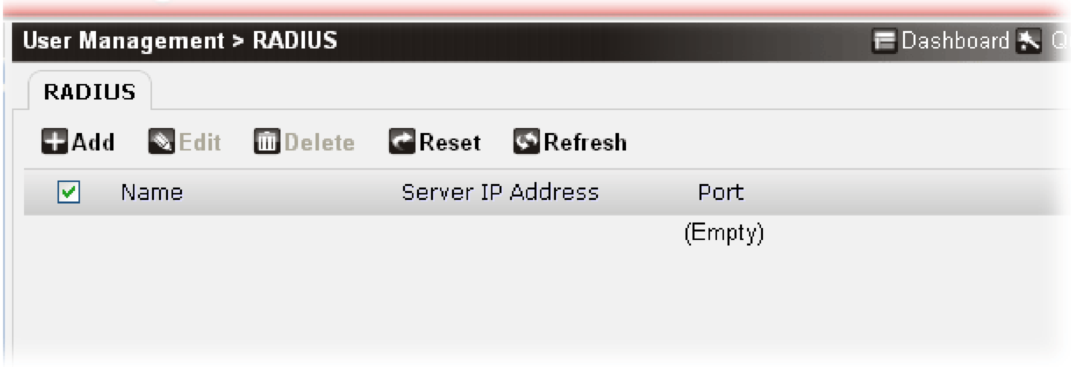


☑	Enable	Name	Type	Group
☑	Enable	Family_2F	Local	

4.6.2 RADIUS

Remote Authentication Dial-In User Service (RADIUS) is a security authentication client/server protocol that supports authentication, authorization and accounting, which is widely used by Internet service providers. It is the most common method of authenticating and authorizing dial-up and tunneled network users.

The built-in RADIUS client feature enables the router to assist the remote dial-in user or a wireless station and the RADIUS server in performing mutual authentication. It enables centralized remote access authentication for network management.

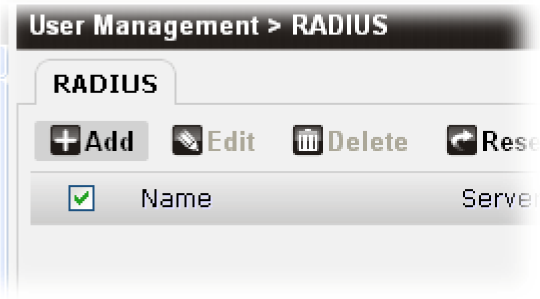


Each item will be explained as follows:

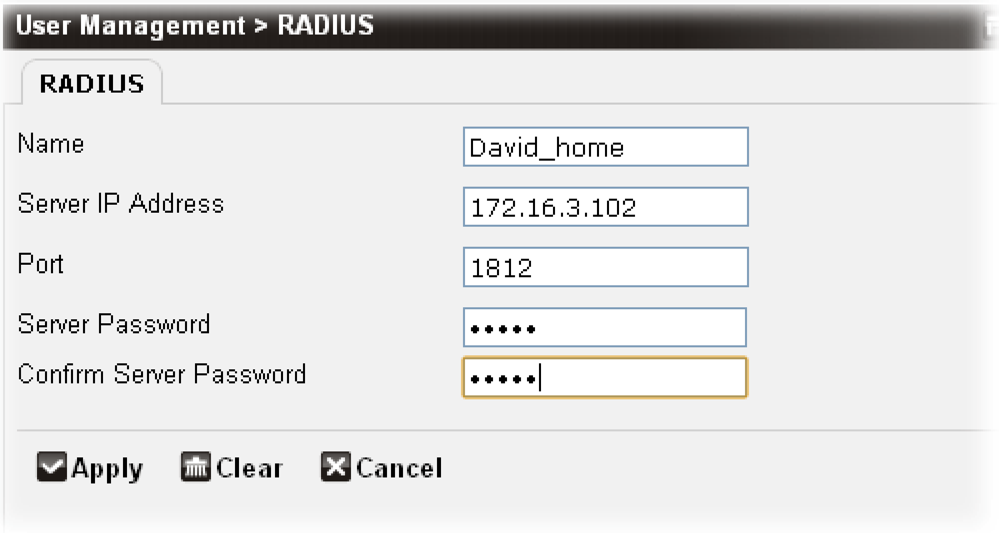
Item	Description
Add	Create a new RADIUS group.
Edit	Modify the selected RADIUS profile. You have to check the RADIUS profile you want and then click this button to open the edit window for modification.
Delete	Remove the selected RADIUS profile. You have to check the RADIUS profile you want and then click this button.
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to fresh the web page.
Name	Display the name of the profile.
Server IP Address	Display the IP address of the RADIUS server.
Port	Display the port number of the RADIUS server.

To create a new RADIUS profile, please do the following:

1. Click the **Add** button.



2. The following setting page will appear.



Name: David_home

Server IP Address: 172.16.3.102

Port: 1812

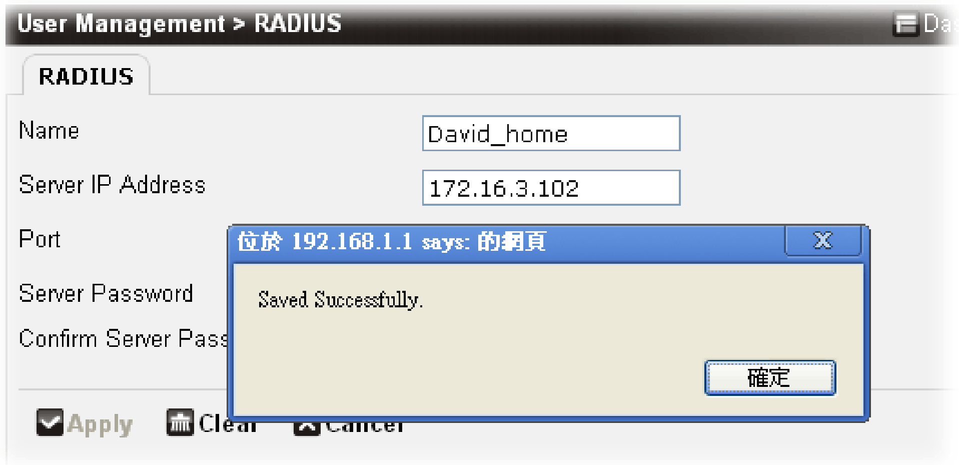
Server Password: •••••

Confirm Server Password: •••••

Available parameters are listed below:

Item	Description
Name	Type a name for the RADIUS server.
Server IP Address	Type the IP address of RADIUS server
Port	The UDP port number that the RADIUS server is using. The default value is 1812, based on RFC 2138.
Server Password	The RADIUS server and client share a password that is used to authenticate the messages sent between them. Both sides must be configured to use the same password.
Confirm Server Password	Re-type the password for confirmation.
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to return to previous web page.

3. After finished the settings above, click **Apply** to save the file and wait for the following dialog appears.


User Management > RADIUS

RADIUS

Name: David_home

Server IP Address: 172.16.3.102

Port

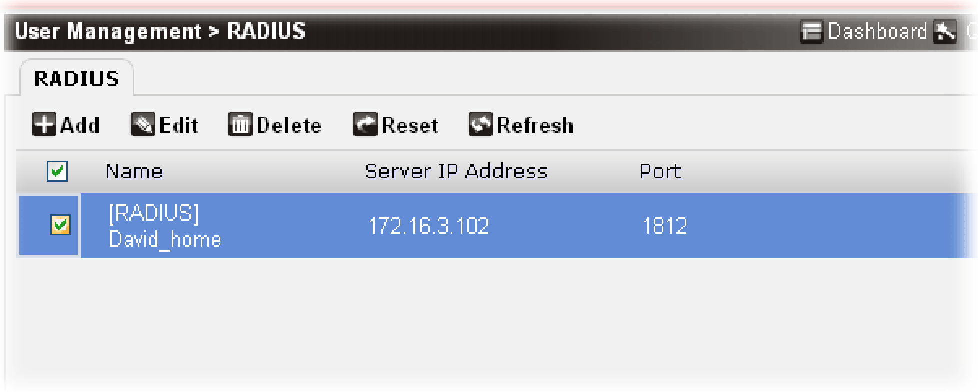
Server Password

Confirm Server Pass

位於 192.168.1.1 says: 的網頁

Saved Successfully.

4. Click **OK**. A new RADIUS profile has been created.

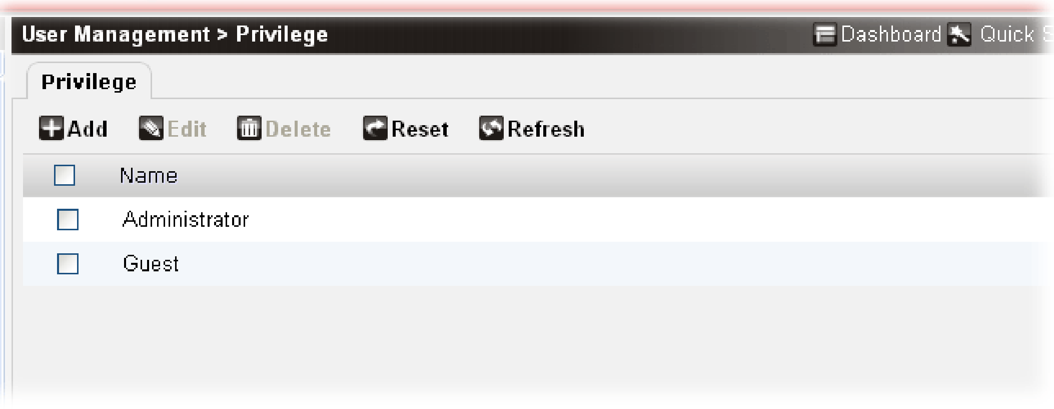

User Management > RADIUS

RADIUS

☑	Name	Server IP Address	Port
☑	[RADIUS] David_home	172.16.3.102	1812

4.6.3 Privilege

This page allows you to configure different privilege profile for the **user object**. Different privilege represents different authority that the user group will have. The great the authority is, the more functions the user /user group will have.


User Management > Privilege

Privilege

□	Name
□	Administrator
□	Guest

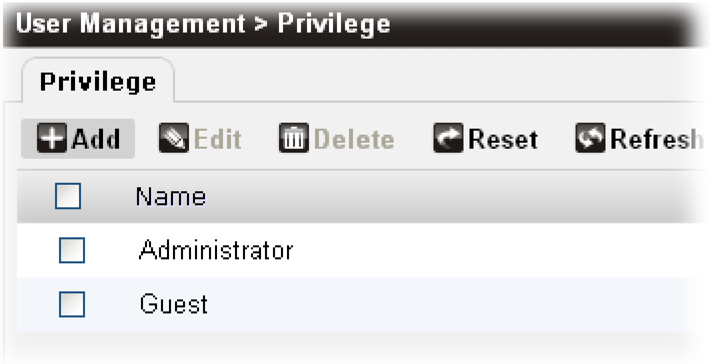
Each item will be explained as follows:

Item	Description
Add	Create a new privilege profile.

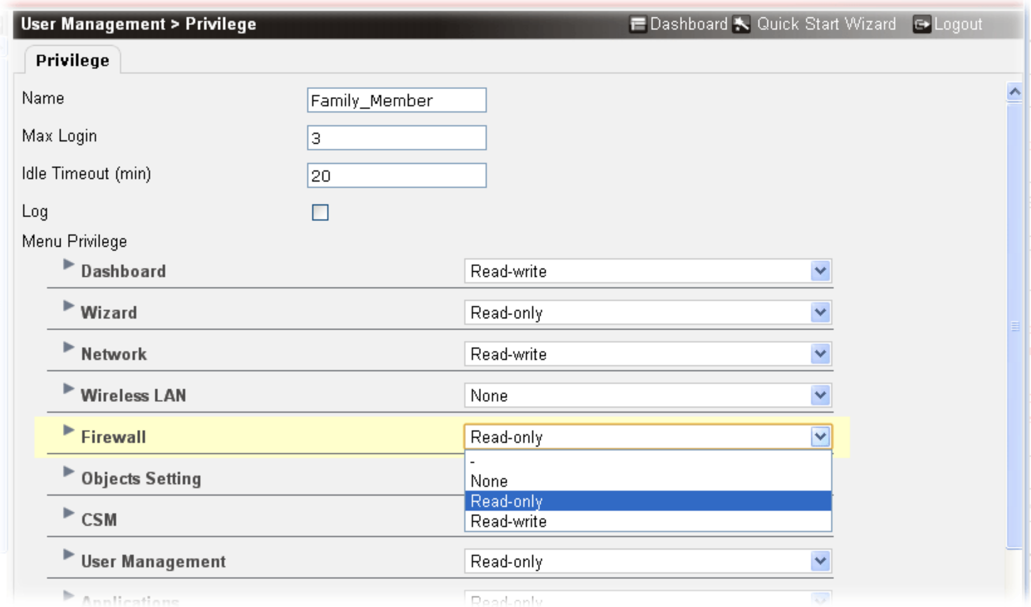
Edit	Modify the selected privilege profile. You have to check the privilege profile you want and then click this button to open the edit window for modification.
Delete	Remove the selected privilege profile. You have to check the privilege profile you want and then click this button.
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to fresh the web page.
Name	Display the name of the privilege profile. The profiles with names – **Administrator** and **Guest** are defined in default.

To create a new privilege profile, please do the following:

1. Click the **Add** button.



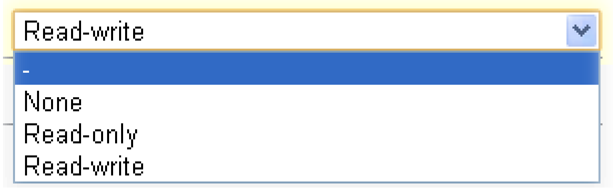
2. The following setting page will appear.



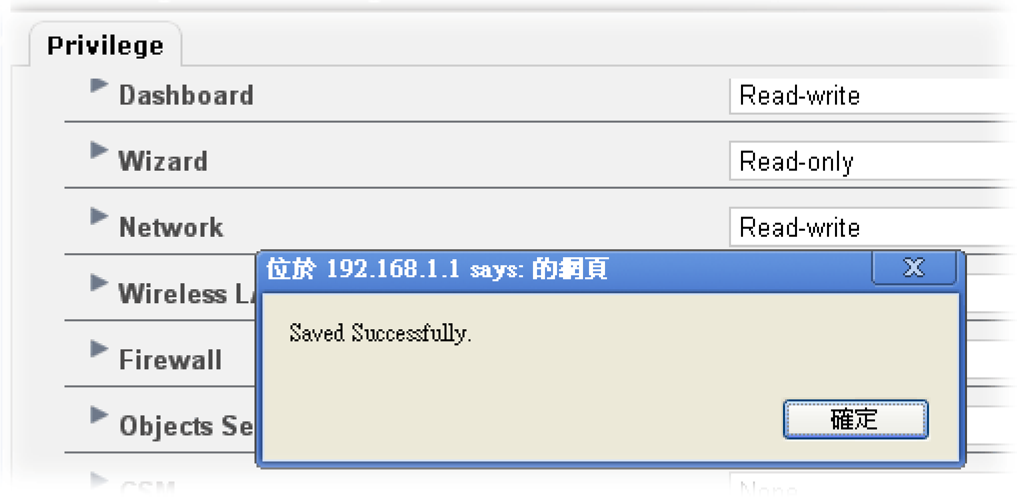
Name	Family_Member
Max Login	3
Idle Timeout (min)	20
Log	□
Menu Privilege	
Dashboard	Read-write
Wizard	Read-only
Network	Read-write
Wireless LAN	None
Firewall	Read-only
Objects Setting	
CSM	
User Management	Read-only
Applications	Read-only

Available parameters are listed below:

Item	Description
Name	Type a name for such new privilege profile.

Max Login	The number specified here means the system allows the number of the remote user accessing into web user interface at one time.
Idle Timeout	Set the timeout for breaking down the Internet after passing through the time without any action.
Log	Check the box to make the accessing information of the user be displayed in Syslog
Menu Privilege	All the menu items are displayed in this page. When you create a privilege profile, you have to specify which item is **Read-only** or **Read-write**. If that item shall not be seen by the user, simply choose **None**.  Any user accesses into web user interface of Vigor router will see different menu items according to the privilege defined for that user account.
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to return to previous web page.

3. After finished the settings above, click **Apply** to save the file and wait for the following dialog appears.



Privilege

Dashboard Read-write

Wizard Read-only

Network Read-write

Wireless L

Firewall

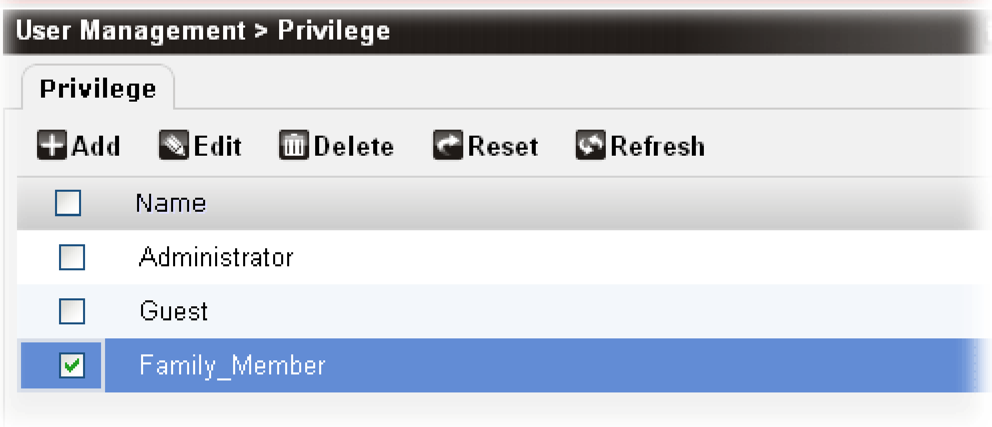
Objects Se

GSM None

位於 192.168.1.1 says: 的網頁

Saved Successfully.

4. Click **OK**. A new privilege profile has been created.



User Management > Privilege

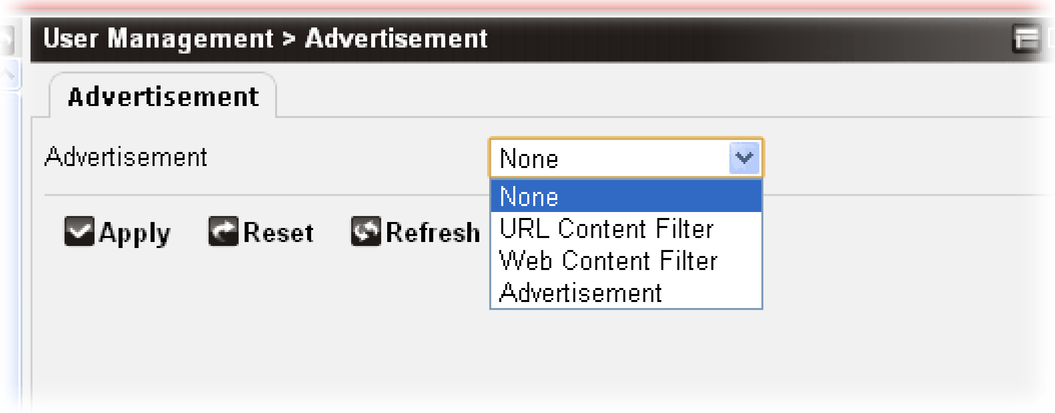
Privilege

	Name
□	Administrator
□	Guest
☑	Family_Member

4.6.4 Advertisement

This page allows you to open the advertisement mode for your company or for personal request. If the function is applied, you will see a pop-up advertisement screen appeared on your screen according to the condition you defined.

This function shall be used along with **System Maintenance>>Administrator Setting**.



User Management > Advertisement

Advertisement

Advertisement: None

Each item will be explained as follows:

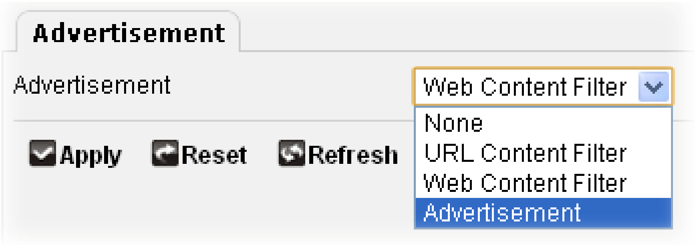
Item	Description
Advertisement	There are three types offered for you to choose.
Apply	Click it to save the settings.
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to fresh the web page.

4.6.4.1 Example for Advertisement

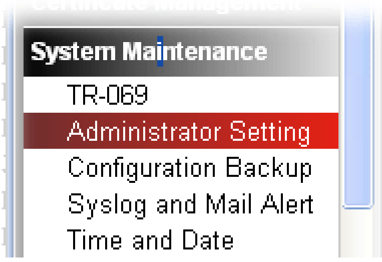
Here is an example which will show you how to make a log-in advertisement.

1. Open **User Management>>Advertisement**.

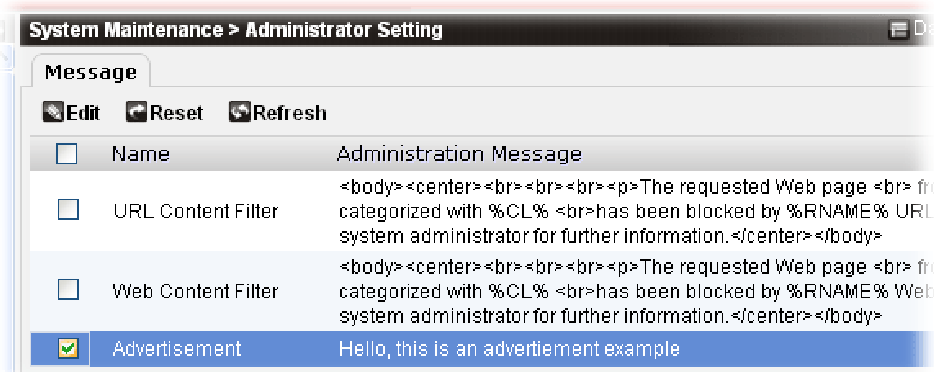
2. Choose **Advertisement** and click **Apply**.



3. Open **System Maintenance>>Administrator Setting.**

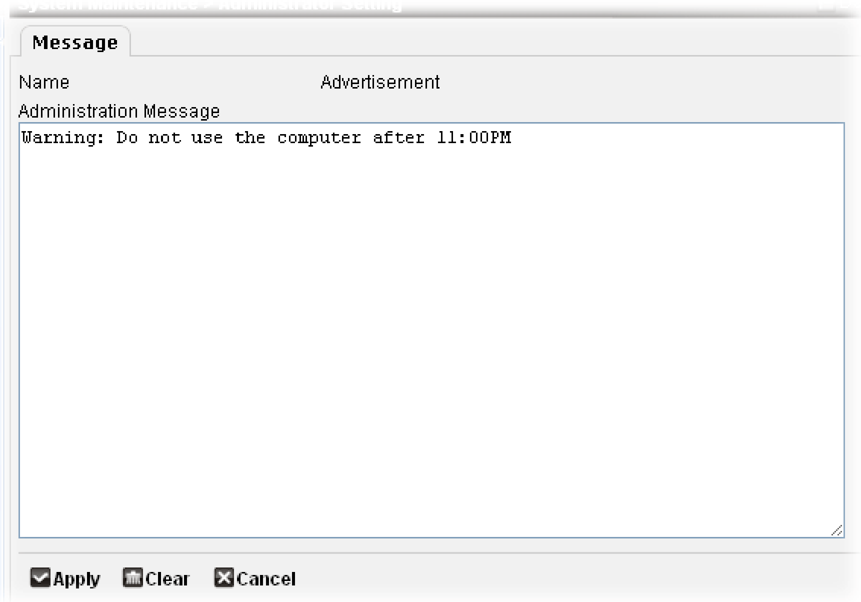


4. Check the box in front of **Advertisement**. Then, click **Edit**.



□	Name	Administration Message
□	URL Content Filter	<body><center> <p>The requested Web page fr categorized with %CL% has been blocked by %RNAME% URL system administrator for further information.</center></body>
□	Web Content Filter	<body><center> <p>The requested Web page fr categorized with %CL% has been blocked by %RNAME% Web system administrator for further information.</center></body>
☑	Advertisement	Hello, this is an advertiement example

5. In the **Administration Message** box, type the message that you want to display on the screen (e.g., *Warning: Do not use the computer after 11:00PM*).



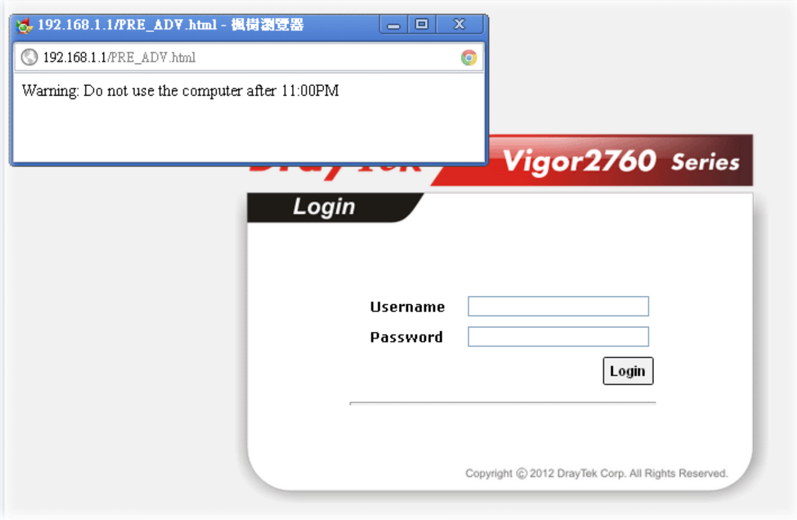
Name Advertisement

Administration Message

```
Warning: Do not use the computer after 11:00PM
```

6. After finishing the writing, click **Apply** to save the setting.

7. Log out Vigor router and re-log into the web user interface of Vigor2760. You will see a pop-up window with the sentence – "*Warning: Do not use the computer after 11:00PM*".



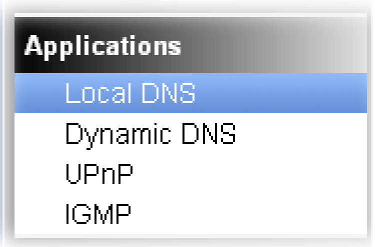
192.168.1.1/PRE_ADV.html - 楓樹瀏覽器

192.168.1.1/PRE_ADV.html

Warning: Do not use the computer after 11:00PM

4.7 Applications

Below shows the menu items for Applications.

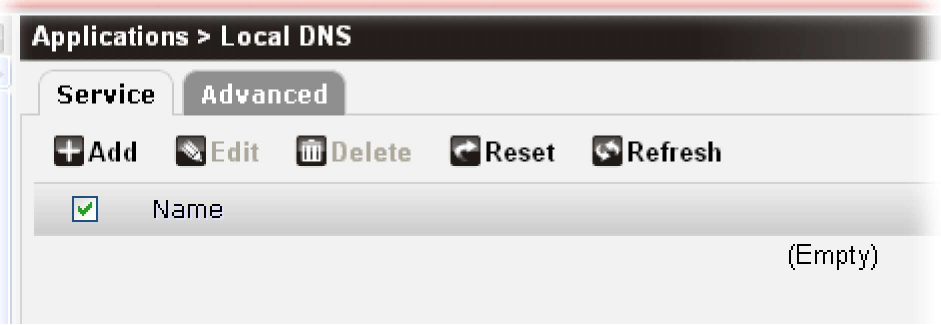


4.7.1 Local DNS

You can define the IP address mapping to a specified domain name. When a user inquires that domain name, the request will be sent to local DNS first which can speed up the inquiry.

4.7.1.1 Service

This page is used to add new domain name profiles and modify the profiles whenever you want.



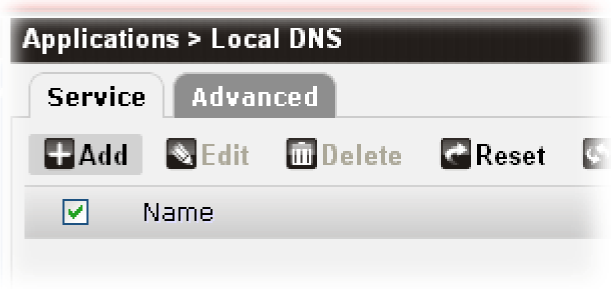
Each item will be explained as follows:

Item	Description

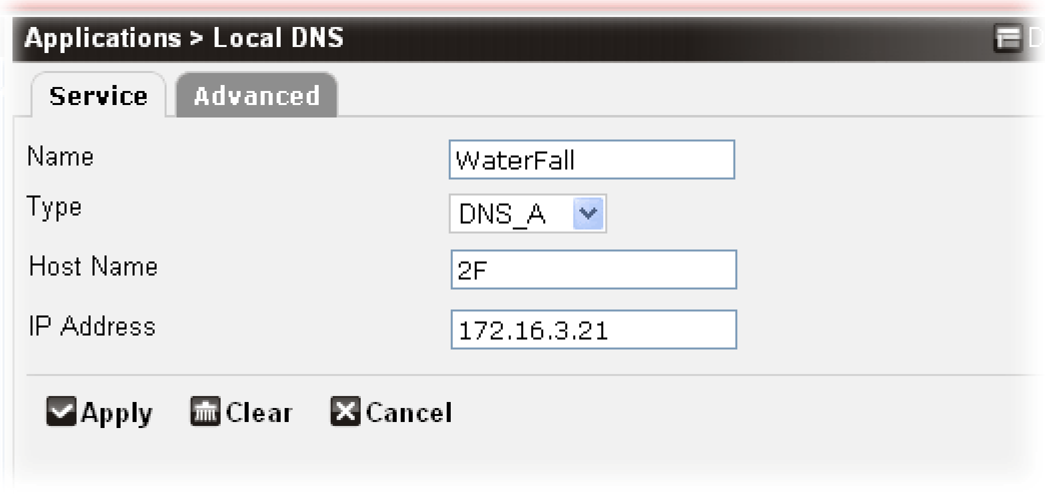
Add	Create a new DNS profile.
Edit	Modify the selected DNS profile. You have to check the DNS profile you want and then click this button to open the edit window for modification.
Delete	Remove the selected DNS profile. You have to check the DNS profile you want and then click this button.
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to fresh the web page.
Name	Display the name of the profile.

