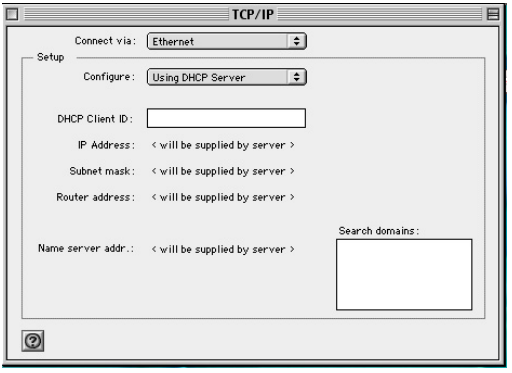
2. Your new settings are shown in the TCP/IP window. Verify that your IP Address is now **192.168.2.xxx**, your Subnet Mask is **255.255.255.0** and your Default Gateway is **192.168.2.1**. These values confirm that your Barricade is functioning.



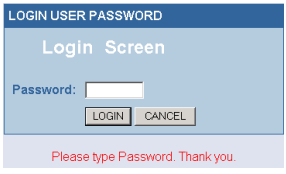
3. Close the TCP/IP window.

Now your computer is configured to connect to the Barricade.

CHAPTER 4
CONFIGURING THE BARRICADE

After you have configured TCP/IP on a client computer, use a Web browser to configure the Barricade. The Barricade 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 may configure the Barricade and view statistics to monitor network activity.

To access the Barricade's management interface, enter the IP address of the Barricade in your web browser:

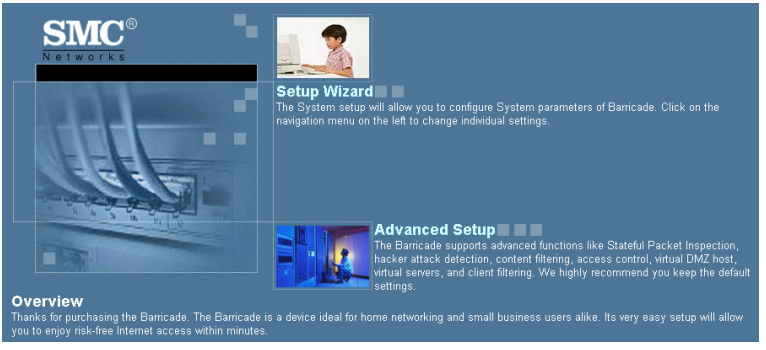


http://192.168.2.1

(The Barricade automatically switches to Port 88 for management access.) Then click LOGIN. (By default, there is no password.)

Navigating the Web Browser Interface

The Barricade's management interface consists of a Setup Wizard and an Advanced Setup section.



Setup Wizard: Use the Setup Wizard if you want to quickly set up the Barricade. Go to "Setup Wizard" on page 4-3.

Advanced Setup: Advanced Setup supports more advanced functions like hacker attack detection, IP and MAC address filtering, virtual server setup, virtual DMZ host, as well as other functions. Go to "Advanced Setup" on page 4-13.

Making Configuration Changes

Configurable parameters have a dialog box or a drop-down list. Once a configuration change has been made on a page, click the APPLY or NEXT button at the bottom of the page to enable the new setting.

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."

Setup Wizard

Time Zone

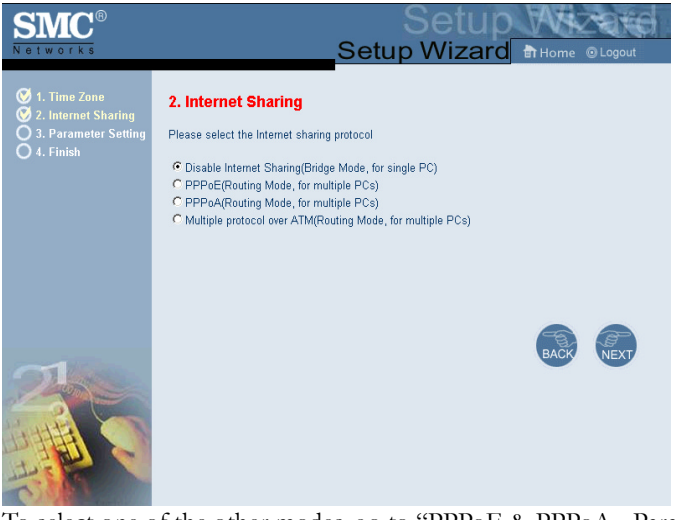
Click on the Setup Wizard picture. The first item in the Setup Wizard is Time Zone.

