

CHAPTER 3

CONFIGURING CLIENT PCs

TCP/IP Configuration

To access the Internet through the Barricade™ Plus Wireless Firewall Router, you must configure the network settings of the computers on your LAN to use the same IP subnet as the Barricade Plus. The default network settings for the Barricade Plus are:

Gateway IP Address: 192.168.2.1
Subnet Mask: 255.255.255.0

Note: These settings can be changed to fit your network requirements, but you must first configure at least one computer as described in Chapter 5 to access the Barricade Plus' Web configuration interface. (See Chapter 4 for information on configuring the Barricade Plus.)

If you have not previously configured TCP/IP for your computer, refer to “Installing TCP/IP Protocol in Your PC” on page 5-1.

All PCs connected to the Barricade Plus must be set to the same IP subnet as the Barricade Plus. The default subnet address of the Barricade Plus is 192.168.2.X (where X means 2–254) and the subnet mask is 255.255.255.0. You can set the IP address for client PCs either by automatically obtaining an IP address from the Barricade Plus' DHCP service or by manual configuration. See “Setting TCP/IP to Work with the Barricade Plus” on page 5-5.

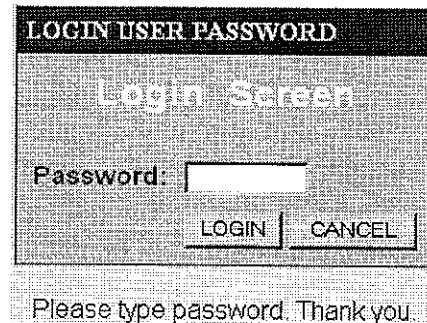
TCP/IP CONFIGURATION

CHAPTER 4

CONFIGURING THE BARRICADE PLUS

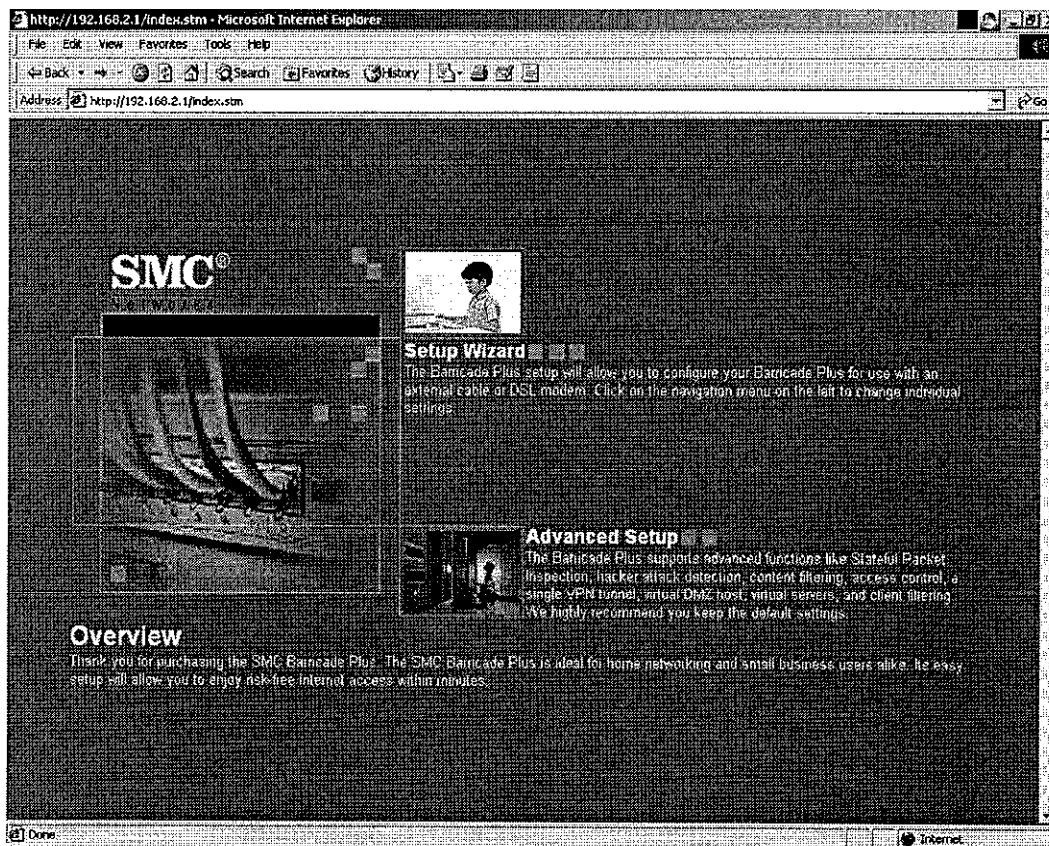
After you have configured TCP/IP on a client computer, you can use a Web browser to configure the Barricade™ Plus Wireless Firewall Router. The Barricade Plus can be configured by any Java-supported browser including Internet Explorer 4.0 or above, or Netscape Navigator 4.0 or above. Using the Web management interface, you can configure the Barricade Plus and view statistics to monitor network activity.