To create a new DNS service profile, please do the following:

1. Click the **Add** button.



2. The following setting page will appear.



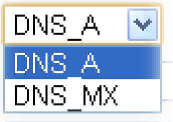
Name: WaterFall

Type: DNS_A

Host Name: 2F

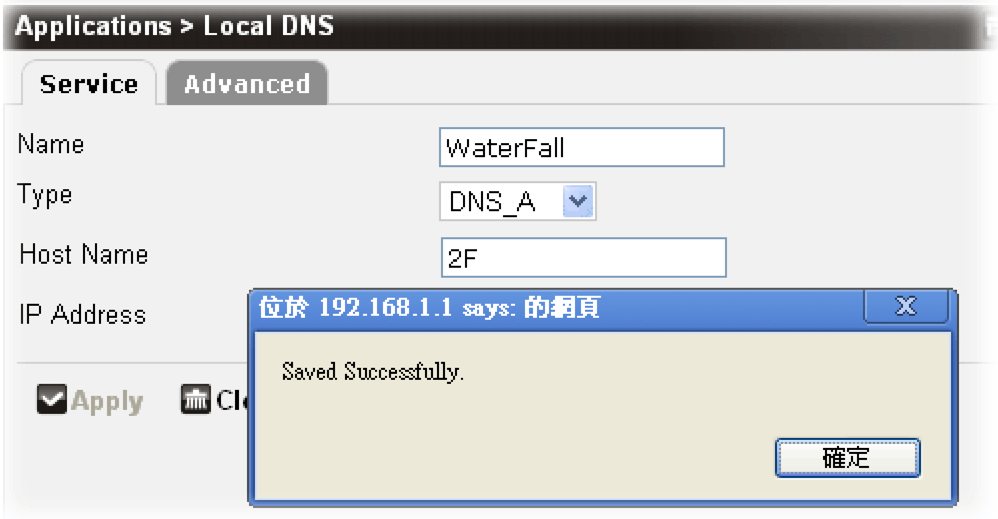
IP Address: 172.16.3.21

Available parameters are listed below:

Item	Description
Name	Type a name for such local DNS profile.
Type	Choose the type for such DNS service profile.  DNS_A DNS_A DNS_MX

	DNS_A – The domain name must be mapped to an IP address. DNS_MX – The domain name must be mapped to a mail server.
Host Name	If DNS_A is selected as a type, simply type the name of the host (e.g., draytek.com). If DNS_MX is selected as a type, simply type the name of the mail server (e.g., draytek.com).
IP Address	If DNS_A is selected as a type, type an IP address (e.g., 192.168.1.56) for mapping to the host.
Mail Server	If DNS_MX is selected as a type, type an IP address (e.g., 172.16.2.8) of the mail server.
Preference	Set the priority of the mail server (ranging from 0 – 65535). This setting is available when DNS_MX is selected as the Type.
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to return to previous web page.

3. After finished the settings above, click **Apply** to save the file and wait for the following dialog appears.



Name: WaterFall

Type: DNS_A

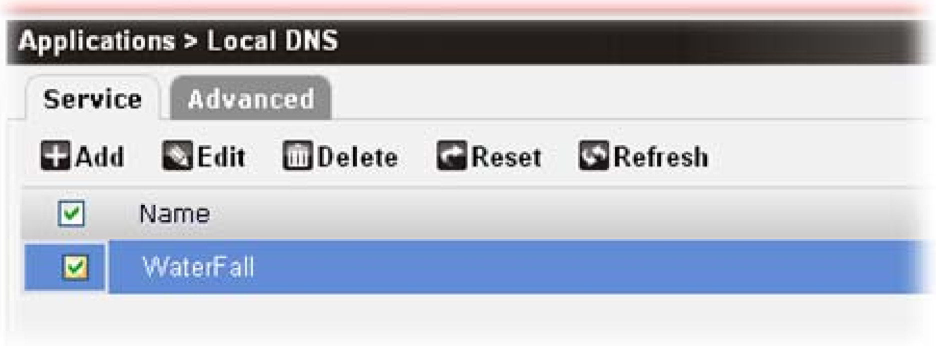
Host Name: 2F

IP Address

位於 192.168.1.1 says: 的網頁

Saved Successfully.

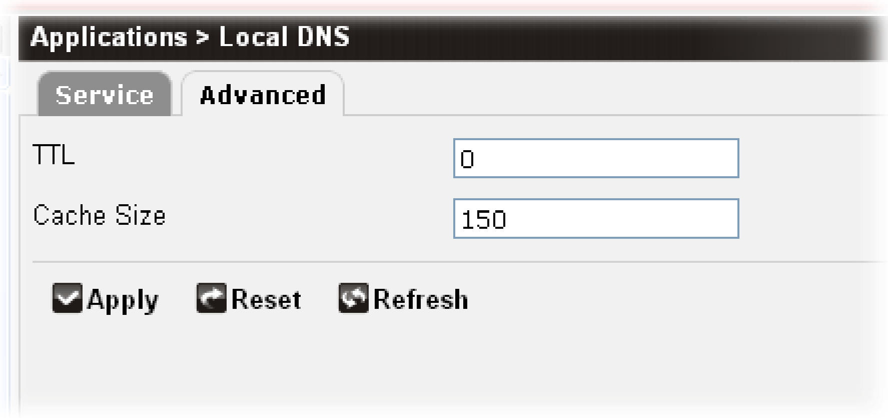
4. Click **OK**. A new DNS service profile has been created.



☑	Name
☑	WaterFall

4.7.1.2 Advanced

This page offers some advanced settings (such as TTL, Cache Size and so on) for local DNS service.



TTL: 0

Cache Size: 150

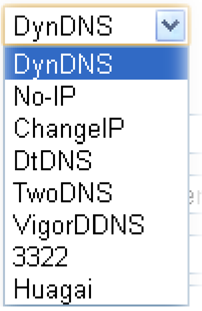
Each item will be explained as follows:

Item	Description
TTL	TTL means Time to Live. Type the value for the local DNS cache lives.
Cache Size	Type the size (default is 150) of the cache. The cache is used to record the result of DNS inquiry.
Apply	Click it to save the settings.
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to fresh the web page.

4.7.2 Dynamic DNS

The ISP often provides you with a dynamic IP address when you connect to the Internet via your ISP. It means that the public IP address assigned to your router changes each time you access the Internet. The Dynamic DNS feature lets you assign a domain name to a dynamic WAN IP address. It allows the router to update its online WAN IP address mappings on the specified Dynamic DNS server. Once the router is online, you will be able to use the registered domain name to access the router or internal virtual servers from the Internet. It is particularly helpful if you host a web server, FTP server, or other server behind the router.

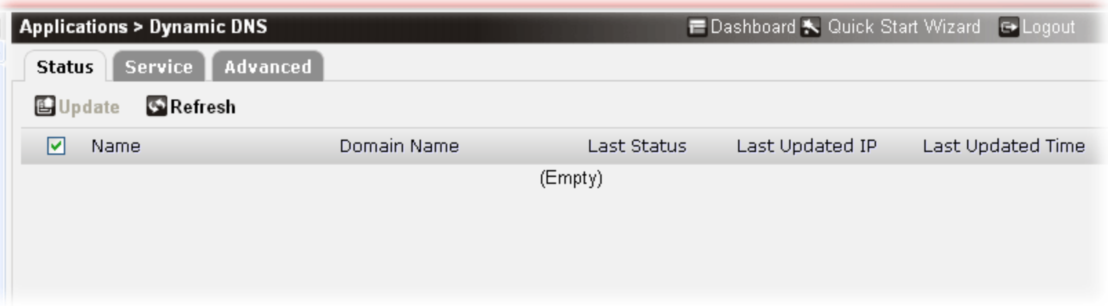
Before you use the Dynamic DNS feature, you have to apply for free DDNS service to the DDNS service providers. The router provides up to eight accounts from three different DDNS service providers. Basically, Vigor routers are compatible with the DDNS services supplied by most popular DDNS service providers such as **www.dyndns.org, www.no-ip.com, www.dtdns.com, www.changeip.com, www.twodny.com, www.vigorddns, www.3322.org**, and **www.huagai.com.**



You should visit their websites to register your own domain name for the router.

4.7.2.1 Status

This page displays the information for the available user accounts and all the registered domain names from the DDNS provider.



☑	Name	Domain Name	Last Status	Last Updated IP	Last Updated Time
			(Empty)		

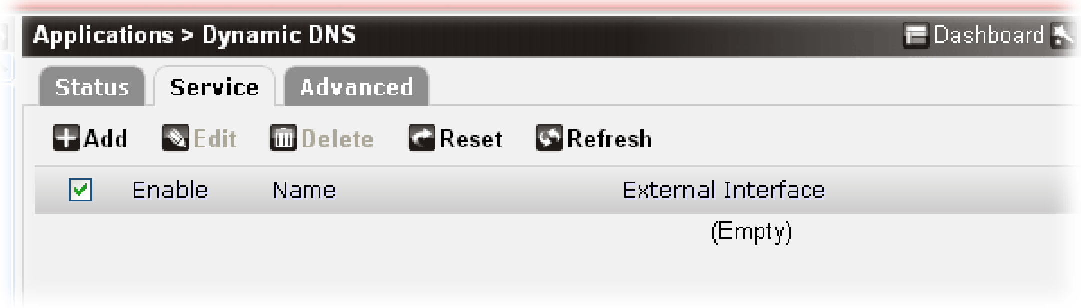
Each item will be explained as follows:

Item	Description
Update	Click it to update the IP address of the DDNS server and display in this page immediately.
Refresh	Click it to refresh the information of the web page.
Name	Display the profile name of the DDNS server profile.
Domain Name	Display the domain name that the DDNS server profile uses.

Last Status	Display the status of the DDNS server.
Last Updated IP	Display the IP address which obtained from the last inquiry of DDNS Server.
Last Updated Time	Display the time of the last update.

4.7.2.2 Service

This page allows you create DDNS service account. If the service profile is enabled, it will be displayed on Status page.

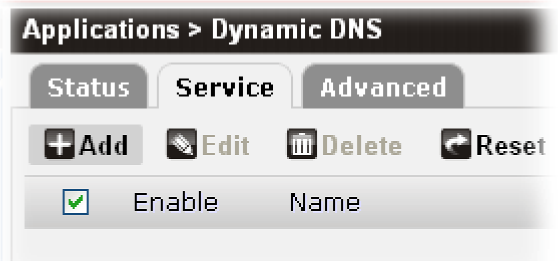


Each item will be explained as follows:

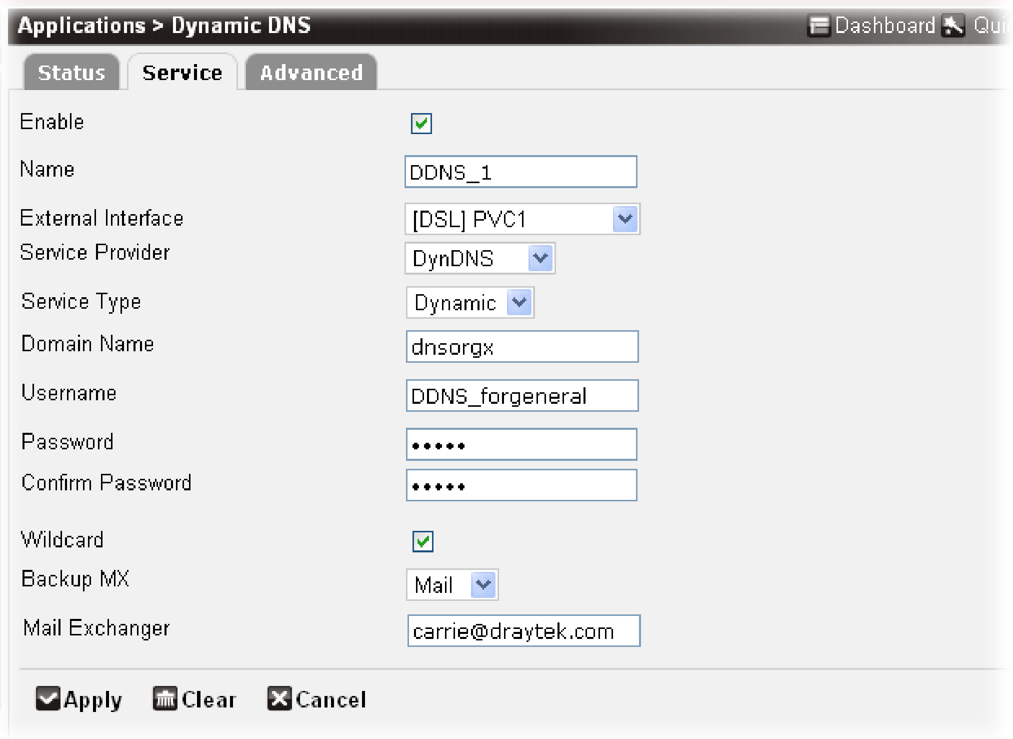
Item	Description
Add	Create a new DDNS service profile.
Edit	Modify the selected DDNS service profile. You have to check the DDNS service profile you want and then click this button to open the edit window for modification.
Delete	Remove the selected DDNS service profile. You have to check the DDNS service profile you want and then click this button.
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to fresh the web page.
Enable	Display the activation status of the service profile. **Enable** – The service profile is available for choosing. **Disable** – The service profile is not available for choosing.
Name	Display the name of the profile.

To create a new DNS service profile, please do the following:

1. Click the **Add** button.



2. The following setting page will appear.



Enable ☑

Name DDNS_1

External Interface [DSL] PVC1

Service Provider DynDNS

Service Type Dynamic

Domain Name dnsorgx

Username DDNS_forgeneral

Password •••••

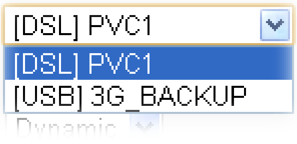
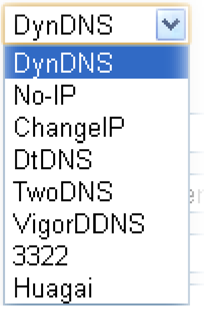
Confirm Password •••••

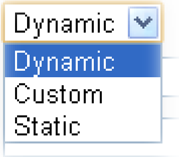
Wildcard ☑

Backup MX Mail

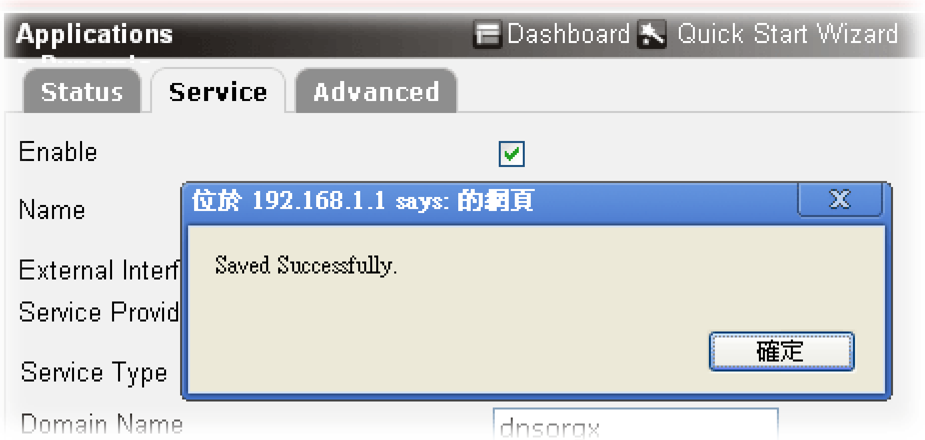
Mail Exchanger carrie@draytek.com

Available parameters are listed below:

Item	Description
Enable	Check this box to enable the current account.
Name	Type a name for such profile.
External Interface	While connecting, the router will use PVC 1 or 3G_BACKUP as the channel for such account. Choose the one you want. 
Service Provider	Select the service provider for the DDNS account.  DynDNS DynDNS No-IP ChangeIP DtDNS TwoDNS VigorDDNS 3322 Huagai
Service Type	Select a service type (Dynamic, Custom or Static). If you choose Custom, you can modify the domain that is chosen in the Domain Name field.

	
Domain Name	Type in one domain name that you applied previously. Use the drop down list to choose the desired domain.
Username	Type in the name that you set for applying domain.
Password	Type in the password that you set for applying domain.
Confirm Password	Type in the password again for confirmation.
Wildcard / Backup MX	The Wildcard and Backup MX (Mail Exchange) features are not supported for all Dynamic DNS providers. You could get more detailed information from their websites.
Mail Exchanger	If the mail server is defined with another name, please type the name in this area. Such mail server will be used as backup mail exchange.
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to return to previous web page.

3. After finished the settings above, click **Apply** to save the settings and wait for the following dialog appears.



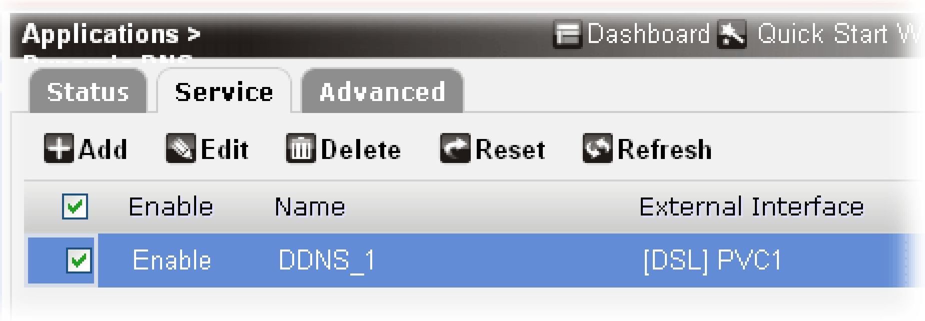
Enable ☑

Domain Name dnsorgx

位於 192.168.1.1 says: 的網頁

Saved Successfully.

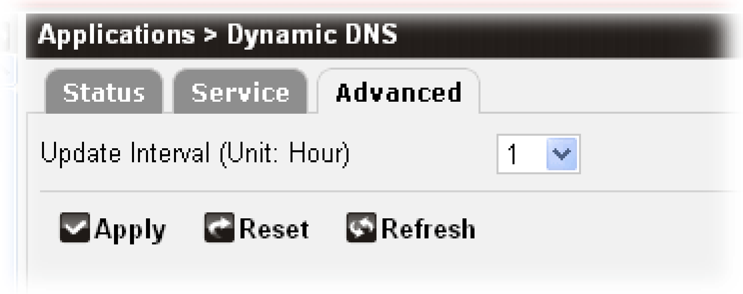
4. Click **OK**. A new DNS service profile has been created.



☑	Enable	Name	External Interface
☑	Enable	DDNS_1	[DSL] PVC1

4.7.2.3 Advanced

This page offers some advanced settings (such as Update Interval) for DDNS service.



Applications > Dynamic DNS

Update Interval (Unit: Hour) 1

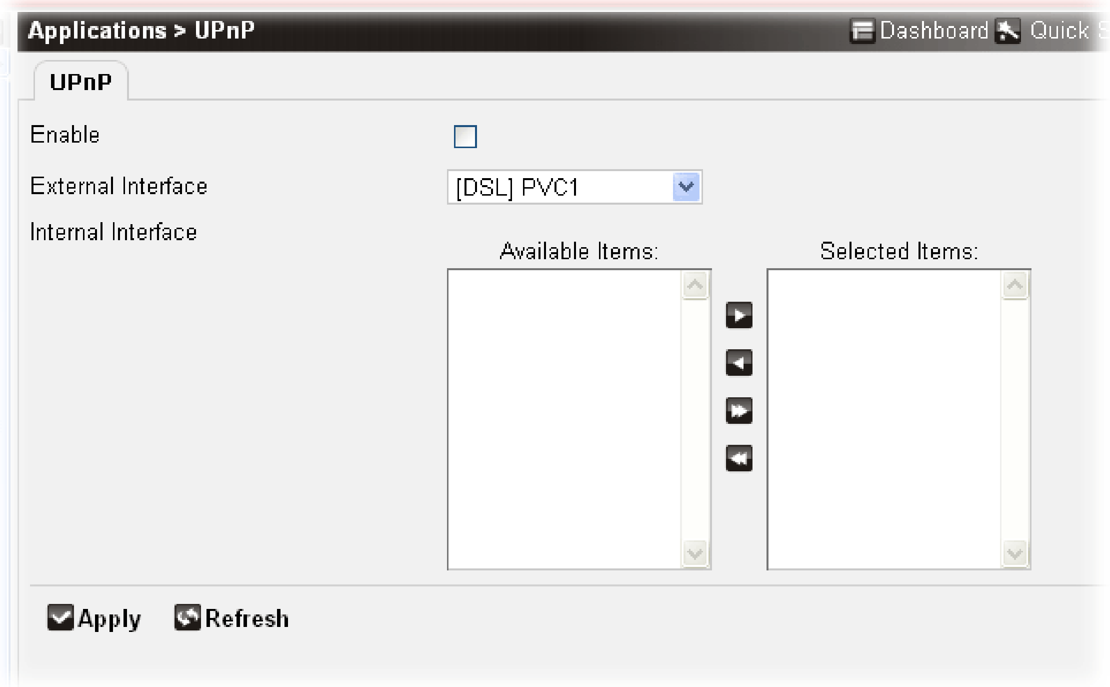
Each item will be explained as follows:

Item	Description
Update Interval (Unit: Hour)	Let the router update its information to DDNS server within the interval configured here.
Apply	Click it to save the settings.
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to remove the modification of the web page.

After finished the settings above, click **Apply** to save the settings.

4.7.3 UPnP

The **UPnP** (Universal Plug and Play) protocol is supported to bring to network connected devices the ease of installation and configuration which is already available for directly connected PC peripherals with the existing Windows 'Plug and Play' system. For NAT routers, the major feature of UPnP on the router is “NAT Traversal”. This enables applications inside the firewall to automatically open the ports that they need to pass through a router. It is more reliable than requiring a router to work out by itself which ports need to be opened. Further, the user does not have to manually set up port mappings or a DMZ. **UPnP is available on Windows XP** and the router provide the associated support for MSN Messenger to allow full use of the voice, video and messaging features.



Enable □

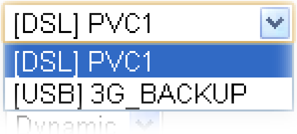
External Interface [DSL] PVC1

Internal Interface

Available Items:

Selected Items:

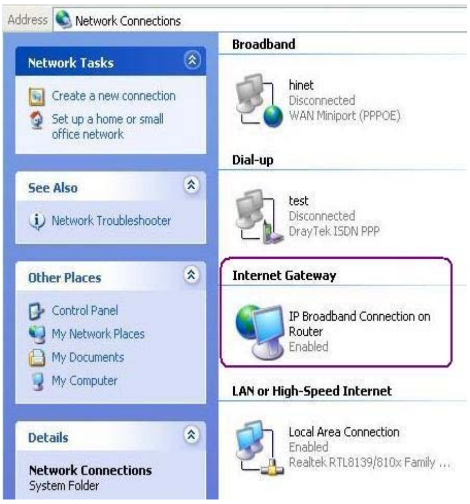
Available parameters are listed below:

Item	Description
Enable	Check this box to enable this profile.
External Interface	It is used to specify the WAN interface (for external connection) for applying such function. The default setting is PVC1.  [DSL] PVC1 [DSL] PVC1 [USB] 3G_BACKUP
Internal Interface	It is used to specify the LAN interface (for internal connection) for applying such function. Use the “>” button to move the selected item listed in Available Items onto Selected Items. **Available Items** – Display all the available user objects based on the type you specify above. **Selected Items** – Display the user object selected for such

	group profile.
Apply	Click it to save the settings.
Refresh	Click it to remove the modification of the web page.

After finished the settings above, click **Apply** to save the settings.

After setting **Enable UPNP Service** setting, an icon of **IP Broadband Connection on Router** on Windows XP/Network Connections will appear. The connection status and control status will be able to be activated. The NAT Traversal of UPnP enables the multimedia features of your applications to operate. This has to manually set up port mappings or use other similar methods. The screenshots below show examples of this facility.



Address Network Connections

Network Connections
System Folder

Broadband

hinet
Disconnected
WAN Miniport (PPPOE)

Dial-up

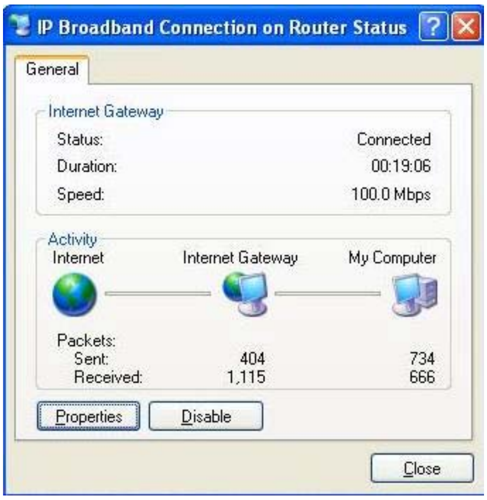
test
Disconnected
DrayTek ISDN PPP

Internet Gateway

IP Broadband Connection on Router
Enabled

LAN or High-Speed Internet

Local Area Connection
Enabled
Realtek RTL8139/810x Family ...



IP Broadband Connection on Router Status

General

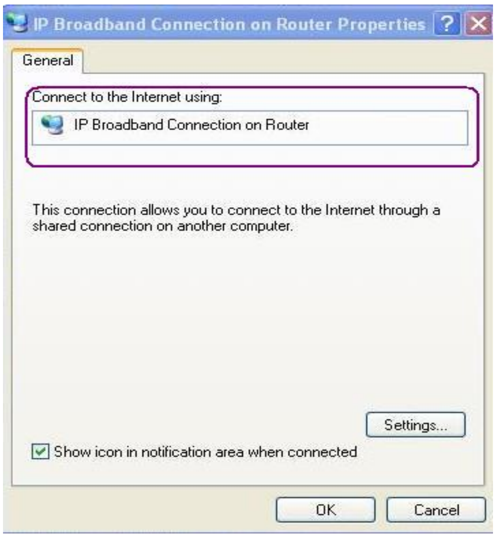
Internet Gateway

Status: Connected
Duration: 00:19:06
Speed: 100.0 Mbps

Activity

	Internet	Internet Gateway	My Computer
Packets:			
Sent:		404	734
Received:		1,115	666

The UPnP facility on the router enables UPnP aware applications such as MSN Messenger to discover what are behind a NAT router. The application will also learn the external IP address and configure port mappings on the router. Subsequently, such a facility forwards packets from the external ports of the router to the internal ports used by the application.



IP Broadband Connection on Router Properties

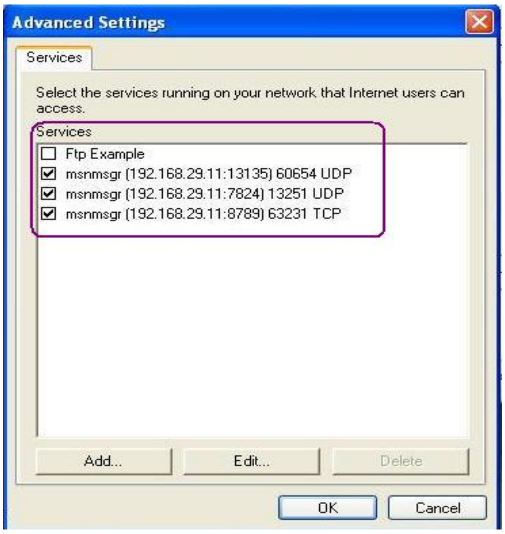
General

Connect to the Internet using:

IP Broadband Connection on Router

This connection allows you to connect to the Internet through a shared connection on another computer.

☑ Show icon in notification area when connected



Advanced Settings

Services

Select the services running on your network that Internet users can access.

Services

☐ Ftp Example
☑ msnmsgr (192.168.29.11:13135) 60654 UDP
☑ msnmsgr (192.168.29.11:7824) 13251 UDP
☑ msnmsgr (192.168.29.11:8789) 63231 TCP

Can't work with Firewall Software

Enabling firewall applications on your PC may cause the UPnP function not working properly. This is because these applications will block the accessing ability of some network ports.

Security Considerations

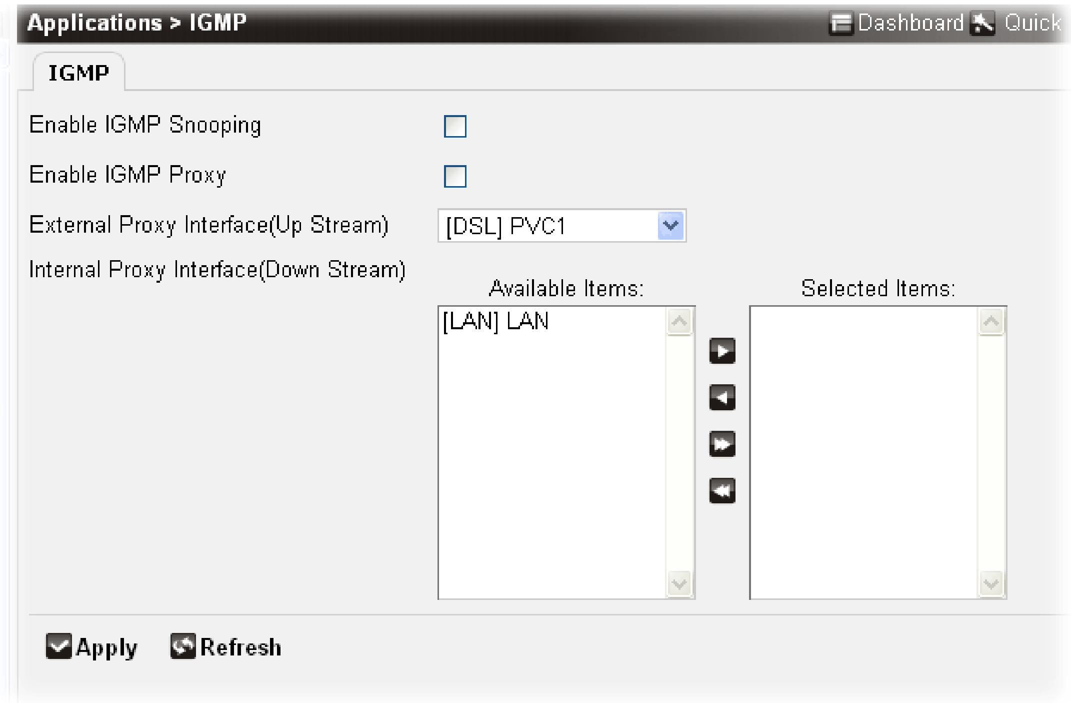
Activating the UPnP function on your network may incur some security threats. You should consider carefully these risks before activating the UPnP function.

