

3G27WV-R HSPA+ WiFi Router with Voice



USER GUIDE

Copyright

Copyright©2012 NetComm Wireless Limited. All rights reserved.

The information contained herein is proprietary to NetComm Wireless Limited. No part of this document may be translated, transcribed, reproduced, in any form, or by any means without prior written consent of NetComm Wireless Limited.



Please note: This document is subject to change without notice.

Save Our Environment

When this equipment has reached the end of its useful life, it must be taken to a recycling centre and processed separately from domestic waste.

The cardboard box, the plastic contained in the packaging, and the parts that make up this device can be recycled in accordance with regionally established regulations. Never dispose of this electronic equipment along with your household waste. You may be subject to penalties or sanctions under the law. Instead, ask for disposal instructions from your municipal government.

Please be responsible and protect our environment.

This manual covers the following products:

3G27WV-R

DOCUMENT VERSION	DATE
1.0 - Initial document release	15/2/2012

Table of Contents

Overview	4
Introduction	4
Target Users.....	4
Prerequisites.....	4
Notation	4
Product Introduction	5
Product Overview	5
Package Contents	5
Product Features.....	5
Physical Dimensions and Indicators	6
LED Indicators.....	6
Integrated Interfaces	7
3G27WV-R Default Settings.....	8
Safety and Product Care	9
Installation and Configuration of the 3G27WV-R	10
Placement of your 3G27WV-R	10
Hardware installation.....	11
First Time Simple Configuration Wizard.....	12
Management Console Login Procedure.....	15
Management Console.....	16
Advanced Features.....	19
Additional Product Information	50
Using the 3G27WV-R to make and receive telephone calls	50
Technical Data	53
Electrical Specifications.....	53
Environmental Specifications / Tolerances	53
FAQ	54
Appendix A: Tables	56
Legal & Regulatory Information	57
Contact	59

Overview

Introduction

This manual provides information related to the installation, operation, and utilisation of the 3G27WV-R.

Target Users

The individual reading this manual is presumed to have a basic understanding of telecommunications terminology and concepts.

Prerequisites

Before continuing with the installation of your 3G27WV-R, please confirm that you comply with the minimum system requirements below.

- An activated Rogers SIM card.
- Computer with Windows, Macintosh, or Linux-based operating systems with a working Ethernet adapter with TCP/IP Protocol installed.
- A Web Browser such as Internet Explorer, Netscape Navigator, Mozilla Firefox, Opera, Safari etc.
- Wireless Computer System Requirements:
 - Computer with a working 802.11b, 802.11g or 802.11n wireless adapter.

Notation

The following symbols are utilised in this user manual:



The following note requires attention



The following note provides a warning



The following note provides relevant information

Product Introduction

Product Overview

- Quad-Band HSPA+.
- Up to 21Mbps downlink / 5.76Mbps uplink¹.
- 2 x RJ-11 analogue Voice ports (circuit-switched).
- 1 x 10/100 LAN Ethernet port.
- 1 x LAN/WAN Ethernet port for optional alternate Internet connectivity (ADSL/Cable/Satellite).
- 802.11n up to 300Mbps Wireless¹ (Backward compatible with 802.11b/g).
- Supports auto Internet fallback from 4G to a fixed line WAN connection (ADSL/Cable/Satellite).
- 2 x Internal WiFi antennas.
- WiFi Protected Setup (WPS) for wireless connectivity.
- Browser based interface for configuration and management.
- Wireless security options- WEP, WPA, WPA2.

1. Speeds are dependent on network coverage. See your MBB provider coverage maps for more details. The total number of WiFi users can also affect data speeds. The maximum wireless signal rate and coverage values are derived from IEEE Standard 802.11g and 802.11n specifications. The actual wireless speed and coverage are dependent on network and environmental conditions including but not limited to the volume of network traffic, building materials and construction/layout.

Package Contents

The 3G27WV-R package consists of:

- 1 x 3G27WV-R Internet and Voice.
- 1 x 12VDC~1.5A Power Adapter.
- 1 x External Antenna.
- 1 x RJ-45 LAN Cable.
- 1 x RJ-11 phone Cable.
- Quick Setup Guide.
- Wireless Security Card.

If any of these items are missing or damaged, please contact Rogers' customer care.

Product Features

The 3G27WV-R creates a secure WiFi network, providing Internet access for up to 15 users and simultaneous phone service using the Rogers Wireless network. With quick and easy setup the 3G27WV-R provides a landline experience without the need for fixed line connections. Simply plug the 3G27WV-R into a power outlet then insert an active Rogers SIM card into the slot on the rear panel to access a high speed Internet connection within minutes.

The 3G27WV-R incorporates a WLAN 802.11b/g/n access point, one 10/100Mbps Ethernet port, one 10/100Mbps Ethernet WAN port and two phone ports for making and receiving telephone calls. It features the latest security options such as WPA and WPA2 data encryption, SPI (Stateful Packet Inspection) Firewall and VPN pass through.

Physical Dimensions and Indicators

LED Indicators

The 3G27WV-R has been designed to be placed on a desktop. All of the cables exit from the rear for better organization. The display is visible on the front of the 3G27WV-R to provide you with information about network activity and the device status. See below for an explanation of each of the indicator lights.

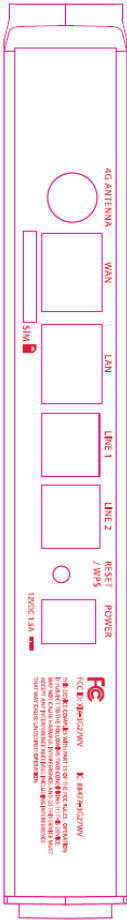


LED INDICATOR	ICON	DEFINITION
WiFi		The LED will show a solid blue light when WLAN is enabled. The LED flashes on traffic throughput (data transfer).
WAN		WAN mode: The WAN LED lights up when the router is connected to the internet via a fixed line WAN connection.
LAN		The LAN LED will be a solid blue light when a specific LAN connection is established. The LED flashes on LAN port traffic throughput.
4G		A solid blue light indicates the 3G27WV-R is connected via 4G. The 4G LED will flash on data traffic throughput.
Line 1		A solid blue light appears when the analogue telephone connected to Line 1 is off-hook. The Line 1 LED will flash on an incoming call.
Line 2		A solid blue light appears when the analogue telephone connected to Line 2 is off-hook. The Line 2 LED will flash on an incoming call.
Power		The power LED will be a solid amber light when the device is powered on. The power LED will flash during the device start up process.

Table 2 - LED Indicators

Integrated Interfaces

The following integrated interfaces are available on the rear of the 3G27WV-R:



INTERFACE	FUNCTION
SIM Slot	Insert your SIM card here (until you hear a click). Please be careful to insert the SIM card in the correct orientation by viewing the printed icon on the router housing.
4G Antenna	Attach the 4G antenna turning it in a clockwise direction.
WAN	The WAN Ethernet port for a Fixed Line (ADSL/Cable/Satellite) connection to the internet.
LAN	The LAN Port for wired Ethernet clients (Computers, Laptops, etc).
Line 1	The RJ-11 phone port provides a connection to a standard analogue telephone.
Line 2	The RJ-11 phone port provides a connection to a standard analogue telephone
Reset/WPS	Hold this button down for over 10 seconds to reset the router to factory default settings. Hold and release this button for less than 10 seconds to enable the WPS push-button-connect function.
Power	The power connector designed for use with a DC 12V 1.5A Power Adapter.

Table 3 - Rear Panel Ports

3G27WV-R Default Settings

The following tables list the default settings for the 3G27WV-R.

LAN (MANAGEMENT)	
Static IP Address:	192.168.1.1
Subnet Mask:	255.255.255.0
Default Gateway:	192.168.1.1

Table 4 - LAN Management Default Settings

WAN (INTERNET)	
WAN mode:	DHCP

Table 5 - WAN Port Default Settings

WIRELESS (WIFI)	
SSID:	(Refer to the included wireless security card)
Security:	WPA-PSK
Security Key:	(Refer to the included wireless security card)

Table 6 – WiFi Default Settings

For security purposes, each 3G27WV-R comes with a unique SSID that varies by a 2 digit number at the end. e.g. SSID: "ROGERSXXXX"

3G27WV-R WEB INTERFACE ACCESS	
Username:	admin
Password:	admin

Table 7 - Web Interface Default Settings

3G27WV-R DEFAULT APN	
Default APN:	fixed-isp.apn

Table 8 - Default APN Settings

Safety and Product Care

With reference to unpacking, installation, use and maintenance of your electronic device, the following basic guidelines are recommended:

- To avoid fire or shock hazard do not use or install this product near water. For example, near a bathtub, kitchen sink, laundry tub, or near a swimming pool. Also, do not expose the equipment to rain or damp areas (e.g. a wet basement).
- Do not connect the power supply cord on elevated surfaces. Allow it to lie freely. There should be no obstructions in its path and no heavy items should be placed on the cord. In addition, do not walk on, step on or mistreat the cord.
- To safeguard the equipment against overheating, make sure that all openings in the unit that offer exposure to air are unobstructed.



WARNING

Disconnect the power line from the device before servicing.

Transport and Handling

When transporting the 3G27WV-R, it is recommended to return the product in the original packaging. This ensures the product will not be damaged.



In the event the product needs to be returned, ensure it is securely packaged with appropriate padding to prevent damage during courier transport.

Installation and Configuration of the 3G27WV-R

Placement of your 3G27WV-R

Just like your mobile phone, the 3G27WV-R's location will affect its signal strength to the Rogers Mobile Base Station (Cell Tower). The data speed achievable from the 3G27WV-R is relative to this signal strength, which is affected by many environmental factors. Please keep in mind that the 3G27WV-R will need adequate signal strength in order to provide Internet connectivity whilst choosing a location to place your 3G27WV-R.

Similarly, the wireless connection between your 3G27WV-R and your WiFi devices will be stronger the closer your connected devices are to your 3G27WV-R. Your wireless connection and performance will degrade as the distance between your 3G27WV-R and connected devices increases. This may or may not be directly noticeable, and is greatly affected by the individual installation environment.

If you have concerns about your network's performance that might be related to range or obstruction factors, try moving the computer to a position between three to five meters from the 3G27WV-R in order to see if distance is the problem.



Please note: While some of the items listed below can affect network performance, they will not prohibit your wireless network from functioning. If you are concerned that your network is not operating at its maximum effectiveness, this checklist may help. Please ensure that your 3G27WV-R's 4G external antenna is positioned vertically (toward the ceiling).

If you experience difficulties connecting wirelessly between your WiFi Devices and your 3G27WV-R, please try the following steps:

- In multi-storey homes, place the 3G27WV-R on a floor that is as close to the centre of the home as possible. This may mean placing the 3G27WV-R on an upper floor.
- Try not to place the 3G27WV-R near a cordless telephone that operates at the same radio frequency as the 3G27WV-R (2.4GHz).

Avoid obstacles and interference

Avoid placing your 3G27WV-R near devices that may emit radio "noise", such as microwave ovens. Dense objects that can inhibit wireless communication include:

- Refrigerators.
- Washers and/or dryers.
- Metal cabinets.
- Large aquariums.
- Metallic-based, UV-tinted windows.
- If your wireless signal seems weak in some spots, make sure that objects such as those listed above are not blocking the signal's path (between your wireless devices and the 3G27WV-R).

Cordless Phones

If the performance of your wireless network is impaired after considering the above issues, and you have a cordless phone:

- Try moving cordless phones away from your 3G27WV-R and your wireless-enabled computers.
- Unplug and remove the battery from any cordless phone that operates on the 2.4GHz band (check manufacturer's information). If this fixes the problem, your phone may be interfering with the 3G27WV-R.
- If your phone supports channel selection, change the channel on the phone to the farthest channel from your wireless network. For example, change the phone to channel 1 and move your 3G27WV-R to channel 11. See your phone's user manual for detailed instructions.
- If necessary, consider switching to a 900MHz or 5GHz cordless phone.

Choose the "Quietest" Channel for your Wireless Network

In locations where homes or offices are close together, such as apartment buildings or office complexes, there may be wireless networks nearby that can conflict with your wireless network. Use the Site Survey capabilities found in the Wireless Utility of your wireless adapter to locate any other wireless networks that are available (see your wireless adapter's user manual), and switch your Router and computers to a channel as far away from other networks as possible.

Experiment with more than one of the available channels, in order to find the clearest connection and avoid interference from neighbouring cordless phones or other wireless devices.

Hardware installation

1. Attach the supplied antenna to the port marked 4G Antenna. [This should be attached in a clockwise direction.]
2. Insert your SIM card (until you hear a click) into the SIM slot.
3. For voice functionality, connect a standard analogue telephone to the port labelled Line 1 using the RJ-11 Cable provided.
4. Connect the power adapter to the Power socket on the back of the 3G27WV-R.
5. If required - To activate jacks in your home or office connect an RJ-11 cable from the port labelled Line 2 to any wall jack.
6. Plug the power adapter into the wall socket and switch on the power.
7. Wait approximately 60 seconds for the 3G27WV-R to power up.

Connecting via an Ethernet cable

1. Connect the Ethernet cable provided to the port marked LAN at the back of the 3G27WV-R.
2. Connect the other end of the yellow Ethernet cable to your computer.
3. Wait approximately 30 seconds for the connection to establish.
4. Open your Web browser and type `http://192.168.1.1` into the address bar and press enter.
5. Enter "admin" (without quotations) for both the Username and Password and click on the Login button.
6. Follow the steps of the start-up wizard to set up your 3G27WV-R.
7. After the setup process is completed, you will be connected to the Internet.

Connecting wirelessly

1. Ensure WiFi is enabled on your device (computer/laptop/Smartphone).
2. Scan for wireless networks in your area and connect to the network name that matches the Wireless network name found on the Wireless Security Card (included in the box).



Figure 1 - Included Security Card



Please note: For security purposes, each 3G27WV-R has a unique SSID (such as ROGERSXXXX) and Wireless Security Key. The included Wireless Security Card lists these fields instead of the xxxxx's as shown in the screenshot above.

3. When prompted for your wireless security settings, enter the wireless security key listed on your Wireless Security Card.
4. Wait approximately 30 seconds for the connection to be established.
5. Open your Web browser and type `http://192.168.1.1` into the address bar and press enter.
6. Enter "admin" (without quotations) as both the Username and Password and press the Login button.
7. Follow the steps to set up your 3G27WV-R.
8. After the setup process is completed, you will be connected to the Internet.
9. To connect additional devices via WiFi, repeat steps 1 through 4.

First Time Simple Configuration Wizard

When you log in to your 3G27WV-R for the first time, you will be presented with the 3G27WV-R “Set-up Wizard” as shown in the screenshot below. This wizard can be skipped by clicking on the link shown on the screenshot below. You can re-run the Setup Wizard again anytime after first use by selecting the “Startup Wizard” option under the “Administration” tab in the Advanced View of the management console.

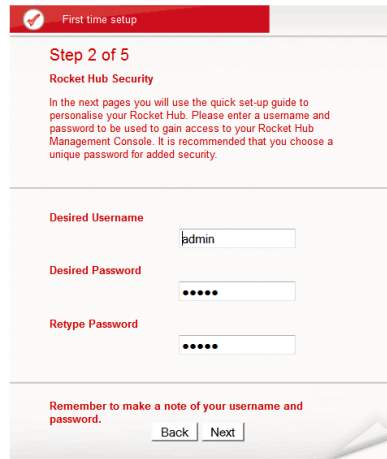


Figure 2 - Startup Wizard -Step 1



Figure 3 - Startup Wizard - Language, Time Zone and System Monitor Settings

Select your Language Preference and Time Zone and click Next to continue.



Step 2 of 5
Rocket Hub Security

In the next pages you will use the quick set-up guide to personalise your Rocket Hub. Please enter a username and password to be used to gain access to your Rocket Hub Management Console. It is recommended that you choose a unique password for added security.

Desired Username
admin

Desired Password
•••••

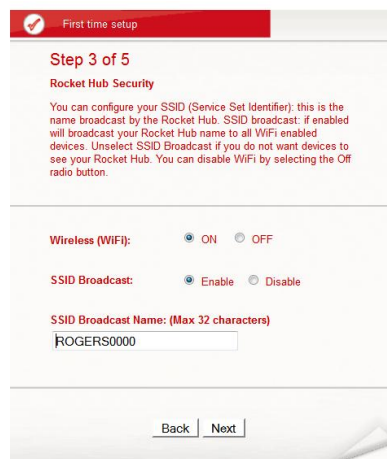
Retype Password
•••••

Remember to make a note of your username and password.

[Back](#) | [Next](#)

Figure 4 - Startup Wizard - Web Configuration Username and Password Settings

This page allows you to customize the username and password required to administer your 3G27WV-R. It is recommended that you choose a unique password for added security. Please enter the username and password that you wish to use, or leave these fields unchanged to use the default username and password of “admin”. Click “Next” to continue.



Step 3 of 5
Rocket Hub Security

You can configure your SSID (Service Set Identifier); this is the name broadcast by the Rocket Hub. SSID broadcast: if enabled will broadcast your Rocket Hub name to all WiFi enabled devices. Unselect SSID Broadcast if you do not want devices to see your Rocket Hub. You can disable WiFi by selecting the Off radio button.

Wireless (WiFi): ON OFF

SSID Broadcast: Enable Disable

SSID Broadcast Name: (Max 32 characters)
ROGERS0000

[Back](#) | [Next](#)

Figure 5 - Startup Wizard - WiFi Settings

The next page allows you to configure basic WiFi settings.

Wireless (WiFi):

WiFi is set to “On” by default. Changing this option to “Off” will turn off the wireless feature and you will not be able to connect to your 3G27WV-R via WiFi.

SSID Broadcast Name (Max 32 Characters):

The SSID (Service Set Identifier) is the name of your wireless network. Use a unique name to identify your wireless network so that you can easily connect from your wireless clients. This field is case sensitive and can be up to 32 characters. You should change the default SSID for added security.

SSID Broadcast:

Select ‘Disable’ to hide the SSID of your 3G27WV-R. If disabled, other people will not be able scan and detect your 3G27WV-R’s SSID.

Click “Next” to continue.

