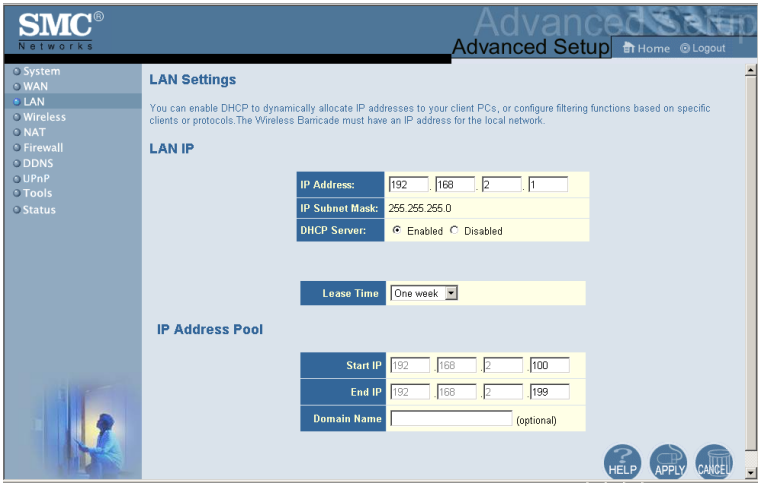
LAN



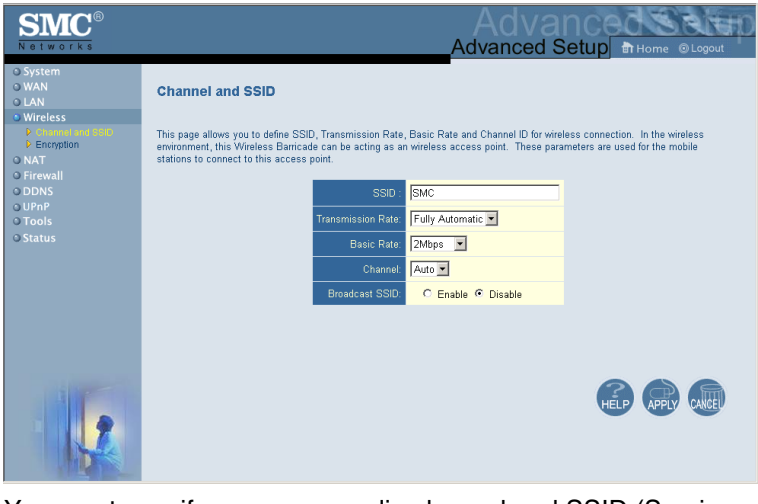
- LAN IP – Use the LAN menu to configure the LAN IP address for the Wireless Barricade and to enable the DHCP server for dynamic client address allocation.
- Set a period for the lease time if required. For home networks this may be set to Forever, which means there is no time limit on the IP address lease.
- IP Address Pool – A dynamic IP start address may be specified by the user, e.g. 192.168.2.100 (default value). Once this start IP address has been assigned, IP addresses running from 192.168.2.100 to 192.168.2.199 will be part of the dynamic IP address pool. IP addresses from 192.168.2.2 to 192.168.2.99, and 192.168.2.200 to 192.168.2.254 will be available as static IP addresses.

Remember not to include the address of the Wireless Barricade in the client address pool. Also remember to configure your client PCs for dynamic IP address allocation.

Wireless

To configure the Wireless Barricade as a wireless access point for wireless clients (either stationary or roaming), all you need to do is define the radio channel, the Service Set identifier (SSID), and encryption options.

Channel and SSID

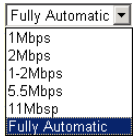


You must specify a common radio channel and SSID (Service Set ID) to be used by the Wireless Barricade and all of your wireless clients. Be sure you configure all of your clients to the same values.

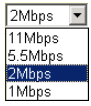
ESSID: The Service Set ID. This should be set to the same value as other wireless devices in your network. (Default: SMC.)

Note: The SSID is case sensitive and can consist of up to 32 alphanumeric characters.

Transmission Rate: Set the data rate transmitted from the Wireless Barricade. The lower the data rate, the longer the transmission distance. (Default: Fully Automatic.)



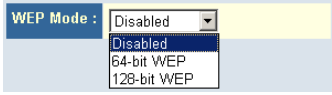
Basic Rate: The highest rate specified is the rate the Wireless Barricade will use when transmitting broadcast/multicast and management frames. Available options are: 1, 2, 5.5, and 11Mbps. (Default: 2Mbps.)



Channel: The radio channel through which the Wireless Barricade communicates with PCs in its BSS. (Default: Auto)

Note: The available channel settings are limited by local regulations.

Encryption



If you are transmitting sensitive data across wireless channels, you should enable Wired Equivalent Privacy (WEP) encryption. Encryption requires you to use the same set of encryption/decryption keys for the Wireless Barricade and all of your wireless clients. You can choose between standard 64-bit or the more robust 128-bit encryption.