For accurate timing of log entries and system events, you need to set the time zone. Select your time zone from the drop-down list, and click NEXT.

If your area requires it, check to enable the clock for daylight saving changes, and enter the Daylight Saving Time start and end dates for your location.

Internet Sharing

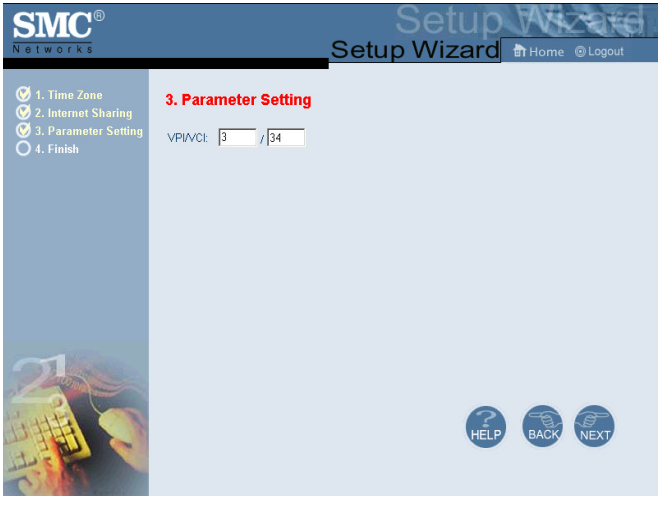
Select the operation mode protocol. For Disable Internet Sharing see the following page, and click NEXT.



To select one of the other modes, go to "PPPoE & PPPoA - Parameter Setting" on page 4-7, or go to "Multiple Protocol over ATM Mode - Parameter Setting" on page 4-10.

Disable Internet Sharing - Parameter Setting

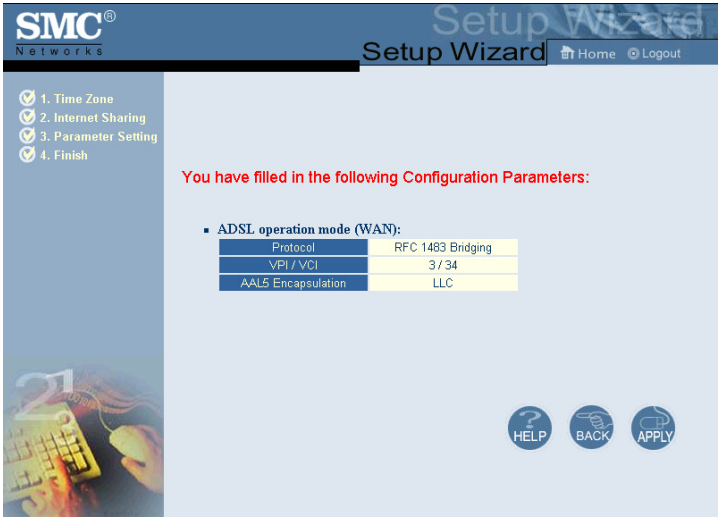
Enter VPI/VCI value in the provided spaces, then click NEXT.



Parameter	Description
VPI/VCI	Data flows are broken up into fixed length cells, each of which contains a Virtual Path Identifier (VPI) that identifies the path between two nodes, and a Virtual Circuit Identifier (VCI) that identifies the data channel within that virtual path. Each virtual circuit maintains a constant flow of cells between the two end points. When there is no data to transmit, empty cells are sent. And when data needs to be transmitted, it is immediately inserted into the cell flows.

Disable Internet Sharing - Finish

The Finish page allows you to view the connection status, as well as other information. Click APPLY.



Parameter	Description
Protocol	Indicates the protocol used.
VPI/VCI	Virtual Path Identifier (VPI) and Virtual Circuit Identifier (VCI). Go to "VPI/VCI" on page 4-5 for detailed description.
AAL5 Encapsulation	Shows the packet encapsulation type. Go to "Encapsulation" on page 4-20 for detailed description.