To access the Barricade Plus' management interface, enter the IP address of the Barricade Plus in your Web browser `http://192.168.2.1`. Then login the Barricade Plus system with no password (by default, there is no password).



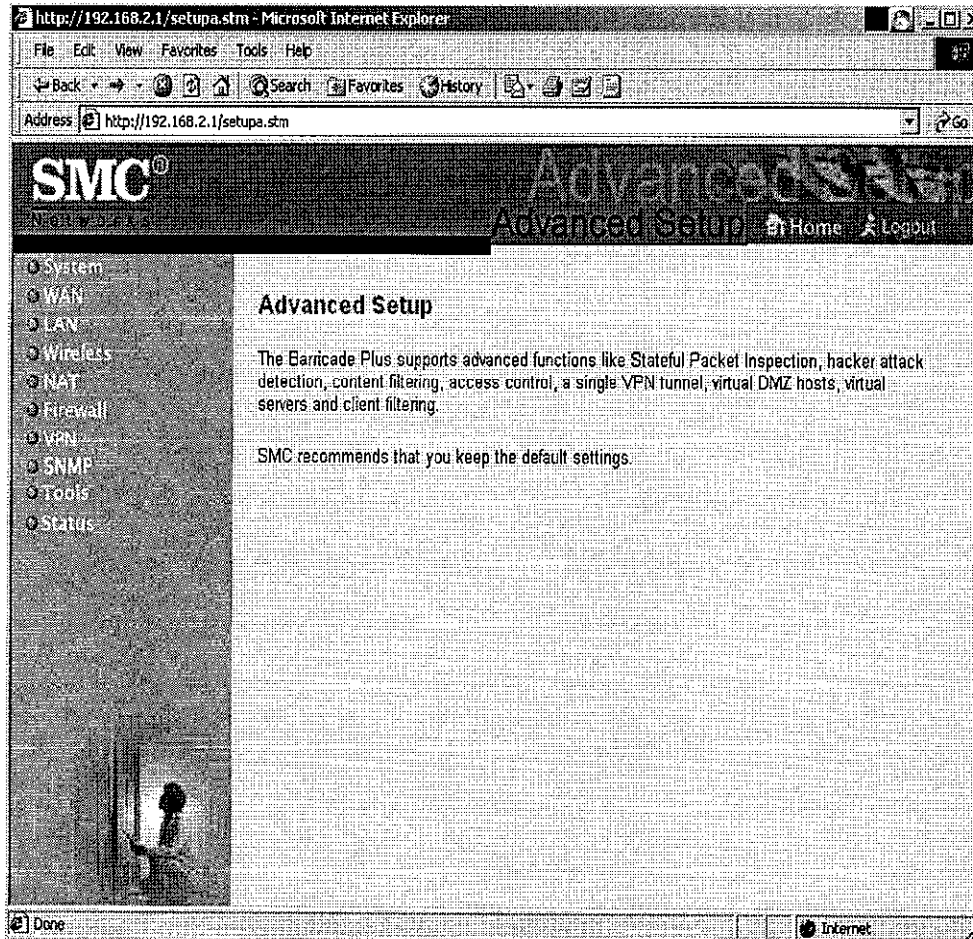
Note: For some browsers it may be necessary to include “:88” after the management IP address. For example,
`http://192.168.2.1:88`

The home page displays the “Setup Wizard” and “Advanced Setup” options. (Please refer to Quick Installation Guide for basic configurations.)



Advanced Setup Menu

Selecting the “Advanced Setup” displays the main menu on the left-hand side of the screen and descriptive information on the right-hand side. The Main Menu links are used to navigate to other menus that display configuration parameters and statistics.



Navigating the Web Browser Interface

The Barricade Plus’ advanced management interface includes ten key menus – System, WAN, LAN, Wireless, NAT, Firewall, VPN, SNMP, Tools, and Status. The System menu provides general information on the current settings and how to configure the




Barricade Plus. The WAN, LAN, Wireless, NAT, Firewall, VPN and SNMP menus are used to configure the LAN, WAN and wireless interface, as well as other functions. While the Tools menu is used to backup the Barricade Plus, restore the factory settings, update the firmware, or reset the Barricade Plus. The Status menu is used to see the connection status for the Barricade Plus' WAN/LAN interfaces, firmware, and hardware version numbers, any illegal attempts to access your network, as well as information on all DHCP client PCs currently connected on your network.

