

WLR-2001/WLR3001

Wireless Broadband Router (802.11b/g/n)



User Manual

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Note: All the information contained in this manual was correct at the time of publication.

However, as our engineers are always updating and improving the product, your device's software may have a slightly different appearance or modified functionality than presented in this manual.

Introduction

Congratulations on your purchase of the WLR-2001/WLR3001 Wireless Network Broadband Router. The WLR-2001/WLR3001 is compliant with 802.11n and up to 6 times faster than standard 802.11g based routers while still being compatible with 802.11g & 802.11b. The WLR-2001/WLR3001 is not only a Wireless Access Point, but also doubles as a 4-port full-duplex Switch that connects your wired-Ethernet devices together.

At 300 Mbps (150 Mbps for the WLR-2001/WLR3001) wireless transmission rate, the Access Point built into the Router uses advanced MIMO (Multi-Input, Multi-Output) technology to transmit multiple steams of data in a single wireless channel, giving you seamless access to multimedia content. Robust RF signal travels farther, eliminates dead spots and extends network range. For data protection and privacy, the WLR-2001/WLR3001 encodes all wireless transmissions with WEP, WPA, and WPA2 encryption.

With the inbuilt DHCP Server & powerful SPI firewall, the WLR-2001/WLR3001 protects your computers against intruders and most known Internet attacks but provides safe VPN pass-through. With incredible speed and QoS function of 802.11n(draft2.0), the WLR-2001/WLR3001 is ideal for media-centric applications like streaming video, gaming, and VoIP telephony to run multiple media-intense data streams through the network at the same time, with no degradation in performance.

The router includes Sitecom Cloud Security to protect your home network against cybercrime.

1 Key Features

| Features | Advantages |
|------------------------------------|-----------------------------------|
| Incredible Data Rate up to | Heavy data payloads such as |
| 300Mbps* (150Mbps for WLR- | MPEG video streaming |
| 2001/WLR3001) | |
| IEEE 802.11n compliant and | Fully Interoperable with IEEE |
| backwards compatible with | 802.11b / IEEE802.11g |
| 802.11b/g | compliant devices with legacy |
| | protection |
| Four 10/100 Mbps Fast Switch Ports | Scalability, extend your network. |
| (Auto-Crossover) | |
| Firewall supports Virtual Server | Avoids the attacks of Hackers or |
| Mapping, DMZ, IP Filter, ICMP | Viruses from Internet |
| Blocking, SPI | |
| Support 802.1x authenticator, | Provide mutual authentication |
| 802.11i (WPA/WPA2, AES), VPN | (Client and dynamic encryption |
| pass-through | keys to enhance security |
| WDS (Wireless Distribution System) | Make wireless AP and Bridge |
| | mode simultaneously as a |
| | wireless repeater |
| Sitecom Cloud Security | Security integrated in the router |
| | protects all the devices in your |
| | network against cybercrime |
| | when surfing the Internet. |

^{*} Theoretical wireless signal rate based on IEEE standard of 802.11a, b, g, n chipset used. Actual throughput may vary. Network conditions and environmental factors lower actual throughput rate. All specifications are subject to change without notice.

2 Package Contents

Open the package carefully, and make sure that none of the items listed below are missing. Do not discard the packing materials, in case of return; the unit must be shipped back in its original package.

- 1. WLR-2001/WLR3001 Router
- 2. 5V 1A Power Adapter
- 3. Quick Install Guide
- 4. CD (User's Manual)
- 5. Warranty card
- 6. UTP cable

1 Cautions

This router's design and manufacturer has your safety in mind. In order to safely and effectively use this router, please read the following before usage.

3.1 Usage Cautions

The user should not modify this router. The environmental temperature should be within $+5 \sim +35$ degrees Celsius.

3.2 Power

The router's power voltage is DC 5V 1A.

When using this router, please connect the supplied AC adapter or AC adapter cable to the router's power jack. When placing the adapter cable, make sure it can not get damaged or be subject to pressure. To reduce the risk of electric shock, unplug the adapter first before cleaning it. Never connect the adapter to the router in a humid or dusty area. Do not replace the adapter or cable's wire or connector.

3.3 Repair

If the router has a problem, you should take it to an appointed repair centre and let the specialists do the repair. Never repair the router yourself, you might damage the router or endanger yourself.

3.4 Disposing of the Router

When you dispose of the router, be sure to dispose it appropriately. Some countries may regulate disposal of an electrical device, please consult with your local authority.

3.5 Others

When using this router, please do not let it come into contact with water or other liquids. If water is accidentally spilled on the router, please use a dry cloth to absorb the spillage. Electronic products are vulnerable, when using please avoid shaking or hitting the router, and do not press the buttons too hard.

- Do not let the router come into contact with water or other liquid.
- Do not disassemble the router; repair the router or change the design of the router, any damage done will not be included in the repair policy.
- Avoid hitting the router with a hard object, avoid shaking the router and stay away from magnetic fields.
- If during electrostatic discharge or a strong electromagnetic field the product will malfunction, unplug the power cable. The product will return to normal performance the next time it is powered on.