Your Barricade is now set up. If you cannot make a connection to the Internet, go to "Troubleshooting" on page A-1.

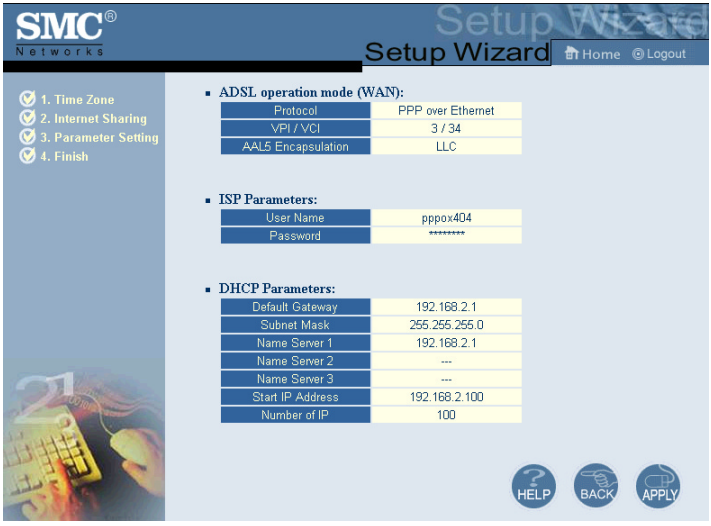
PPPoE & PPPoA - Parameter Setting

Enter the PPPoE (Point-to-Point Protocol over Ethernet) information in the provided spaces, and click NEXT.

Parameter	Description
Username	Enter the ISP assigned user name.
Password	Enter your password.
Retype Password	Confirm the password.
DNS	Enter a Domain Name Server IP address.
VPI/VCI	Virtual Path Identifier (VPI) and Virtual Circuit Identifier (VCI). Go to "VPI/VCI" on page 4-5 for detailed description.

PPPoE & PPPoA - Finish

The Finish page allows you to view the connection status, as well as other information. Click APPLY.



Parameter	Description
ADSL Operation Mode (WAN)	
Protocol	Indicates the protocol used
VPI/VCI	Virtual Path Identifier (VPI) and Virtual Circuit Identifier (VCI). Go to "VPI/VCI" on page 4-5 for detailed description.
AAL5 Encapsulation	Shows the packet encapsulation type. Go to "Encapsulation" on page 4-20 for detailed description.
ISP Parameters	
Username	The ISP assigned user name.
Password	The password (hidden).

Parameter	Description
DHCP Parameters	
Default Gateway	The default gateway IP address. If the Barricade cannot find the destination address within its local network, it will forward the packets to the Default Gateway (usually supplied by your ISP).
Subnet Mask	The network subnet mask.
Name Server 1	Primary name server IP address.
Name Server 2	Alternate name server IP address.
Name Server 3	Alternate name server IP address.
Start IP Address	Start IP address of DHCP assigned IP addresses.
Number of IP	Number of IPs available for assignment by the DHCP server.

Your Barricade is now set up. If you cannot make a connection to the Internet, go to "Troubleshooting" on page A-1.

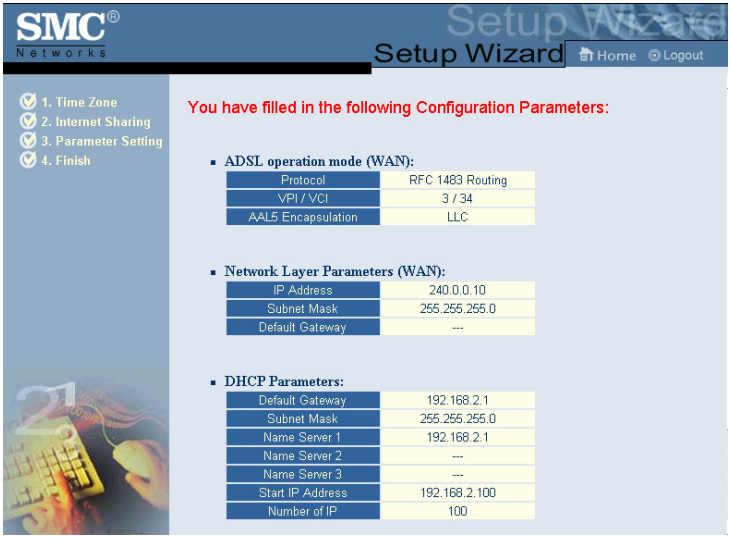
Multiple Protocol over ATM Mode - Parameter Setting

Enter ATM (Asynchronous Transfer Mode) information in the provided spaces, and click NEXT.