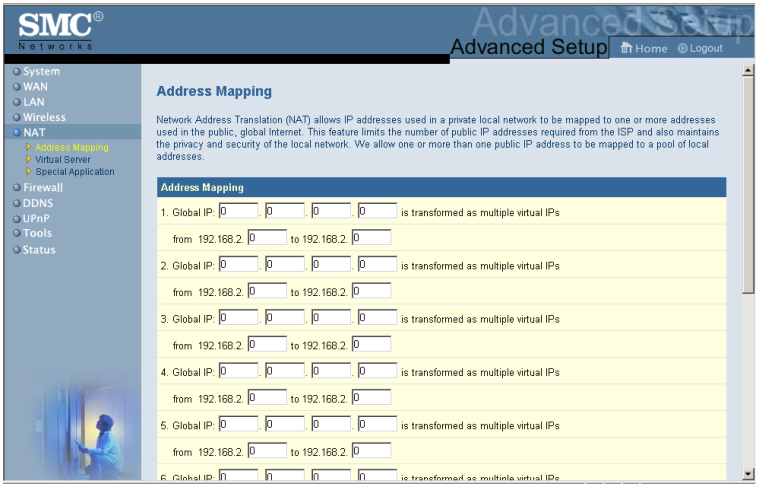
You may automatically generate encryption keys or manually enter the keys. For automatic 64-bit security, enter a passphrase and click Generate. Four keys will be generated (as shown below). Choose a key from the dropdown list or accept the default key. Automatic 128-bit security generates a single key.

If you use encryption, configure the same keys used for the Wireless Barricade on each of your wireless clients. Note that Wired Equivalent Privacy (WEP) protects data transmitted between wireless nodes, but does not protect any transmissions over your wired network or over the Internet.

Network Address Translation (NAT)

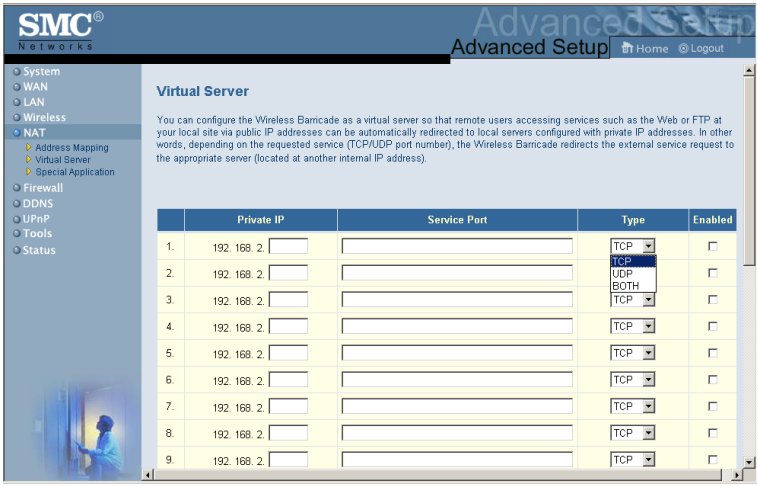
From this section you can configure the Address Mapping, Virtual Server, and Special Application features that provide control over the port openings in the Wireless Barricade's firewall. This section can be used to support several Internet based applications such as VPN

Address Mapping



Allows one or more public IP addresses to be shared by multiple internal users. Enter the Public IP address you wish to share into the Global IP field. Enter a range of internal IPs that will share the global IP.

Virtual Server



If you configure the Wireless Barricade as a virtual server, remote users accessing services such as Web or FTP at your local site via public IP addresses can be automatically redirected to local servers configured with private IP addresses. In other words, depending on the requested service (TCP/UDP port number), the Wireless Barricade redirects the external service request to the appropriate server (located at another internal IP address).

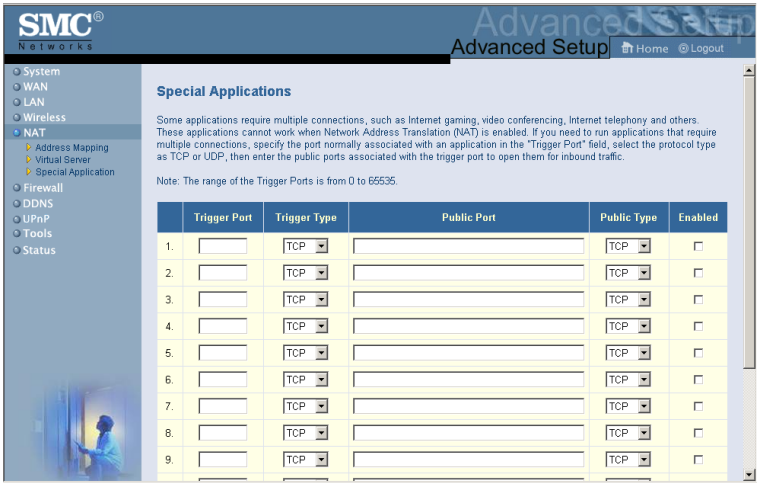
For example, if you set Type/Public Port to TCP/80 (HTTP or Web) and the Private IP/Port to 192.168.2.2/80, then all HTTP requests from outside users will be transferred to 192.168.2.2 on port 80. Therefore, by just entering the IP Address provided by the ISP, Internet users can access the service they need at the local address to which you redirect them.

The more common TCP service ports include:

HTTP: 80, FTP: 21, Telnet: 23, and POP3: 110.

Special Applications

Some applications, such as Internet gaming, videoconferencing, Internet telephony and others, require multiple connections. These applications cannot work with Network Address Translation (NAT) enabled. If you need to run applications that require multiple connections, use the following screen to specify the additional public ports to be opened for each application.



