WatchGuard® Firebox® SOHO 6 Remote Management Guide

SOHO 6.0

Using this Guide

To use this guide you need to be familiar with your computer's operating system. If you have questions about navigating in your computer's environment, please refer to your system user manual.

The following conventions are used in this guide.

Convention	Indication
Bold type	Menu commands, dialog box options, Web page options, Web page names. For example: "On the System Information page, select Disabled."
NOTE	Important information, a helpful tip or additional instructions.

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Part No

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CHAPTER 1

Configure the SOHO 6

The WatchGuard® SOHO 6™ and SOHO 6tc™ both come equipped with the SOHO 6 Remote Management™ feature. This feature uses the WatchGuard® Mobile User VPN (MUVPN)™ client to establish a secure connection, using Internet Protocol Security (IPSec), over an unsecured network from your remote computer in order to remotely manage your SOHO 6.

For example, the MUVPN client is installed on your computer. You establish a standard Internet connection and activate the MUVPN client. The MUVPN client then creates an encrypted tunnel to your SOHO 6. You can than connect to the SOHO 6 configuration pages without compromising security.

This user guide applies to both the SOHO 6 and the SOHO 6tc—the name SOHO 6 is used to refer to both appliances throughout.

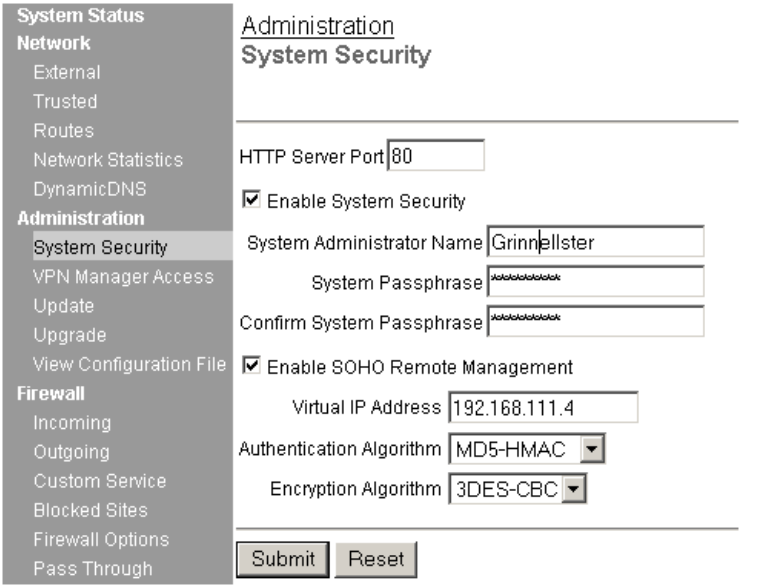
Configure the SOHO 6 for Remote Management

Before you can create a MUVPN connection to the SOHO 6 for remote management, you must configure the SOHO 6 to use this feature.

Follow these steps:

1 With your Web browser, go to the System Status page using the Trusted IP address of the SOHO 6.
For example, if using the default IP address, go to: http://192.168.111.1

2 From the navigation bar on the right side, select **Administration ⇒ System Security**.
The System Security page appears.



3 Enable the checkbox labeled **System Security**.

4 Enter the System Administrator Name in the appropriate field.
This name will be used as the E-mail Address when setting up the Remote Management (MUVPN) client. In our example, Grinnellster.

5 Enter the System Passphrase in the appropriate field.
This passphrase will be used as the Pre-Shared Key when setting up the Remote Management (MUVPN) client.

6 Enter the System Passphrase again to confirm it in the appropriate field.

7 Enable the checkbox labeled **Enable SOHO 6 Remote Management**.

8 Enter the Virtual IP address which will be used by the remote management computer when connecting to the SOHO 6 in the appropriate field.
In our example, 192.168.111.4.

9 Select the Authentication Algorithm.
In our example, SHA1-HMAC.

10 Select the Encryption Algorithm.
In our example, 3DECS-CBC.

11 Click the **Submit** button.

CHAPTER 2

Preparation, Installation, and Connection

Once you have configured the SOHO 6 to use the Remote Management feature, you must first prepare the remote computer to use the MUVPN client.

Prepare the Remote Computers

The MUVPN client is only compatible with the Windows operating system. Every Windows system used as a MUVPN remote computer *must* have the following system requirements.

System requirements

- PC-compatible computer with Pentium processor or equivalent
- Compatible operating systems and minimum RAM:
  - Microsoft Windows 98: 32 MB
  - Microsoft Windows ME: 64 MB
  - Microsoft Windows NT 4.0 Workstation: 32 MB
  - Microsoft Windows 2000 Professional: 64 MB
  - Microsoft Windows XP: 64 MB

- The latest service packs for each operating system are recommended, but not necessarily required.
- 10 MB hard disk space
- Native Microsoft TCP/IP communications protocol
- Microsoft Internet Explorer 5.0 or later
- An Internet Service Provider account
- A Dial-Up or Broadband (DSL or Cable modem) Connection

Additionally, in order for Windows file and print sharing to occur through the MUVPN client tunnel each Windows operating system *must* have the proper components installed and configured to use the remote WINS and DNS servers on the trusted and optional networks behind the Firebox.