Main Menu

Using the Web management interface, you can define system parameters, manage and control the Barricade Plus and its ports, or monitor network conditions. The following table briefly describes the selections available from this "Advanced Setup" screen.

Menu	Description
<i>System Menu</i>	Configures TCP/IP settings and client services.
Time Zone	Sets the local time zone.
Password Settings	Sets the password for administrator access.
Remote Management	Sets the IP address for remote management station.
<i>WAN Menu</i>	<ul style="list-style-type: none">• Specifies the Internet connection type: (1) Dynamic IP host configuration and the physical MAC address of each media interface, (2) PPPoE configuration, or (3) Static IP and gateway address.• Specifies DNS servers to use for domain name resolution.
<i>LAN Menu</i>	Sets the TCP/IP configuration of the Barricade Plus' LAN interface and all DHCP clients.
<i>Wireless</i>	Configures the radio frequency, domain, and encryption for wireless communications.

Menu	Description
<i>NAT Menu</i>	Configures system IP settings, including: <ul style="list-style-type: none"> • Address Mapping • Virtual Server
<i>Firewall Menu</i>	Configures a variety of packet filtering and specialized functions, including: <ul style="list-style-type: none"> • Access Control • URL Blocking • Schedule Rule • Intusion Detection • DMZ (Demilitarized Zone)
<i>VPN Menu</i>	Provides one Virtual Private Network tunnel for secure Internet communication.
IPsec	Configures inbound and outbound Security Association (SA).
PPTP Client	Authenticates a PPTP tunnel to the destination host.
PPTP Server	Authorizes remote users using the PPTP tunneling protocol.
<i>SNMP Menu</i>	Displays and modifies parameters for the Simple Network Management Protocol (SNMP).
Community	Configures the community strings authorized for management access. Up to 5 community names may be entered.
Trap	Specify management stations that will receive authentication failure messages or other unsolicited message from the SNMP agent. Up to 5 trap managers may be entered.
<i>Tools Menu</i>	Contains options to reset the system, restore configuration settings, or update system firmware.
Configuration Tools	Allows you to backup the system configurations, restore the saved backup configuration file, or restore all configuration settings to the factory defaults.
Firmware Upgrade	Upgrades the system with the latest firmware obtained from SMC's website at www.smc.com

Menu	Description
Reset	Reboots the system and retains all of your configuration settings.
<i>Status Menu</i>	Displays WAN/LAN connection status, firmware and hardware version numbers, as well as information on all DHCP client PCs connected.
<i>Help Button</i> 	Contains information for product support, troubleshooting, and network terminology.
<i>Home Button</i> 	Go to the overview page of this Web management interface.
<i>Logout Button</i> 	Exit the Barricade Plus system.

Making Configuration Changes

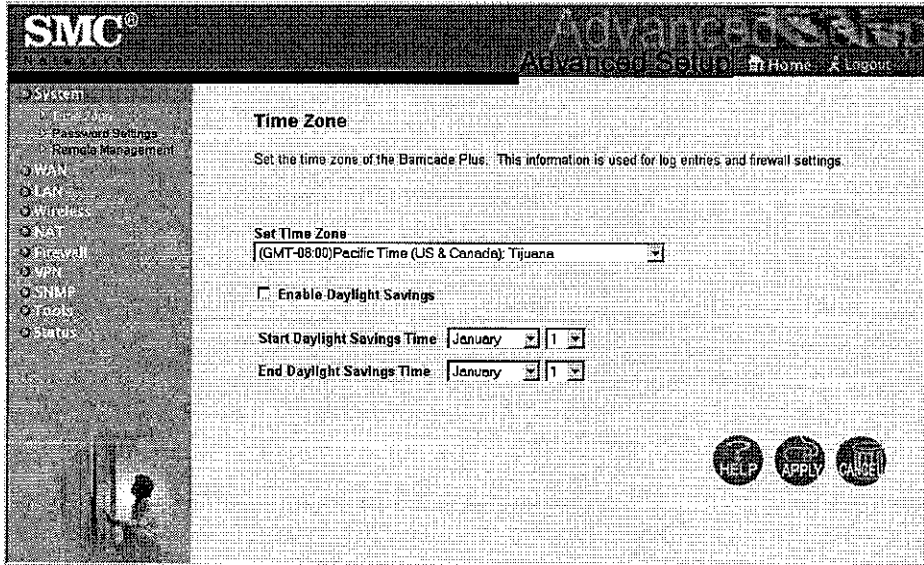
Configurable parameters have a dialog box or a drop-down list. Once a configuration change has been made on a page, be sure to click the “**APPLY**” button at the bottom of the page to confirm the new settings.