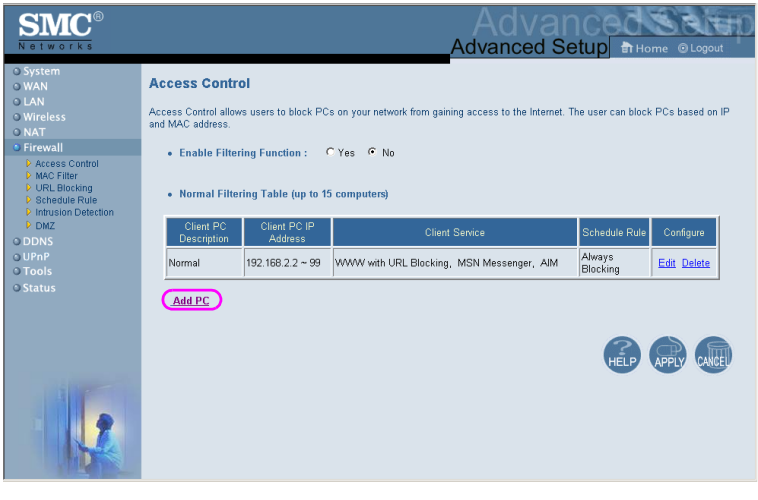
Specify the public port number normally associated with an application in the Trigger Port field. Set the protocol type to TCP or UDP, then enter the ports that the application requires. The ports may be in the format 7, 11, 57, or in a range, e.g., 72-96, or a combination of both, e.g., 7, 11, 57, 72-96.

For a full list of ports and the services that run on them, see www.iana.org/assignments/port-numbers.

Firewall

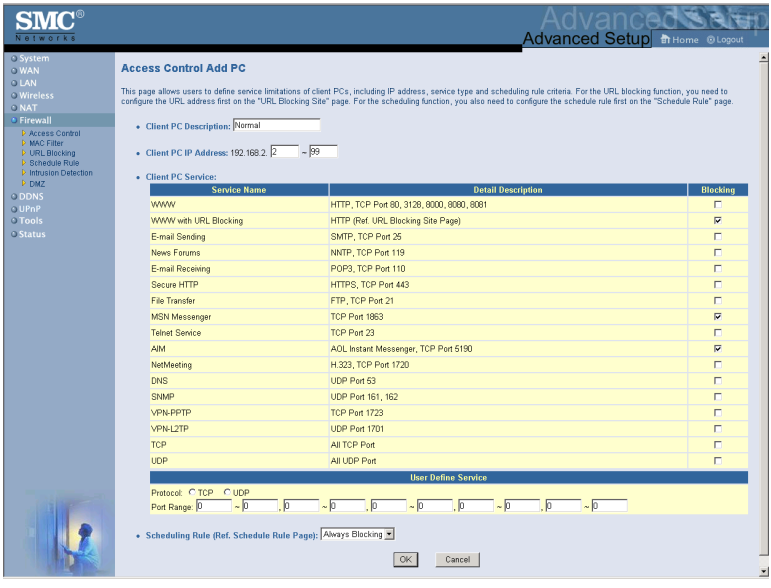
the Wireless Barricade firewall can provide access control of connected client PCs, block common hacker attacks, including IP Spoofing, Land Attack, Ping of Death, IP with zero length, Smurf Attack, UDP port loopback, Snork Attack, TCP null scan, and TCP SYN flooding. The firewall does not significantly affect system performance, so we advise leaving it enabled to protect your network users.

Access Control

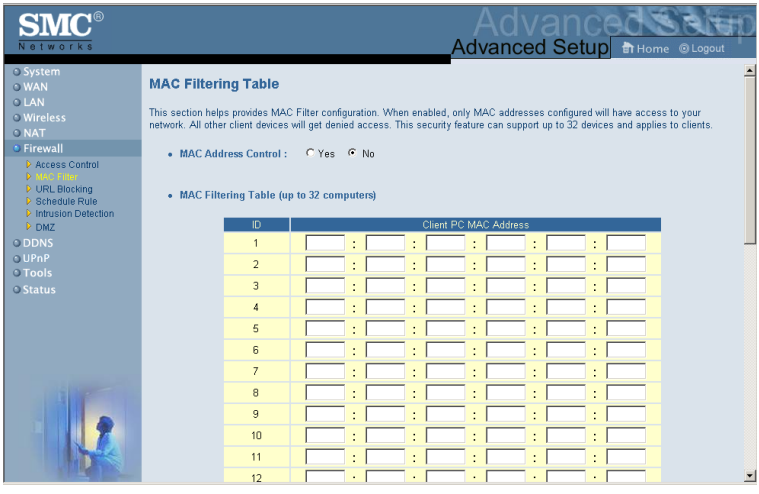


Using this option allows you to specify different privileges based on IP address for the client PCs.

Note: Click on Add PC and define the appropriate settings for client PC services (as shown in the following screen).