Parameter	Description
DNS	Enter a Domain Name Server IP address.
WAN IP	Enter an IP address for the Barricade WAN interface.
Subnet Mask	Enter a subnet mask.
VPI/VCI	Virtual Path Identifier (VPI) and Virtual Circuit Identifier (VCI). Go to "VPI/VCI" on page 4-5 for detailed description.
Default Gateway	Enter a default gateway IP address. If the Barricade cannot find the destination address within its local network, it will forward the packets to the Default Gateway (usually supplied by your ISP).

Multiple Protocol over ATM Mode - Finish

The Finish page allows you to view the connection status, as well as other information. Click APPLY.



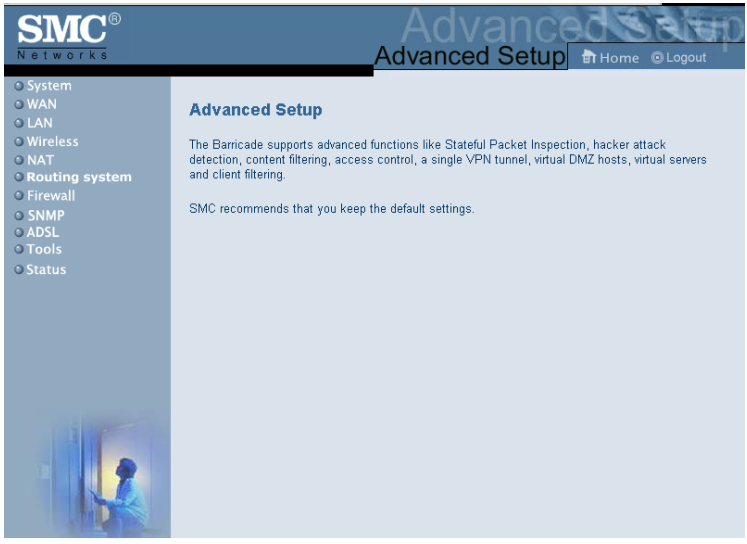
Parameter	Description
ADSL Operation Mode (WAN)	
Protocol	Indicates the protocol used.
VPI/VCI	Virtual Path Identifier (VPI) and Virtual Circuit Identifier (VCI). Go to "VPI/VCI" on page 4-5 for detailed description.
AAL5 Encapsulation	Shows the packet encapsulation type. Go to "Encapsulation" on page 4-20 for detailed description.
Network Layer Parameters (WAN)	
IP Address	Shows the WAN IP address.
Subnet Mask	Shows the WAN subnet mask.
Default Gateway	Shows the WAN default gateway.

Parameter	Description
DHCP Parameters	
Default Gateway	The default gateway IP address. If the Barricade cannot find the destination address within its local network, it will forward the packets to the Default Gateway (usually supplied by your ISP).
Subnet Mask	The network subnet mask.
Name Server 1	Primary name server IP address.
Name Server 2	Alternate name server IP address.
Name Server 3	Alternate name server IP address.
Start IP Address	Start IP Address of DHCP assigned IP addresses.
Number of IP	Number of IPs available for assignment by the DHCP server.

Your Barricade is now set up. If you cannot make a connection to the Internet, go to "Troubleshooting" on page A-1.

Advanced Setup

Click on the Advanced Setup picture. The left-hand side displays the main menu and the right-hand side shows descriptive information. The main menu links are used to navigate to other menus that display configuration parameters and statistics.



The Barricade's advanced management interface contains eleven main menu items – System, WAN, LAN, Wireless, NAT, Routing system, Firewall, SNMP, ADSL, Tools, and Status.

