

SofaWare S-box™

Internet Security Appliance

Getting Started Guide

SECURED BY



CHECK POINT™

SofaWare S-box™

Internet Security Appliance

Getting Started Guide

Version 2.0

Part No.: 700411

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SAFETY PRECAUTIONS

Read the following safety instructions before attempting to install or operate the SofaWare S-box. Carefully read the Installation Procedures and Operating Procedures provided in this User's Guide. Failure to follow these instructions may result in damage to equipment and/or personal injuries.

- ◆ Before cleaning the S-box, unplug the power cord. Use only a soft cloth dampened with water for cleaning.
- ◆ Any changes or modifications to this product not explicitly approved by the manufacturer could void any assurances of Safety or Performance and could result in violation of Part 15 of the FCC Rules.

- ◆ When installing the S-box, ensure that the vents are not blocked.
- ◆ **Do not** use the S-box outdoors.
- ◆ **Do not** expose the S-box to liquid or moisture.
- ◆ **Do not** expose the S-box to extreme high or low temperatures.
- ◆ **Do not** drop, throw, or bend the S-box since rough treatment could damage it.
- ◆ **Do not** use any accessories other than those approved by SofaWare. Failure to do so may result in loss of performance, damage to the product, fire, electric shock or injury, and will void the warranty.
- ◆ **Do not** disassemble or open the S-box. Failure to comply will void the warranty.
- ◆ **Do not** route the cables in a walkway or in a location that will crimp the cables.

REGULATIONS

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

POWER SUPPLY

- ◆ The S-box should only be used with the AC power supply provided. The AC power supply should be plugged into a surge protected power source. In addition, be careful not to overload the wall outlets, extension cords, etc. used to power this unit.
- ◆ Connect the AC power supply only to power sources as marked on the product.
- ◆ To reduce risk of damage to the electric cord, remove it from the outlet by holding the AC adapter rather than the cord.

SECURITY DISCLAIMER

The S-box provides your home/office network with the highest level of security. However, no product can provide you with absolute protection against a determined effort to break into your system. We recommend using additional security measures to secure highly valuable or sensitive information.



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Chapter 1

Introduction

About Your SofaWare S-box

The SofaWare S-box is an advanced Internet security appliance, enabling secure high-speed Internet access from the home or office. The S-box incorporates the market-leading firewall technology from Check Point Software Technologies, the worldwide leader in securing the Internet – stopping threats before they even reach your PC. The S-box firewall inspects and filters all incoming and outgoing traffic, blocking all unauthorized traffic.

Unlike PC-based firewalls, the S-box is a hardware appliance, hence making installation easier, and providing protection for your *entire* network - not just a single computer.

The S-box also allows sharing your Internet connection among several PCs or other network devices, enabling advanced home/office networking.

With the SofaWare S-box, home users can subscribe to valuable subscription security services, such as firewall security updates, parental control and others. Business users can use the S-box to securely connect to the corporate network.

SofaWare S-box Features and Compatibility

The S-box provides the following features:

Connectivity

- 4-port 10/100 Mbit/s Ethernet switch
- Internet connection sharing (NAT - “Network Address Translation”)
- PPPoE/PPTP support
- DHCP server and client



Security

- Advanced Stateful Inspection Firewall security.
- Protection from Denial of Service (DoS) attacks
- Anti-spoofing protection
- Intrusion logging
- Updateable and customizable security policy
- VPN option

Management

- Local Web-based interface
- Remote management by service provider or corporate
- Remote firmware updates

Security Services¹

- Automatic Firewall security updates
- Parental control
- E-mail anti-virus protection

Package Contents

- SofaWare S-box Internet Security Appliance
- CAT5 Straight-through Ethernet Cable
- Power Adapter
- Quick Start Guide
- This Getting Started Guide

Network Requirements

- A broadband Internet connection via cable or DSL modem with Ethernet interface (RJ-45)
- 10BaseT or 100BaseT Network Interface Card installed on each computer
- TCP/IP network protocol installed on each computer
- CAT5 network cable with RJ-45 connectors for each computer
- Internet Explorer 5.0 or higher, or Netscape Navigator 4.5 and higher

¹ Depends on availability of service in your area



Note - For optimal results it is highly recommended to use Microsoft Internet Explorer 5.5 or Netscape Navigator 4.7.

Getting to Know Your SofaWare S-box

Rear Panel

Figure 1 shows the S-box's rear panel. All physical connections (network and power) to the S-box are made via the rear panel of your S-box.



Figure 1 S-box Rear Panel Items

The following lists the SofaWare S-box's rear panel items.

Label	Description
PWR	A power jack used for supplying power to the unit. Connect the power adapter to this jack.
RESET	A button used for rebooting the S-box or resetting the S-box to its factory defaults. A sharp object is needed for pressing this button. Short press – reboots the S-box Long press (7 seconds) – resets the S-box to its factory defaults. This will result in loss of all security services and passwords and you will have to re-configure your S-box. DO NOT RESET THE UNIT WITHOUT CONSULTING YOUR S-BOX PROVIDER.
WAN	Wide Area Network: An Ethernet port (RJ-45) used for connecting your cable or xDSL modem.
LAN 1-4	Local Area Network: Four Ethernet ports (RJ-45) used for connecting computers or other network devices.



Front Panel

The SofaWare S-box includes 11 status LEDs. You can monitor the S-box’s operation by viewing these LEDs during operation. Figure 2 shows the S-box status LEDs.



Figure 2 S-box Front Panel

LED	Description	
PWR/SEC	Off – Power off	
	Flashing quickly (Green) - System boot-up	
	Flashing slowly (Green) - Establishing Internet connection	
	On (Green) – Normal Operation	
	Flashing (Red) – Hacker attack blocked	
LAN 1-4/ WAN	On (Red) – Error	
	LINK/ACT Off, 100 Off	Link is down.
	LINK/ACT On, 100 Off	10Mbps link established for the corresponding port.
	LINK/ACT On, 100 On	100Mbps link established for the corresponding port.
	LINK/ACT Flashing	Data is being transmitted/received



Chapter 2

Installing Your S-box

This chapter describes how to properly set up and install your S-box in your networking environment. The following topics are covered:

- Checking the computer's TCP/IP Installation and Configuration
- Installing the TCP/IP protocol on your computer (if not installed)
- Configuring the TCP/IP settings for different platforms.
- Network Installation.

Before You Install the S-box

Prior to connecting and setting up your S-box for operation you must do the following:

- Check if TCP/IP Protocol is installed on your computer.
- Check your computer's TCP/IP settings to make sure it obtains its IP address automatically.

Refer to the relevant section in this guide in accordance with the operating system that runs on your computer. The following sections will guide you through the TCP/IP setup and installation process.

Windows 95/98 Operating Systems

Checking the TCP/IP Installation

1. Click **Start > Settings > Control Panel**. The Control Panel window appears (see Figure 3).

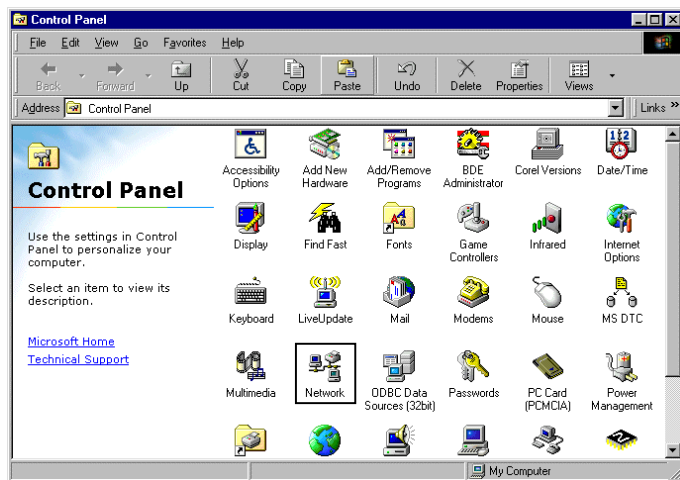


Figure 3 Control Panel Window



2. Double click on **Network** icon. The Network window appears.

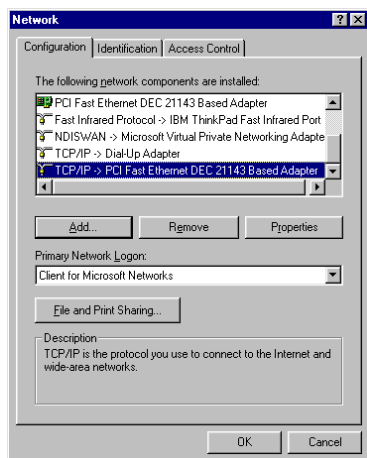


Figure 4 Network Window

3. In the Network window, check if TCP/IP appears in the network components list and if it is already configured with the Ethernet card, installed on your computer.



Installing TCP/IP Protocol



Note - If TCP/IP is already installed and configured on your computer skip this section and move directly to TCP/IP Settings.

1. In the Network window, click Add.
The Select Network Component Type window appears.

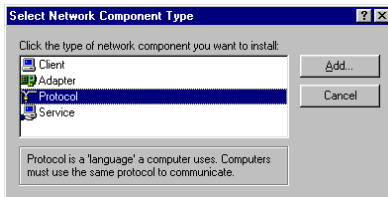


Figure 5 Choosing the Protocol Component Type

2. Choose **Protocol** and click **Add**. The Select Network Protocol window appears.
3. In the Select Network Protocol window, choose **Microsoft** in Manufacturers and **TCP/IP** in Network Protocols.
4. Click **OK**. Windows may ask for original Windows installation files. Provide the installation CD and relevant path when required (e.g. D:\win98, D:\win95 etc.)
5. Restart your computer if prompted.

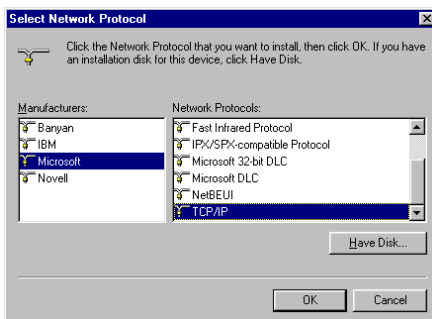


Figure 6 Selecting the Network Protocol



TCP/IP Settings



Note - If you are connecting your S-box to an existing LAN, consult your network manager for the correct configurations.

1. In the Network window, double-click the TCP/IP service for the Ethernet card, which has been installed on your computer

(e.g. ).

The TCP/IP Properties window opens.

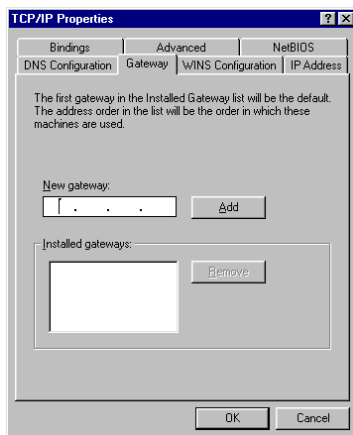


Figure 7 Removing Gateways

2. Click the **Gateway** tab, and remove any installed gateways.
3. Click the **DNS Configuration** tab, and click the **Disable DNS** radio button.