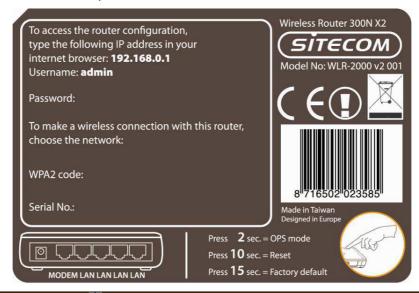
3 Product Layout



| Port | Description |
|-----------------|---|
| Power connector | Connect the 5V DC adapter to this port |
| WAN (Blue) | Connect your ADSL/Cable modem to this port |
| LAN (Yellow) | Connect your PC's or network devices to this port |

Backlabel

The backlabel describes the IP address, login details, SSID, security code and WPS button functionality.



| Button | Description |
|------------|---|
| | Press 2 seconds for WPS mode |
| WPS BUTTON | Press 10 seconds to reset the router |
| | Press 15 Seconds to reset the router to factory |
| | defaults. |

LED Definition

From left to right.

| Port | Description |
|-------------|--------------------------------|
| LAN (Blue) | Shows the cable is connected. |
| LAN (Blue) | Shows the cable is connected. |
| LAN (Blue) | Shows the cable is connected. |
| LAN (Blue) | Shows the cable is connected. |
| WAN (Blue) | Shows the cable is connected. |
| WiFi (Blue) | Shows WiFi activity and WPS. |
| Power (Red) | Shows the device is turned on. |



4 Network + System Requirements

To begin using the WLR-2001/WLR3001, make sure you meet the following as minimum requirements:

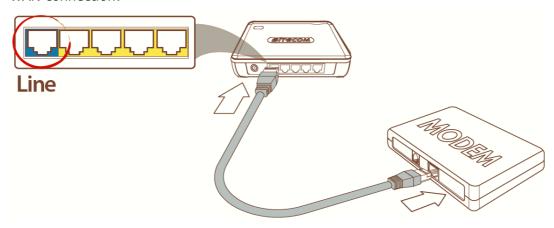
- PC/Notebook.
- Operating System Microsoft Windows XP/VISTA/7
- 1 Free Ethernet port.
- WiFi card/USB dongle (802.11 b/g/n) optional.
- External xDSL (ADSL) or Cable modem with an Ethernet port (RJ-45).
- PC with a Web-Browser (Internet Explorer, Safari, Firefox, Opera)
- Ethernet compatible CAT5 cables.

5 WLR-2001/WLR3001 Placement

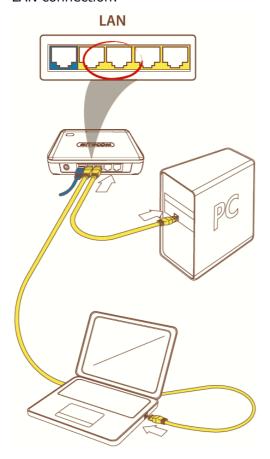
You can place the WLR-2001/WLR3001 on a desk or other flat surface, or you can mount it on a wall. For optimal performance, place your Wireless Broadband Router in the center of your office (or your home) in a location that is away from any potential source of interference, such as a metal wall or microwave oven. This location must be close to a power connection and your ADSL/Cable modem.

6 Setup LAN, WAN

WAN connection:



LAN connection:



7 PC Network Adapter setup

Windows XP

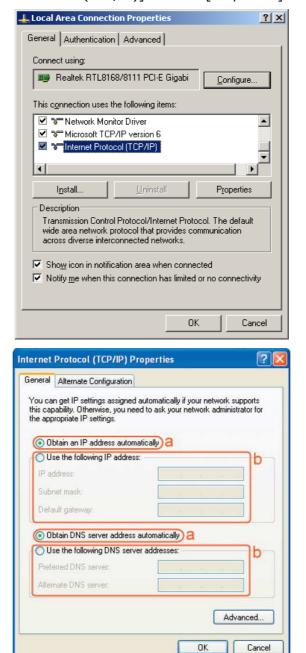
Enter [Start Menu] → select [Control panel] → select [Network].



• Select [Local Area Connection]) icon=>select [properties]



Select [Internet Protocol (TCP/IP)] =>Click [Properties].

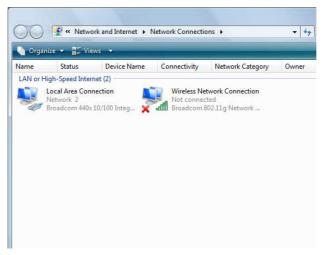


• Select the [General] tab.

The router supports [DHCP] function, please select both [Obtain an IP address automatically] and [Obtain DNS server address automatically].

Windows Vista/Seven

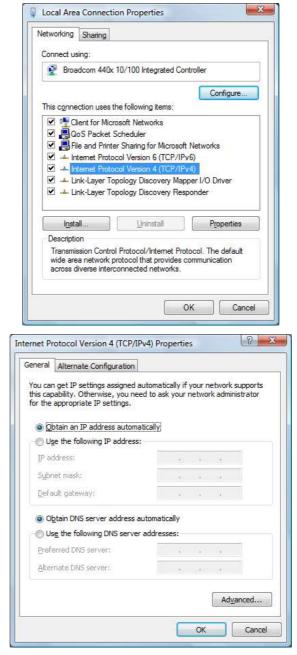
 Enter [Start Menu] → select [Control panel] → select [View network status and tasks] -> select [Manage network connections].