Note: To ensure proper screen refresh after a command entry, be sure that Internet Explorer 5.0 is configured as follows: Under the menu “Tools/Internet Options/General/Temporary Internet Files/Settings,” the setting for “Check for newer versions of stored pages” should be “Every visit to the page.”

System Settings

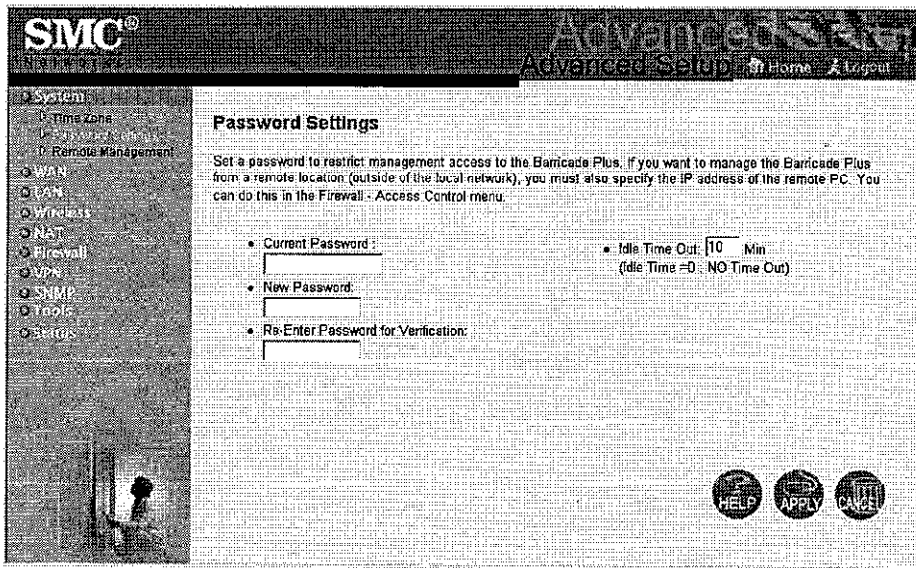
Set Time Zone



Set the time zone for the Barricade Plus. This information is used for log entries and client filtering.

Setting a Password

If this is your first time to access the Barricade Plus, you should define a new password, record it and put it in a safe place. From the “Advanced Setup” menu, select “System” and click on “Password Settings” and follow the instructions on the screen.

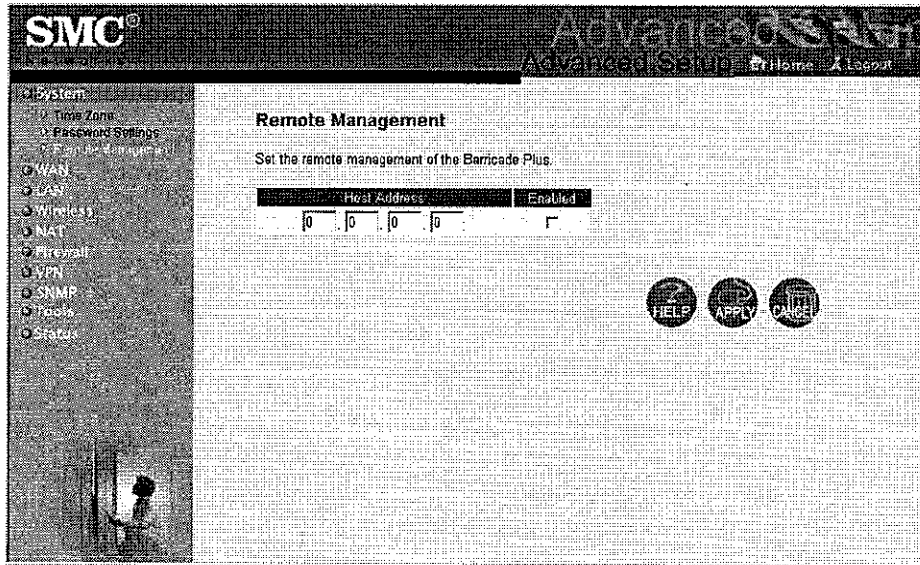


Use this menu to restrict management access based on a specific password. Anyone can access the “Setup Wizard,” “Advanced Setup” and Help menus, but you must enter a password to access the configuration options provided by the “Setup Wizard” and “Advanced Setup” menus. By default, there is no password. Please assign a password to the Barricade Plus as soon as possible, and store it in a safe place.

Passwords can contain from 3–12 alphanumeric characters, and are case sensitive.