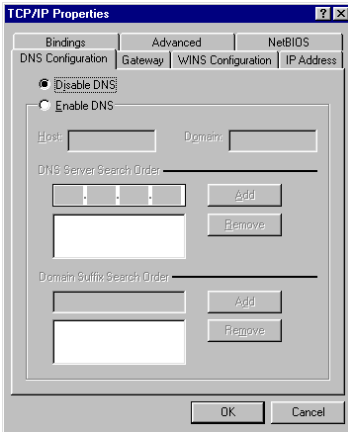


Figure 8 Disabling the DNS

4. Click the **IP Address** tab, and click the **Obtain an IP address automatically** radio button.

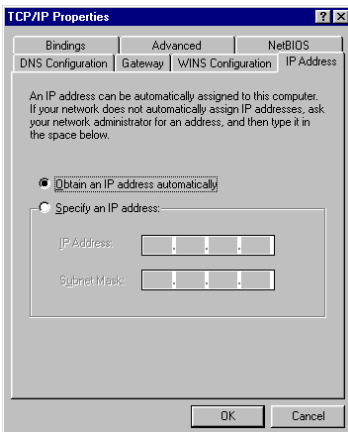


Figure 9 Setting the IP Address to be Obtained Automatically



Note - Normally, it is not recommended to assign a static IP address to your PC but rather use DHCP. If from some reason you need to assign a static IP address, select **Specify an IP address** and type in an IP address in the range of 192.168.10.129-254, enter 255.255.255.0 in the Subnet Mask field and click OK to save the new settings.



- Click **Yes** when prompted for “**Do you want to restart your computer ?**”.
- Your computer will restart for the new settings to take effect.
Your computer is now ready to access your S-box.

Windows 2000 Operating System

Checking the TCP/IP Installation

- Click **Start > Settings > Control Panel**. The Control Panel window appears (see Figure 3).

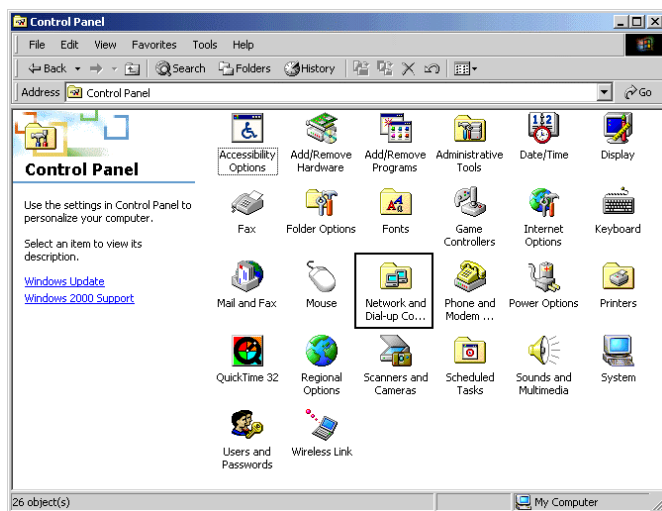


Figure 10 Control Panel Window

- Double click on **Network and Dial-up Connections** icon.
- The Network and Dial-up Connections window appears.

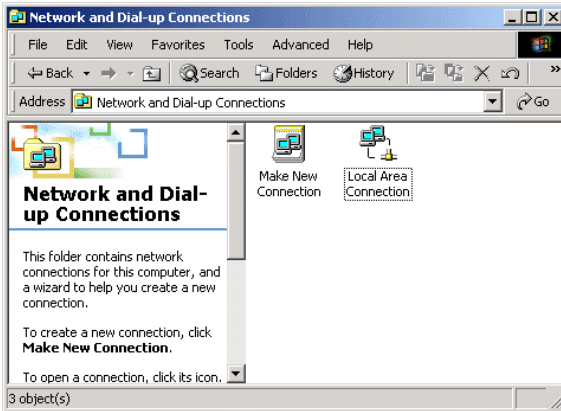


Figure 11 Network and Dial-up Connections Window

3. Right-click the  icon and select **Properties** from the pop-up menu that opens. The Local Area Connection Properties window appears.

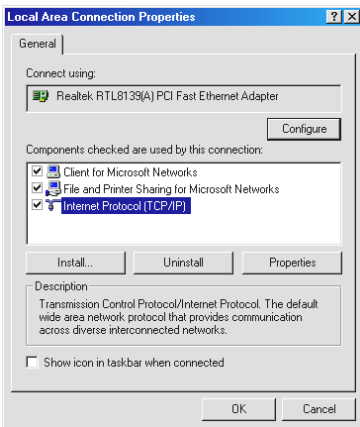


Figure 12 Local Area Connection Properties Window

4. In the above window, check if TCP/IP appears in the components list and if it is properly configured with the Ethernet card, installed on your computer.



If TCP/IP does not appear in the Components list you must install it as described in the next section.

Installing TCP/IP Protocol

1. In the Local Area Connection Properties window (see Figure 12) click on the **Install...** button. The Select Network Component Type window appears.

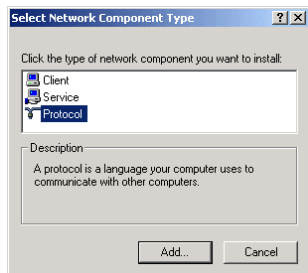


Figure 13 Choosing the Protocol Component Type

2. Choose Protocol and click Add. The Select Network Protocol window appears.

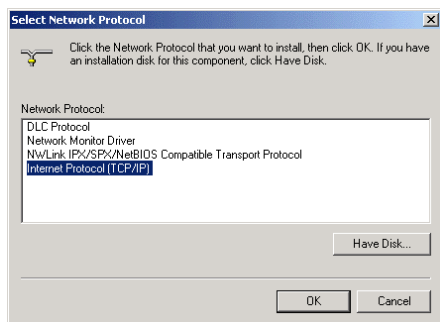


Figure 14 Choosing the TCP/IP Protocol for Installation

3. In the Select Network Protocol window, choose Internet Protocol (**TCP/IP**) and click **OK**. TCP/IP protocol is being installed on your computer.

TCP/IP Settings

1. In the Local Area Connection Properties window (see Figure 12) double-click the **Internet Protocol (TCP/IP)** component or select it and click **Properties**. The Internet Protocol (TCP/IP) Properties window opens.

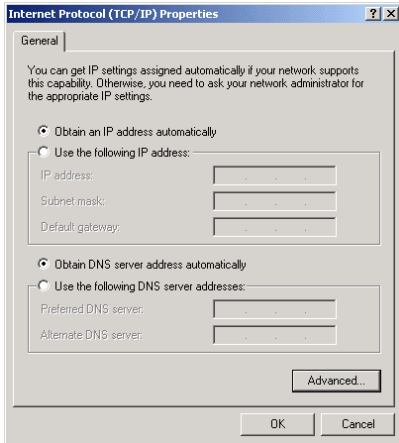


Figure 15 TCP/IP Settings

2. Click the **Obtain an IP address automatically** radio button.



Note - Normally, it is not recommended to assign static IP address to your PC but rather use DHCP. If from some reason you need to assign static IP address, select Specify an IP address and type in an IP address in the range of 192.168.10.129-254, and enter 255.255.255.0 in the Subnet Mask field. Click OK to save the new settings.

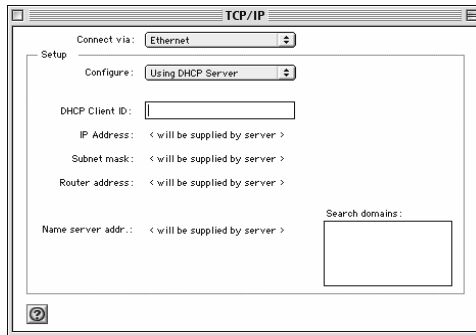
3. Click the **Obtain DNS server address automatically** radio button.
4. Click **OK** to save the new settings. Your computer is now ready to access your S-box.



Mac OS

Use the following procedure for setting up the TCP/IP Protocol.

1. Choose Apple Menus -> Control Panels -> TCP/IP. The TCP/IP window appears.



2. Click the Connect via drop-down list and select **Ethernet**.
3. Click the Configure drop-down list and select **Using DHCP Server**.
4. Close the window and save the setup.



Connecting Your S-box to the Network

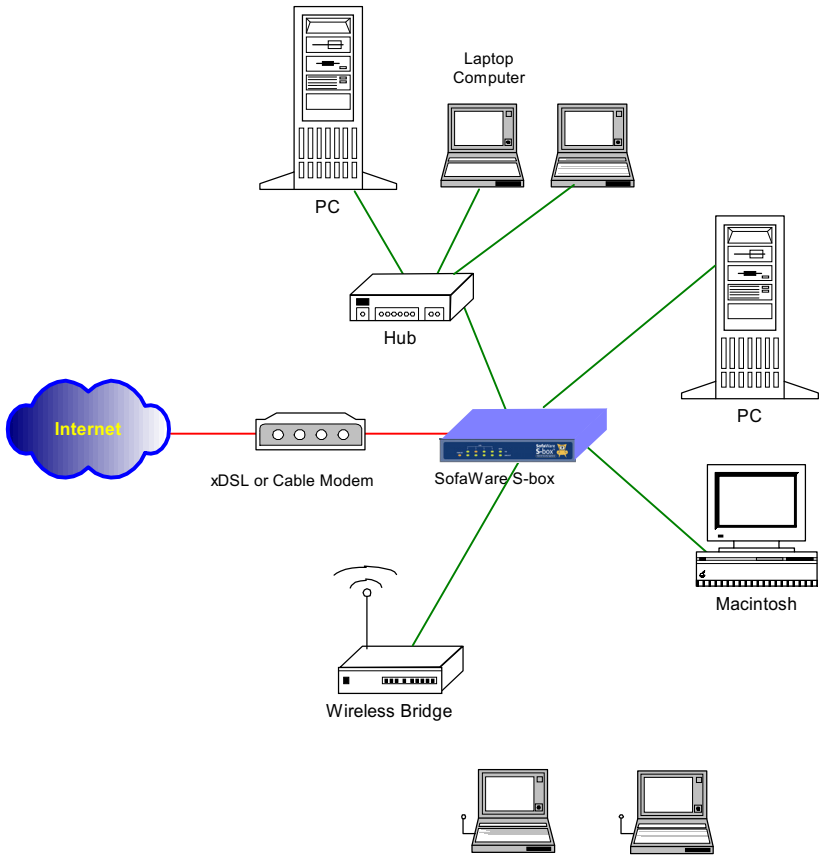


Figure 16 SofaWare S-box Typical Topologies



Network Installation

1. Connect the LAN cable:
 - Connect one end of the Ethernet cable to one of the **LAN** ports at the back of the unit.
 - Connect the other end to PCs, hubs or other network devices.
2. Connect the WAN cable:
 - Connect one end of the Ethernet cable to the WAN port at the back of the unit.
 - Connect the other end of the cable to a Cable Modem, xDSL modem or corporate network.
3. Connect the power adapter to the power socket, labeled **PWR**, at the back of the S-box. Plug in the AC power adapter to the wall electrical outlet.