- Some Microsoft operating systems have found out the UPnP weaknesses and hence you need to ensure that you have applied the latest service packs and patches.
- Non-privileged users can control some router functions, including removing and adding port mappings.

The UPnP function dynamically adds port mappings on behalf of some UPnP-aware applications. When the applications terminate abnormally, these mappings may not be removed.

4.7.4 IGMP

IGMP is the abbreviation of *Internet Group Management Protocol*. It is a communication protocol which is mainly used for managing the membership of Internet Protocol multicast groups.



Enable IGMP Snooping □

Enable IGMP Proxy □

External Proxy Interface(Up Stream) [DSL] PVC1

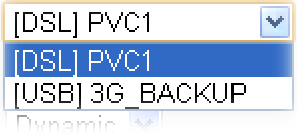
Internal Proxy Interface(Down Stream)

Available Items: [LAN] LAN

Selected Items:

Available parameters are listed below:

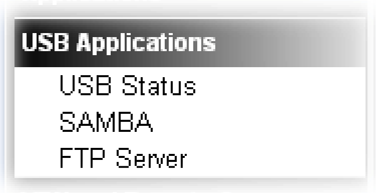
Item	Description
Enable IGMP Snooping	Check this box to enable this profile. Multicast traffic will be forwarded to ports that have members of that group. Disabling IGMP snooping will make multicast traffic treated in the same manner as broadcast traffic.
Enable IGMP Proxy	Check this box to enable this profile. The application of multicast will be executed through WAN port. In addition, such function is available in NAT mode.
External Proxy Interface (Up Stream)	Define which WAN interface shall receive the Multicast Stream (IPTV Traffic) here.

	The default setting is PVC1.  [DSL] PVC1 [DSL] PVC1 [USB] 3G_BACKUP
Internal Proxy Interface (Down Stream)	It is used to specify the LAN interface (for internal connection) for applying such function. Select the LAN interfaces where the IPTV clients will reside. Use the “>” button to move the selected item listed in Available Items onto Selected Items. **Available Item**s – Display all the available user objects based on the type you specify above. **Selected Items** – Display the user object selected for such group profile.
Apply	Click it to save the settings.
Refresh	Click it to remove the modification of the web page.

After finished the settings above, click **Apply** to save the settings.

4.8 USB Applications

USB storage disk connected on Vigor router can be regarded as a server. By way of Vigor router, clients on LAN can access, write and read data stored in USB storage disk with different applications. Then, the client can use the FTP site (USB storage disk) or share the Samba service through Vigor router.

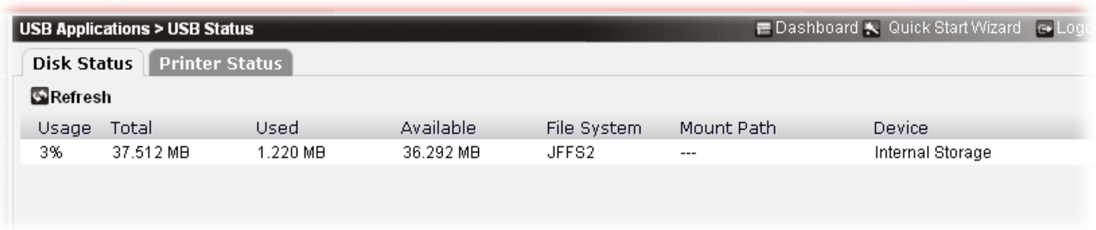


4.8.1 USB Status

This page displays the "storage" status of the USB disk which users can access via FTP or Samba. If you plug in one USB disk, related information will be shown here. If you plug in two USB disks, then both of them will be displayed at the same time.

4.8.1.1 Disk Status

This page display the general information of the USB disk connected.



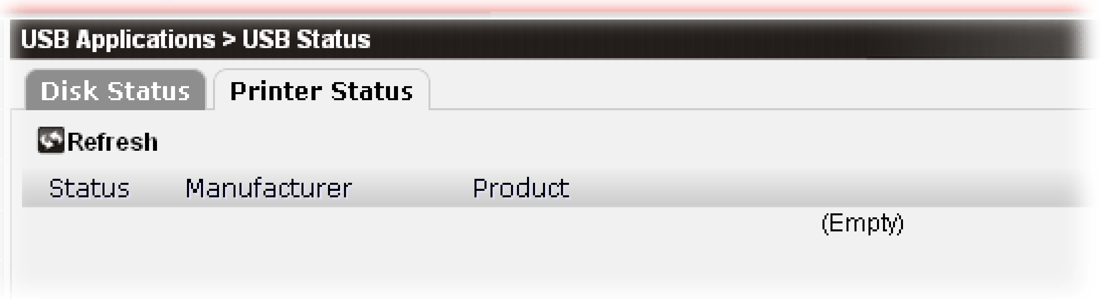
Usage	Total	Used	Available	File System	Mount Path	Device
3%	37.512 MB	1.220 MB	36.292 MB	JFFS2	---	Internal Storage

Each item will be explained as follows:

Item	Description
Refresh	Click it to fresh the web page.
Usage	Display the percentage of the disk space used.
Total	Display the total storage of the disk.
Used	Display the disk space in used.
Available	Display the remaining disk space.
File System	Display the file system of the disk.
Mount Path	Display the file system path where a storage device can be accessed.
Device	Display the type of the hardware storage disk.

4.8.1.2 Printer Status

This page display the general information of the USB printer connected.



Status	Manufacturer	Product
		(Empty)

Each item will be explained as follows:

Item	Description
Refresh	Click it to fresh the web page.
Status	Display the activation status of the USB disk. **Enable** – The USB printer is available for printing. **Disable** – The USB printer is not powered up.
Manufacturer	Display the manufacturer of the disk.
Product	Display the model number of the printer.

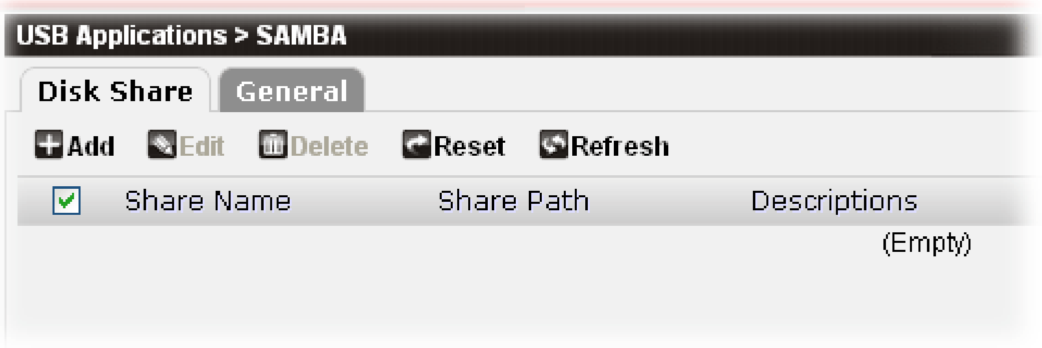
4.8.2 SAMBA

Samba is the technology that allows Windows or Mac users to access a drive in the Linux system. Vigor2760 allows users in different operating system (Windows, Mac, Android, iOS, Linux and etc.) to access either the "internal storage" or "USB disks" plugged in the Vigor2760 USB port.

4.8.2.1 Disk Share

Disk Share profile is a storage space to which different users can write/read/create/delete files as if it is a folder on your own machine once those users connect to Vigor2760 Samba server successfully. A disk share is either the "internal storage" or "USB disks" plugged in the Vigor2760 USB ports.

Under the **Disk Share** tab, you can specify a name for this share. When someone types in say \\192.168.1.1 on the file explorer, he/she will see a folder with such name. Share Path is where this share actually stores its data. You can also specify who can access this share (i.e. allowed users) and to what extent he/she can access this share (i.e. read only, read-write).

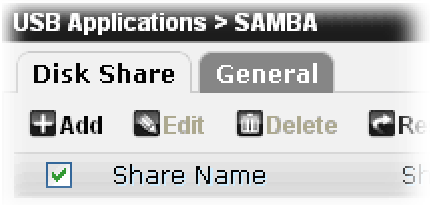


Each item will be explained as follows:

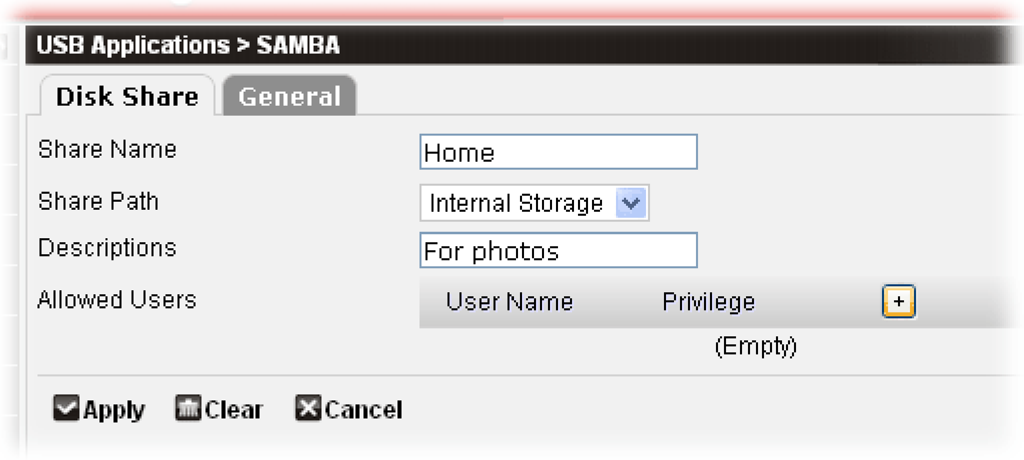
Item	Description
Add	Create a new disk share profile.
Edit	Edit the selected profile. To edit the profile, simply check the profile box you want to edit and then click this button.
Delete	Remove the selected profile.
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to fresh the web page.
Share Name	Display the name for such profile
Share Path	Display the location of the hardware storage.
Descriptions	Display the brief explanation for such profile.

To add a new profile for disk share, please do the following:

1. Click the **Add** button.

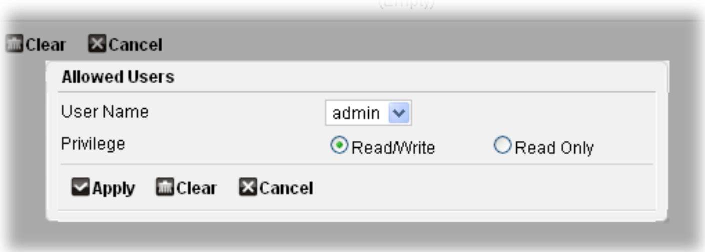


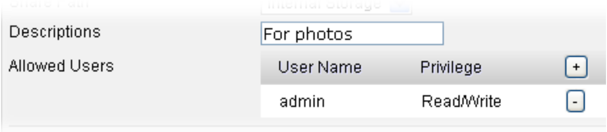
2. The following setting page will appear.



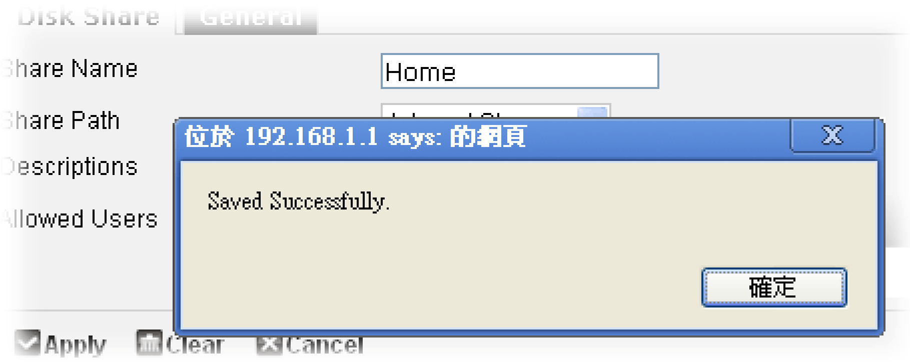
Share Name: Home
Share Path: Internal Storage
Descriptions: For photos
Allowed Users: (Empty)

Available parameters are listed as follows:

Item	Description
Share Name	Type a name for such profile.
Share Path	Specify the location of the hardware storage. **Internal Storage** – Such profile is applied to the internal storage of Vigor router. **USB Disk** – Such profile is applied to an external USB disk.
Description	Give a brief explanation for such profile.
Allowed Users	Click the + button to create a new one. A dialog box will be popped up.  Clear Cancel Allowed Users User Name: admin Privilege: ● Read/Write ○ Read Only Apply Clear Cancel **User Name** – Use the drop down list to select a name from a list of available users or user groups created under **User Management >>User Profile**. **Privilege** – Determine the right (read/write or ready only) that such user profile will have.

	Apply – Save the settings. **Clear** – Remote the settings. **Cancel** – Ignore the settings and exit the dialog. If you have successfully created a user profile, you will see a page similar to the following:  Descriptions: For photos Allowed Users: User Name admin, Privilege Read/Write
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to exit the web page without saving the configuration.

3. After finished the settings above, click **Apply** to save the file and wait for the following dialog appears.

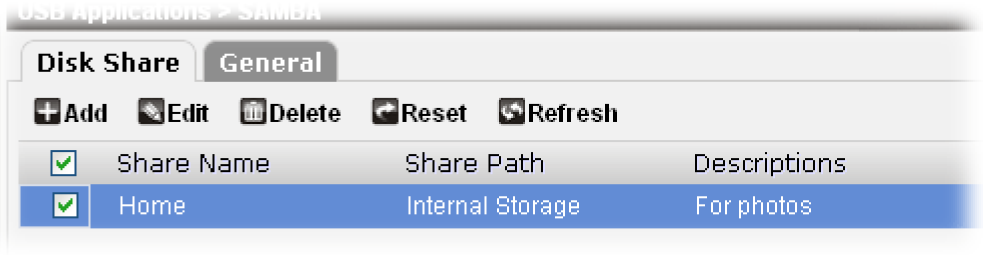


Share Name: Home

位於 192.168.1.1 says: 的網頁

Saved Successfully.

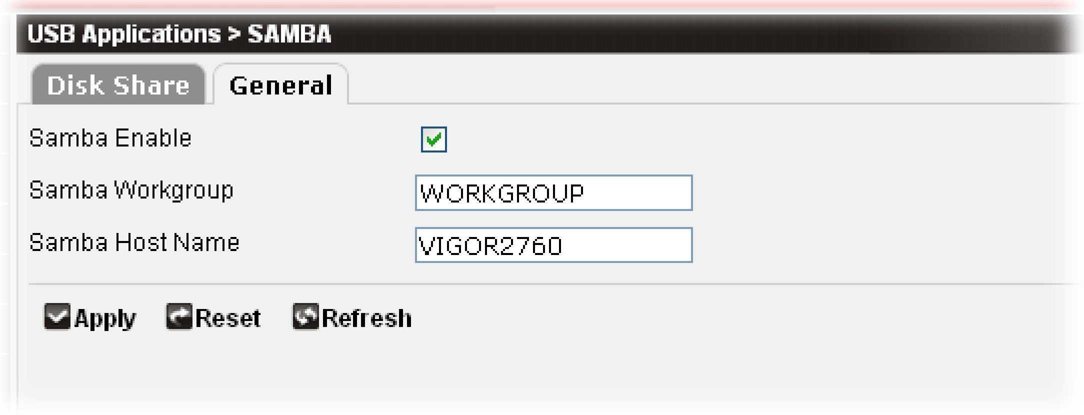
4. Click **OK**. A new profile has been created.



☑	Share Name	Share Path	Descriptions
☑	Home	Internal Storage	For photos

4.8.2.1 General

This page allows you to enable or disable the SAMBA service. For the NetBios service of USB storage disk, you have to specify a workgroup name and a host name. A workgroup name must not be the same as the host name.



Samba Enable ☑

Samba Workgroup WORKGROUP

Samba Host Name VIGOR2760

Each item will be explained as follows:

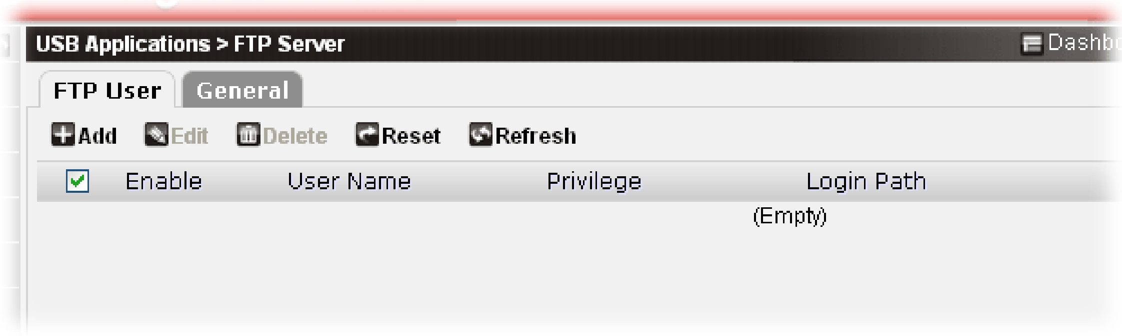
Item	Description
Samba Enable	Check the box to enable such function.
Samba Workgroup	The default name will be displayed on the screen. Change the name if you want. The workgroup name can have as many as 15 characters and cannot contain any of the following--- ; : " < > * + = \ | ?.
Samba Host Name	The default name will be displayed on the screen. Change the name if you want. The host name can have as many as 23 characters and cannot contain any of the following--- ; : " < > * + = \ | ?.
Apply	Click it to save the settings.
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to clear current settings and return to the settings saved previously.

4.8.3 FTP Server

FTP server in Vigor2760 is a server that allows users to download from / upload files to either "internal storage" or "USB disks" plugged in the USB port.

4.8.3.1 FTP User

It allows you to create login accounts for FTP users.

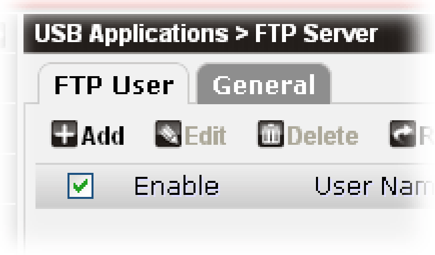


Each item will be explained as follows:

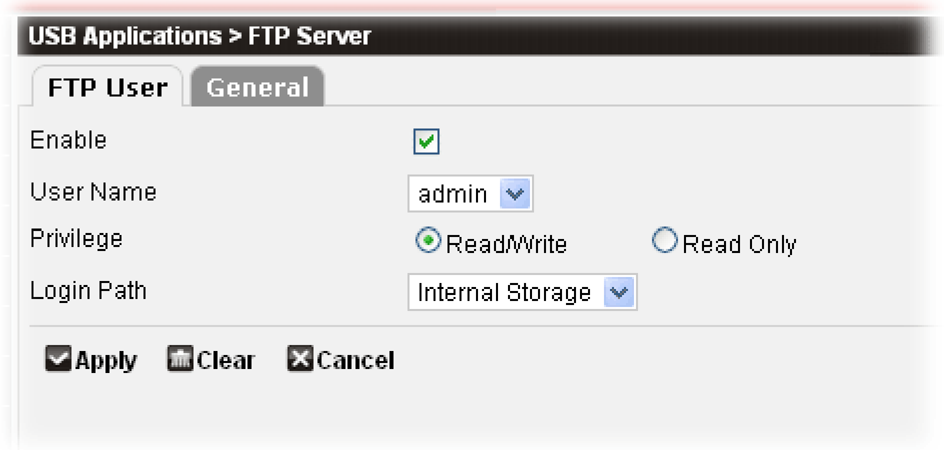
Item	Description
Add	Create a new FTP user profile.
Edit	Edit the selected profile. To edit the profile, simply check the profile box you want to edit and then click this button.
Delete	Remove the selected profile.
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to fresh the web page.
Enable	Display if the user is allowed to access into Vigor2760 FTP server or not. **Enable** – The FTP server is active. **Disable -** The FTP server is inactive.
User Name	Display the user name of user profile.
Privilege	Display the authority (ready only or read/write) for such profile.
Login Path	Display the directory that a user will find himself / herself reside in after logging into the FTP server successfully. Currently it's either the "internal storage" or "USB disk".

To add a new profile for disk share, please do the following:

1. Click the **Add** button.



2. The following setting page will appear.

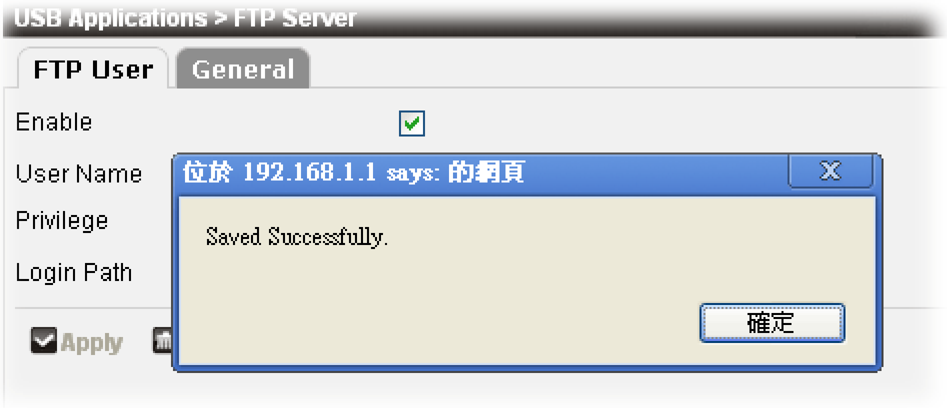

USB Applications > FTP Server

FTP User | General

Enable	☑
User Name	admin
Privilege	● Read/Write ○ Read Only
Login Path	Internal Storage

Item	Description
Enable	Check the box to enable such profile.
User Name	Use the drop down list to specify the name for the user.
Privilege	Determine the right (read/write or ready only) that such user profile will have.
Login Path	Specify the directory that a user will find himself/herself residing in once logging in. **Internal Storage** – It indicates Vigor2760 internal NAND flash storage, which is about 38MB and is designed to store configuration related settings. Currently the path is /mnt/share. **USB Disk** – Each USB disk plugged in will have a mounting path, e.g. /mnt/usb/Disc-A1.
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to exit the web page without saving the configuration.

3. After finished the settings above, click **Apply** to save the file and wait for the following dialog appears.



USB Applications > FTP Server

Enable ☑

User Name

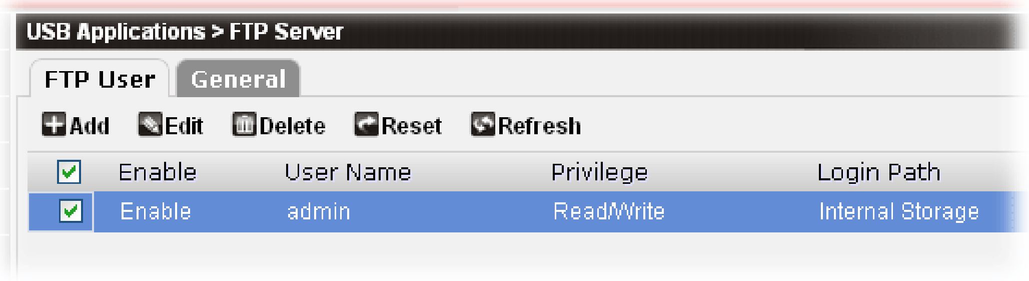
Privilege

Login Path

位於 192.168.1.1 says: 的網頁

Saved Successfully.

4. Click **OK**. A new LAN to LAN profile has been created.

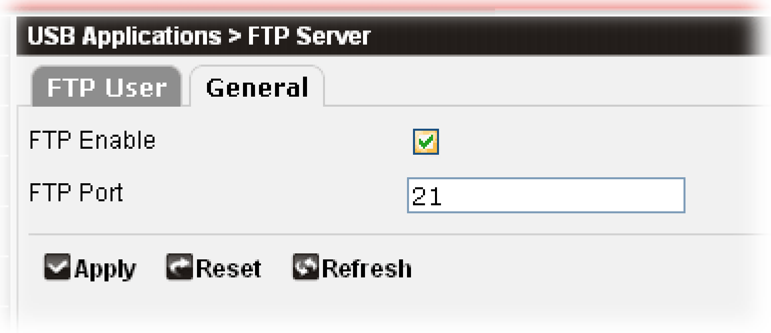


USB Applications > FTP Server

☑	Enable	User Name	Privilege	Login Path
☑	Enable	admin	Read/Write	Internal Storage

4.8.3.2 General

This page allows you to enable/disable the FTP function and configure the port number for such feature.



USB Applications > FTP Server

FTP Enable ☑

FTP Port 21

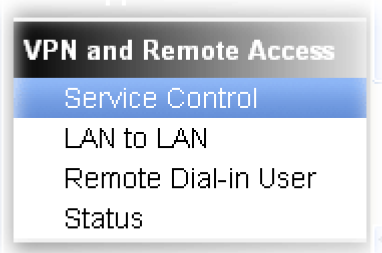
Each item will be explained as follows:

Item	Description
FTP Enable	Check the box to enable such function.
FTP Port	The default value for FTP port is 21. Just keep the default setting.
Apply	Click it to save the settings.
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to clear current settings and return to the settings saved previously.

4.9 VPN and Remote Access

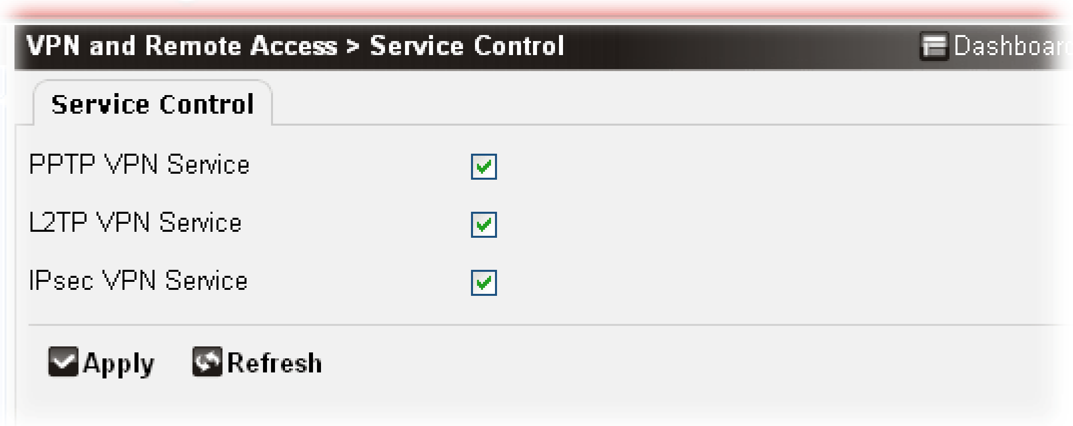
A Virtual Private Network (VPN) is the extension of a private network that encompasses links across shared or public networks like the Internet. In short, by VPN technology, you can send data between two computers across a shared or public network in a manner that emulates the properties of a point-to-point private link.

Below shows the menu items for VPN and Remote Access.



4.9.1 Service Control

Enable the necessary VPN service as you need. If you intend to run a VPN server inside your LAN, you should disable the VPN service of Vigor Router to allow VPN tunnel pass through, as well as the appropriate NAT settings, such as DMZ or open port.



PPTP VPN Service ☑

L2TP VPN Service ☑

IPsec VPN Service ☑

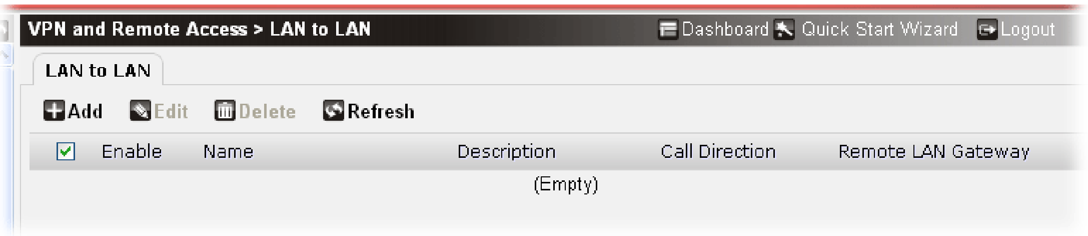
Available parameters are listed below:

Item	Description
PPTP VPN Service	Check the box to enable such service.
L2TP VPN Service	Check the box to enable such service.
IPsec VPN Service	Check the box to enable such service.
Apply	Click it to save the settings.
Refresh	Click it to refresh the web page.

4.9.2 LAN to LAN

Here you can manage LAN-to-LAN connections by maintaining a table of connection profiles. You may set parameters including specified connection direction (dial-in or dial-out), connection peer ID, connection type (VPN connection - including PPTP, IPSec Tunnel, and L2TP by itself or over IPSec) and corresponding security methods, etc.

The router supports up to 32 VPN tunnels simultaneously.