Note: If your password is lost, or you cannot gain access to the management interface, press the Reset button on the front panel (holding it down for at least five seconds) to restore the factory defaults.

Remote Management



By default, management access is only available to users on your local network. However, you can also manage the Barricade Plus from a remote host by adding the IP address of an administrator to this screen.

Note: If you specify an IP address of 0.0.0.0, any host can manage the Barricade Plus. You can also manage the Barricade Plus from a remote host by typing “http://192.168.2.1:8080” in the “Address” field of your Web browser.

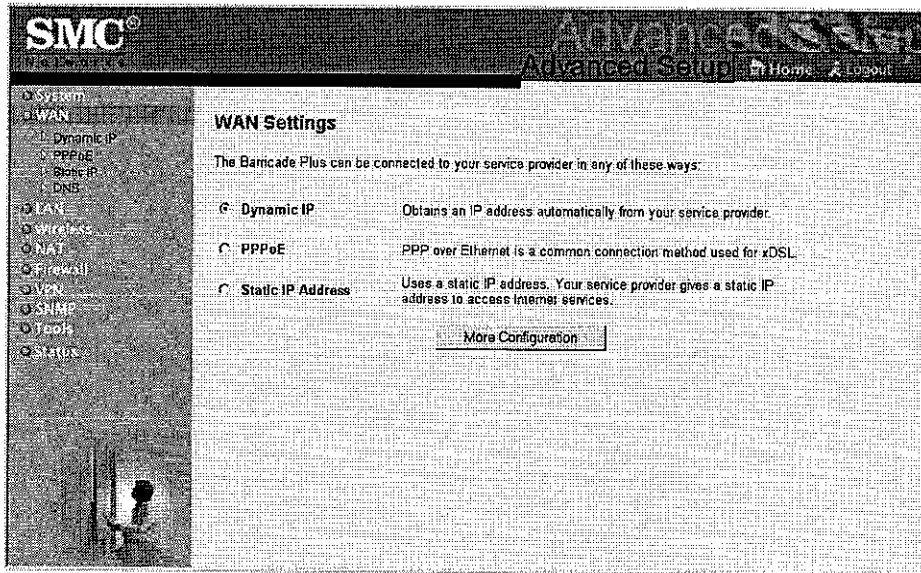
Networking and Client Services

You can use the “Setup Wizard” to change the required settings, or you can select the basic configuration items you need to change from the “Setup Wizard” screen. (Refer to Quick Installation Guide for configuring basic settings using the “1-2-3 Setup Wizard”.)

Use the “Advanced Setup” menu to configure the WAN connection options, the LAN interface (including TCP/IP parameters for the Barricade Plus’ gateway address, DHCP address pool for dynamic client address allocation), and other advanced services.

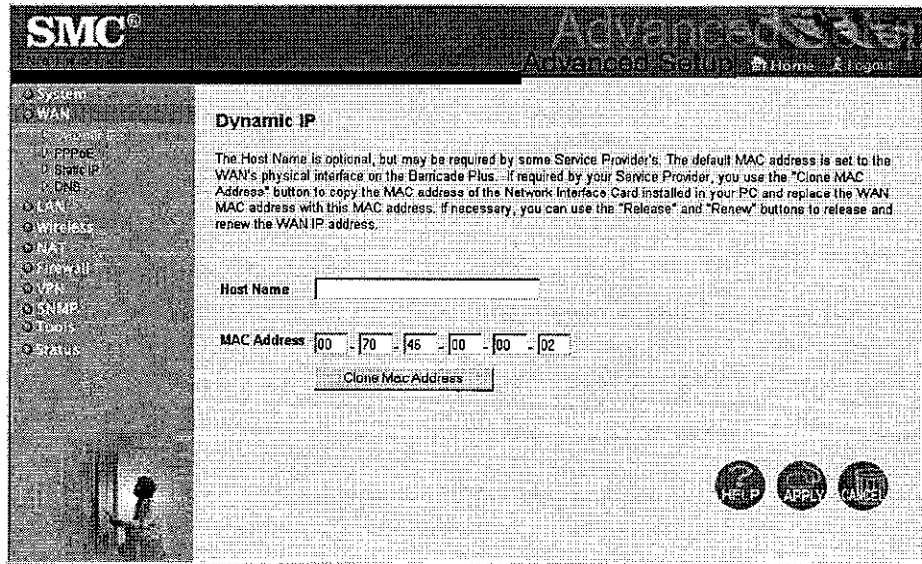
WAN Configuration

Specify the WAN connection type required by your Internet Service Provider, then click “More Configuration” to provide detailed configuration parameters for the selected connection type.