Warning - The S-box AC adapter is compatible with either 120 VAC or 230 VAC input power. Please verify that the wall outlet voltage is compatible with the voltage specified on your power supply. Failure to observe this warning may result in injuries or damage to equipment.

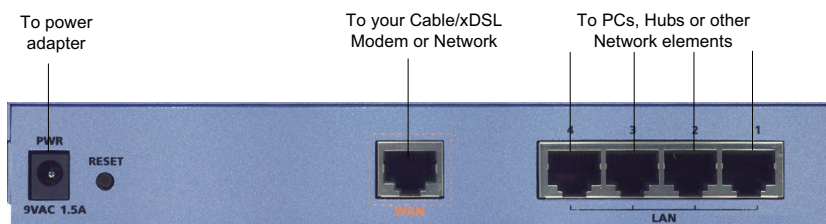


Figure 17 Typical Connection Diagram



Chapter 3

Using Safe@Home

Your SofaWare S-box is equipped with SofaWare's Safe@Home Firewall, protecting your home network from hostile Internet activity. Safe@Home includes a web-based management interface, which enables you to manage and configure the S-box operation and options.

Connecting to the SofaWare S-box Portal

To connect to the SofaWare S-box portal:

1. Start your Web browser, type **my.firewall** in the address line and press <Enter>. The Safe@Home initial login page appears.

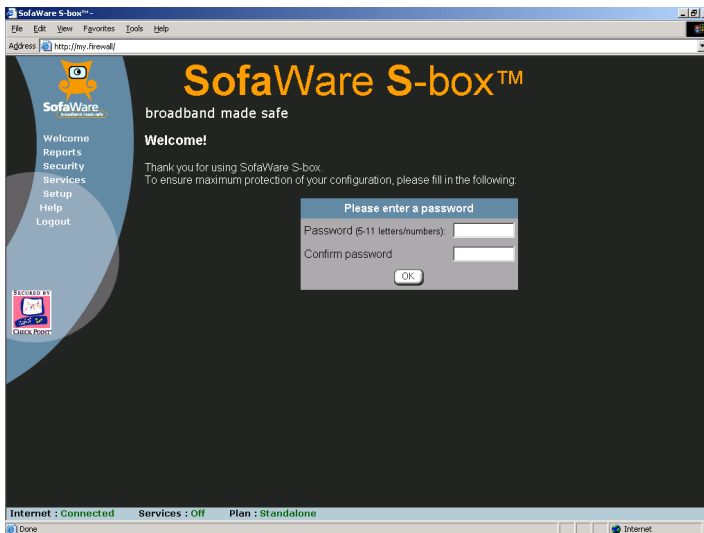


Figure 18 Safe@Home Initial Login Screen



Logging In

The first password and hint definition process is carried out via the Safe@Home initial login screen (see Figure 18).

You will have to define your password in two cases:

- Upon initial operation – the first time you operate the unit.
- After ‘reset to defaults’ operation

Setting up Your Password

To set up your password and hints:

1. Type the desired password both in the Password and in the Confirm Password text boxes (see Figure 19).

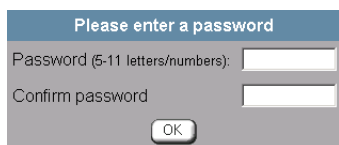


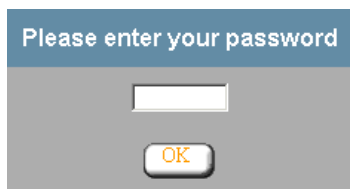
Figure 19 Defining Password and Hints

Normal Login

When you normally login the system after you have defined your password and hints (at the first logon) you just have to provide your password to enter the system.

To login:

- Type in your password and click **OK**.



The Welcome screen appears (see Figure 20).



The SofaWare S-box Portal

The SofaWare S-box portal consists of three major elements:

- The Navigation Bar – used for navigating between the various menus and options (e.g. Reports, Security, Setup etc.)
- The Main Frame – displays the relevant information and controls related to the selected topic.
- The Status Bar – shows your Internet connection and managed services status as well as your current services plan.

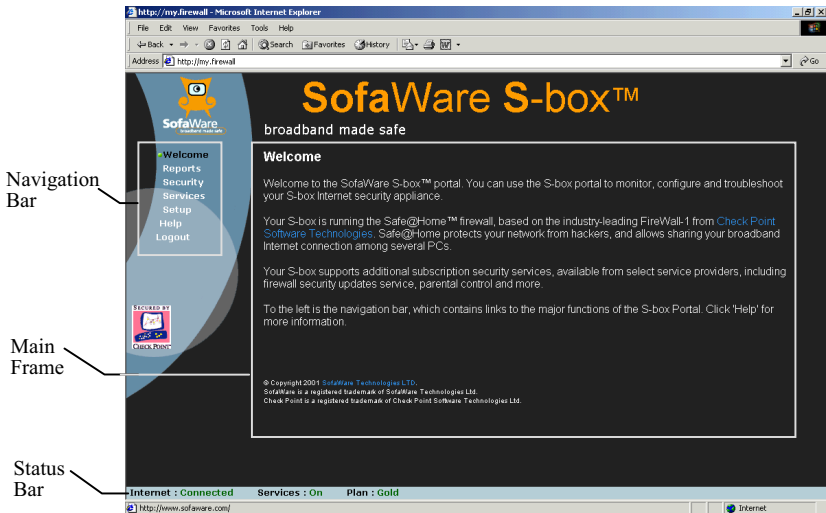


Figure 20 Using the Web Interface



Navigation Bar

The Navigation Bar includes seven main menus as follows:

- **Welcome** – displays the welcome information.
- **Reports** – provides reporting capabilities in terms of event logging, established connections and active computers.
- **Security** – provides controls and options for setting the security of any computer in the network.
- **Services** – allows you to control your subscription to SofaWare Managed Services.
- **Setup** – lets you manage and configure your Internet connections.
- **Help** – provides context sensitive on-line help
- **Logout** – allows to log out the web management interface.

Main Frame

The Main Frame displays the relevant data and controls pertaining to the menu and tab you select.

Status Bar

The Status Bar, located at the bottom of each page, displays information regarding the following:

- Internet – your Internet connection status which may be one of the following:
 - **Connected**
 - **Not Connected**
 - **Establishing Connection**
- Services – your service provider may be offering various security services. These include the firewall service, and optional services such as parental control and e-mail virus scanning. The following lists the security services status:
 - **Off** - Internet connection is down.
 - **Connected** - security services are active.
 - **Not Connected** - no security services are available from your service provider.



- **Establishing Connection** - security services are being established.
- Plan – your service provider may be offering several plans, or packages such as bronze, gold, silver etc. This attribute indicates your current plan.

Logging Out

Logging out terminates your administration session. Any subsequent attempt to connect to the SofaWare S-box portal will require re-entering of the administration password.

To log out:

- In the Left Navigation bar click **Logout**. The Logout screen appears.

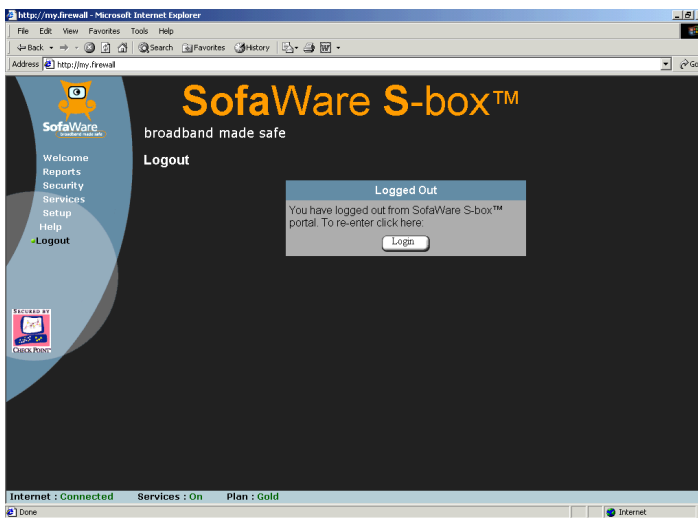


Figure 21 Logout Screen



Configuring Your S-box for Internet Connection

You may configure your S-box for Internet connection in two ways:

- Using the Setup Wizard
- Using the Advanced Setup

Using the Setup Wizard

The Setup Wizard allows you to configure your S-box for Internet connection quickly and easily through the use of a user friendly interface.

It lets you to choose between three types of broadband connection methods as follows: Local Area Network (LAN), Cable Modem or xDSL Modem

To set up your Internet Connection:

1. In the main Welcome screen, click on **Setup** and then click on **Network**.
The Setup Wizard Welcome screen appears.



Figure 22 Connection Wizard Welcome Screen

2. Click **Next>**. The Internet Connection Method screen appears.

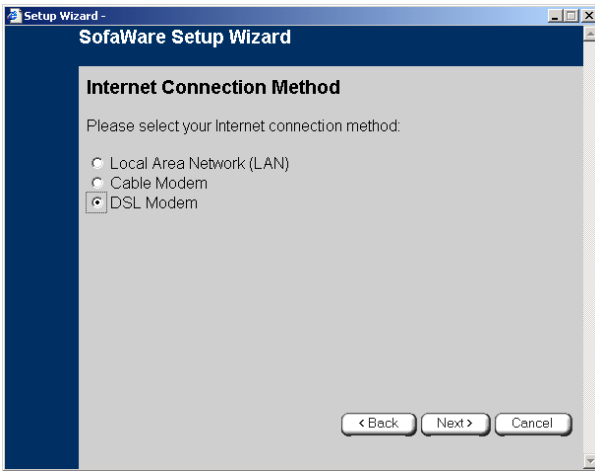


Figure 23 Selecting the Internet Connection Method

3. Select the Internet Connection method you wish to use for connecting to the Internet and click **Next>**.



Local Area Network (LAN) Settings

No further settings are required for LAN connection. The Confirmation screen appears.

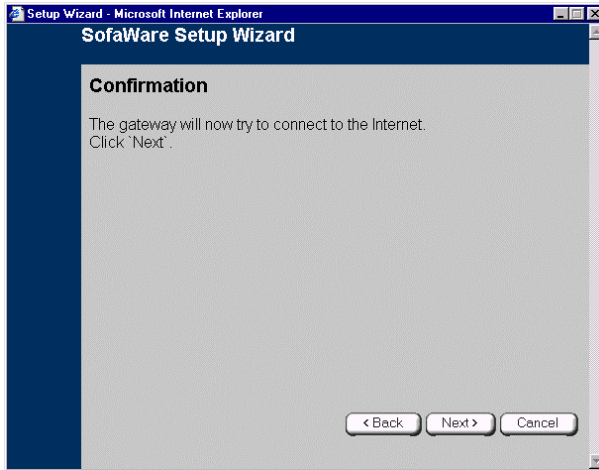


Figure 24 Connecting to the Internet – Confirmation Stage

4. Click **Next>**. The system is now attempting to connect to the Internet via the selected connection. The Connecting... screen appears. At the end of the connection process the Connected screen appears.