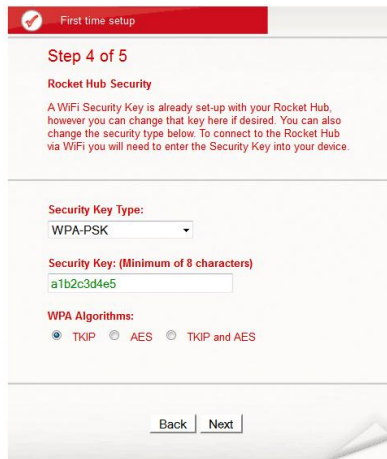


Figure 6 - Startup Wizard - WiFi Security Settings

This page allows you to configure WiFi security settings for your 3G27WV-R. Setting a strong wireless security level (such as WPA-PSK - AES) can prevent unauthorized access to your wireless network. Please enter the Security Key that you wish to use, or leave this field unchanged to use the default Security Key. Click “Next” to continue.

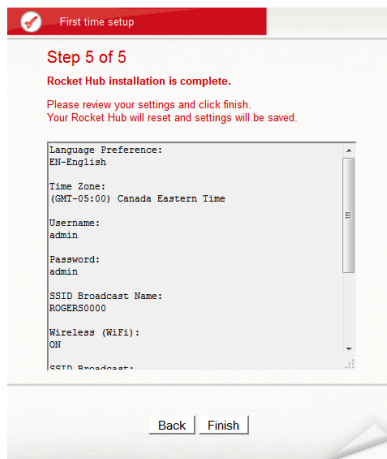


Figure 7 - Startup Wizard - Review your settings

Review your settings then click “Finish” to save configuration. Click “Back” if you want to make any changes.

After clicking Finish, the 3G27WV-R will save your configuration and reboot itself. Please wait as this process takes about 2 minutes. You will be guided back to the management console once the process is complete.

Management Console Login Procedure

After first time setup, the management console will be password protected to prevent unauthorized access to the configuration settings of your 3G27WV-R.

To log in to the management console, view the status and make changes to your 3G27WV-R, please follow the steps below:

1. Open your web browser (e.g. Internet Explorer/Firefox/Safari) and navigate to <http://192.168.1.1>
2. Enter the username and password configured during the first time setup and click the Submit button. Use the default username and password "admin" if these details have not been customized. Click "Login" to continue.



Please note: If you forget the username and password you selected during the 3G27WV-R set-up process, holding the reset button for over 10 seconds will restart the unit with the original settings (username: admin / password: admin).



Please note: In the event that your Internet connection becomes unavailable and no fail over service has been configured, the 3G27WV-R Management console page will display when attempting to browse to an Internet site.

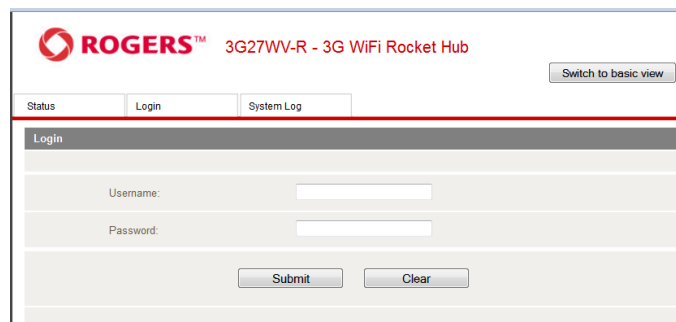


Figure 7 - Management Console Login

Management Console

Basic Status Overview

The basic status page provides basic system related information. It can be accessed by clicking on the “Switch to Basic view” button from the top of the status page.

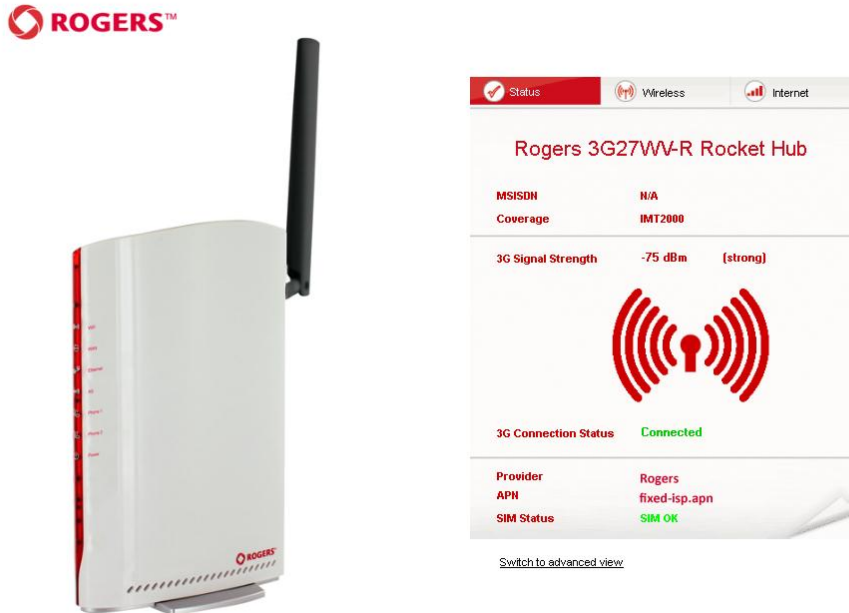


Figure 8 - Basic View – Status

The status page shows the current primary Internet connection, WAN/LAN status, MBB connection status, current Signal Strength (dBm) and the SIM Status.

ITEM	DEFINITION
MSISDN	The Mobile Subscriber Integrated Services Digital Network Number. This is a number uniquely identifying a subscription in a GSM or a UMTS Mobile Broadband (MBB) network.
Coverage	The current Mobile Broadband (MBB) connection type is listed here.
3G (4G) Signal Strength	The current signal strength of the MBB (Mobile Broadband) service connection.
MBB Connection Status	The current status of the MBB based Internet connection.
Provider	The current MBB service provider supplying the connection in use.
APN	The current APN (Access Point Name) in use to connect to the MBB service provider.
SIM Status	The current status of your inserted SIM card.

Table 10 – Basic View – Status Settings

Internet Settings

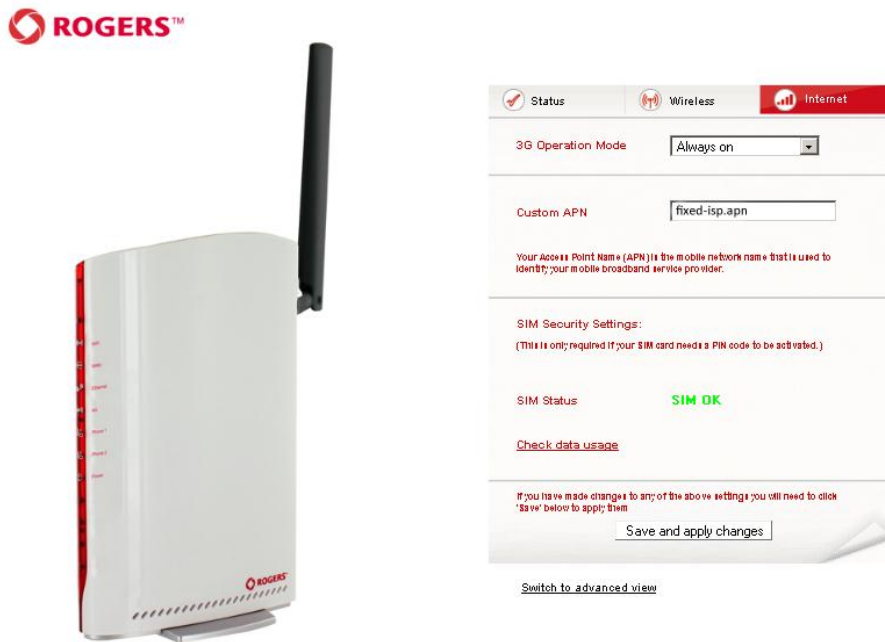


Figure 10 - Basic View - MBB Settings

The Internet Settings page enables you to select which of the configured 3G (4G) profiles will be used to connect to the Internet. You can also configure the connection operating mode. To configure your Internet connection, enter the applicable APN (Access Point Name) into the “Custom APN” field. You can then select from the following connection options:

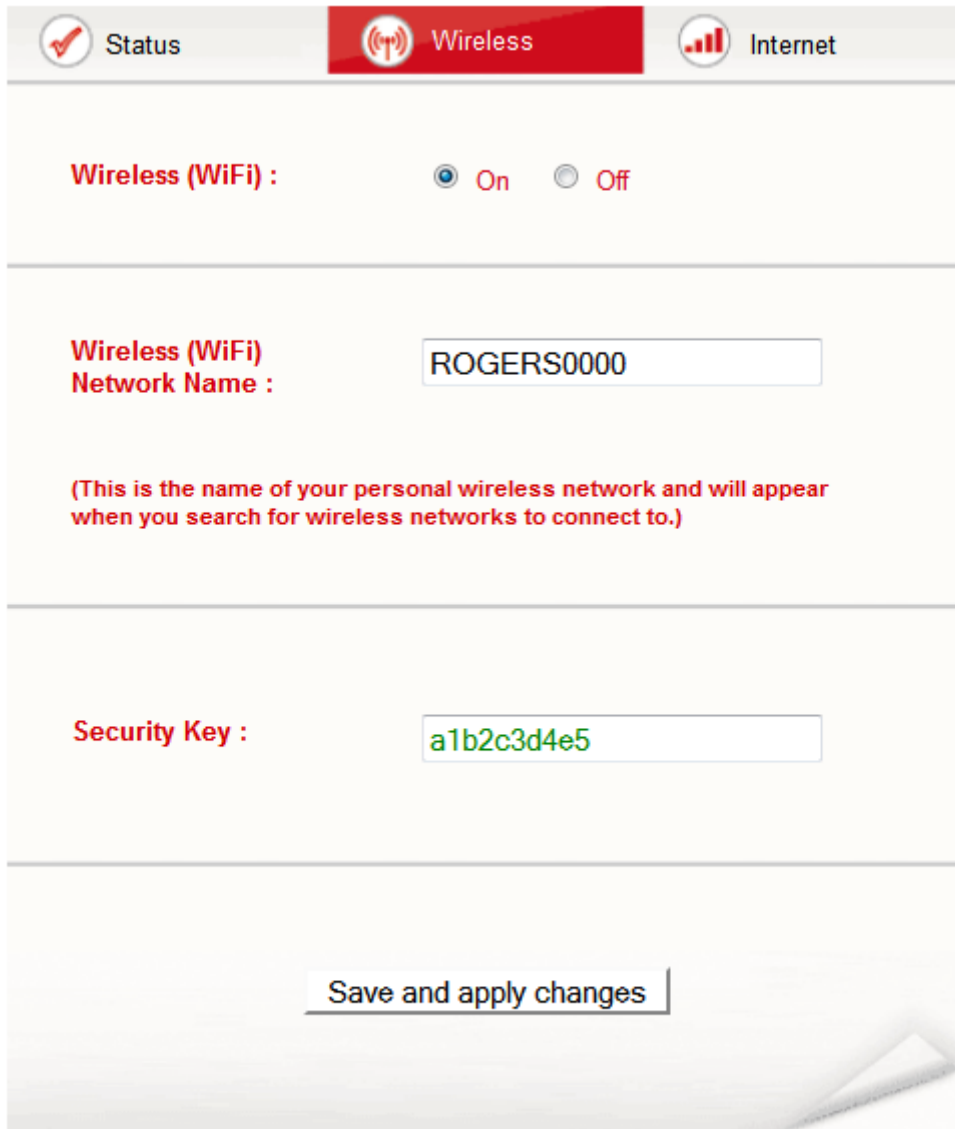
- Always on
- Off
- Automatic 3G (4G) Backup

When using the “Automatic 3G Backup” option, pick a high availability site as the address to test your 3G27WV-R’s connectivity with.

In the event that the primary WAN connection is unavailable, the 3G27WV-R will automatically swap to your configured 3G (4G) connection.

If you make any changes to the settings, click on the “Save and apply changes” button to make these changes active.

Wireless



[Switch to advanced view](#)

Figure 9 - Basic View – Wireless

This page allows you to configure basic WiFi settings for this device such as enabling/disabling the WiFi functionality, changing the Wireless Network Name (SSID) or the Wireless Security key. If you make any changes to the settings, click the “Save and apply changes” button to make these changes active.

OPTION	DEFINITION
Wireless (WiFi) ON/ OFF:	Changing this option to Off will turn off the WiFi feature on the 3G27WV-R and you will not be able to connect to your 3G27WV-R wirelessly.
SSID Broadcast Name (SSID):	The SSID (Service Set Identifier) is the name of your wireless network. Use a unique name to identify your wireless device so that you can easily connect to it from your wireless clients. This field is case sensitive and can be up to 32 characters long.
Security key:	Enter your chosen Wireless Security key here. The default WPA-PSK key is printed on the wireless security card and on the Product ID on the bottom of the 3G27WV-R. Please note that whilst the key can be customized on this page, the key will revert to the default if the 3G27WV-R is reset to factory default settings.

Table 11 - Basic View - WiFi Settings

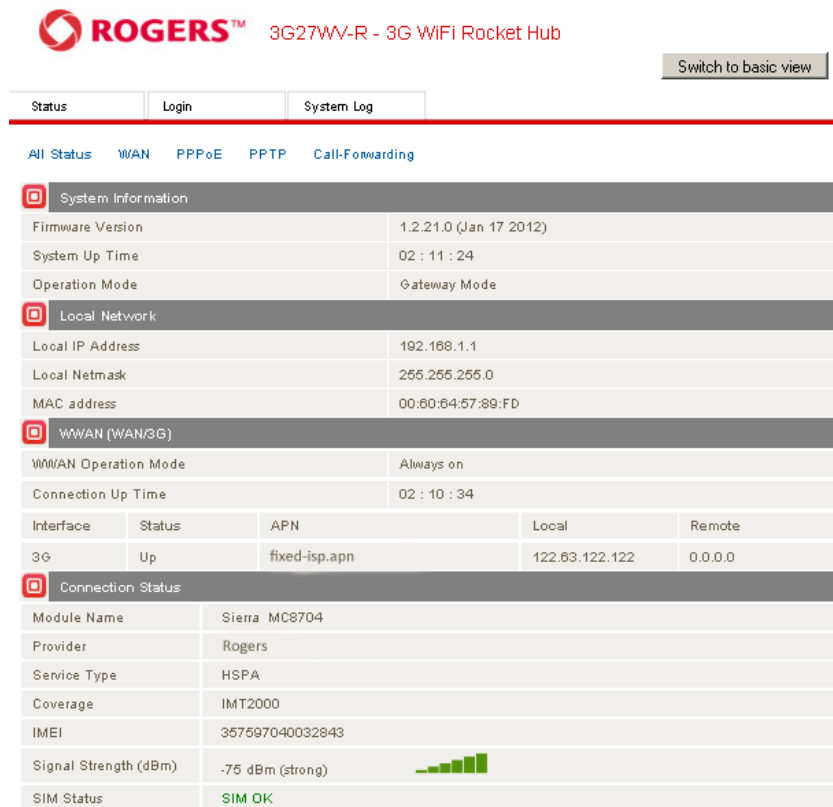
Advanced Features

The basic configuration interface is intended to provide access to all the settings that most people will want to use on their 3G27WV-R. There are advanced settings available if desired which are accessible by viewing the advanced settings pages. Click on the “Switch to Advanced View” option to configure the advanced features of your 3G27WV-R.

Status

The status page provides system related information and is displayed when you login to the 3G27WV-R management console and switch to the Advanced View. By default, the status page will show System Information, Local Network, WWAN(WAN/3G), Connection Status and Ethernet Port Status.

To view either WAN, PPPoE, PPTP status, or Call-Forwarding rules, click on their relevant links below the green menu bar. The sections are hidden by default, to view them all, click on the All Status button. Each section contains a breakdown of information relevant to the connection type or function.



ROGERS™ 3G27WV-R - 3G WIFI Rocket Hub Switch to basic view

Status Login System Log

[All Status](#) [WAN](#) [PPPoE](#) [PPTP](#) [Call-Forwarding](#)

System Information				
Firmware Version	1.2.21.0 (Jan 17 2012)			
System Up Time	02 : 11 : 24			
Operation Mode	Gateway Mode			

Local Network				
Local IP Address	192.168.1.1			
Local Netmask	255.255.255.0			
MAC address	00:60:64:57:89:FD			

WWAN (WAN/3G)				
WWAN Operation Mode	Always on			
Connection Up Time	02 : 10 : 34			
Interface	Status	APN	Local	Remote
3G	Up	fixed-isp.apn	122.63.122.122	0.0.0.0


Connection Status	
Module Name	Sierra MC8704
Provider	Rogers
Service Type	HSPA
Coverage	IMT2000
IMEI	357597040032843
Signal Strength (dBm)	-75 dBm (strong) 
SIM Status	SIM OK

Figure 12 - Advanced View – Status

You can utilise this to keep track of your data or call allowances.

Call Forwarding Status

Call Forwarding Status	
Call Waiting	Enabled
Unconditional Call Forwarding	Disabled
Busy Call Forwarding	Enabled (+61101)
No-Reply Call Forwarding	Enabled (+61101)
Not Reachable Call Forwarding	Enabled (+61101)

Figure 13- Advanced View - Status - Call Forwarding Status

The Call Forward section displays any active call forwarding rules you have in place.

Internet Settings

WWAN

This page allows you to setup your WWAN (Wireless Wide Area Network) connection.

The screenshot shows the configuration interface for the Rogers 3G27WV-R. At the top, there is a navigation bar with tabs for Status, Internet Settings, Wireless Settings, Firewall, and Administration. The 'Internet Settings' tab is selected, and the sub-page is '3G internet settings'. Below this, there are two main sections: 'WWAN (3G) Settings' and 'Roaming Settings'. The WWAN section includes fields for Profile Name (Rogers), APN (fixed-isp.apn), Dial (*99#), Authentication Type (CHAP), User Name (wapuser1), Password, Verify Password, 3G NAT (Enabled), Interface Metric (20), and Operation Mode (Always on). The Roaming section includes radio buttons for Voice Roaming (Outgoing Call), Voice Roaming (Incoming Call), and Data Roaming, all of which are currently disabled.