Select [Local Area Connection]) icon=>select [properties]



• Select [Internet Protocol Version 4 (TCP/IPv4)] =>Click [Properties].



• Select the [General] tab.

The router supports [DHCP] function, please select both [Obtain an IP address automatically] and [Obtain DNS server address automatically].

8 Bring up the WLR-2001/WLR3001

Connect the supplied power-adapter to the power inlet port and connect it to a wall outlet. The WLR-2001/WLR3001 automatically enters the self-test phase. During self-test phase, the Power LED will be lit continuously to indicate that this product is in normal operation.

9 Initial Setup WLR-2001/WLR3001

LOGIN procedure

1. OPEN your browser (e.g. Internet Explorer).

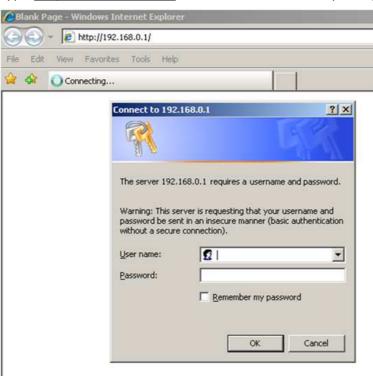








2. Type http://192.168.0.1 in the address bar and press [Enter]



3. Type user name and password (default username is admin. The password can be found on the backlabel on the bottom of your router).



- 4. Click OK.
- 5. You will see the home page of the WLR-2001/WLR3001.



The System status section allows you to monitor the current status of your router.

The UP time, hardware information, serial number as well as firmware version information is displayed here.

DHCP Server

The LAN tab gives you the opportunity to change the IP settings of the WLR-2001/WLR3001.



Click **<Apply>** at the bottom of this screen to save any changes.

<u>IP address</u> 192.168.0.1. It is the router's LAN IP address (Your LAN clients default gateway IP address).

IP Subnet Mask 255.255.255.0 Specify a Subnet Mask for your LAN segment.

802.1d Spanning Tree is Disabled by default. If the 802.1d Spanning Tree function is enabled, this router will use the spanning tree protocol to prevent network loops.

DHCP Server Enabled by default. You can enable or disable the DHCP server. When DHCP is disabled no ip-addresses are assigned to clients and you have to use static ip-addresses. When DHCP server is enabled your computers will be assigned an ip-address automatically until the lease time expires.

<u>Lease Time</u> Forever. In the Lease Time setting you can specify the time period that the DHCP lends an IP address to your LAN clients. The DHCP will change your LAN client's IP address when this time threshold period is reached.

DHCP START client IP/DHCP Client end IP You can select a particular IP address range for your DHCP server to issue IP addresses to your LAN Clients. **Note: default IP range 192.168.0.100** \leftrightarrow **192.168.0.200. If you want your PC(s) to have a static/fixed IP address, then you'll have to choose an IP address outside this IP address Pool**

<u>Domain Name</u> You can specify a Domain Name for your LAN. Or just keep the default (sitecomwlrxxxx).

Device Status

View the Broadband router's current configuration settings. Device Status displays the configuration settings you've configured in the Wizard / Basic Settings / Wireless Settings section.



Internet Status

This page displays whether the WAN port is connected to a Cable/DSL connection. It also displays the router's WAN IP address, Subnet Mask, and ISP Gateway as well as MAC address, the Primary DNS. Press **Renew** button to renew your WAN IP address.



DHCP Client Status

DHCP This page shows all DHCP clients (LAN PCs) currently connected to your network. The table shows the assigned IP address, MAC address and expiration time for each DHCP leased client. Use the Refresh button to update the available information.

You can check **Enable Static DHCP IP**. It is possible to add more static DHCP IPs.

They are listed in the table Static DHCP Lease Table. IP can be deleted at will from the table.

Click the 'apply' button to save the changed configuration.



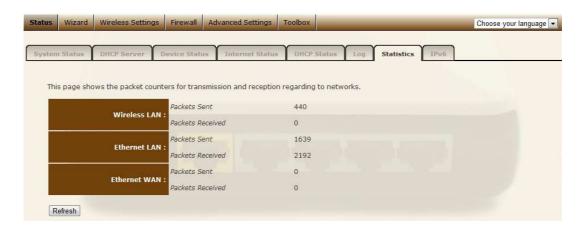
WLR-2001/WLR3001 Log

View the operation **log of the WLR-2001/WLR3001**. This page shows the current system log of the Broadband router. It displays any event occurred after system start up. At the bottom of the page, the system log can be saved **<Save>** to a local file for further processing or the system log can be cleared **<Clear>** or it can be refreshed **<Refresh>** to get the most updated information. When the system is powered down, the system log will disappear if not saved to a local file.