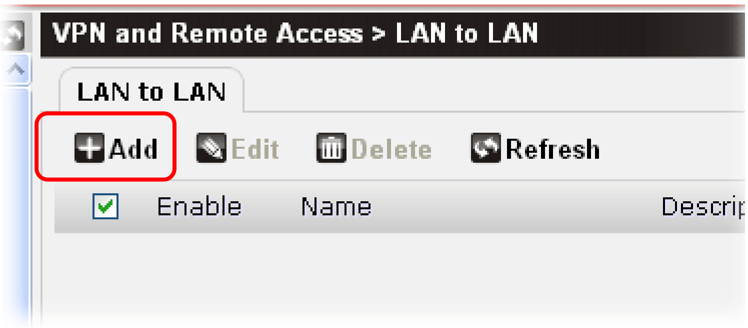
☑	Enable	Name	Description	Call Direction	Remote LAN Gateway
			(Empty)		

Each item will be explained as follows:

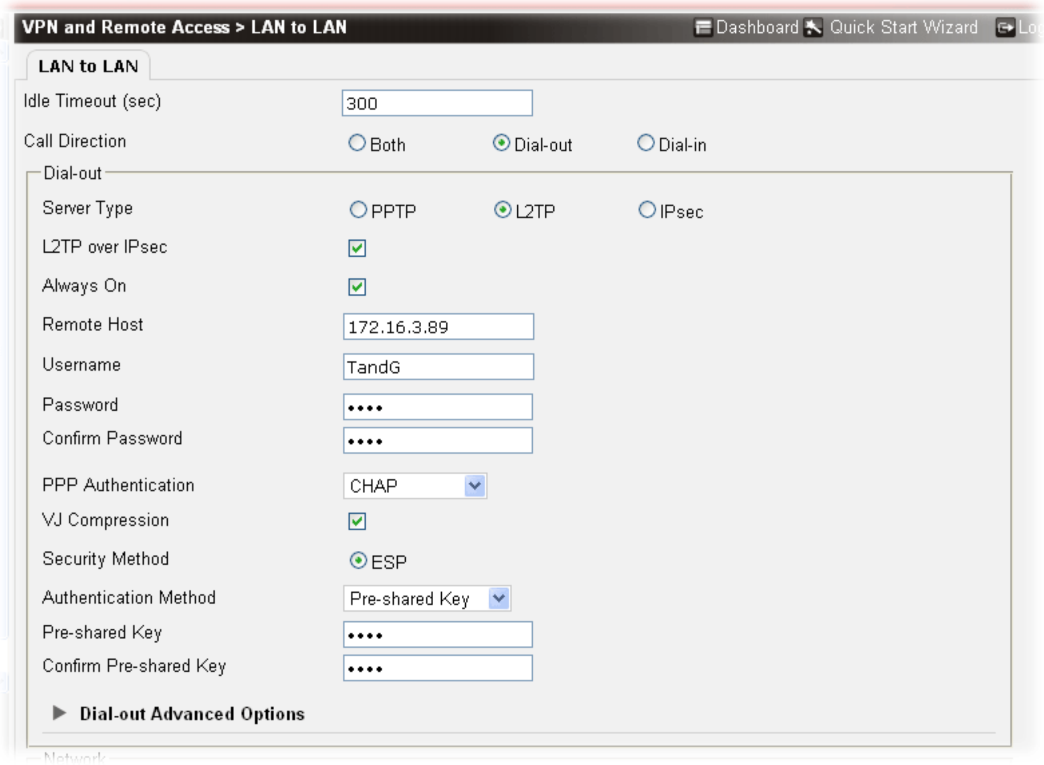
Item	Description
Add	Create a new VPN LAN to LAN profile.
Edit	Edit the selected profile. To edit the profile, simply check the profile box you want to edit and then click this button.
Delete	Remove the selected profile.
Refresh	Click it to fresh the web page.
Enable	Display the activation status for such interface. **Enable** – The profile is activated. **Disable** –The profile is not activated.
Name	Display the name of the profile.
Description	Display the comments/description of the VPN profile.
Call Direction	Display the allowed call direction of this LAN-to-LAN profile.
Remote LAN Gateway	Display the IP address of the remote dial-in user.

To add a new LAN to LAN profile, please do the following:

1. Click the **Add** button.



2. The following setting page will appear.


VPN and Remote Access > LAN to LAN

LAN to LAN

Idle Timeout (sec): 300

Call Direction: ○ Both ● Dial-out ○ Dial-in

Dial-out

Server Type: ○ PPTP ● L2TP ○ IPsec

L2TP over IPsec: ☑

Always On: ☑

Remote Host: 172.16.3.89

Username: TandG

Password: ••••

Confirm Password: ••••

PPP Authentication: CHAP

VJ Compression: ☑

Security Method: ● ESP

Authentication Method: Pre-shared Key

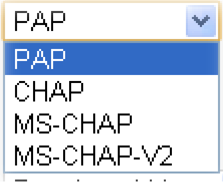
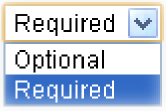
Pre-shared Key: ••••

Confirm Pre-shared Key: ••••

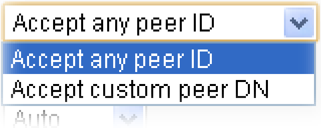
▶ Dial-out Advanced Options

Available parameters are listed as follows:

Item	Description
Enable	Check the box to enable such profile.
Name	Type the name of the profile.
Description	Type a description for such profile.
Idle Timeout	The default value is 300 seconds. If the connection has been idled over the value, the router will drop the connection.
Call Direction	Specify the allowed call direction of this LAN-to-LAN profile. **Both**:-initiator/responder **Dial-Out**- initiator only **Dial-In**- responder only.
Dial-out	

Server Type	**PPTP -** Build a PPTP VPN connection to the server through the Internet. You should set the identity like User Name and Password below for the authentication of remote server. **IPsec -** Build an IPsec VPN connection to the server through Internet. **L2TP -** Build a L2TP VPN connection through the Internet. You can select to use L2TP alone or with IPsec. Select from below:
L2TP over IPsec	If L2TP is chosen as the server type, check this item to enable the function of L2TP over IPsec.
Always On	Check to enable router always keep VPN connection.
Remote Host	Specify the IP address of the remote host to build such VPN connection.
Username	This field is applicable when you select, PPTP or L2TP with or without IPsec policy above. The maximum length for username is 63 characters.
Password	This field is applicable when you select PPTP or L2TP with or without IPsec policy above. The maximum length for password is 63 characters.
Confirm Password	Type the password again for confirmation.
PPP Authentication	This field is applicable when you select PPTP or L2TP above. PAP/CHAP is the most common selection due to wild compatibility. 
MPPE Encryption	This field is applicable when you select **PPTP** as server type. If you choose **Dial-in** as the **Call Direction**, there are two options for you to choose.  MPPE Encryption ☑ 128-bit ● **Optional** – The local end accepts any MPPE encryption settings from the remote end. ● **Required** – If such option is selected, a new option of MPPE Encryption box will appear. If you check this box, the local end will only accept the data sent with the encryption of 128-bit from the remote end. If not, the local end will only accept the data send without encryption. This option 128-bit indicates that the router will use the MPPE encryption scheme with maximum bits (128-bit) to encrypt the data. If you choose **Dial-out** as the **Call Direction** and choose **MS-CHAP** or **MS-CHAP-V2** as **PPP Authentication,**

	 ● **None** – It means the MPPE encryption is disabled. That is, if the remote end chooses **Required** as MPPE encryption with 128-bit enabled on the remote host, the VPN tunnel between both ends cannot be established. ● **128-bit** – It means the MPPE encryption selected by the local end only accepts 128-bit mechanism. If the remote end chooses **Required** as MPPE encryption without enabling 128-bit, the VPN tunnel between both ends cannot be established. It is very important to set both ends with the same MPPE Encryption.
VJ Compression	This field is applicable when you select PPTP or L2TP above. VJ Compression is used for TCP/IP protocol header compression. Normally set to **Yes** to improve bandwidth utilization.
Security Mode	This field is applicable when you select L2TP or IPsec above. Currently, the default setting is ESP.
Authentication Method	This group of fields is applicable for IPsec and L2TP. If you choose Pre-shared Key, you have to configure, **Pre-shared Key -** Type 1-63 characters as pre-shared key. **Confirm Pre-shared Key -** Type the pre-shared key again for confirmation. If you choose Digital Certificate, you have to configure the following settings for both local end and remote end. **Local Certificate** – Choose a certificate profile used for Vigor router. The certificate profile is defined in **Certificate Management>>Local Certificate**. **Peer Certificate** – Choose a certificate profile used for remote end. Such certificate profile is defined in **Certificate Management>>Remote Certificate**.
Dial-out Advanced Options	This field is applicable when you select **IPsec** as server type or **L2TP** with **L2TP over IPsec** enabled. Click the small triangle to unfold the available setting items. **Peer ID Type** – This option is available when **Digital Certificate** is selected as **Authentication Method** above. Choose the ID type for the remote end. If you choose **Accept any peer ID**, it is not necessary for you to specify any ID further. All the peer IDs are acceptable

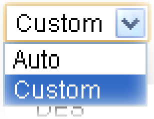


Peer ID (DN) –If you choose **Accept custom peer DN**, you have to type the name you got from the peer end in the field of **Peer ID (DN)**. Only the specified one is acceptable. The data shall be typed as, e.g.,
"C=TW, ST=Hsinchu, L=Hokou, O=Draytek, OU=RD, CN=John/emailAddress=john@test.com" or
"C=TW", O=Draytek".

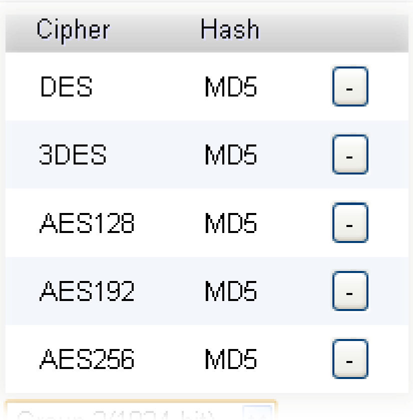
Local ID (optional) and Peer ID (optional) - This option is available when **Pre-shared Key** is selected as **Authentication Method** above. You can define a name to be used by local user and the peer user. If no name specified here, the system will use **My WAN IP** as the local ID and the **Remote Host** as the Peer ID configured in this web page.

Phase1 Mode –Select from **Main** mode and **Aggressive** mode. The ultimate outcome is to exchange security proposals to create a protected secure channel. **Main** mode is more secure than **Aggressive** mode since more exchanges are done in a secure channel to set up the IPSec session. However, the **Aggressive** mode is faster. The default value in Vigor router is Main mode.

IKE Proposals –To propose the local available authentication schemes and encryption algorithms to the VPN peers, and get its feedback to find a match. We suggest you select the combination that covers the most schemes.

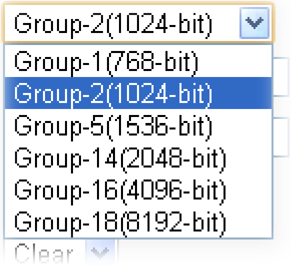
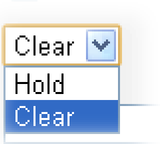


Phase1 / Phase2 –It is available if **Custom** for **IKE Proposals** is selected above. Simply move your mouse on each item and click on it. A pop up dialog will appear for you to modify the value of **Hash.**



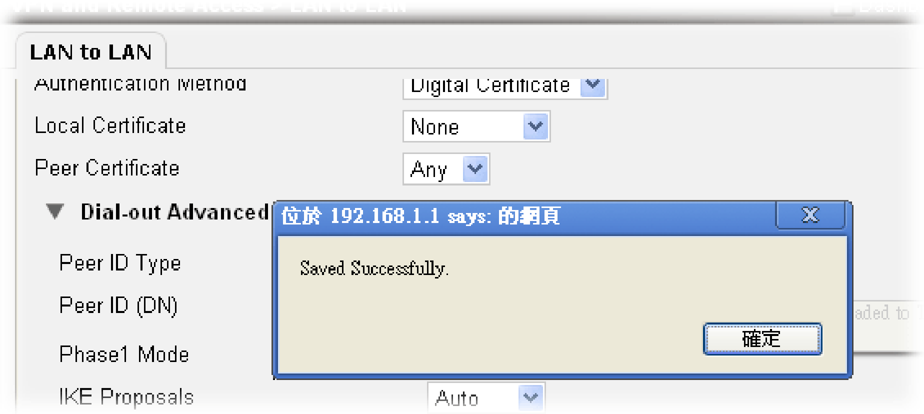
Cipher	Hash	
DES	MD5	-
3DES	MD5	-
AES128	MD5	-
AES192	MD5	-
AES256	MD5	-

There are several options offered in default. If you click the "-" button to remove one of them, a "+" button will appear to let

	you add another one option instead. **Phase1 DH Group / Phase2 DH Group** –It is available if **Custom** for **IKE Proposals** is selected above. Both parameters are used to choose the length of the session key. The more the length is, the safer the data transmission will be. However, the time to generate the security key will be long.  Group-2(1024-bit) Group-1(768-bit) Group-2(1024-bit) Group-5(1536-bit) Group-14(2048-bit) Group-16(4096-bit) Group-18(8192-bit) Clear **Phase1 Key Lifetime (min)** –For security reason, the lifetime of key should be defined. The default value is 28800 seconds. You may specify a value in between 900 and 86400 seconds. **Phase2 Key Lifetime (min)** –For security reason, the lifetime of key should be defined. The default value is 3600 seconds. You may specify a value in between 600 and 86400 seconds. **Perfect Forward Secrecy (PFS)** –The IKE Phase 1 key will be reused to avoid the computation complexity in phase 2. The default value is inactive this function. **Dead Peer Detection –Action** – This function will detect if any response received from the peer. If no response, the chosen action will be performed. **Hold** means such VPN connection is still active; **Clear** means such VPN connection will be down.  **Dead Peer Detection – Delay Time (sec)** – It is available when **Clear** is selected for **Dead Peer Detection** above. Set the interval for the detection. The default setting shall be “30” seconds. **Dead Peer Detection – Timeout (sec)** –It is available when **Clear is** selected for **Dead Peer Detection** above. Set the time that the system will wait for the response. The default setting shall be “120” seconds. In default, the detection will be done for four times within the default time. If there is no response, the VPN tunnel will be disconnected.
Network	
My WAN IP	Type the WAN IP address for the VPN tunnel.
Local Subnet	Add a static route to direct all traffic destined to Local Subnet through the VPN connection.
Remote LAN Gateway	This field is only applicable when you select PPTP or L2TP with or without IPsec policy above. Type the LAN gateway address of the remote router for the VPN tunnel.

Remote LAN Subnet Mask	Add a static route to direct all traffic destined to this Remote LAN Subnet Mask through the VPN connection. For IPsec, this is the destination clients IDs of phase 2 quick mode.

3. After finished the settings above, click **Apply** to save the file and wait for the following dialog appears.



Authentication Method: Digital Certificate

Local Certificate: None

Peer Certificate: Any

Peer ID Type

Peer ID (DN)

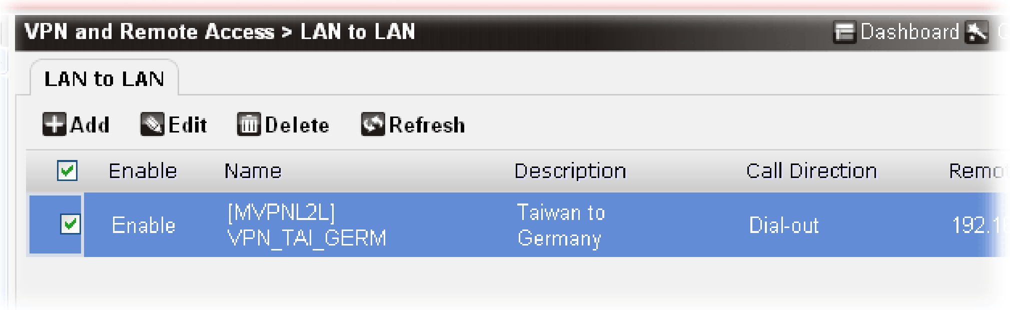
Phase1 Mode

IKE Proposals: Auto

位於 192.168.1.1 says: 的網頁

Saved Successfully.

4. Click **OK**. A new LAN to LAN profile has been created.

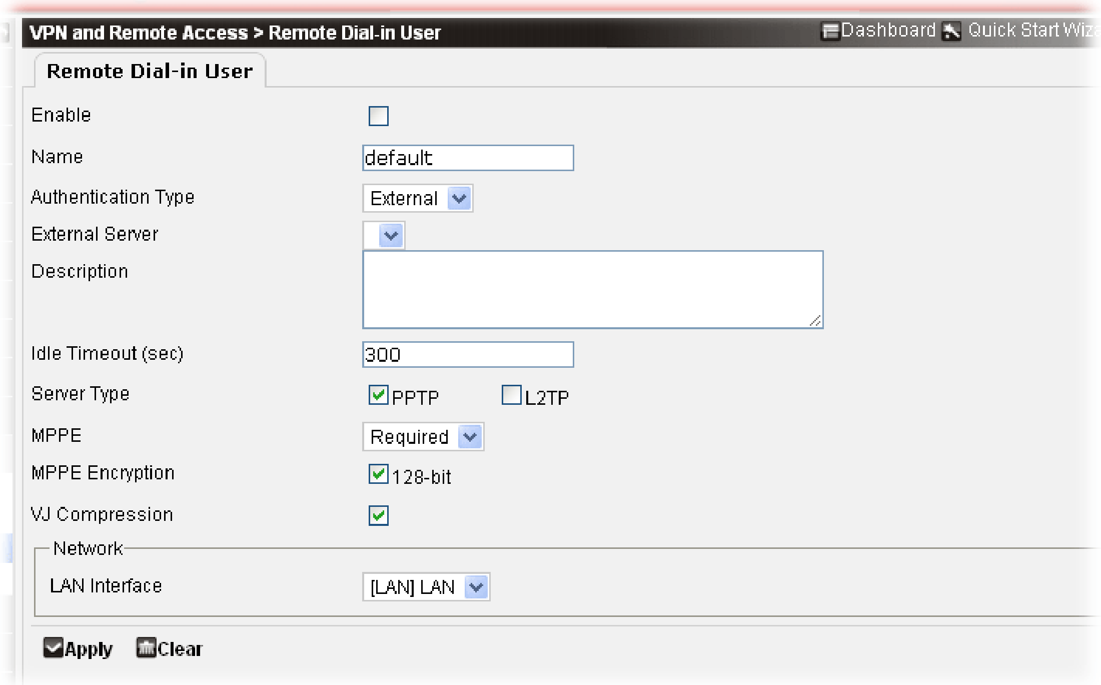


☑	Enable	Name	Description	Call Direction	Remo
☑	Enable	[MVPNL2L] VPN_TAI_GERM	Taiwan to Germany	Dial-out	192.1

4.9.3 Remote Dial-in User

You can manage remote access by defining a remote dial-in user profile, so that users can be authenticated to dial-in via VPN connection. You can set parameters including specified connection peer ID, connection type (VPN connection - including PPTP, IPSec Tunnel, and L2TP by itself or over IPSec) and corresponding security methods, etc.

Open **VPN and Remote Access>>Remote Dial-in User** to get the following web page:



VPN and Remote Access > Remote Dial-in User

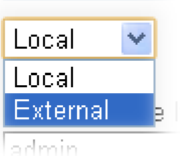
Remote Dial-in User

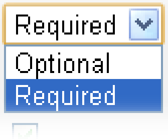
Enable	□
Name	default
Authentication Type	External
External Server	
Description	
Idle Timeout (sec)	300
Server Type	☑ PPTP □ L2TP
MPPE	Required
MPPE Encryption	☑ 128-bit
VJ Compression	☑

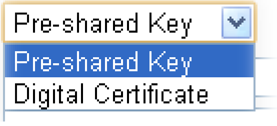
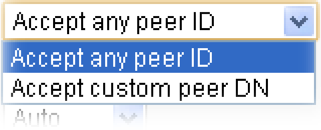
Network

LAN Interface	[LAN] LAN

Available parameters are listed as follows:

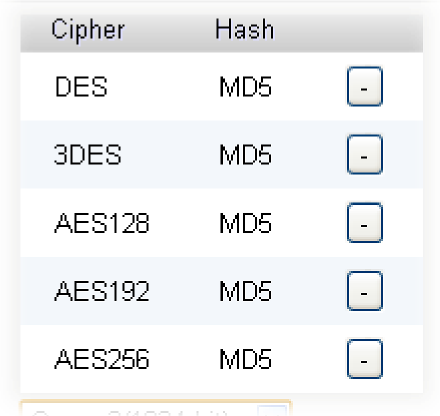
Item	Description
Enable	Check the box to enable such profile.
Name	Type the name of the profile.
Authentication Type	Specify the type (Local or External) for authentication.  **User Account –** It is available when **Local** is selected as authentication type. Only the object profiles configured with Local type will be displayed here. Simply choose the account you want from **Available Items**, and click the > arrow to add it onto Selected Items. **External Server –** It is available when **External** is selected as authentication type. Only the object profiles configured with External type will be displayed here. Thus, you have to complete the following settings first before adjusting the settings in this field. ● Add a new RADIUS profile in **User Management>> RADIUS**.

	● Add new User Object profiles in **User Management>>User Profile**. Remember to choose External as the Type and choose the RADIUS server you just created from the **External Server** drop down list.
Description	Type a description for such profile.
Idle Timeout	The default value is 300 seconds. If the connection has been idled over the value, the router will drop the connection.
Server Type	**PPTP -** Build a PPTP VPN connection to the server through the Internet. You should set the identity like User Name and Password below for the authentication of remote server. **L2TP -** Build a L2TP VPN connection through the Internet. You can select to use L2TP alone or with IPsec. Select from below:
L2TP over IPsec	If L2TP is chosen as the server type, check this item to enable the function of L2TP over IPsec.
MPPE	Select **Optional** or **Required** for MPPE. 
MPPE Encryption	This field is applicable when you select **PPTP** as server type. MPPE Encryption ☑ 128-bit ● **Optional** – The local end accepts any MPPE encryption settings from the remote end. ● **Required** – If such option is selected, a new option of MPPE Encryption box will appear. If you check this box, the local end will only accept the data sent with the encryption of 128-bit from the remote end. If not, the local end will only accept the data send without encryption. This option 128-bit indicates that the router will use the MPPE encryption scheme with maximum bits (128-bit) to encrypt the data.
VJ Compression	This field is applicable when you select PPTP or L2TP above. VJ Compression is used for TCP/IP protocol header compression. Normally set to **Yes** to improve bandwidth utilization.
Security Method	This field is applicable when you select L2TP above. Currently, the default setting is ESP.
Authentication Method	This group of fields is applicable for both L2TP and L2TP over IPsec boxes are enabled.

	 If you choose Pre-shared Key, you have to configure, **Pre-shared Key -** Type 1-63 characters as pre-shared key. **Confirm Pre-shared Key -** Type the pre-shared key again for confirmation. If you choose Digital Certificate, you have to configure the following settings for both local end and remote end. **Local Certificate** – Choose a certificate profile used for Vigor router. The certificate profile is defined in **Certificate Management>>Local Certificate**. **Peer Certificate** – Choose a certificate profile used for remote end. Such certificate profile is defined in **Certificate Management>>Remote Certificate**.
Advanced	This field is applicable when you select **L2TP** as server type and the function of **L2TP over IPsec** enabled. Click the small triangle to unfold the available setting items. **Peer ID Type** – This option is available when **Digital Certificate** is selected as **Authentication Method** above. Choose the ID type for the remote end. If you choose **Accept any peer ID**, it is not necessary for you to specify any ID further. All the peer IDs are acceptable  Accept any peer ID Accept any peer ID Accept custom peer DN Auto **Peer ID (DN)** –If you choose **Accept custom peer DN**, you have to type the name you got from the peer end in the field of **Peer ID (DN)**. Only the specified one is acceptable. The data shall be typed as, e.g., “C=TW, ST=Hsinchu, L=Hokou, O=Draytek, OU=RD, CN=John/emailAddress=john@test.com” or “C=TW”, O=Draytek”. **Local ID (optional) and Peer ID (optional) -** This option is available when **Pre-shared Key** is selected as **Authentication Method** above. You can define a name to be used by local user and the peer user. If no name specified here, the system will use **My WAN IP** as the local ID and the **Remote Host** as the Peer ID configured in this web page. **Phase1 Mode** –Select from **Main** mode and **Aggressive** mode. The ultimate outcome is to exchange security proposals to create a protected secure channel. **Main** mode is more secure than **Aggressive** mode since more exchanges are done in a secure channel to set up the IPSec session. However, the **Aggressive** mode is faster. The default value in Vigor router is Main mode. **IKE Proposals** –To propose the local available authentication schemes and encryption algorithms to the VPN peers, and get

its feedback to find a match. We suggest you select the combination that covers the most schemes.

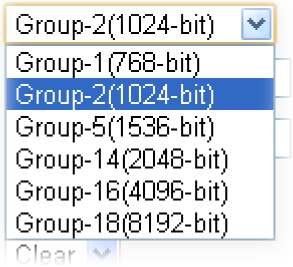
Phase1 / Phase2 –It is available if **Custom** for **IKE Proposals** is selected above. Simply move your mouse on each item and click on it. A pop up dialog will appear for you to modify the value of **Hash.**



Cipher	Hash	
DES	MD5	-
3DES	MD5	-
AES128	MD5	-
AES192	MD5	-
AES256	MD5	-

There are several options offered in default. If you click the "-" button to remove one of them, a "+" button will appear to let you add another one option instead.

Phase1 DH Group / Phase2 DH Group –It is available if **Custom** for **IKE Proposals** is selected above. Both parameters are used to choose the length of the session key. The more the length is, the safer the data transmission will be. However, the time to generate the security key will be long.

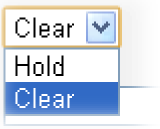


Phase1 Key Lifetime (min) –For security reason, the lifetime of key should be defined. The default value is 28800 seconds. You may specify a value in between 900 and 86400 seconds.

Phase2 Key Lifetime (min) –For security reason, the lifetime of key should be defined. The default value is 3600 seconds. You may specify a value in between 600 and 86400 seconds.

Perfect Forward Secrecy (PFS) –The IKE Phase 1 key will be reused to avoid the computation complexity in phase 2. The default value is inactive this function.

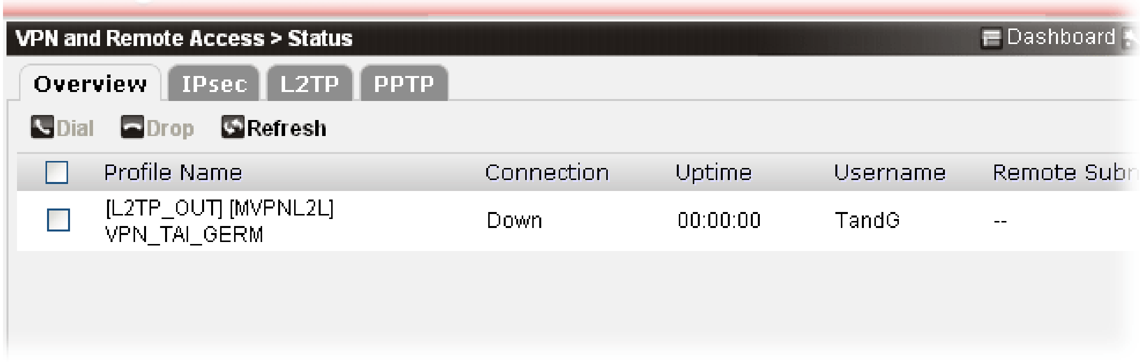
Dead Peer Detection –Action – This function will detect if any response received from the peer. If no response, the chosen action will be performed. **Hold** means such VPN connection is

	still active; **Clear** means such VPN connection will be down.  **Dead Peer Detection – Delay Time (sec)** – It is available when **Clear** is selected for **Dead Peer Detection** above. Set the interval for the detection. The default setting shall be "30" seconds. **Dead Peer Detection – Timeout (sec)** –It is available when **Clear is** selected for **Dead Peer Detection** above. Set the time that the system will wait for the response. The default setting shall be "120" seconds. In default, the detection will be done for four times within the default time. If there is no response, the VPN tunnel will be disconnected.
Network	
My WAN IP	This field is only applicable when you select **L2TP** as the server type and enable **L2TP over IPsec**. Type the WAN IP address for the VPN tunnel.
LAN Interface	Use the drop down list to specify a LAN profile.
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to exit the web page without saving the configuration.

After finished the settings above, click **Apply** to save the settings.

4.9.4 Status

This page displays the existed VPN profiles for your reference. You can click the Overview, IPsec, L2TP or PPTP tab to check and choose the VPN profile you want. Next, click **Dial** to build the VPN connection between your PC and the remote end.



□	Profile Name	Connection	Uptime	Username	Remote Subn
□	[L2TP_OUT] [MVPNL2L] VPN_TAI_GERM	Down	00:00:00	TandG	--

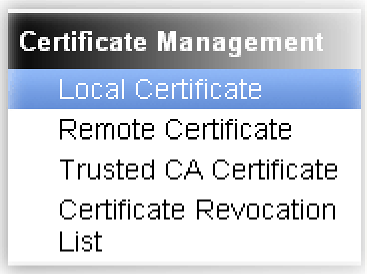
4.10 Certificate Management

A digital certificate works as an electronic ID, which is issued by a certification authority (CA). It contains information such as your name, a serial number, expiration dates etc., and the digital signature of the certificate-issuing authority so that a recipient can verify that the certificate is real. Here Vigor router support digital certificates conforming to standard X.509.

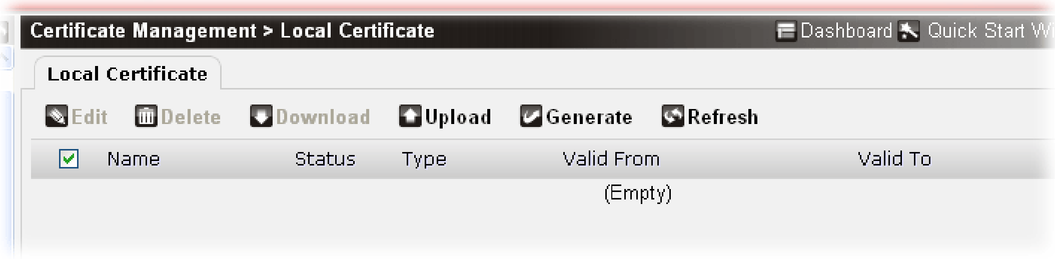
Any entity wants to utilize digital certificates should first request a certificate issued by a CA server. It should also retrieve certificates of other trusted CA servers so it can authenticate the peer with certificates issued by those trusted CA servers.