NOTE

However, if you plan to use the MUVPN client virtual adapter, the WINS and DNS settings are *not* configured on the client computers, but rather on the Firebox.

Windows 98/ME operating system setup

The following networking components *must* be configured and installed on a remote computer running Windows 98/ME in order for the MUVPN client to function properly.

Configuring networking names

From the Windows desktop:

1 Select **Start ⇒Settings ⇒Control Panel**. Double-click the **Network** icon.
The Network window appears.

2 Verify that the Client for Microsoft Networks is installed.
If Client for Microsoft Networks is not installed, you *must* install it. For instructions, see the following section, "Installing the Client for Microsoft Networks".

3 Click the **Identification** tab.

4 Enter a name for the remote computer.
This *must* be a unique name on the remote network.

5 Enter the domain name you are connecting to.
This should be the same as the Logon to Windows NT domain value.

6 Enter a description for your computer (optional).

7 Click **OK**. Click **OK** to close and save changes to the Network control panel.
Click Cancel if you do not want to save any changes.

8 Reboot the machine.

Installing the Client for Microsoft Networks

From the Networks window:

1 Click the **Configuration** tab. Click **Add**.
The Select Network Component Type window appears.

2 Select **Client**. Click **Add**.
The Select Network Client window appears.

3 Select **Microsoft** from the list on the left. Select **Client for Microsoft Networks** from the list on the right. Click **OK**.

4 Select **Client for Microsoft Networks**.

5 Click **Properties**.

6 Enable the **Log on to Windows NT domain** option.

7 In the Windows NT Domain field, type the domain name.
For example, your domains might be sales, office, and warehouse.

8 Enable the **Logon and Restore Network Connections** option.

Installing Dial-Up Networking

The Mobile User VPN Adapter, which supports L2TP, installs only if Dial-up Networking is already installed on your computer. If Dial-up Networking is *not* installed, follow these instructions.

From the Windows desktop:

1 Select **Start ⇒Settings ⇒Control Panel**. Double-click the **Add/Remove Programs** icon.
The Add/Remove Properties window appears.

2 Click the **Windows Setup** tab.
The Windows Setup dialog box appears and searches for installed components.

3 Enable the **Communications** checkbox and click the **OK** button.
The Copying Files dialog box appears and copies the necessary files.

4 The Dial-Up Networking Setup dialog box appears and prompts you to restart the computer. Click the **OK** button.
The computer reboots.

Further, Windows 98 requires that the Dial-up Networking component be updated with the 1.4 patch. Please see the Microsoft Web site to receive this free update.

Configuring the WINS and DNS settings

You *must* configure the remote computer to use the WINS and DNS servers of the trusted network behind the Firebox only if you do *not* plan to use the MUVPN client's virtual adapter.

From the Windows desktop:

1 Select **Start ⇒Settings ⇒Control Panel**. Double-click the **Network** icon.
The Network window appears.

2 Select the network component **TCP/IP ⇒Dial-Up Adapter**, then click the **Properties** button.
The TCP/IP Properties Information dialog box appears.

3 Click the **OK** button.

4 Click the **DNS Configuration** tab.
Verify that the Enable DNS option has been enabled.

5 Under the "DNS Server Search Order" heading, enter your DNS server IP address, then click the **Add** button.
If you have multiple remote DNS servers repeat this step.

NOTE

You *must* list the DNS server on the Private network behind the Firebox first.

6 Click the **WINS Configuration** tab.

7 Verify that the **Enable WINS Resolution option** has been enabled.

8 Under the "WINS Server Search Order" heading, enter your WINS server IP address, then click the **Add** button.
If you have multiple remote WINS servers repeat this step.

9 Click the **OK** button to close the TCP/IP Properties window.

10 Click the **OK** button to close the Network window.
The System Settings Change dialog box appears.

11 Click the **Yes** button to restart the computer and implement the changes.

Windows NT operating system setup

The following networking components *must* be installed and configured on a remote computer running Windows NT in order for the MUVPN client to function properly.

Installing Remote Access Services on Windows NT

The Mobile User VPN Adapter, which supports L2TP, installs only if the Remote Access Services (RAS) network component is already installed on the computer.

Follow the Windows desktop:

1 Select **Start ⇒Settings ⇒Control Panel**. Double-click the **Network** icon.

2 Select the **Services** tab.

3 Click the **Add** button.

4 Select **Remote Access Services** from the list, then click the **OK** button.

5 Enter the path to the Windows NT install files or insert your system installation CD, then click the **OK** button.
The Remote Access Setup dialog box appears.

6 Click the **Yes** button to add a RAS capable device and enable you to add a modem.

7 Click the **Add** button and complete the Install New Modem wizard.

NOTE

If there is no modem installed, you can enable the **Don't detect my modem; I will select it from a list** checkbox then add a Standard 28800 modem. Windows NT requires at least one RAS device such as a modem if the RAS component is installed. If no modems are available, a dial-up networking, serial cable between two computers can be selected.

