

# **USER MANUAL**

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## **VDSL5038GRV(AC)**

VDSL2 WIRELESS-AC 4-PORT  
GATEWAY WITH USB 2.0 HOST

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# About the Device

Aztech VDSL5038GRV(AC) Residential gateway is an integrated device which greatly aims to become the best companion of your customer's needs. Aztech hyped up the VDSL5038GRV(AC) exquisitely with dozens of features users would easily appreciate and utilize.

- **An Ideal ADSL2/2+, VDSL2, FTTH via ONT Solution.** Equipped with both a Gigabit WAN port for FTTH via ONT and an RJ-11 port for DSL connectivity, your VDSL5038GRV(AC) can easily work for both Fibre and ADSL2/2+ or VDSL2 connections.
- **Fast and Reliable Concurrent Dual Band Wireless Connectivity.** Wireless connectivity is supported by the 802.11n wireless standard for the 2.4GHz, and the 802.11ac wireless standard for the 5.0GHz frequency band. It simply shares fast and reliable speeds of up to 300Mbps on the 2.4GHz, and speeds of up to 900Mbps on the 5.0GHz band concurrently for all of your wireless devices.
- **Connect Easily using Wi-Fi Protected Setup (WPS).** Instead of connecting conventionally to your wireless network by entering a passphrase key, WPS enabled devices can easily connect to your VDSL5038GRV(AC) through a simple press of the WPS button on both devices.
- **Use your connection to make calls.** With the VDSL5038GRV(AC), you may use your internet connection in making calls by just connecting your regular phone directly to the Voice port. You can now rely directly on your internet connection whenever you are making calls.

- **USB 2.0 Ports for both Printer and File Storage.** Having you in mind when we created this device, two (2) USB ports were placed to support network printing, and even file storage and sharing.
- **Easy Installation and Setup.** Unlike other complex devices, the VDSL5038GRV(AC) uses an intuitive design making the device easy to setup and use. You can also easily manage various router features through an OS Independent Web User Interface that you can easily access after connecting to the device.

# Requirements

Your computer must meet the following minimum requirements.

- Any operating system can be used
- Web Browser
- 233MHz processor (or higher)
- Ethernet network adapter
- An active ADSL/VDSL Internet account or ONT for Fibre connection

# Package Contents

Package contents are listed below. For any missing items, please contact your dealer immediately. Product contents vary for different models.

- Router
- Ethernet cable
- Telephone cable
- FXS Phone Splitter
- 12V 2.0A DC Power Adapter
- Easy Start Guide
- Warranty Policy

Note: You may also download the Easy Start Guide, and the User Manual by visiting this link: <http://www.aztech.com/support/>

# Device Design

## Front Panel



LED	STATUS	DESCRIPTION
<b>POWER</b>	Off	No power is supplied to the device
	Green (Steady)	Connected to a Power Supply
	Red (Steady)	Error on the device
<b>ETH LAN 1-4</b>	OFF	No Ethernet connection
	Green (Steady)	Connected Ethernet Device using Gigabit Ethernet cable
	Green (Blinking)	Transmitting/Receiving data through Gigabit Ethernet Cable
	Orange (Steady)	Connected Ethernet Device using Fast Ethernet cable
<b>2.4GHz /5.0GHz</b>	Orange (Blinking)	Transmitting/Receiving data through Fast Ethernet Cable
	OFF	There is no device connected wirelessly
	Green (Blinking) Green (Steady)	There is data transmission There is a device connected wirelessly
<b>VOICE 1&amp;2</b>	Off	VoIP not configured or disabled
	Green (Steady)	VoIP configured and activated
	Red (Steady)	VoIP call in-progress
<b>USB</b>	OFF	No USB connection
	ON	USB device is connected.
<b>IPTV</b>	OFF	IPTV interface is not up
	Green (Steady)	IPTV Interface is up and Set-top box is active
	Red (Steady)	IPTV is up and Set-top box is inactive/or not connected
<b>DSL</b>	OFF	There is no DSL signal or there is no connectivity to the ONT
	Green (Blinking)	Establishing DSL Signal
	Green (Steady)	DSL signal is established or connectivity to the ONT is established WAN Ethernet interface is connected
<b>INTERNET</b>	OFF	No internet
	Red (Steady)	DSL, PPT Authentication Failed
	Green (Steady)	Internet interface is up



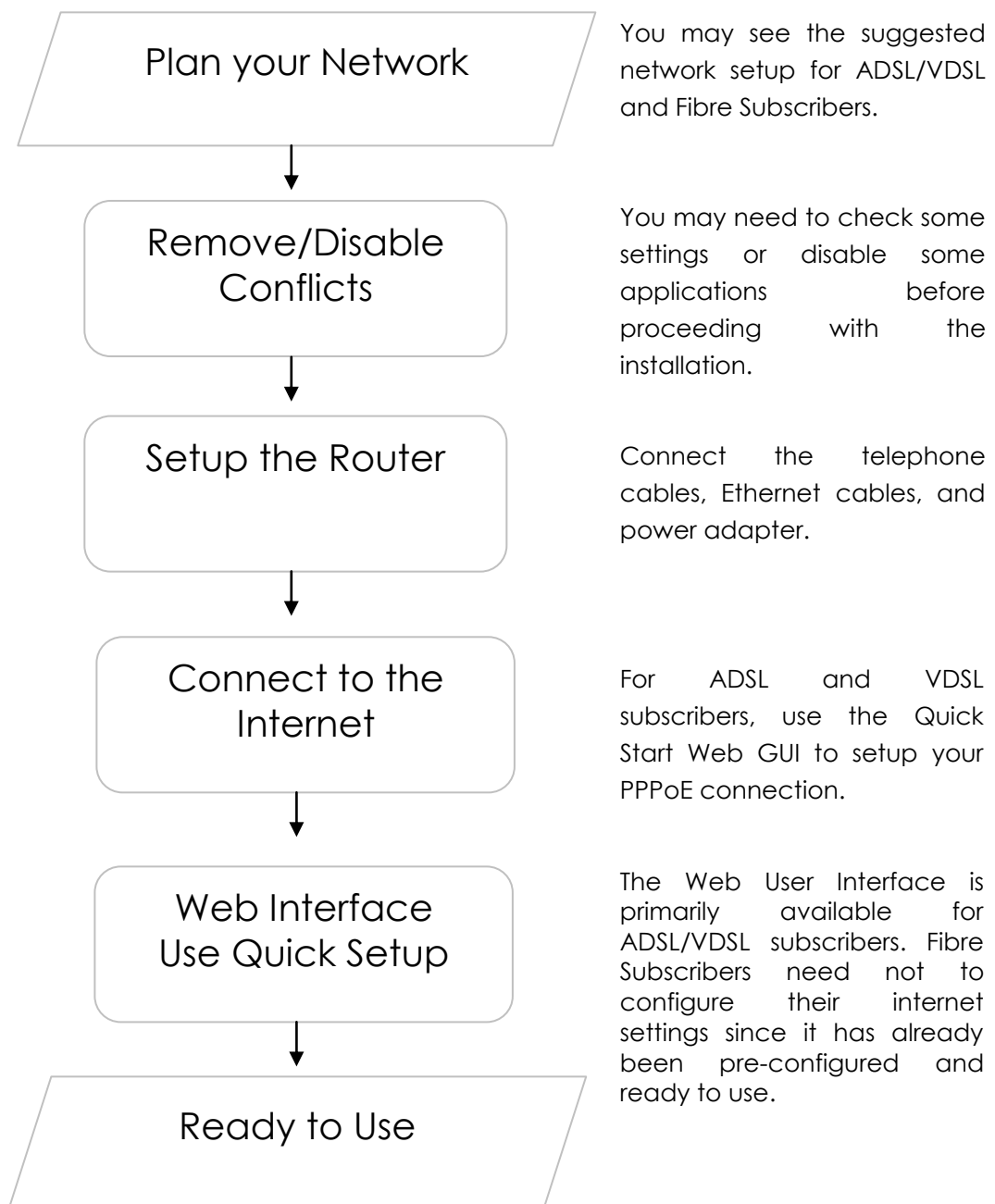
# Back Panel



PORT/BUTTON	DESCRIPTION
<b>DSL / LINE</b>	Connecting the modem to an ADSL/VDSL line
<b>ETHERNET WAN</b>	For WAN connection through an Ethernet cable
<b>ETHERNET 1 - 4</b>	Connecting computers and other Ethernet devices
<b>USB 1 &amp; 2</b>	For USB devices such as printers and USB external hard drives
<b>WIFI ON/OFF</b>	Turns ON/ OFF the VDSL5038GRV(AC)'s wireless
<b>VOICE 1 &amp; 2</b>	Port for Voice over IP Phones
<b>RESET</b>	To reset the modem to the factory default configuration
<b>POWER</b>	Adapter input
<b>ON/OFF Switch</b>	Turns ON/OFF the VDSL5038GRV(AC)

# Getting Started

Setting up the device is easy. The flowchart below provides an outline of the steps needed in order to complete the installation. Brief descriptions appear beside each step. Detailed instructions are provided in the subsequent pages.

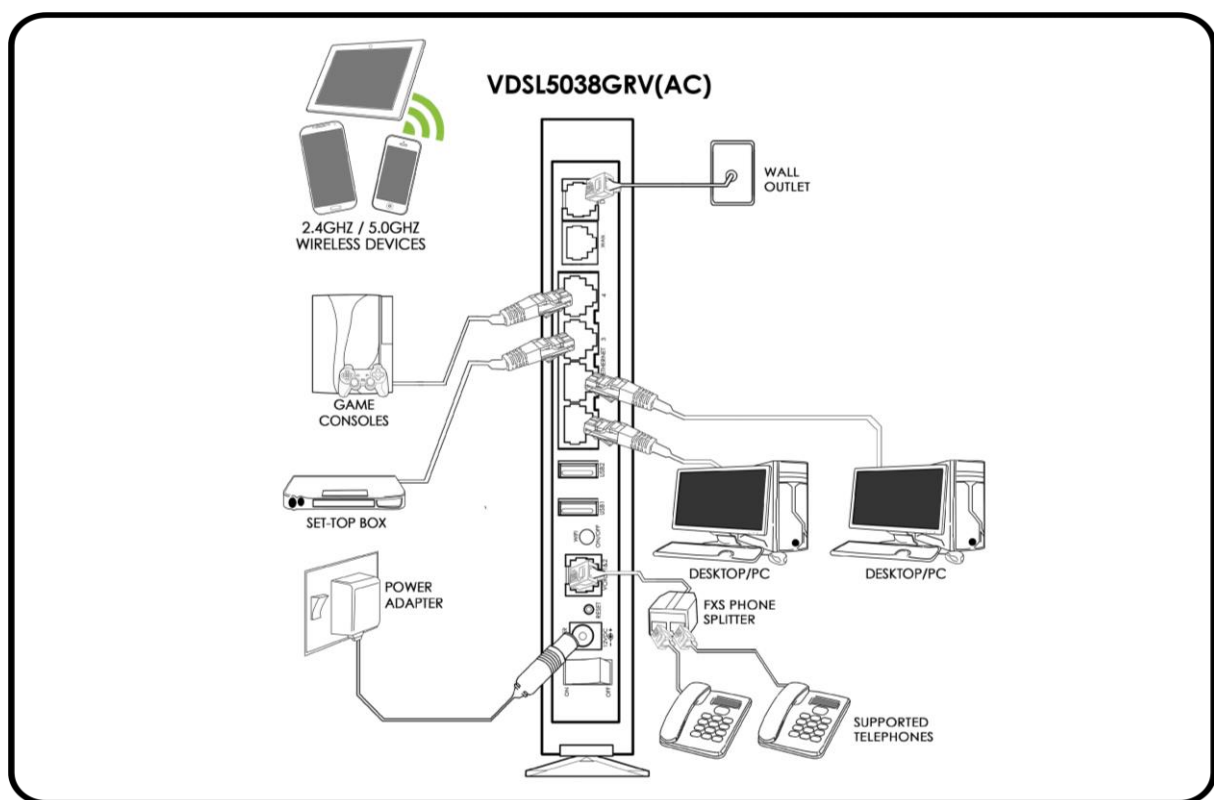


# Planning Your Network

Before moving ahead to setup your network, it is a good idea to draw out a network diagram to help identify your network devices and plan out how to connect these devices.

Separate network diagrams are provided for both ADSL/VDSL and Fibre subscribers.