Use the Web management interface to define system parameters, manage and control the Barricade and its ports, or monitor network conditions.

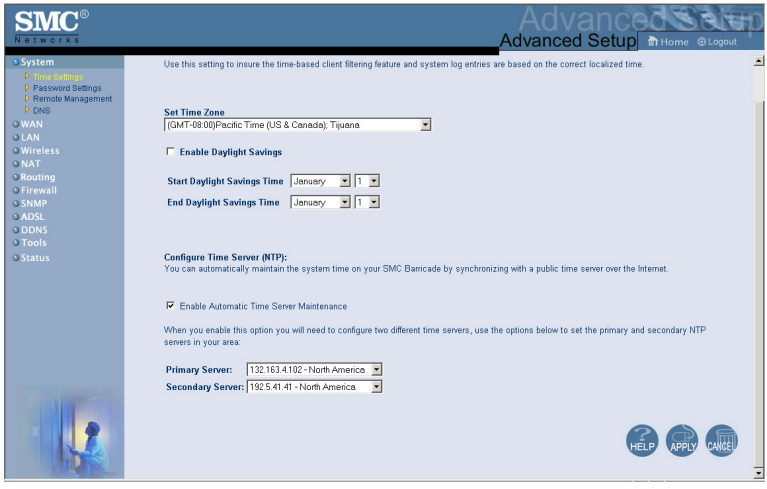
The following table briefly describes the Advanced Setup menu items.

Menu	Description
System	Sets the local time zone, the password for administrator access, the IP address of a PC that will be allowed to manage the Barricade remotely, and the IP address of a Domain Name Server.
WAN	Specifies the Internet connection settings.
LAN	Sets the TCP/IP configuration for the Barricade LAN interface and DHCP clients.
Wireless	Sets wireless parameters and encryption settings.
NAT	Shares a single ISP account with multiple users, sets up virtual servers.
Routing System	Sets routing parameters and displays the current routing table.
Firewall	Configures a variety of security and specialized functions including: Access Control, URL blocking, Internet access control scheduling, Intruder detection, and DMZ.
SNMP	Community string and trap server setting.
ADSL	Sets the ADSL operation type and shows the ADSL status.
Tools	Contains options to backup & restore the current configuration, restore all configuration settings to the factory defaults, update system firmware, or reset the system.
Status	Provides WAN connection type and status, firmware and hardware version numbers, system IP settings, as well as DHCP, NAT, firewall information.
	Displays the number of attached clients, the firmware versions, the physical MAC address for each media interface, and the hardware version and serial number.
	Shows the security and DHCP client log.

System Settings

Time Zone

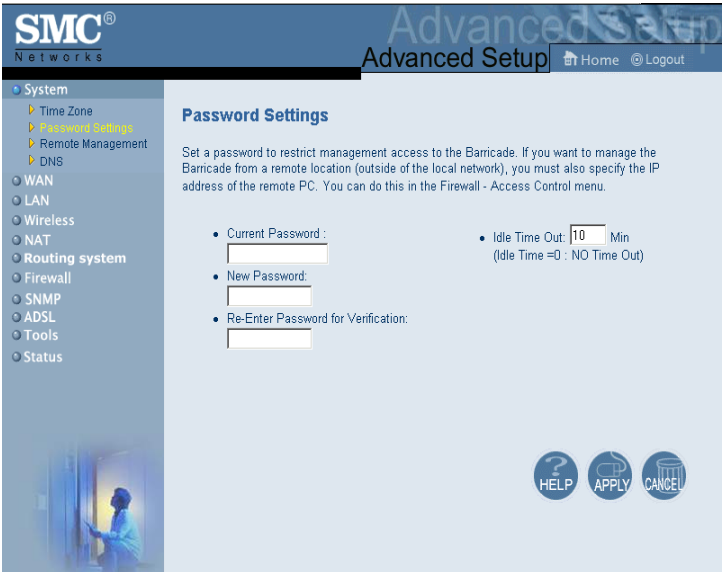
Select your local time zone from the drop-down list, and configure the time server for the Router. This information is used for log entries and client filtering.



If your area requires it, check to enable the clock for daylight saving changes, and enter the Daylight Saving Time start and end dates for your location.