8 Select the modem added in the last step in the Add RAS Device dialog box, then click the **OK** button.

9 Click the **Continue** button, then click the **Close** button.

10 Reboot your computer.

Configuring the WINS and DNS settings

You *must* configure the remote computer to use the WINS and DNS servers of the trusted network behind the Firebox only if you do *not* plan to use the MUVPN client's virtual adapter.

From the Windows desktop:

1 Select **Start ⇒Settings ⇒Control Panel**. Double-click the **Network** icon.
The Network window appears.

2 Click the **Protocols** tab.

3 Select the **TCP/IP** protocol and click the **Properties** button.
The Microsoft TCP/IP Properties window appears.

4 Click the **DNS** tab.

5 Click the **Add** button.

6 Enter your DNS server IP address in the appropriate field.
If you have multiple remote DNS servers repeat the previous three steps.

NOTE

You *must* list the DNS server on the Private network behind the Firebox first.

7 Click the **WINS Address** tab.

8 Enter your WINS server IP address in the appropriate field, then click the **OK** button.
If you have multiple remote WINS servers repeat this step.

9 Click the **Close** button to close the Network window.
The Network Settings Change dialog box appears.

10 Click the **Yes** button to restart the computer and implement the changes.

Windows 2000 operating system setup

The following networking components *must* be installed and configured on a remote computer running Windows 2000 in order for the MUVPN client to function properly.

From the Windows desktop:

1 Select **Start ⇒Settings ⇒Network and Dial-up Connections**, then select the Dial-up connection you use to access the Internet.
The connection window appears.

2 Click the **Properties** button.

3 Select the **Networking** tab.

4 Verify that the following components are present and enabled:
- Internet Protocol (TCP/IP)
- File and Printer Sharing for Microsoft Networks
- Client for Microsoft Networks

Install these components if they are not already present.

Installing the Internet Protocol (TCP/IP) network component

From the Windows desktop:

1 Select **Start ⇒Settings ⇒Network and Dial-up Connections**, then select the Dial-up connection you use to access the Internet.
The connection window appears.

2 Click the **Properties** button.

3 Select the **Networking** tab and then click the **Install** button.
The Select Network Component Type window appears.

4 Double click the **Protocol** network component.
The Select Network Protocol window appears.

5 Select the **Internet Protocol (TCP/IP)** Network Protocol and then click the **OK** button.

Installing the File and Printer Sharing for Microsoft Networks

From the Windows desktop:

1 Select **Start ⇒Settings ⇒Network and Dial-up Connections**, then select the Dial-up connection you use to access the Internet.
The connection window appears.

2 Click the **Properties** button.

3 Select the **Networking** tab and then click the **Install** button.
The Select Network Component Type window appears.

4 Double click the **Services** network component.
The Select Network Service window appears.

5 Select the **File and Printer Sharing for Microsoft Networks** Network Service and then click the **OK** button.

Installing the Client for Microsoft Networks

From the Windows desktop:

1 Select **Start ⇒Settings ⇒Network and Dial-up Connections**, then select the Dial-up connection you use to access the Internet.
The connection window appears.

2 Click the **Properties** button.

3 Select the **Networking** tab and then click the **Install** button.
The Select Network Component Type window appears.

4 Double click the **Client** network component.
The Select Network Protocol window appears.

5 Select the **Client for Microsoft Networks** Network Client and then click the **OK** button.

6 Click the **Cancel** button to close the Select Network Component Type window.

7 Click the **OK** button to preserve the installed components.

8 Click the **Cancel** button to close the Dial-up connection window.

Configuring the WINS and DNS settings

You *must* configure the remote computer to use the WINS and DNS servers of the trusted network behind the Firebox only if you do *not* plan to use the MUVPN client's virtual adapter.

From the Windows desktop:

1 Select **Start ⇒Settings ⇒Network and Dial-up Connections**, then select the Dial-up connection you use to access the Internet.
The connection window appears.

2 Click the **Properties** button.

3 Click the **Networking** tab.

4 Select the **Internet Protocol (TCP/IP)** component, then click the **Properties** button.
The Internet Protocol (TCP/IP) Properties window appears.

5 Click the **Advanced** button.
The Advanced TCP/IP Settings window appears.

6 Click the **DNS** tab.

7 Under the "DNS server addresses, in order of use" heading, click the **Add** button.
The TCP/IP DNS Server window appears.

8 Enter your DNS server IP address in the appropriate field, then click the **Add** button.
If you have multiple remote DNS servers repeat the last two steps.

NOTE

You *must* list the DNS server on the Private network behind the Firebox first.

9 Enable the **Append these DNS suffixes (in order)** option.

10 Click the **Add** button.
The TCP/IP Domain Suffix window appears.

11 Enter your Domain suffix in the appropriate field.
If you have multiple DNS suffixes repeat the last two steps.

12 Click the **WINS** tab.

13 Under the "WINS addresses, in order of use" heading, click the **Add** button.
The TCP/IP WINS Server window appears.

14 Enter your WINS server IP address in the appropriate field, then click the **Add** button.
If you have multiple remote DNS servers repeat the last two steps.