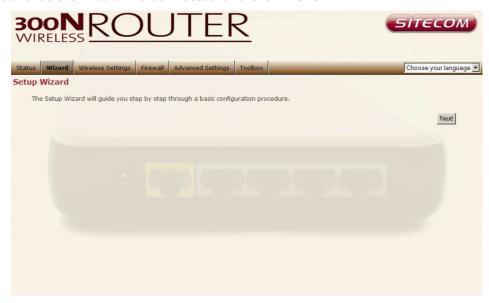
WLR-2001/WLR3001 Statistics

Shows the counters of packets sent and received on WAN, LAN & WLAN.

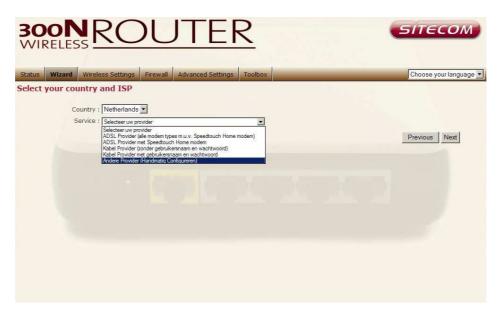


10 Configuration Wizard

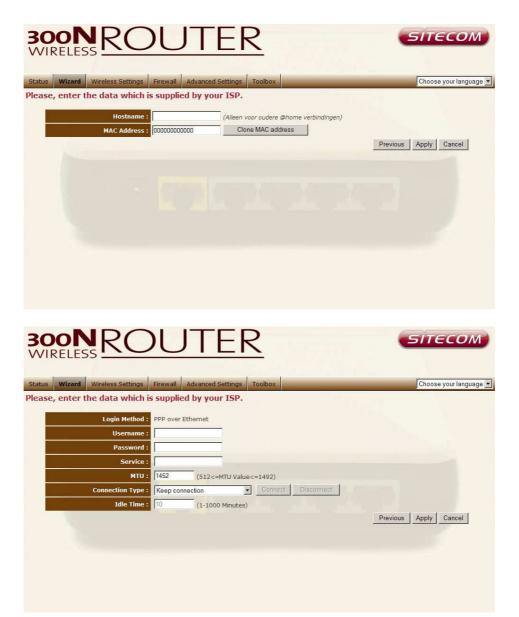
Click **Wizard** to configure the router. The Setup wizard will now be displayed; check that the modem is connected and click **Next.**



Select your country from the Country list. Select your internet provider. Click ${f Next.}$



Depending on the chosen provider, you may need to enter your user name and password, MAC address or hostname in the following window. After you have entered the correct information, click **Next**.

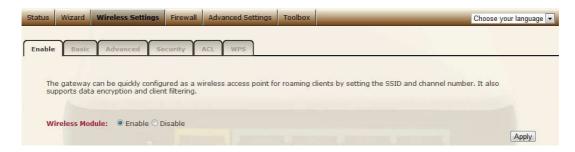


Click **APPLY** to complete the configuration.

11 Wireless Settings

You can set parameters that are used for the wireless stations to connect to this router. The parameters include Mode, ESSID, Channel Number and Associated Client.

Wireless Function



Enable or Disable Wireless function here. Click **Apply** and wait for module to be ready and loaded.

Basic Settings



Mode Allows you to set the AP to AP or WDS mode.

Band Allows you to set the AP fixed at 802.11b or 802.11g mode. You can also select B+G mode to allow 80211b and 802.11g clients at the same time.

SSID This is the name of the wireless signal which is broadcasted. All the devices in the same wireless LAN should have the same SSID.

Channel The channel used by the wireless LAN. All devices in the same wireless LAN should use the same channel.

Advanced

This tab allows you to set the advanced wireless options. The options included are, Fragment Threshold, RTS Threshold, Beacon Interval, and Preamble Type. You should not change these parameters unless you know what effect the changes will have on the router.



Fragment Threshold "Fragment Threshold" 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 then the RTS threshold, the wireless router will not use the RTS/CTS mechanism to send this packet.

Beacon Interval is the interval of time that this wireless router broadcasts a beacon. A Beacon is used to synchronize the wireless network.

Data Rate The "Data Rate" is the rate that this access point uses to transmit data packets. The access point will use the highest possible selected transmission rate to transmit the data packets.

N Data Rate The "Data Rate" is the rate that this access point uses to transmit data packets for N compliant wireless nodes. Highest to lowest data rate can be fixed.

Channel Bandwidth is the range of frequencies that will be used.

Preamble Type The "Long Preamble" can provide better wireless LAN compatibility while the "Short Preamble" can provide better wireless LAN performance.

CTS Protection: It is recommended to enable the protection mechanism. This mechanism can decrease the rate of data collision between 802.11b and 802.11g wireless stations. When the protection mode is enabled, the throughput of the AP will be a little lower due to a lot of frame-network that is transmitted.

Security

This Access Point provides complete wireless LAN security functions, included are WEP, IEEE 802.11x, IEEE 802.11x with WEP, WPA with pre-shared key and WPA with RADIUS. With these security functions, you can prevent your wireless LAN from illegal access. Please make sure your wireless stations use the same security function, and are setup with the same security key.

Disable

When you choose to disable encryption, it is very insecure to operate the WLR-2001/WLR3001.