Figure 14 - Advanced View – WWAN Settings

OPTION	DEFINITION
Profile Name	A name/description for the Mobile Broadband (MBB) profile.
APN	Enter the correct APN (Access Point Name) you wish to connect to in this field. Please don't edit this unless you are aware of what effect it will have.
Dial	The dial string used by the router to access a Mobile Broadband (MBB) provider service. In most cases use the default value *99# in this field unless otherwise specified by your 3G (4G) Service Provider.
Authentication Type	The type of authentication used by the Mobile Broadband (MBB) service. Options include CHAP or PAP.
Username	The username (if required) used to verify the Mobile Broadband (MBB) service.
Password/Verify Password	The password (if required) used to verify the Mobile Broadband (MBB) service.
3G NAT	Enabled by Default, this option allows you to switch NAT (Network Address Translation) on or off.
Interface Metric	This field allows you to customize the metric of the MBB interface. This setting will have no effect for most users, but may be required for advanced routing configurations (Static Routes, RIP, VPN, etc)
Operation Mode; There are 3 Options:	
'Always ON'	Keeps the Internet connection alive, does not disconnect
'OFF'	Does not connect to the Internet
'Automatic 3G Backup'	The Automatic 3G (4G) Backup feature of the 3G27WV-R is designed to provide a backup Mobile Broadband (MBB) Internet connection when you use the WAN connection as your primary connection type. When the primary connection fails, the Internet connection will automatically switch to your Mobile Broadband (MBB) WAN connection. Once your WAN Internet connection is back online, the 3G27WV-R will reconnect to your wireline WAN service. To use this feature, you will need both an Ethernet WAN connection (from an xDSL modem/ISDN/Satellite etc) and a Mobile Broadband (MBB) connection.
Voice Roaming (Outgoing)	Enable outgoing voice calls when roaming onto a foreign Mobile Broadband (MBB) provider.
Voice Roaming (Incoming)	Enable incoming voice calls when roaming onto a foreign Mobile Broadband (MBB) provider.
Data Roaming	Enable data when roaming onto a foreign Mobile Broadband (MBB) provider.

Table 9 - Advanced View - Internet Settings



Please note: Voice and Data Roaming are disabled by default. The Management Console page will display whether Voice or Data Roaming is enabled if you attempt to utilise a Roaming service.

Band Settings

The band settings page enables you to select which frequency band you will use for your connection and enable you to scan for available network operators in your area.

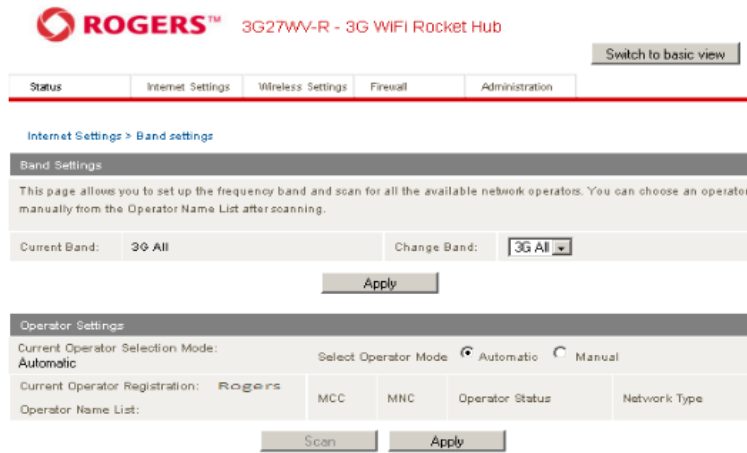


Figure 15 - Advanced View – Band Selection

The following frequency bands are available to select from:

- 3G All
- 2G All

You can also scan for available MBB service providers in your area by selecting “Manual” for the “Current Operator Selection Mode” and then clicking the scan button.

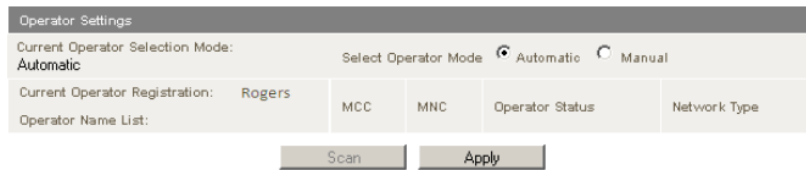


Figure 10 - Advanced View – Operator Selection

A list of the detected MBB service carriers in your area will be displayed. Select the most appropriate MBB service from the list shown and click “Apply”.

The default setting of “Automatic” should be appropriate for the majority of users and locations.

WAN

The WAN page allows you to configure the optional WAN Ethernet port. Select the WAN connection type suitable for your environment and configure parameters according to the selected connection type.

STATIC (fixed IP)

If your WAN connection uses a static IP address, select the “STATIC (fixed IP)” option and fill in the required information in the fields provided.

ROGERS™ 3G27WV-R - 3G WiFi Rocket Hub

Switch to basic view

Status | Internet Settings | Wireless Settings | Firewall | Administration

Internet Settings > WAN

Wide Area Network (WAN) Settings

This page allows you to setup your WAN Connection. First select the WAN connection type (Static, DHCP, PPPoE, PPTP), then enter the relevant settings as provided by your ISP.

WAN Connection Type: **STATIC (fixed IP)**

Static Mode

IP Address:

Netmask:

Gateway:

Primary DNS Server:

Secondary DNS Server:

MTU:

MAC Clone

Enabled: **Disable**

NAT Configuration: **Enable**

Apply | Cancel

WAN Failover Backup

Automatic 3G backup: **Disable**

Apply | Cancel

Figure 17 - Advanced View - WAN - Static IP Settings

NAME	DESCRIPTION
IP Address:	Type in the IP address assigned by your Internet Service Provider.
Netmask:	Type in the Subnet mask assigned by your Internet Service Provider.
Gateway:	Type in the WAN Gateway assigned by your Internet Service Provider.
Primary/ Secondary DNS:	Type in the DNS address assigned by your Internet Service Provider.
MAC Clone:	Please input the MAC address of your computer here if your service provider only permits computers with a certain MAC address to access the Internet. If you are using the computer which used to connect to the Internet via a cable modem, you can simply press the 'Default' button to fill the MAC address field with the MAC address of your computer.
NAT Configuration	Enable or disable Network Address Translation for this connection type.

Table 10 - Advanced View - WAN Settings - Static IP

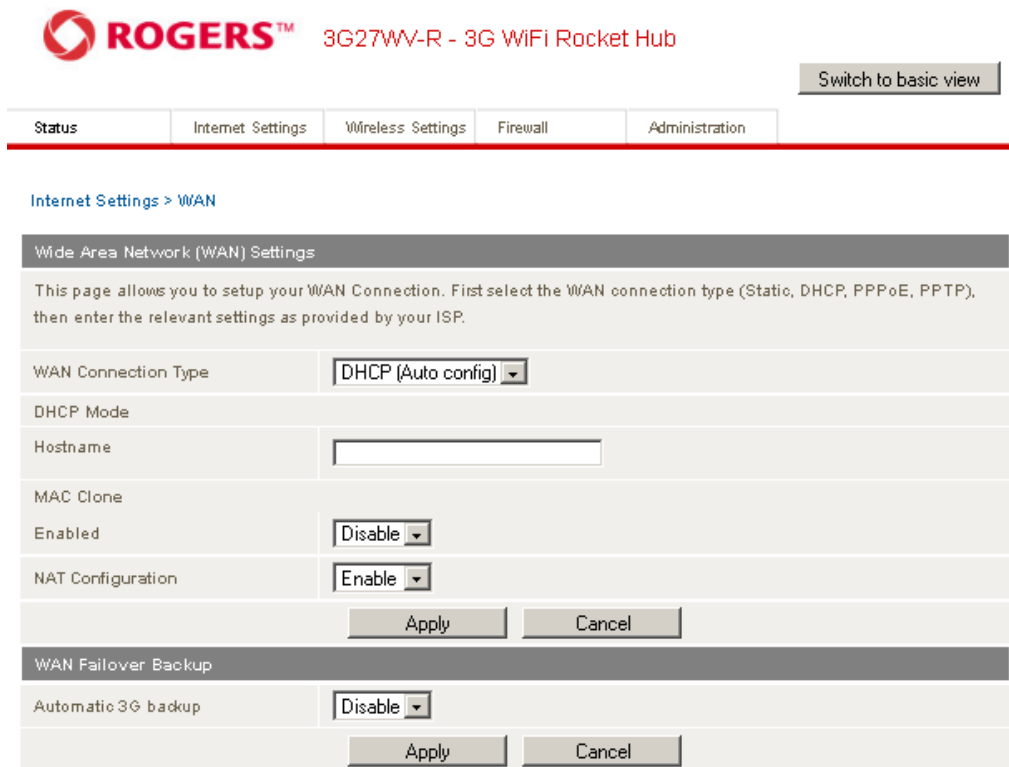


Please refer to the **WAN Failover Backup** section on page 26 for information on configuring the WAN failover feature.

Click the 'Apply' button to save any changes made to the settings.

DHCP

This connection will get the IP address from the Internet service provider. Leave everything as default unless instructed by your Internet Service Provider.



ROGERS™ 3G27WV-R - 3G WIFI Rocket Hub Switch to basic view

Status | Internet Settings | Wireless Settings | Firewall | Administration

[Internet Settings > WAN](#)

Wide Area Network (WAN) Settings

This page allows you to setup your WAN Connection. First select the WAN connection type (Static, DHCP, PPPoE, PPTP), then enter the relevant settings as provided by your ISP.

WAN Connection Type:

DHCP Mode

Hostname:

MAC Clone

Enabled:

NAT Configuration:

WAN Failover Backup

Automatic 3G backup:

Figure 18 - Advanced View - WAN - DHCP Settings

NAME	DESCRIPTION
Host Name	Input the host name of your computer. This is optional, and only required if your service provider asks you to do so.
Mac Clone	Input the MAC address of your computer here if your service provider only permits computers with a certain MAC address to access the Internet. If you are using a computer which is used to connect to the Internet via a cable modem, you can simply press the 'Default' button to automatically fill the MAC address field with the MAC address of your computer.
NAT Configuration	This option allows you to enable or disable Network Address Translation for this connection type.

Table 11 - Advanced View - WAN Settings - DHCP



Please refer to the **WAN Failover Backup** section on page 26 for information on configuring the WAN failover feature.

Click 'Apply' to save the settings.

PPPoE (ADSL)

Most ADSL/ADSL2+ services use the PPP over Ethernet protocol. Use this protocol if you are utilising a fixed line broadband service especially if the connecting modem is in bridge mode.

The screenshot shows the configuration interface for the WAN connection. At the top, there is a navigation bar with tabs for Status, Internet Settings, Wireless Settings, Firewall, SMS, and Administration. Below this, the 'Internet Settings > WAN' section is active. The main area is titled 'Wide Area Network (WAN) Settings' and contains the following fields:

- WAN Connection Type:** A dropdown menu set to 'PPPoE'.
- PPPoE Mode:** A section containing:
 - User Name:** A text input field.
 - Password:** A text input field.
 - Verify Password:** A text input field.
 - Operation Mode:** A dropdown menu set to 'Always on'. Below it, there are two options:
 - Keep Alive Mode: Redial Period:** A text input field set to '60' followed by 'seconds'.
 - On demand Mode: Idle Time:** A text input field set to '5' followed by 'minutes'.
- MAC Clone:** A section with an 'Enabled' dropdown menu set to 'Disable'.
- NAT Configuration:** A dropdown menu set to 'Enable'.

At the bottom of the form, there are two buttons: 'Apply' and 'Cancel'.

Figure 19 - Advanced View - WAN - PPPoE Settings

NAME	DESCRIPTION
Username/Password	Type in your PPPoE broadband account username and password.
Operation Mode; There are 3 options:	
'Always on'	Keeps the Internet connection alive, does not disconnect.
'On Demand'	Only connects to the Internet when there's a connect attempt.
'OFF'	Only connects to the Internet when the 'Connect' button on this page is pressed, and disconnects when the 'Disconnect' button is pressed.
MAC Clone	Input the MAC address of your computer here if your service provider only permits computers with certain MAC addresses to access the Internet. If you are using the computer to connect to the Internet via cable modem, you can simply press the 'Default' button to automatically fill the MAC address field with the MAC address of your computer.
NAT Configuration	Enable or disable Network Address Translation for this connection type

Table 12 - Advanced View - WAN Settings - PPPoE

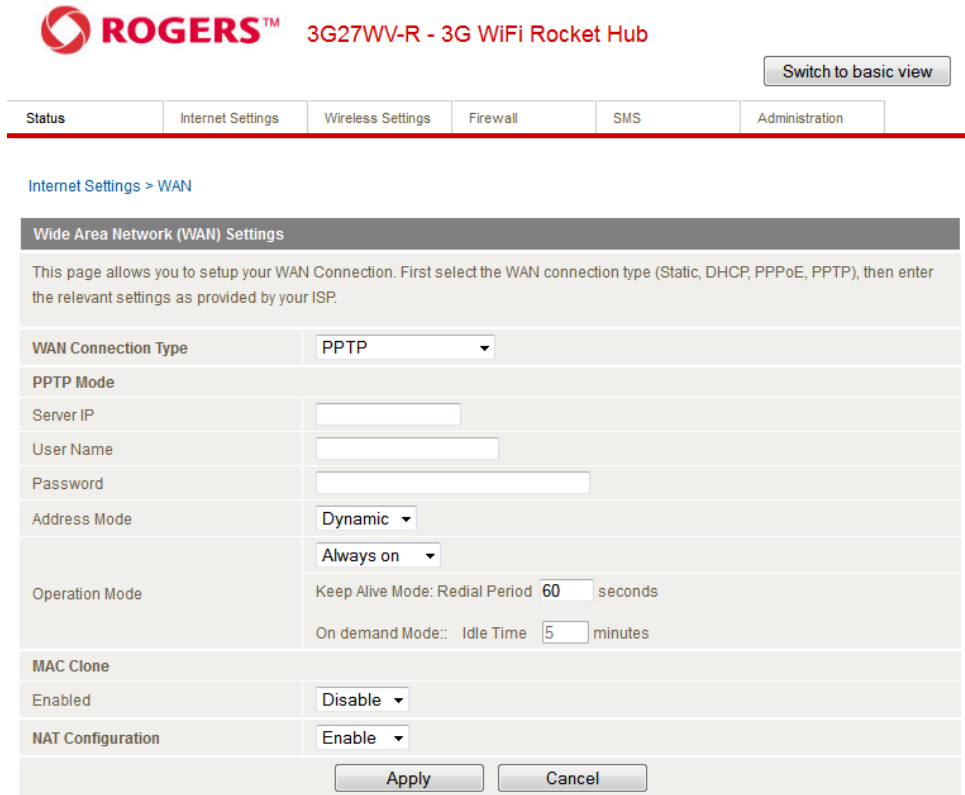


Please refer to the **WAN Failover Backup** section on page 26 for information on configuring the WAN failover feature.

Click 'Apply' to save the settings.

PPTP

This connection type enables the 3G27WV-R to connect to a VPN server via a bridged WAN device. Any device connected to the 3G27WV-R can then access the VPN based resources available.



The screenshot shows the configuration page for the 3G27WV-R device. The page title is "ROGERS™ 3G27WV-R - 3G WiFi Rocket Hub". There is a "Switch to basic view" button in the top right. A navigation bar includes "Status", "Internet Settings", "Wireless Settings", "Firewall", "SMS", and "Administration". The "Internet Settings > WAN" section is active. The "Wide Area Network (WAN) Settings" section contains the following fields:

- WAN Connection Type:** PPTP (selected)
- PPTP Mode:**
 - Server IP: [text input]
 - User Name: [text input]
 - Password: [text input]
 - Address Mode: Dynamic (selected)
 - Operation Mode: Always on (selected)
 - Keep Alive Mode: Redial Period: 60 seconds
 - On demand Mode: Idle Time: 5 minutes
- MAC Clone:** Enabled: Disable (selected)
- NAT Configuration:** Enable (selected)

Buttons for "Apply" and "Cancel" are at the bottom of the settings area.

Figure 20 - Advanced View - WAN - PPTP Settings

NAME	DESCRIPTION
Server IP	Type in the server IP address assigned by your Internet Service Provider.
User Name/Password	Type in the username and password assigned by your Internet Service Provider.
Address Mode	Select to Dynamic if your service uses a DHCP server, or select Static and type in the IP address, Subnet Mask and Default Gateway assigned by your Internet Service Provider.
Operation Mode; There are 3 options:	
'Always On'	Keeps the Internet connection alive, does not disconnect.
'On Demand'	Only connects to Internet when there's a connection attempt.
'OFF'	Only connects to the Internet when the 'Connect' button on this page is pressed, and disconnects when the 'Disconnect' button is pressed.
Mac Clone	Input the MAC address of your computer here if your Internet Service Provider only permits computers with certain MAC addresses to access the Internet. If you are using a computer to connect to the Internet via a cable modem, simply press the 'Default' button to automatically fill the MAC address field with the MAC address of your computer.
NAT Configuration	This field allows you to enable or disable Network Address Translation for this connection type.

Table 13 - Advanced View - WAN Settings - PPTP



Please refer to the **WAN Failover Backup** section on page 26 for information on configuring the WAN failover feature.

Click 'Apply' to save the settings.

WAN Failover Backup

The WAN Failover Backup feature of the 3G27WV-R is designed to provide a backup Mobile broadband Internet connection in case your primary connection should fail.

The 3G27WV-R sends ping requests to a specified Internet Host to verify whether the Internet connection is online and functioning. The Fail Count specifies how many successive ping attempts can fail before the 3G27WV-R fails over to the Mobile broadband Internet WAN connection while the Success Count specifies how many ping attempts must succeed in order to reset the Fail counter.

To use this feature, you will need both an Ethernet WAN connection (from an xDSL modem/ISDN/Satellite etc) and an Mobile broadband Internet WAN connection.

To set up WAN failover on your 3G27WV-R, first tick “Enable automatic MBB Backup”, then fill in the fields that appear.