MAC Filtering Table



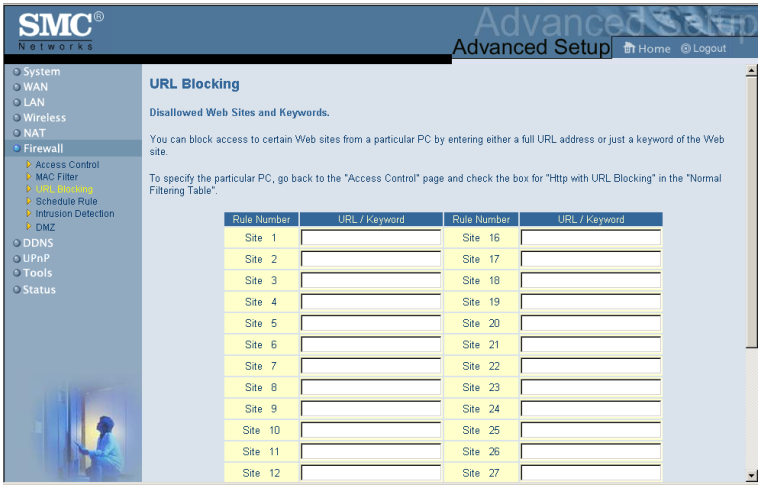
The MAC Filtering feature of the Wireless Barricade allows you to control access to your network to up to 32 clients based on the MAC (Media Access Control) Address of the client machine. This ID is unique to each network adapter. If the MAC address is listed in the table, that client machine will have access to the network.

URL Blocking

To configure the URL Blocking feature, use the table below to specify the websites (www.somesite.com) and/or keywords you want to filter on your network.

To complete this configuration, you will need to create or modify an access rule in “Access Control” on page 51. To modify an existing rule, click the Edit option next to the rule you want to modify. To create a new rule, click on the Add PC option.

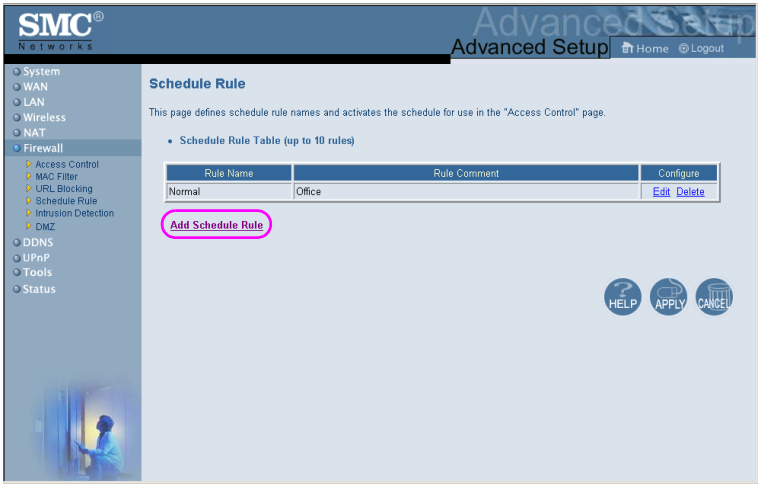
From the Access Control Add PC section check the option for WWW with URL Blocking in the Client PC Service table to filter out the websites and keywords specified below.



Use the above screen to block access to Web sites or to Web URLs containing the keyword specified in the table.

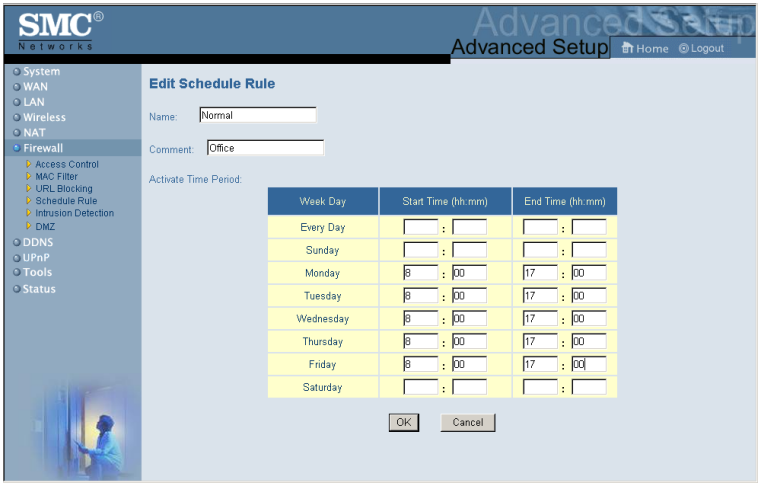
Schedule Rule

The Schedule Rule feature allows you to configure specific rules based on Time and Date. These rules can then be used to configure more specific Access Control.



Enables Schedule-based Internet access control.

1. Click Add Schedule Rule.
2. Define the settings for the schedule rule (as shown on the following screen).
3. Click OK and then click the APPLY button to save your settings.