WPA Radius

IEEE 802.1x is an authentication protocol. Every user must use a valid account to login to this Access Point before accessing the wireless LAN. The authentication is processed by a RADIUS server. This mode only authenticates users by IEEE 802.1x, but it does not encrypt the data during communication



WEP

When you select 64-bit or 128-bit WEP key, you have to enter WEP keys to encrypt data. You can generate the key by yourself and enter it. You can enter four WEP keys and select one of them as a default key. Then the router can receive any packets encrypted by one of the four keys.



Key Length You can select the WEP key length for encryption, 64-bit or 128-bit. The larger the key will be the higher level of security is used, but the throughput will be lower.

Key Format You may select ASCII Characters (alphanumeric format) or Hexadecimal Digits (in the "A-F", "a-f" and "0-9" range) to be the WEP Key.

Key1 - Key4 The WEP keys are used to encrypt data transmitted in the wireless network. Use the following rules to setup a WEP key on the device. 64-bit WEP: input 10-digits Hex values (in the "A-F", "a-f" and "0-9" range) or 5-digit ASCII character as the encryption keys. 128-bit WEP: input 26-digit Hex values (in the "A-F", "a-f" and "0-9" range) or 13-digit ASCII characters as the encryption keys.

Click <Apply> at the bottom of the screen to save the above configurations. You can now configure other sections by choosing Continue, or choose Apply to apply the settings and reboot the device.

WPA Pre-shared Key

Wi-Fi Protected Access (WPA) is an advanced security standard. You can use a pre-shared key to authenticate wireless stations and encrypt data during communication. It uses TKIP or CCMP (AES) to change the encryption key frequently. So the encryption key is not easy to be cracked by hackers. This is the best security available.



WPA-Radius

Wi-Fi Protected Access (**WPA**) is an advanced security standard. You can use an external RADIUS server to authenticate wireless stations and provide the session key to encrypt data during communication. It uses **TKIP** or CCMP (**AES**) to change the encryption key frequently. Press **Apply** button when you are done.



ACL

This wireless router supports MAC Address Control, which prevents unauthorized clients from accessing your wireless network.



Enable wireless access control Enables the wireless access control function

Adding an address into the list Enter the "MAC Address" and "Comment" of the wireless station to be added and then click "Add". The wireless station will now be added into the "Current Access Control List" below. If you are having any difficulties filling in the fields, just click "Clear" and both "MAC Address" and "Comment" fields will be cleared.

Remove an address from the list If you want to remove a MAC address from the "Current Access Control List", select the MAC address that you want to remove in the list and then click "Delete Selected". If you want to remove all the MAC addresses from the list, just click the "Delete All" button. Click "Reset" will clear your current selections.

Click <Apply> at the bottom of the screen to save the above configurations. You can now configure other sections by choosing Continue, or choose Apply to apply the settings and reboot the device.

WPS

Wi-Fi Protected Setup (WPS) is the simplest way to establish a connection between the wireless clients and the wireless router. You don't have to select the encryption mode and fill in a long encryption passphrase every time when you try to setup a wireless connection. You only need to press a button on both wireless client and wireless router, and WPS will do the rest for you.

The wireless router supports two types of WPS: WPS via Push Button and WPS via PIN code. If you want to use the Push Button, you have to push a specific button on the wireless client or in the utility of the wireless client to start the WPS mode, and switch the wireless router to WPS mode. You can simply push the WPS button of the wireless router, or click the 'Start to Process' button in the web configuration interface. If you want to use the PIN code, you have to know the PIN code of the wireless client and switch it to WPS mode, then fill-in the PIN code of the wireless client through the web configuration interface of the wireless router.



WPS Check the box to enable WPS function and uncheck it to disable the WPS function.

WPS Current Status If the wireless security (encryption) function of this wireless router is properly set, you'll see a 'Configured' message here. Otherwise, you'll see 'UnConfigured'.

Self Pin Code This is the WPS PIN code of the wireless router. You may need this information when connecting to other WPS-enabled wireless devices.

SSID This is the network broadcast name (SSID) of the router.

Authentication Mode It shows the active authentication mode for the wireless connection.

Passphrase Key It shows the passphrase key that is randomly generated by the wireless router during the WPS process. You may need this information when using a device which doesn't support WPS.

WPS via Push Button Press the button to start the WPS process. The router will wait for the WPS request from the wireless devices within 2 minutes.

WPS via PIN You can fill-in the PIN code of the wireless device and press the button to start the WPS process. The router will wait for the WPS request from the wireless device within 2 minutes.

12 Firewall Settings

The Broadband router provides extensive firewall protection by restricting connection parameters, thus limiting the risk of hacker attacks, and defending against a wide array of common Internet attacks. However, for applications that require unrestricted access to the Internet, you can configure a specific client/server as a Demilitarized Zone (DMZ).

Note: To enable the Firewall settings select Enable and click Apply



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 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.



Enable DMZ Enable/disable DMZ

Public IP Address The IP address of the WAN port or any other Public IP addresses given to you by your ISP

Client PC IP Address Fill-in the IP address of a particular host in your LAN that will receive all the packets originally going to the WAN port/Public IP address above.

Click **<Apply>** at the bottom of the screen to save the above configurations.