Specify one of the first three options to configure a WAN connection through the RJ-45 port (i.e., a connection to an xDSL modem or cable modem).

Dynamic IP Address – DHCP



The Host Name is optional, but may be required by some ISPs. The default MAC address is set to the WAN's physical interface on the Barricade Plus. Use this address when registering for Internet service, and do not change it unless required by your ISP. You can use the "Clone MAC Address" button to copy the MAC address of the Ethernet Card installed by your ISP (in your PC) and replace the WAN MAC address with this MAC address.

PPP over Ethernet – PPPoE

The screenshot shows the SMC Advanced Setup web interface. On the left is a navigation menu with options: System, WAN, Dynamic IP, Static IP, DNS, LAN, Wireless, NAT, Firewall, VPN, SNMP, Tools, and Status. The main content area is titled 'PPPoE' and contains the following text: 'Enter the PPPoE user name and password assigned by your Service Provider. The Service Name is normally optional, but may be required by some service providers. Enter a Maximum Idle Time (in minutes) to define a maximum period of time for which the Internet connection is maintained during inactivity. If the connection is inactive for longer than the Maximum Idle Time, then it will be dropped. You can enable the Auto-reconnect option to automatically re-establish the connection as soon as you attempt to access the Internet again.' Below this is a sub-section 'Use PPPoE Authentication' with a form containing: 'User Name', 'Password', 'Please retype your password', 'Service Name', 'MTU' (set to 1492 with a range of 1440 to 1492), 'Maximum Idle Time' (set to 10), and a checked 'Auto-reconnect' checkbox. At the bottom right are 'HELP', 'APPLY', and 'CANCEL' buttons.

Enter the PPPoE user name and password assigned by your ISP. The Service Name is normally optional, but may be required by some providers.

Specify the value of MTU (Maximum Transmission Unit) for proper Internet access such as browsing web sites and using E-mail. (Default: 1492)

Enter the maximum idle time for the Barricade Plus (in seconds).

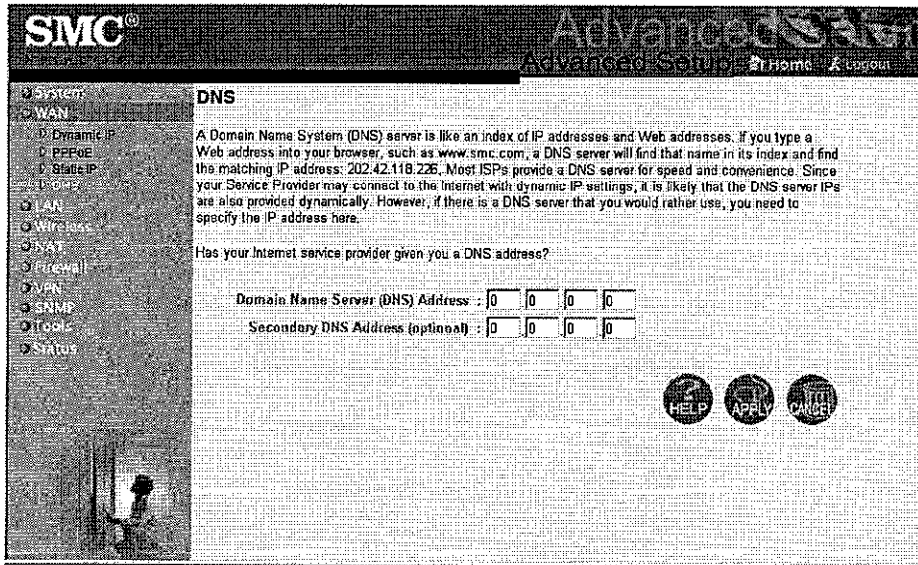
Static IP Address – Fixed IP

The screenshot shows the SMC Advanced System configuration interface. The left sidebar contains a navigation menu with the following items: System, WAN, Dynamic IP, PPPoE, DHCP, DNS, LAN, VLANs, NAT, Firewall, VPN, SNMP, Tools, and Status. The main content area is titled "Static IP" and contains the following text: "If your Service Provider has assigned a fixed IP address, enter the assigned IP address, subnet mask and the gateway address provided." Below this is a question: "Has your Service Provider given you an IP address and Gateway address?". There are three radio buttons: "Yes", "No", and "No". The "Yes" radio button is selected. Below the question are three input fields for IP addresses, each with four sub-fields for the octets. The first field is labeled "IP address assigned by your Service Provider", the second is "Subnet Mask", and the third is "Service Provider Gateway Address". At the bottom right of the form are three buttons: "HELP", "APPLY", and "CANCEL".

If your Internet Service Provider has assigned a fixed address, enter the assigned address and subnet mask for the Barricade Plus, then enter the gateway address of your ISP.