SMC®
Networks
Advanced Setup
Home
Logout
System
WAN
LAN
Wireless
NAT
Firewall
Access Control
MAC Filter
URL Blocking
Schedule Rule
Intrusion Detection
DMZ
DDNS
UPnP
Tools
Status
Edit Schedule Rule
Name: Normal
Comment: Office
Activate Time Period:
Week Day
Start Time (hh:mm)
End Time (hh:mm)
Every Day
Sunday
Monday 8 : 00 17 : 00
Tuesday 8 : 00 17 : 00
Wednesday 8 : 00 17 : 00
Thursday 8 : 00 17 : 00
Friday 8 : 00 17 : 00
Saturday
OK
Cancel

Intrusion Detection

Firewall Configuration

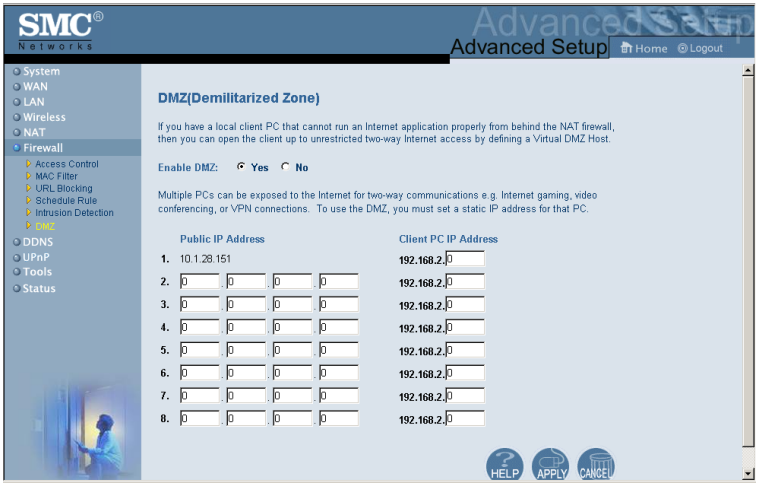
- **SPI (Stateful Packet Inspection) and Anti-DoS firewall protection (Default: Enabled)** – the Wireless Barricade's Intrusion Detection feature limits access for incoming traffic at the WAN port. When the SPI feature is turned on, all incoming packets will be blocked.

- **Discard Ping from WAN (Default: Enabled)** – Prevents a PING on the Wireless Barricade's WAN port from being routed to the network.

E-Mail Alert Configuration

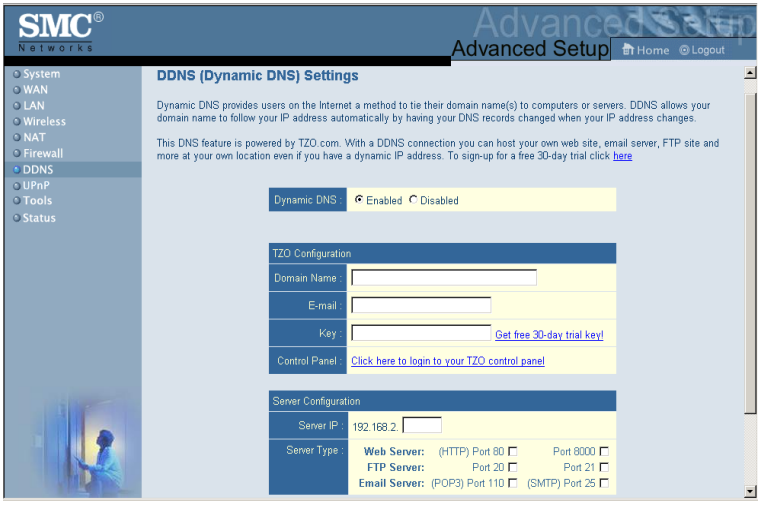
- **When hackers attempt to enter your network, we can alert you by e-mail** – Enter your E-mail address. Specify your SMTP and POP3 servers, user name, and password.

DMZ (Demilitarized Zone)



If you have a client PC that cannot run an Internet application properly from behind the firewall, then you can open the client up to unrestricted two-way Internet access. Enter the IP address of a DMZ host to this screen. Adding a client to the DMZ may expose your local network to a variety of security risks, so only use this option as a last resort.

DDNS (Dynamic DNS) Settings



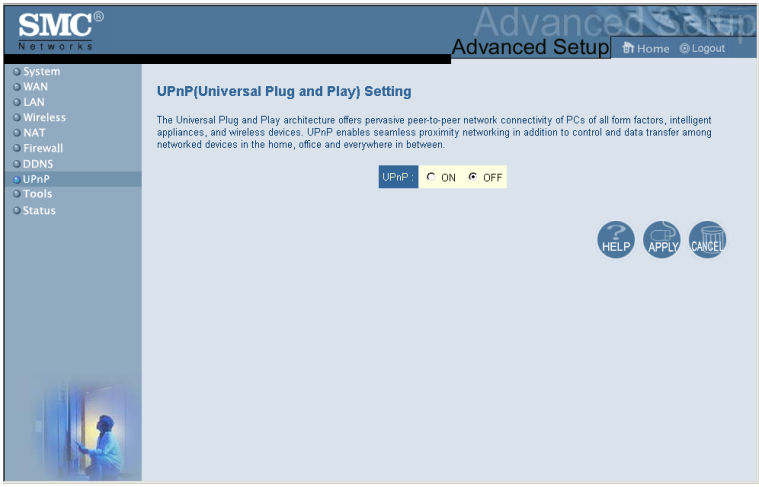
Domain Name is a series of alphanumeric strings separated by periods, that is the address of a network connection and that identifies the owner of the address.

Dynamic DNS provides users on the Internet with a method to tie their domain name(s) to computers or servers. DDNS allows your domain name to follow your IP address automatically by having your DNS records changed when your IP address changes.

The Server Configuration section automatically opens the port options checked in the Virtual Server section. Simply enter in the IP Address of your server, such as a web server, and then click on the port option HTTP Port 80 so users can access your server from the WAN connection (Internet).