Denial of Service (DoS)

The Broadband router's firewall can block common hacker attacks, including Denial of Service, Ping of Death, Port Scan and Sync Flood. If Internet attacks occur the router can log the events.



Ping of Death Protections from Ping of Death attack

Discard Ping From WAN The router's WAN port will not respond to any Ping requests

Port Scan Protects the router from Port Scans.

Sync Flood Protects the router from Sync Flood attack.

Access

You can restrict users from accessing certain Internet applications/services (e.g. Internet websites, email, FTP etc.), Access Control allows users to define the traffic type permitted in your LAN. You can control which PC client can have access to these services.



Deny If you select "Deny" then all clients will be allowed to access Internet accept for the clients in the list below.

Allow If you select "Allow" then all clients will be denied to access Internet accept for the PCs in the list below.

Filter client PCs by IP Fill in "IP Filtering Table" to filter PC clients by IP.

Add PC You can click Add PC to add an access control rule for users by IP addresses.

Remove PC If you want to remove some PCs from the "IP Filtering Table", select the PC you want to remove in the table and then click "Delete Selected". If you want to remove all PCs from the table, just click the "Delete All" button.

Filter client PC by MAC Check "Enable MAC Filtering" to enable MAC Filtering.

Add PC Fill in "Client PC MAC Address" and "Comment" of the PC that is allowed to access the Internet, and then click "Add". If you find any typo before adding it and want to retype again, just click "Reset" and the fields will be cleared.

Remove PC If you want to remove some PC from the "MAC Filtering Table", select the PC you want to remove in the table and then click "Delete Selected". If you want to remove all PCs from the table, just click the "Delete All" button. If you want to clear the selection and re-select again, just click "Reset".

Click **Apply**> at the bottom of the screen to save the above configuration.

URL block

You can block access to some Web sites from particular PCs by entering a full URL address or just keywords of the Web site.



Enable URL Blocking Enable/disable URL Blocking

Add URL Keyword Fill in "URL/Keyword" and then click "Add". You can enter the full URL address or the keyword of the web site you want to block.

Remove URL Keyword If you want to remove some URL keywords from the "Current URL Blocking Table", select the URL keyword you want to remove in the table and then click "Delete Selected". If you want remove all URL keywords from the table, just click "Delete All" button. If you want to clear the selection and re-select again, just click "Reset".

Click **<Apply>** at the bottom of the screen to save the above configurations

13 Advanced Settings

Network Address Translation (NAT) allows multiple users at your local site to access the Internet through a single Public IP Address or multiple Public IP Addresses. NAT provides Firewall protection from hacker attacks and has the flexibility to allow you to map Private IP Addresses to Public IP Addresses for key services such as Websites and FTP. Select Disable to disable the NAT function.

Port Forwarding

Port Forwarding allows you to re-direct a particular range of service port numbers (from the Internet/WAN Port) to a particular LAN IP address. It helps you to host servers behind the router NAT firewall.



Enable Port Forwarding Enable Port Forwarding

Local IP This is the local IP of the server behind the NAT firewall.

Type This is the protocol type to be forwarded. You can choose to forward "TCP" or "UDP" packets only, or select "both" to forward both "TCP" and "UDP" packets.

Port Range The range of ports to be forward to the private IP.

Comment description of this setting.

Add Port Forwarding Fill in the "Private IP", "Type", "Port Range" and "Comment" of the setting to be added and then click "Add". Then this Port Forwarding setting will be added into the "Current Port Forwarding Table" below.

Remove Port Forwarding If you want to remove a Port Forwarding setting from the "Current Port Forwarding Table", select the Port Forwarding setting that you want to remove in the table and then click "Delete Selected". If you want to remove all Port Forwarding settings from the table, just click "Delete All" button. Click "Reset" will clear your current selections.

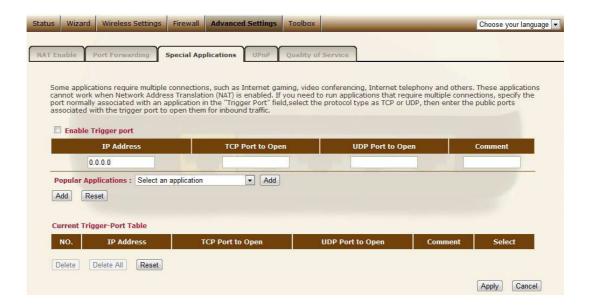
Special Applications

Some applications require multiple connections, such as Internet games, video Conferencing, Internet telephony and others. In this section you can configure the router to support multiple connections for these types of applications.

Enable Trigger Port Enable the Special Application function.

TCP Port to open This is the range of TCP port numbers for this particular application.

UDP Port to Open This is the range of UDP port numbers for this particular application.



Comment The description of this setting.

Popular applications This section lists the more popular applications that require multiple connections. Select an application from the Popular Applications selection. Once you have selected an application, select a location (1-10) in the Copy to selection box and then click the Copy to button. This will automatically list the Public Ports required for this popular application in the location (1-10) you specified.

Add Special Application Fill in the "Trigger Port", "Trigger Type", "Public Port", "Public Type", "Public Port" and "Comment" of the setting to be added and then click "Add". The Special Application setting will be added into the "Current Trigger-Port Table" below. If you happen to make a mistake, just click "Clear" and the fields will be cleared.