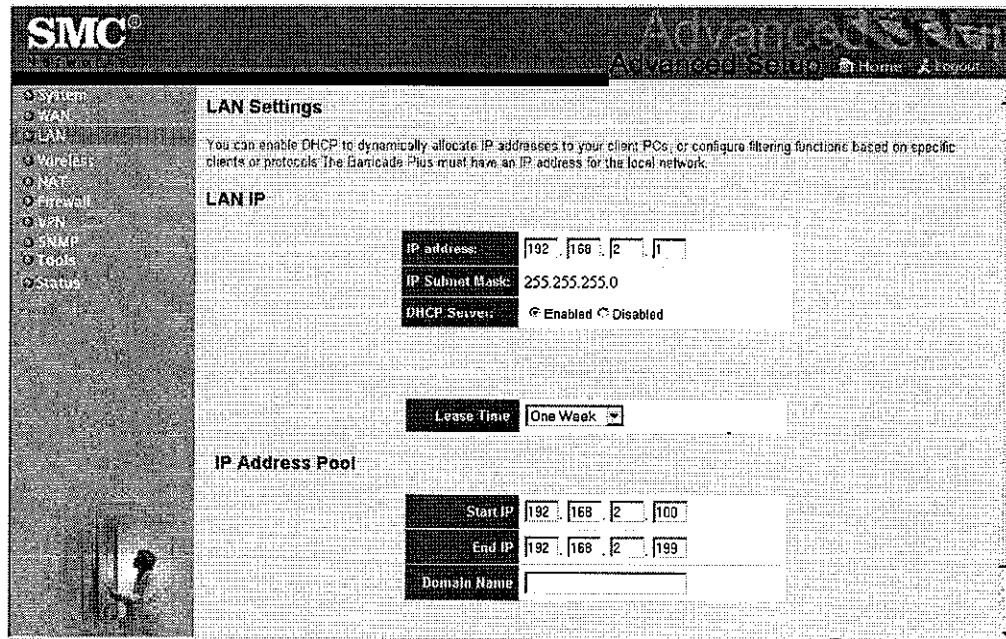
Note: You may need a fixed address if you want to provide Internet services, such as a Web server or FTP server.

DNS Configuration



Domain Name Servers are used to map an IP address to the equivalent domain name (e.g., www.smc.com). Your ISP should provide the IP address for one or more domain name servers. Enter those addresses on this screen.

LAN Gateway and DHCP Settings



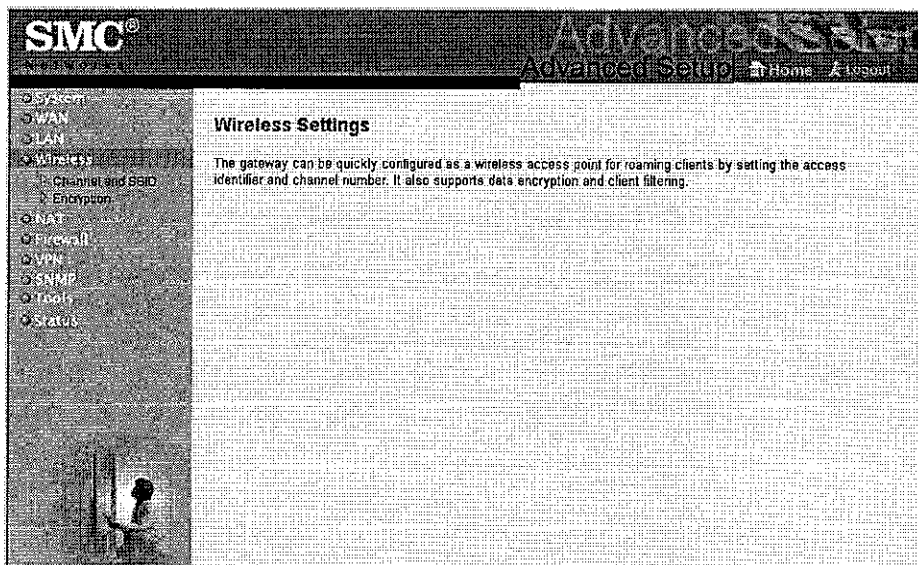
Configure the gateway address of the Barricade Plus. To dynamically assign the IP address for client PCs, enable the DHCP Server, set the lease time, and then specify the address range. Also remember to configure all of your client PCs for dynamic address allocation.

Valid IP addresses consist of four numbers, and are separated by periods. The first three fields are the network portion, and can be from 0–255, while the last field is the host portion and can be from 1–254. However, remember not to include the gateway address of the Barricade Plus in the client address pool. If you change the pool range, make sure the first three octets match the gateway’s IP address, i.e., 192.168.2.xxx.