Figure 21 - Advanced View - WAN Failover Settings

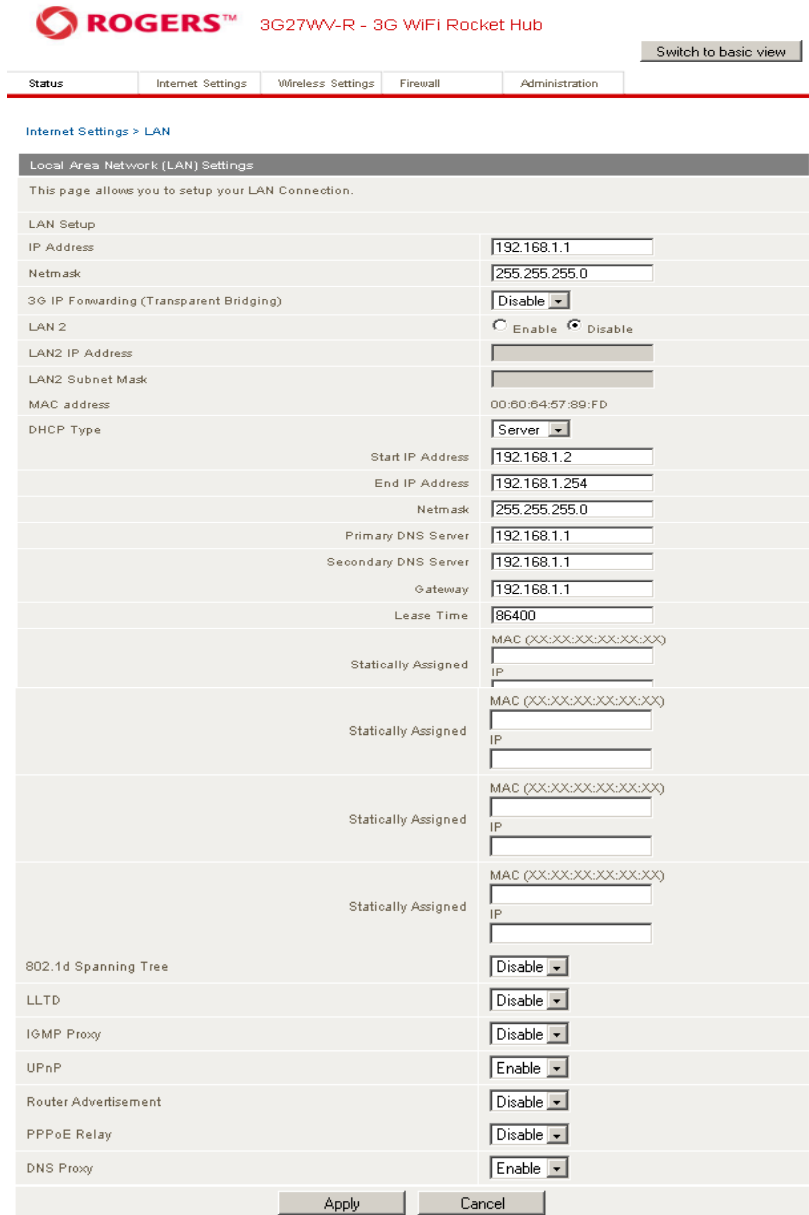
NAME	DESCRIPTION
Automatic MBB Backup	The default setting is “Disable”. Set it to “Enable” if you intend to turn on the Automatic MBB Backup function.
Profile Name	Select a Profile from the drop down list or change a profile name using the Change Profile Name field.
APN	Enter the Access Point Name to be used with the 3G (4G) connection.
Dial	The dial string used by the router to contact the 3G (4G) Internet Provider. Use the default “*99#” unless your 3G (4G) Service Provider specifies otherwise.
Authentication Type	The authentication type used with the 3G (4G) service. Options include CHAP or PAP.
Username/Password	If required for your 3G (4G) service, enter a username and password in the fields provided here.
MBB NAT	Enable NAT on the MBB connection
Interface Metric	The default value is 20; please enter the valid value from 1 to 9999 suitable for your network environment
Internet Host	Enter an Internet address here to check the status Internet Connection.
Second Address	Enter a second internet address to verify that the internet connection is active.
Periodic PING Timer	After every “Periodic Ping Timer” configured interval, the router sends 3 consecutive pings to the “Destination Address”. If all 3 pings fail the router sends 3 consecutive pings to the “Second Address”.
Periodic PING Accelerated Timer	The router then sends 3 consecutive pings to the “Internet Host Address” and 3 consecutive pings to the “Second Address” every “Periodic Ping Accelerated Timer” configured interval. If all accelerated pings in step fail the number of times configured in “Fail Count”, the router reboots. If any ping succeeds the router returns does not reboot.
Fail Count	The number of ping attempts which can fail before the connection is considered ‘offline’.

Table 14 - Advanced View - WAN Failover Settings

Click the ‘Apply’ button to save any changes made to the settings.

LAN

LAN functionality of the 3G27WV-R can be configured from this page. Using this page, a user can change the LAN Subnet, gateway IP address, DHCP settings, Static DHCP Lease settings, and many others.



ROGERS™ 3G27WV-R - 3G WiFi Rocket Hub

Switch to basic view

Status | Internet Settings | **Wireless Settings** | Firewall | Administration

Internet Settings > LAN

Local Area Network (LAN) Settings

This page allows you to setup your LAN Connection.

LAN Setup

IP Address: 192.168.1.1

Netmask: 255.255.255.0

3G IP Forwarding (Transparent Bridging): Disable

LAN 2: Enable Disable

LAN2 IP Address: [Empty]

LAN2 Subnet Mask: [Empty]

MAC address: 00:60:64:57:89:FD

DHCP Type: Server

Start IP Address: 192.168.1.2

End IP Address: 192.168.1.254

Netmask: 255.255.255.0

Primary DNS Server: 192.168.1.1

Secondary DNS Server: 192.168.1.1

Gateway: 192.168.1.1

Lease Time: 86400

Statically Assigned (4 entries):

- MAC (XX:XX:XX:XX:XX:XX): [Empty]
- IP: [Empty]

802.1d Spanning Tree: Disable

LLTD: Disable

IGMP Proxy: Disable

UPnP: Enable

Router Advertisement: Disable

PPPoE Relay: Disable

DNS Proxy: Enable

Apply | Cancel

Figure 22 - Advanced View - LAN Settings

NAME	DESCRIPTION
IP Address	The local IP address of 3G27WV-R.
Netmask	The subnet mask for the local network.
MBB IP Forwarding (Transparent Bridging)	Bridge the WAN port to the LAN port. The connected LAN device is then live on the Internet.
LAN 2	Used to configure a secondary LAN IP Address (optional).
LAN 2 IP Address	The local IP address of the secondary LAN IP Address.
LAN2 Subnet Mask	The subnet mask of the secondary IP Address
DHCP Type	Leave this set to "Server" unless you have another DHCP server on the same network.
Start IP Address	The Start IP address of your DHCP IP Pool.
End IP Address	The End IP address of your DHCP IP Pool.
Netmask	The subnet mask of the IP Address.
Primary DNS Server/ Secondary DNS Server	This Feature allows you to manually assign DNS Server Addresses. For optimum network performance use the DNS servers of your 3G (4G) Service Provider.
Gateway	The gateway address of your 3G27WV-R router.

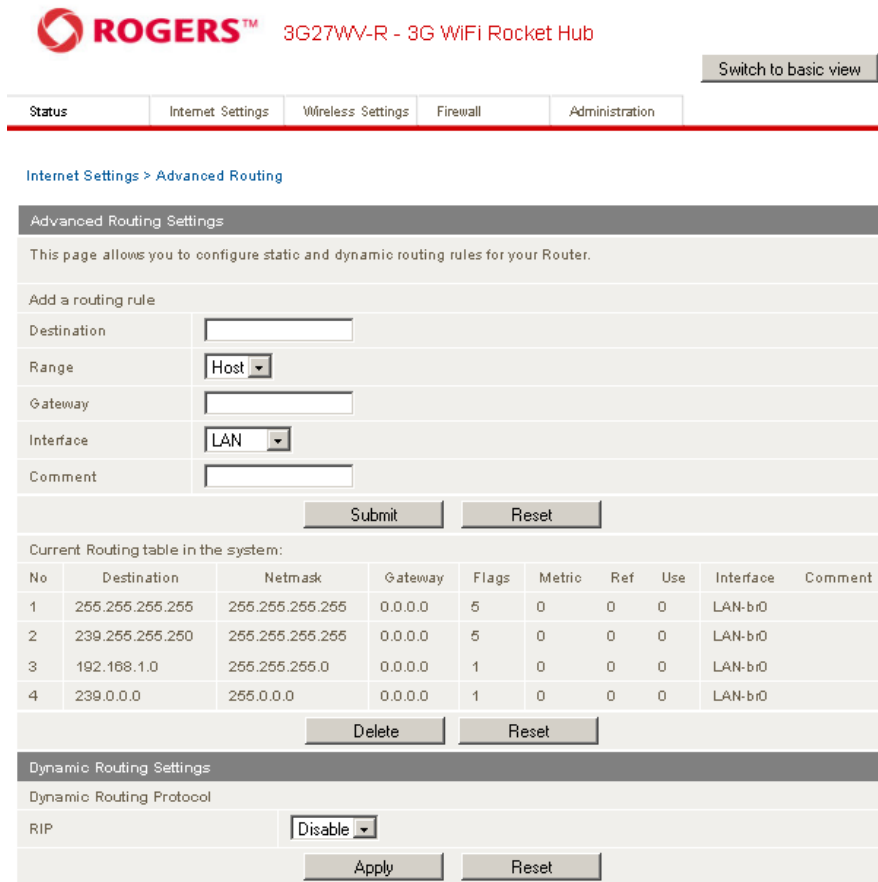
Lease Time	The DHCP lease time of the DHCP Client of your 3G27WV-R.
Statically Assigned	This feature allows you to statically assign IP addresses to the MAC Addresses, effectively reserving an IP address for a given computer or network device. The Format of MAC address is XX:XX:XX:XX:XX:XX
802.11d Spanning Tree	The default is "Disable", select "Enable" to enable this feature. The 802.11d spanning tree protocol prevents loops when using wireless distribution system (WDS) links as redundant links in a distribution system.
LLTD	Link Layer Topology Discovery (LLTD). The default setting is "Disable", select "Enable" to enable this feature. This is a proprietary link layer protocol for network topology discovery and quality of service diagnostics.
IGMP Proxy	Internet Group Management Protocol (IGMP), The default setting is "Disable", select "Enable" to enable this feature.
UPnP	Universal Plug and Play (UPnP), The default setting is "Enable", select "Disable" to disable this feature.
Router Advertisement	The Router Advertisement Daemon is used by system administrators in stateless auto-configuration methods of network hosts on Internet Protocol version 6 networks. The default setting is "Disable", select "Enable" to enable it.
PPPoE relay	The default setting is "Disable", select "Enable" to enable it.
DNS Proxy	The default setting is "Enable", select "Disable" to disable it.

Table 15 - Advanced View - LAN Settings

Click 'Apply' to save any changes to the settings.

Advanced Routing

This page allows you to configure static and dynamic routing rules for your 3G27WV-R.



ROGERS™ 3G27WV-R - 3G WIFI Rocket Hub

Switch to basic view

Status Internet Settings Wireless Settings Firewall Administration

Internet Settings > Advanced Routing

Advanced Routing Settings

This page allows you to configure static and dynamic routing rules for your Router.

Add a routing rule

Destination

Range

Gateway

Interface

Comment

Submit Reset

Current Routing table in the system:

No	Destination	Netmask	Gateway	Flags	Metric	Ref	Use	Interface	Comment
1	255.255.255.255	255.255.255.255	0.0.0.0	5	0	0	0	LAN-br0	
2	239.255.255.250	255.255.255.255	0.0.0.0	5	0	0	0	LAN-br0	
3	192.168.1.0	255.255.255.0	0.0.0.0	1	0	0	0	LAN-br0	
4	239.0.0.0	255.0.0.0	0.0.0.0	1	0	0	0	LAN-br0	

Delete Reset

Dynamic Routing Settings

Dynamic Routing Protocol

RIP

Apply Reset

Figure 23 - Advanced View - Advanced Routing Settings

Advanced Routing – Static

Static Routing allows computers that are connected to your 3G27WV-R to communicate with computers on another LAN segment which are connected to it via another router. To set a rule, you need to specify the following:

- Destination.
- Range – Select from Host (255.255.255.255) or Net (and then enter the appropriate subnet mask).
- Gateway.
- Interface.
- Comment to identify the route to be entered (optional).

Advanced Routing – Dynamic

Dynamic Routing uses the RIP (Routing Information Protocol) protocol to allow the 3G27WV-R to adapt to changes in the network. RIP enables the device to determine the best route for each packet based on the “hop count” or number of hops between Source and Destination. To enable Dynamic Routing, select Enable from the drop box and click the “Apply” button.

SNMP Settings

SNMP (Simple Network Management Protocol) is used to display or collect data from the 3G27WV-R. Various system information including interface statistics, uptime, and memory usage are available when viewed with an appropriate SNMP trap monitor.

Figure 24 - Advanced View - SNMP Settings

OPTION	DEFINITION
Trap Destination	The IP address of the computer or device running the SNMP Trap monitor application
Heartbeat Interval	The amount of time in seconds between updates to the SNMP data shown.
Trap Persistence	The length of time in seconds that the trap will retain its data.
Trap Retransmission Time	The length of time in seconds between an SNMP Trap resending its data.

Table 16 - Advanced View - SNMP Settings

DHCP Client List

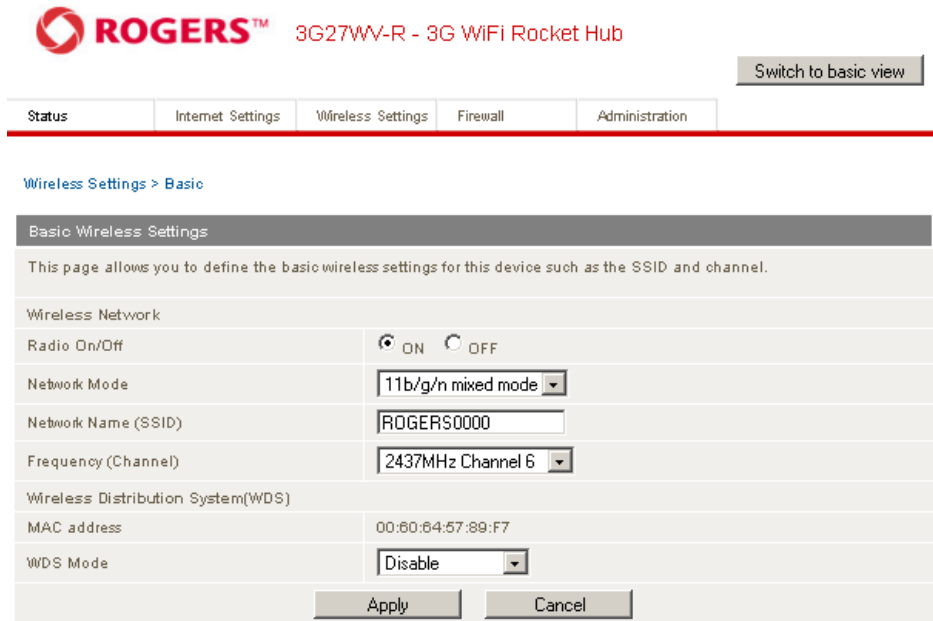
This page allows you to view the current DHCP clients that have obtained IP leases from your 3G27WV-R. The MAC address, assigned IP address and the expiry period is shown for all computers who have automatically obtained IP addresses from the 3G27WV-R. Please note that this list is stored in the device's volatile memory, and is therefore cleared if the device is reset or if any changes are applied to the router configuration.

Figure 25 – Advanced View – DHCP Client List

Wireless Settings

Basic

This page allows you to define the basic wireless settings for the 3G27WV-R.



ROGERS™ 3G27WV-R - 3G WiFi Rocket Hub

Switch to basic view

Status Internet Settings **Wireless Settings** Firewall Administration

Wireless Settings > Basic

Basic Wireless Settings

This page allows you to define the basic wireless settings for this device such as the SSID and channel.

Wireless Network

Radio On/Off ON OFF

Network Mode 11b/g/n mixed mode

Network Name (SSID) ROGERS0000

Frequency (Channel) 2437MHz Channel 6

Wireless Distribution System(WDS)

MAC address 00:60:64:57:89:F7

WDS Mode Disable

Apply Cancel

Figure 26 – Advanced View – WiFi Settings

Radio On/Off:

WiFi is turned on by default. Changing this option to OFF will turn OFF the wireless functionality on the 3G27WV-R and you will not be able to connect to your 3G27WV-R wirelessly.

OPTION	DEFINITION
Radio On/Off	WiFi is turned on by default. Changing this option to OFF will turn OFF the wireless functionality on the 3G27WV-R and you will not be able to connect to your 3G27WV-R wirelessly.
Network Mode: There are 5 modes to select from:	
11b/g mixed mode:	Both 802.11b and 802.11g wireless devices can connect to the 3G27WV-R.
11b only:	Select this if all of your wireless clients use 802.11b wireless protocol.
11g only:	Select this if all of your wireless clients are 802.11g wireless protocol.
11n only:	Select this if all of your wireless clients are 802.11n wireless protocol.
11b/g/n Mixed mode:	Select this if 802.11b and 802.11g and 802.11n wireless devices access your network.
Network Name (SSID):	The SSID (Service Set Identifier) is the name of your wireless network. Use a unique name to identify your wireless device so that you can easily connect to it from your wireless clients. This field is case sensitive and can be up to 32 characters in length. It is recommended that the default SSID be changed for added security.
Frequency (Channel):	This setting configures the frequency that the Wireless Radio uses for wireless connectivity. Select one channel that you wish to use from the drop down list.
WDS Mode:	WDS (Wireless Distribution System) is a system that enables the wireless interconnection of access points, and allows a wireless network to be expanded using multiple access points without a wired backbone to link them. Each WDS Access Point needs to be set with the same channel, SSID and encryption type and encryption key.

Table 17 - Advanced View - WiFi Settings

Click 'Apply' to save any changes to the settings.

Advanced

This page allows you to modify the advanced wireless settings for your 3G27WV-R. These settings should not be changed unless you are aware of what effect they will have.



3G27WV-R - 3G WiFi Rocket Hub

Switch to basic view

Status	Internet Settings	Wireless Settings	Firewall	SMS	Administration
--------	-------------------	-------------------	----------	-----	----------------

Wireless Settings > Advanced

Advanced Wireless Settings

This page allows you to modify the advanced wireless settings for your Router. These settings should not be changed unless you are aware of what effect they will have.