Password Settings

Use this page to restrict access based on a password. By default, there is no password. For security you should assign one before exposing the Barricade to the Internet.



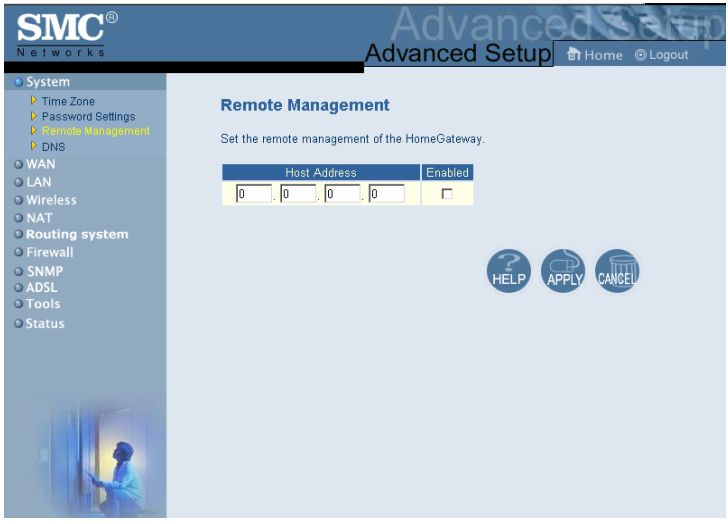
Passwords can contain from 3 ~ 12 alphanumeric characters and are not case sensitive.

Note: If your password is lost, or you cannot gain access to the user interface, press the reset button (colored blue) on the rear panel (holding it down for at least five seconds) to restore the factory defaults. (The default is no password.)

Enter a maximum Idle Time Out (in minutes) to define a maximum period of time for which the login session is maintained during inactivity. If the connection is inactive for longer than the maximum idle time, it will perform system logout, and you have to login to the Web management system again. (Default: 10 minutes.)

Remote Management

By default, management access is only available to users on your local network. However, you can also manage the Barricade from a remote host by entering the IP address of a remote computer on this screen. Check the Enabled checkbox to enable this function. Enter the Host Address and click APPLY.

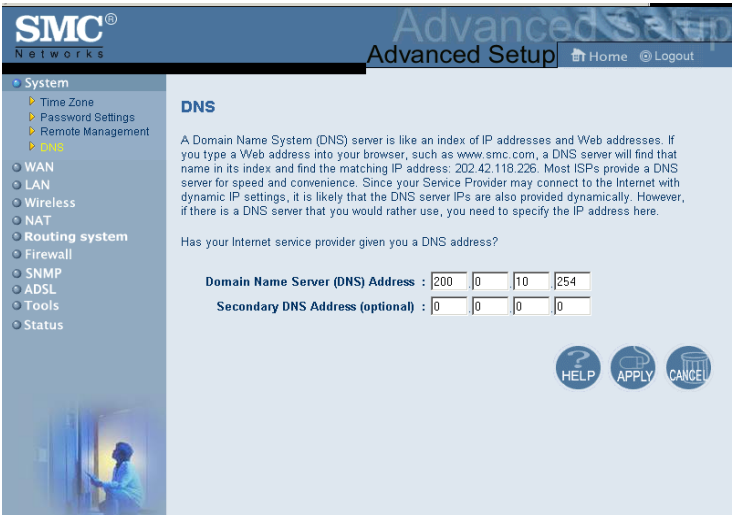


Notes: **1.** To access your Barricade from a remote location, you will need to know the IP address of the WAN interface shown under the Status page.

2. If you check Enabled and specify an IP address of 0.0.0.0, any host can manage the Barricade.

DNS

Domain Name Servers (DNS) are used to map a domain name (e.g., www.smc.com) to the equivalent numerical IP address (e.g., 64.147.25.20). Your ISP should provide the IP address of one or more Domain Name Servers. Enter those addresses on this page, and click APPLY.