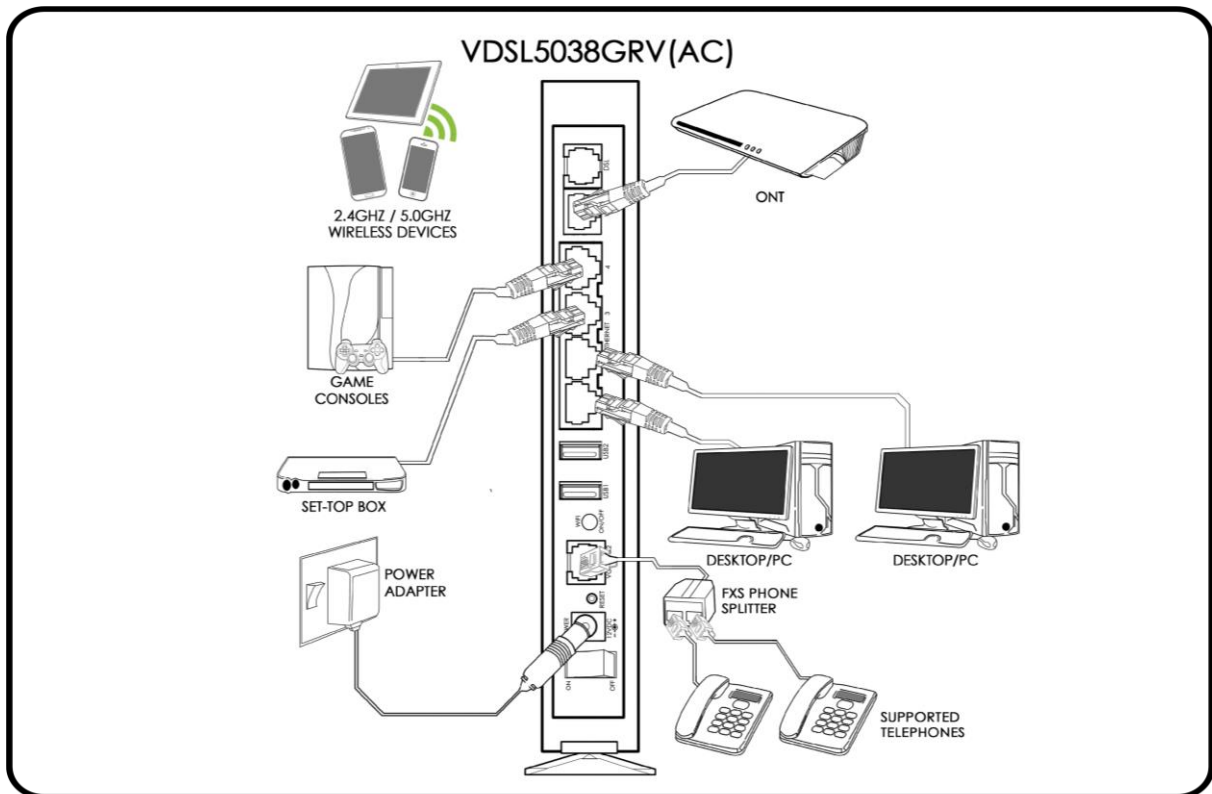
For xDSL Subscribers:



Each port in the router can be used for different connections. For example:

- Ethernet 1 – Set-top Box
- Ethernet 2 – Game Console
- Ethernet 3 – Dad's Computer
- Ethernet 4 – Mom's Computer
- DSL/LINE - DSL Microfilter

## For Fibre Subscribers:



Each port in the router can be used for different connections. For example:

- Ethernet 1 – Set-top Box
- Ethernet 2 – Game Console
- Ethernet 3 – Dad's Computer
- Ethernet 4 – Mom's Computer
- Ethernet WAN – ONT

To create a network diagram:

- For **wireless devices**, identify the wireless devices you want to include in the network and to which frequency band you plan to connect each.
- For wired devices, identify which router port you want to use for each device.

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# Remove or Disable Conflicts

To ensure that the router installation moves on smoothly, you need to remove or disable conflicts that may interfere with the installation. Probable conflicts may include:

- Internet sharing applications
- Proxy software
- Security software
- TCP/IP settings
- Internet properties
- Temporary Internet files

## Internet Sharing, Proxy, and Security Applications

Internet sharing, proxy software, and firewall applications may interfere with the router installation. These should be removed or disabled before starting the installation.

If you have any of the following or similar applications installed on your computer, remove or disable them according to the manufacturer's instructions.

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<b>Internet Sharing Applications</b>	<b>Proxy Software</b>	<b>Security Software</b>
Microsoft Internet Sharing	WinGate	Symantec
	WinProxy	Zone Alarm

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## Configuring TCP/IP Settings

Check if your computer uses the default TCP/IP settings.

To check the TCP/IP properties:

1. Select **Start > Run**. The Run dialog box would appear.
2. Enter **control ncpa.cpl** on the input box, and then click the **OK** button. This would open the Network Connections window in your computer.
3. Right-click **LAN** and then select **Properties**. The Local Area Connection Properties dialog box would appear.
4. Select **Internet Protocol (TCP/IP)** and then click **Properties**. The Internet Protocol (TCP/IP) dialog box would appear.
5. Select **Obtain an IP address automatically**.
6. Click the **OK** button to close the Internet Protocol (TCP/IP) dialog box.
7. Click the **OK** button to close the Local Area Connection Properties dialog box.

## Configuring Internet Properties

To set the Internet Properties:

1. Select **Start > Run**. This opens the Run dialog box.
2. Enter **control inetcpl.cpl** and then click **OK** to open the Internet Properties window.
3. Click on the **Connections** tab.
4. In the Dial-up and Virtual Private Network settings pane, select **Never dial a connection**.
5. Click **OK** to close Internet Properties.

## Removing Temporary Internet Files

Temporary Internet files are files from Web sites that are stored in your computer. Delete these files to clean the cache and remove footprints left by the Web pages you visited.

To remove temporary Internet files:

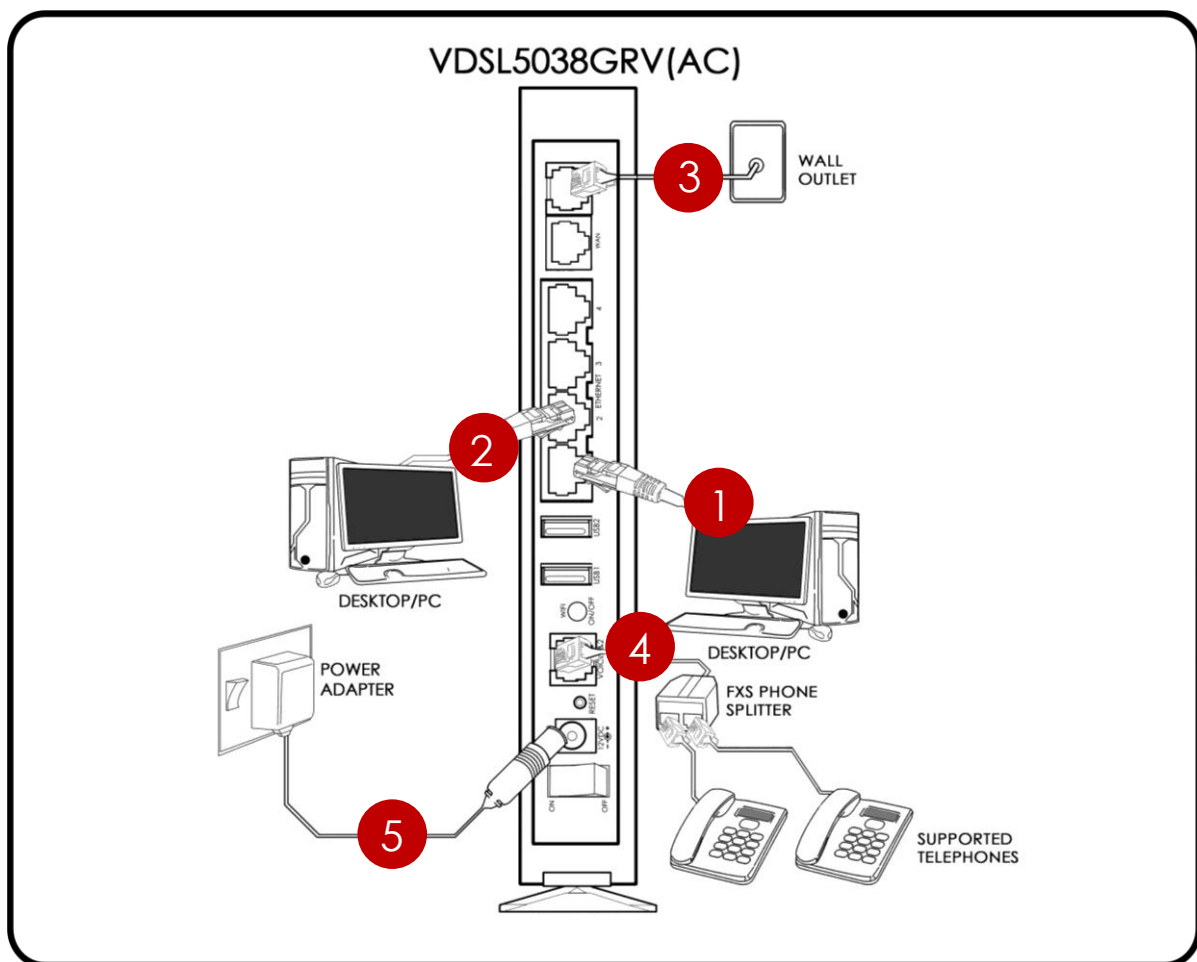
1. Select **Start > Run** to open the Run dialog box.
2. Enter **control** and then click the **OK** button to open the Control Panel.
3. Double-click on **Internet Options**.
4. On the Internet Options window, in the Temporary Internet Files pane, click **Delete Cookies**.
5. Click **Delete Files**.
6. Click **OK** to close Internet Properties.

# Setup the Device

When installing the router, find an area where there are enough electrical outlets for the router, the main computer, and your other computer devices.

NOTE: Different setup procedures are provided for both ADSL/VDSL and Fibre subscribers.

For ADSL/VDSL Subscribers:



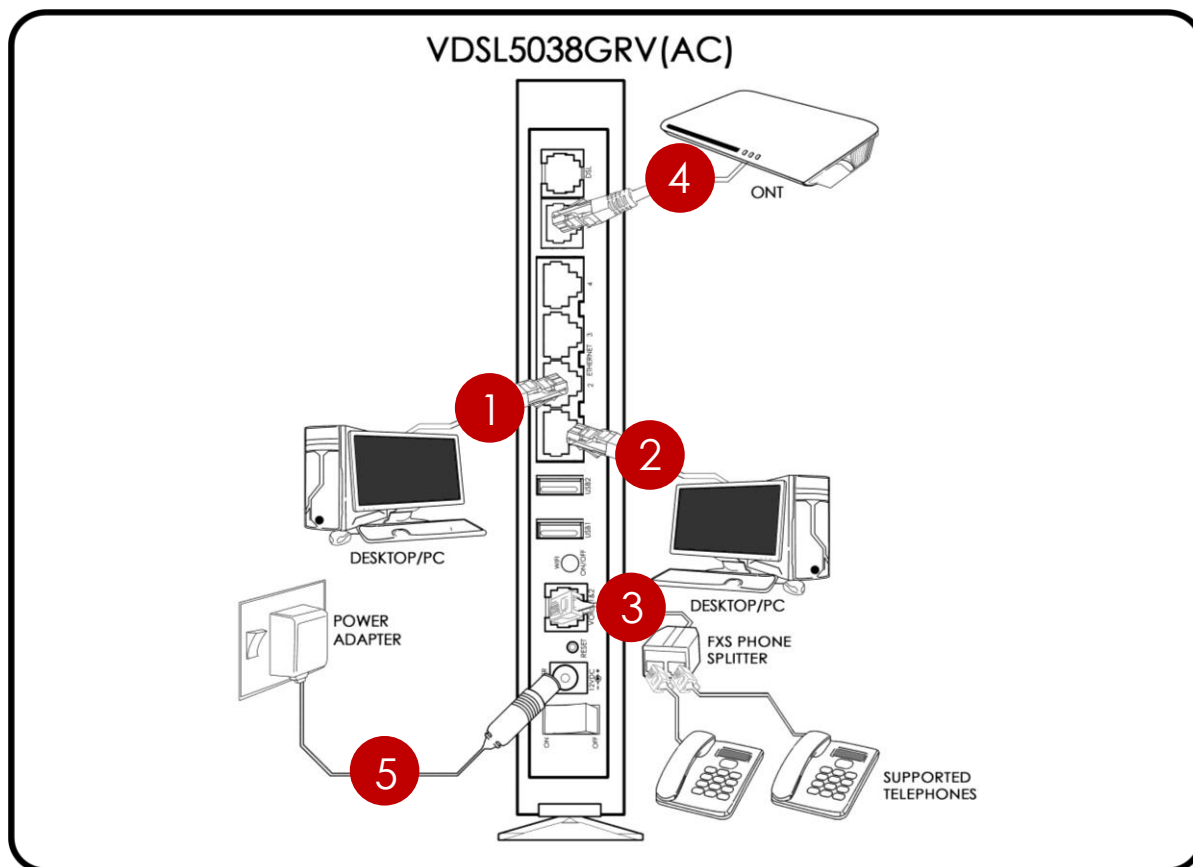
For ADSL/VDSL subscribers, please follow the instructions below in setting up your device:

1. Plug one end of the Ethernet cable from the router's Ethernet port and then plug the other end into the Ethernet port of your computer.



2. If you have another device that you need to connect into the router, use another Ethernet cable. Plug one end of an Ethernet cable from the computer's Ethernet port and then plug the other end into an available Ethernet port in the router.
3. Using the telephone cable provided in the package, connect the DSL port to an available phone jack in your house.
4. Connect the FXS Phone Splitter to your router's Voice port. You may connect two supported Phones on the P1 and P2 ports of your FXS Phone Splitter.
5. Connect the power adapter from the router's 12V 2.0A DC port into the power outlet.