Advanced Wireless

BG Protection Mode	Auto
Beacon Interval	100 ms (range 20 - 999, default 100)
Data Beacon Rate (DTIM)	1 ms (range 1 - 255, default 1)
Fragment Threshold	2346 (range 256 - 2346, default 2346)
RTS Threshold	2347 (range 1 - 2347, default 2347)
TX Power	100 (range 1 - 100, default 100)
Short Preamble	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Short Slot	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Tx Burst	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Pkt_Aggregate	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Country Code	CA (Canada)
AP Isolation	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
MBSSID AP Isolation	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
BSSID	00:60:64:57:89:A7
Multiple SSID1	<input type="text"/>
Multiple SSID2	<input type="text"/>
Multiple SSID3	<input type="text"/>
Multiple SSID4	<input type="text"/>
Multiple SSID5	<input type="text"/>
Broadcast Network Name (SSID)	<input checked="" type="radio"/> Enable <input type="radio"/> Disable

WiFi Multimedia	
WMM Capable	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
APSD Capable	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
DLS Capable	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
WMM Parameters	<input type="button" value="WMM Configuration"/>
Multicast-to-Unicast Converter	
Multicast-to-Unicast	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Others	
HT TxStream	2 ▾
HT RxStream	2 ▾
HT Physical Mode	
Operating Mode	<input checked="" type="radio"/> Mixed Mode <input type="radio"/> Green Field
Channel BandWidth	<input type="radio"/> 20 <input checked="" type="radio"/> 20/40
Guard Interval	<input type="radio"/> Long <input checked="" type="radio"/> Auto
MCS	Auto ▾
Reverse Direction Grant(RDG)	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Extension Channel	2412MHz Channel 1 ▾
Aggregation MSDU(A-MSDU)	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Auto Block ACK	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Decline BARequest	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
<input type="button" value="Apply"/> <input type="button" value="Cancel"/>	

Figure 11 - Advanced View - Advanced WiFi Settings

OPTION	DEFINITION
Beacon Interval:	Interval of time in which the wireless router broadcasts a beacon which is used to synchronize the wireless network.
Data Beacon Rate (DTIM):	Enter a value between 1 and 255 for the Delivery Traffic Indication Message (DTIM). A DTIM is a countdown informing clients of the next window for listening to broadcast and multicast messages.
Fragment Threshold:	This specifies the maximum size of a packet during the fragmentation of data to be transmitted. If you set this value too low, it will result in bad performance.
RTS Threshold:	When the packet size is smaller than the RTS threshold, the wireless router will not use the RTS/CTS mechanism to send this packet.
AP Isolation:	This feature allows you to isolate clients on your wireless network. To enable communication between the wireless clients connected to your 3G27WV-R, select Disabled. To terminate the communication between the wireless clients, please choose Enabled.
TX Power:	This determines the transmitting power of the antenna.
WMM Capable:	WMM (WiFi MultiMedia) If enabled this feature supports Quality of Service(QoS) for experiencing better audio, video and voice in applications.
WMM Parameters:	Click on the WMM Configuration button to configure the WMM parameters.
Broadcast Network Name (SSID):	Select 'Disabled' to hide the SSID of your 3G27WV-R. If disabled, other people will not be able scan and detect this product's SSID.

Table 18 - Advanced View - Advanced WiFi Settings

Click Apply to save any changes to the settings.

Security

This page allows you to configure the wireless security for your 3G27WV-R. Setting up sufficient wireless security can prevent unauthorized access to your wireless network.

The screenshot shows the configuration interface for the Rogers 3G27WV-R. At the top, there is a navigation bar with tabs for Status, Internet Settings, Wireless Settings, Firewall, and Administration. The 'Wireless Settings' tab is active, and the 'Security' sub-tab is selected. Below the navigation bar, there is a 'Switch to basic view' button. The main content area is titled 'Wireless Security Settings' and contains the following fields:

- Select SSID:** A dropdown menu showing 'ROGERS0000'.
- SSID choice:** A text input field containing 'ROGERS0000'.
- Security Mode:** A dropdown menu showing 'WPA-PSK'.
- WPA:** A section with three radio buttons: 'TKIP' (selected), 'AES', and 'TKIP AES'.
- WPA Algorithms:** Radio buttons for 'TKIP', 'AES', and 'TKIP AES'.
- Pass Phrase:** A text input field containing 'a1b2c3d4e5'.
- Key Renewal Interval:** A text input field containing '3600' with the unit 'seconds (60 - 9999)'.
- Access Policy:** A section with a dropdown menu showing 'Disable'.
- Policy:** A dropdown menu showing 'Disable'.
- Add a MAC address to the allow/block list:** A series of six text input fields for MAC address components.

At the bottom of the form, there are 'Apply' and 'Cancel' buttons.

Figure 12 - Advanced View - WiFi Security Settings

OPTION	DEFINITION
SSID Choice:	Select the SSID (Wireless Network Name) that you wish to configure the security settings of.
Security Mode:	Select the security mode for the wireless network. See below for more information
Access Policy:	This feature allows MAC Address Control, which prevents unauthorized clients from accessing your wireless network. Select whether to allow/block users on the policy list, and add their MAC addresses to the list on the format XX:XX:XX:XX:XX:XX

Table 19 - Advanced View - WiFi Security Settings

Security Mode

You may choose from the following wireless security options:

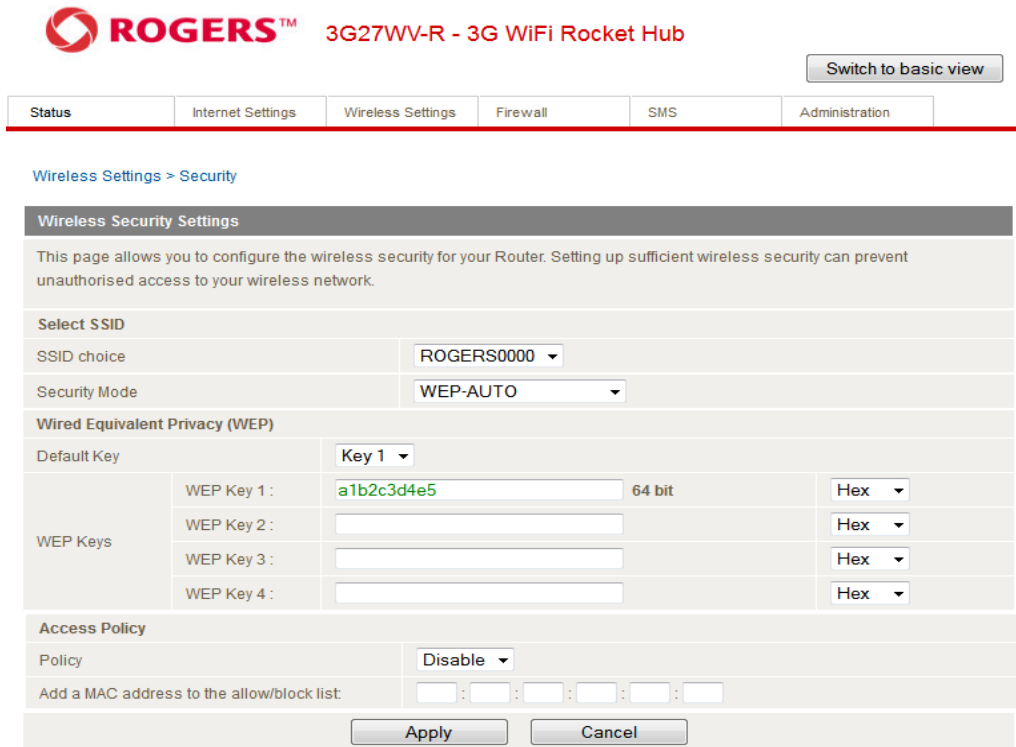
- Disabled
- Open
- Shared
- WEP AUTO
- WPA
- WPA-PSK
- WPA2
- WPA2- PSK
- WPA-PSK-WPA2-PSK
- WPA1-WPA2
- 802.1x.

Refer to the instructions on the following pages to configure the different Wireless Security types.

WEP

WEP (Wired Equivalent Privacy) helps prevent against unwanted wireless users accessing your 3G27WV-R. It offers a lower level of security in comparison to WPA-PSK and WPA2-PSK. Enter the Security Key you would like to use in the WEP Key 1 field.

Click the Apply button to save any changes to the settings.



ROGERS™ 3G27WV-R - 3G WiFi Rocket Hub Switch to basic view

Status | Internet Settings | **Wireless Settings** | Firewall | SMS | Administration

[Wireless Settings > Security](#)

Wireless Security Settings

This page allows you to configure the wireless security for your Router. Setting up sufficient wireless security can prevent unauthorised access to your wireless network.

Select SSID

SSID choice:

Security Mode:

Wired Equivalent Privacy (WEP)

Default Key:

WEP Keys	WEP Key 1 :	64 bit	
	<input type="text" value="a1b2c3d4e5"/>		<input type="text" value="Hex"/>
	<input type="text"/>		<input type="text" value="Hex"/>
	<input type="text"/>		<input type="text" value="Hex"/>
	<input type="text"/>		<input type="text" value="Hex"/>

Access Policy

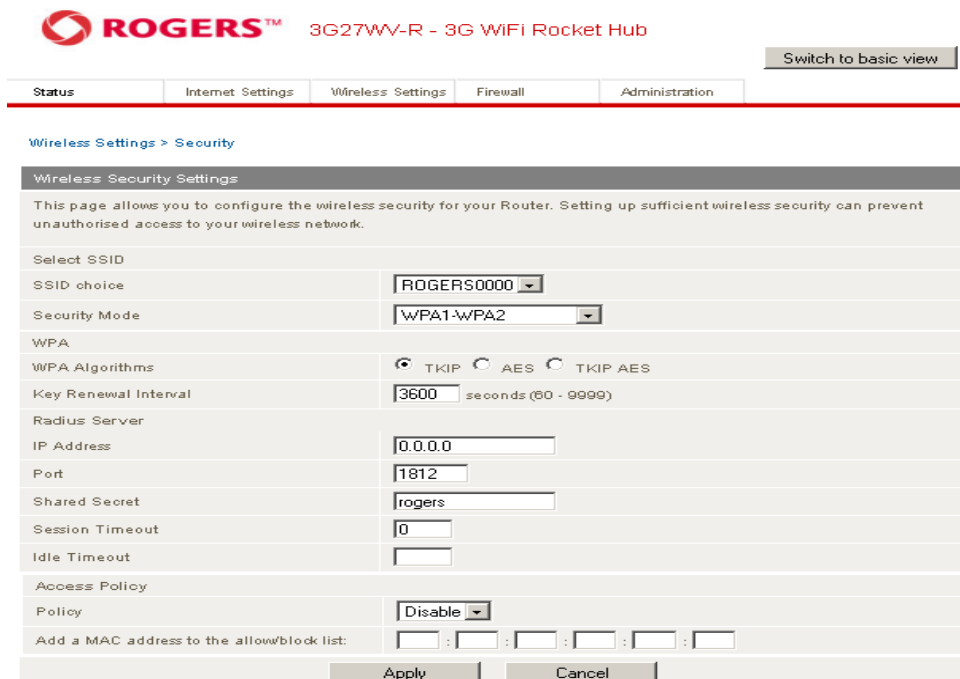
Policy:

Add a MAC address to the allow/block list:

Figure 13 - Advanced View - WiFi Security Settings - WEP

WPA1/WPA2

WPA (WiFi Protected Access) authentication is suitable for enterprise applications. It must be used in conjunction with an authentication server such as RADIUS to provide centralized access control and management. It provides a stronger encryption and authentication solution.



ROGERS™ 3G27WV-R - 3G WiFi Rocket Hub Switch to basic view

Status | Internet Settings | **Wireless Settings** | Firewall | Administration

[Wireless Settings > Security](#)

Wireless Security Settings

This page allows you to configure the wireless security for your Router. Setting up sufficient wireless security can prevent unauthorised access to your wireless network.

Select SSID

SSID choice:

Security Mode:

WPA

WPA Algorithms: TKIP AES TKIP AES

Key Renewal Interval: seconds (80 - 9999)

Radius Server

IP Address:

Port:

Shared Secret:

Session Timeout:

Idle Timeout:

Access Policy

Policy:

Add a MAC address to the allow/block list:

Figure 14 - Advanced View - WiFi Security Settings - WPA1/WPA2

WPA-PSK/WPA2-PSK

A newer type of security is WPA-PSK (TKIP) and WPA2-PSK (AES). This type of security gives a more secure network compared to WEP. Select TKIP as the encryption type for WPA-PSK and AES as the encryption type for WPA2-PSK. After that, please enter the wireless security key in the Passphrase field. The key needs to be more than 8 characters in length but less than 63 characters long and can be any combination of letters and numbers.

 Please note that the configuration for WPA-PSK and WPA2-PSK is identical.

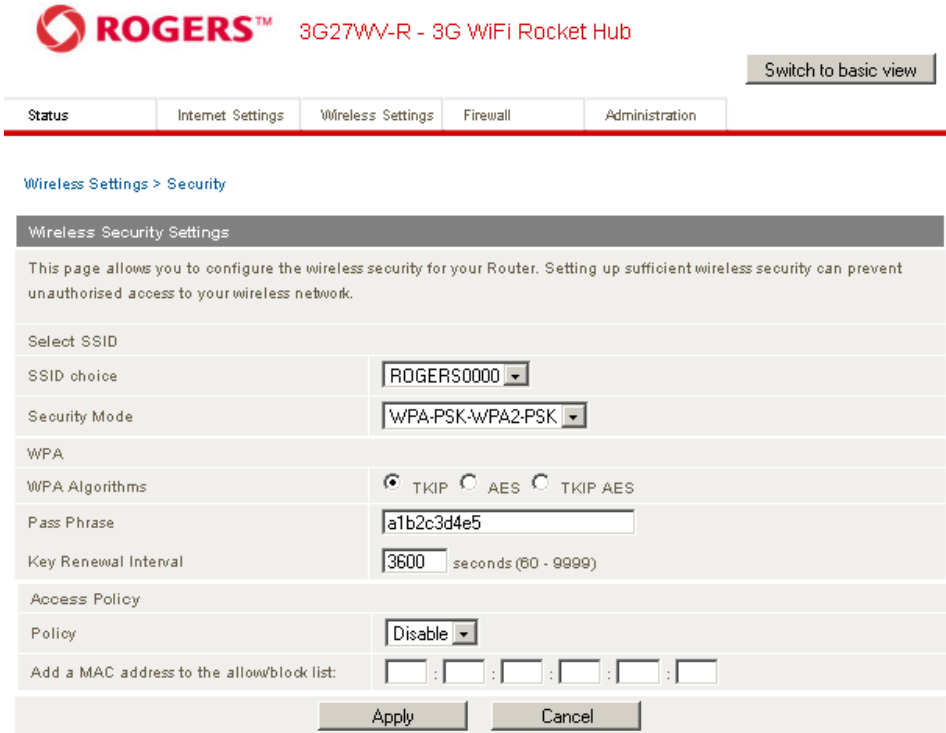
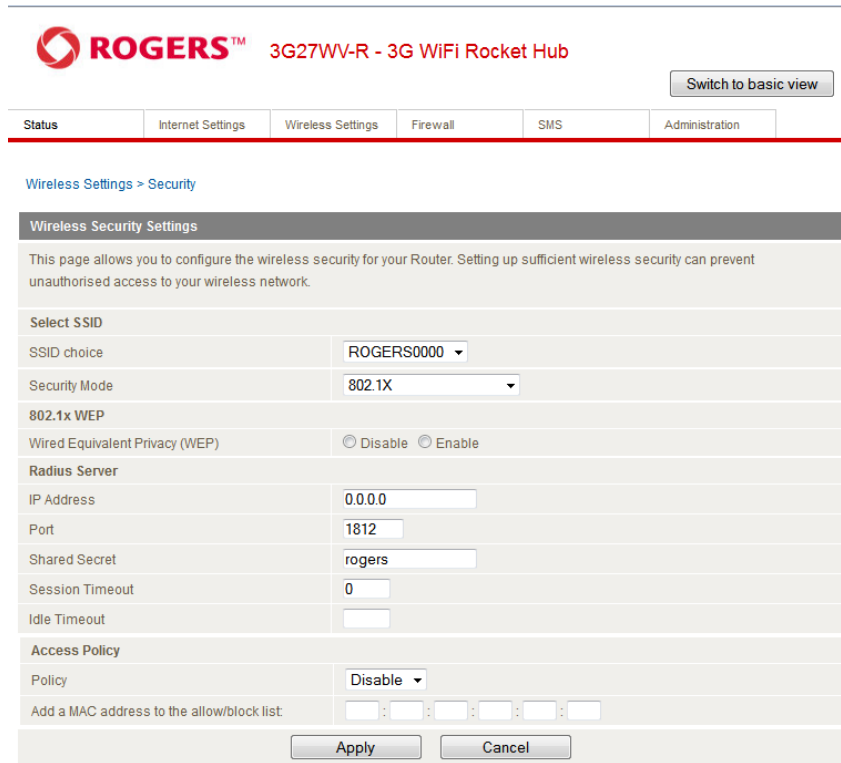


Figure 15 - Advanced View - WiFi Security Settings - WPA-PSK/WPA2-PSK

 Your 3G27WV-R uses WPA2-PSK as the wireless security type by default. Check the Wireless Security Card that was with the router packaging or the device label on the bottom of the 3G27WV-R for your default SSID and Security key to begin connecting your wireless devices to the router using this wireless security protocol.

802.1x

In order to use 802.1X security, you need to have a RADIUS server on your network that will act as the authentication server. Please type in the details for your RADIUS server in the fields required.



ROGERS™ 3G27WV-R - 3G WiFi Rocket Hub Switch to basic view

Status | Internet Settings | Wireless Settings | Firewall | SMS | Administration

[Wireless Settings > Security](#)

Wireless Security Settings

This page allows you to configure the wireless security for your Router. Setting up sufficient wireless security can prevent unauthorised access to your wireless network.

Select SSID

SSID choice:

Security Mode:

802.1x WEP

Wired Equivalent Privacy (WEP): Disable Enable

Radius Server

IP Address:

Port:

Shared Secret:

Session Timeout:

Idle Timeout:

Access Policy

Policy:

Add a MAC address to the allow/block list:

Figure 16 - Advanced View - WiFi Security Settings - 802.1x



Please note: After configuring wireless security, you also need to configure your wireless adapter to use the same security settings before you can connect wirelessly. Not all wireless adapters support WPA-PSK/WPA2-PSK/WPA/WPA2 security;

Please refer to your wireless adapter user guide for more details. It is strongly recommended to set up a simple wireless security such as WPA-PSK (when the wireless client supports WPA-PSK) in order to secure your network.

Most wireless adapters in computers and laptops support at least WEP and WPA wireless security.

WPS

WPS is the simplest way to establish a connection between wireless clients and your 3G27WV-R. This method removes the need to manually select the encryption mode and fill in the passphrase key. You only need to press a button on both wireless client and the 3G27WV-R, and the WPS will do the rest for you. The 3G27WV-R supports two types of WPS:

OPTION	DEFINITION
WPS via Push Button	You have to push a specific button on the wireless client or in your wireless client utility to start the WPS mode. Then switch the 3G27WV-R to WPS mode. Simply push the WPS button of the wireless router, or click the 'Apply' button in the web configuration interface.
WPS via PIN code	You have to know the PIN code of the wireless client and switch it to WPS mode, then input the wireless client PIN to the 3G27WV-R web interface.