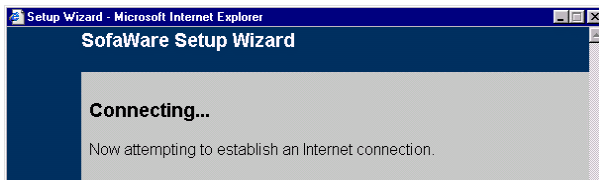


Figure 25 Connecting to the Internet: Actual Connection Stage



Figure 26 Joining the SofaWare Managed Security Services – Step 1

5. Perform steps 6-7 only if you wish to join the SofaWare Managed Security Services, otherwise skip to step 11
6. Select **Yes** and click **Next>**. The Management Server screen appears.

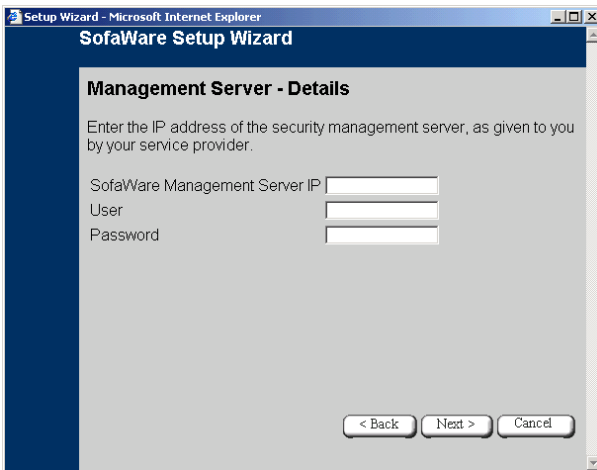


Figure 27 Joining SofaWare Managed Security Services – Step 2

7. Type the IP Address of the SofaWare Management Server in the **SofaWare Management Server IP** text box (see Figure 27).
8. Type your username in the **User** text box (see Figure 27).



9. Type your password in the **Password** text box (see Figure 27).
10. Click **Next**.
11. Select **No** to skip this stage. The Done screen appears.
12. Click **Finish**. Internet Connection has been established; the Internet status in the Status Bar changes to **connected**.

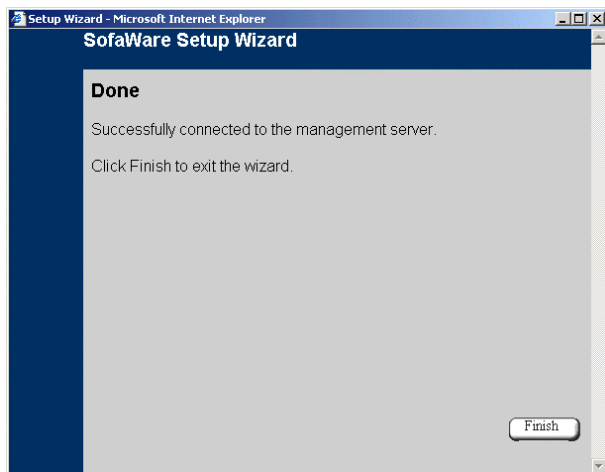


Figure 28 Setup Wizard End

DSL Connection Settings

If DSL connection method is selected the following screen appears.

4. Select the connection method used by your DSL provider:
PPPoE or PPTP.



Note - Most xDSL providers use PPPoE. If you are uncertain regarding which connection method to use contact your xDSL provider.

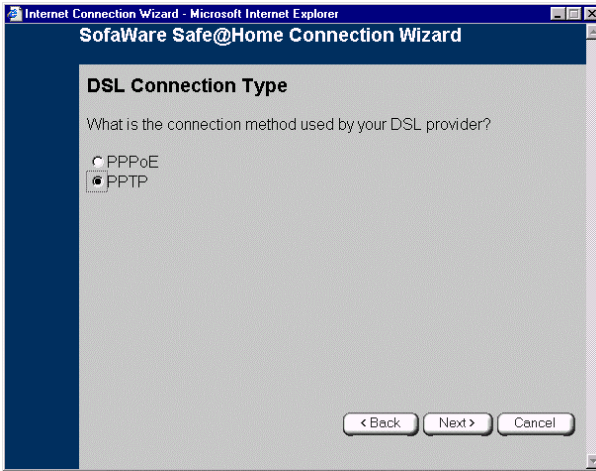
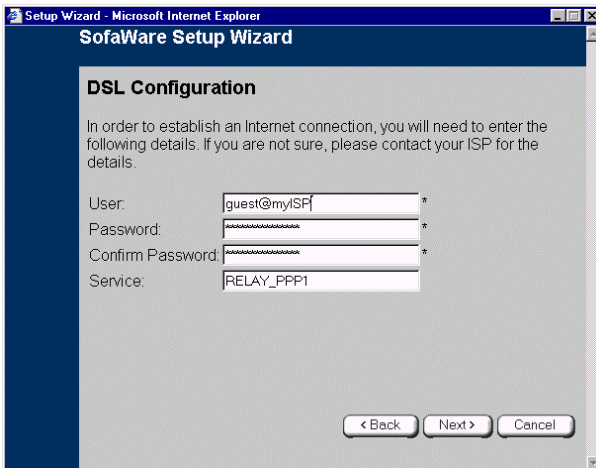


Figure 29 Selecting the DSL Connection Type

5. Click **Next>**. The PPTP or PPPoE DSL Configuration window appears.

Using PPPoE

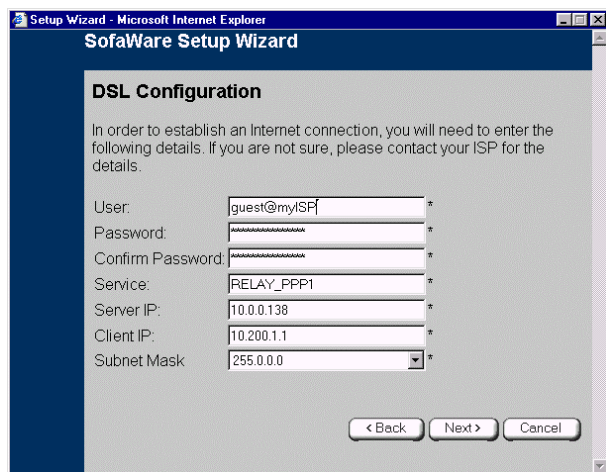


4. In the **User** text box type the user name you use to access the Internet.
5. In the **Password** and **Confirm Password** text boxes type the password you use to access the Internet.



6. In the **Service** text box type your service name if required by your service provider, otherwise leave this text box empty.
7. Click **Next>**. The system is now attempting to connect to the Internet via the DSL connection. The Connecting... screen appears. At the end of the connection process the Connected screen appears.
8. Perform steps 5-9 as described above in the LAN section on page 24.

Using PPTP



4. In the **User** text box type your user name.
5. In the **Password** and **Confirm Password** text boxes type your password.
6. In the **Service** text box type your service name.
7. In the **Server IP** text box type the IP address of the DSL modem.
8. In the **Client IP** text box type the IP address required for accessing the DSL modem.
9. In the **Subnet Mask** text box type the Subnet Mask of the DSL modem.
10. Click **Next>**. The system is now attempting to connect to the Internet via the DSL connection. The Connecting... screen appears. At the end of the connection process the Connected screen appears.
11. Perform steps 5-9 as described above in the LAN section on page 24.

SofaWare S-box Status

The S-box status can be monitored through the use of the reporting feature. Using this feature you can track activity related to your security settings in terms of event logging and open connections.



Viewing the Log

The event log displays the last 50 events in three different categories as follows:

- Events highlighted in blue – indicate changes in your setup that you have made yourself or as a result of a security update implemented by your service provider.
- Events highlighted in red – indicate connection attempts that were blocked by your firewall.
- Events highlighted in orange – indicate attempts that were blocked by your custom security rules.

The logs detail the date and the time the event occurred, and its type. If the event is a communication attempt that was rejected by the Firewall, the event details will include the source and destination IP address, the destination port, and the protocol used (TCP, UDP, etc.) for the communication attempt.

To view the event log:

1. In the Navigation Bar click on **Reports**. The Event Log page appears.

SofaWare S-box™
broadband made safe

Select: **Event Log** Active Computers Active Connections

Event Log

#	Date	Time	Source	Destination	Protocol	Port
00011	Dec 27	10:49:13	DMZ server IP cleared			
00010	Dec 27	10:48:50	Security changed: High to Med (user request)			
00009	Dec 27	10:47:05	192.168.10.117	212.117.129.3	ICMP	Destination Unreachable
00008	Dec 27	10:46:53	192.168.10.117	194.90.9.22	TCP	25 (SMTP)
00007	Dec 27	10:45:16	Anti-Virus turned on			
00006	Dec 27	10:45:12	Parental control turned on			
00005	Dec 27	10:40:28	192.168.10.117	192.118.82.140	TCP	80 (HTTP)
00004	Dec 27	10:33:09	Security changed: Low to High (user request)			
00003	Dec 27	10:32:44	192.168.10.117	212.117.129.3	ICMP	Destination Unreachable
00002	Dec 27	10:34:36	PPTP connection was established			
00001	Dec 27	10:34:14	LAN connection was terminated after 0.6 minutes			

Legend:
■ Change in setup.
■ Suspicious activity blocked by firewall.
■ Traffic blocked by a user defined rule.

Refresh Clear

Internet : Connected Services : On Plan : Gold

You may click the **Refresh** button to refresh the display or the **Clear** button to clear all events.

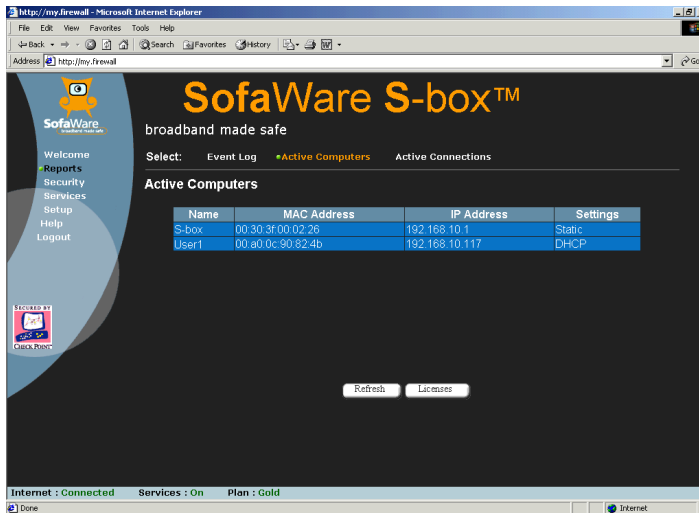


Viewing Computers

This option allows you to view the currently active computers on your network. The active computers are displayed as a list, specifying computer name, MAC and IP address and the computer settings (DHCP, static, etc.).

To view the active computers:

1. In the Navigation Bar click on **Reports**. The Event Log page appears.
2. In the Reports submenu click on **Active Computers**. The **Active Computers** page appears.