## For Fibre Subscribers:



For Fibre subscribers, please follow the instructions below:

1. Plug one end of the Ethernet cable from the router's Ethernet port and then plug the other end into the Ethernet port of your computer.
2. If you have another device that you need to connect into the router, use another Ethernet cable. Plug one end of an Ethernet cable from the computer's Ethernet port and then plug the other end into an available Ethernet port in the router.
3. Using another Ethernet cable, plug one end of an Ethernet cable to the WAN port of your router, and then plug the other end to the available Ethernet port of your ONT.
4. Connect the FXS Phone Splitter to your router's Voice port. You may connect two (2) supported phones to the FXS Phone Splitter.
5. Connect the power adapter from the router's 12V 2.0A DC port into the power outlet.

# Connecting to the Internet

You can use the Web Interface to setup your Internet connection.

## Connecting Via Quick Setup

For ADSL/VDSL subscribers, you can use the steps provided in the subsequent pages to quickly setup your Internet connection.

NOTE: For Fibre subscribers, internet configuration is not necessary to connect to the internet. Internet configuration settings are already pre-configured and are ready to use.

There are two ways in connecting via Quick Setup:

- Connecting to the Internet via the User mode GUI
- Connecting to the Internet via the Web Interface Setup Wizard

To connect to the Internet via the User mode GUI:

1. Launch any web browser (e.g. Internet Explorer, Google Chrome).
2. On the address bar type **192.168.1.1** and press enter to access the Web User Interface.



3. Enter **admin** as its username and password. You will then be redirected to the web user interface of your VDSL5038GRV(AC).

NOTE: **admin** is the default username and password of your VDSL5038GRV(AC)'s web user interface.

Internet Connection

xDSL Line Status	DOWN
Connection Status	Not Connected
Connection Type	PPPoE
WAN IP Address	N/A
WAN MAC Address	00:26:75:dc:8b:1c

LAN Connection

LAN MAC Address	00:26:75:dc:8b:1c
LAN IP Address	192.168.1.1
LAN Net Mask	255.255.255.0
DHCP Server	Enable

Wireless Connection 2.4 GHz

SSID	VDSL5038_8B1C
Broadcast SSID	Enable
WLAN MAC Address	00:26:75:dc:8b:1c
Wireless Mode	802.11b+g+n
Security	OPEN

Wireless Connection 5.0 GHz

SSID	VDSL5038(5G)_8B1C
Broadcast SSID	Enable
WLAN MAC Address	00:26:75:dc:8b:1c
Wireless Mode	802.11vht AC/AW/A
Security	OPEN

Wireless Client list 2.4 GHz

Hostname	IP Address	MAC Address	RSSI
IrahBenitez	192.168.1.2	78:44:76:AA:F3:72	-20

Wireless Client list 5.0 GHz

No Wireless Client

Local Network

Hostname	IP Address	MAC Address	Expire Time
IrahBenitez	192.168.1.2	78:44:76:AA:F3:72	2 Days 23:58:28

Storage

No storage device found.

Printer

No printer device found.

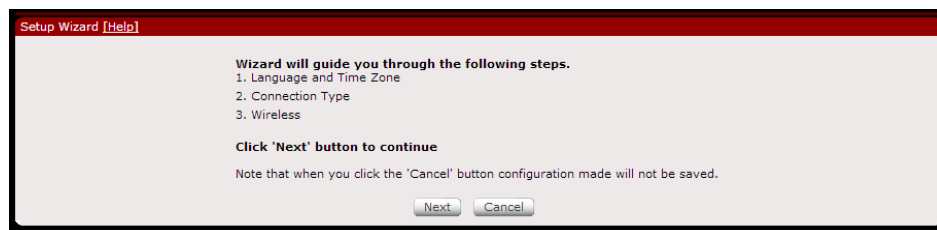
4. You can setup your internet connection in two (2) ways:

## A. Through the Wizard menu

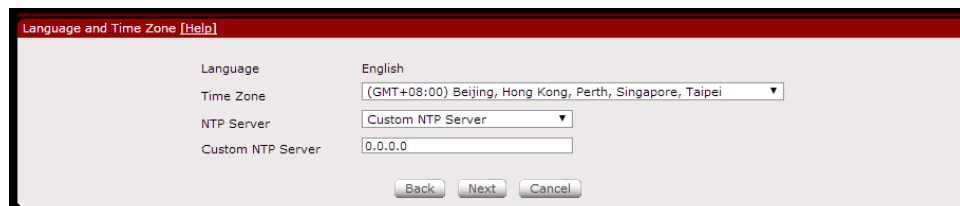
a) On the Web User Interface, click **Wizard**.



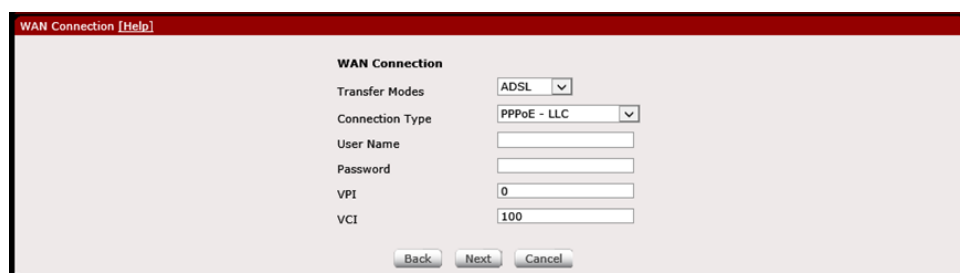
b) On the next page, click **Next** to continue.



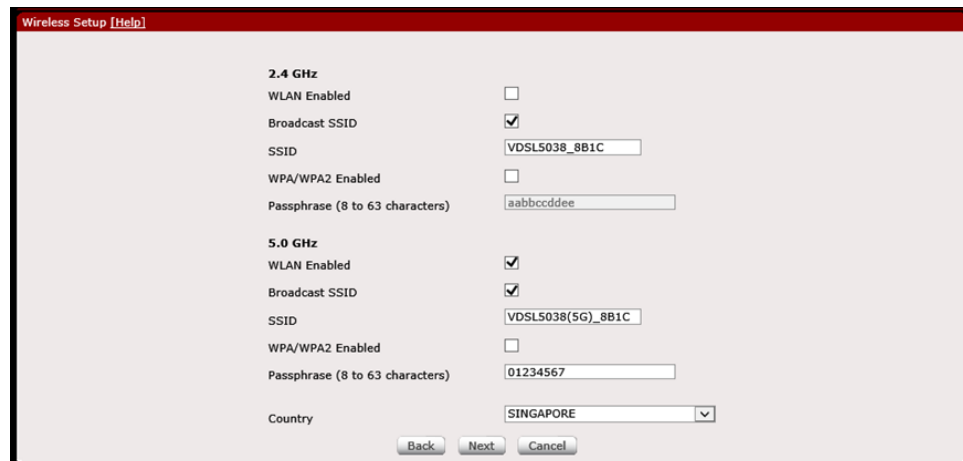
c) On the **Language and Time Zone** section, select a **Time Zone** on the Time Zone drop down list and select an **NTP Server** or enter the **preferred Custom NTP Server** then click **Next**.



d) On the **WAN Connection** section, enter correctly the **Connection Type**, the **User Name** and **Password**, and the **VPI/VCI** values provided to you by your Internet Service Provider (ISP) then click **Next**.



- e) On the **Wireless Setup** section, you may enable or disable any or all frequency bands, change the **SSID** (Wireless Network Name) and **Passphrase** (Wireless Password) of each frequency band, and determine the **Country** you are in. Click **Next** to proceed.

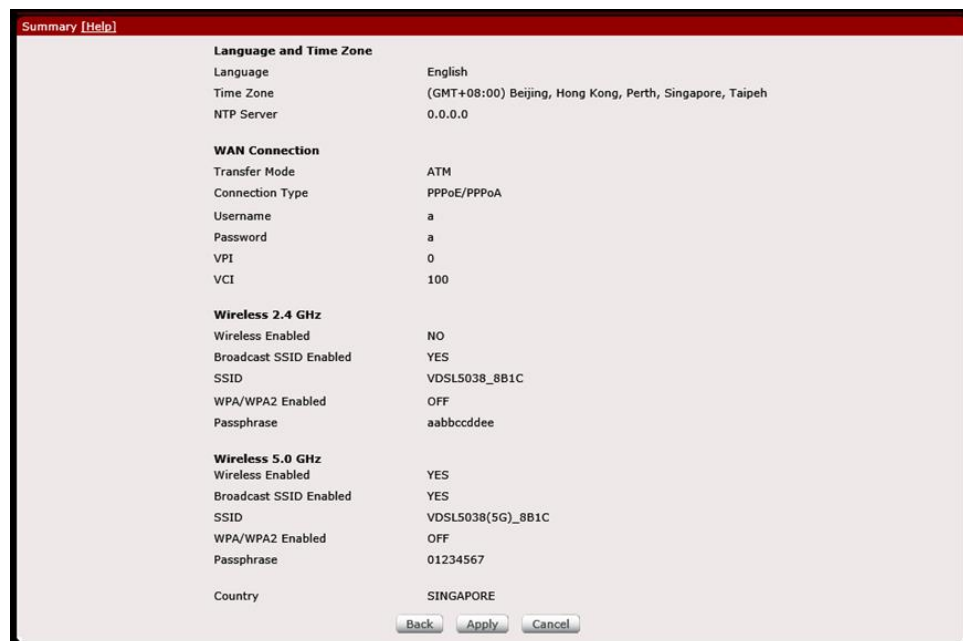


The screenshot shows the 'Wireless Setup' configuration window. It is divided into two sections: '2.4 GHz' and '5.0 GHz'. Each section has checkboxes for 'WLAN Enabled', 'Broadcast SSID', and 'WPA/WPA2 Enabled', along with text input fields for 'SSID' and 'Passphrase (8 to 63 characters)'. At the bottom, there is a 'Country' dropdown menu and three buttons: 'Back', 'Next', and 'Cancel'.

Frequency Band	WLAN Enabled	Broadcast SSID	SSID	WPA/WPA2 Enabled	Passphrase (8 to 63 characters)
2.4 GHz	<input type="checkbox"/>	<input checked="" type="checkbox"/>	VDSL5038_8B1C	<input type="checkbox"/>	aabbccdde
5.0 GHz	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	VDSL5038(5G)_8B1C	<input type="checkbox"/>	01234567

Country: SINGAPORE

- f) On the **Summary** section, verify if the entered details are correct. Click **Apply** to finalize the Wizard process.



The screenshot shows the 'Summary' configuration window, which displays the settings for various sections. It includes 'Language and Time Zone', 'WAN Connection', 'Wireless 2.4 GHz', and 'Wireless 5.0 GHz'. At the bottom, there are three buttons: 'Back', 'Apply', and 'Cancel'.

Section	Parameter	Value
Language and Time Zone	Language	English
	Time Zone	(GMT+08:00) Beijing, Hong Kong, Perth, Singapore, Taipei
	NTP Server	0.0.0.0
WAN Connection	Transfer Mode	ATM
	Connection Type	PPPoE/PPPoA
	Username	a
	Password	a
	VPI	0
	VCI	100
Wireless 2.4 GHz	Wireless Enabled	NO
	Broadcast SSID Enabled	YES
	SSID	VDSL5038_8B1C
	WPA/WPA2 Enabled	OFF
	Passphrase	aabbccdde
Wireless 5.0 GHz	Wireless Enabled	YES
	Broadcast SSID Enabled	YES
	SSID	VDSL5038(5G)_8B1C
	WPA/WPA2 Enabled	OFF
	Passphrase	01234567
Country	SINGAPORE	

- g) You may now start surfing the Internet.

## B. Through the QuickStart menu

- a) On the Web User Interface, click **Quick Start**.



- b) Choose the **Connection Type**, and enter the **Username** and **Password** provided by your Internet Service Provider (ISP).
- c) You may disable/enable the Wireless and its broadcast, change your wireless' SSID (wireless network name), enable/disable the WPA/WPA2 and change the passphrase (wireless password) of both the 2.4GHz and 5.0GHz frequency bands in this area.
- d) Click **Apply** to apply changes.

A screenshot of the 'Quicksetup [Help]' web interface. The interface is divided into three main sections: 'WAN Connection', 'Wireless 2.4 GHz', and 'Wireless 5.0 GHz'.  
**WAN Connection:**  
Transfer Modes: ADSL (dropdown)  
Connection Type: PPPoE - LLC (dropdown)  
User Name: a (text input)  
Password: [masked] (password input)  
VPI: 0 (text input)  
VCI: 100 (text input)  
**Wireless 2.4 GHz:**  
WLAN Enabled:   
Broadcast SSID:   
SSID: VDSL5038\_8B1C (text input)  
WPA/WPA2 Enabled:   
Passphrase (8 to 63 characters): aabccdde (text input)  
**Wireless 5.0 GHz:**  
WLAN Enabled:   
Broadcast SSID:   
SSID: VDSL5038(5G)\_8B1C (text input)  
WPA/WPA2 Enabled:   
Passphrase (8 to 63 characters): 01234567 (text input)  
At the bottom of the form are 'Apply' and 'Cancel' buttons.

- e) You may now surf the internet.

# About the Web User Interface

The Web User Interface is used to configure both the basic and advanced router settings of your VDSL5038GRV(AC).