Table 20 - Advanced View - Enable or Disable WPS

ROGERS™ 3G27WV-R - 3G WIFI Rocket Hub

Switch to basic view

Status Internet Settings Wireless Settings Firewall SMS Administration

Wireless Settings > WPS

WPS

This page allows you to configure WPS (WiFi Protected Setup) for your Router. WPS provides a simple method to establish a secure wireless connection between wireless clients and your Router. Once WPS is enabled, you will only need to press a button (Push Button Mode), or enter a PIN (PIN Mode) on both the wireless client and your Router to enable a secure connection between the two.

WPS Config

WPS

WPS Summary

Status	Idle
WPS Configured	No
SSID	ROGERS0000
WPS Auth Mode	WPA-PSK
WPS Encrypt Type	TKIP
WPS Default Key Index	2
WPS Key(ASCII)	a1b2c3d4e5
PIN	57368719

WPS Progress

WPS mode PIN PBC

WPS Status

WSC: Idle

Figure 17 - Advanced View - WPS Settings

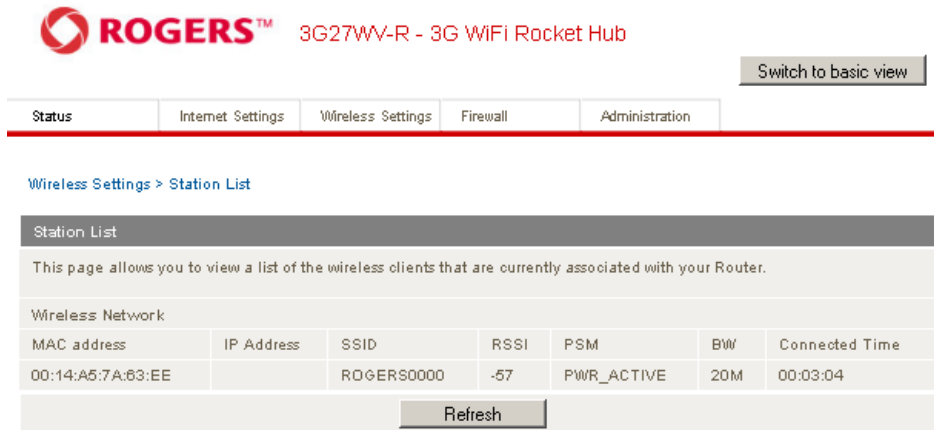
Use the drop box to either enable or disable the WPS function.

OPTION	DEFINITION
Status:	If the wireless security (encryption) function of this wireless router is properly set, you will see a 'Success' message here. Otherwise, you will see 'Idle'.
SSID:	This is the network broadcast name (SSID) of the router.
WPS Auth Mode:	It shows the active authentication mode for the wireless connection.
WPS PIN:	This is the WPS PIN code of the wireless router. You may need this information when connecting to other WPS-enabled wireless devices.
WPS Mode:	Select either PIN mode or PBC (which is the WPA via Push Button).

Table 21 - Advanced View - WPS Settings

Station List

The Station List shows the wireless clients currently associated with your 3G27WW-R. Each wireless client is listed with their own unique MAC address.



The screenshot shows the Rogers 3G27WW-R router's web interface. At the top, there is a navigation bar with tabs for Status, Internet Settings, Wireless Settings, Firewall, and Administration. The 'Wireless Settings' tab is selected, and the 'Station List' sub-page is active. Below the navigation bar, there is a 'Switch to basic view' button. The main content area is titled 'Station List' and contains a table with the following data:

Station List						
This page allows you to view a list of the wireless clients that are currently associated with your Router.						
Wireless Network						
MAC address	IP Address	SSID	RSSI	PSM	BW	Connected Time
00:14:A5:7A:63:EE		ROGERS0000	-57	PWR_ACTIVE	20M	00:03:04

Below the table, there is a 'Refresh' button.

Figure 18 - Advanced View - WiFi Station List

Firewall

Mac/IP/Port Filtering

This page allows you to setup MAC, IP and port filtering rules to protect your network from malicious activity. The filtering rules can be used to either allow or block certain users and/or ports from accessing the Internet.

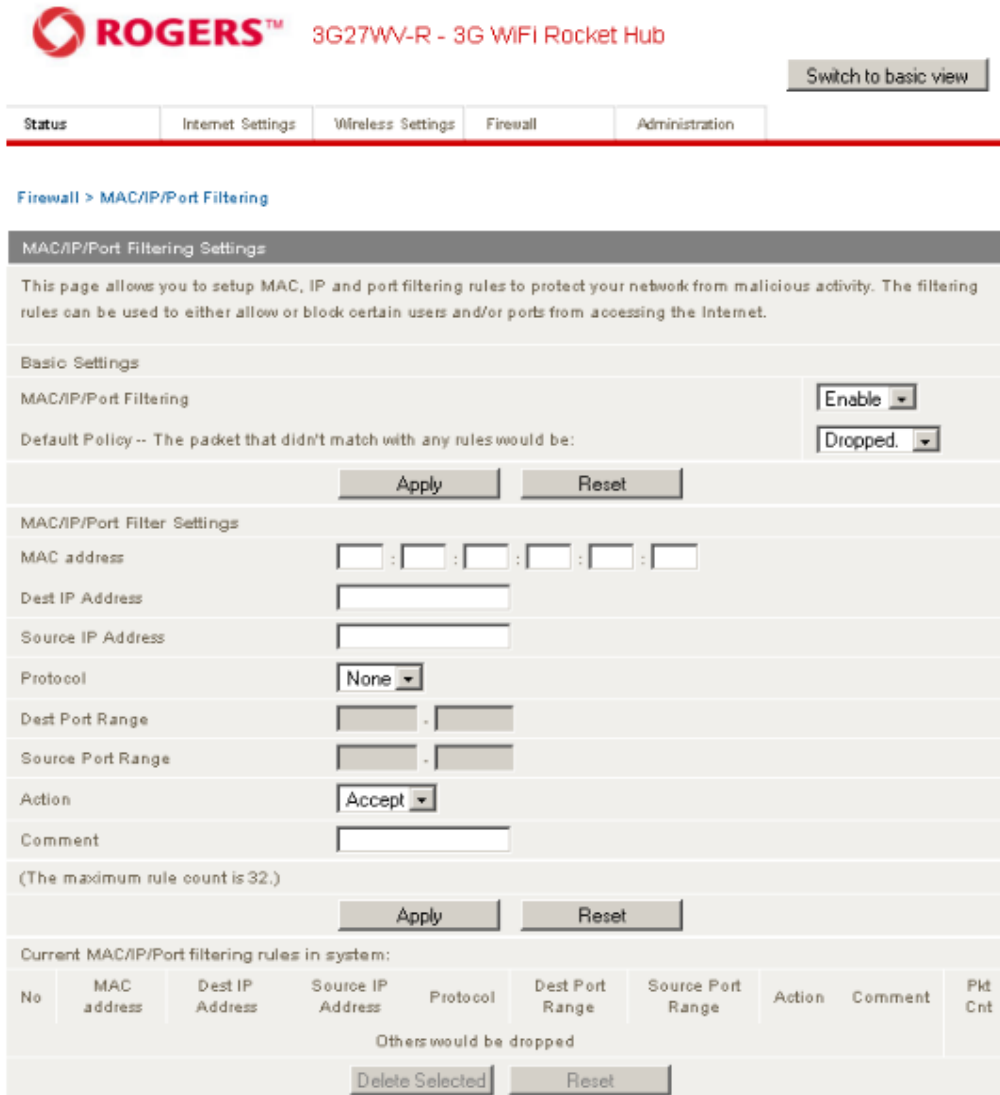


Figure 19 - Advanced View - Port Filtering Settings

Basic Settings

MAC/IP/Port Filtering: Select Enable to enable the MAC/IP/Port Filtering feature on the 3G27WV-R.

Default Policy: Select whether packets that do not match any of the configured rules are accepted or dropped by the router.

MAC/IP/Port Filtering Settings

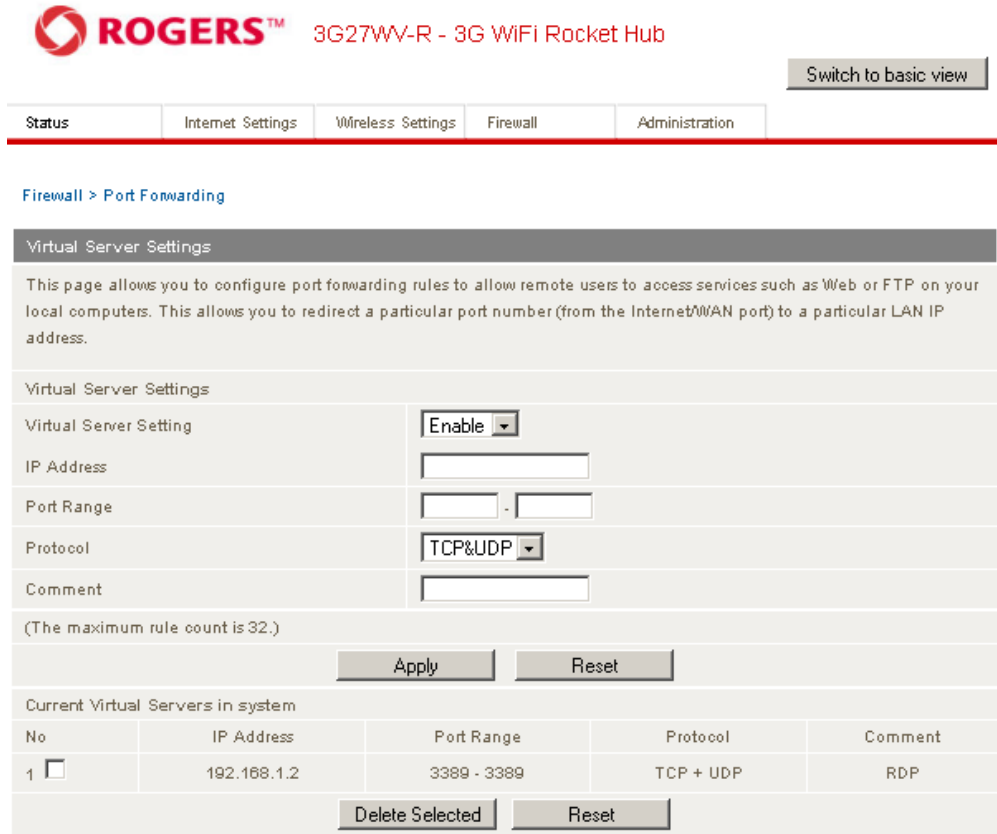
OPTION	DEFINITION
MAC Address:	The MAC address of a local computer or network device attempting to access the 3G27WV-R's network.
Dest IP Address:	The destination IP Address for the filter rule.
Source IP Address:	The source IP Address for the filter rule.
Protocol:	Select the port number's protocol type (TCP, UDP or both). If you are unsure, use the default "TCP&UDP" setting.
Dest Port Range:	The destination Port Range of the filter rule. If there is only one port involved enter the same port number in both text fields.
Source Port Range:	The source Port Range of the filter rule. If there is only one port involved enter the same port number in both text fields.
Action:	Either accept or drop the packet that matches all of the rule specifications.
Comment:	Add a comment to identify the purpose of the rule (optional).

Table 22 - Advanced View - Port Filtering Settings

Click the 'Apply' button to save any changes to the settings.

Port Forwarding

This page allows you to configure port forwarding rules to allow remote users to access services such as Web (HTTP) or FTP on your local computers. This feature allows you to redirect a particular port number (from the Internet/WAN port) to a particular LAN IP address.



ROGERS™ 3G27WW-R - 3G WiFi Rocket Hub Switch to basic view

Status | Internet Settings | Wireless Settings | Firewall | Administration

Firewall > Port Forwarding

Virtual Server Settings

This page allows you to configure port forwarding rules to allow remote users to access services such as Web or FTP on your local computers. This allows you to redirect a particular port number (from the Internet/WAN port) to a particular LAN IP address.

Virtual Server Settings

Virtual Server Setting:

IP Address:

Port Range: -

Protocol:

Comment:

(The maximum rule count is 32.)

Current Virtual Servers in system

No	IP Address	Port Range	Protocol	Comment
1 <input type="checkbox"/>	192.168.1.2	3389 - 3389	TCP + UDP	RDP

Figure 20 - Advanced View - Port Forwarding Settings

OPTION	DEFINITION
Virtual Server Settings:	Select Enable or Disable to turn port forwarding on or off.
IP Address:	The local LAN IP address that the public port number packet will be sent to. (e.g. 192.168.1.x)
Port Range:	The public port numbers to be sent to the specific LAN IP address.
Protocol:	Select the port number protocol type (TCP, UDP or both). If you are unsure, use the default "TCP&UDP" setting.
Comment:	Add a comment to identify the purpose of the rule (optional)

Table 23 - Advanced View - Port Forwarding Settings

Click 'Apply' to save any changes to the settings.

DMZ

If you have a client PC that cannot run an Internet application (e.g. Games) properly from behind the NAT firewall, then you can open up the firewall restrictions to allow unrestricted two-way Internet access by defining a DMZ Host.

The DMZ function allows you to re-direct all packets going to your WAN port IP address, to a particular IP address in your LAN. The difference between the virtual server and the DMZ function is that the virtual server re-directs a particular service/Internet application (e.g. FTP, websites) to a particular LAN client/server, whereas DMZ re-directs all packets (regardless of services) going to your WAN IP address to a particular LAN client/server.

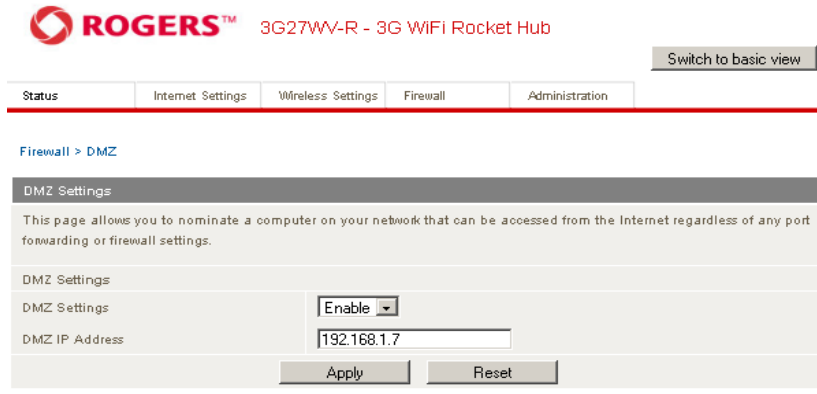


Figure 21 - Advanced View - DMZ Settings

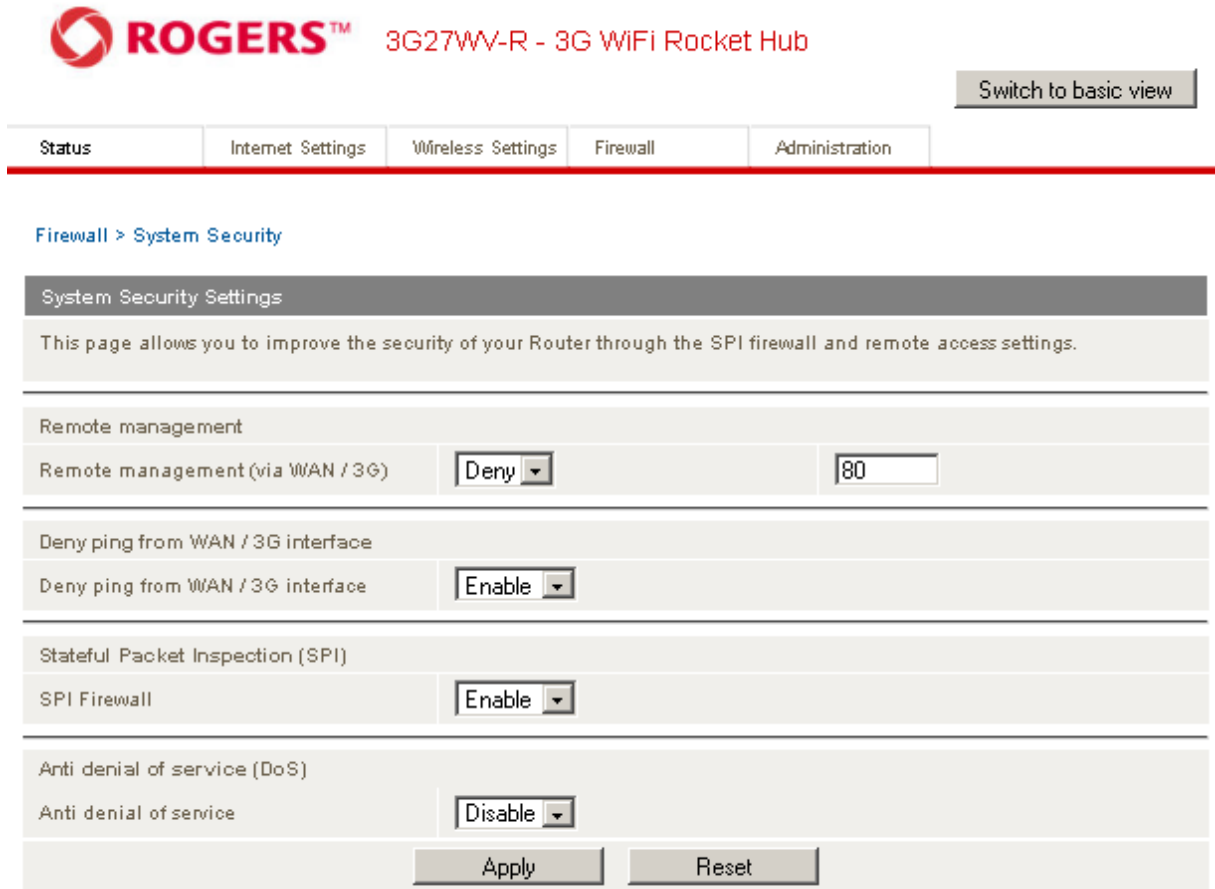
OPTION	DEFINITION
DMZ Settings:	Enable/disable DMZ.
DMZ IP Address:	Enter the local IP address of a particular host in your LAN Network that will receive all the packets originally going to the WAN port/Public IP address of your 3G27WV-R.

Table 24 - Advanced View - DMZ Settings

Click 'Apply' to save the above configurations.

System Security

This page allows you to improve the security of your 3G27WV-R through the SPI (Stateful Packet Inspection) firewall and remote access settings.