This DNS feature is powered by TZO.com. With a DDNS connection you can host your own web site, email server, FTP site, and more at your own location even if you have a dynamic IP address. (Default: Disable)

UPnP (Universal Plug and Play) Setting



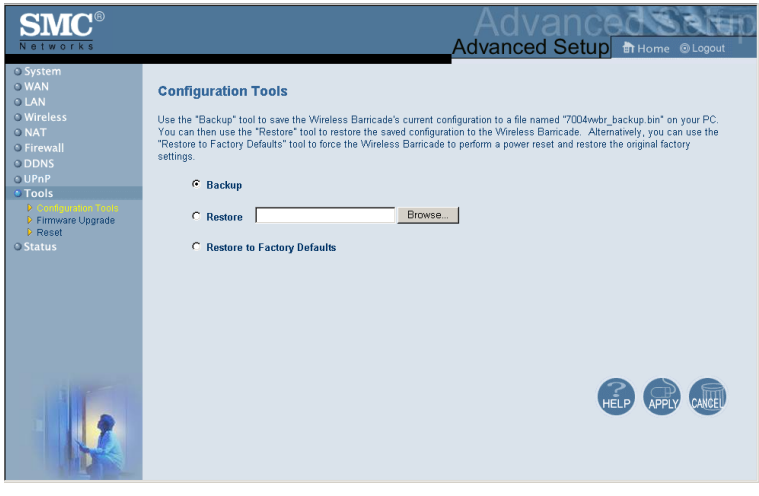
Enable UPnP by checking ON in the screen above. UPnP allows the device to automatically:

- dynamically join a network
- obtain an IP address
- convey its capabilities and learn about the presence and capabilities of other devices.(Default: OFF)

Tools

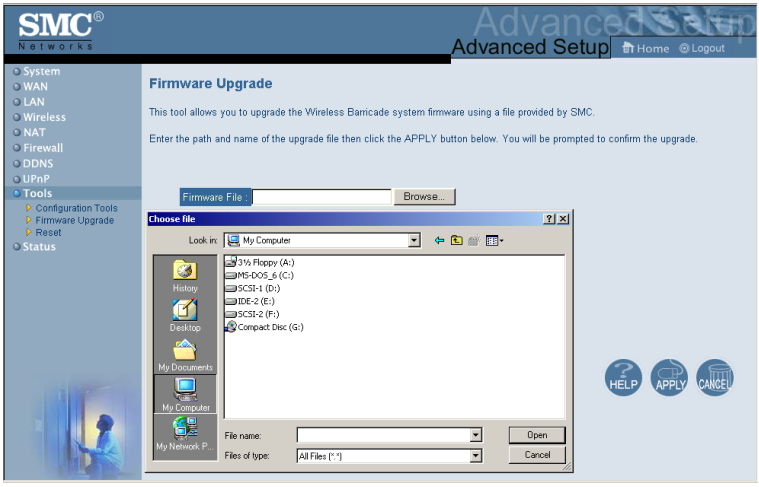
Use the Tools menu to backup the current configuration, restore a previously saved configuration, restore factory settings, update firmware, and reset the Wireless Barricade.

Tools - Configuration Tools



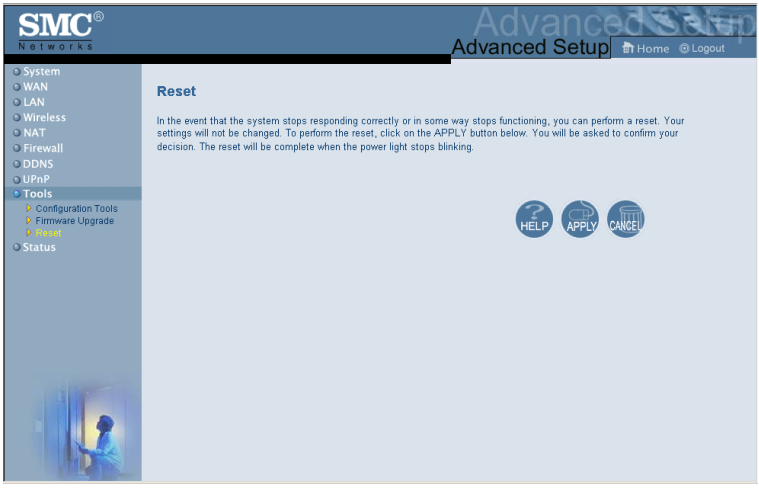
- Backup – saves the Wireless Barricade's configuration to a file.
- Restore – restores settings from a saved backup configuration file.
- Restore to factory defaults – restores the Wireless Barricade settings back to the factory default original.

Tools - Firmware Upgrade



Use this screen to update the firmware or user interface to the latest versions. Download the upgrade file from the SMC Web site (www.smc.com) and save it to your hard drive. In the Upgrade Target field, choose Firmware. Then click Browse to look for the previously downloaded file. Click APPLY. Check the Status page Information section to confirm that the upgrade process was successful.