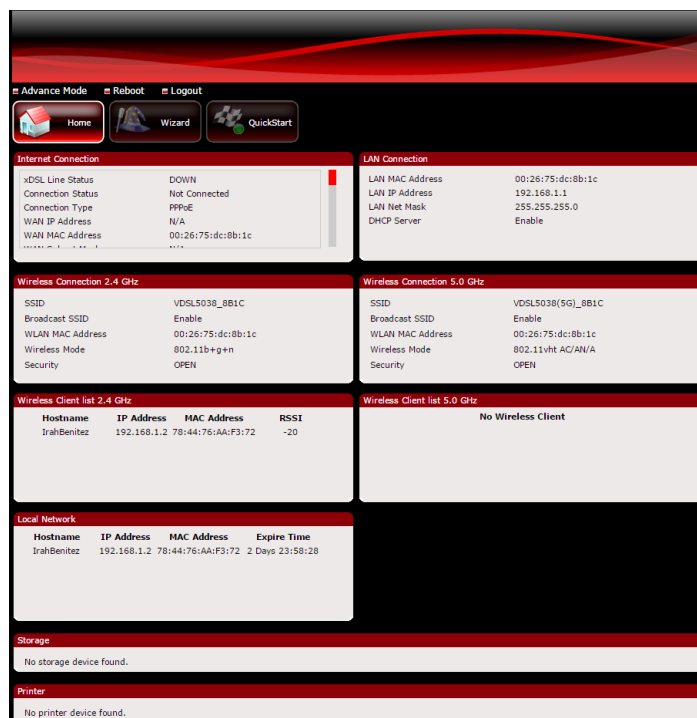
## Accessing the Web User Interface

To access your VDSL5038GRV(AC)'s Web User Interface:

1. Launch any web browser (e.g. Internet Explorer, Google Chrome).
2. Type-in **192.168.1.1** on the address bar and then press Enter. You will be redirected to the login page of your VDSL5038GRV(AC)'s web user interface.



3. On the Login page, type in **admin** as its username and password. You will be redirected to your VDSL5038GRV(AC)'s Web User Interface's Home page.





# Web User Interface Modes

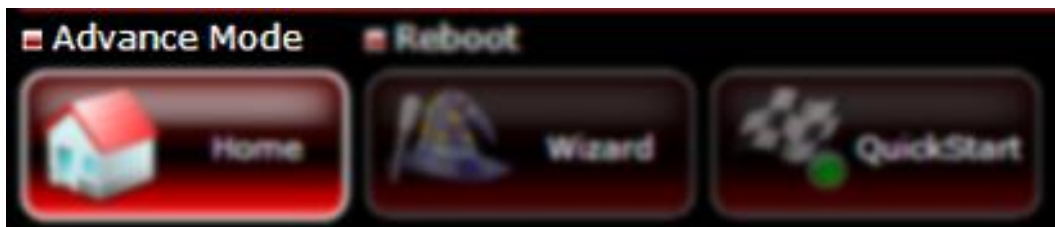
The Web User Interface is subdivided into two (2) different modes:

- Basic Mode
- Advanced Mode

## Switching Modes

To switch modes, simply click the **Advanced Mode / Basic Mode** button located on the upper left corner of the VDSL5038GRV(AC)'s Web User Interface as seen below.

When in **Basic Mode**:



When in **Advanced Mode**:



## Rebooting and Logging Out

Upon logging in to the VDSL5038GRV(AC)'s web user interface, you are also given an option to reboot the device, or logout of the web user interface. **Reboot** is similar to restart and would be useful in instances wherein a device restart is essential for the configured settings to take effect. **Logout** on the other hand allows you to logout the current account you used to login.

# Basic Mode

The Basic Mode displays your router information and its current configuration. It allows you to quickly configure router settings to have access to the Internet, and also includes a setup wizard that easily guides users to setup their device in a procedural manner.

## Menus

The Basic Mode Web User Interface includes the following menus:

- Home
- Wizard
- Quick Setup

## Home

The Home page of the web user interface displays a summary of the overall information or statuses of your Internet Connection, LAN Connection, Wireless Connection, 2.4GHz and 5.0GHz wireless clients, Local Network, storage, and printer. In configuring other router features, you may use this page as a reference to the other details that you might need.

The screenshot displays the Home page of a router's web user interface. At the top, there are navigation buttons for 'Advance Mode', 'Reboot', and 'Logout'. Below these are three main menu buttons: 'Home' (selected), 'Wizard', and 'QuickStart'. The main content area is divided into several sections:

- Internet Connection:** Shows xDSL Line Status as DOWN, Connection Status as Not Connected, Connection Type as PPPoE, WAN IP Address as N/A, and WAN MAC Address as 00:26:75:dc:8b:1c.
- LAN Connection:** Shows LAN MAC Address as 00:26:75:dc:8b:1c, LAN IP Address as 192.168.1.1, LAN Net Mask as 255.255.255.0, and DHCP Server as Enable.
- Wireless Connection 2.4 GHz:** Shows SSID as VDSL5038\_8B1C, Broadcast SSID as Enable, WLAN MAC Address as 00:26:75:dc:8b:1c, Wireless Mode as 802.11b+g+n, and Security as OPEN.
- Wireless Connection 5.0 GHz:** Shows SSID as VDSL5038(5G)\_8B1C, Broadcast SSID as Enable, WLAN MAC Address as 00:26:75:dc:8b:1c, Wireless Mode as 802.11vht AC/AN/A, and Security as OPEN.
- Wireless Client list 2.4 GHz:** A table with columns for Hostname, IP Address, MAC Address, and RSSI. It lists one client: IrahBenitez with IP 192.168.1.2, MAC 78:44:76:AA:F3:72, and RSSI -20.
- Wireless Client list 5.0 GHz:** Displays 'No Wireless Client'.
- Local Network:** A table with columns for Hostname, IP Address, MAC Address, and Expire Time. It lists one client: IrahBenitez with IP 192.168.1.2, MAC 78:44:76:AA:F3:72, and Expire Time 2 Days 23:58:28.
- Storage:** Displays 'No storage device found.'
- Printer:** Displays 'No printer device found.'

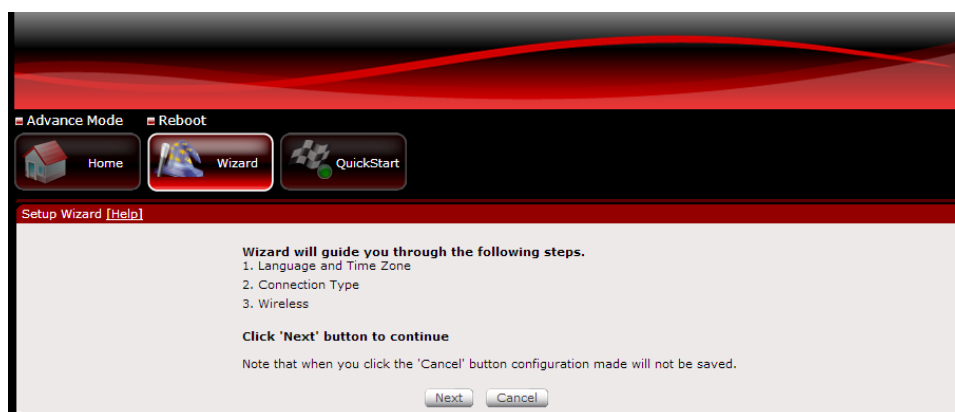
- **Internet Connection.** This section provides details of your Internet connection such as the xDSL Line Status, Connection Status, Connection Type, your router's WAN IP Address, etc.
- **LAN Connection.** This section provides details of your Local Area Network connection such as the LAN IP Address, LAN MAC Address,

LAN Net Mask and DHCP Server status. Do take note that upon disabling the wireless connection

- **Wireless Connection.** This section provides an overview of the Wireless Connection information of both 2.4GHz and 5.0GHz frequency bands. Details such as each band's wireless SSID, Broadcast SSID, Wireless mode, WLAN MAC Address and Security can be found in this area for quick viewing.
- **Local Network.** This section provides the details of the directly connected local clients to your router such as the hostname, IP Address, MAC address, and the lease expiry time provided for the device.
- **Storage.** This section provides the details of any external USB storage devices connected to the VDSL5038GRV(AC).
- **Printer.** This section shows the connected and or detected printers in the network.

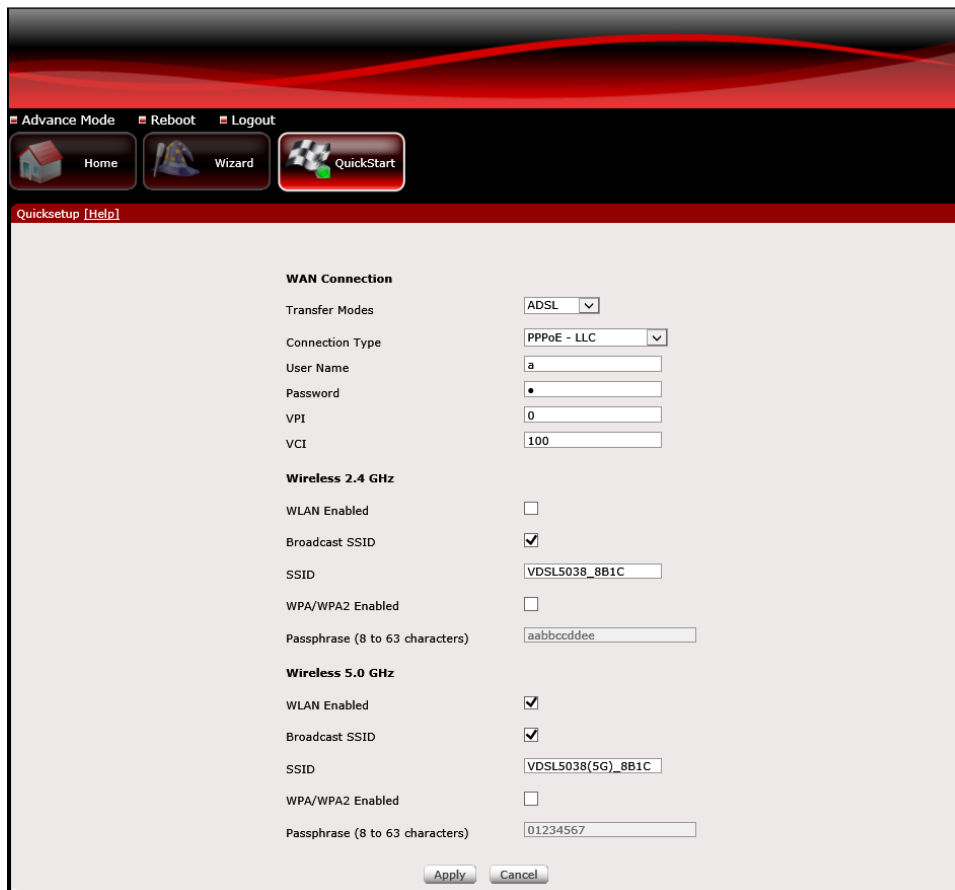
## Wizard

The Wizard page of the web user interface is a quick procedural method of setting up your device. Steps such as setting the Language and Time Zone, configuring the connection type, and configuring both the 2.4GHz and 5.0GHz Wireless settings are provided in this area.



## Quick Start

The Quick Start page of the web user interface allows users to configure their Language and Time Zone settings, the WAN connection, and the Wireless settings.



The screenshot displays the 'Quicksetup' page of a web user interface. At the top, there are navigation links for 'Advance Mode', 'Reboot', and 'Logout'. Below these are three buttons: 'Home', 'Wizard', and 'QuickStart'. The main content area is titled 'Quicksetup [Help]' and is divided into three sections: 'WAN Connection', 'Wireless 2.4 GHz', and 'Wireless 5.0 GHz'. Each section contains various configuration options with input fields and checkboxes. At the bottom of the form are 'Apply' and 'Cancel' buttons.

Section	Field Name	Value
WAN Connection	Transfer Modes	ADSL
	Connection Type	PPPoE - LLC
	User Name	a
	Password	•
	VPI	0
	VCI	100
Wireless 2.4 GHz	WLAN Enabled	<input type="checkbox"/>
	Broadcast SSID	<input checked="" type="checkbox"/>
	SSID	VDSL5038_8B1C
	WPA/WPA2 Enabled	<input type="checkbox"/>
Passphrase (8 to 63 characters)	aabbccdde	
Wireless 5.0 GHz	WLAN Enabled	<input checked="" type="checkbox"/>
	Broadcast SSID	<input checked="" type="checkbox"/>
	SSID	VDSL5038(5G)_8B1C
	WPA/WPA2 Enabled	<input type="checkbox"/>
Passphrase (8 to 63 characters)	01234567	

A. **WAN Connection.** This section of the Quicksetup allows you to configure your WAN connection settings to have internet access.

**NOTE:** Most of the fields in this area require you to refer to the Internet connection details provided to you by your Internet Service Provider (ISP) to complete this area.

B. **Wireless 2.4GHz / 5.0GHz.** Allows you to configure both of your VDSL5038GRV(AC)'s 2.4GHz and 5.0GHz Wireless Settings.

- **WLAN Enabled.** Enable or disable the wireless connection of the device. Once the Wireless connection is disabled, you would not be able to connect to your device wirelessly.
- **Broadcast SSID.** Broadcasts or Hides the Wireless SSID. Do take note that upon disabling the SSID broadcast, you would have to manually input the connection details (e.g. SSID, Encryption mode, and Password) before you can connect wirelessly to your router.
- **SSID.** Allows you to change the default wireless network name set on your router. The default SSID can be seen on the sticker underneath your router.
- **WPA/WPA2 Enabled.** Allows you to enable or disable the password of your wireless network. By enabling this encryption, you would be able to change the default wireless password set on your router.
- **Passphrase.** The wireless password of your network. This field can only be accessed if the WPA/WPA2 checkbox is enabled.