ROGERS™ 3G27WV-R - 3G WIFI Rocket Hub Switch to basic view

Status | Internet Settings | Wireless Settings | **Firewall** | Administration

Firewall > System Security

System Security Settings
This page allows you to improve the security of your Router through the SPI firewall and remote access settings.

Remote management
Remote management (via WAN / 3G)

Deny ping from WAN / 3G interface
Deny ping from WAN / 3G interface

Stateful Packet Inspection (SPI)
SPI Firewall

Anti denial of service (DoS)
Anti denial of service

Figure 22 - Advanced View - System Security Settings

OPTION	DEFINITION
Remote Management (via WAN / MBB):	Enable/Disable remote management on the WAN interface and specify the port number for remote access.
Deny ping from WAN / MBB interface:	Select Enable to deny ICMP packets (ping packets) received on the WAN interface. Otherwise, select "Disable" to allow ICMP packets to be received on the WAN interface.
SPI Firewall	Enable/Disable the SPI (Stateful Packet Inspection) firewall to improve the security of your 3G27WV-R.
Anti denial of service (DoS)	This feature can help prevent the flooding of the network with a denial of service attack from behind the firewall.

Table 25 - Advanced View - System Security Settings

Click 'Apply' to save any changes to the settings.

Content Filtering

This page allows you to configure content, URL and host filters to restrict improper content access from LAN computers

ROGERS™ 3G27WV-R - 3G WiFi Rocket Hub

[Switch to basic view](#)

Status | Internet Settings | Wireless Settings | **Firewall** | SMS | Administration

[Firewall > Content Filtering](#)

Content Filter Settings

This page allows you to configure content, URL and host filters to restrict improper content access from LAN computers.

Apply filters on this page to the following connection::

Both 3G and Ethernet WAN Connections ▾

[Apply](#)

Web Content Filter

Filters: Proxy Java ActiveX

[Apply](#) [Reset](#)

Web URL Filter Settings

Current Web URL Filters:

No	URL

[Delete](#) [Reset](#)

Add a URL filter:

[Add](#) [Reset](#)

Web Host Filter Settings

Current Website Host Filters:

No	Host(Keyword)

[Delete](#) [Reset](#)

Add a Host(keyword) Filter:

Keyword _____

[Add](#) [Reset](#)

Figure 23 – Advanced View – Content Filtering Settings

OPTION	DEFINITION
Content Filter Settings	Select which connection type the content filtering applies to. Options include 3G (4G) connection only, Ethernet WAN connection only or both 3G (4G) and Ethernet WAN connections.
Web Content Filter:	Tick the boxes to enable Proxy, Java or ActiveX content filtering. Click "Apply" to save the settings.
URL Filter:	Block access to a website by entering its full URL address and clicking Add. Rules can be deleted at any time via this page.
Host Filter:	Block access to certain websites by entering a keyword. Rules can be deleted at any time via this page.

Table 26 - Advanced View - Content Filtering Settings

Administration

Startup Wizard

If you wish to re-run the initial setup wizard, you can do so by moving the mouse over the Administration menu, and clicking on "Start Wizard" option.

Management

This page allows you to configure administrator system settings including the system language, administrator username and password, NTP settings, and DDNS settings.

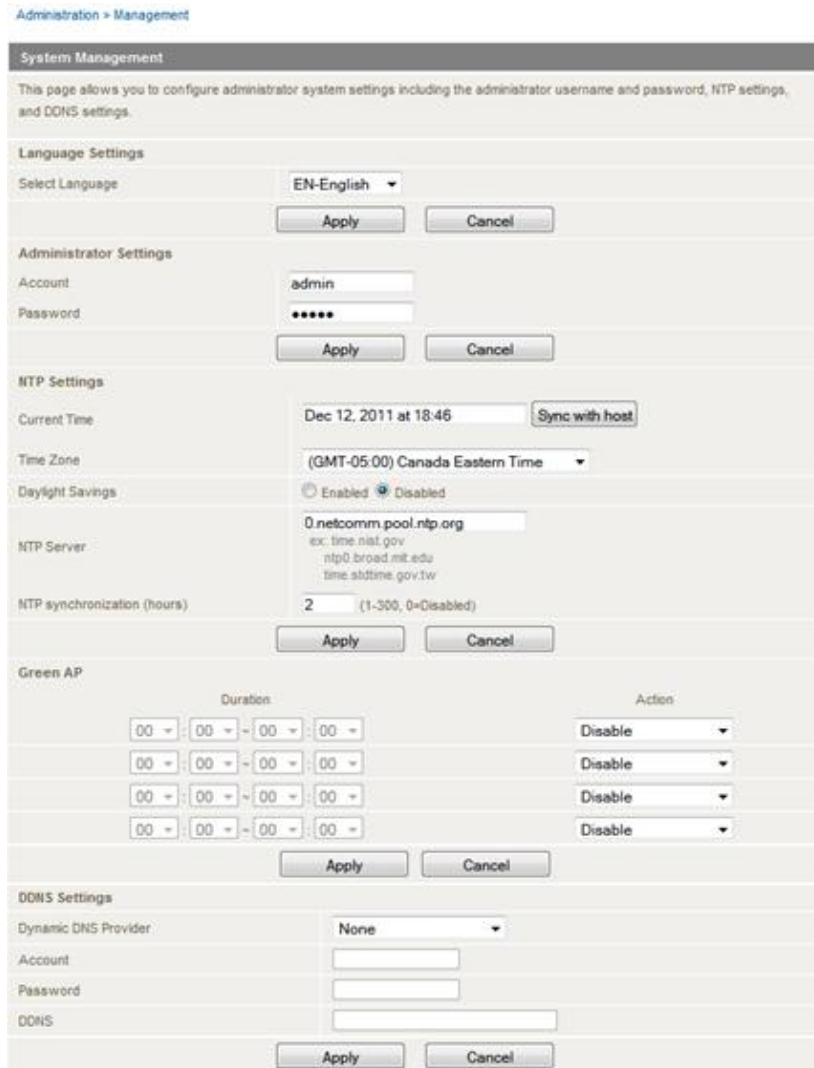


Figure 24 - Advanced View - Management Settings

OPTION	DEFINITION
Language Settings	Select which language you would like the management console to utilise.
Administrator Settings (account/password):	Configure a new administrator username and/or password.
NTP Settings:	The NTP (Network Time Protocol) settings allow your router to synchronize its internal clock with the global Internet Time. These settings will affect functions such as System Log entries and Firewall settings.
Green AP:	To provide optional reduction in power usage, you can assign a particular time to reduce the WiFi power output. Please note that a reduction in the WiFi power output can potentially reduce coverage, data throughput speeds, and stability. If you are having problems with your WiFi coverage, stability, or throughput speed, please disable the Green AP functionality.
DDNS Settings:	DDNS (Dynamic Domain Name Service) allows you to map a static domain name to a dynamic IP address. To use this feature, you must sign up for an account from a DDNS service provider. This router supports dyndns.org, freedns.afraid.org, www.zoneedit.com, www.no-ip.com and allows for custom DDNS service providers accounts to be configured. Enter the account details provided by your Dynamic DNS service provider and click Apply.

Table 27 - Advanced View - Management Settings

Click the 'Apply' button to save any changes to the settings.

System Monitor

[Switch to basic view](#)

Status	Internet Settings	Wireless Settings	Firewall	SMS	Administration
--------	-------------------	-------------------	----------	-----	----------------

Administration > System Monitor

Periodic PING Settings

The periodic PING function will regularly check the internet connection. If the failure count is exceeded, the device will reset the 3G connection. You also can choose Periodic Reboot to reboot the router from this page.

Destination Address	<input type="text" value="www.rogers.com"/>
Second Address	<input type="text" value="www.google.com"/>
Periodic PING Timer	<input type="text" value="0"/> (0=disable, 300-65535) secs
Periodic PING Accelerated Timer	<input type="text" value="0"/> (0=disable, 60-65535) secs
Fail Count	<input type="text" value="3"/> (0=disable, 1-65535) times

Periodic Reboot

Force reboot every	<input type="text" value="5"/> (5-65535) mins
--------------------	---

Figure 25 - Advanced View - System Monitor Settings

The Periodic Ping Reset Monitor configures the 3G27WV-R to transmit controlled ping packets to user specified IP addresses. If the router does not receive a response to the pings the router will reboot. The purpose of this feature is to ensure the recovery of the device if the internet connection disconnects and does not reconnect for some reason.

This feature works as follows:-

- Every “Periodic Ping Timer” value in seconds, the 3G27WV-R sends 3 consecutive pings to the “Destination Address”.
- If all 3 pings fail the 3G27WV-R sends 3 consecutive pings to the “Second Address”.
- The 3G27WV-R then sends 3 consecutive pings to the “Destination Address” and 3 consecutive pings to the “Second Address” every “Periodic Ping Accelerated Timer” seconds.
- If all accelerated pings in step D fail, the 3G27WV-R reboots after waiting the amount of time entered in the “Fail Count” times.
- If any of the pings succeed, the 3G27WV-R starts the periodic ping process again and does not reboot.



Please note: The “Periodic Ping Timer” should never be set to a value less than 60 seconds; this is to allow the 3G27WV-R time to reconnect to the cellular network following a reboot.

To disable the Periodic Ping Reset Monitor simply set to the “Fail Count” option to “0”.

The 3G27WV-R can be configured to automatically reboot on a periodic interval specified in minutes. While this is not necessary, it does ensure that in the case of remote installations the router will reboot the 3G27WV-R if some anomaly occurs.

The default value is 0 which disables the Periodic Reset Timer feature.

The maximum value is 65535 minutes.

Update Firmware

This page enables you to update the firmware which controls the 3G27WV-R should an update become available.

To update the 3G27WV-R firmware, perform the following steps:

1. Download the firmware update file preferably using an Ethernet cable connection and save it to your computer.
2. Click “Browse” and navigate to where you saved the file you downloaded to your computer.
3. Select this file and click “Open”.
4. Click the “Apply” button and follow the on-screen prompts.

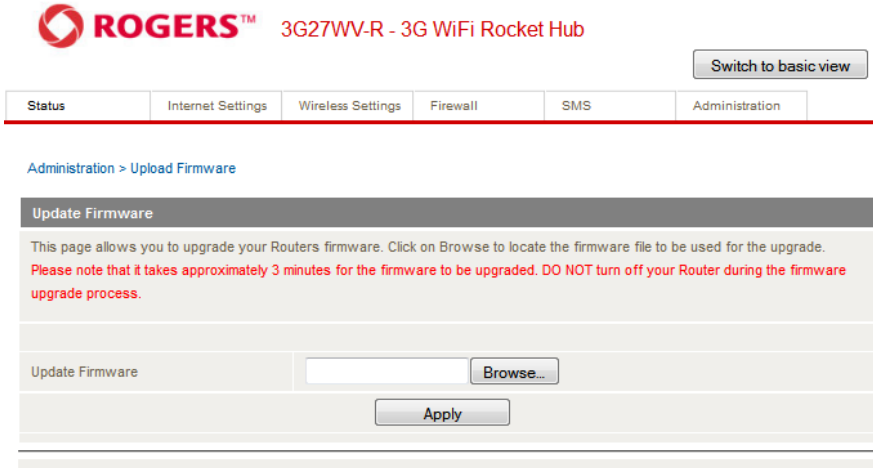


Figure 26 - Advanced View - Upload Firmware

Settings Manager

This page allows you to import/export the system settings, reset your 3G27WV-R to factory defaults, or reboot your 3G27WV-R.

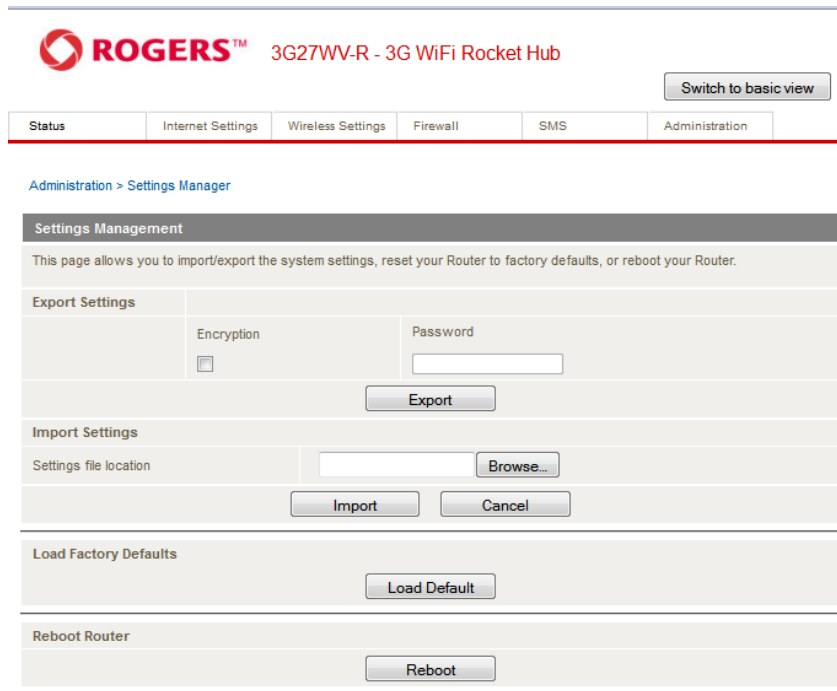


Figure 27 - Advanced View - Settings Manager Settings

OPTION	DEFINITION
Export Settings	Select to export the current configuration of the 3G27WV-R. You can also encrypt the export settings file by selecting ‘Encryption’ and then entering a password.
Import Settings	Select the file to import the configuration from to update the router configuration settings.
Load Factory Defaults	Reset the 3G27WV-R to factory default settings.
Reboot Router	Reboot the 3G27WV-R.

Table 28 - Advanced View - Settings Manager Settings

Statistics

This page allows you to view the LAN, WAN and wireless statistics of your 3G27WV-R.

ROGERS™ 3G27WV-R - 3G WiFi Rocket Hub

[Switch to basic view](#)

[Status](#) | [Internet Settings](#) | [Wireless Settings](#) | [Firewall](#) | [SMS](#) | [Administration](#)

[Administration > Statistics](#)

Station Statistics

This page allows you to view the LAN, WAN and wireless statistics of your Router.

Memory

Memory total:	29228 kB
Memory left:	6288 kB

WAN/LAN

WAN Rx packets:	0
WAN Rx bytes:	0
WAN Tx packets:	238
WAN Tx bytes:	134728
LAN Rx packets:	12769
LAN Rx bytes:	1395982
LAN Tx packets:	13887
LAN Tx bytes:	6555125

All interfaces

Name	lo
Rx Packet	3167
Rx Byte	103628
Tx Packet	3167
Tx Byte	103628
Name	gre0
Rx Packet	0
Rx Byte	0
Tx Packet	0
Tx Byte	0
Name	sit0
Rx Packet	0
Rx Byte	0
Tx Packet	0
Tx Byte	0
Name	hso0
Rx Packet	8682

Figure 28 - Advanced View - System Statistics

System Log

All important system events are logged. You can use this page to check the log of your 3G27WV-R for troubleshooting and diagnostic purposes.

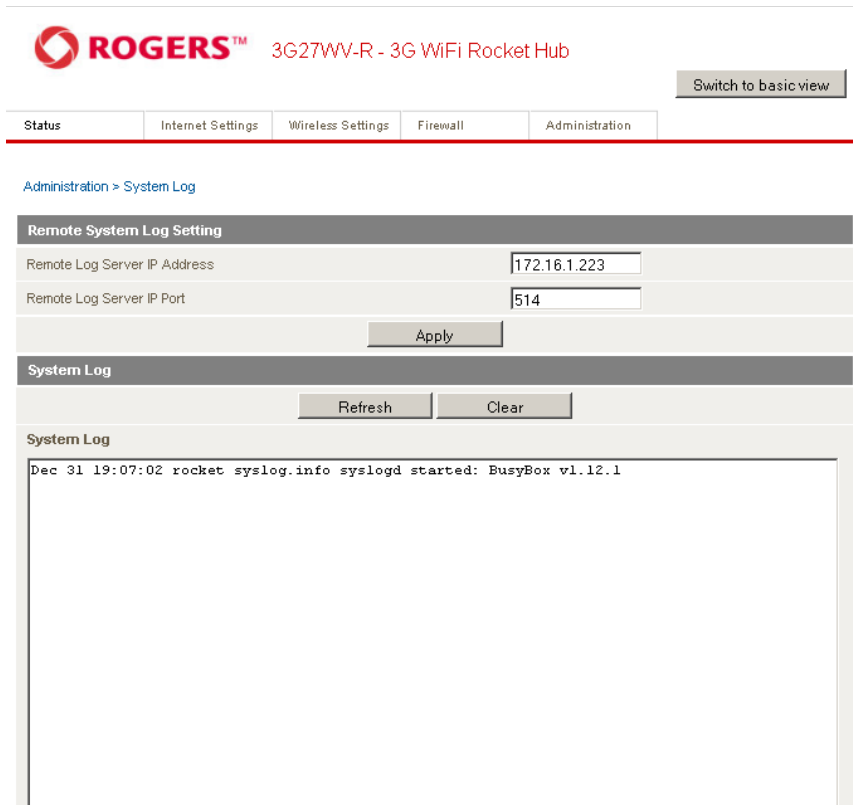


Figure 29 - Advanced View - System Log Settings

OPTION	DEFINITION
Remote Log Server IP Address	The system log entries can be sent to a remote system log server. Enter the IP address of the system log server you wish to use.
Remote Log Server IP Port	The (UDP) port used by the syslog server to receive the system log entries. Port 514 UDP is commonly used by most system log software programs.
System Log	The current contents of the 3G27WV-R system log. Each entry is time stamped with the current date and time set on the router.

Additional Product Information

Using the 3G27WV-R to make and receive telephone calls

The 3G27WV-R provides circuit switched voice services via two telephony line interfaces offering the ability to make and receive telephone calls via a regular analogue telephone using the MBB mobile network.



Please note: Please refer to your mobile service provider for activation of your voice service and information about the call charges that apply.

It's important to note that the 3G27WV-R has two separate line interfaces that share a single outbound/inbound telephone line. This means that handset(s) connected via one port will not be able to use the line at the same time as handsets connected via the other port.

If a call is already in progress via the first port, the user on the handset(s) connected to the second port will receive a busy signal. Incoming calls will ring and can be answered on either port, however once a call is answered from one port, handset(s) on the second port will receive a busy signal.