Here you can manage generate and manage the local digital certificates, and set trusted CA certificates. Remember to adjust the time of Vigor router before using the certificate so that you can get the correct valid period of certificate.

Below shows the menu items for Certificate Management.



4.10.1 Local Certificate



Each item will be explained as follows:

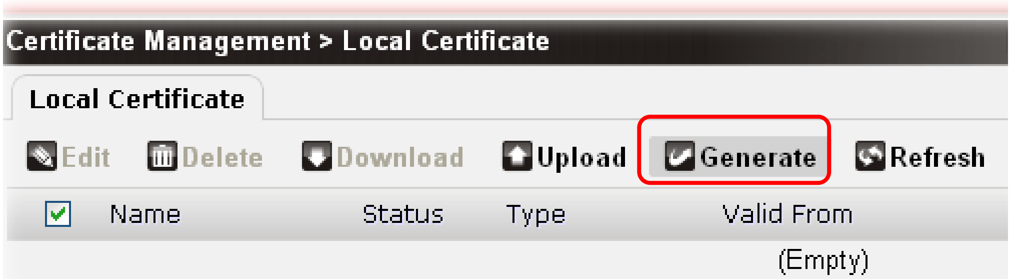
Item	Description
Edit	Modify the content of the selected certificate displayed on this page.
Delete	Remove the selected item of local certificate listed below.
Download	Allow you to download an existing certificate request from the router to your PC.
Upload	Allow you to download an existing certificate request from the PC to your router.
Generate	Open a window to generate certiface request.
Refresh	Click it to refresh the web page.
Name	Display the name of the certificate.
Status	Display the status of the certificate.

Type	Display the type (e.g., request or certificated) of current certificate.
Valid From	Display the starting point of the valid time of the certificate.
Valid To	Display the end point of the valid time of the certificate.

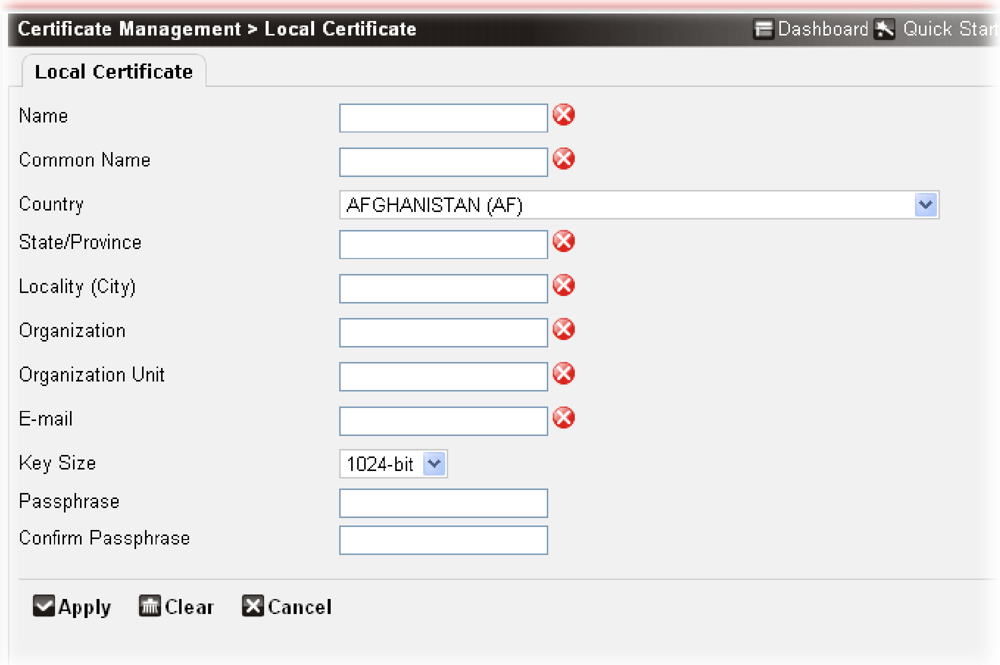
4.10.1.1 Generate Local Certificate

To generate a new certificate request profile, please do the following:

1. Click the **Generate** button.



2. The following setting page will appear.



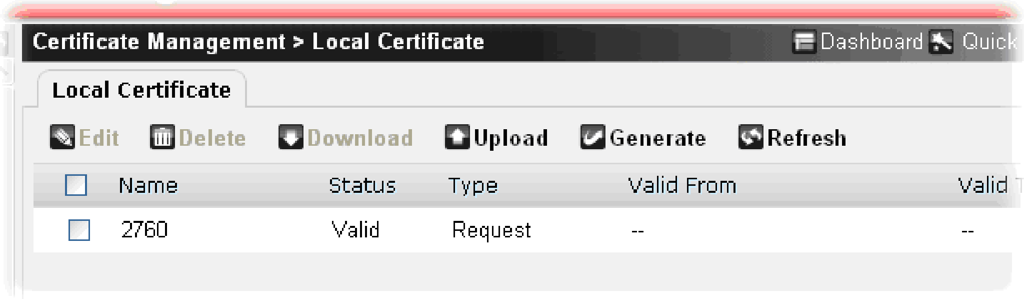
Name	
Common Name	
Country	AFGHANISTAN (AF)
State/Province	
Locality (City)	
Organization	
Organization Unit	
E-mail	
Key Size	1024-bit
Passphrase	
Confirm Passphrase	

Available parameters are listed as follows:

Item	Description
Name	Type the name of the local certificate.
Common Name	Type the common name for such certificate.
Country	Type the name of the country that such certificate located.
State/Province	Type the name of the state /province for such certificate.
Locality (City)	Type the name of the city for such certificate.
Organization	Type the name of the organization.

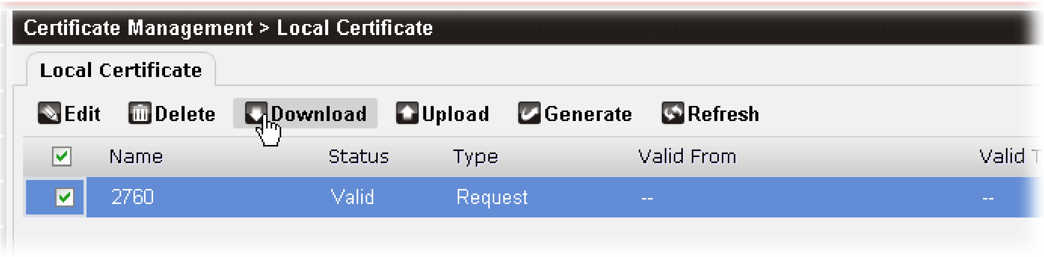
Organization Unit	Type a description for the organization unit.
E-mail	Type the e-mail address for such certificate.
Key Size	Choose one of the key sizes for such certificate.
Passphase	Such string will be used for confirmation while signing remote CA. It is similar to a password but generally it is longer for security.
Confirm Passphrase	Type the string again for confirmation.
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to exit the web page without saving the configuration.

3. After finished the settings above, click **Apply** to save the settings. A new generated Local Certificate has been created.



□	Name	Status	Type	Valid From	Valid T
□	2760	Valid	Request	--	--

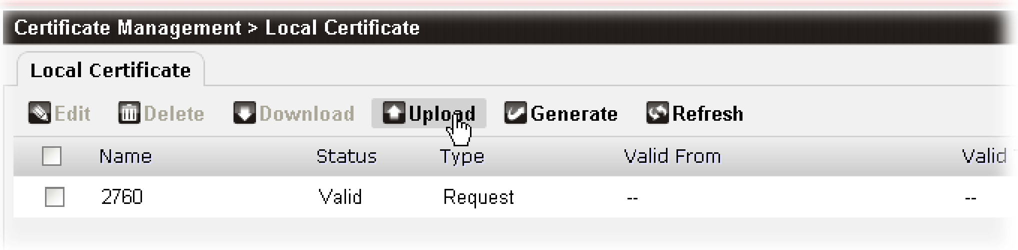
4. Select the new generated certificate request and click **Download** to download the request to the PC.



☑	Name	Status	Type	Valid From	Valid T
☑	2760	Valid	Request	--	--

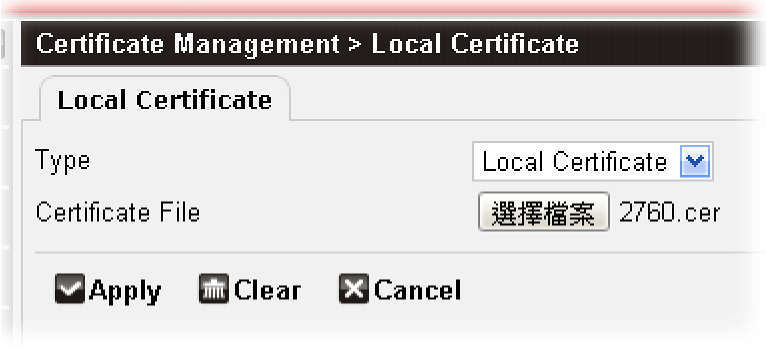
5. A CA server shall sign the certificate request and send it back to the PC.

6. Next, click **Upload** to transmit the issued certificate from the PC to your router.



□	Name	Status	Type	Valid From	Valid
□	2760	Valid	Request	--	--

7. Choose **Local Certificate** as the **Type** and click **Select File** to locate the one you want.

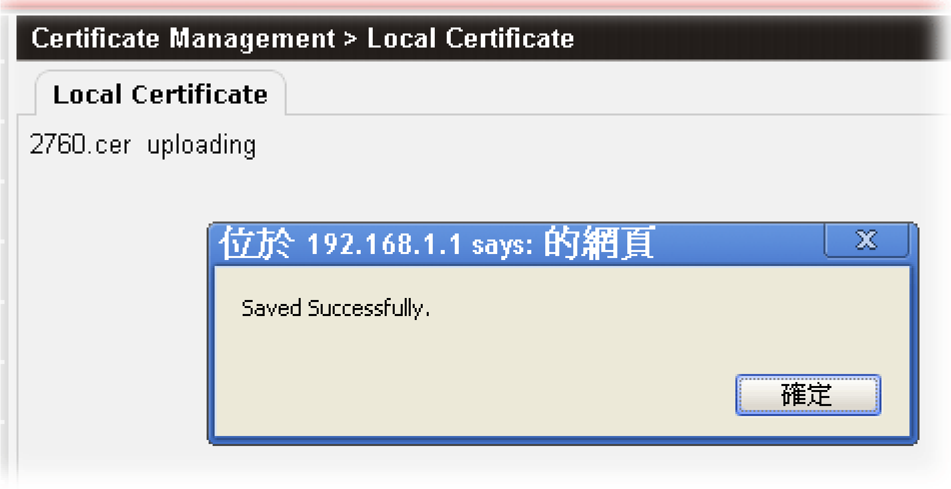


Certificate Management > Local Certificate

Local Certificate

Type	Local Certificate
Certificate File	選擇檔案 2760.cer

8. After finished the settings above, click **Apply** to upload the file and wait for the following dialog appears.



Certificate Management > Local Certificate

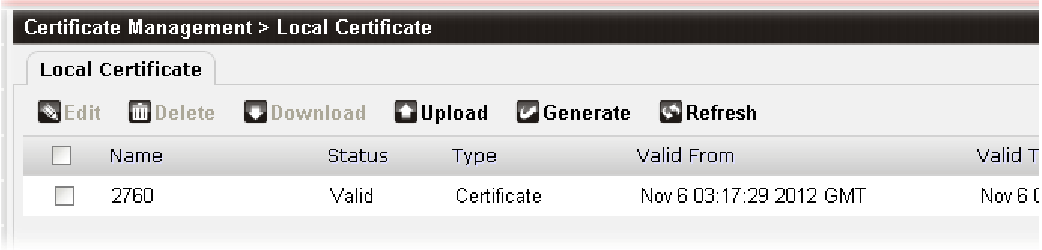
Local Certificate

2760.cer uploading

位於 192.168.1.1 says: 的網頁

Saved Successfully.

9. Click **OK**. The Certificate has been uploaded to Vigor router and displayed on this page.



Certificate Management > Local Certificate

Local Certificate

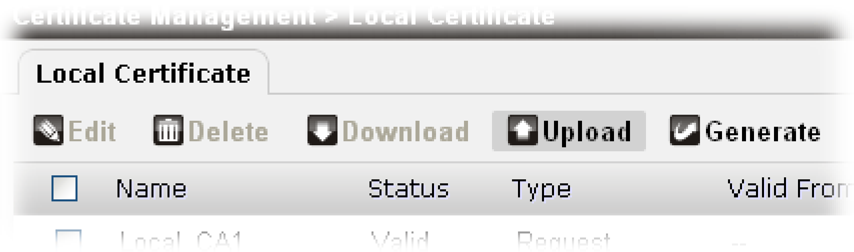
□	Name	Status	Type	Valid From	Valid T
□	2760	Valid	Certificate	Nov 6 03:17:29 2012 GMT	Nov 6 (

Note: Do not manually delete the certificate request file before completing the process of Uploading. If the uploading is successfully, the system will remove the request automatically.

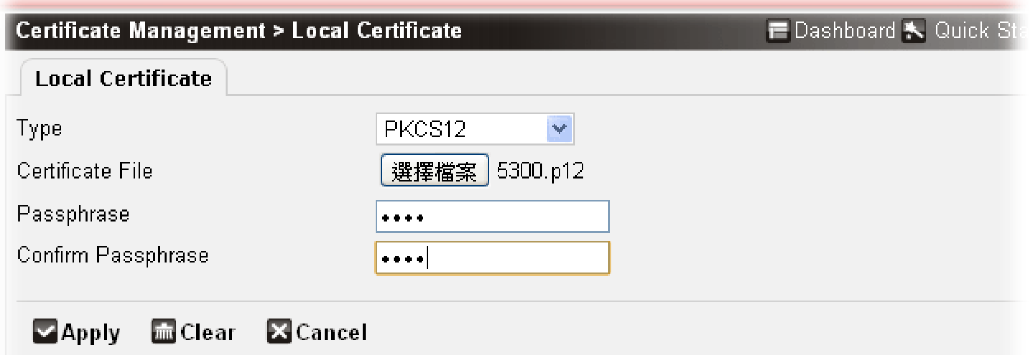
4.10.1.2 Upload Local Certificate

When the certificate request has been signed by a CA server, the issued certificate can be uploaded to Vigor router.

1. Click the **Upload** button.

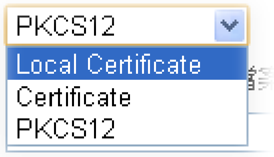


2. The following setting page will appear.



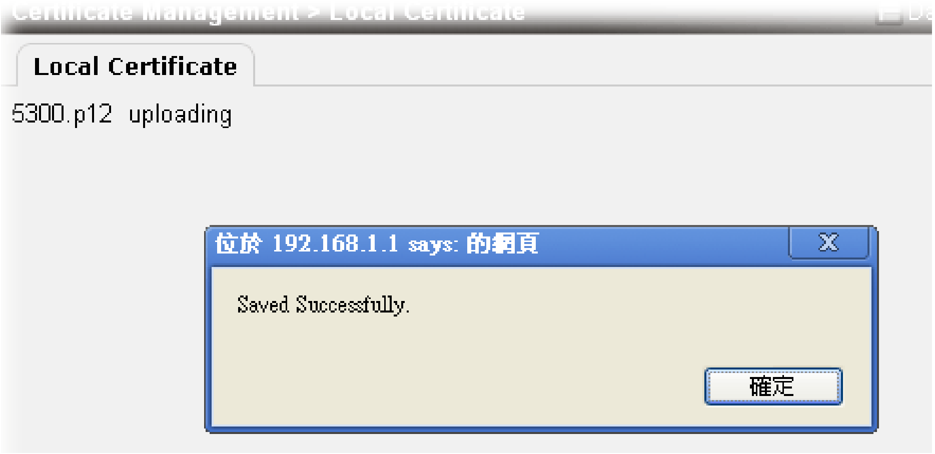
Type	PKCS12
Certificate File	5300.p12
Passphrase	••••
Confirm Passphrase	••••

Available parameters are listed below:

Item	Description
Type	There are three types offered to fit your request.  **Local Certificate** – If you want to use the certificate stored on your PC. You can choose it as the Type. **Certificate** – You might want to use the certificate (not generated by Vigor router) coming from other places. Simply choose it as the Type. Usually, such certificate needs private key for authentication. **PKCS12** – Some certificates are made based on PKCS12. If you want to upload onto Vigor router. You can choose it as the Type.
Certificate File	Locate and choose the certificate from your host.
Private Key	This item will be available when **Certificate** is chosen as the **Type**. Locate the private key files from your host according to the certificate file selected.
Passphrase	This item will be available when **Certificate** or **PKCS12** is

	chosen as the **Type**. Such string will be used for confirmation while signing remote CA. It is similar to a password but generally it is longer for security.
Confirm Passphrase	This item will be available when **Certificate** or **PKCS12** is chosen as the **Type**. Type the string again for confirmation.
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to exit the web page without saving the configuration.

3. After finished the settings above, click **Apply** to upload the file and wait for the following dialog appears.

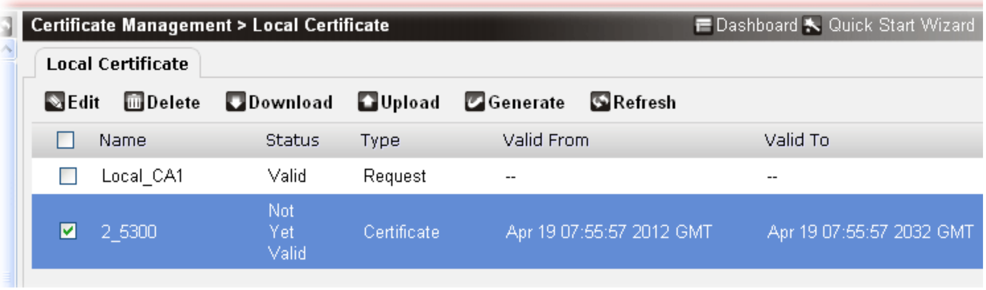


5300.p12 uploading

位於 192.168.1.1 says: 的網頁

Saved Successfully.

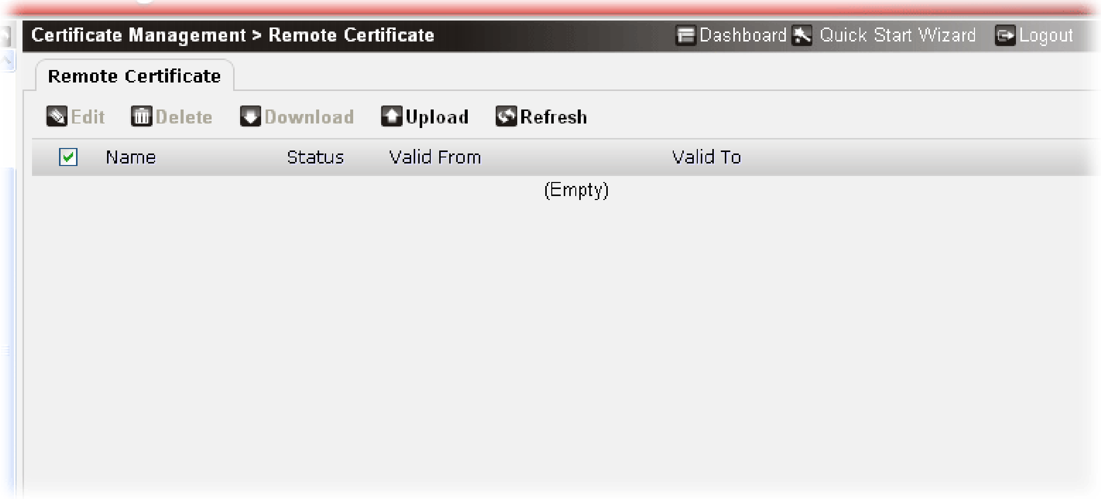
4. Click **OK**. The Certificate has been uploaded to Vigor router and displayed on this page.



□	Name	Status	Type	Valid From	Valid To
□	Local_CA1	Valid	Request	--	--
☑	2_5300	Not Yet Valid	Certificate	Apr 19 07:55:57 2012 GMT	Apr 19 07:55:57 2032 GMT

4.10.2 Remote Certificate

Certificates defined in this page are prepared for IPSec and LAN to LAN profiles.

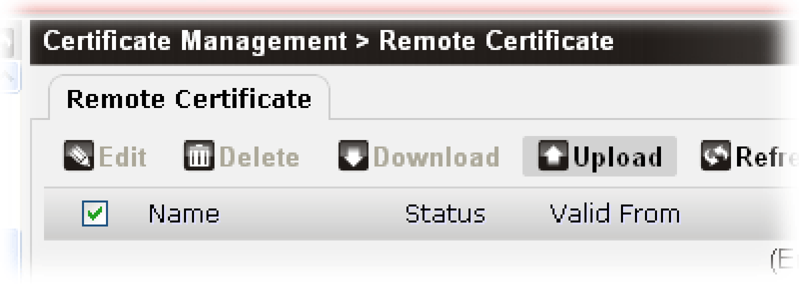


Each item will be explained as follows:

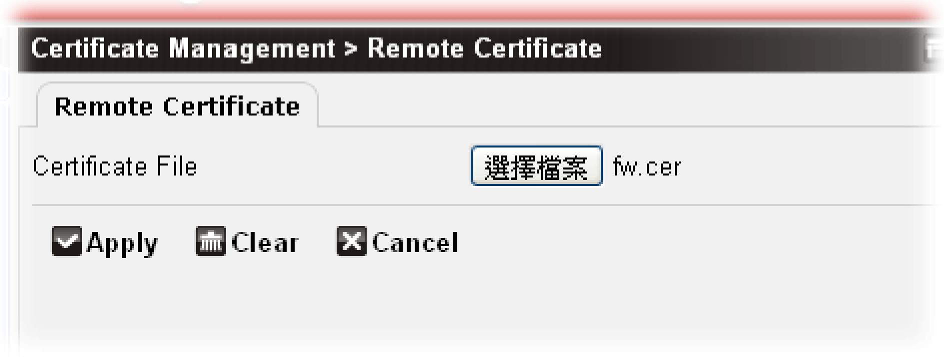
Item	Description
Edit	Edit the selected profile. To edit the profile, simply check the profile box you want to edit and then click this button.
Delete	Remove the selected profile.
Download	Allow you to download an existing certificate from the router to your PC.
Upload	Allow you to download an existing certificate from the PC to your router.
Refresh	Click it to refresh the web page.
Name	Display the name of the certificate.
Status	Display the status of the certificate.
Valid From	Display the starting point of the valid time of the certificate.
Valid To	Display the end point of the valid time of the certificate.

Certificates obtained from other sources and stored on the PC can be uploaded to Vigor router, do the following:

1. Click the **Upload** button.



2. The following setting page will appear. To specify a file, click the **Select File** button to locate the one you want.

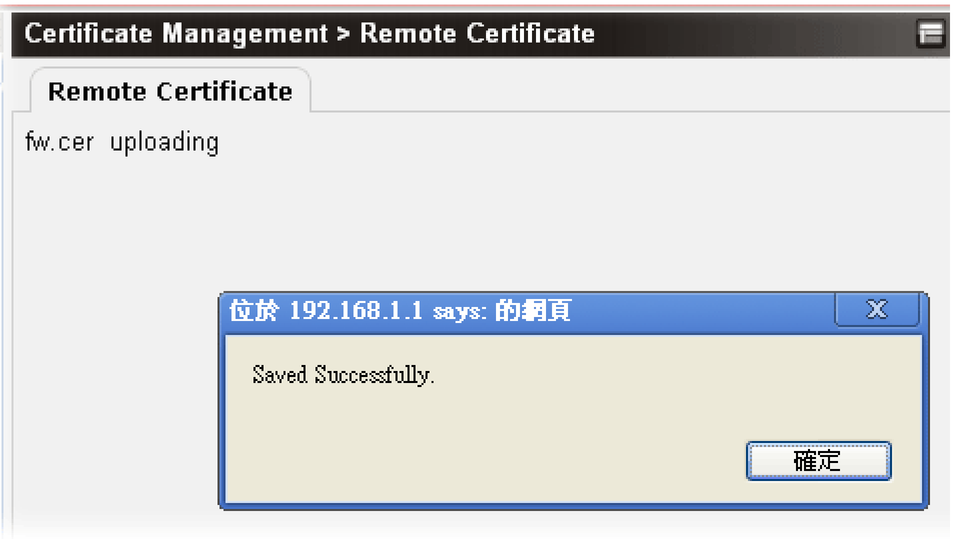


Certificate Management > Remote Certificate

Remote Certificate

Certificate File 選擇檔案 fw.cer

3. After finished the settings above, click **Apply** to upload the file and wait for the following dialog appears.



Certificate Management > Remote Certificate

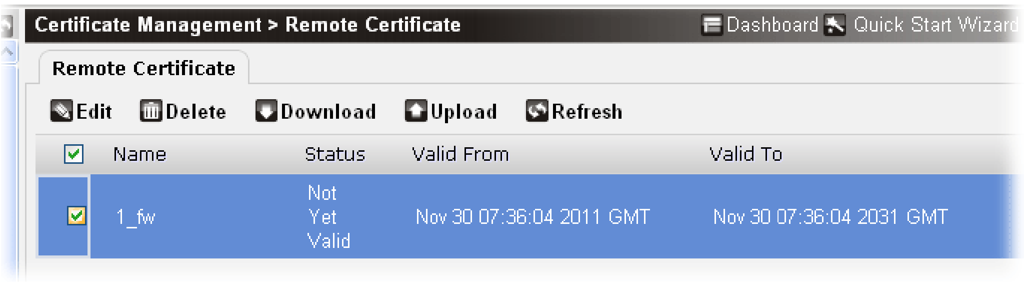
Remote Certificate

fw.cer uploading

位於 192.168.1.1 says: 的網頁

Saved Successfully.

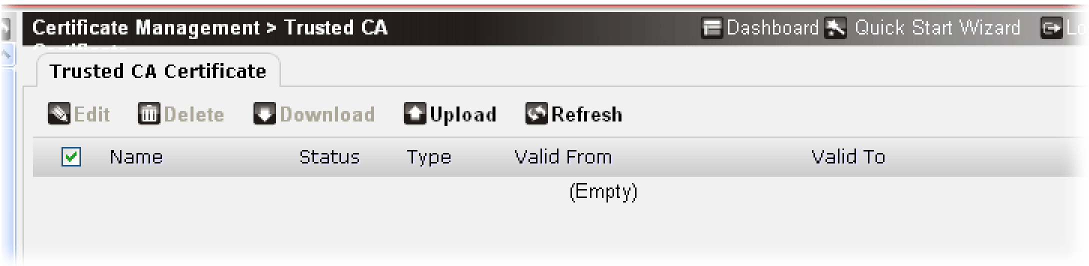
4. Click **OK**. The Certificate has been uploaded to Vigor router and displayed on this page.



☑	Name	Status	Valid From	Valid To
☑	1_fw	Not Yet Valid	Nov 30 07:36:04 2011 GMT	Nov 30 07:36:04 2031 GMT

4.10.3 Trusted CA Certificate

Trusted CA certificate lists three sets of trusted CA certificate. You can upload a pre-saved trusted CA certificate to Vigor router through this page.

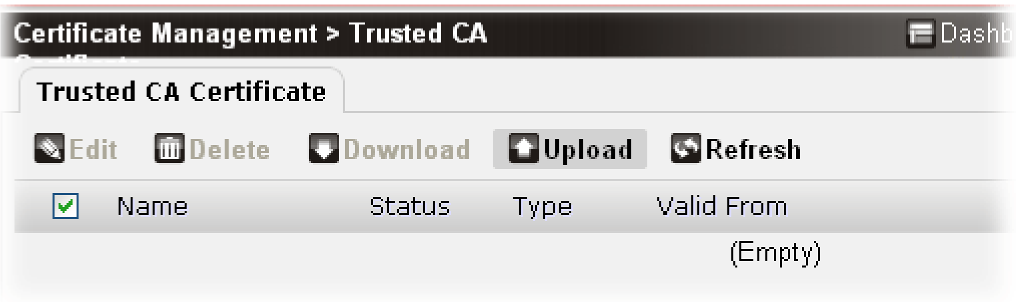


Each item will be explained as follows:

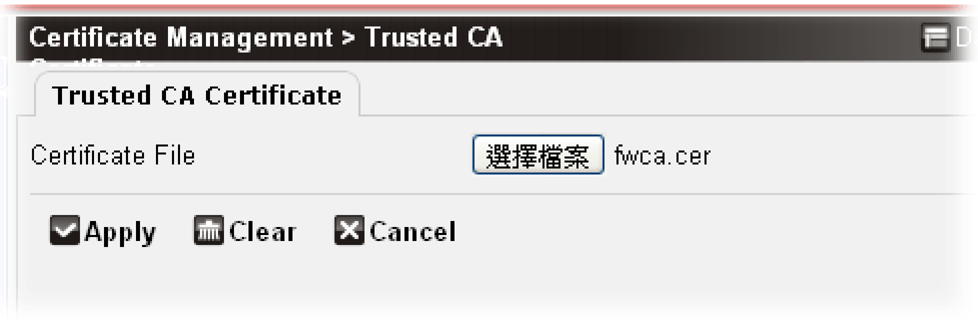
Item	Description
Edit	Edit the selected certificate. To edit the profile, simply check the profile box you want to edit and then click this button.
Delete	Remove the selected profile.
Download	Allow you to download an existing CA certificate request from the router to your PC.
Upload	Allow you to download an existing CA certificate request from the PC to your router.
Refresh	Click it to refresh the web page.
Name	Display the name of the certificate.
Status	Display the status of the certificate.
Valid From	Display the starting point of the valid time of the certificate.
Valid To	Display the end point of the valid time of the certificate.

Trusted CA certificate obtained from other sources and stored on the PC can be uploaded to Vigor router, do the following:

1. Click the **Upload** button.



2. The following setting page will appear. To specify a file, click the **Select File** button to locate the one you want.