15 Click the **OK** button to close the Advanced TCP/IP Settings window.

16 Click the **OK** button to close the Internet Protocol (TCP/IP) Properties window.

17 Click the **OK** button to close the next window.

18 Click the **Cancel** button again to close the Dial-up connection window.

Windows XP operating system setup

The following networking components **must** be installed and configured on a remote computer running Windows XP in order for the MUVPN client to function properly.

From the Windows desktop:

1 Select **Start ⇒Control Panel ⇒Network Connections**, then select the connection you use to access the Internet.
The connection window appears.

2 Click the **Properties** button.

3 Select the **Networking** tab.

4 Verify that the following components are present and enabled:
- Internet Protocol (TCP/IP)
- File and Printer Sharing for Microsoft Networks
- Client for Microsoft Networks

Install these components if they are not already present.

Installing the Internet Protocol (TCP/IP) Network Component

From the Windows desktop:

1 Select **Start ⇒Control ⇒Network Connections**, then select the connection you use to access the Internet.
The connection window appears.

2 Click the **Properties** button.

3 Select the **Networking** tab and then click the **Install** button.
The Select Network Component Type window appears.

4 Double click the **Protocol** network component.
The Select Network Protocol window appears.

5 Select the **Internet Protocol (TCP/IP)** Network Protocol and then click the **OK** button.

Installing the File and Printer Sharing for Microsoft Networks

From the Windows desktop:

1 Select **Start ⇒Control ⇒Network Connections**, then select the connection you use to access the Internet.
The connection window appears.

2 Click the **Properties** button.

3 Select the **Networking** tab and then click the **Install** button.
The Select Network Component Type window appears.

4 Double click the **Services** network component.
The Select Network Service window appears.

5 Select the **File and Printer Sharing for Microsoft Networks** Network Service and then click the **OK** button.

Installing the Client for Microsoft Networks

From the Windows desktop:

1 Select **Start ⇒Control ⇒Network Connections**, then select the connection you use to access the Internet.
The connection window appears.

2 Click the **Properties** button.

3 Select the **Networking** tab and then click the **Install** button.
The Select Network Component Type window appears.

4 Double click the **Client** network component.
The Select Network Protocol window appears.

5 Select the **Client for Microsoft Networks** Network Client and then click the **OK** button.

6 Click the **Cancel** button to close the Select Network Component Type window.

7 Click the **OK** button to preserve the installed components.

8 Click the **Cancel** button to close the Dial-up connection window.

Configuring the WINS and DNS settings

You *must* configure the remote computer to use the WINS and DNS servers of the trusted network behind the Firebox only if you do *not* plan to use the MUVPN client's virtual adapter.

From the Windows desktop:

1 Select **Start ⇒Control Panel ⇒Network Connections**, then select the Dial-up connection you use to access the Internet.
The connection window appears.

2 Click the **Properties** button.

3 Click the **Networking** tab.

4 Select the **Internet Protocol (TCP/IP)** component, then click the **Properties** button.
The Internet Protocol (TCP/IP) Properties window appears.

5 Click the **Advanced** button.
The Advanced TCP/IP Settings window appears.

6 Click the **DNS** tab.

7 Under the "DNS server addresses, in order of use" heading, click the **Add** button.
The TCP/IP DNS Server window appears.

8 Enter your DNS server IP address in the appropriate field, then click the **Add** button.
If you have multiple remote DNS servers repeat the last two steps.

NOTE

You *must* list the DNS server on the Private network behind the Firebox first.

9 Enable the **Append these DNS suffixes (in order)** option.

10 Click the **Add** button.
The TCP/IP Domain Suffix window appears.

11 Enter your Domain suffix in the appropriate field.
If you have multiple DNS suffixes repeat the last two steps.

12 Click the **WINS** tab.

13 Under the "WINS addresses, in order of use" heading, click the **Add** button.
The TCP/IP WINS Server window appears.

14 Enter your WINS server IP address in the appropriate field, then click the **Add** button.
If you have multiple remote WINS servers repeat the last two steps.

15 Click the **OK** button to close the Advanced TCP/IP Settings window.

16 Click the **OK** button to close the Internet Protocol (TCP/IP) Properties window.

17 Click the **OK** button to close the next window.

18 Click the **Cancel** button again to close the Dial-up connection window.

Install the MUVPN Client

Install the MUVPN client software on each remote management computer. The MUVPN installation files are available at the WatchGuard Service Web site:

http://www.watchguard.com/support

The installation process consists of two parts: installing the client software on the remote computer and configuring the client.

NOTE

In order to perform the installation process successfully, you *must* log into the remote computer with local administrator rights.

Follow these steps to install the client:

1 Copy the MUVPN installation file to the remote computer.

2 Double-click the MUVPN installation file.
If at any time during the installation process you inadvertently skip a step, simply cancel the process and begin again.

3 The installation welcomes you to the InstallShield Wizard. Click the **Next** button.
During the Setup Status portion of the install procedure, the InstallShield may detect ReadOnly Files. If this occurs, click **Yes** for each event in order to continue the install.