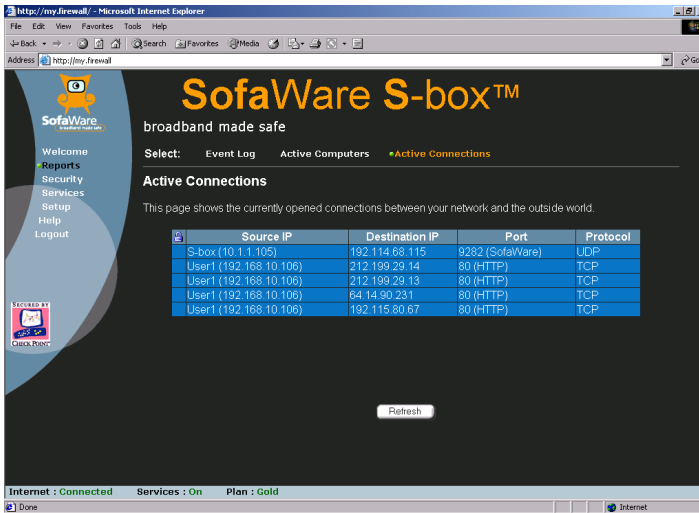


Viewing Connections

This option allows you to view the currently active connections between your network and the external world. The active connections are displayed as a list, specifying source IP address, destination IP address and destination port and the protocol used (TCP, UDP, etc.).

To view the active connections:

1. In the Navigation Bar click on **Reports**. The Event Log page appears.



2. In the Reports submenu click on **Active Connections**. The Active Connections page appears.

Setting Your SofaWare S-box Security Policy

The SofaWare S-box portal lets you control all security issues through the Security menu available via the Navigation Bar. This includes: controlling the firewall security level, controlling incoming network traffic, allowing or blocking specific ports and IP addresses or even setting up your computer or one of your network computers as a Demilitarized Zone (DMZ) station.

Setting the Firewall Security Level

The Firewall security level can be controlled using a simple lever available on the Firewall page. This lever has three states:

- **Low** security – provides minimal level of security.
- **Medium** security – provides a level of security suitable for everyday traffic flow. This is the default level and the recommended level for most cases. Leave it unchanged unless you have a specific need for higher/lower security level.
- **High** security – optimizes security by strict control on all traffic.



To change the Firewall Security Level:

1. In the Navigation Bar click on **Security**. The Firewall page appears.

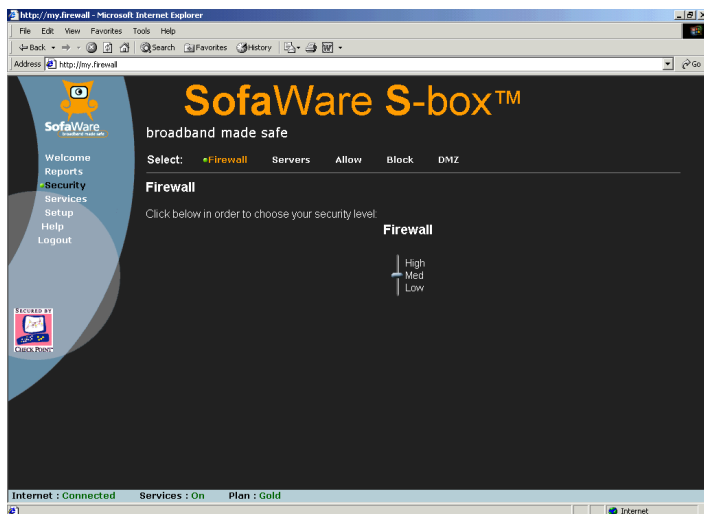


Figure 30 Firewall Page

2. Drag the security lever to the desired level. The S-box security level changes accordingly.

Configuring Virtual Servers



Note - If you do not intend to host any public Internet servers (Web Server, Mail Server etc.) in your network, you can skip this section.

Using the S-box portal, you can selectively allow incoming network connections into your home.

For example, you can set up your own Web server, a Mail server or even an FTP server.



Note - Some ISP policies do not allow hosting of Web servers or FTP servers at home.

To allow a certain service to be run on a specific host:

1. In the Navigation Bar click on **Security**. The Firewall page appears.
2. Click on the **Servers** tab. The Virtual Servers page appears, displaying a list of services and a host IP address for each allowed service.

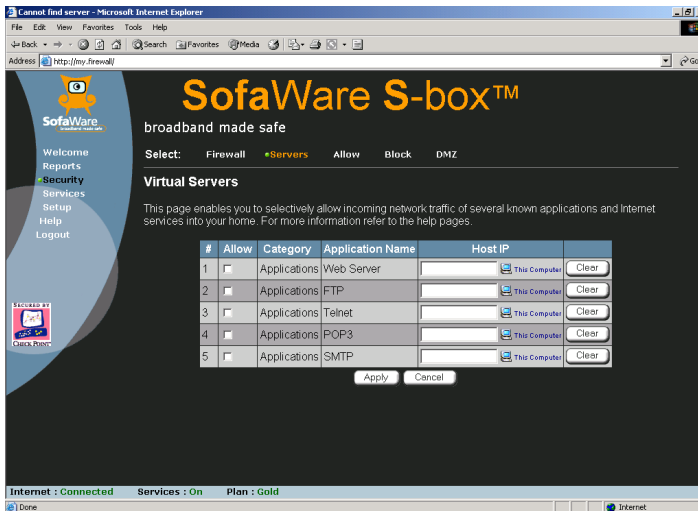


Figure 31 Servers Page

3. In the Allow column, check the checkbox of the desired service or application.
4. In the Host IP text box of the selected service or application type the IP address of the computer that will run the service (one of your network computers) or click the corresponding **This Computer** button to allow your computer to host the service.
5. Click **Apply**. The selected computer is allowed to run the desired Service or Application.

**To stop a certain service from running on a specific host:**

1. Click the corresponding **Clear** button. The Host IP text box of the desired service is cleared.
2. Click **Apply**. The service or application for the specific host is not allowed.

Creating Rules

The SofaWare S-box checks the protocol used, the ports range and destination IP address when deciding whether to allow or block traffic. User defined rules have priority over the default rules.

By default, in the "Medium" security level, the S-box blocks all connection attempts from the Internet (WAN) to the LAN, and allows all outgoing connection attempts from the LAN to the Internet (WAN).

Allow and Block Rules

The Allow/Block Rules provide you with greater flexibility in defining and customizing your security policy. You may allow additional inbound services or block additional outbound communication not on the 'Virtual Servers' list by specifying their port number and protocol.

If you wish to permit incoming access from the Internet to your internal network, for specific port ranges, you must create a new 'Allow' rule. If you wish to block outgoing access from your internal network to the Internet, for specific port ranges, you must create a new 'Block' rule.

To create a new rule:

1. In the Navigation Bar click on **Security**. The Firewall page appears.
2. Click the **Allow** tab to create a new Allow rule or click the **Block** tab to create a new Block rule. The Allow/Block Rules page appears.



Figure 32 Creating Allow Rules

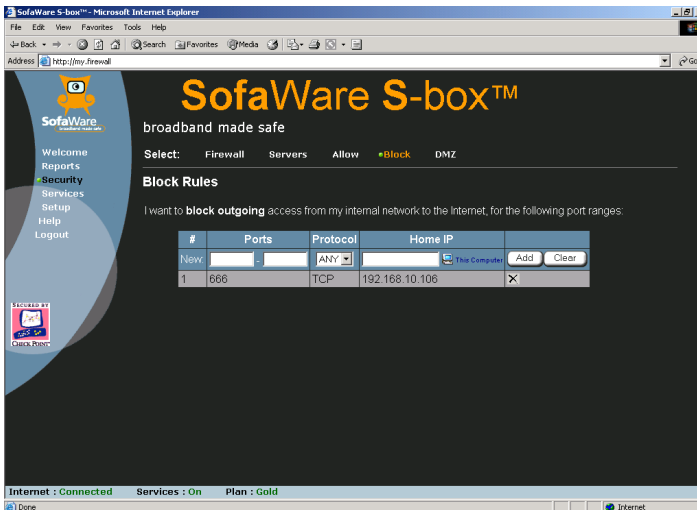


Figure 33 Creating Block Rules

3. In the left text box of the **Ports** column type the start port number. In the right text box type the end port number.
4. From the **Protocol** drop-down list select the protocol you wish to create a rule for (TCP, UDP or ANY).



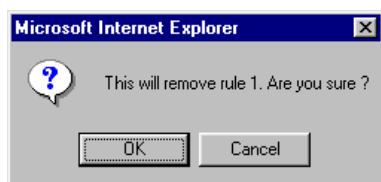
5. In the **Home IP** text box type an IP address of a computer (inside your network) you wish to allow access to or block its access to the Internet.
6. Click Add. The new rule is added to the list of rules.



Note – When creating Allow rules you must provide an IP address. This way the S-box knows to which computer to forward incoming connections. On the other hand, when defining Block rules you may leave the IP address field empty, which will result in S-box blocking outgoing Internet connections of all computers in the local network on the specified ports.

To delete an existing rule:

1. In the Navigation Bar click on **Security**. The Firewall page appears.
2. Click the **Allow** tab to delete an Allow rule or click the **Block** tab to delete a Block rule. The Allow/Block Rules page appears.
3. Click the  icon of the rule you wish to delete. A window appears.



4. Click **OK**. The rule has been deleted.

Demilitarized Zone (DMZ)

The SofaWare S-box allows you to define a DMZ, i.e. define a computer that is not protected by the firewall. This is useful for setting up a public server. It will allow **unlimited** access from the Internet to that computer.



Warning - Entering an IP address may make the designated computer vulnerable to hacker attacks.

To define a computer as DMZ:

1. In the Navigation Bar click on **Security**. The Firewall page appears.
2. Click the **DMZ** tab. The DMZ page appears.

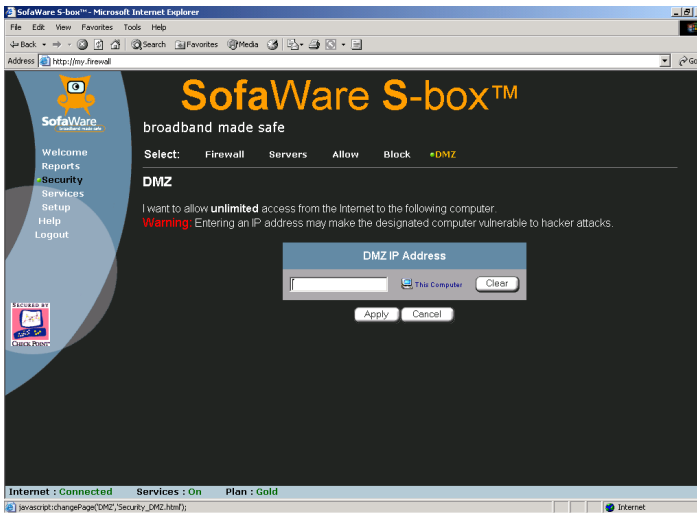


Figure 34 DMZ Page

3. In the **DMZ IP Address** text box type the IP address of the computer you wish to define as DMZ. Alternatively, you can click **This Computer** to define your computer as DMZ.
4. Click **Apply**. The computer you have selected is now defined as DMZ.

Services

This option allows you to subscribe to managed security services and to enjoy security and automatic software updates, Parental control, E-mail virus scanning and future advanced services that will be offered by your ISP. Check with your service provider if you do not have access to the following services.