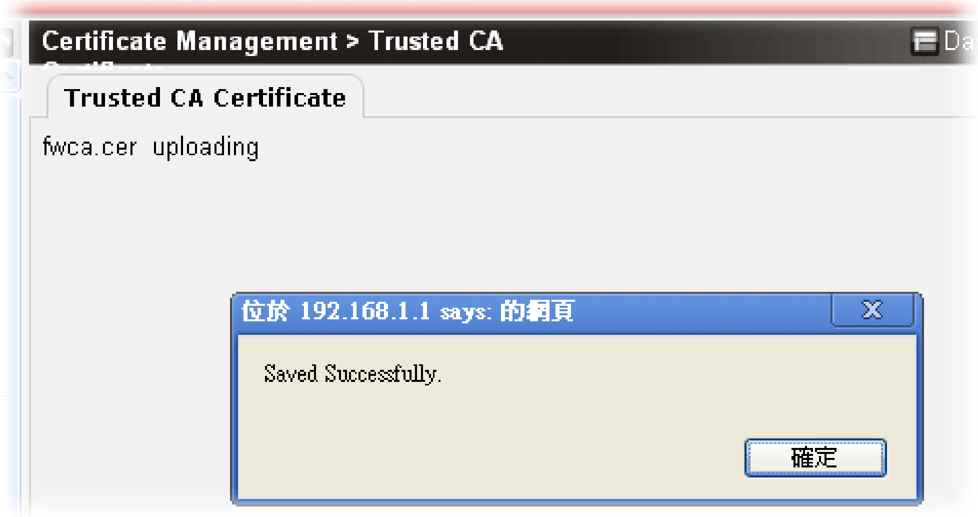


Certificate Management > Trusted CA

Trusted CA Certificate

Certificate File 選擇檔案 fwca.cer

3. After finished the selection, click **Apply** to upload the file and wait for the following dialog appears.



Certificate Management > Trusted CA

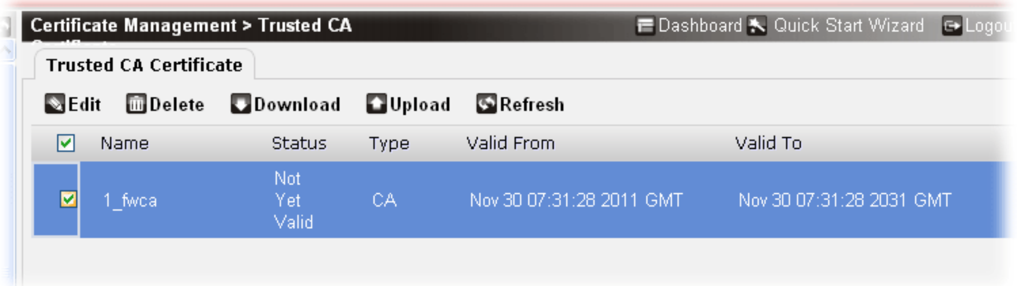
Trusted CA Certificate

fwca.cer uploading

位於 192.168.1.1 says: 的網頁

Saved Successfully.

4. Click **OK**. A trusted CA certificate has been uploaded to Vigor router and displayed on this page.



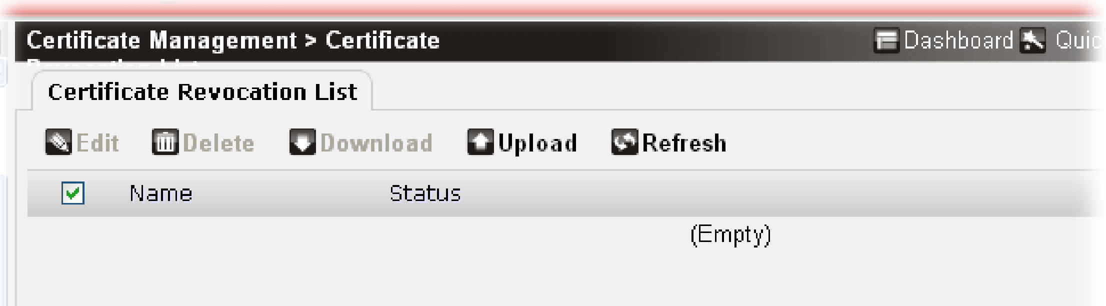
Certificate Management > Trusted CA

Trusted CA Certificate

☑	Name	Status	Type	Valid From	Valid To
☑	1_fwca	Not Yet Valid	CA	Nov 30 07:31:28 2011 GMT	Nov 30 07:31:28 2031 GMT

4.10.4 Certificate Revocation List

This page allows you to upload CRL files created by third-party and stored on PC (host) to Vigor router.

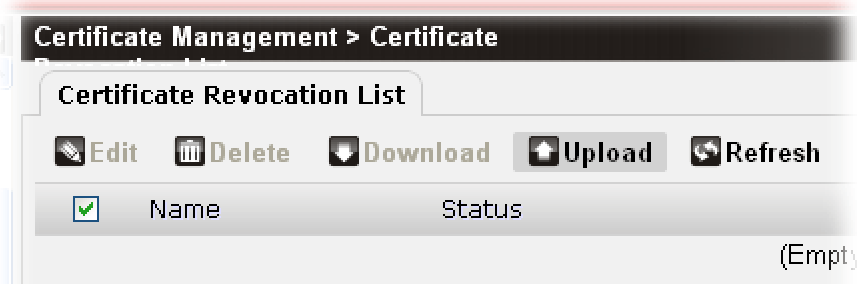

Certificate Management > Certificate
Dashboard
Quic
Certificate Revocation List
Edit
Delete
Download
Upload
Refresh
☑
Name
Status
(Empty)

Each item will be explained as follows:

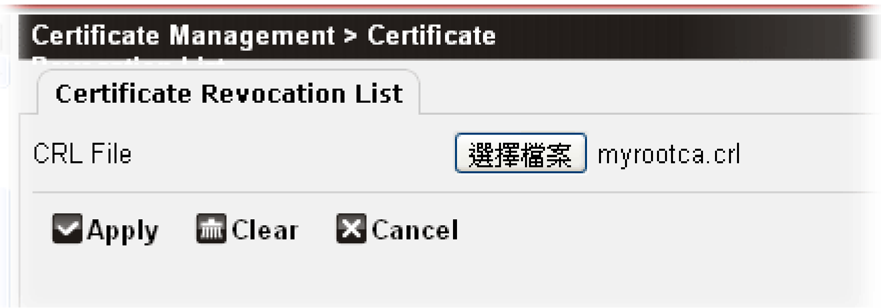
Item	Description
Edit	Edit the selected list file. To edit the profile, simply check the profile box you want to edit and then click this button.
Delete	Remove the selected list file.
Download	Allow you to download current CRL list to the router.
Upload	Allow you to upload lists on the host to the router.
Refresh	Click it to refresh the web page.
Name	Display the name of the file.
Status	Display the status of the file.

Revocation List obtained from other sources and stored on the PC can be uploaded to Vigor router, do the following:

1. Click the **Upload** button.

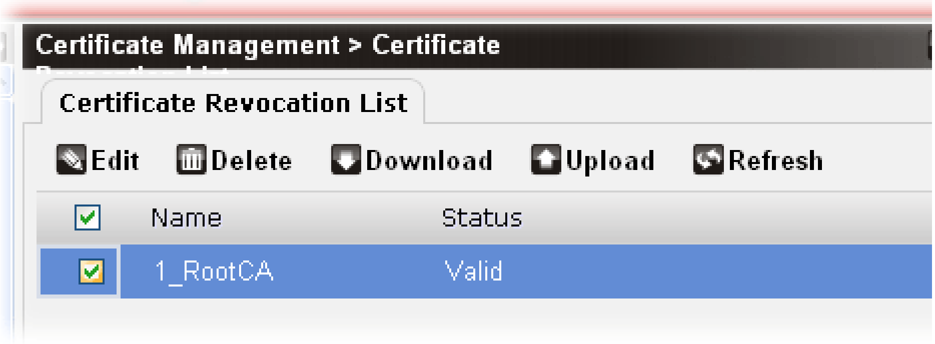

Certificate Management > Certificate
Certificate Revocation List
Edit
Delete
Download
Upload
Refresh
☑
Name
Status
(Empty

2. The following setting page will appear. To specify a CRL file, click the **Select File** button to locate the one you want.


Certificate Management > Certificate
Certificate Revocation List
Apply
Clear
Cancel

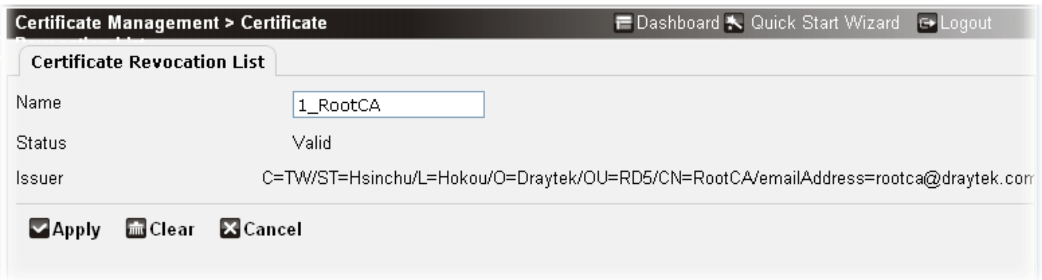
CRL File 選擇檔案 myrootca.crl

3. After finished the selection, click **Apply** to upload the file.


Certificate Management > Certificate
Certificate Revocation List
Edit
Delete
Download
Upload
Refresh

☑	Name	Status
☑	1_RootCA	Valid

4. Click **Edit** to open the following page. This page displays the issuer information for your reference.


Certificate Management > Certificate
Dashboard
Quick Start Wizard
Logout
Certificate Revocation List
Apply
Clear
Cancel

Name 1_RootCA

Status Valid

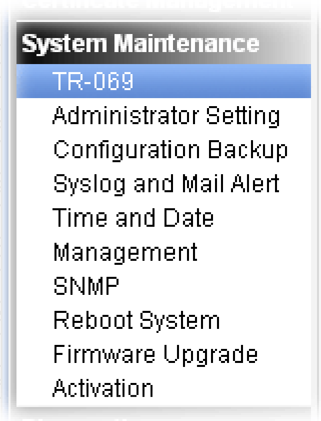
Issuer C=TW/ST=Hsinchu/L=Hokou/O=Draytek/OU=RD5/CN=RootCA/emailAddress=rootca@draytek.com

5. If required, you can modify the name of the certificate (e.g., for identification) and click **Apply** to save the change. If not, click **Cancel** to return to previous page.

4.11 System Maintenance

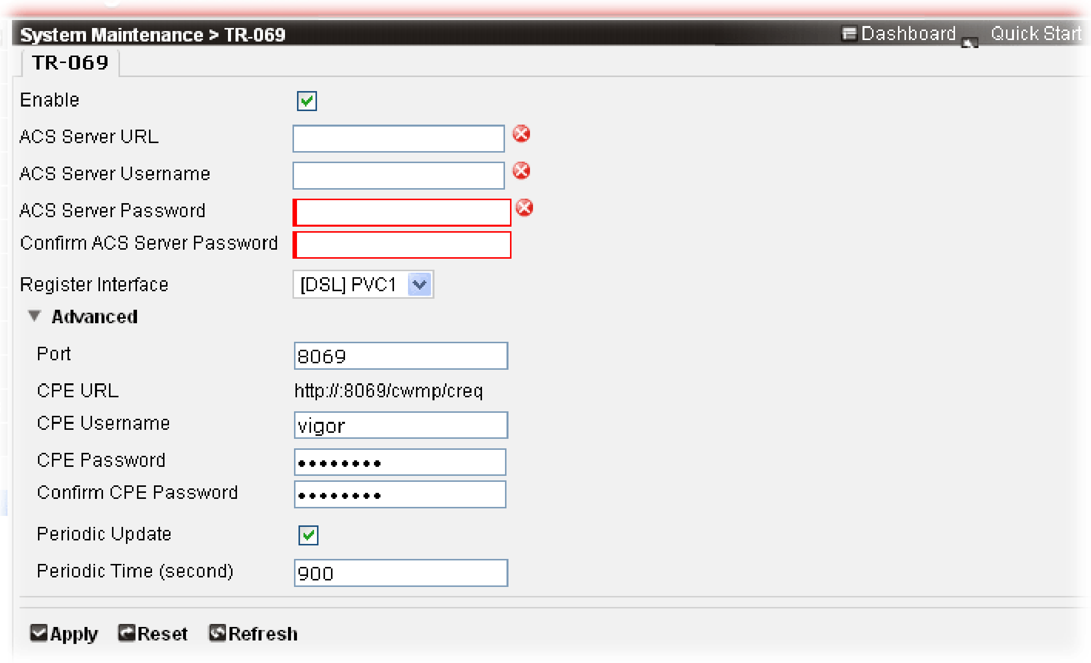
For the system setup, there are several items that you have to know the way of configuration: TR-069, Administrator Setting, Configuration Backup, Syslog and Mail Alert, time and Date, Management, SNMP, Reboot System, Firmware Upgrade and Activation.

Below shows the menu items for System Maintenance.



4.11.1 TR-069

Vigor router with TR-069 is available for matching with VigorACS server. Such page provides VigorACS and CPE settings under TR-069 protocol. All the settings configured here is for CPE to be controlled and managed with VigorACS server. Users need to type URL, username and password for the VigorACS server that such device will be connected. However URL, username and password under CPE client are fixed that users cannot change it. The default CPE username and password are "vigor" and "password". You will need it when you configure VigorACS server.



Enable	☑
ACS Server URL	
ACS Server Username	
ACS Server Password	
Confirm ACS Server Password	
Register Interface	[DSL] PVC1
▼ Advanced	
Port	8069
CPE URL	http://:8069/cwmp/creq
CPE Username	vigor
CPE Password	••••••••
Confirm CPE Password	••••••••
Periodic Update	☑
Periodic Time (second)	900

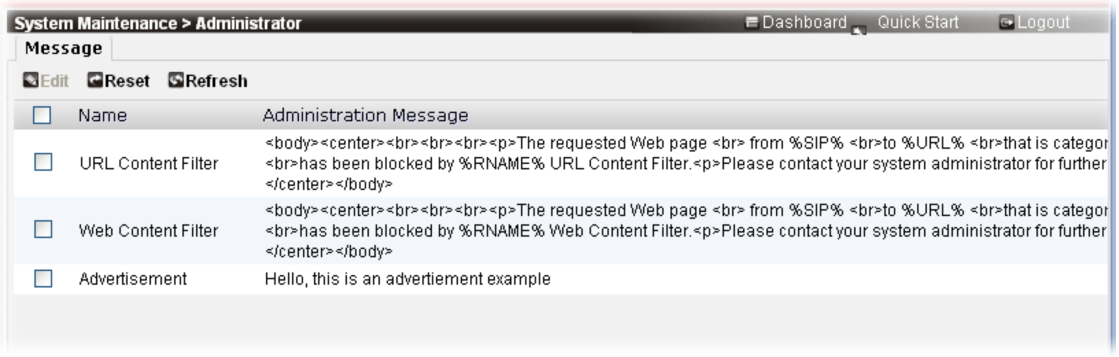
Available parameters are listed below:

Item	Description
Enable	Check the box to enable TR-069 parameters. Such data must be typed according to the ACS (Auto Configuration Server) you want to link. Please refer to VigorACS user's manual for detailed information.
ACS Server URL	Type the URL for VigorACS server. If the connected CPE needs to be authenticated, please set URL as the following and type username and password for VigorACS server: ***http://{IP address of VigorACS}:8080/ACSServer/services/ACSServlet*** If the connected CPE does not need to be authenticated please set URL as the following: ***http://{IP address of VigorACS}:8080/ACSServer/services/UnAuthACSServlet*** **Username/Password** - Type username and password for ACS Server for authentication.
ACS Server Username	Type the username for ACS Server for authentication. For example, if you want to use such CPE with VigorACS, you can type as the following: **Username:** ***acs*** **Password:** ***XXXXXX***
ACS Server Password	Type the password for ACS Server for authentication. For example, if you want to use such CPE with VigorACS,

	you can type as the following: **Username*: XXX*** **Password*: password***
Confirm ACS Server Password	Type the password for ACS Server for authentication again for confirmation.
Register Interface	Display the interface used for connecting to VigorACS server.
Advanced	Such information is useful for Auto Configuration Server. In default, the system will detect related information of the CPE automatically and displayed in this field. **Port** –Sometimes, port conflict might be occurred. To solve such problem, you might change port number for CPE. **CPE URL** – Display the URL of the CPE. **CPE Username** – Display the username of the CPE. **CPE Password** – Display the password of the CPE. **Confirm CPE Password** – Display the password of the CPE for confirmation. **Periodic Update** – Check the box (Enable) to make the system send inform message to ACS server periodically (with the time set in the box of interval time). **Periodic Time (second)** –The default setting is **Enable**. Please set interval time or schedule time for the router to send notification to CPE.
Apply	Click it to save the settings.
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to clear current settings and return to the settings saved previously.

4.11.2 Administrator Setting

This page allows you to modify the content of the message box of the profiles with different purposes.



□	Name	Administration Message
□	URL Content Filter	<body><center> <p>The requested Web page from %SIP% to %URL% that is categor has been blocked by %RNAME% URL Content Filter.<p>Please contact your system administrator for further </center></body>
□	Web Content Filter	<body><center> <p>The requested Web page from %SIP% to %URL% that is categor has been blocked by %RNAME% Web Content Filter.<p>Please contact your system administrator for further </center></body>
□	Advertisement	Hello, this is an advertiement example

Available parameters are listed below:

Item	Description
Edit	Edit the selected profile. To edit the profile, simply check the profile box you want to

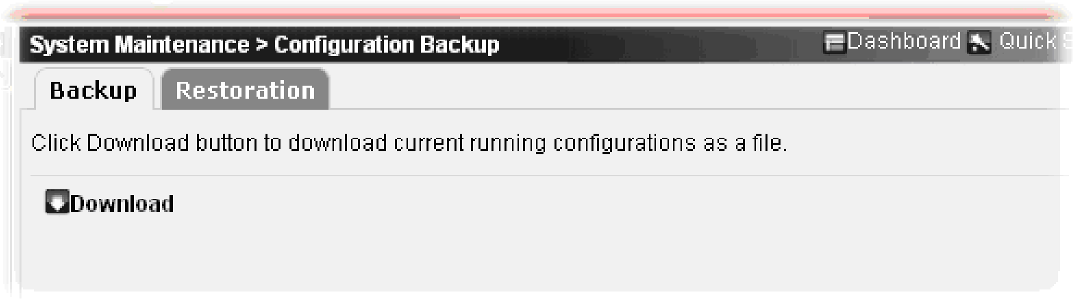
	edit and then click this button.
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to clear current settings and return to the settings saved previously.
Name	Display the profile name.
Administration	Display the administration message which is used to inform the user.

4.11.3Configuration Backup

This page is used to backup the configuration file and restore the configuration file in

> **Note:** Backup for Certification must be done independently. The Configuration Backup does not include information of Certificate.

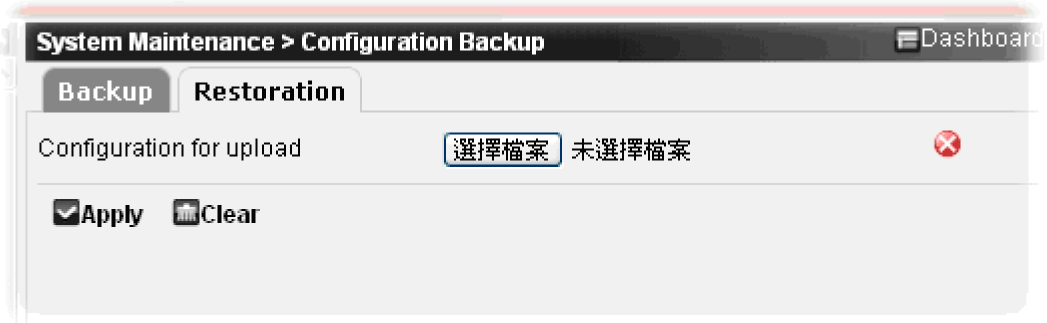
In the following page, simply click **Download** and follow the on-screen instruction to backup the configuration file.



System Maintenance > Configuration Backup

Click Download button to download current running configurations as a file.

To restore a restored configuration file, simply click the Restoration tab. Click the **Select File..** button to locate the backup file you want, then click **Apply**. The configuration file will be restored to the router.



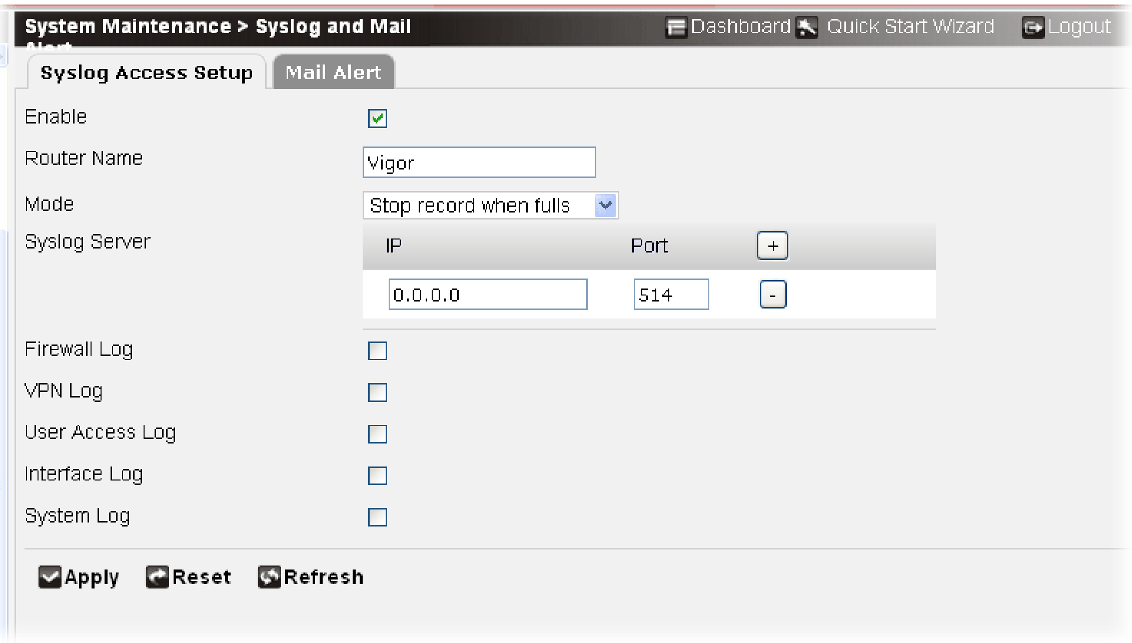
System Maintenance > Configuration Backup

Configuration for upload 選擇檔案 未選擇檔案

4.11.4 Syslog and Mail Alert

SysLog function is provided for users to monitor router. There is no bother to directly get into the Web Configurator of the router or borrow debug equipments.

4.11.4.1 Syslog Access Setup



Enable ☑

Router Name: Vigor

Mode: Stop record when fulls

Syslog Server

IP	Port
0.0.0.0	514

Firewall Log □

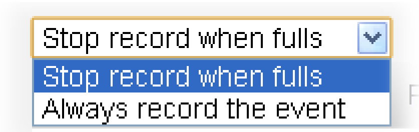
VPN Log □

User Access Log □

Interface Log □

System Log □

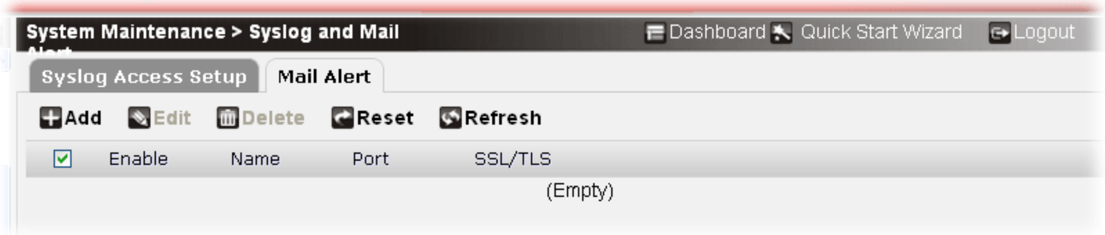
Available parameters are listed below:

Item	Description
Enable	Check **Enable** to activate function of syslog.
Router Name	Default name is Vigor. You can modify the name for your necessity..
Mode	There are two modes for you to choose.  Stop record when fulls Stop record when fulls Always record the event **Stop record when fulls –** when the capacity of syslog is full, the system will stop recording. **Always record the new event –** only the newest events will be recorded by the system.
Syslog Server	Specify the IP address with port number for Syslog server.
Firewall Log / VPN Log / User Access Log / Interface Log / System Log	Check the box listed on this web page to send the corresponding message of firewall, VPN, User Access, Interface, System log information to Syslog.
Apply	Click it to save the settings.
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to clear current settings and return to the settings saved

	previously.

4.11.4.2 Mail Alert

The system allows you to set several mail alert profiles to apply for different situations.


System Maintenance > Syslog and Mail Alert

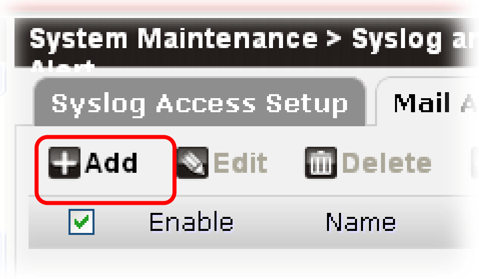
☑	Enable	Name	Port	SSL/TLS
			(Empty)	

Each item will be explained as follows:

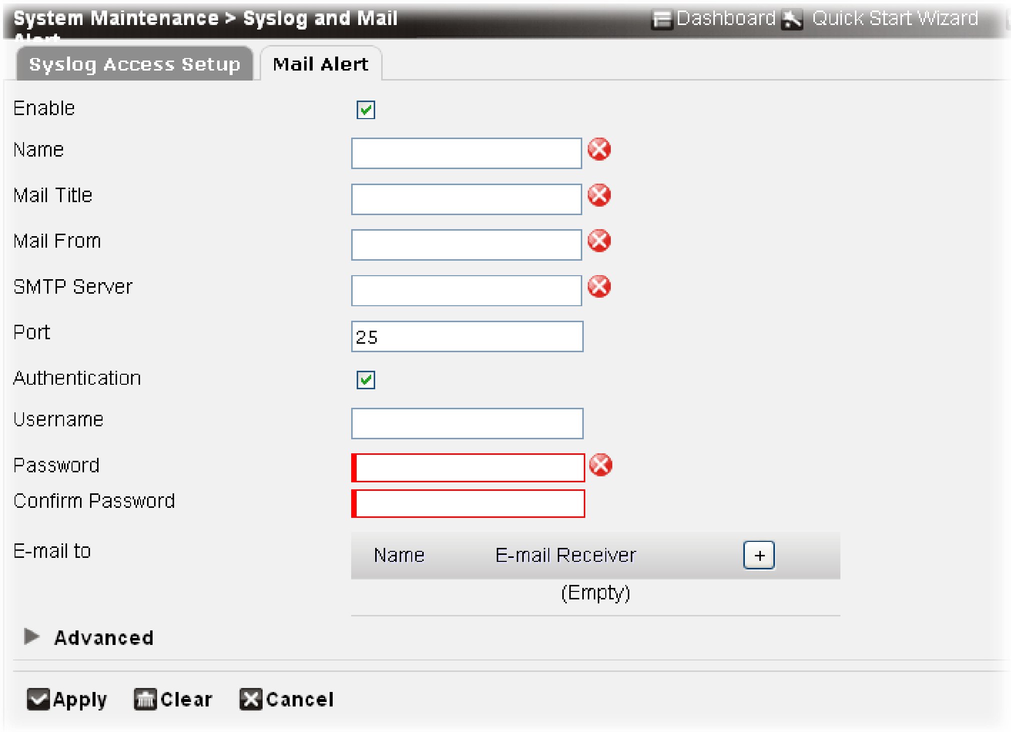
Item	Description
Add	Create new WAN profiles.
Edit	Edit the selected WAN profile. To edit the profile, simply check the profile box you want to edit and then click this button.
Delete	Remove the selected WAN profile.
Reset	Click it to rest to factory default settings.
Refresh	Click it to refresh the web page.
Enable	Display the activation status for such profile. **Enable** – The profile is activated. **Disable** –The profile is not activated.
Name	Display the name of the mail alert profile.
Port	Display the port number of the mail alert server.
SSL/TLS	Display the activation status for SSL/TLS. **Enable** – The SSL/TLS is activated. **Disable** –The SSL/TLS is not activated.