4 The installation welcomes you again. Click the **Next** button.
The Software Licence Agreement appears.

5 Click the **Yes** button to accept the terms of the License Agreement and to continue with the installation.
The Setup Type window appears.

6 Select the type of setup. By default, Typical is enabled—this is the setup recommended by WatchGuard. Click the **Next** button.

7 If you are installing the client on a Windows 2000 host, the InstallShield detects the native Windows 2000 L2TP component. The client uses this component and does not need to install its own. Click the **OK** button to continue with the install.
The Select Components window appears.

8 Keep the default components and click the **Next** button.
The Start Copying Files window appears.

9 Click the **Next** button to begin copying files.
A command prompt window appears while the `dni_vapmp` file is installed—this is normal. When it is complete, the installation will continue.

10 When the InstallShield Wizard is complete, click the **Finish** button.

11 The InstallShield Wizard then searches for a User Profile file, click the **Next** button as this step is *not* necessary.
An Information dialog box appears.

12 Click the **OK** button to continue with the installation.

13 The InstallShield Wizard has completed the install of the SOHO 6 MUVPN client, verify that the option **Yes, I want to restart my computer now** is enabled and click the **Finish** button.
The computer reboots.

NOTE

The ZoneAlarm personal firewall may interfere with regular Local network traffic preventing access to network resources. If the remote computer is connected to the network after reboot, this may disrupt the network logon process. If in doubt, log on to the computer locally the first time after installation.

Configuring the MUVPN Client

Once you have restarted the machine, the WatchGuard Policy Import dialog box appears. Click the **Cancel** button as this step is *not* necessary.

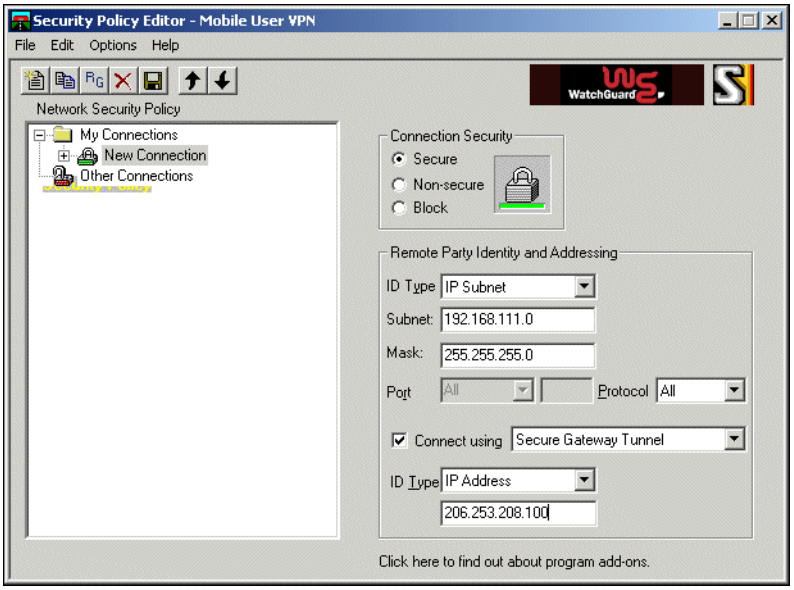
From the Windows desktop system tray:

1 Right-click on the **Mobile User VPN** client icon.
The Security Policy Editor window interface appears.

2 Select **Edit ⇒Add ⇒ Connection**.
A New Connection will appear under the My Connections folder within the Network Security Policy field on the left side of the Editor.

NOTE

The ZoneAlarm personal firewall may immediately begin to display alerts on your Windows desktop. For more information regarding ZoneAlarm, see Chapter 3 "The ZoneAlarm Personal Firewall" on page 31.



3 Under the Connection Security header on the right side of the Security Policy Editor window, enable the **Secure** option.

4 Under the Remote Party Identity and Addressing header, select **IP Subnet** from the ID Type drop list.

5 Enter the network IP Address of the Trusted Network behind the SOHO 6 in the field labeled “Subnet”.
In our example, 192.168.111.0.

6 Enter the Subnet Mask of the Trusted Network behind the SOHO 6 in the field labeled “Mask”.
In our example, 255.255.255.0.

7 From the Protocol drop list, verify that **All** has been selected.

8 Enable the **Connect using** checkbox and select **Secure Gateway Tunnel** from the drop list.

9 From the ID Type drop list, select **IP Address**.

10 Enter the External IP Address of the SOHO 6 in the appropriate field.
In our example, 206.253.208.100.

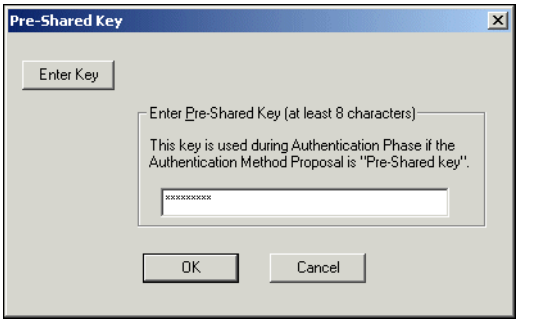
11 From the Network Security Policy on the left, expand **New Connection**.
My Identity and Security Policy should appear below New Connection.