Delete If you want to remove Special Application settings from the "Current Trigger-Port Table", select the Special Application settings you want to remove in the table and then click "Delete Selected". If you want remove all Special Application settings from the table, just click the "Delete All" button. Click "Reset" will clear your current selections.

UPNP

With UPnP, all PCs in you Intranet will discover this router automatically, so you don't have to configure your PC and it can easily access the Internet through this router.



UPnP Feature You can enable or Disable the UPnP feature here. After you enable the UPnP feature, all client systems that support UPnP, like Windows XP, can discover this router automatically and access the Internet through this router without having to configure anything. The NAT Traversal function provided by UPnP can let applications that support UPnP connect to the internet without having to configure the virtual server sections.

QoS

QoS can let you classify Internet application traffic by source/destination IP address and port number. You can assign priority for each type of application and reserve bandwidth for it. The packets of applications with higher priority will always go first. Lower priority applications will get bandwidth after higher priority applications get enough bandwidth. This can let you have a better experience in using critical real time services like Internet phone, video conference ...etc. All the applications not specified by you are classified as rule name "Others". The rule with a smaller priority number has a higher priority; the rule with a larger priority number has a lower priority. You can adjust the priority of the rules by moving them up or down.



Enable/Disable QoS You can check "Enable QoS" to enable QoS functionality for the WAN port.

Add a QoS rule into the table Click "Add" then enter a form of the QoS rule. Click "Apply" after filling out the form the rule will be added into the table.

Remove QoS rules from the table If you want to remove QoS rules from the table, select the QoS rules you want to remove in the table and then click "Delete Selected". If you want remove all QoS rules from the table, just click the "Delete All" button. Clicking "Reset" will clear your current selections.

Edit a QoS rule Select the rule you want to edit and click "Edit", then enter the detail form of the QoS rule. Click "**Apply**" after editing the form and the rule will be saved.

Adjust QoS rule priority You can select the rule and click "Move Up" to make its priority higher. You also can select the rule and click "Move Down" to make its priority lower.

14 TOOLBOX Settings

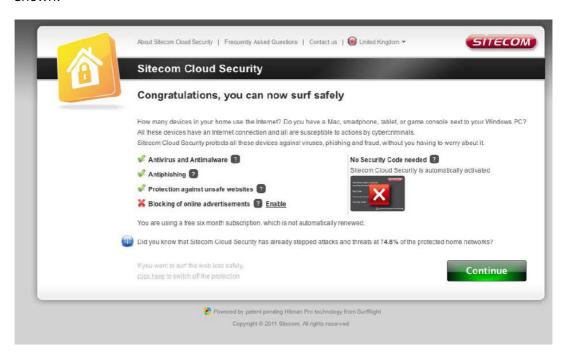
Sitecom Cloud Security

Antivirus software alone is not safe enough. You can now benefit from additional built-in security in your modem or router. Protect all devices in your home network against cybercrime while browsing. Activated automatically, your network and devices are better secured than ever before.

Your Sitecom device comes with a 6 month free *Sitecom cloud security* subscription.

After you have set up your Sitecom device for internet access, open the webbrowser and enter http://www.sitecomcloudsecurity.com in the address bar.

If the device has been properly configured the following web page should be shown.

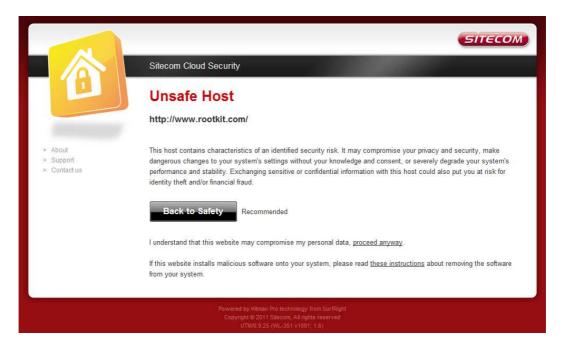


Here you can see which security features are activated.

The Sitecom Cloud Security service offers the following protection options:

- Anti-Malware
- Anti-Phishing
- Protection against unsafe websitesAdvertisement blocking

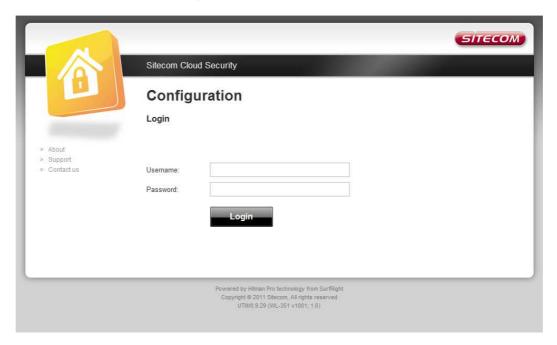
With the protection of *unsafe websites* activated the Sitecom Cloud Security will always check if a website is safe. If it is not safe it will inform you that is not safe to enter.



If you still wish to visit this webpage click on 'proceed anyway'. Alternatively click 'Back to Safety' so that your security will not be breached.

If you wish to change your security options or to extend your subscription at any time, open http://www.sitecomcloudsecurity.com from your web browser.