Parental Control

When enabled, access to Web content is restricted according to the categories specified under 'Allow Categories'. Adult users will be able to view Web pages with no restrictions, only after they have provided the administrator password via Parental Control pop-up window.

Activating/Deactivating Parental Control

1. In the Navigation Bar click on **Services**. Parental Control page appears.



Figure 35 Parental Control Page

2. In Parental Control area, drag the **On/Off** lever upwards or downwards as desired.

Allow Categories

You can define which types of web sites should be considered appropriate for your family or office members, by selecting the categories. Categories marked with sign will remain visible while categories with sign will be blocked and will require the administrator password for viewing.

To allow/block a category:

1. Click the sign or of the desired category.
2. Click **Apply**.

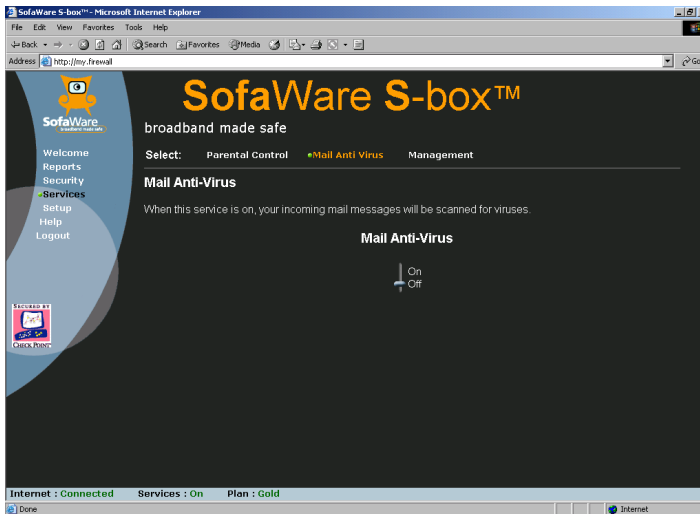
Virus Scanning

Enabling this option will result in automatic scanning of your e-mail for the detection and elimination of all known viruses and vandals.



To enable mail anti-virus:

1. In the Navigation Bar click on **Mail Anti-Virus**. The Mail Anti-Virus page appears.



2. In the **Mail Anti-Virus** area, drag the **On/Off** lever upwards or downwards as desired.

Management

The Management tab allows you to receive on-demand software and security updates. In addition you can use the Management tab to view your managed services diagnostics.

Account Configuration

This option allows you to access your service provider's web site, which offers additional configuration options for your account.

To configure your account:

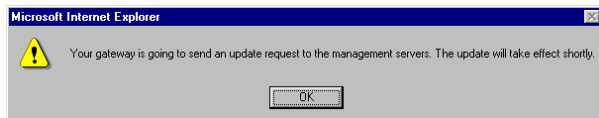
1. Click on **Configure Account**. Your ISP's web site opens.
2. Follow the on-screen instructions.



Automatic and Manual Updates

By default, the system checks for new security and software updates automatically and installs the updates without the user intervention. However, if you wish to manually check for new security and software updates perform the steps given below.

1. Click on **Update Now**. A dialog box appears.



2. Click **OK**. The system checks for new updates and installs them automatically.

Subscribing to Security Services

This option allows you to configure and start your security services subscription.

To configure and start your subscription:

1. Click **Start**. The Setup Wizard window appears.
2. Perform steps 7-9 as described in Local Area Network (LAN) Settings above on page 24.



Running Setup

The Setup menu lets you manage and configure your network connection and settings and provides information on the active connection in terms of status, connection duration and activity. In addition, you can use the Setup menu to quickly connect/disconnect your Internet connection, reset your S-box to factory defaults or restart its operation for troubleshooting purposes.

Network Setup

The Network page allows you to view information regarding your network setup, active connection and network activity as well as configure your network setup and control your active connection.

Viewing the Network Activity Information

1. In the Navigation Bar click on **Setup**. The Network page appears displaying a brief view of the network activity and status. The following information is displayed:
 - Connection – provides information on the connection status and the connection duration if it is active.
 - Activity – details the amount of data packets sent and received in the active connection.
 - Internet – provides information on the user's IP and MAC addresses as well the connection mode used.

Quick Internet Connection/Disconnection

By clicking the **Connect** or **Disconnect** button (depending on the connection status) you may establish quick Internet connection using the currently selected connection type. In the same manner, you can terminate the active connection.

Configuring the Internet Connection

You can quickly configure the Internet Connection using the Setup Wizard. Alternatively, to get more control over your network configuration use the Advanced Setup.



Using the Setup Wizard:

1. In the Navigation Bar click on **Setup**. The Network page appears.
2. Click on **Setup Wizard**. The Setup Wizard window appears.
3. Follow the on-screen instructions to set up your Internet Connection. For more details see **Using the Setup Wizard** on page 22.

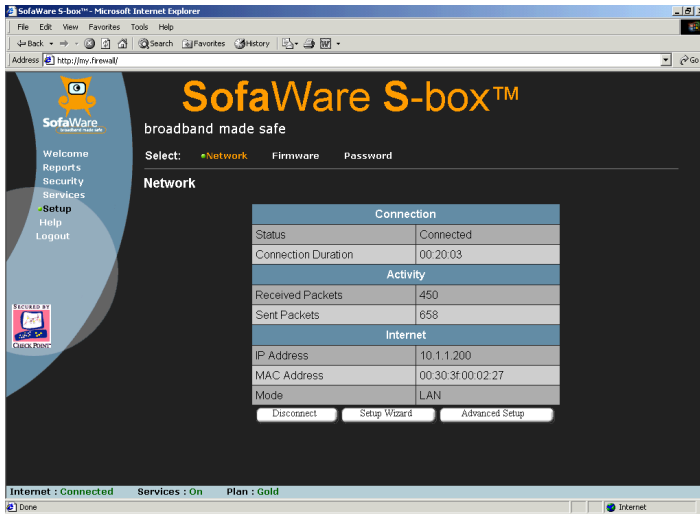


Figure 36 Network Setup Page

Using the Advanced Setup:

1. In the Navigation Bar click on **Setup**. The Network page appears (see Figure 36).
2. Click on **Advanced Setup**. The Advanced Setup page appears.

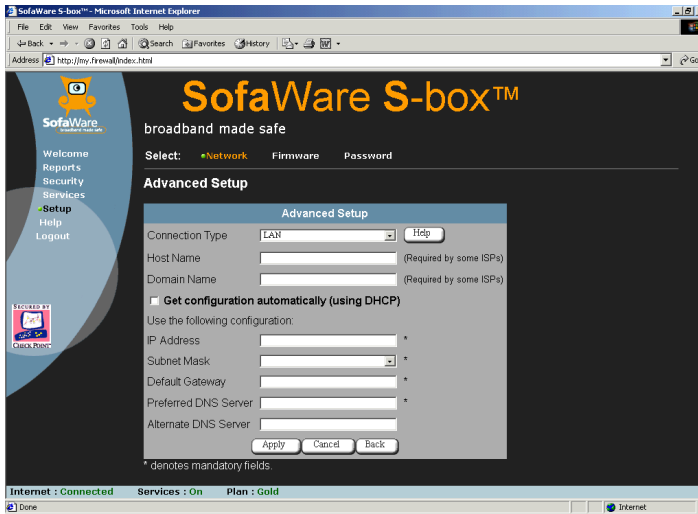


Figure 37 Advanced Setup Page



Note - Some of the definitions are not required depending on the connection type you have selected.

3. From the **Connection Type** drop-down list select the Internet connection you are using/intend to use. The display changes as per the connection type you have selected.

The following steps should be performed in accordance with the connection type you have chosen.



LAN Connection



Note - If you are using the automatic configuration (using DHCP) just check the Get configuration automatically (using DHCP) check box (see Figure 38). Otherwise, perform the following steps.

Advanced Setup

Connection Type: LAN (Help)

Host Name: (Required by some ISPs)

Domain Name: (Required by some ISPs)

☒ Get configuration automatically (using DHCP)

Apply Cancel Back

Figure 38 LAN Connection Type – Automatic Configuration

4. In the **Host Name** text box (see Figure 39) type the Host name. This field is optional, it may be required by some ISPs and will be provided by them.
5. In the **Domain Name** text box type your ISP Domain name. This field is optional, it may be required by some ISPs and will be provided by them.
6. In the **IP Address** text box type the IP address by which your internal IP addresses will be hidden (NAT).
7. From the **Subnet Mask** drop-down list select the Subnet mask that applies the IP address you have entered in the previous step.
8. In the **Default Gateway** text type your the IP address of the default gateway of your ISP.
9. In the **Preferred DNS** text box type the Primary DNS server IP address.
10. In the **Alternate DNS** text box type the Secondary DNS server IP address.



Advanced Setup

Connection Type LAN Help

Host Name (Required by some ISPs)

Domain Name (Required by some ISPs)

☐ **Get configuration automatically (using DHCP)**

Use the following configuration:

IP Address 10.1.1.200 *

Subnet Mask 255.255.0.0 *

Default Gateway 10.1.1.254 *

Preferred DNS Server *

Alternate DNS Server

Apply Cancel Back

Figure 39 LAN Connection Type – Manual Configuration



Cable Connection

4. In the **Host Name** text box type the Host name. This field is optional, it may be required by some ISPs and will be provided by them.
5. In the **Domain Name** text box type your ISP Domain name. This field is optional, it may be required by some ISPs and will be provided by them.
6. Click **Apply**.

Advanced Setup

Connection Type: Cable (Help)

Host Name: (Required by some ISPs)

Domain Name: (Required by some ISPs)

Apply Cancel Back

Figure 40 Cable Connection Type

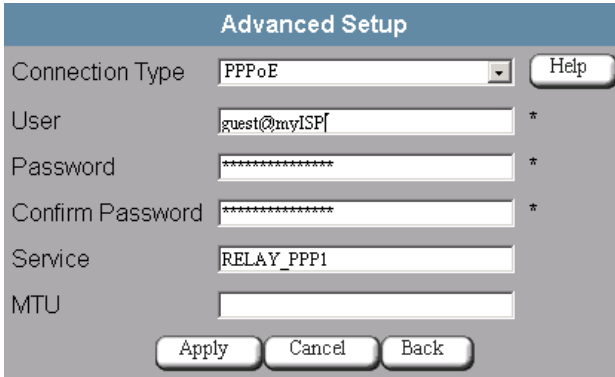
xDSL PPPoE Connection

4. In the **User** text box type your user name.
5. Type your password both in the **Password** and in the **Confirm Password** text boxes.
6. In the **Service** text box type the service name as given by your ISP.



Note - If your ISP has not provided you with a service name, leave this text box empty.

7. The **MTU** text box allows you to control the maximum transmission unit size. As a general recommendation you should leave this field empty. If however you wish to modify the default MTU, it is recommended that you consult with your ISP first and use MTU values between 1300 and 1500.
8. Click **Apply**.