12 From the Network Security Policy, select **Security Policy**.

13 From the Select Phase 1 Negotiation Mode header, enable the **Aggressive Mode** option.

14 Select **My Identity**.

15 Click the **Pre-Shared Key** button.
The Pre-Shared Key window appears.

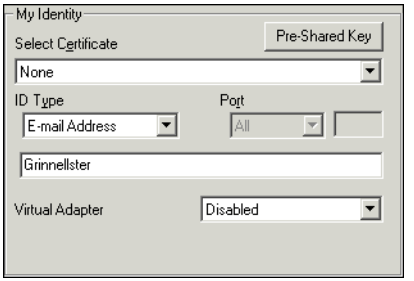


16 Click the **Enter Key** button.

17 Enter the same Passphrase configured on the SOHO 6 in the appropriate field.

18 From the Select Certificate drop list, verify that **None** has been selected.

19 From the ID Type drop list, select **E-mail Address**.



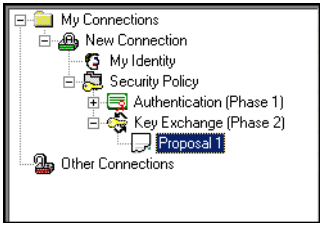
20 Enter the same Username configured on the SOHO 6.
In our example, Grinnellster.

NOTE

Both the Pre-Shared Key and the E-mail Address, *must* exactly match the System Passphrase and System Administrator Name configured on the SOHO 6 or the connection will fail.

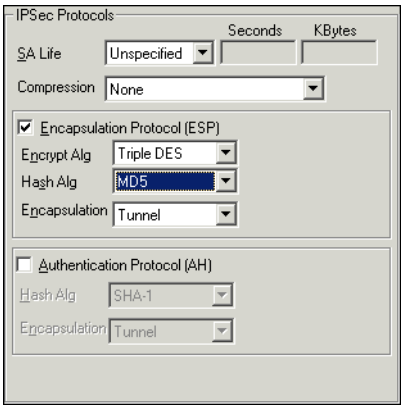
21 From the Virtual Adapter drop list, verify that **Disabled** has been selected.

22 From the Network Security Policy expand **Security Policy**, then expand **Key Exchange (Phase 2)**.
My Identity and Security Policy should appear below New Connection.



23 Select **Proposal 1**.
My Identity and Security Policy should appear below New Connection.

24 Verify that the **Encapsulation Protocol (ESP)** check box is enabled.



25 Set the Encrypt Alg and Hash Alg drop lists to the same values configured on the SOHO 6.

The "Hash Alg" setting refers to the "Authentication Algorithm" and the "Encrypt Alg" setting refers to the "Encryption Algorithm" settings on the SOHO 6. In our example, Triple DES and MD5.

NOTE

These two setting *must* exactly match those on the SOHO 6 or the connection will fail.

26 Select **File ⇒Save Changes**.

Uninstall the MUVPN client

At some point, it may become necessary to completely uninstall the MUVPN client. WatchGuard recommends a complete uninstall using the Windows Add/Remove Programs tool.

First, disconnect all existing tunnels and dial-up connections and reboot the remote computer. Then, from the Windows desktop:

1 Select **Start ⇒Settings ⇒Control Panel.**
The Control Panel window appears.

2 Double click the **Add/Remove** Programs icon.
The Add/Remove Programs window appears.

3 Select **Mobile User VPN** and click the **Change/Remove** button.
The InstallShield Wizard window appears.

4 Select **Remove**. Click the **Next** button.
The Confirm File Deletion dialog box appears.

5 Click the **OK** button to completely remove all of the components.
A command prompt window appears while the `dni_vapmp` file is installed—this is normal. When it is complete, the installation will continue.
The Uninstall Security Policy dialog box appears.

6 Click the **Yes** button to delete the Security Policy Personal Certificates and Private/Public Keys.
The InstallShield Wizard window appears.

7 Verify that the option **Yes, I want to restart my computer now** is enabled and click **Finish**.
The computer will reboot.

NOTE

The ZoneAlarm personal firewall settings are preserved under the following default directories.

Windows 98: `c:\windows\internet logs\`
Windows NT and 2000: `c:\winnt\internet logs\`
Windows XP: `c:\windows\internet logs`

If you wish to disregard these settings, delete the contents.

8 When the computer has restarted, select **Start ⇒Programs**.

9 Right-click **Mobile User VPN** and select **Delete** to remove this selection from your Start Menu.

Connect and Disconnect the MUVPN Client

The MUVPN client enables the remote computer to establish a secure, encrypted connection to a protected network over the Internet. To do this, you *must* first connect to the Internet and then use the MUVPN client to connect to the protected network.

Connecting the MUVPN Client

1 First establish an Internet connection through either Dial-Up Networking or directly through a local area network (LAN) or wide area network (WAN).

From the Windows desktop system tray:

2 Verify the MUVPN client status—it *must* be activated. If it is not, right-click the icon and select **Activate Security Policy**.
For information on how to determine the status of the MUVPN icon, see the following section "The Mobile User VPN client icon".