# Advanced Mode

The Advanced Mode page can be accessed from the Basic page by clicking on the **Advanced Mode** button located at the upper left corner of your screen. Other router features may easily be accessed and configured in this mode.

The Advanced Mode contains the following menus:

- Network
- Wireless
- Application
- System
- VoIP
- Status

The screenshot shows the 'Advanced Mode' configuration interface for a router. The top navigation bar includes 'Basic Mode', 'Reboot', and 'Logout'. Below this, there are icons for 'Network', 'Wireless', 'Application', 'System', 'VoIP', and 'Status'. The main content area is titled 'Network -> Internet [Help]' and displays the 'WAN Transfer Mode' configuration page. The page is organized into several sections:

- WAN Transfer Mode:** Transfer Modes is set to 'ADSL'.
- ATM VC:** Virtual Circuit is 'PVC 0', Status is 'Activated', VPI is '0', and VCI is '100'.
- QoS:** ATM QoS is 'ubr', PCR is '0', SCR is '0', and MBS is '0'.
- IPv4/IPv6:** IP Version is set to 'IPv4/IPv6'.
- Encapsulation:** ISP is 'PPPoA/PPPoE'.
- PPPoE/PPPoA:** Username is 'a', Password is '•', Encapsulation is 'PPPoE LLC', and PPP Authentication is 'AUTO'.
- Bridge Interface:** Bridge Interface is 'Deactivated'.
- Connection Setting:** Connection is 'Always On (Recommended)'.
- TCP MSS Option:** TCP MSS Option is '0'.
- IP Common Options:** Default Route is 'Yes'.
- IPv4 Options:** Get IP Address is 'Dynamic', Static IP Address is '0.0.0.0', IP Subnet Mask is '0.0.0.0', and Gateway is '0.0.0.0'.
- NAT:** NAT is 'Enable', Dynamic Route is 'RIP1', and Direction is 'None'.
- TCP MTU Option:** TCP MTU Option is '0'.
- IGMP Proxy:** IGMP Proxy is 'Disabled'.
- IPv6 Options:** DHCP IPv6 Mode is 'SLAAC', DHCP PD Enable is 'Disable', and MLD Proxy is 'Disable'.

An 'APPLY' button is located at the bottom of the configuration page.

# Network

The Advanced Mode – Network page allows you to change the default configuration of the modem. The Advanced Mode - Network page is also the default page of the Advanced Mode.

The Network page contains the following sub menus:

- Internet
- LAN
- DHCP Reservation
- Ethernet Media Type
- xDSL
- SNMP
- TR069
- IPv6RD

The screenshot shows the Network configuration page in Advanced Mode. The page is titled "Network -> Internet [Help]" and features a navigation bar with tabs for "Basic Mode", "Reboot", and "Logout". Below the navigation bar, there are several icons representing different network settings: "Network", "Wireless", "Application", "System", "VoIP", and "Status". The "Network" tab is currently selected, and it contains sub-menus for "Internet", "LAN", "DHCP Reservation", "Ethernet Media Type", "xDSL", "SNMP", "TR069", and "IPv6RD".

The main content area is titled "WAN Transfer Mode" and contains the following configuration options:

- WAN Transfer Mode**: Transfer Modes: ADSL (dropdown)
- ATM VC**: Virtual Circuit: PVC 0 (dropdown), PVCs Summary (button); Status:  Activated,  Deactivated; VPI: 0 (range: 0-255); VCI: 100 (range: 32-65535); QoS: ATM QoS: ubr (dropdown); PCR: 0 cells/second; SCR: 0 cells/second; MBS: 0 cells
- IPv4/IPv6**: IP Version:  IPv4,  IPv4/IPv6,  IPv6
- Encapsulation**: ISP: PPPoA/PPPoE (dropdown)
- PPPoE/PPPoA**: Username: a; Password: \*; Encapsulation: PPPoE LLC (dropdown); PPP Authentication: AUTO (dropdown); Bridge Interface:  Activated,  Deactivated
- Connection Setting**: Connection:  Always On (Recommended),  Connect Manually; TCP MSS Option: 0 bytes (0 means use default)
- IP Common Options**: Default Route:  Yes,  No
- IPv4 Options**: Get IP Address:  Static,  Dynamic; Static IP Address: 0.0.0.0; IP Subnet Mask: 0.0.0.0; Gateway: 0.0.0.0; NAT: Enable (dropdown); Dynamic Route: RIP1 (dropdown), Direction: None (dropdown); TCP MTU Option: 0 bytes (0 means use default:1492); IGMP Proxy:  Enable,  Disabled
- IPv6 Options**: DHCP IPv6 Mode:  DHCP,  SLAAC; DHCP PD Enable:  Enable,  Disable; MLD Proxy:  Enable,  Disable

An "APPLY" button is located at the bottom of the configuration area.



A. **Network.** Allows you to change the WAN Transfer Mode, the ATM VC settings, the IP version implemented in the network and its options, the QoS properties, the encapsulation mode, activate and enter the range of VLANs to be used, enable/disable default route, and enter your account details.

- **WAN Transfer Mode.** Allows you to change the current transfer mode implemented in your network.

**WAN Transfer Mode**  
Transfer Modes : ADSL

- **ATM VC.** Allows you to modify the router's ATM VC Internet connection settings. Please refer to the Internet Connection details given by your ISP before configuring this area. Click Apply for the settings to take effect.

**ATM VC**  
Virtual Circuit : PVC 0 [PVCs Summary](#)  
Status :  Activated  Deactivated  
VPI : 0 (range: 0~255)  
VCI : 100 (range: 32~65535)

- **QoS.** Allows you to set/configure the Quality of Service parameters of your router. Click Add for the settings to take effect.

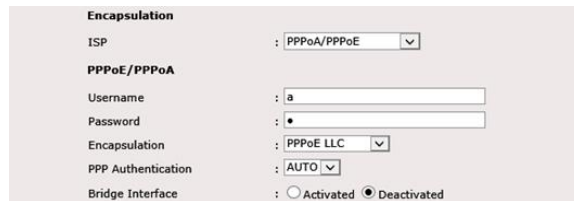
**QoS**  
ATM QoS : ubr  
PCR : 0 cells/second  
SCR : 0 cells/second  
MBS : 0 cells

- **IPv4/IPv6.** Allows you to change the current IP version implemented in your network.

**IPv4/IPv6**  
IP Version :  IPv4  IPv4/IPv6  IPv6

- **Encapsulation.** Allows you to change the current encapsulation you would be using for your internet connection. You may have to

refer to the internet connection details provided to you by your Internet Service Provider (ISP).



**Encapsulation**

ISP : PPPoA/PPPoE

**PPPoE/PPPoA**

Username : a

Password : \*

Encapsulation : PPPoE LLC

PPP Authentication : AUTO

Bridge Interface :  Activated  Deactivated

- **Connection Setting.** Allows you to set the connection method of your internet connection. This is highly suggested to be set on Always On. You may also configure the TCP MSS Option in this area.



**Connection Setting**

Connection :  Always On (Recommended)  
 Connect Manually

TCP MSS Option : 0 bytes (0 means use default)

- **IP Common Option.** Allows you to enable or disable the default route feature.



**IP Common Options**

Default Route :  Yes  No

- **IPv4 Options.** Allows you to enable Network Address Translation, specify the dynamic route method to be used, and enable or disable IGMP proxy.



**IPv4 Options**

Get IP Address :  Static  Dynamic

Static IP Address : 0.0.0.0

IP Subnet Mask : 0.0.0.0

Gateway : 0.0.0.0

NAT : Enable

Dynamic Route : RIP1 Direction None

TCP MTU Option : 0 bytes (0 means use default:1492)

IGMP Proxy :  Enable  Disabled

- **IPv6 Address.** Allows you to configure the DHCP IPv6 Mode used, DHCP PD mode, and the MLD Proxy.



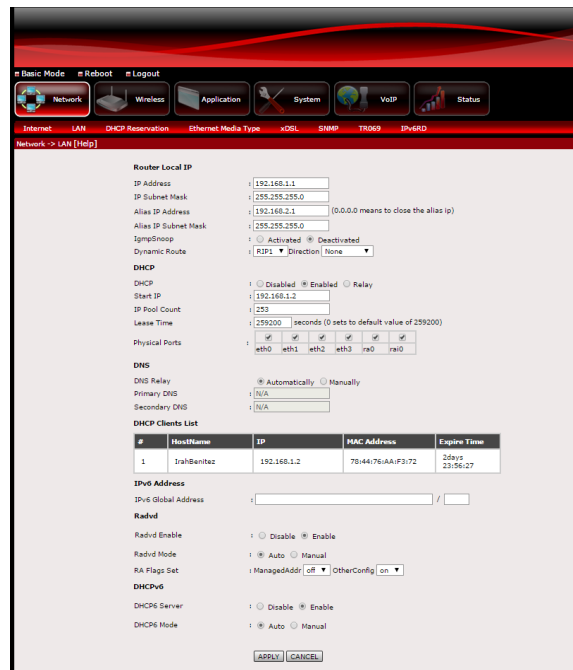
**IPv6 Options**

DHCP IPv6 Mode :  DHCP  SLAAC

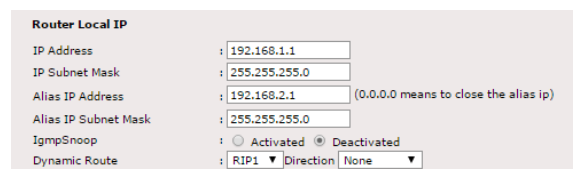
DHCP PD Enable :  Enable  Disable

MLD Proxy :  Enable  Disable

- B. **LAN.** Allows you to change the LAN Properties of your network, such as the Router's local IP, the DHCP properties, the DNS properties, enabling of Radvd and its properties, and the configuration of the DHCPv6 properties. The LAN page also allows you to view the DHCP client list table.



- **Router Local IP.** Allows you to change the IP properties used by your router. Do take note that by changing the IP address of your VDSL5038GRV(AC), the default IP address previously entered in the address bar to access the Web User Interface (e.g. 192.168.1.1) would also be changed.



- **DHCP.** Allows you to enable/disable/relay the DHCP feature of your router. The range of IP addresses, the pool count it would use, and the physical ports where DHCP would be applied can also be configured in this area.

**DHCP**

DHCP :  Disabled  Enabled  Relay

Start IP : 192.168.1.2

IP Pool Count : 253

Lease Time : 259200 seconds (0 sets to default value of 259200)

Physical Ports :  eth0  eth1  eth2  eth3  ra0  ra10

- **DNS.** Allows you to enable/disable the DNS property of your router, and specify the Primary and Secondary DNS it would use.

**DNS**

DNS Relay :  Automatically  Manually

Primary DNS : N/A

Secondary DNS : N/A

- **DHCP Client List.** Displays the number of devices currently connected to your VDSL5038GRV(AC) and each of the connected device's IP Address, MAC Address, and lease expiry time.

**DHCP Clients List**

#	HostName	IP	MAC Address	Expire Time
1	IrahBenitez	192.168.1.2	78:44:76:AA:F3:72	2days 23:56:27

- **IPv6 Address.** Allows you determine the IPv6 address that would apply to your network, including its subnet.

**IPv6 Address**

IPv6 Global Address :  /

- **Radvd.** Allows you to enable/disable router advertisements in the network including its properties such as its mode and flags set.

**Radvd**

Radvd Enable :  Disable  Enable

Radvd Mode :  Auto  Manual

RA Flags Set : ManagedAddr  OtherConfig

- **DHCPv6.** Allows you to enable/disable the DHCP properties of the IPv6 network, and to configure automatically/manually the IP addresses provided.

**DHCPv6**

DHCPv6 Server :  Disable  Enable

DHCPv6 Mode :  Auto  Manual

- C. DHCP Reservation.** Allows you to reserve IP addresses from the IP range provided dynamically by entering the IP address of the device and registering the device's corresponding MAC Address.

Network -> Add DHCP Reservation [Help]

IP Address :

MAC Address :

Index	IP	MAC	Drop

- D. Ethernet Media Type.** Allows you to control the bandwidth provided in each Ethernet port of your VDSL5038GRV(AC).

Network -> Ethernet Media Type [Help]

Port 1 : Auto

Port 2 : Auto

Port 3 : Auto

Port 4 : Auto

- E. xDSL Mode.** Allows you to determine the DSL mode and the ADSL type used by your router.

Network -> xDSL [Help]

xDSL Mode : Auto Sync-Up

ADSL Type : ANNEX A

- F. SNMP.** Allows you to enable/disable both SNMP/SNMPv3 including the properties of each corresponding protocol.

Network -> SNMP [Help]

SNMP :  Activated  Deactivated

SNMPv3 :  Enable  Disable

Get Community :

Set Community :

Trust Start IP : 0.0.0.0

Trust End IP : 0.0.0.0

Trust Start IPv6 :

Trust End IPv6 :

Trap Manager IP : 0.0.0.0

Trap Manager IPv6 : ::

- G. CWMP.** Allows you to activate/deactivate TR069 and enter the properties needed such as its URL, and the corresponding usernames and passwords.