Handset requirements

The 3G27WV-R allows you to make telephone calls over the MBB network using a standard analogue telephone via the built in RJ-11 Phone ports. Please refer to the documentation provided by the manufacturer of your analogue telephone for assistance with the operation of your telephone handset.

Maximum REN Loading

Please note that each of the line interfaces on the 3G27WV-R is capable of supporting multiple analogue telephones connected via splitters. The ringer equivalence number (REN) for each line is 5. Therefore, a maximum of 5 handsets each with a REN number of 1 can be connected to each line port.

Before you start make any phone call, make sure you checked the following:

1. You have an activated MBB SIM card inserted prior to powering on the 3G27WV-R.
2. Your 3G27WV-R is powered on and in running condition.
3. A working analogue telephone connected into either the Line 1 or Line 2 port.
4. You hear the dial tone and the Line LED on the front of your 3G27WV-R should light up after lifting the handset.

How to place a call

To make a call, simply lift the handset and dial the number following the instructions provided by your telephone handset manufacturer.

How to receive a call

When an incoming call is received, both Line 1 and Line 2 lights will start flashing and any phones connected to the 3G27WV-R will ring. Answer the telephone following the instructions provided by your telephone handset manufacturer to conduct the call.



Please note: If the call is answered from a telephone connected to Line 1, telephones connected to Line 2 will receive an engaged tone for the duration of the call.

If there is no phone connected to the 3G27WV-R, all incoming calls will be transferred to Voicemail (if enabled on the device).

Answering an incoming call when on a call

Call waiting enables a 2nd incoming call to be received while you are on a call. To answer a call waiting call, perform a hook-flash (briefly depressing the hook button). The incoming call should then be answered. Upon hanging up or performing another hook-flash, you will be returned to the original telephone call.

Accessing voicemail

To access your voicemail, please dial *98 and follow the voice prompts.

Call feature codes

Quick Reference Table

The 3G27WV-R supports a number of call feature codes for supplementary services.

FEATURE	ACTIVATION	DEACTIVATION	STATUS
Caller ID	#31# (to block an individual call)	*31# (to unblock an individual call)	N/A
Call Waiting	*43#	#43#	*#43#
Call Forwarding Unconditional	*21* <Directory Number>#	#21#	*#21#
Call Forwarding No Answer	*61* <Directory Number>#	#61#	*#61#
Call Forwarding Busy	*67* <Directory Number>#	#67#	*#67#
Call Forwarding Unreachable	*62* <Directory Number>#	#62#	*#62#

Table 29 - Additional Product Information - Call Feature Codes Quick Reference

Caller ID

Caller ID transmits a caller's number to the called party's telephone equipment when the call is being set up but before the call is answered. Where available, caller ID can also provide a name associated with the calling telephone number.

- To force Caller ID to be blocked for an outbound call, dial #31# followed by the number you wish to dial.
- To force Caller ID to be unblocked for an outbound call, dial *31# and then dial the number.

Call Waiting

Call waiting allows for indication and answering of an incoming telephone whilst an existing call is underway.

- To disable call waiting, dial #43#, and hang up after you hear 2 high pitch beeps.
- To enable call waiting, dial *43#, and hang up after you hear 2 low pitch beeps.
- To check the status of Call Waiting, dial *#43# or view the advanced status page of the management console.
 - Call waiting is disabled if you hear 2 high pitch beeps.
 - Call waiting is enabled if you hear 2 low pitch beeps.

Call forwarding (or call diverting), is a feature that allows an incoming call to be redirected to another number depending on the circumstances at the time of receiving the call.



Please note: The Call Waiting feature will automatically turn off if you enable Call forwarding. Call Waiting will need to be enabled again after Call Forwarding is disabled.

Call Forwarding Unconditional

Call forwarding Unconditional will divert all incoming calls to a phone number that you desire.

- To enable Call Forwarding Unconditional, dial *21* <Directory Number># (Where directory number is the number you wish to forward calls to)
- Hang up after you hear 2 low pitch beeps.
- To disable Call Forwarding Unconditional, dial #21#
- Hang up after you hear 2 high pitch beeps.
- To check the status of Call Forwarding Unconditional, dial *#21# or view the advanced status page of the management console.
 - Call Forwarding Unconditional is disabled if you hear 2 high pitch beeps.
 - Call Forwarding Unconditional is enabled if you hear 2 low pitch beeps.

Call Forwarding No Answer

Call forwarding No Answer will divert all incoming calls to a phone number that you desire only if the incoming call is not answered.

- To enable Call Forwarding No Answer, dial *61* <Directory Number># (Where directory number is the number you wish to forward calls to)
- Hang up after you hear 2 low pitch beeps.
- To disable Call Forwarding No Answer, dial #61#
- Hang up after you hear 2 high pitch beeps.
- To check the status of Call Forwarding No Answer, dial *#61# or view the advanced status page of the management console.
 - Call Forwarding No Answer is disabled if you hear 2 high pitch beeps.
 - Call Forwarding No Answer is enabled if you hear 2 low pitch beeps.

Call Forwarding Busy

Call forwarding busy will divert all incoming calls to a phone number that you desire only if your telephone is busy on another call.

- To enable Call Forwarding Busy, dial *67*<Directory Number># (Where the directory number is the number you wish to forward calls to).
- Hang up after you hear 2 low pitch beeps.
- To disable Call Forwarding Busy, dial #67#
- Hang up after you hear 2 high pitch beeps.
- To check the status of Call Forwarding Busy, dial *#67# or view the advanced status page of the management console.
 - Call Forwarding Busy is disabled if you hear 2 high pitch beeps.
 - Call Forwarding Busy is enabled if you hear 2 low pitch beeps.

Call Forwarding Not Reachable

Call forwarding busy will divert all incoming calls to a phone number that you desire only if your telephone is unreachable by the network.

- To enable Call Forwarding Not Reachable dial *62*<Directory Number># (Where directory number is the number you wish to forward calls to)
- Hang up after you hear 2 low pitch beeps.
- To disable Call Forwarding Not Reachable, dial #62#, Hang up after you hear 2 high pitch beeps.
- To check the status of Call Forwarding Not Reachable, dial *#62# or view the advanced status page of the management console.
 - Call Forwarding No Answer is disabled if you hear 2 high pitch beeps.
 - Call Forwarding No Answer is enabled if you hear 2 low pitch beeps.

Conference Call

A conference call can be achieved by performing a hook-flash and then by dialling the third party. Wait for the third party to answer your call and then perform another hook-flash to conference all the parties together.



Please note: In order to activate a conference call, you will need to have originated both calls.

Troubleshooting

What do I do if I have no dial tone?

Please follow the procedure listed below:

1. Check to make sure the phone is plugged into your 3G27WV-R on either Line 1 port or Line 2 port.
2. Check to make sure you are using the correct cable (Cat-3 UTP Telephone Cable with RJ-11 plugs).
3. Check to make sure the line light on the front panel of the 3G27WV-R turns solid blue if you lift the handset.
4. Check to make sure the blue MBB indication light on the front of the 3G27WV-R is blinking.
5. Check to make sure your MBB SIM card is activated and inserted into your 3G27WV-R properly.
6. Check and see if you get the dial tone after rebooting your 3G27WV-R.

I have noise interference during telephone calls. How can I fix this?

To resolve this issue, try the following:

- Verify that the RJ-11 cable is securely connected and not damaged.
- Try to remove any telephone splitters from the connection between your phone and the 3G27WV-R.
- Try rebooting your 3G27WV-R.

Technical Data

The following table lists the hardware specifications of the 3G27WV-R.

MODEL	3G27WV-R
CPU	Ralink RT3052F
Modem Chipset/Module	MC8704
UMTS bands	Quad-band UMTS/HSPA+/HSUPA/HSDPA (850/900/1900/2100MHz)
GSM bands	Quad-band GSM/GPRS
Maximum Data Throughput / MBB Radio interface	Up to 21 Mbps downlink (HSDPA Cat 14) Up to 5.76 Mbps uplink (HSUPA Cat 6)
Connectivity	MBB WWAN x 1, 10/100 Ethernet LAN x 1, 10/100 Ethernet WAN x 1, WLAN, RJ-11 x 2
Antenna connector	SMA (female connector)
LED Indicators	Power, 4G, WiFi, Internet/WAN, LAN, Voice
Operating Temperature	0 ~ 50 degrees Celsius (operating temperature)
Power input	12VDC – 1.5A
Dimensions & Weight	133 mm (L) x 137 mm (H) x 34 mm (W) 250 grams
Regulatory Compliancy	PTCRB FCC IC ROHS UL

Table 30 - Technical Specifications for the 3G27WV-R

Electrical Specifications

A suitable power supply is available on request or via direct purchase from the NetComm Online shop. It is recommended that the 3G27WV-R be powered using the 12VDC/1.5A power supply which is included with the device.

Environmental Specifications / Tolerances

The 3G27WV-R is able to operate over a wide variety of temperatures from 0°C ~ 50°C (ambient).

FAQ

1. Does the 3G27WV-R require any configuration out of the box?

No, the 3G27WV-R is a plug and play device. Plug the device into an electrical outlet and once the status indicator lights are on, plug in your analogue phone and LAN cable for voice and data connectivity. For WiFi connectivity the default SSID (Service Set Identifier) and network key (password) are located on the bottom of the device. If you would like to customize your settings you can enter 192.168.1.1 into your Web browser to access the Management Console and device settings.

2. I cannot seem to access the web page interface.

The default IP address of the unit is 192.168.1.1, so first try to open a web browser to this address. Also check that your laptop/ PC is using the same subnet as the router's Ethernet port. i.e An IP address has been assigned to your computer in the range of 192.168.1.x where x can equal 2 – 254.

3. The router was connected but I cannot get back online.

You may need to enable the periodic ping timer using the System Monitor Link from the Management Console. This ensures that if the connection drops (i.e outage on the network) the router will reboot after so many failed pings and then force a re-connect. Setting the timer to around 15 minutes should be sufficient.



Please note: The traffic generated by the periodic ping feature is counted as chargeable usage, please keep this in mind when selecting how often to ping.

4. The router is rebooting frequently.

Check the System Monitor link in the Administration menu on the management console and see if the Periodic Reset timeout is set to something other than 0. If it is set to 1 this means the unit will reboot every minute regardless of what happens. Reset it to 0 if you don't want to use this feature or enter a higher value if you don't want the router to reboot so often.

5. The router has a connection but cannot access the internet

Check that DNS Proxy is enabled by clicking on the LAN link on the configuration interface. Make sure that the DHCP DNS server address 1 IP address is set to the same address as that of the Ethernet port.

6. I cannot seem to get a Mobile broadband WAN connection

Click on the MBB Internet Settings link on the webpage interface and check that the correct APN settings are entered.

- Also check that the username and password credentials are correct if the APN in use requires these details.
- Make sure that Auto Connect is enabled on the PPP Profile Connect section on the Data Connection page.
- Check you have suitable Mobile broadband signal strength and that your SIM is active and does not require a PIN code to be entered.

7. The SIM status indicates that the SIM is “not installed or reboot required” on the home page.

If a SIM is installed correctly this may indicate that the SIM has been removed or inserted whilst the unit is powered up. In this case you must reboot the unit. The Reset button on the home page will reboot the router.

8. Can I make voice calls from the 3G27WV-R?

Yes. By simply connecting a regular landline (Analogue) telephone to the port labelled Line 1 using the RJ-11 Cable provided. To activate the phone jacks in your home or office connect an RJ-11 Cable from the port labelled “Line 2” to any wall jack. When you lift the receiver you will hear a dial tone and can place your call.

9. How do I see I have a voicemail message?

Voicemail is a feature of the Rogers network and your Rogers service, not an embedded feature in the device. If you have voicemail messages waiting you will hear an intermittent dial tone on your phone, and if your phone has a message waiting indicator light, it will be lit up.

10. Is the 3G27WV-R secure; can other people access my wireless network?

The 3G27WV-R comes configured with WPA-PSK WiFi security enabled. When you first access the Internet, type 192.168.1.1 into the address bar, the wizard will pop up to configure your computer to connect with the wireless security settings of your choice (please see the Quick Start Guide for more information on connecting your data devices to the 3G27WV-R). Only people you allow access to, will be able to connect to the 3G27WV-R ensuring your connection is secure and safe.

11. Can I change the name and password of my wireless network?

Yes. You can change your 3G27WV-R settings from the browser user interface by typing 192.168.1.1 into the address bar of your Web browser. You can change the WiFi network name or SSID (Service Set Identifier), WiFi security standard (WPA, WPA2, WEP) and your WiFi password.

12. How do I share my Internet connection, using the 3G27WV-R, with other users?

Provide the SSID (Service Set Identifier) and WiFi network password of your 3G27WV-R for any users you want to share your WiFi Internet connection with. Each user will need to select the 3G27WV-R SSID, on their WiFi enabled computer or device and enter the network password you provide.

13. What is the difference between upload and download speeds and why do they differ?

Upload is when you send information (e.g. emails) from your computer and download is when you receive information via the Internet. The speeds at which upload and download operate depend on the way you use the Internet and the size of files you send and receive.

14. Do I need to attach an antenna on this device?

Yes. Your 3G27WV-R comes equipped with an antenna; you need to attach the 4G antenna to send and receive 4G signals.

15. I have lost the security card that came with the setup instructions. What can I do?

If you have lost your security card, and forgotten the wireless security details (SSID and WiFi network password), there is a label attached to the base of your 3G27WV-R with all your original security details. If the label is unreadable or has been removed, the WiFi network password can be viewed or reset by logging in to the Management Console using an Ethernet Cable connected to the LAN port of the 3G27WV-R.

16. I forgot my Management Console password. What can I do?

If you have forgotten your Management Console password and cannot access the Web user interface, you will need to reset your 3G27WV-R back to factory default settings. To reset your device press and hold the reset button on the back of your 3G27WV-R for 10-15 seconds until all the indicator lights on the unit flash to indicate the device is reset. After a reset, use the default WiFi settings (SSID and WPA key) which can be found on the base of your 3G27WV-R. (Note - this will also reset any custom settings and passwords you may have already set up).

17. Can I use the 3G27WV-R overseas?

No. The 3G27WV-R is not equipped for international roaming or data services. If you require the capability to call international locations, please speak with your Rogers representative or call Client Care to enable international calling on your 3G27WV-R.

18. Can I use a SIM card from other carriers in the 3G27WV-R?

No, the 3G27WV-R is built to connect only to the Rogers network and SIM cards from other carriers will not provide any service when inserted into the 3G27WV-R.

Appendix A: Tables

Table 1 - Document Revision History	3
Table 2 - LED Indicators.....	Error! Bookmark not defined.
Table 3 - Rear Panel Ports.....	Error! Bookmark not defined.
Table 4 - LAN Management Default Settings	8
Table 5 - WAN Port Default Settings	8
Table 6 – WiFi Default Settings.....	8
Table 7 - Web Interface Default Settings.....	8
Table 8 - Default APN Settings.....	8
Table 9 - Advanced View - Internet Settings.....	20
Table 10 - Advanced View - WAN Settings - Static IP	22
Table 11 - Advanced View - WAN Settings - DHCP.....	23
Table 12 - Advanced View - WAN Settings - PPPoE	24
Table 13 - Advanced View - WAN Settings - PPTP	25
Table 14 - Advanced View - WAN Failover Settings	26
Table 15 - Advanced View - LAN Settings.....	28
Table 16 - Advanced View - SNMP Settings.....	30
Table 17 - Advanced View - WiFi Settings	31
Table 18 - Advanced View - Advanced WiFi Settings.....	33
Table 19 - Advanced View - WiFi Security Settings	34
Table 20 - Advanced View - Enable or Disable WPS.....	38
Table 21 - Advanced View - WPS Settings.....	38
Table 22 - Advanced View - Port Filtering Settings.....	40
Table 23 - Advanced View - Port Forwarding Settings.....	41
Table 24 - Advanced View - DMZ Settings	42
Table 25 – Advanced View – System Security Settings	43
Table 26 - Advanced View - Content Filtering Settings	44
Table 27 - Advanced View - Management Settings.....	45
Table 28 - Advanced View - Settings Manager Settings	47
Table 29 - Additional Product Information - Call Feature Codes Quick Reference	51
Table 30 - Technical Specifications for the 3G27WV-R	53

Legal & Regulatory Information

Intellectual Property Rights

All intellectual property rights (including copyright and trade mark rights) subsisting in, relating to or arising out of this Manual are owned by and vested in NetComm Wireless Limited (ACN 002490486) (**NetComm**) (or its licensors). This Manual does not transfer any right, title or interest in NetComm's (or its licensors') intellectual property rights to you.

You are permitted to use this Manual for the sole purpose of using the NetComm product to which it relates. Otherwise no part of this Manual may be reproduced, stored in a retrieval system or transmitted in any form, by any means, be it electronic, mechanical, recording or otherwise, without the prior written permission of NetComm.

NetComm is a trademark of NetComm Wireless Limited. All other trademarks are acknowledged to be the property of their respective owners.

FCC Regulations:

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 must accept any interference received, including interference that may cause undesired operation.

This device 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.
- Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The antenna(s) used for this transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

RF Exposure Information

This device meets the government's requirements for exposure to radio waves. This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government.

This device complies with FCC radiation exposure limits set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20cm (8 inches) during normal operation.

IC Regulations:

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

1. this device may not cause interference, and
2. this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

1. l'appareil ne doit pas produire de brouillage, et
2. l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

This Category II radio communication device complies with Industry Canada Standard RSS-310.

Ce dispositif de radio communication de catégorie II respecte la norme CNR-310 d'Industrie Canada.

IMPORTANT NOTE - IC Radiation Exposure Statement:

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

This device and its antenna(s) must not be co-located or operated in conjunction with any other antenna or transmitter.

The County Code Selection feature is disabled for products marketed in the US/Canada.

For product available in the USA/ Canada markets, only channel 1~11 can be operated. Selection of other channels is not possible.

Contact

Address: NETCOMM WIRELESS LIMITED Head Office
PO Box 1200, Lane Cove NSW 2066 Australia
P: +61(0)2 9424 2070 F: +61(0)2 9424 2010
E: sales@netcommwireless.com
W: www.netcommwireless.com

TM Rogers, Rocket and Mobius design are trademarks of or used under license from Rogers Communications Inc. or an affiliate.
© 2012
NetComm Wireless and the NetComm Wireless logo are trademarks of NetComm Wireless Limited.

^{MC} Rogers et le ruban de Möbius sont des marques de commerce ou utilisées sous licence de Rogers Communication Inc. © 2012
NetComm Wireless et le logo NetComm Wireless sont des marques de commerce de NetComm Wireless Limité.