To add a new mail alert profile, please do the following:

1. Click the **Add** button.



2. The following setting page will appear.



Enable ☑

Name

Mail Title

Mail From

SMTP Server

Port 25

Authentication ☑

Username

Password

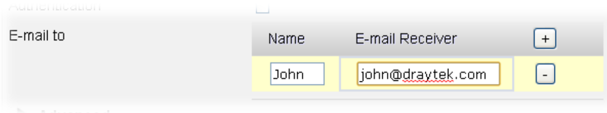
Confirm Password

E-mail to

Name	E-mail Receiver	+
	(Empty)	

▶ Advanced

Available parameters are listed below:

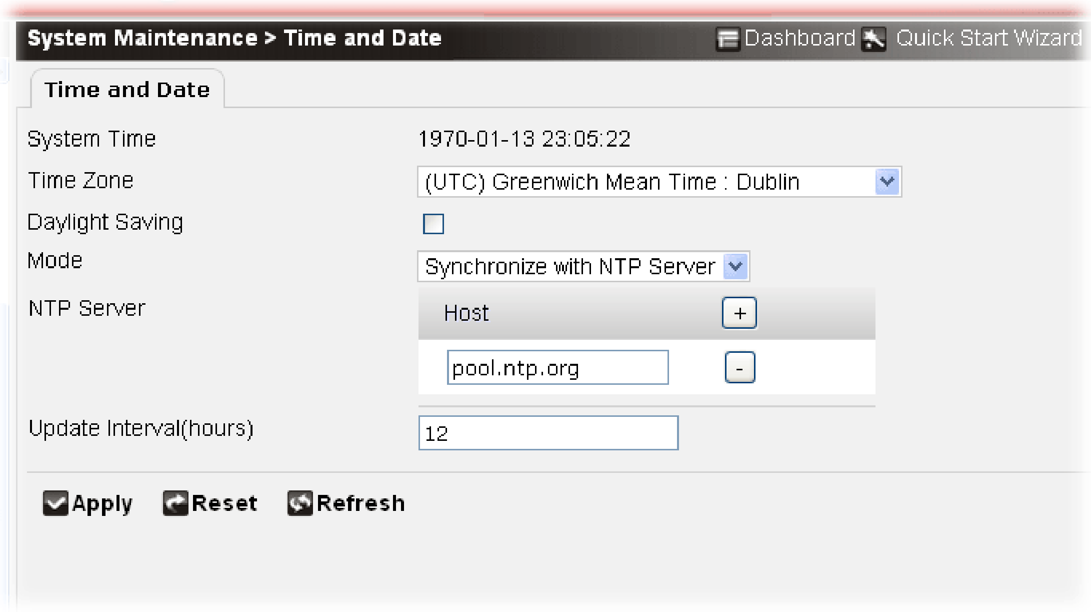
Item	Description
Enable	Check the box to enable such profile.
Name	Type a name for the mail alert profile.
Mail Title	Type a heading of the mail.
Mail From	Type a mail address for reiving the mail from outside.
SMTP Server	The IP address of the SMTP server.
Port	Type a port number for the mail alert.
Authentication	Check this box to activate this function while using e-mail application. **User Name -** Type the user name for authentication. **Password -** Type the password for authentication. **Confirm Password –** Type the password again for confirmation.
E-mail to	Add the mail address for sending mails out. You can type several mail addresses in this field. All of the them will receive the mail alert at the same time. **Name** – Type a name of the receiver. **E-mail Receiver** – Type the e-mail address of the receiver.  E-mail to Name: John E-mail Receiver: john@draytek.com
Advanced	**SSL/TLS** – Check the box to enable the network connection

	with SSL/TLS encryption. Not every SMTP server supports such function. However, if the SMTP server you specify here supports such feature, you can check this box to avoid wiretapping the communication between the SMTP server and the client. **Test Description** – Simply type the description in the box. The content will be seen by the receiver. **Send Test Mail** –Make a simple test for the e-mail address specified in this page. Please assign the mail address first and click this button to execute a test for verify the mail address is available or not.
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to return to previous web page.

3. After finished the settings above, click **Apply** to save the settings then click **Cancel** to return to previous page.

4.11.5 Time and Date

This page allows you to specify where the time of the router should be inquired from.



System Time 1970-01-13 23:05:22

Time Zone (UTC) Greenwich Mean Time : Dublin

Daylight Saving □

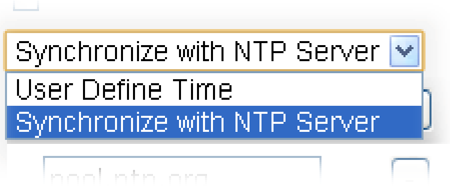
Mode Synchronize with NTP Server

NTP Server pool.ntp.org

Update Interval(hours) 12

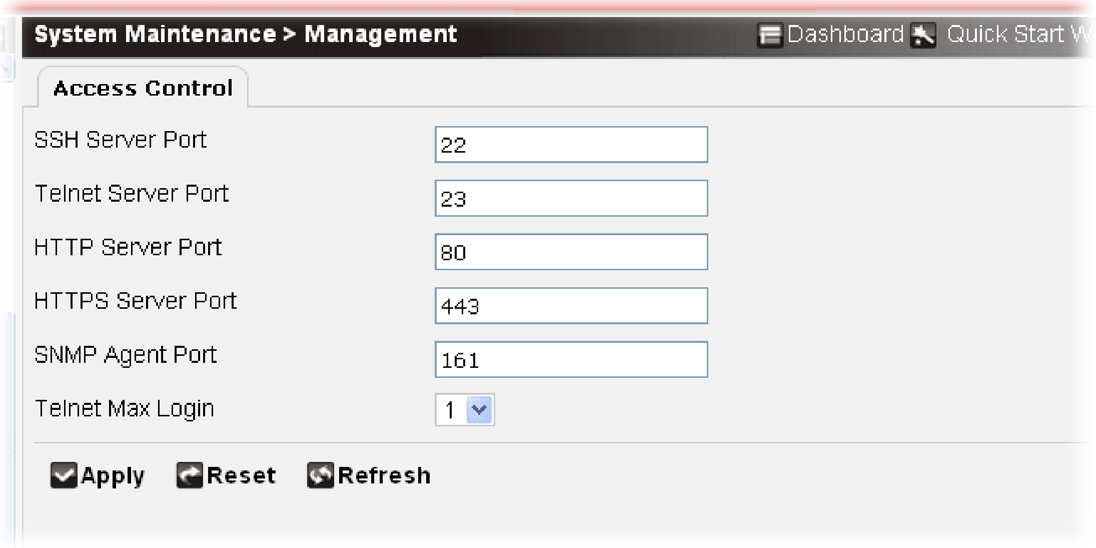
Available parameters are listed below:

Item	Description
System Time	Display the current system time.
Time Zone	Select the time zone where the router is located.
Daylight Saving	Check the box to enable the daylight saving. Such feature is available for certain area.
Mode	Choose the mode for adjusting the time and the date.

	 Synchronize with NTP Server User Define Time Synchronize with NTP Server
Synchronize with NTP Server	
NTP Server	Type the URL or the IP address of the NTP server.
Update Interval (hours)	Type the time interval for updating from the NTP server.
User Define Time	
Date	Use the drop down calendar to choose the date you want. **Synchronize with Host** – The date and time of the router and the operation system will be synchronized.
Time	Type the starting time with the format of hh:mm:ss.
Apply	Click it to save the settings.
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to clear current settings and return to the settings saved previously.

4.11.6 Management

This page allows you to set the port number for different server. The system administrators can login from the Internet to manage the router.



SSH Server Port	22
Telnet Server Port	23
HTTP Server Port	80
HTTPS Server Port	443
SNMP Agent Port	161
Telnet Max Login	1

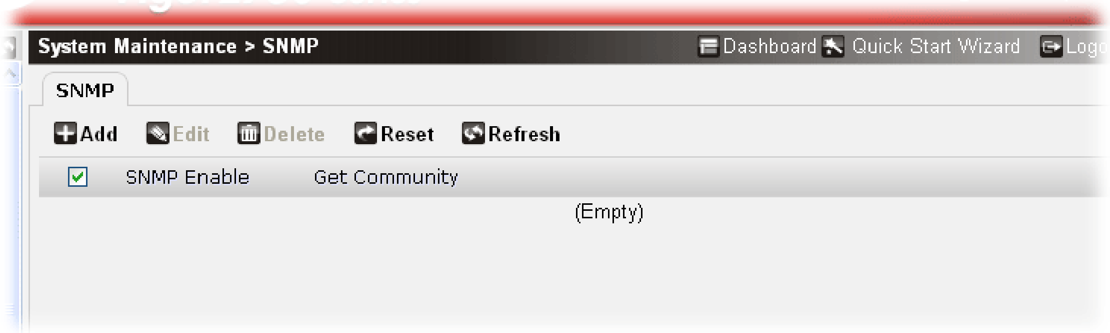
Available parameters are listed below:

Item	Description
SSH Server Port	Type the standard port numbers for such server. The default setting is 22.
Telnet Server Port	Type the standard port numbers for such server. The default setting is 23.

HTTP Server Port	Type the standard port numbers for such server. The default setting is 80.
HTTPS Server Port	Type the standard port numbers for such server. The default setting is 443.
SNMP Agent Port	Type the standard port numbers for such server. The default setting is 161.
Telnet Max Login	Choose the number to determine how many remote users are allowed to telnet Vigor router through Internet.
Apply	Click it to save the settings.
Reset	Click it to retrieve the default settings of this page.
Refresh	Click it to clear current settings and return to the settings saved previously.

4.11.7 SNMP

This page allows you to configure settings for SNMP (Simple Network Management Protocol) service.

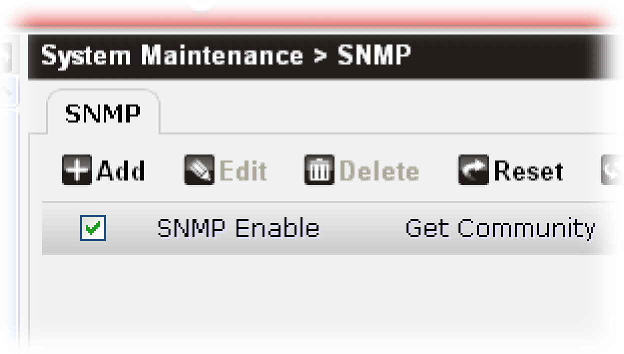


Each item will be explained as follows:

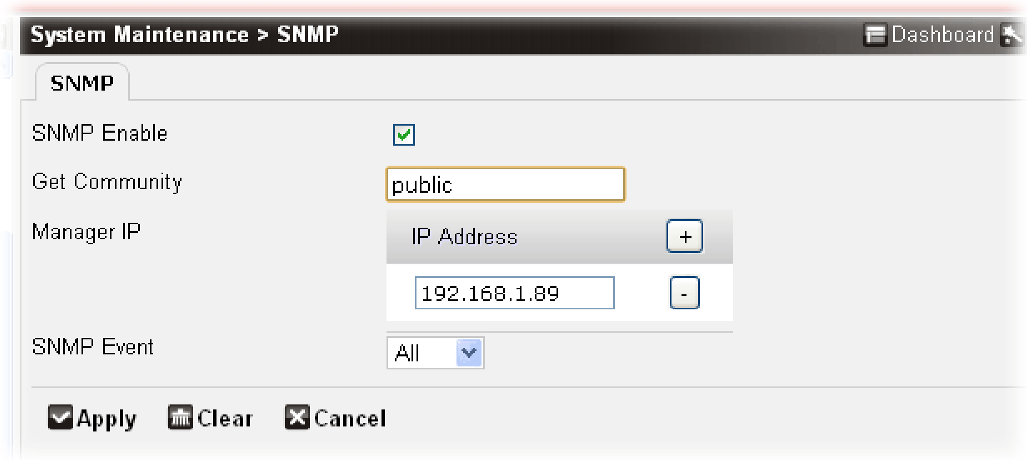
Item	Description
Add	Create new SNMP profiles.
Edit	Edit the selected SNMP profile. To edit the profile, simply check the profile box you want to edit and then click this button.
Delete	Remove the selected SNMP profile.
Reset	Click it to rest to factory default settings.
Refresh	Click it to refresh the web page.
SNMP Enable	Display the activation status for such interface. **Enable** – The SNMP profile is activated. **Disable** –The SNMP profile is not activated.
Get Community	Display the name for getting community.

To add a SNMP profile, please do the following:

1. Click **Add.**



2. The following page appears.


System Maintenance > SNMP

SNMP

SNMP Enable ☑

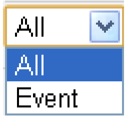
Get Community: public

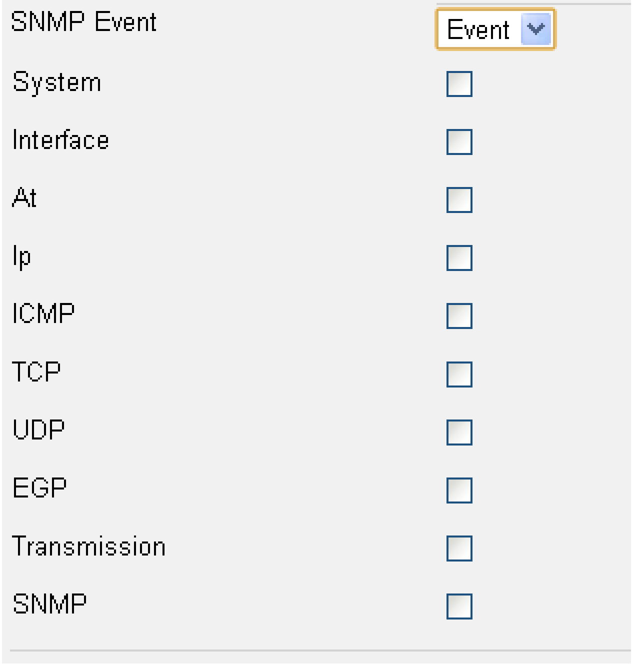
Manager IP: IP Address +

192.168.1.89 -

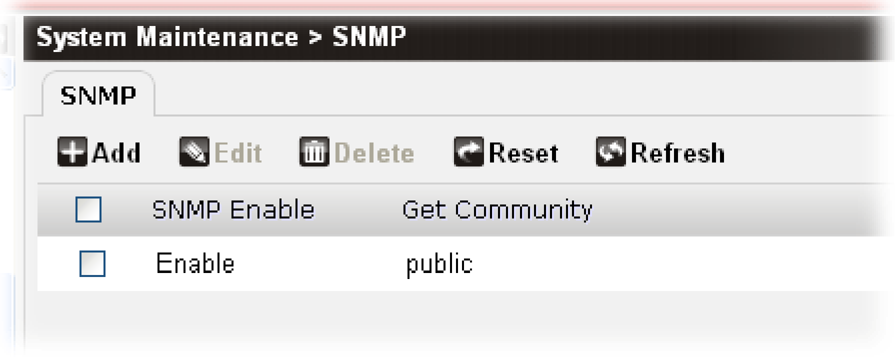
SNMP Event: All

Available parameters are listed below:

Item	Description
SNMP Enable	Check the box to enable such profile.
Get Community	Set the name for getting community by typing a proper character. The default setting is **public.**
Manager IP	Set one host as the manager to execute SNMP function. Please type in IP address to specify certain host. Click the + button to add a new IP address.
SNMP Event	Specify the items to be executed by SNMP function.  All All Event **Event** – Available events will be shown as follows. You have to specify the event you want by checking the box related to that event.

	 SNMP Event: Event System □ Interface □ At □ Ip □ ICMP □ TCP □ UDP □ EGP □ Transmission □ SNMP □ **All** – All events will be executed by SNMP function
Apply	Click it to save the settings.
Clear	Click it to remove the modification of the web page.
Cancel	Click it to return to previous web page.

4. After finished the settings above, click **Apply** to save the settings and return to previous page.

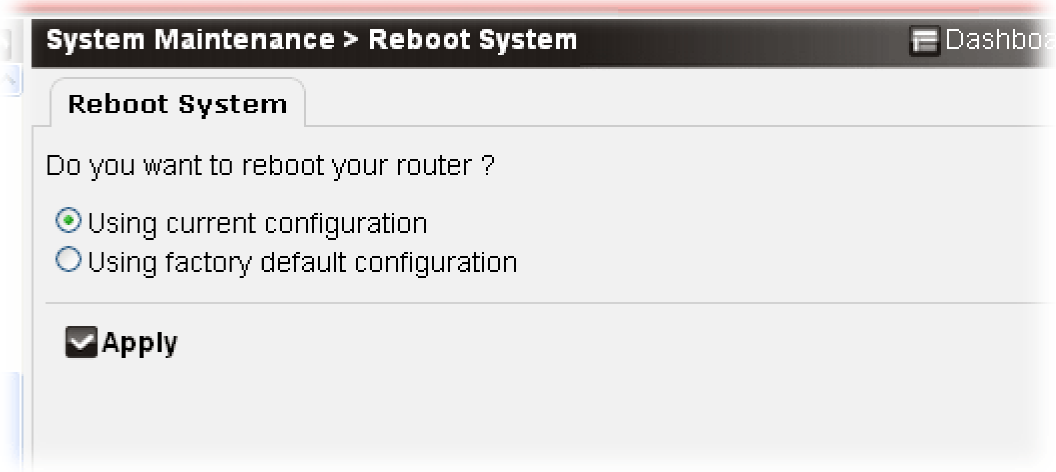


System Maintenance > SNMP

□	SNMP Enable	Get Community
□	Enable	public

4.11.8 Reboot System

The Web Configurator may be used to restart your router. Click **Reboot System** from **System Maintenance** to open the following page.



System Maintenance > Reboot System

Reboot System

Do you want to reboot your router ?

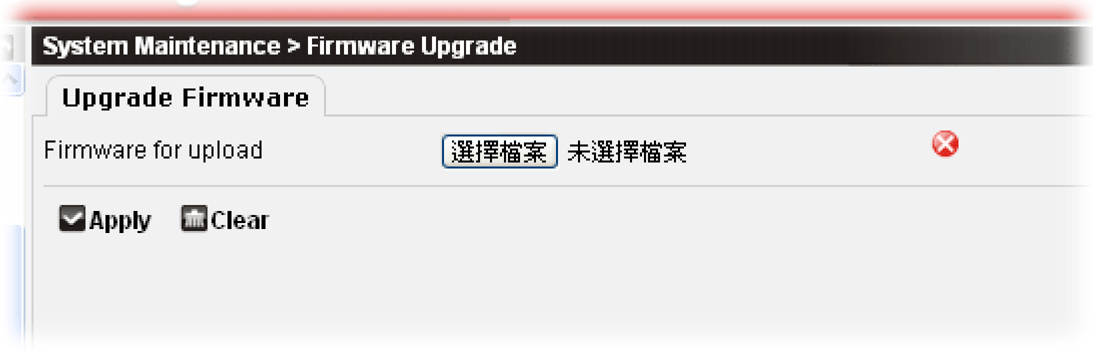
● Using current configuration
○ Using factory default configuration

Available parameters are listed below:

Item	Description
Using current configuration	To reboot the router using the current configuration, click it and click **Apply**.
Using factory default configuration	To reset the router settings to default values, click it and click **Apply.**
Apply	Click it to process the system reboot.

4.11.9 Firmware Upgrade

Download the newest firmware from DrayTek's web site or FTP site to your hard disk. The DrayTek web site is www.DrayTek.com (or local DrayTek's web site) and FTP site is ftp.DrayTek.com.



System Maintenance > Firmware Upgrade

Upgrade Firmware

Firmware for upload 選擇檔案 未選擇檔案

Available parameters are listed below:

Item	Description
Firmware for upload	Click the **Select File..** button to locate the firmware you want from your hard disk.

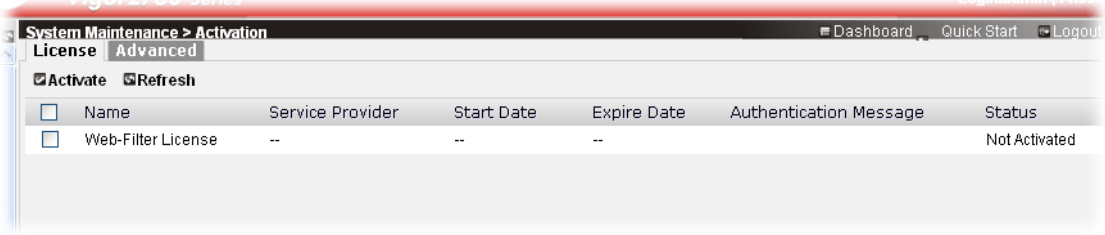
Apply	Click it to process the firmware upgrade.
Clear	Cancel the file selection.

4.11.10 Activation

There are two ways to activate WCF on vigor router, using **Activation Wizard**, or via **System Maintenance>>Activation**.

After you have finished the setting profiles for WCF (refer to **Web Content Filter Profile**), it is the time to activate the mechanism for your computer.

Click **System Maintenance>>Activation** to open the following page for accessing http://myvigor.draytek.com.



□	Name	Service Provider	Start Date	Expire Date	Authentication Message	Status
□	Web-Filter License	--	--	--		Not Activated

Available parameters are listed below:

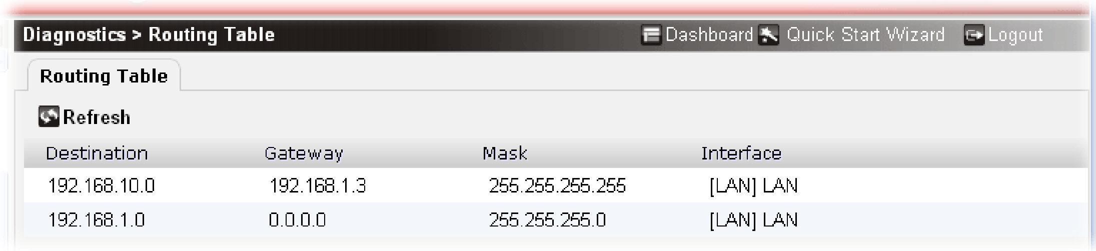
Item	Description
Activate	Choose the license list you want and check the front box of the list. Then, click **Activate** to access into myvigor website for activating the formal or trial version of the WCF mechanism.
Refresh	Click it to refresh the web page.
Name	Display the name of the web content filter mechanism.
Service Provider	Display the service provider who offers the WCF mechanism.
Start Date	Display the starting date for the valid time of the license.
Expire Date	Display the ending date for the valid time of the license.
Authentication Message	Display the brief description of the license.
Status	Display current status (Activated or Not Activated) of the WCF license.

Note: Refer to section 3.1 to get detailed information.

4.12 Diagnostics

Diagnostic Tools provide a useful way to **view** or **diagnose** the status of your Vigor router.

4.12.1 Routing Table



Diagnostics > Routing Table

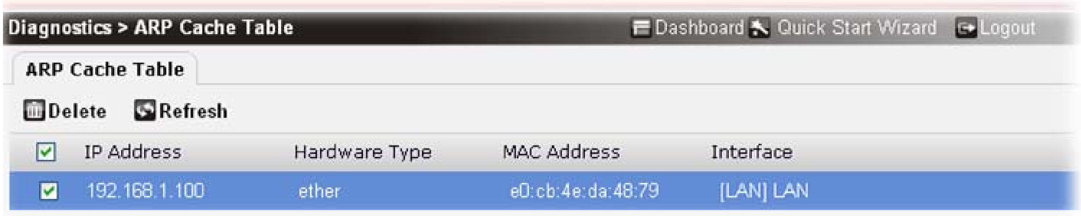
Destination	Gateway	Mask	Interface
192.168.10.0	192.168.1.3	255.255.255.255	[LAN] LAN
192.168.1.0	0.0.0.0	255.255.255.0	[LAN] LAN

Each item will be explained as follows:

Item	Description
Refresh	Click it to refresh the web page.
Destination	Display the IP address for destination network or destination host.
Gateway	Display the gateway address or 0.0.0.0 if none set.
Mask	Display the netmask for the destination net; '255.255.255.255' is for a host destination and '0.0.0.0' is for the default route.
Interface	Display interface to which packets for this route will be sent.

4.12.2 ARP Cache Table

Click **Diagnostics** and click **ARP Cache Table** to view the content of the ARP (Address Resolution Protocol) cache held in the router. The table shows a mapping between an Ethernet hardware address (MAC Address) and an IP address.



Diagnostics > ARP Cache Table

☑	IP Address	Hardware Type	MAC Address	Interface
☑	192.168.1.100	ether	e0:cb:4e:da:48:79	[LAN] LAN

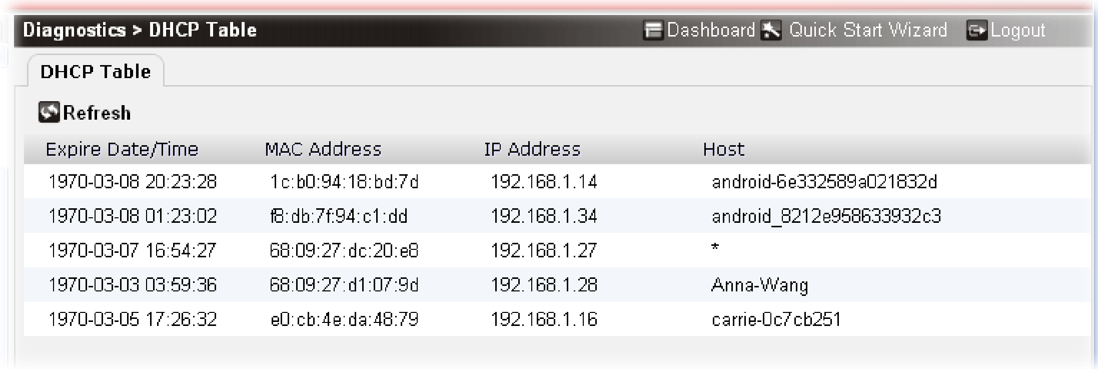
Each item will be explained as follows:

Item	Description
Delete	Remove the selected line. You have to check the line you want and then click this button.
Refresh	Click it to refresh the web page.
IP Address	Display the IP address of the host.
Hardware Type	Display the type of hardware (e.g,, ether means Ethernet).

MAC Address	Display the MAC address of the host.
Interface	Display interface to which packets for this route will be sent.

4.12.3 DHCP Table

The facility provides information on IP address assignments. This information is helpful in diagnosing network problems, such as IP address conflicts, etc.



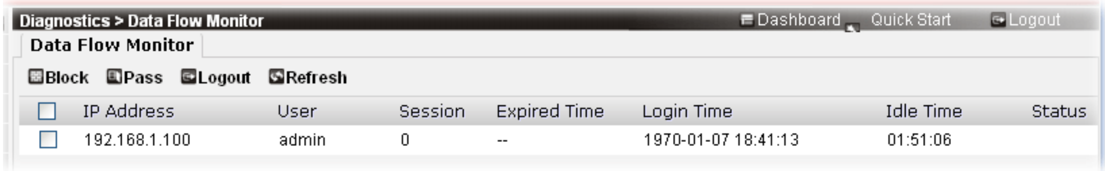
Expire Date/Time	MAC Address	IP Address	Host
1970-03-08 20:23:28	1c:b0:94:18:bd:7d	192.168.1.14	android-6e332589a021832d
1970-03-08 01:23:02	f8:db:7f:94:c1:dd	192.168.1.34	android_8212e958633932c3
1970-03-07 16:54:27	68:09:27:dc:20:e8	192.168.1.27	*
1970-03-03 03:59:36	68:09:27:d1:07:9d	192.168.1.28	Anna-Wang
1970-03-05 17:26:32	e0:cb:4e:da:48:79	192.168.1.16	carrie-0c7cb251

Each item will be explained as follows:

Item	Description
Refresh	Click it to refresh the web page.
Expire Date/Time	It displays the leased time of the specified PC.
MAC Address	It displays the MAC address for the specified PC that DHCP assigned IP address for it.
IP Address	It displays the IP address assigned by this router for specified PC.
Host	It displays the host ID name of the specified PC.

4.12.4 Data Flow Monitor

This page displays the running procedure for the IP address monitored and refreshes the data in an interval of several seconds. The IP address listed here is configured in Bandwidth Management. You have to enable IP bandwidth limit and IP session limit before invoke Data Flow Monitor. If not, a notification dialog box will appear to remind you enabling it.



□	IP Address	User	Session	Expired Time	Login Time	Idle Time	Status
□	192.168.1.100	admin	0	--	1970-01-07 18:41:13	01:51:06	

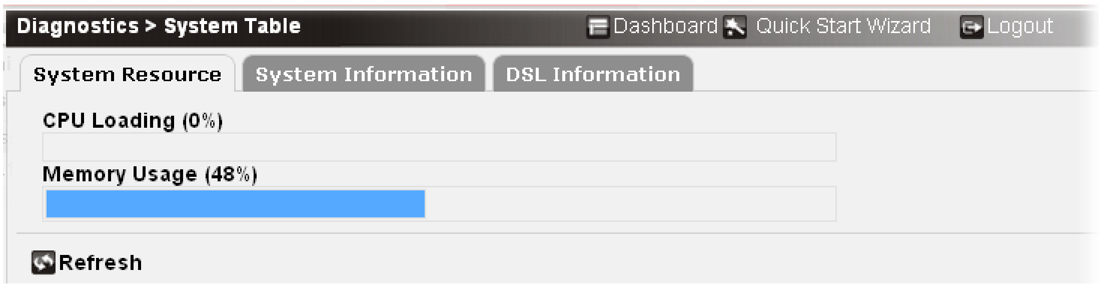
Each item will be explained as follows:

Item	Description
Block	Prevent specified PC accessing into Internet within 5 minutes.
Pass	The device with the IP address is allowed to access into

	Internet.
Logout	Force the selected login user leaving the web user interface of Vigor router. Simply check the box of the one to be exited, then click this button to force it logging out.
Refresh	Click it to refresh the web page.
IP Address	Display the IP address of the monitored device.
User	Display the identification of the one (e.g., admin, user...) who wants to access into Internet.
Session	Display the session number that you specified in Limit Session web page.
Expired Time	Display the remaining time to block or pass.
Login Time	Display the login time of the PC.
Idle Time	Display the idle time of the PC.
Status	Display the status (block or pass) of the PC.

4.12.5 System Table

The information displayed here is available for technical support if encountering troubles in using Vigor router.



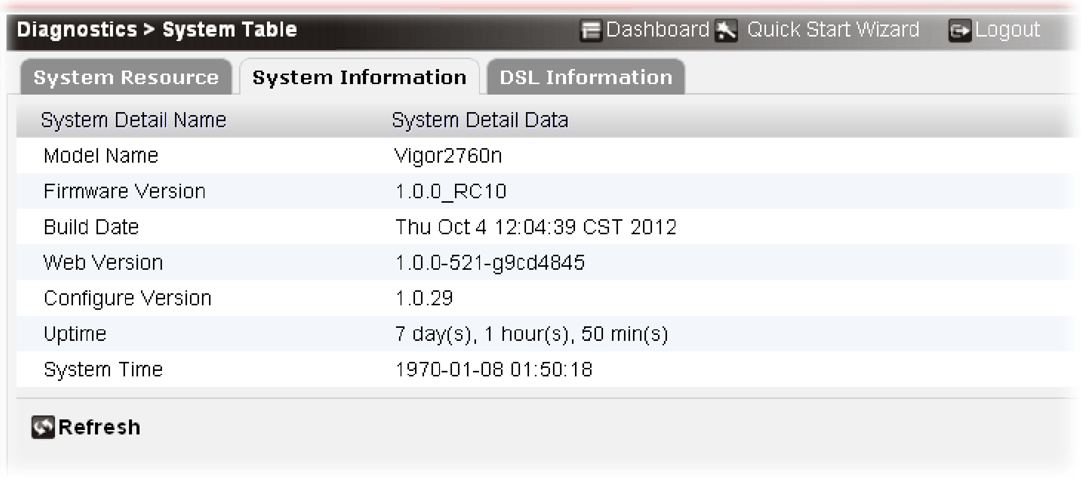
CPU Loading (0%)

Memory Usage (48%)

Each item will be explained as follows:

Item	Description
Refresh	Click it to refresh the web page.
Memory Usage	The used memory and remaining capacity will be displayed by blue and white.