The image shows a screenshot of the 'Advanced Setup' dialog box. It has a blue title bar with the text 'Advanced Setup'. Below the title bar, there are several input fields and buttons. The 'Connection Type' is set to 'PPPoE' in a dropdown menu, with a 'Help' button to its right. The 'User' field contains 'guest@myISP' and has an asterisk to its right. The 'Password' and 'Confirm Password' fields are masked with asterisks and also have asterisks to their right. The 'Service' field contains 'RELAY_PPP1'. The 'MTU' field is empty. At the bottom, there are three buttons: 'Apply', 'Cancel', and 'Back'.

Figure 41 PPPoE Connection Type

xDSL PPTP Connection

4. In the **User** text box type your user name.
5. Type your password both in the **Password** and in the **Confirm Password** text boxes.
6. In the **Service** text box type the service name as given by your ISP.
7. In the **Server IP** text box type the IP address of the PPTP server as given by your ISP.
8. In the **Client IP** text box type the IP address of the PPTP client as given by your ISP.
9. From the **Subnet Mask** drop-down list select the PPTP client subnet as given by your ISP.
10. The **MTU** text box allows you to control the maximum transmission unit size. As a general recommendation you should leave this field empty. If however you wish to modify the default MTU, it is recommended that you consult with your ISP first and use MTU values between 1300 and 1500.
11. Click **Apply**.



Advanced Setup

Connection Type:

User: *

Password: *

Confirm Password: *

Service: *

Server IP: *

Client IP: *

Subnet Mask: *

MTU:

Figure 42 PPTP Connection Type



Firmware

The Firmware is the program that runs on the S-box hardware, thus realizing the S-box web server and the Web interface. The Firmware menu allows you to view your current firmware version and additional details.

To View the Firmware Status:

1. In the Navigation Bar click on **Setup**. The Network page appears (see Figure 36).
2. In the Network page click the **Firmware** tab. The Firmware page appears.

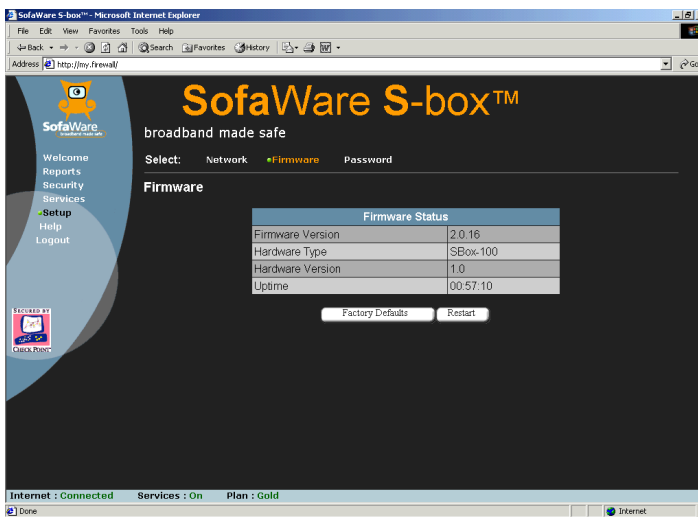


Figure 43 Firmware Page

The firmware page displays a table with the following information:

- Firmware version – the current version of the firmware.
- Hardware type – the type of the current S-box hardware.
- Hardware version – the current hardware version of the S-box.
- Uptime – the time that elapsed from the moment the unit was turned on.

Resetting the S-box to factory defaults

The SofaWare S-box allows you to reset its settings to factory defaults. You can perform this action via the Web management interface (software) or by manually pressing the Reset button (hardware) located at the back of the S-box.



Warning - This operation erases all your settings and password information.

To reset the S-box to factory defaults via the Web interface:

1. In the Navigation Bar click on **Setup**. The Network page appears (see Figure 36).
2. In the Network page click the **Firmware** tab. The Firmware page appears.
3. In the Firmware page click on **Factory Defaults**. A confirmation dialog box appears.

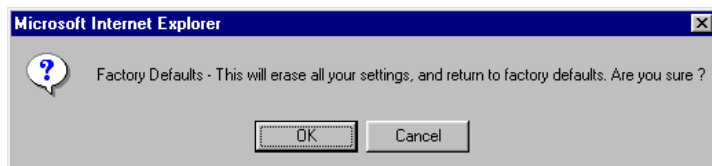


Figure 44 Confirmation Dialog Box

4. Click **OK**. The S-box returns to its factory defaults – this process might take up 30-60 seconds to finish. At the end of the process the Gateway restarts automatically and the Gateway restart confirmation page appears.

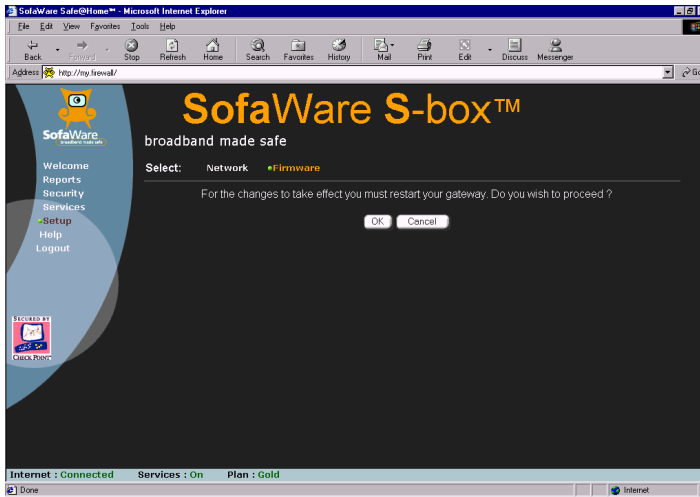


Figure 45 Restarting the Gateway

5. Click **OK**. The Gateway is restarting and within one minute the S-box Welcome page appears.

Updating the Firmware in Stand-Alone Mode

If you have not subscribed to the Management Services offered by your ISP, your S-box operates in stand-alone mode. In this mode firmware updates are not performed automatically as you connect to the Internet. In order to update your S-box firmware you have to download the latest firmware update image file from SofaWare's or your ISP's web site and update the firmware manually.

To update your S-box firmware manually:

1. Reset your S-box to its factory defaults as described above.
2. In the Navigation Bar click on **Setup**. The Network page appears (see Figure 36).
3. In the Network page click the **Firmware** tab. The Firmware page appears.

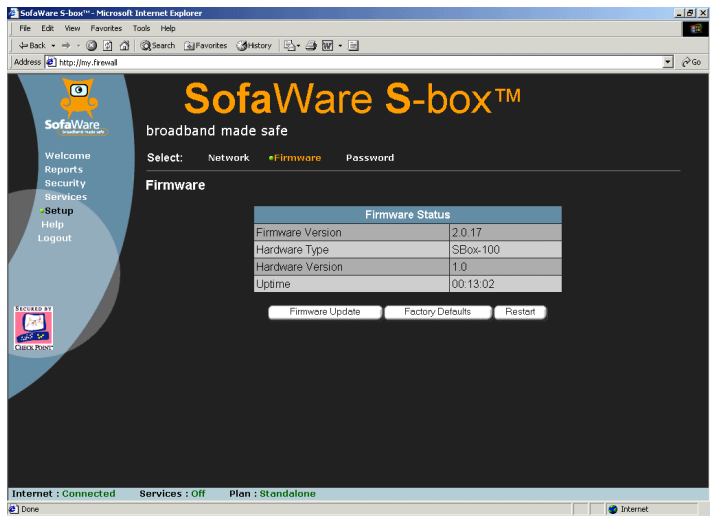


Figure 46 Updating the Firmware in Stand-Alone Mode – Step 1

4. Click **Firmware Update**. The Firmware Update page appears.

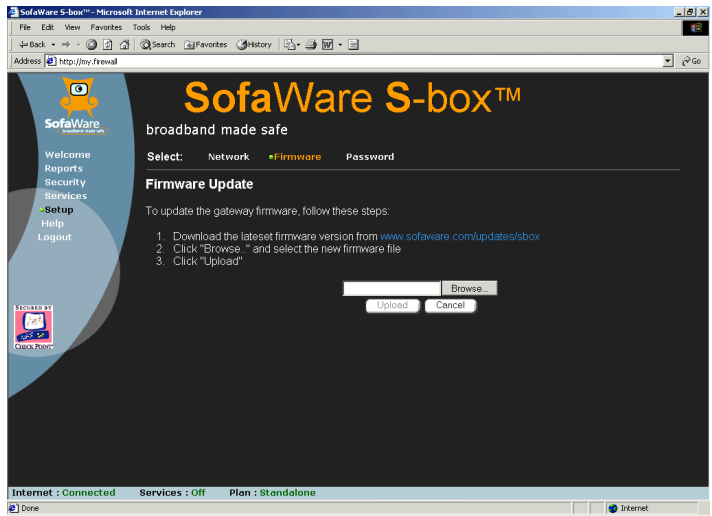
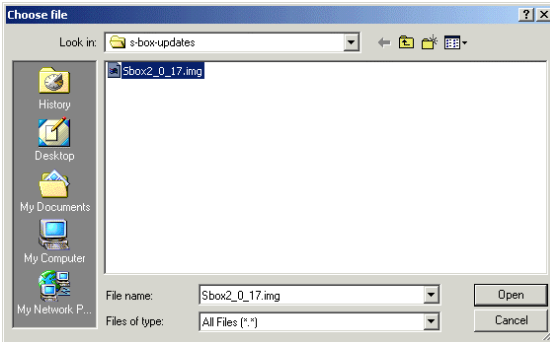


Figure 47 Updating the Firmware in Stand-Alone Mode – Step 2

5. Click **Browse**. A browse window appears.



6. Select the image file that you have downloaded from SofaWare web site and click **Open**. The path to the firmware update image file appears in the Browse text box.
7. Click **Upload**. Your S-box firmware is being updated – this may take one minute. At the end of the process the S-box will restart automatically.

To reset the S-box to factory defaults using the Reset button:

1. Make sure the S-box is powered on.
2. Using a sharp object, press the RESET button on the back of the S-box steadily for seven seconds and then release it.
3. Allow the S-box to boot-up until the system is ready (PWR/SEC LED flashes slowly or illuminates steadily in green light).





Rebooting the SofaWare S-box

To reboot the S-box:

1. In the Navigation Bar click on **Setup**. The Network page appears (see Figure 36).
2. In the Network page click the **Firmware** tab. The Firmware page appears.
3. In the Firmware page click on **Restart**. A confirmation dialog box appears.
4. Click **OK**. The S-box is restarting (the PWR/SEC LED flashes quickly) and the following message appears.



After one minute the Login page appears.



Password

This tab allows you to change your administrator password.