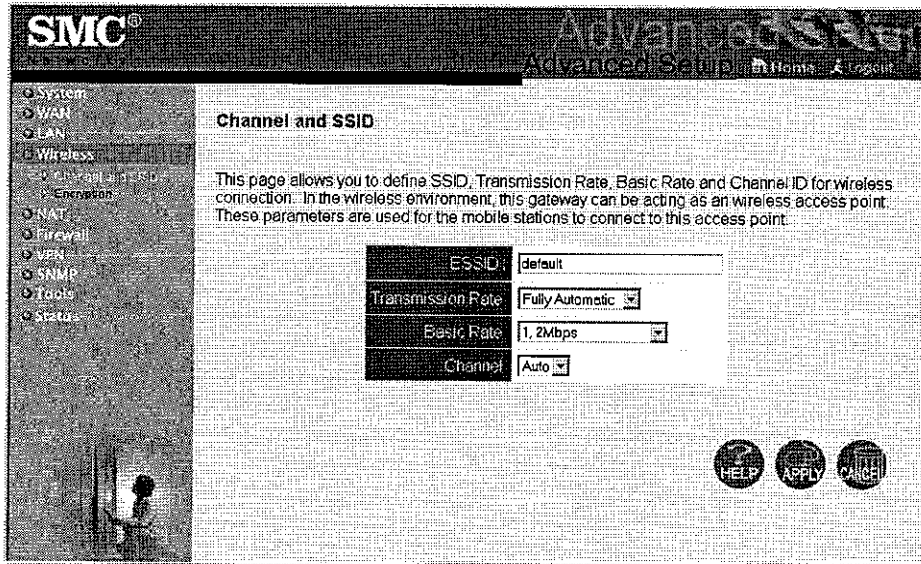
Note: Verify that your IP address pool is from 192.168.2.2 to 192.168.2.255, your subnet mask is 255.255.255.0 and your default gateway is 192.168.2.1.

Wireless Configuration

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



Channel and SSID

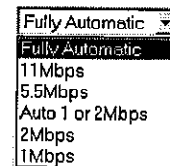


You must specify a common radio channel and SSID (Service Set ID) to be used by the Barricade Plus and all of your wireless clients. Be sure you configure all of your clients to the same values.

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

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

Transmission Rate: Set the signal strength transmitted from the Barricade Plus. The longer transmission distance, the higher transmission power required. (Default: Fully Automatic)



Basic Rate: Select “All (1, 2, 5.5, 11Mbps)” from the drop-down list to optimize the data transfer speed for your network. (Default: 1, 2Mbps)

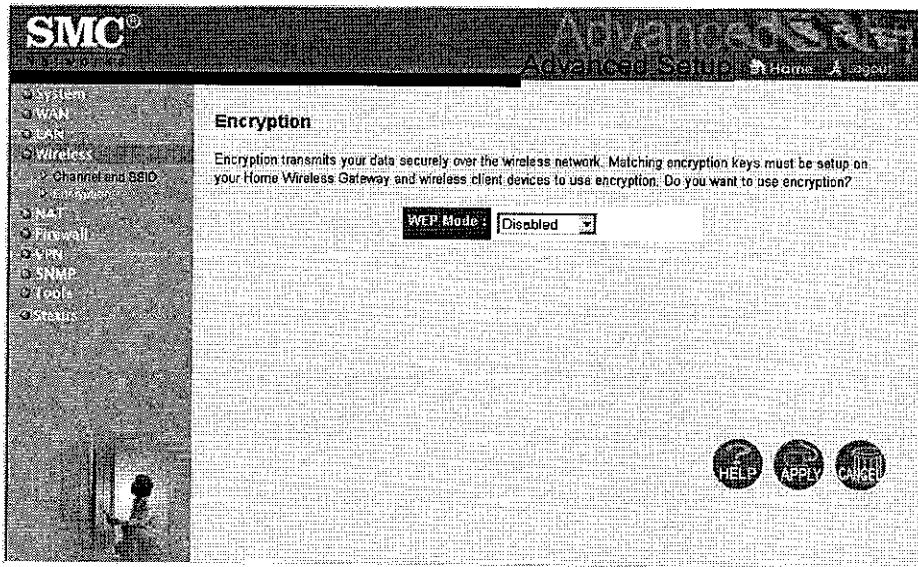


Channel: The radio channel through which the Barricade Plus communicates to PCs in its BSS. (Default: "Auto")

Note: The available channel settings are limited to local regulations, which determine the number of channels that are available.



Encryption



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