Tools - Reset

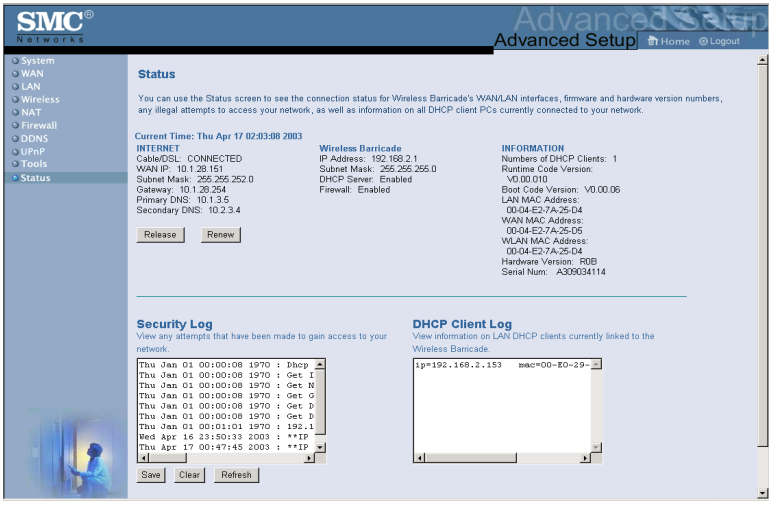


Click APPLY to reset the Wireless Barricade. The reset will be complete when the power LED stops blinking.

Note: If you use the Reset button on the front panel, the Wireless Barricade performs a power reset. If the button is held depressed for over five seconds, all the LEDs will illuminate and the factory settings will be restored.

Status

The Status screen displays WAN/LAN connection status, firmware, and hardware version numbers, illegal attempts to access your network, as well as information on DHCP clients connected to your network.



The following items are included on this screen:

Section	Description
INTERNET	Displays WAN connection type and status.
Wireless Barricade	Displays system IP settings, as well as DHCP and Firewall status.
INFORMATION	Displays the number of attached clients, the firmware versions, the physical MAC address for each media interface, as well as the hardware version and serial number.
Security Log	Displays illegal attempts to access your network.
Save	Click on this button to save the security log file.
Clear	Click on this button to delete the access log.
Refresh	Click on this button to refresh the screen.
DHCP Client Log	Displays information on all DHCP clients on your network.

TROUBLESHOOTING

The information outlined in this section describes some useful steps for getting your computer and the Wireless Barricade Router online.

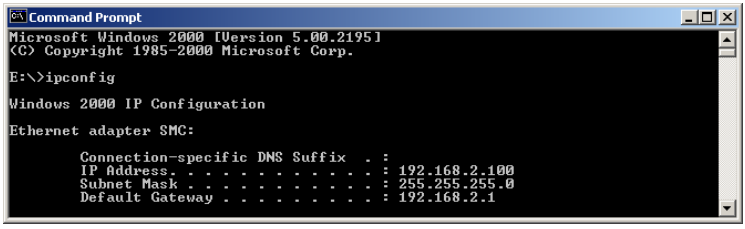
A. Verify your connection to the Wireless Barricade

If you are unable to access the Wireless Barricade's web-based administration pages then you may not be properly connected or configured. The screen shots in this section were taken on a Windows 2000 machine, but the same steps will apply to Windows 95/98/Me/XP.

To determine your TCP/IP configuration status please follow the steps below:

1. Click Start then choose Run.
2. Type cmd or command to open a DOS prompt.
3. In the DOS window, type ipconfig and verify the information that is displayed.
4. If your computer is setup for DHCP, then your TCP/IP configuration should be similar to the information displayed:

- IP Address: 192.168.2.X (x is number between 100 and 199)
- Subnet: 255.255.255.0
- Gateway: 192.168.2.1



If you have any other IP address information listed see below.

If you have an IP address that starts with 169.254.XXX.XXX then see the next section.

If you have another IP address configured, then see section C.

B. I am getting an IP Address that starts with 169.254.XXX.XXX

If you are getting this IP Address, then you need to check that you are properly connected to the Wireless Barricade.

Confirm that you have a good link light on the Wireless Barricade for the port this computer is connected to. If not, please try another cable.

If you have a good link light, please open up a DOS window as described in the previous section and type ipconfig/renew.

If you are still unable to get an IP Address from the Wireless Barricade, reinstall your network adapter. Please refer to your adapter manual for information on how to do this.

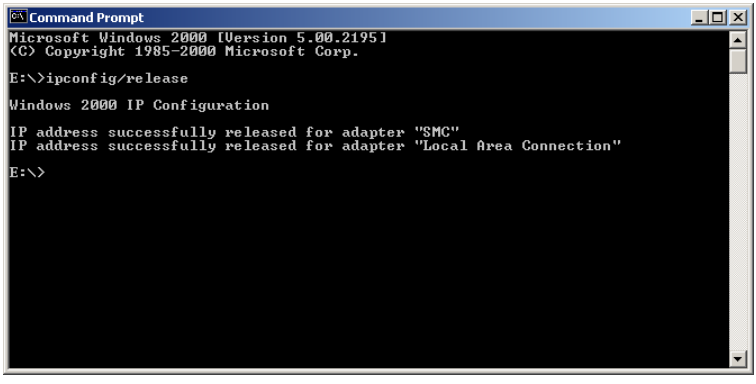
C. I have another IP Address displayed

If you have another IP address listed then the PC may not be configured for a DHCP connection. Please refer to “Configuring Client TCP/IP” on page 11 for information.