Then, from the Windows desktop:

3 Select **Start ⇒Programs ⇒Mobile User VPN ⇒Connect**.
The WatchGuard Mobile User Connect widow appears.

4 Click the **Yes** button.

The Mobile User VPN client icon

The Mobile User VPN icon exists in the Windows desktop system tray and displays several different status images. The following lists these images and provides a brief description of each.

Deactivated

The MUVPN Security Policy is deactivated or the Windows operating system did not start a necessary Mobile User VPN service properly and the remote computer *must* be restarted (if this continues you may need to reinstall the MUVPN client).

Activated

The MUVPN client is ready to establish a secure, MUVPN tunnel connection.

Activated and Transmitting Unsecured Data

The MUVPN client is ready to establish a secure, MUVPN tunnel connection. The red bar on the right of the icon indicates that the client has begun transmitting unsecured data.

Activated and Connected

The MUVPN client has established at least one secure, MUVPN tunnel connection but is not transmitting data.

Activated, Connected and Transmitting Unsecured Data

The MUVPN client has established at least one secure, MUVPN tunnel connection. The red bar on the right of the icon indicates that the client is transmitting only unsecured data.

Activated, Connected and Transmitting Secured Data

The MUVPN client has established at least one secure, MUVPN tunnel connection. The green bar on the right of the icon indicates that the client is transmitting only secured data.

Activated, Connected and Transmitting both Secure and Unsecured Data

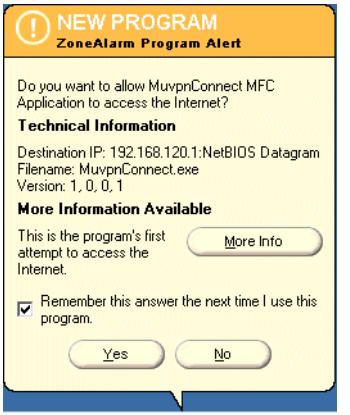
The MUVPN client has established at least one secure, MUVPN tunnel connection. The red and green bars on the right of the icon indicate that the client is transmitting both secured and unsecured data.

Allowing the MUVPN client through the personal firewall

There are a couple of programs associated with the MUVPN client, which you *must* allow through the personal firewall in order to establish the MUVPN tunnel:

- MuvpnConnect.exe
- IreIKE.exe

The personal firewall will detect the attempt of these programs to access the Internet. The New Program alert dialog box appears requesting access for the MuvpnConnect.exe program.



From the ZoneAlarm alert dialog box:

1 Enable the **Remember this answer the next time I use this program** option and click the **Yes** button.
This enables ZoneAlarm to allow the MuvpnConnect.exe program through each time you attempt to make a MUVPN connection.

The New Program alert dialog box appears requesting access for the IreIKE.exe program.

2 Enable the **Remember this answer the next time I use this program** option and click the **Yes** button.
This enables ZoneAlarm to allow the IreIKE.exe program through each time you attempt to make a MUVPN connection.

Disconnecting the MUVPN client

The MUVPN tunnel is independent of the Internet connection. Close the MUVPN tunnels when the remote computer encounters either of the following events.

- Loses the Internet connection
- No longer needs the MUVPN tunnel

From the Windows desktop system tray:

1 Right-click the **Mobile User VPN** client icon.

2 Select **Disconnect All**.
The MUVPN Client closes all tunnels. This process does not affect your connection to the Internet. You *must* disconnect from the Internet separately.

3 Right-click the **Mobile User VPN** client icon and select **Deactivate Security Policy**.
The MUVPN icon displays a red slash to indicate a deactivated Security Policy.

If you are using the ZoneAlarm personal firewall, deactivate this as well.

From the Windows desktop system tray:

1 Right-click the **ZoneAlarm** icon and select **Shutdown ZoneAlarm**.
The ZoneAlarm dialog box appears.

2 Click the **Yes** button when prompted to quit ZoneAlarm.

Monitor the MUVPN Client Connection

There are two tools that accompany the MUVPN client which can be used to monitor your connection and diagnose problems that may occur: the Log Viewer and the Connection Monitor.