To change your password:

1. In the Navigation Bar click on **Password**. The Profile page appears (see Figure 48).

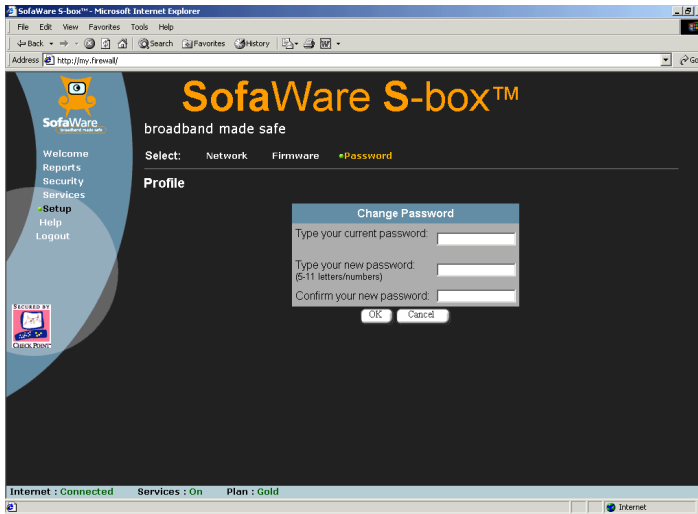


Figure 48 Changing Your Password

2. Type your current password in the **Type your current password** text box.
3. Type the new password in the **Type your new password** text box.



Note - Use five to eleven characters (letters or numbers) for the new password.

4. Retype the new password in the **Confirm your new password** text box.





Chapter 4

Troubleshooting

Use the following guidelines if your SofaWare S-box is not functioning normally and you wish to correct the failure.

I cannot access the Internet. What do I do?

- Check if the PWR/SEC LED is active. If not check the power connection to the S-box.
- Check if the WAN LINK/ACT LED is on. If not check the network cable to the modem and make sure the modem is turned on.
- Check if the LAN LINK/ACT LED for the port used by your computer is on. If not, check if the network cable linking your computer to the S-box is connected properly.
- Using your web browser go to <http://my.firewall> and see whether "connected" appears on the status bar. Make sure that your S-box network settings are configured as per your ISP directions.
- Check your TCP/IP configuration according to Chapter 2.
- If the firewall level is set to "High", try setting it to "Medium" or "Low".
- If Parental control or E-mail anti-virus scanning are on, try turning them off.
- Erase all your block rules through the security menu.
- Check with your ISP for possible service outage.

I cannot access the <http://my.firewall> portal. What do I do?

- Verify that the S-box is operating (PWR/SEC LED is active)
- Check if the LAN LINK/ACT LED for the port used by your computer is on. If not, check if the network cable linking your computer to the S-box is connected properly.
- Try surfing to 192.168.10.1 instead of to my.firewall
- Check your TCP/IP configuration according to Chapter 2.
- Restart your S-box and your broadband modem by disconnecting the power and reconnecting after 5 seconds.



I run a public Web server at home but it cannot be accessed externally although it is accessible to the computers on my network, What do I do?

- Surf to the security page and use the Virtual Servers tab to allow access to your server.

I can't play a certain network game. What do I do?

- Turn the S-box security to Low and try again.
- If it still does not work, set the computer you wish to play from to be the DMZ server.
- When you have finished playing the game make sure to clear the DMZ setting otherwise your security might be compromised.

I have forgotten my password. What do I do?

- Use the hint/answer mechanism
- If this still doesn't work reset your S-box to factory defaults using the Reset button as detailed in Resetting the S-box to factory defaults on page 49.
Note that this would erase all your settings.

For additional information: consult our on-line Frequently Asked Questions (FAQ) at www.s-box.com/faq.html



Appendix A

Specifications and Glossary

Technical Specifications

Height - 1.2 inches	Input AC Power - 9VAC
Width - 8.0 inches	Power consumption - 13.5W
Length - 4.8 inches	Power supply – 100 VAC, 120 VAC or 230 VAC
Weight - 1.8 lbs	



Glossary

ADSL Modem (Asymmetric Digital Subscriber Line)

A device connecting a computer to the Internet via an existing phone line. ADSL modems offer a high-speed 'always-on' connection.

Cable Modem

A device connecting a computer to the Internet via the cable television network. Cable modems offer a high-speed 'always-on' connection.

DHCP

Any machine requires a unique IP address to connect to the Internet using Internet Protocol. Dynamic Host Configuration Protocol (DHCP) is a communications protocol that assigns Internet Protocol (IP) addresses to computers on the network.

DHCP uses the concept of a "lease" or amount of time that a given IP address will be valid for a computer.

DMZ

A DMZ (demilitarized zone) allows one computer to be exposed to the Internet. An example of using a DMZ would be exposing a public server, while preventing outside users from getting direct access from this server back to the private network.

Domain Name System (DNS)

The Domain Name System (DNS) refers to the Internet domain names, or easy-to-remember "handles", that are translated into IP addresses.

An example of a Domain Name is 'www.sofaware.com'.

Firewall

A program or a set of related programs, located on a network gateway server (in Safe@Home's case it is the SofaWare S-box) protecting your private network resources from users (and abusers) on the Internet. A firewall inspects each packet to determine whether it complies with the security policy and blocks illegal traffic.



Safe@Home's inspection module examines every packet passing through the residential gateway, promptly blocking all unwanted communication attempts. Packets do not enter the home network unless they comply with the security policy.

Firmware

Software embedded in a device.

Gateway

A gateway is a network point that acts as an entrance to another network.

Hacking (or cracking)

An activity in which someone breaks into someone else's computer system, bypasses passwords or licenses in computer programs; or in other ways intentionally breaches computer security. The end result is that whatever resides on the computer can be viewed and sensitive data can be stolen without anyone knowing about it. Sometimes, tiny programs are 'planted' on the computer that are designed to watch out for, seize and then transmit to another computer, specific types of data.

Hub

A device with multiple ports, connecting several PCs or network devices on a network.

IP Address

An IP address is a 32-bit number that identifies each computer sending or receiving data packets across the Internet. When you request an HTML page or send e-mail, the Internet Protocol part of TCP/IP includes your IP address in the message and sends it to the IP address that is obtained by looking up the domain name in the Uniform Resource Locator you requested or in the e-mail address you're sending a note to. At the other end, the recipient can see the IP address of the Web page requestor or the e-mail sender and can respond by sending another message using the IP address it received.

IPSEC

IPSEC is the leading Virtual Private Networking (VPN) standard. IPSEC enables individuals or offices to establish secure communication channels ('tunnels') over the Internet.



IP Spoofing

A technique where an attacker attempts to gain unauthorized access through a false source address to make it appear as though communications have originated in a part of the network with higher access privileges. For example, a packet originating on the Internet may be masquerading as a local packet with the source IP address of an internal host. The firewall can protect against IP spoofing attacks by limiting network access based on the gateway interface from which data is being received.

ISP

An ISP (Internet service provider) is a company that provides access to the Internet and other related services.

LAN

A local area network (LAN) is a group of computers and associated devices that share a common communications line and typically share the resources of a single server within a small geographic area.

MAC Address

The MAC (Media Access Control) address is a computer's unique hardware number. When connected to the Internet from your computer, a mapping relates your IP address to your computer's physical (MAC) address on the LAN.

Mbps

Megabits per second. Measurement unit for the rate of data transmission.

MTU

The Maximum Transmission Unit (MTU) is a parameter that determines the largest datagram than can be transmitted by an IP interface (without it needing to be broken down into smaller units). The MTU should be larger than the largest datagram you wish to transmit un-fragmented. Note: This only prevents fragmentation locally. Some other link in the path may have a smaller MTU - the datagram will be fragmented at that point. Typical values are 1500 bytes for an Ethernet interface or 1452 for a PPP interface.



NAT

Network Address Translation (NAT) is the translation or mapping of an IP address to a different IP address. NAT can be used to map several internal IP addresses to a single IP address, thereby sharing a single IP address assigned by the ISP among several PCs.

Check Point FireWall-1's Stateful Inspection Network Address Translation (NAT) implementation supports hundreds of pre-defined applications, services, and protocols, more than any other firewall vendor.

NetBIOS

NetBIOS is the networking protocol used by DOS and Windows machines.

Packet

A packet is the basic unit of data that flows from one source on the Internet to another destination on the Internet. When any file (e-mail message, HTML file, GIF file etc.) is sent from one place to another on the Internet, the file is divided into "chunks" of an efficient size for routing. Each of these packets is separately numbered and includes the Internet address of the destination. The individual packets for a given file may travel different routes through the Internet. When they have all arrived, they are reassembled into the original file at the receiving end.

PPPoE

PPPoE (Point-to-Point Protocol over Ethernet) enables connecting multiple computer users on an Ethernet local area network to a remote site or ISP, through common customer premises equipment (e.g. modem).

PPTP

The Point-to-Point Tunneling Protocol (PPTP) allows extending a local network by establishing private "tunnels" over the Internet. This protocol it is also used by some DSL providers as an alternative for PPPoE.

RJ-45

The RJ-45 is a connector for digital transmission over ordinary phone wire.



Router

A router is a device that determines the next network point to which a packet should be forwarded toward its destination. The router is connected to at least two networks.

Server

A server is a program (or host) that awaits and requests from client programs across the network. For example, a Web server is the computer program, running on a specific host, that serves requested HTML pages or files. Your browser is the client program, in this case.

Stateful Inspection

Stateful Inspection was invented by Check Point to provide the highest level of security by examining every layer within a packet, unlike other systems of inspection. Stateful Inspection extracts information required for security decisions from all application layers and retains this information in dynamic state tables for evaluating subsequent connection attempts. In other words, it learns!

Subnet Mask

A 32-bit identifier indicating how the network is split into subnets. The subnet mask indicates which part of the IP address is the host ID and which indicates the subnet.

TCP

TCP (Transmission Control Protocol) is a set of rules (protocol) used along with the Internet Protocol (IP) to send data in the form of message units between computers over the Internet. While IP takes care of handling the actual delivery of the data, TCP takes care of keeping track of the individual units of data (called packets) that a message is divided into for efficient routing through the Internet.

For example, when an HTML file is sent to you from a Web server, the Transmission Control Protocol (TCP) program layer in that server divides the file into one or more packets, numbers the packets, and then forwards them individually to the IP program layer. Although each packet has the same destination IP address, it may get routed differently through the network.



At the other end (the client program in your computer), TCP reassembles the individual packets and waits until they have arrived to forward them to you as a single file.

TCP/IP

TCP/IP (Transmission Control Protocol/Internet Protocol) is the underlying communication protocol of the Internet.

UDP

UDP (User Datagram Protocol) is a communications protocol that offers a limited amount of service when messages are exchanged between computers in a network that uses the Internet Protocol (IP). UDP is an alternative to the Transmission Control Protocol (TCP) and, together with IP, is sometimes referred to as UDP/IP. Like the Transmission Control Protocol, UDP uses the Internet Protocol to actually get a data unit (called a datagram) from one computer to another. Unlike TCP, however, UDP does not provide the service of dividing a message into packets (datagrams) and reassembling it at the other end.

UDP is often used for applications such as streaming data.

URL

A URL (Uniform Resource Locator) is the address of a file (resource) accessible on the Internet. The type of resource depends on the Internet application protocol. On the Web (which uses the Hypertext Transfer Protocol), an example of a URL is 'http://www.sofaware.com'.

VPN

A virtual private network (VPN) is a private data network that makes use of the public telecommunication infrastructure, maintaining privacy through the use of a tunneling protocol and security procedures.

Appendix D Government compliance notices

D.1 FCC compliance

This Broadband Sharing Router has been tested and found to comply with the limits for a Class B personal computer and peripherals, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this unit does cause harmful interference to radio or television reception, which can be determined by turning the unit off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.