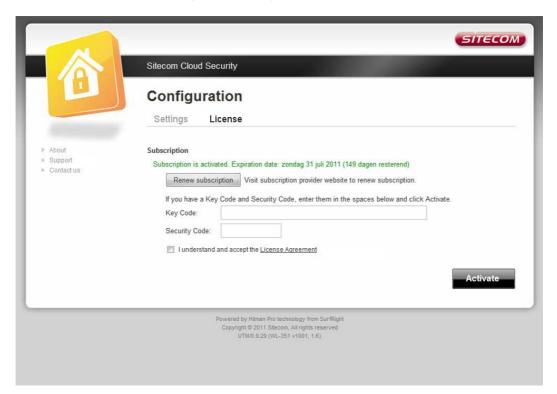
You will be asked for a username and password. These can be found on the backlabel on the bottom of your Sitecom router or modem.



If the login succeeded you can click on 'Settings' to change your security options.



Or click 'License' to renew your subscription.



If you wish to disable to Sitecom cloud security at any time, open the webpage of your Sitecom product and log in with the supplied credentials (these can be

found on the back label on the bottom of your Sitecom device).

Go to Toolbox and select "Sitecom Cloud Security".



Click the "Disable" radio button and click 'Apply' for the settings to take effect.

Password change options

You can change the password required to log into the broadband router's system web-based management. Passwords can contain 0 to 12 alphanumeric characters, and are case sensitive.



Current Password Fill in the current password to allow changing to a new password.

New Password Enter your new password.

Confirm Password Enter your new password again for verification purposes.

Click **Apply**> at the bottom of the screen to save the above configurations

Time Zone

The Time Zone allows your router to base its time on the settings configured here, which will affect functions such as Log entries and Firewall settings.



Set Time Zone Select the time zone of the country you are currently in. The router will set its time based on your selection.

Time Server Address You can set an NTP server address.

Enable Daylight Savings The router can also take Daylight savings into account. If you wish to use this function, you must check/tick the enable box to enable your daylight saving configuration (below).

Start Daylight Savings Time Select the period in which you wish to start daylight Savings Time

End Daylight Savings Time Select the period in which you wish to end daylight Savings Time

Click < Apply> at the bottom of the screen to save the above configurations

Remote Management

The remote management function allows you to designate a host in the Internet the ability to configure the Broadband router from a remote site. Enter the designated host IP Address in the Host IP Address field.



Host Address This is the IP address of the host in the Internet that will have management/configuration access to the Broadband router from a remote site. If the Host Address is left 0.0.0.0 this means anyone can access the router's web-based configuration from a remote location, providing they know the password.

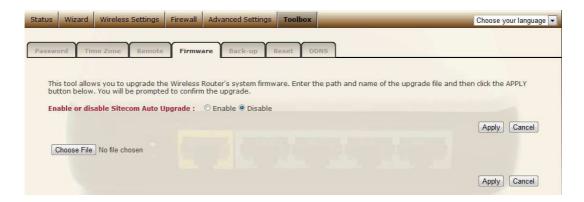
Port The port number of the remote management web interface.

Check "**Enabled**" to enable the remote management function.

Click **Apply**> at the bottom of the screen to save the above configurations.

Firmware Upgrade

This page allows you to upgrade the router's firmware.



Enable or disable Sitecom Auto Upgrade if Enabled the router will automatically check for firmware updates. If a new firmware has been detected a pop/up will appear in the webbrowser and inform the user about the new firmware and the changes and allows to Install the update.

Select **Enable** or **Disable** and click apply for the settings to take effect.

Firmware Upgrade This tool allows you to upgrade the Broadband router's system firmware. To upgrade the firmware of your Broadband router, you need to download the firmware file to your local hard disk, and enter that file name and path in the appropriate field on this page. You can also use the Browse button to find the firmware file on your PC.

Once you've selected the new firmware file, click **Apply**> at the bottom of the screen to start the upgrade process.

Backup Settings

The Backup screen allows you to save (Backup) the router's current configuration settings. When you save the configuration setting (Backup) you can re-load the saved configuration into the router through the Restore selection. If extreme problems occur you can use the Restore to Factory Defaults selection, this will set all configurations to its original default settings (e.g. when you first purchased the router).



Use the "Backup" tool to save the Broadband router current configuration to a file named "**config.bin**" on your PC. You can then use the "Restore" tool to restore the saved configuration to the Broadband router. Alternatively, you can use the "Restore to Factory Defaults" tool to force the Broadband router to perform a power reset and restore the original factory settings.

Reset

You can reset the router's system should any problem exist. The reset function essentially re-boots your router's system.



DDNS

DDNS allows you to map the static domain name to a dynamic IP address. You must get an account, password and your static domain name from the DDNS service providers. This router supports DynDNS, TZO and other common DDNS service providers.



Enable/Disable Enable or disable the DDNS function of this router

Provider Select a DDNS service provider

Domain name Fill in your static domain name that uses DDNS

Account/E-mail The account that your DDNS service provider assigned to you

Password/Key The password you set for the DDNS service account above

Click **Apply**> at the bottom of the screen to save the above configurations.