Basic system information will be seen by clicking **Diagnostics>>System Table>>System Information**.

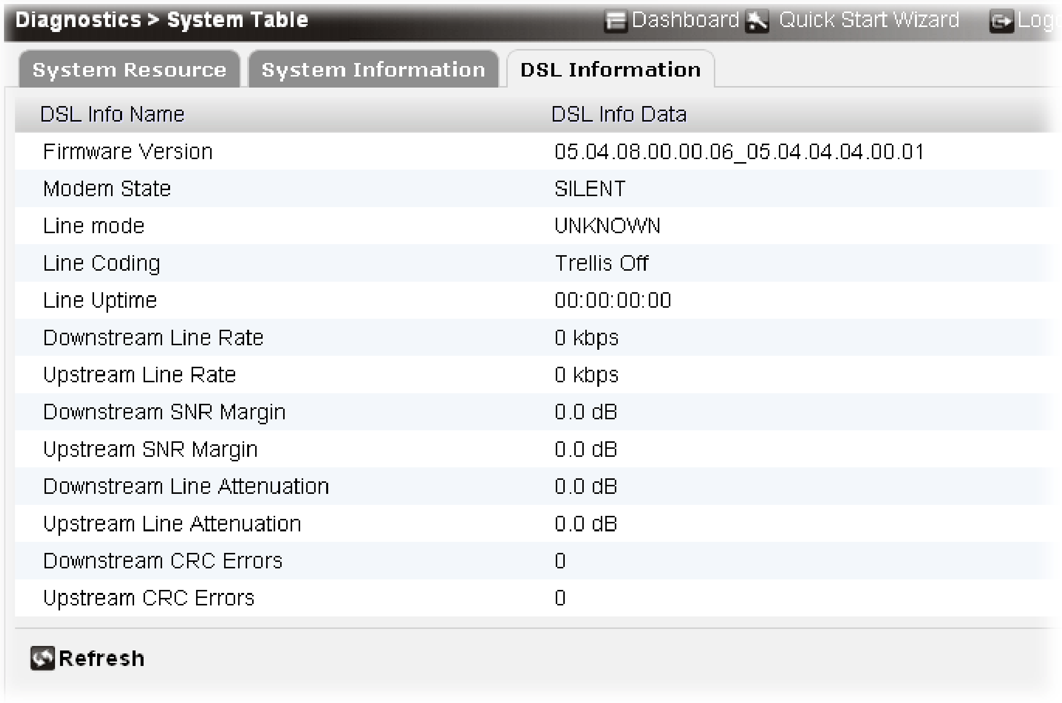


System Detail Name	System Detail Data
Model Name	Vigor2760n
Firmware Version	1.0.0_RC10
Build Date	Thu Oct 4 12:04:39 CST 2012
Web Version	1.0.0-521-g9cd4845
Configure Version	1.0.29
Uptime	7 day(s), 1 hour(s), 50 min(s)
System Time	1970-01-08 01:50:18

Each item will be explained as follows:

Item	Description
Model Name	Display the model name of the Vigor router.
Firmware Version	Display current firmware version used by the router.
Build Date	Display the date that the firmware is built.
Web Version	Display the version of the web user interface.
Configure Version	Display the configuration version of Vigor router.
Uptime	Display the duration time when the router connects to Internet.
System Time	Display the time of the system.

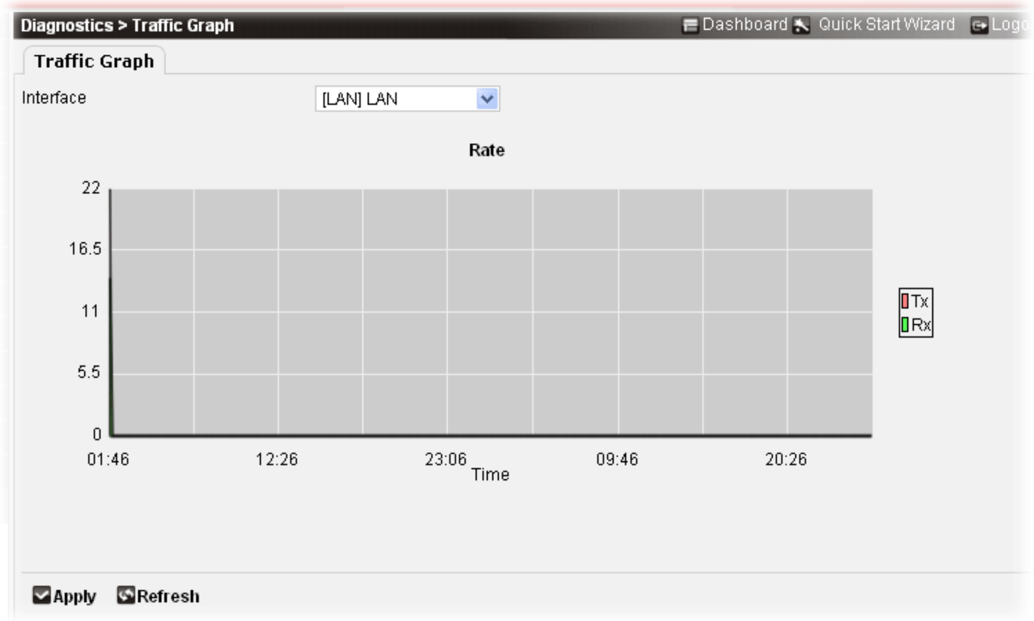
Related information of DSL interface will be seen by clicking **Diagnostics>>System Table>>DSL Information**.



DSL Info Name	DSL Info Data
Firmware Version	05.04.08.00.00.06_05.04.04.04.00.01
Modem State	SILENT
Line mode	UNKNOWN
Line Coding	Trellis Off
Line Uptime	00:00:00:00
Downstream Line Rate	0 kbps
Upstream Line Rate	0 kbps
Downstream SNR Margin	0.0 dB
Upstream SNR Margin	0.0 dB
Downstream Line Attenuation	0.0 dB
Upstream Line Attenuation	0.0 dB
Downstream CRC Errors	0
Upstream CRC Errors	0

4.12.6 Traffic Graph

The data traffic via LAN/DSL/USB can be displayed by graph.

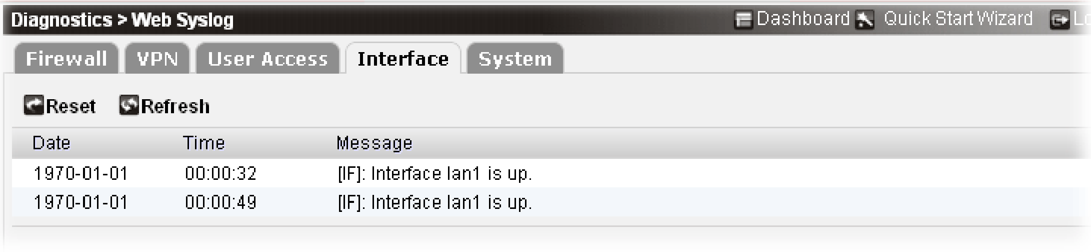


Each item will be explained as follows:

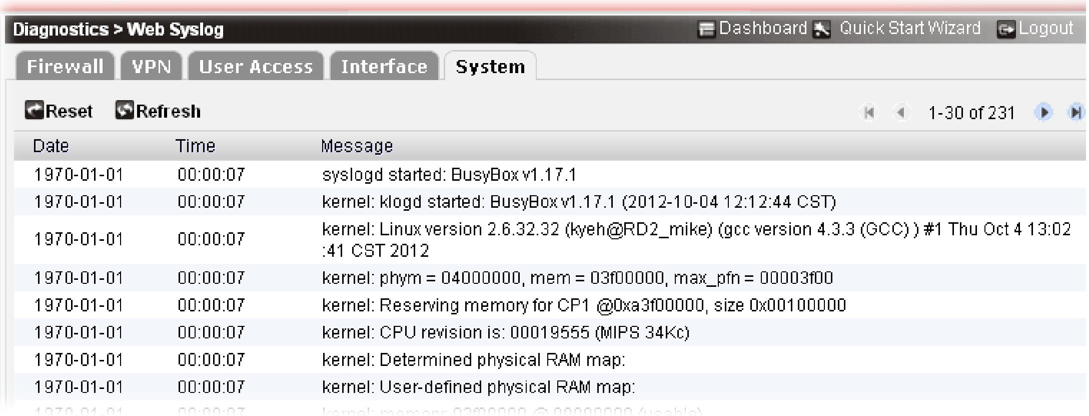
Item	**Description**
Interface	Choose the interface to display the traffic graph about it.
Apply	Click it to confirm the interface selection.
Refresh	Click it to refresh the web page.

4.12.7 Web Syslog

Such page provides real-time syslog and displays the time and message for Firewall/VPN/User Access/Interface/System settings.



Date	Time	Message
1970-01-01	00:00:32	[IF]: Interface lan1 is up.
1970-01-01	00:00:49	[IF]: Interface lan1 is up.



Date	Time	Message
1970-01-01	00:00:07	syslogd started: BusyBox v1.17.1
1970-01-01	00:00:07	kernel: klogd started: BusyBox v1.17.1 (2012-10-04 12:12:44 CST)
1970-01-01	00:00:07	kernel: Linux version 2.6.32.32 (kyeh@RD2_mike) (gcc version 4.3.3 (GCC)) #1 Thu Oct 4 13:02 :41 CST 2012
1970-01-01	00:00:07	kernel: phym = 04000000, mem = 03f00000, max_pfn = 00003f00
1970-01-01	00:00:07	kernel: Reserving memory for CP1 @0xa3f00000, size 0x00100000
1970-01-01	00:00:07	kernel: CPU revision is: 00019555 (MIPS 34Kc)
1970-01-01	00:00:07	kernel: Determined physical RAM map:
1970-01-01	00:00:07	kernel: User-defined physical RAM map:
1970-01-01	00:00:07	kernel: memory: 03f00000 @ 00000000 (usable)

Each item will be explained as follows:

Item	Description
Reset	Click it to rest to factory default settings.
Refresh	Click it to refresh the web page.
Date	Display the date of the record.
Time	Display the time of the record.
Message	Display related information for firewall/VPN/User Access/Interface/System.

5 Trouble Shooting

This section will guide you to solve abnormal situations if you cannot access into the Internet after installing the router and finishing the web configuration. Please follow sections below to check your basic installation status stage by stage.

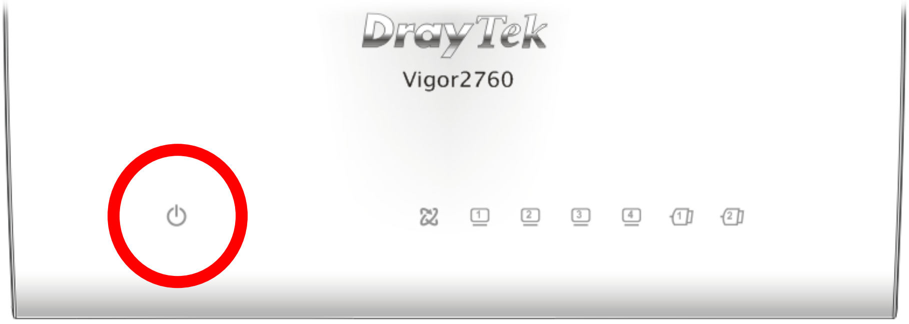
- Checking if the hardware status is OK or not.
- Checking if the network connection settings on your computer are OK or not.
- Pinging the router from your computer.
- Checking if the ISP settings are OK or not.
- Backing to factory default setting if necessary.

If all above stages are done and the router still cannot run normally, it is the time for you to contact your dealer for advanced help.

5.1 Checking If the Hardware Status Is OK or Not

Follow the steps below to verify the hardware status.

1. Check the power line and WLAN/LAN connections.
   Refer to "**1.3 Hardware Installation"** for details.
2. Turn on the router. Make sure the **ACT LED** blink once per second and the correspondent **LAN LED** is bright.



3. If not, it means that there is something wrong with the hardware status. Simply back to **"1.3 Hardware Installation"** to execute the hardware installation again. And then, try again.

5.2 Checking If the Network Connection Settings on Your Computer Is OK or Not

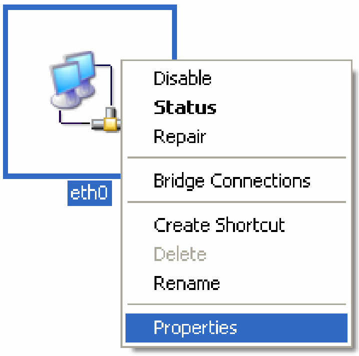
Sometimes the link failure occurs due to the wrong network connection settings. After trying the above section, if the link is stilled failed, please do the steps listed below to make sure the network connection settings is OK.

For Windows

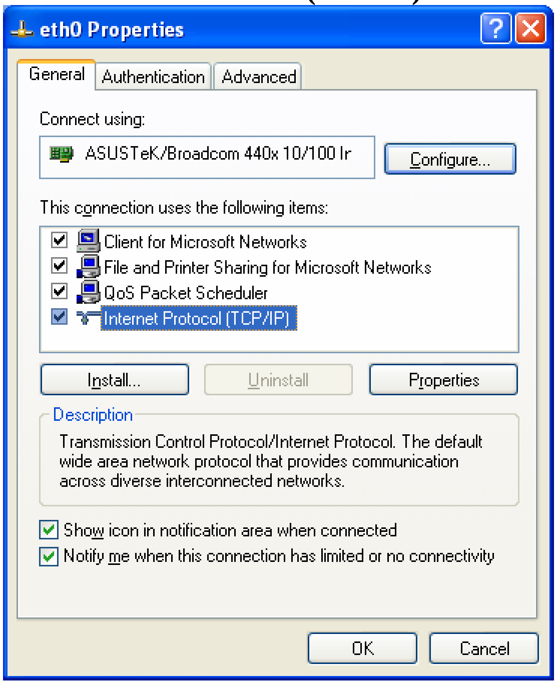
> The example is based on Windows XP. As to the examples for other operation systems, please refer to the similar steps or find support notes in **www.draytek.com**.

1. Go to **Control Panel** and then double-click on **Network Connections**.

2. Right-click on **Local Area Connection** and click on **Properties**.



3. Select **Internet Protocol (TCP/IP)** and then click **Properties**.



Connect using:

ASUSTeK/Broadcom 440x 10/100 Ir

This connection uses the following items:

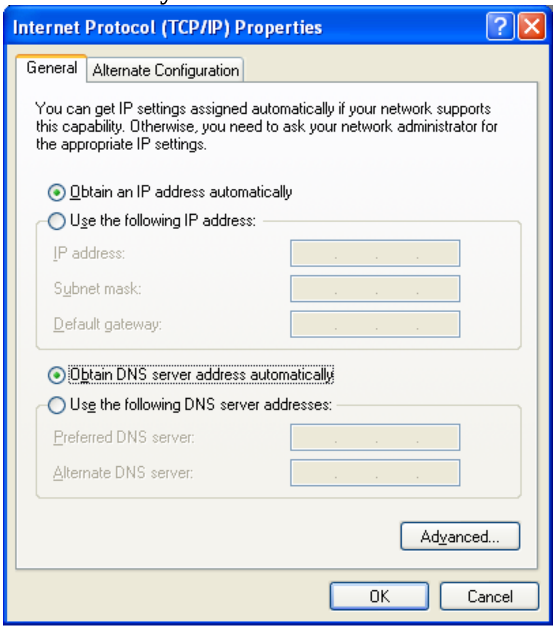
☑ Client for Microsoft Networks
☑ File and Printer Sharing for Microsoft Networks
☑ QoS Packet Scheduler
☑ Internet Protocol (TCP/IP)

Description

Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication across diverse interconnected networks.

☑ Show icon in notification area when connected
☑ Notify me when this connection has limited or no connectivity

4. Select **Obtain an IP address automatically** and **Obtain DNS server address automatically**.



Internet Protocol (TCP/IP) Properties

General | Alternate Configuration

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

● Obtain an IP address automatically

○ Use the following IP address:

IP address: . . .

Subnet mask: . . .

Default gateway: . . .

● Obtain DNS server address automatically

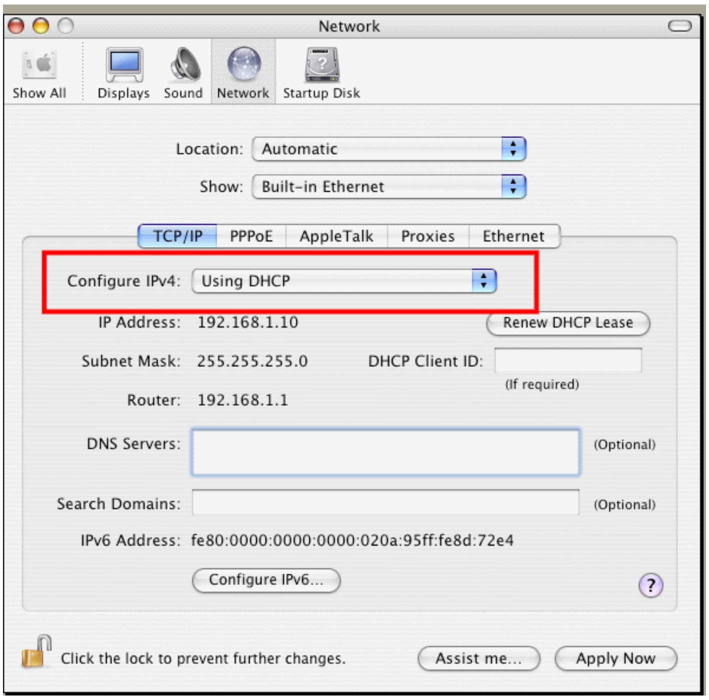
○ Use the following DNS server addresses:

Preferred DNS server: . . .

Alternate DNS server: . . .

For Mac OS

1. Double click on the current used Mac OS on the desktop.
2. Open the **Application** folder and get into **Network**.
3. On the **Network** screen, select **Using DHCP** from the drop down list of Configure IPv4.



Location: Automatic

Show: Built-in Ethernet

TCP/IP | PPPoE | AppleTalk | Proxies | Ethernet

Configure IPv4: Using DHCP

IP Address: 192.168.1.10

Subnet Mask: 255.255.255.0

DHCP Client ID: (If required)

Router: 192.168.1.1

DNS Servers: (Optional)

Search Domains: (Optional)

IPv6 Address: fe80:0000:0000:0000:020a:95ff:fe8d:72e4

Click the lock to prevent further changes.

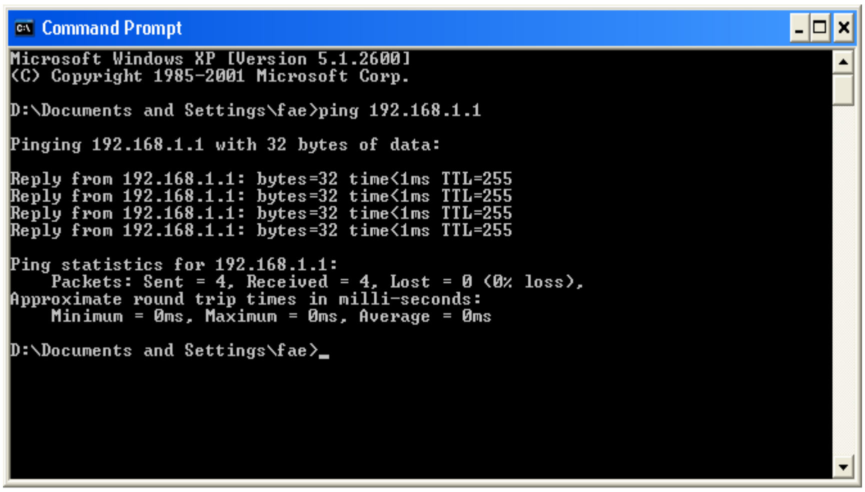
5.3 Pinging the Router from Your Computer

The default gateway IP address of the router is 192.168.1.1. For some reason, you might need to use "ping" command to check the link status of the router. **The most important thing is that the computer will receive a reply from 192.168.1.1.** If not, please check the IP address of your computer. We suggest you setting the network connection as **get IP automatically**. (Please refer to the section 5.2)

Please follow the steps below to ping the router correctly.

For Windows

1. Open the **Command** Prompt window (from **Start menu> Run**).
2. Type **command** (for Windows 95/98/ME) or **cmd** (for Windows NT/ 2000/XP/Vista). The DOS command dialog will appear.

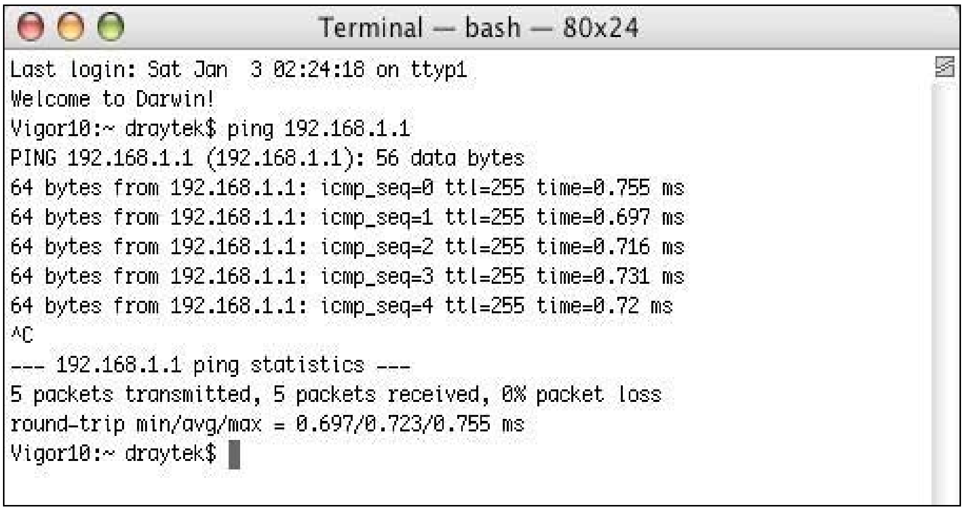


```
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

D:\Documents and Settings\fae>ping 192.168.1.1

Pinging 192.168.1.1 with 32 bytes of data:

Reply from 192.168.1.1: bytes=32 time<1ms TTL=255
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255
Reply from 192.168.1.1: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

D:\Documents and Settings\fae>_
```

3. Type ping 192.168.1.1 and press [Enter]. If the link is OK, the line of **"Reply from 192.168.1.1:bytes=32 time<1ms TTL=255"** will appear.
4. If the line does not appear, please check the IP address setting of your computer.

For Mac OS (Terminal)

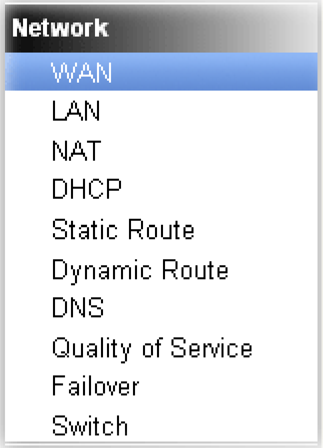
1. Double click on the current used Mac OS on the desktop.
2. Open the **Application** folder and get into **Utilities**.
3. Double click **Terminal**. The Terminal window will appear.
4. Type **ping 192.168.1.1** and press [Enter]. If the link is OK, the line of **"64 bytes from 192.168.1.1: icmp_seq=0 ttl=255 time=xxxx ms**" will appear.

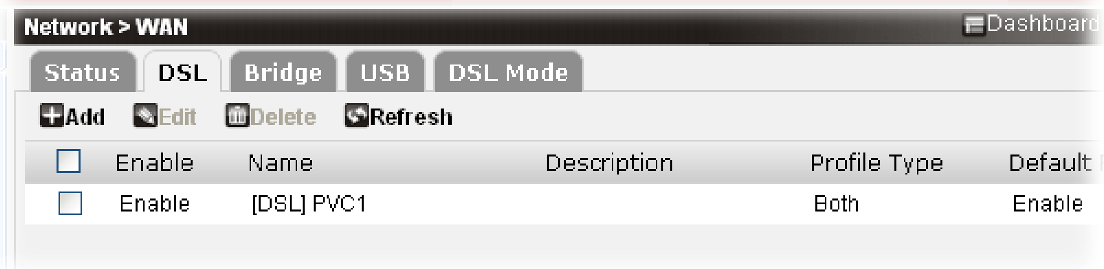


```
Last login: Sat Jan  3 02:24:18 on ttyp1
Welcome to Darwin!
Vigor10:~ draytek$ ping 192.168.1.1
PING 192.168.1.1 (192.168.1.1): 56 data bytes
64 bytes from 192.168.1.1: icmp_seq=0 ttl=255 time=0.755 ms
64 bytes from 192.168.1.1: icmp_seq=1 ttl=255 time=0.697 ms
64 bytes from 192.168.1.1: icmp_seq=2 ttl=255 time=0.716 ms
64 bytes from 192.168.1.1: icmp_seq=3 ttl=255 time=0.731 ms
64 bytes from 192.168.1.1: icmp_seq=4 ttl=255 time=0.72 ms
^C
--- 192.168.1.1 ping statistics ---
5 packets transmitted, 5 packets received, 0% packet loss
round-trip min/avg/max = 0.697/0.723/0.755 ms
Vigor10:~ draytek$ █
```

5.4 Checking If the ISP Settings are OK or Not

Open **Network>>WAN** and check whether the ISP settings are set correctly.





☐	Enable	Name	Description	Profile Type	Default
☐	Enable	[DSL] PVC1		Both	Enable

5.5 Backing to Factory Default Setting If Necessary

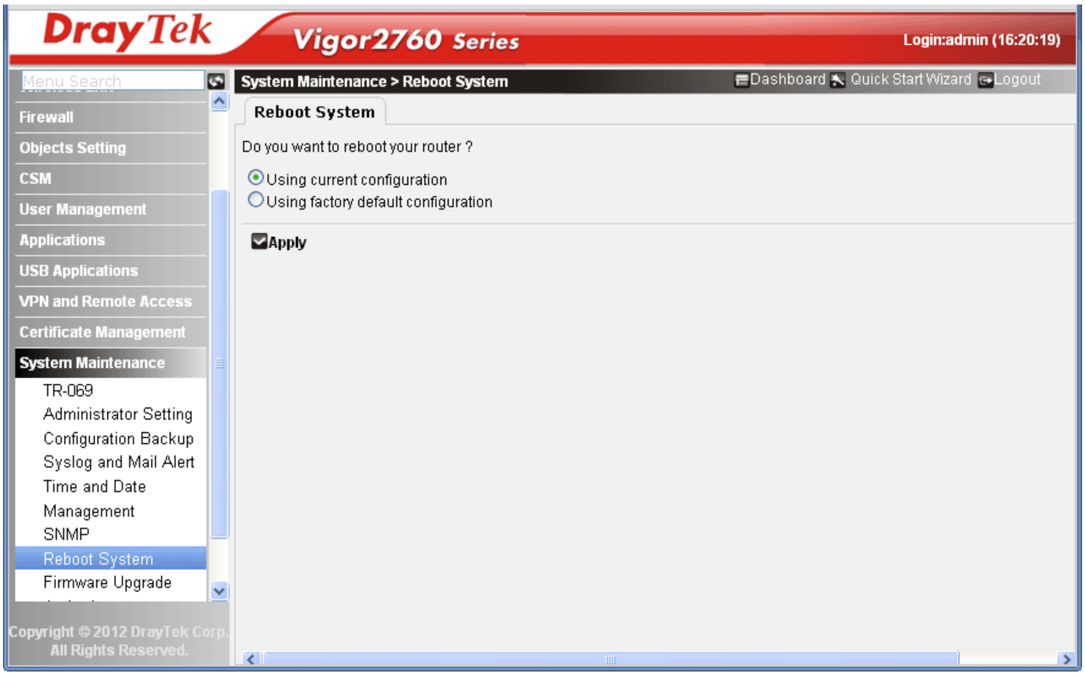
Sometimes, a wrong connection can be improved by returning to the default settings. Try to reset the router by software or hardware.

Warning: After pressing **factory default setting**, you will loose all settings you did before. Make sure you have recorded all useful settings before you pressing.

Software Reset

You can reset the router to factory default via Web page.

Open **System Maintenance** >> **Reboot System**. The following screen will appear. Choose **Using factory default configuration** and click **Apply**. After few seconds, the router will return all the settings to the factory settings.



System Maintenance > Reboot System

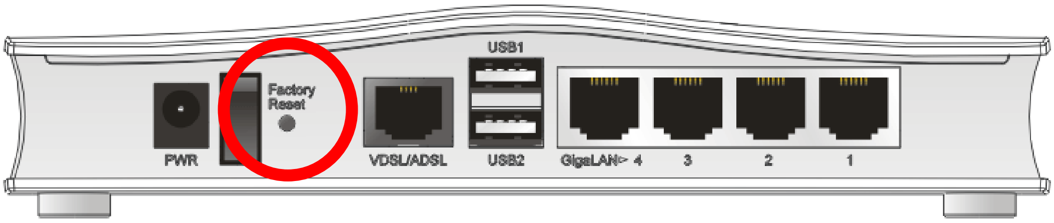
Reboot System

Do you want to reboot your router ?

● Using current configuration
○ Using factory default configuration

Hardware Reset

While the router is running (ACT LED blinking), press the **Factory Reset** button and hold for more than 5 seconds. When you see the **ACT** LED blinks rapidly, please release the button. Then, the router will restart with the default configuration.



After restore the factory default setting, you can configure the settings for the router again to fit your personal request.

5.6 Contacting Your Dealer

If the router still cannot work correctly after trying many efforts, please contact your dealer for further help right away. For any questions, please feel free to send e-mail to support@draytek.com.