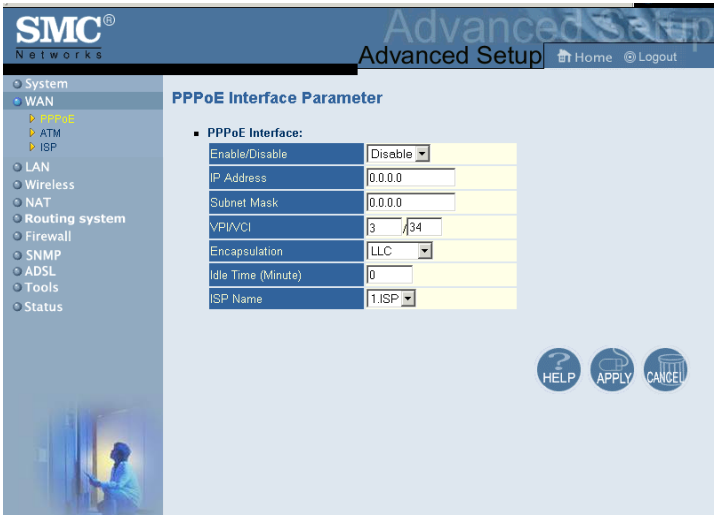


WAN

Specify the WAN connection type provided by your Internet Service Provider (ISP).

PPPoE (PPP over Ethernet)

Enter the PPPoE (Point-to-Point over Ethernet) interface parameters on this page. Click APPLY.

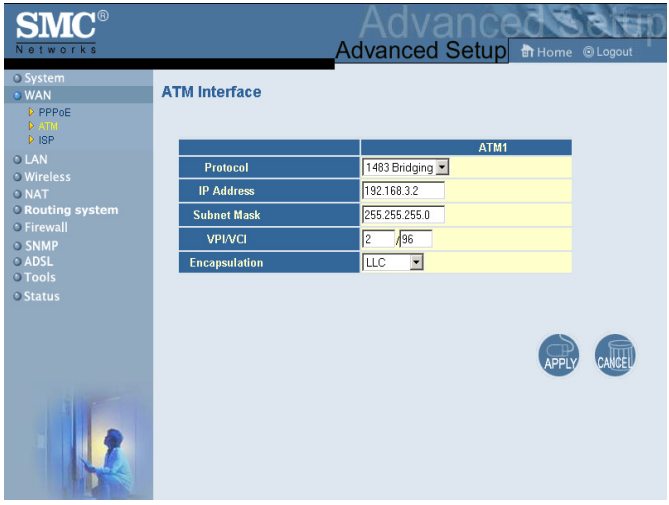


Parameter	Description
Enable/Disable	Enables/disables the PPPoE Interface.
IP Address	If your IP address is assigned by the ISP each time you connect, leave this field all zeros. Otherwise, enter your ISP supplied static IP address here.
Subnet Mask	If your subnet mask is assigned by the ISP each time you connect, leave this field all zeros. Otherwise, enter your subnet mask here.

Parameter	Description
VPI/VCI	Virtual Path Identifier (VPI) and Virtual Circuit Identifier (VCI). Go to "VPI/VCI" on page 4-5 for detailed description.
Encapsulation	Specifies how to handle multiple protocols at the ATM transport layer. • VC-MUX: Point-to-Point Protocol over ATM Virtual Circuit Multiplexer (null encapsulation) allows only one protocol running per virtual circuit with less overhead. • LLC: Point-to-Point Protocol over ATM Logical Link Control allows multiple protocols running over one virtual circuit (uses slightly more overhead).
Idle Time (Minute)	Enter the maximum idle time for the Internet connection. After this time has been exceeded the connection will be terminated.
ISP Name	Choose the ISP to whom this connection will apply.

ATM

Enter ATM (Asynchronous Transfer Mode) interface information on this page. Click APPLY.