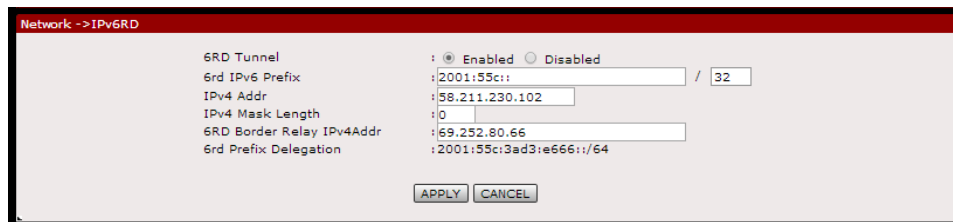


The screenshot shows a configuration window titled "Network -> CWMP [Help]". It contains the following fields and options:

TR069	:	<input checked="" type="radio"/> Activated <input type="radio"/> Deactivated
URL	:	<input type="text" value="http://122.193.99.166:80/entry_basic/node1/tr069"/>
User Name	:	<input type="text" value="basic"/>
Password	:	<input type="text" value="basic"/>
Path	:	<input type="text" value="/tr69"/>
User Name	:	<input type="text" value="123"/>
Password	:	<input type="text" value="123"/>
Periodic Inform	:	<input checked="" type="radio"/> Activated <input type="radio"/> Deactivated
Interval	:	<input type="text" value="5000"/>

At the bottom of the window are two buttons: "APPLY" and "CANCEL".

- H. IPv6RD.** Allows you to enter the IPv6 prefix and its subnet mask, specify and IPv4 address to be used and its mask length, and indicate a 6RD border relay IPv4 address.



The screenshot shows a configuration window titled "Network -> IPv6RD". It contains the following fields and options:

6RD Tunnel	:	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
6rd IPv6 Prefix	:	<input type="text" value="2001:55c::"/> / <input type="text" value="32"/>
IPv4 Addr	:	<input type="text" value="58.211.230.102"/>
IPv4 Mask Length	:	<input type="text" value="0"/>
6RD Border Relay IPv4Addr	:	<input type="text" value="69.252.80.66"/>
6rd Prefix Delegation	:	<input type="text" value="2001:55c:3ad3:e666::/64"/>

At the bottom of the window are two buttons: "APPLY" and "CANCEL".

## Wireless

The Advanced – Wireless page allows you to change the default configuration settings of your Wireless LAN connection on the router. The Advanced – Wireless page contains the following sub menus:

- Basic
- Security
- MAC Filter

The screenshot displays the 'Advanced Wireless' configuration page. At the top, there are navigation tabs for 'Basic Mode', 'Reboot', and 'Logout'. Below these are icons for 'Network', 'Wireless', 'Application', 'System', 'VoIP', and 'Status'. The 'Wireless' tab is selected, and sub-tabs for 'Basic', 'Security', and 'MAC Address Filter' are visible. The main content area is titled 'Wireless -> Basic [Help]' and contains the following settings:

- Wireless Band: 2.4 GHz
- Access Point Settings**
  - Access Point:  Activated  Deactivated
  - Channel: SINGAPORE (range: 1-13) | AUTO (range: 1-13) | Current Channel: [ ]
  - Beacon Interval: 100 (range: 20~1000)
  - RTS/CTS Threshold: 2347 (range: 1500~2347)
  - Fragmentation Threshold: 2346 (range: 256~2346, even numbers only)
  - DTIM: 1 (range: 1~255)
  - Wireless Mode: 802.11b+g+n
  - Station Number: 0 (range: 0~31, 0 means no limit)
- 11n Settings**
  - Channel Bandwidth: 20/40 MHz
  - Extension Channel: above the control channel
  - Guard Interval: AUTO
  - MCS: AUTO
  - BSS Coexistence:  Enable  Disable
- SSID Settings**
  - SSID Index: 1
  - SSID: VDSL5038\_8B1C
  - Broadcast SSID:  Yes  No

At the bottom of the settings area are 'APPLY' and 'CANCEL' buttons.

**A. Basic.** Allows you to change the default Wireless Name (SSID) set on the device, Hide or Broadcast the Wireless Name and change other advanced wireless configurations of both the 2.4GHz and 5.0GHz frequency bands. Click **Apply** for the settings to take effect.

- **Wireless Band.** Allows you to select the wireless band that you want to configure.

- Access Point Settings.** Allows you to enable the AP properties of your VDSL5038GRV(AC), change its channel and beacon interval, specify a range for the RTS/CTS/Fragmentation threshold and DTIM, determine the number of clients that would be able to connect, and change the wireless mode implemented by the router on the wireless network.

**Access Point Settings**

Access Point :  Activated  Deactivated

Channel : SINGAPORE  Current Channel :

Beacon Interval :  (range: 20~1000)

RTS/CTS Threshold :  (range: 1500~2347)

Fragmentation Threshold :  (range: 256~2346, even numbers only)

DTIM :  (range: 1~255)

Wireless Mode :

Station Number :  (range: 0~31, 0 means no limit)

- Mode Settings.** Content varies to the current mode implemented by the router (in this case, since the mode 802.11b+g+n is implemented, 11n Settings is shown).

**11n Settings**

Channel Bandwidth :

Extension Channel :

Guard Interval :

MCS :

BSS Coexistence :  Enable  Disable

- SSID Settings.** Allows you to define an SSID for each SSID index, and also allows you to enable or disable the SSID broadcast.

**SSID Settings**

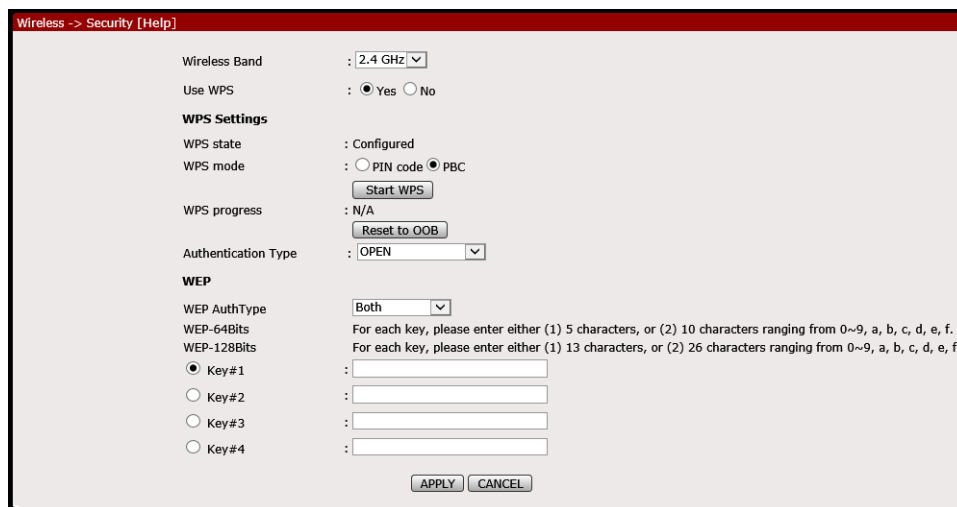
SSID index :

SSID :

Broadcast SSID :  Yes  No



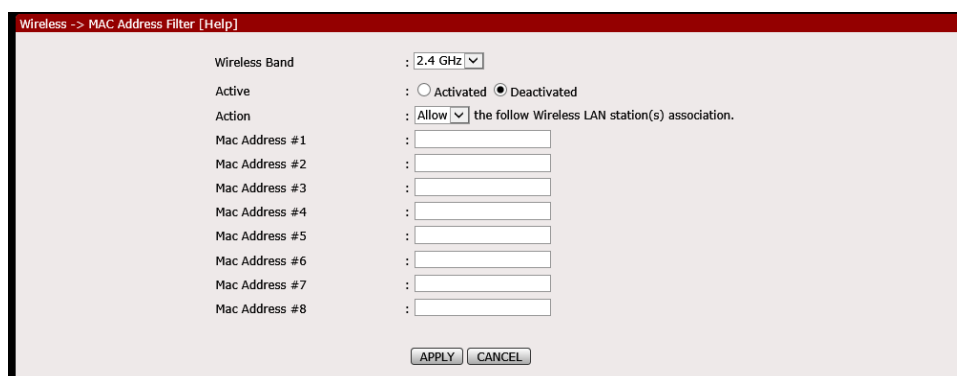
- B. **Security.** Allows you to change the default Wireless Security of each frequency band set on the router (e.g. its authentication type, passphrase, etc). This page also allows you to enable/disable and change the properties of the WPS feature. Click Apply for the settings to take effect.



The screenshot shows the 'Wireless -> Security [Help]' configuration page. It includes the following settings:

- Wireless Band: 2.4 GHz
- Use WPS:  Yes  No
- WPS Settings**
  - WPS state: Configured
  - WPS mode:  PIN code  PBC
  - Buttons: Start WPS, Reset to OOB
  - WPS progress: N/A
  - Authentication Type: OPEN
- WEP**
  - WEP AuthType: Both
  - WEP-64Bits: For each key, please enter either (1) 5 characters, or (2) 10 characters ranging from 0~9, a, b, c, d, e, f.
  - WEP-128Bits: For each key, please enter either (1) 13 characters, or (2) 26 characters ranging from 0~9, a, b, c, d, e, f.
  - Key selection:  Key#1,  Key#2,  Key#3,  Key#4
  - Input fields for each key.
- Buttons: APPLY, CANCEL

- C. **MAC Filter.** Allows you to control which wireless clients to Allow or Deny access to the router by entering the MAC address of the wireless client to the Access control list. Click Apply for the settings to take effect.



The screenshot shows the 'Wireless -> MAC Address Filter [Help]' configuration page. It includes the following settings:

- Wireless Band: 2.4 GHz
- Active:  Activated  Deactivated
- Action: Allow (dropdown) the follow Wireless LAN station(s) association.
- Mac Address #1 through #8: Eight input fields for MAC addresses.
- Buttons: APPLY, CANCEL

## Wireless

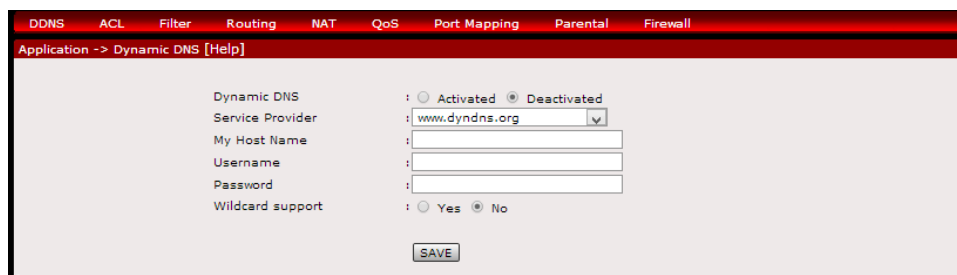
The Advanced – Applications page allows you to change/set the router's application features.

The Advanced – Applications page contains the following sub menus:

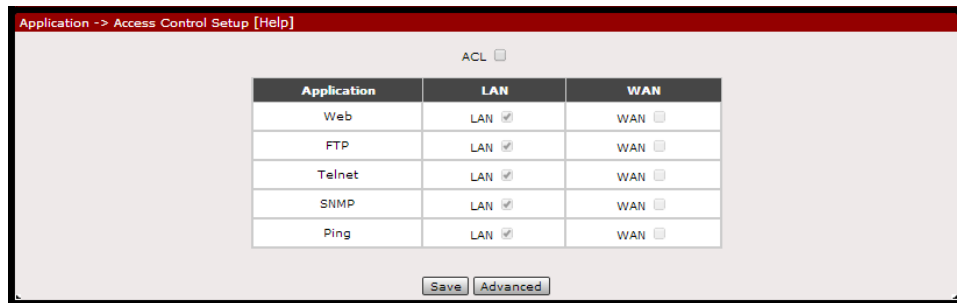
- DDNS
- ACL
- Filter
- Routing
- NAT
- QoS
- Port Mapping
- Parental
- Firewall



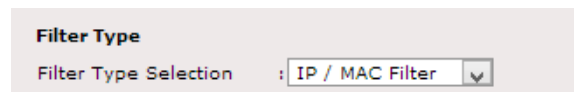
A. **DDNS.** Allows you to set a static host name with a Dynamic IP address.



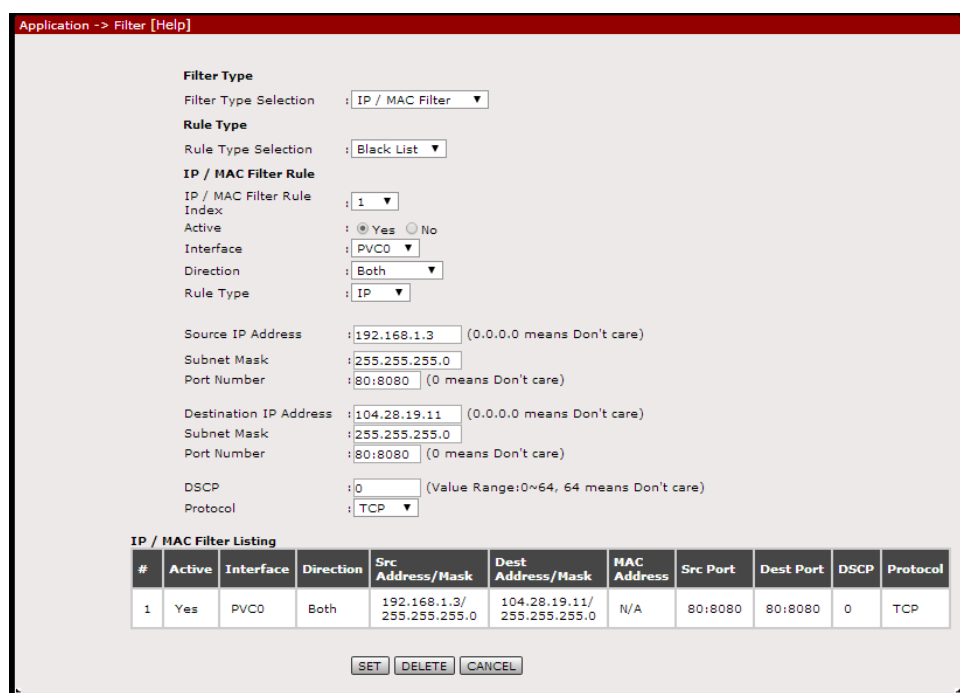
- B. **ACS.** Allows you to allow/limit applications from accessing the WAN or LAN interfaces.