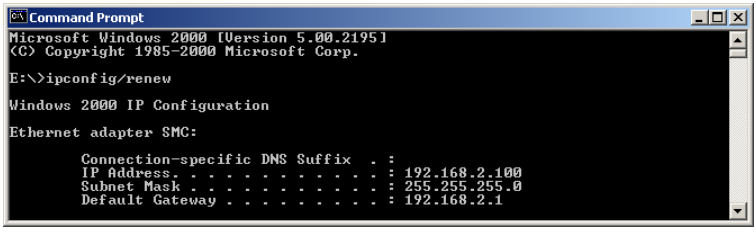
Once you have confirmed your computer is configured for DHCP, then please follow the steps below.

1. Open a DOS window as described above.

2. Type ipconfig/release.



3. Then type ipconfig/renew.



D. The 10/100 LED does not light after a connection is made.

1. Check that the host computer and hub are both powered on.
2. Be sure the network cable is connected to both devices.
3. Verify that Category 5 cable is used if you are operating at 100 Mbps, and that the length of any cable does not exceed 100 m (328 ft).
4. Check the network card connections.
5. The 10BASE-T/100BASE-TX hub/switch port, network card, or cable may be defective.

SPECIFICATIONS

Below is an outline of the Technical Specifications for the SMC7004VWBR

Standards
IEEE 802.3 10BASE-T Ethernet
IEEE 802.3u 100BASE-TX Fast Ethernet
IEEE 802.11b

LAN Interface
4 - RJ-45 10/100 Mbps Auto MDI/MDI-X ports

WAN Interface
1- RJ-45 10/100 Mbps Auto MDI/MDI-X port

Management
Web management

Advanced Features
Dynamic IP Address Configuration – DHCP, DNS
Firewall – Client privileges, hacker prevention and logging
Virtual Private Network – PPTP, L2TP, IPSec pass-through

Indicator Panel
Power, WLAN, WAN (Link, Activity), LAN (Link/Activity, 10/100 Mbps)LAN: Link/Activity, 10/100 (Mbps)

Temperature
Operating: 0 to 40 °C (32 to 104 °F)
Storage: -20 to 70 °C (-4 to 158 °F)

Dimensions
130 x 85 x 32 mm (5.12 x 3.35 x 1.26 in.)

Weight
370 g (13.05 oz)

Input Power
9 V (1 A)

Internet Standards
ARP (RFC 826), IP (RFC 791), ICMP (RFC 792), UDP (RFC 768), TCP (RFC 793), Telnet (RFC 854-859), MD5 (RFC 1321), BOOTP Extension (RFC 1497), PPP LCP Extension (RFC 1570), PPPoE (RFC 2516), NAT (RFC 1631), PPP (RFC 1661), HTML (RFC 1866), HTTP (RFC 1945), CHAP (RFC 1944), DHCP (RFC 2131), PPTP (RFC 2637)

Temperature
Operating (0 to 40 °C), 32 to 104 °F
Storage (- 40 to 70 °C), - 40 to 158 °F

Humidity
5% to 95% (noncondensing)

Compliances
CE Mark
Emissions
- FCC Class B
- VCCI Class B
- Industry Canada Class B
- EN55022 (CISPR 22) Class B
- C-Tick - AS/NZS 3548 (1995) Class B

Immunity
- EN 61000-3-2/3
- EN 61000-4-2/3/4/5/6/8/11

Safety
- UL 1950
- EN60950 (TÜV)
- CSA 22.2 No. 950

FOR TECHNICAL SUPPORT, CALL:
From U.S.A. and Canada (24 hours a day, 7 days a week)
(800) SMC-4-YOU; Phn: (949) 679-8000; Fax: (949) 679-1481
From Europe (8:00 AM - 5:30 PM UK Time)
44 (0) 118 974 8700; Fax: 44 (0) 118 974 8701

INTERNET
E-mail addresses:
techsupport@smc.com
european.techsupport@smc-europe.com

Driver updates:
http://www.smc.com/index.cfm?action=tech_support_drivers_downloads

World Wide Web:
http://www.smc.com/
http://www.smc-europe.com/

For Literature or Advertising Response, Call:

U.S.A. and Canada:	(800) SMC-4-YOU	Fax (949) 679-1481
Spain:	34-93-477-4935	Fax 34-93-477-3774
UK:	44 (0) 118 974 8700	Fax 44 (0) 118 974 8701
France:	33 (0) 41 38 32 32	Fax 33 (0) 41 38 01 58
Italy:	39 02 739 12 33	Fax 39 02 739 14 17
Benelux:	31 33 455 72 88	Fax 31 33 455 73 30
Central Europe:	49 (0) 89 92861-0	Fax 49 (0) 89 92861-230
Switzerland:	41 (0) 1 9409971	Fax 41 (0) 1 9409972
Nordic:	46 (0) 868 70700	Fax 46 (0) 887 62 62
Northern Europe:	44 (0) 118 974 8700	Fax 44 (0) 118 974 8701
Eastern Europe:	34 -93-477-4920	Fax 34 93 477 3774
Sub Saharan Africa:	27-11 314 1133	Fax 27-11 314 9133
North Africa:	34 93 477 4920	Fax 34 93 477 3774
Russia:	7 (095) 290 29 96	Fax 7 (095) 290 29 96
PRC:	86-10-6235-4958	Fax 86-10-6235-4962
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