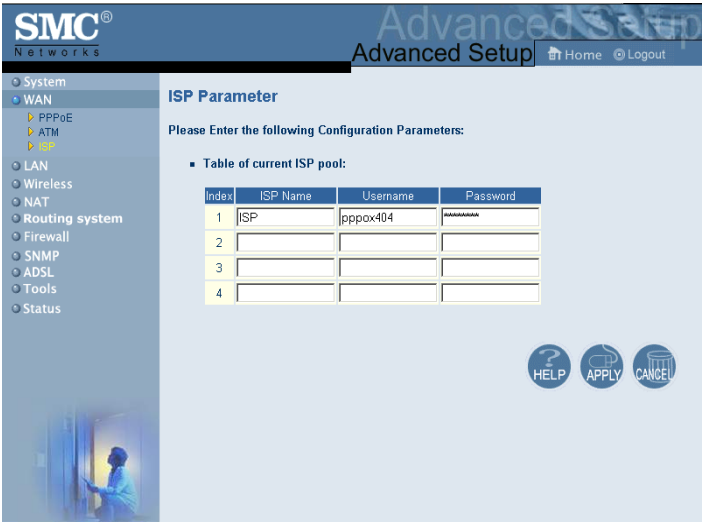


Parameter	Description
Protocol	• Disable: Disables the connection. • 1483 Bridging: Bridging is a standardized layer 2 technology. It is typically used in corporate networks to extend the physical reach of a single LAN segment and increase the number of stations on a LAN without compromising performance. Bridged data is encapsulated using the RFC1483 protocol to enable data transport. • PPPoA: Point-to-Point Protocol over ATM is a method of encapsulating data for transmission to a far point. • 1483 Routing: 1483 Routing allows a simple, low-cost connection to the Internet via a standard 10BASE-T port. The router looks up the network address for each packet seen on the LAN port. If the address is listed in the routing table as local, it is filtered. If the address is listed under the ADSL port, it is forwarded. Or if the address is not found, then it is automatically forwarded to the default router (i.e., the ADSL router at the head end).

Parameter	Description
IP Address	IP address of the ATM interface.
Subnet Mask	Subnet mask of the ATM interface.
VPI/VCI	Virtual Path Indicator/Virtual Channel Indicator: Each connection must have a unique pair of VPI/VCI settings. Go to "VPI/VCI" on page 4-5 for detailed description.
Encapsulation	Specifies how to handle multiple protocols at the ATM transport layer. Go to "Encapsulation" on page 4-20 for detailed description.

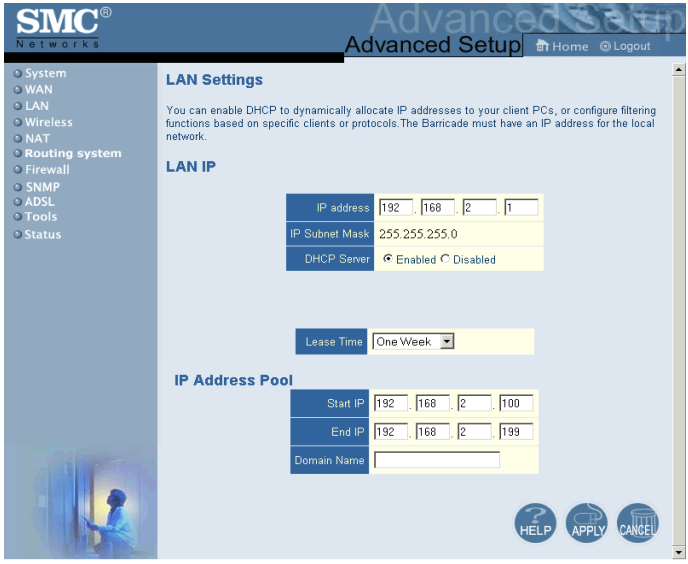
ISP

Enter the Internet Service Provider (ISP) name, user name, and password for each ISP connection you have.



LAN

Use the LAN menu to configure the LAN IP address and to enable the DHCP server for dynamic client address allocation.



Parameter	Description
LAN IP	
IP Address	The IP address of the Barricade.
IP Subnet Mask	The subnet mask of the network.
DHCP Server	To dynamically assign an IP address to client PCs, enable the DHCP (Dynamic Host Configuration Protocol) Server.
Lease Time	Set the DHCP lease time.

Parameter	Description
IP Address Pool	
Start IP Address	Specify the start IP address of the DHCP pool. Do not include the gateway address of the Barricade 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.
End IP Address	Specify the end IP address of the DHCP pool.
Domain Name	If your network uses a domain name, enter it here. otherwise leave this field blank

Remember to configure your client PCs for dynamic address allocation. (See "Configuring Client PC" on page 3-1 for details.)