- C. **Filter Type.** Allows you to apply various kinds of filtering which would allow or deny the IP address specified, access, depending on the filter rules set. By default, the filter type is set to IP/MAC Filter.



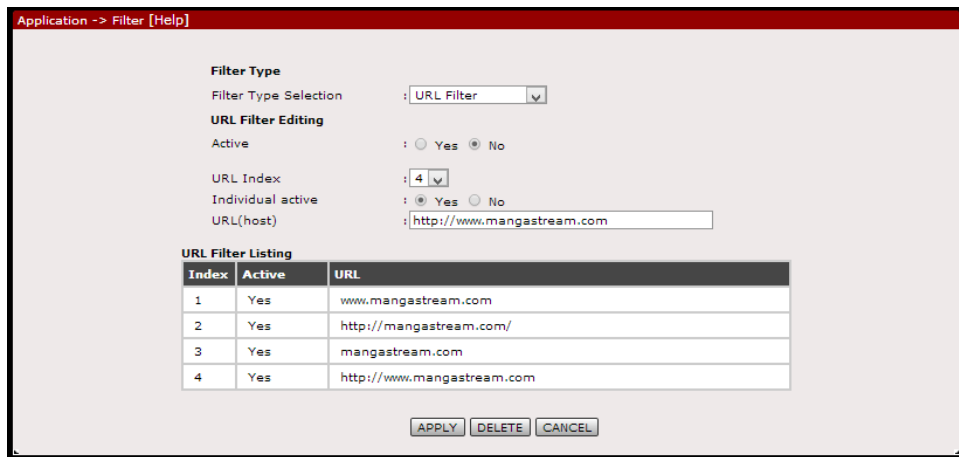
- **IP/MAC Filter.** Allows you to allow/deny access to specific source/destination/MAC addresses and or interfaces specified. It is also allows you to determine your preferred DSCP range and the protocol to be implemented.



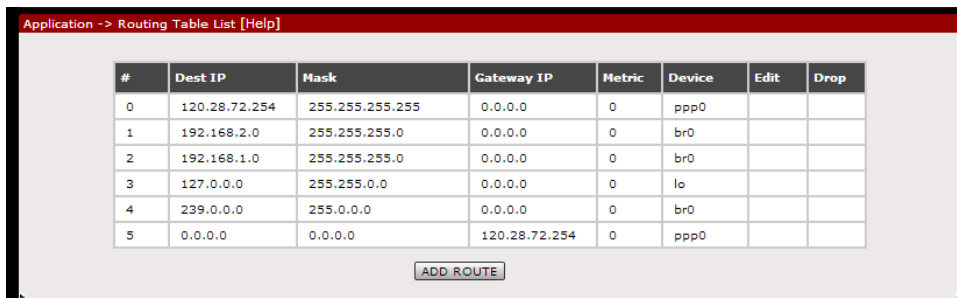
- **Application Filter.** Allows you to activate/deactivate the application filter and allow/deny ICQ, MSN, YMSG, and or Real Audio access in the network.



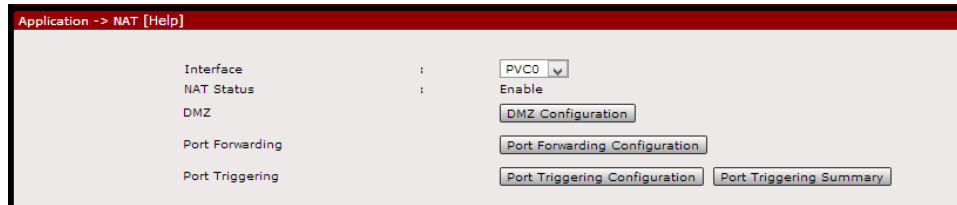
- **URL Filter.** Allows you to defined URL indexes which upon activating will allow/deny access to the corresponding URL specified.



- D. **Routing.** Allows you to configure certain routes statically into your system. This will cause overriding of the default gateway or interface that would have been taken for reaching a particular destination host/subnet.



- E. **NAT.** Allows you to configure the DMZ, Port Forwarding, and Port Triggering in each interface.



Application -> NAT [Help]

Interface : PVC0

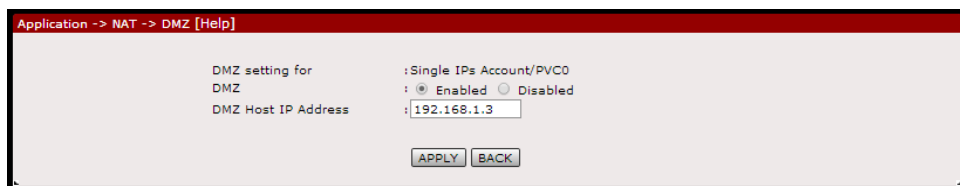
NAT Status : Enable

DMZ : DMZ Configuration

Port Forwarding : Port Forwarding Configuration

Port Triggering : Port Triggering Configuration Port Triggering Summary

- **DMZ.** Allows you to set a host between a private local network and a public network. This feature allows outside users from getting direct access to your local network.



Application -> NAT -> DMZ [Help]

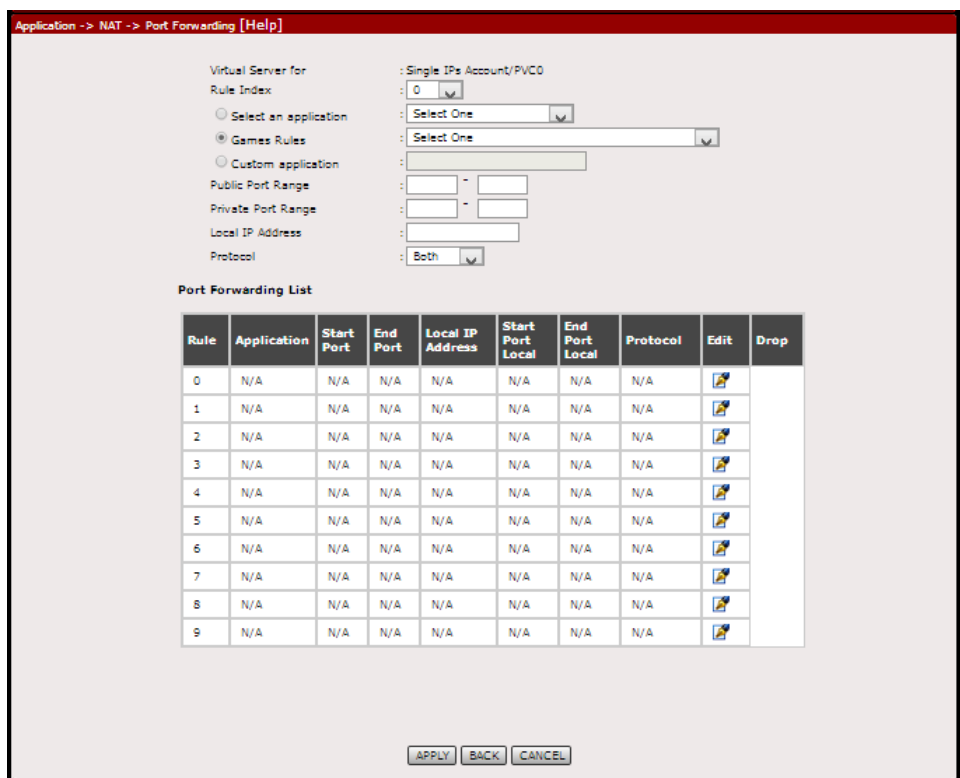
DMZ setting for : Single IPs Account/PVC0

DMZ :  Enabled  Disabled

DMZ Host IP Address : 192.168.1.3

APPLY BACK

- **Port Forwarding.** Allows you to set a direct incoming traffic from the Internet to a specific computer in your local network.



Application -> NAT -> Port Forwarding [Help]

Virtual Server for : Single IPs Account/PVC0

Rule Index : 0

Select an application : Select One

Games Rules : Select One

Custom application :

Public Port Range : -

Private Port Range : -

Local IP Address :

Protocol : Both

Port Forwarding List

Rule	Application	Start Port	End Port	Local IP Address	Start Port Local	End Port Local	Protocol	Edit	Drop
0	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
1	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
2	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
3	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
4	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
5	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
6	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
7	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
8	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
9	N/A	N/A	N/A	N/A	N/A	N/A	N/A		

APPLY BACK CANCEL

- **Port Triggering.** Allows you to configure the router to allow local users to temporarily open ports based on trigger ports.

Application -> NAT -> Port Triggering [Help]

Maximal number of rules: 8; Available rules: 8

Application : - ->

Active	Triggering Port Range			Opening Port Range		
	Start Port	End Port	Protocol	Start Port	End Port	Protocol
<input type="checkbox"/>	0	0	TCP/UDP	0	0	TCP/UDP
<input type="checkbox"/>	0	0	TCP/UDP	0	0	TCP/UDP
<input type="checkbox"/>	0	0	TCP/UDP	0	0	TCP/UDP
<input type="checkbox"/>	0	0	TCP/UDP	0	0	TCP/UDP
<input type="checkbox"/>	0	0	TCP/UDP	0	0	TCP/UDP
<input type="checkbox"/>	0	0	TCP/UDP	0	0	TCP/UDP
<input type="checkbox"/>	0	0	TCP/UDP	0	0	TCP/UDP
<input type="checkbox"/>	0	0	TCP/UDP	0	0	TCP/UDP

APPLY BACK CANCEL

- F. **QoS.** Allows you to set/configure the Quality of Service parameters of your router. Click Add for the settings to take effect.

Application -> Quality of Service [Help]

QoS:  Activated  Deactivated

Discipline:  WRR  Strict Priority

WRR weight: Highest: 8 High: 4 Medium: 2 Low: 1 (valid: 1-15)

Discipline Save Rule/Action Summary

Rule

Rule Index: 0

Active:  Activated  Deactivated

Application: ->

Physical Ports:  eth0  eth1  eth2  eth3

Destination MAC: ->

IPv4/IPv6: ->

Mask/Prefix: ->

Port Range: ->

Source MAC: ->

IPv4/IPv6: ->

Mask/Prefix: ->

Port Range: ->

Protocol ID: ->

Vlan ID Range: ->

IPP/DS Field:  IPP/TOS  DSCP

IP Precedence Range: ->

Type of Service: ->

DSCP Range: -> (Value Range: 0 ~ 63)

802.1p: ->

Active

IPP/DS Field:  IPP/TOS  DSCP

IP Precedence Remark: ->

Type of Service Remark: ->

DSCP Remark: -> (Value Range: 0 ~ 63)

802.1p Remark: ->

Queue #: ->

APPLY DELETE CANCEL

G. **Port Mapping.** Allows ATM PVCs to be permanently routed to a physical interface on the device.

Application -> Portbinding Group Setting [Help]

Active :  Activated  Deactivated

Group Index : 0

ATM VCs : Port #

PTM Barrier 0 : Port #

PTM Barrier 1 : Port #

WAN0 VCs : Port #

Ethernet : Port #

Wlan11ac : Port #

Group Summary

H. **Parental Control.** Allows you to limit (1) MAC Addresses on having internet access on specific times of day/s within a week, and (2) URLs on being accessed on specific times of day/s within a week.

Application -> NAT -> Parental control [Help]

Enable :  Activated  Deactivated

Blocking Type :  MAC  URL

MAC Address : 00:00:00:00:00:00  Browser's MAC Address

	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Day of Week	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Start Blocking Time	00:00	00:00	00:00	00:00	00:00	00:00	00:00
Blocking Interval Time	00:00	00:00	00:00	00:00	00:00	00:00	00:00

I. **Firewall.** Allows you to enable or disable Firewall and SPI. By default the said attributes are disabled.

Application -> Firewall [Help]

Firewall :  Enabled  Disabled

SPI :  Enabled  Disabled

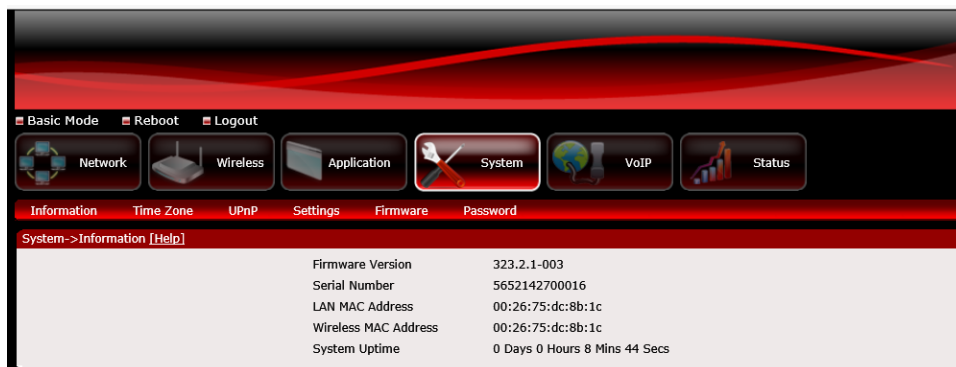
(WARNING: If you enable SPI, all traffics initiated from WAN would be blocked, including DMZ, Virtual Server and ACL WAN side.)

# System

The Advanced – System page allows you to view system information, back-up and Restore settings, and do Firmware upgrade on the router.

The Advanced – System menu has the following sub menus:

- Information
- UPnP
- Settings
- Firmware
- Reboot
- Password



A. **Information.** Displays detailed information of the router's Firmware version, LAN/WLAN MAC Address and System Uptime.





- B. **Time Zone.** Allows you to change or synchronize the current time zone used by your router.

- C. **UPnP.** Allows you to enable/disable UPnP application set on the router.

- D. **Settings.** This section allows you to Save, Restore, and Factory default reset your router's configuration.

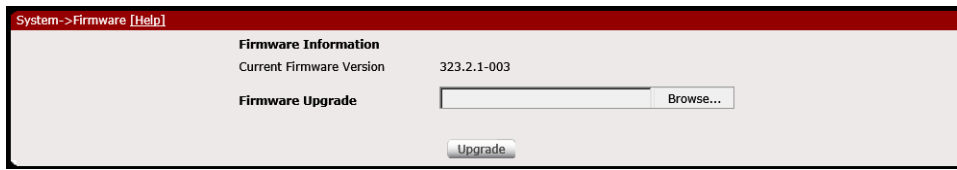
- **Back-up.** Click Backup button to save romfile.cfg on your computer, this will serve as your router's back-up configuration file.

- **Restore.** Click Browse to select romfile.cfg that was saved on your computer to restore your router to the last saved configuration then click Restore for the settings to take effect.

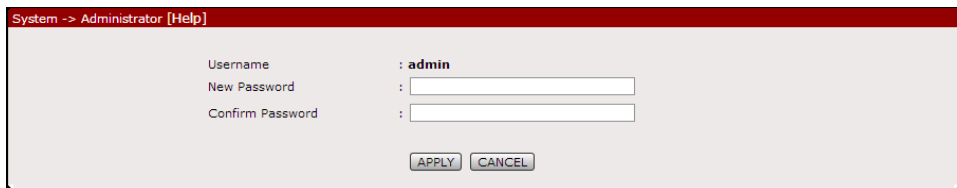
- **Factory Default.** Allows you to Restore the router's factory default. Click Reset for the settings to take effect.



E. **Firmware.** Allows you to change the firmware saved on the router.



F. **Password.** Allows you to change the password set on the router to access the Web User Interface.



# VoIP

The Advance – Status page displays various router connection statistics for ADSL, LAN, and WLAN. This page also has the following sub menus:

- Basic
- Call Control
- Media
- Speed Dial
- Advanced



The screenshot shows the VoIP Basic configuration page in a router's web interface. The page has a red and black header with navigation tabs for Network, Wireless, Application, System, VoIP, and Status. Below the header, there are sub-menus for Basic, Call Control, Media, Speed dial, and Advanced. The main content area is titled "VoIP -> VoIP Basic [Help]" and contains the following configuration options:

Line	:	1
Status	:	<input type="radio"/> Activated <input checked="" type="radio"/> Deactivated
Display Name	:	<input type="text"/>
Authentication Name	:	<input type="text"/>
Password	:	<input type="text"/>
Proxy Status	:	Not Connected
<b>SIP Settings</b>		
SIP Proxy	:	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
SIP Proxy Address	:	<input type="text"/>
SIP Proxy Port	:	<input type="text"/>
SIP Outbound Proxy	:	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
SIP Outbound Proxy Address	:	<input type="text"/>
SIP Outbound Proxy Port	:	<input type="text"/>
SIP Transport Protocol	:	UDP
Local SIP Port	:	5060
Local RTP Port	:	4000

An "APPLY" button is located at the bottom center of the configuration area.

- A. **Basic.** Allows you to configure the basic settings of each SIP Line such as the line status, its password, display and authentication name, and other SIP settings.

VoIP -> VoIP Basic [Help]

Line : 1

Status :  Active  Deactivated

Display Name :

Authentication Name :

Password :

Proxy Status : Not Connected

**SIP Settings**

SIP Proxy :  Enable  Disable

SIP Proxy Address :

SIP Proxy Port :

SIP Outbound Proxy :  Enable  Disable

SIP Outbound Proxy Address :

SIP Outbound Proxy Port :

SIP Transport Protocol : UDP

Local SIP Port : 5060

Local RTP Port : 4000

APPLY

- B. **Call Control.** Allows you to enable or disable call related functions and features of each SIP Line such as call forwarding, call transferring, DND mode, and three way conferencing.

**NOTE:** You have to activate the status of the VoIP SIP line first before you can configure its settings. This can be done on the VoIP Basic menu.

VoIP -> VoIP Call Control [Help]

Line : 1

Anonymous call blocking :  Enable  Disable

Anonymous calling :  Enable  Disable

Caller Id Display :  Enable  Disable (On The Local Phone)

**Call Forward**

Call Forward :  Enable  Disable

Unconditional Forward Destination :

Busy Call Forward :  Enable  Disable

Busy Forward Destination :

No Reply Call Forward :  Enable  Disable

No Reply Forward Destination :

**Call Transfer**

Call Transfer :  Enable  Disable

Blind Transfer Number : \*21

Attended Transfer Number : \*22

**Three-Way Conference**

Three-Way Conference :  Enable  Disable

Conference Number : \*3

**Do Not Disturb**

DND :  Enable  Disable

APPLY

C. **VoIP Media.** Allows you to change the audio codec applied to each SIP line, and change the packet interval time set in each codec.

**NOTE:** You have to activate the status of the VoIP SIP line first before you can configure its settings. This can be done on the VoIP Basic menu.

D. **Speed Dial.** Allows you to configure and register speed dial indexes and each index's corresponding number for future use.

**NOTE:** You have to activate the status of the VoIP SIP line first before you can configure its settings. This can be done on the VoIP Basic menu.

Index	Speed Dial Number	User Id	IP Address / Host Name	Port	Edit	Drop
0	N/A	N/A	N/A	N/A		
1	N/A	N/A	N/A	N/A		
2	N/A	N/A	N/A	N/A		
3	N/A	N/A	N/A	N/A		
4	N/A	N/A	N/A	N/A		
5	N/A	N/A	N/A	N/A		
6	N/A	N/A	N/A	N/A		

- E. **Advanced.** Allows you to enable WAN binding, adjust call volumes for both listening and speaking, define registration and reregistration expiration times, and change other advanced features of each SIP line.

The screenshot shows a configuration window titled "VoIP -> VoIP Advanced [Help]". It contains the following settings:

- VoIP WAN Binding:  Enable  Disable
- VoIP PVC Binding:
- Region:  (Note: You will need to save the configuration of Region to flash and restart system for this change to take effect.)
- DTMF Transport Mode:
- FAX:
- Registration Expire:  sec.(60~65536)
- reRegistration Time:  sec.(50~65536)
- Line:
- Listening Volume:  db (-15~15)
- Speaking Volume:  db (-15~15)

An "APPLY" button is located at the bottom center of the window.

# Status

The Status page displays various router connection statistics for xDSL, LAN, and WLAN. This page also has the following sub menus:

- Statistics
- xDSL Status
- System Log
- Diagnostics
- Network Tools

The screenshot shows the router's Status page with a navigation bar containing 'Basic Mode', 'Reboot', and 'Logout'. Below this are icons for 'Network', 'Wireless', 'Application', 'System', 'VoIP', and 'Status'. A secondary menu includes 'Statistics', 'xDSL Status', 'System Log', 'Diagnostics', and 'Network Tools'. The main content area displays three tables:

LAN Statistics [Help]										
Interface	Packets	Bytes	TX Multicast Frames	Collision	Error Frames	Packets	Bytes	RX Multicast Frames	CRC Errors	Under-size Frames
LAN	14985	9595070	2057	0	0	10563	1125813	680	0	0

xDSL Statistics [Help]										
Interface	Packets	Bytes	TX Errors	Blocks	Packets	Bytes	RX Errors	Blocks		
xDSL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		

WLAN Statistics [Help]							
Interface	Packets	TX Dropped	Packets	RX CRC Errors	Dropped		
Wireless 2.4 GHz	N/A	N/A	N/A	N/A	N/A		
Wireless 5.0 GHz	708	0	3007	52	52		

A. **Statistics.** Provides statistical information of LAN, ADSL and WLAN interface.

LAN Statistics [Help]										
Interface	Packets	Bytes	TX Multicast Frames	Collision	Error Frames	Packets	Bytes	RX Multicast Frames	CRC Errors	Under-size Frames
LAN	14985	9595070	2057	0	0	10563	1125813	680	0	0

xDSL Statistics [Help]										
Interface	Packets	Bytes	TX Errors	Blocks	Packets	Bytes	RX Errors	Blocks		
xDSL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		

WLAN Statistics [Help]							
Interface	Packets	TX Dropped	Packets	RX CRC Errors	Dropped		
Wireless 2.4 GHz	N/A	N/A	N/A	N/A	N/A		
Wireless 5.0 GHz	708	0	3007	52	52		

B. **xDSL Status.** Displays detailed information of the xDSL quality.

Status -> xDSL Status [Help]		
<b>xDSL Description</b>	<b>Status</b>	
xDSL Status	Not Connected	
xDSL Mode	N/A	
Cell Delin	N/A	
Link Retrain	N/A	
Init Errors	N/A	
Init Timeouts	N/A	
Loss Of Framing	N/A	
Errored Seconds	N/A	
Severely Error Seconds	N/A	
HEC Error	N/A	
<b>Information</b>	<b>DownStream</b>	<b>Upstream</b>
SNR Margin	N/A	N/A
Attenuation	N/A	N/A
Data Rate	N/A	N/A
Forward Error Correction Seconds	N/A	N/A
CRC	N/A	N/A

C. **System Log.** Displays the router's system log.

Status -> System Log Configuration [Help]	
Log	: <input type="radio"/> Enable <input checked="" type="radio"/> Disable
Log Level	: Emergency
Display Level	: Emergency
Remote Log	: <input type="radio"/> Enable <input checked="" type="radio"/> Disable
Server IP Address	: 0.0.0.0
Server UDP Port	: 514
<input type="button" value="APPLY"/> <input type="button" value="Viewlog"/>	

D. **Diagnostics.** Display the test results for the connectivity of the physical layer and protocol for xDSL, ATM, WLAN/LAN port and L0041N connection, click Start test to start the test.

<table border="1"> <thead> <tr> <th colspan="2">Status -&gt; Diagnostic Tools -&gt; xDSL Status [Help]</th> </tr> <tr> <th>Interface</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>xDSL Synchronization</td> <td>-</td> </tr> <tr> <td>Ping to DHCP Primary or Secondary DNS</td> <td>-</td> </tr> </tbody> </table>	Status -> Diagnostic Tools -> xDSL Status [Help]		Interface	Status	xDSL Synchronization	-	Ping to DHCP Primary or Secondary DNS	-	<table border="1"> <thead> <tr> <th colspan="2">Status -&gt; Diagnostic Tools -&gt; Local Network Status [Help]</th> </tr> <tr> <th>Interface</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>WIRELESS</td> <td>-</td> </tr> <tr> <td>WIRELESS(5G)</td> <td>-</td> </tr> <tr> <td>LAN Port - 1</td> <td>-</td> </tr> <tr> <td>LAN Port - 2</td> <td>-</td> </tr> <tr> <td>LAN Port - 3</td> <td>-</td> </tr> <tr> <td>LAN Port - 4</td> <td>-</td> </tr> </tbody> </table>	Status -> Diagnostic Tools -> Local Network Status [Help]		Interface	Status	WIRELESS	-	WIRELESS(5G)	-	LAN Port - 1	-	LAN Port - 2	-	LAN Port - 3	-	LAN Port - 4	-
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LAN Connection	-																								
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E. **Network Tools.** Allows you to test the router's Internet connectivity.

Status -> Network Tools [Help]	
Process Selection	Ping
Ping Count	counts
IP address/URL	
<input type="button" value="Apply"/>	



# Router Care Tips

1. Do not deface the router.
2. Do not use any power adapters with the router other than the supplied adapter as it may damage the device rendering it unusable.
3. Do not let the router get wet, when water gets in contact with the router, the internal components can corrode which breaks down the router.
4. Install the router on a flat surface and ensure that there is enough space for air to circulate.
5. Avoid dropping the router, depending on the surface where it lands, the router can get cracked casing or internal components may get dislodged affecting its functionality.
6. Clean the router's casing with a soft damp cloth and remove dust that may cover the router casing's ventilation regularly.
7. Turn off the router and disconnect the power adapter from the power outlet if it will be unattended for a long time.

# Safety Precautions

- Do not open, service, or change any component.
  - Only qualified technical specialists are allowed to service the equipment.
  - Observe safety precautions to avoid electric shock
  - Check voltage before connecting to the power supply. Connecting to the wrong voltage will damage the equipment.

# FCC 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 user is encouraged to try to correct the interference by one or more of the following measures:

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

# FCC Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

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

- This device may not cause harmful interference and
- This device must accept any interference received, including interference that may cause undesired operation.

## **CAUTION!**

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

# Aztech