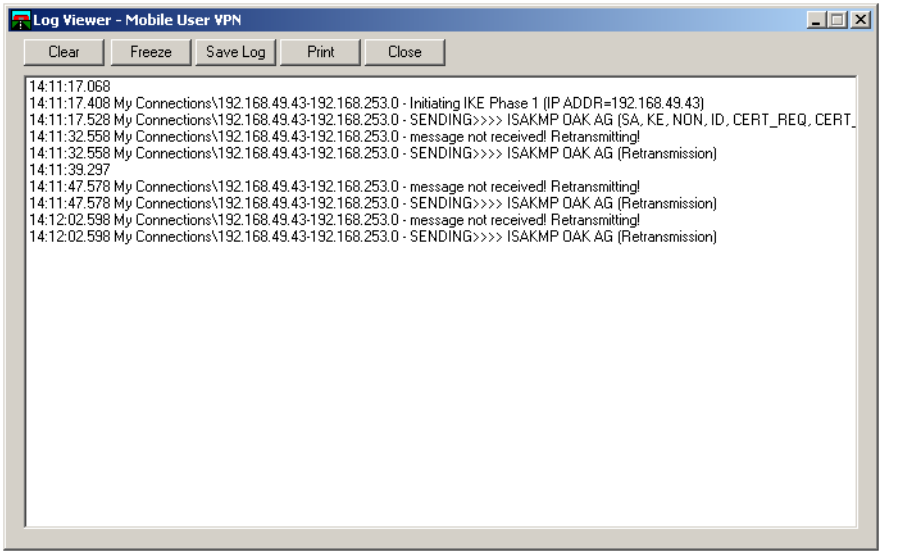
The Log Viewer

The LogViewer displays the communications log, a diagnostic tool that lists the negotiations that occur during the MUVPN client connection.

From the Windows desktop system tray:

1 Right-click the **Mobile User VPN** client icon.

2 Select **Log Viewer**.
The Log Viewer window appears.



The Connection Monitor

The Connection Monitor displays statistical and diagnostic information for each active connection in the security policy. This module shows the actual security policy settings and the security association (SA) information established during Phase 1 IKE negotiations and Phase 2 IPSec negotiations.

From the Windows desktop system tray:

1 Right-click the **Mobile User VPN** client icon.

2 Select **Connection Monitor**.
The Connection Monitor window appears.

An icon appears to the left of the connection name:

- SA indicates that the connection has only a Phase 1 IKE SA. This occurs when connecting to a secure gateway tunnel or when a Phase 2 IPSec SA fails to establish or has not been established yet.
- A key indicates that the connection has a Phase 2 IPSec SA, or both a Phase 1 and Phase 2 SA.
- A key with a black line moving below it indicates that the client is processing secure IP traffic for that connection.

- When a single Phase 1 SA to a gateway protects multiple Phase 2 SAs, there is a single Phase 1 connection with the SA icon and individual Phase 2 connections with the key icon displayed above that entry.

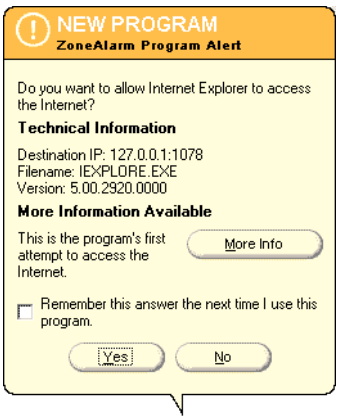
CHAPTER 3

The ZoneAlarm Personal Firewall

A personal firewall is a barrier between your computer and the outside world. The computer is most vulnerable at its doors, called ports. Without ports, no connection to the Internet is possible.

ZoneAlarm protects these ports by following a simple rule: Block all incoming and outgoing traffic unless you explicitly allow it for trusted programs.

When using ZoneAlarm, you often see Program Alert dialog boxes similar to the image below.



This alert appears whenever one of your programs (in this example, Internet Explorer) attempts to access the Internet or your local network. This powerful feature means no information leaves your computer unless you give it permission.

If you enable the “Remember the answer each time I use this program” checkbox you will only have to answer this question once for each program.

ZoneAlarm Features

The ZoneAlarm personal firewall provides a brief tutorial of the product immediately after installation of the MUVPN client. Carefully read each step to familiarize yourself with the application.

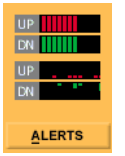
There are five buttons on the ZoneAlarm personal firewall panel. These are described in detail below.

The Alerts panel

The Alert messages generated by ZoneAlarm contain information on what ZoneAlarm is blocking.

Up and Down graphs

Notice the two sets of UP and DN (Up and Down) graphs on the ZoneAlarm Panel. Whenever data is being sent to the Internet, red bars are displayed inside the two UP graphs. Whenever data is being received, green bars are displayed inside the DN graphs. If there is no activity to or from the Internet, ZoneAlarm will display "ZA" on a red and yellow background.



- The two graphs in the top portion of the icon display Internet traffic as it occurs.

- The two graphs in the lower portion of the icon display a chronological history of Internet traffic as it is generated on your machine.
- Whenever red or green flashing bars appear in the Alerts icon, the application receiving or sending traffic is shown as a blinking icon inside the Programs icon.

NOTE

You might also notice traffic being displayed when you are not on the Internet. This is local broadcast traffic from your computer.

Expanded Alert panel

Click the ALERTS button to display the entire Alerts panel.

At the top of the panel, Today's Summary shows the total amount of data sent and received by all applications. The middle portion of the panel details Current Alerts. In the Alert Settings area, at the bottom of the panel, there are options to display and save alerts.

Pressing the “More Info” button launches the Zone Labs Alert Analyzer Web page which provides additional information on traffic blocked by ZoneAlarm.

The Lock panel

The purpose of the lock to is block all network activity inbound and outbound from your computer. Therefore, only use the lock during extended inactivity of your PC.

A locked or unlocked padlock is displayed in the middle of the icon. To immediately turn Internet access on or off for all the applications installed on your machine that are not set to bypass the lock, click directly on the padlock.

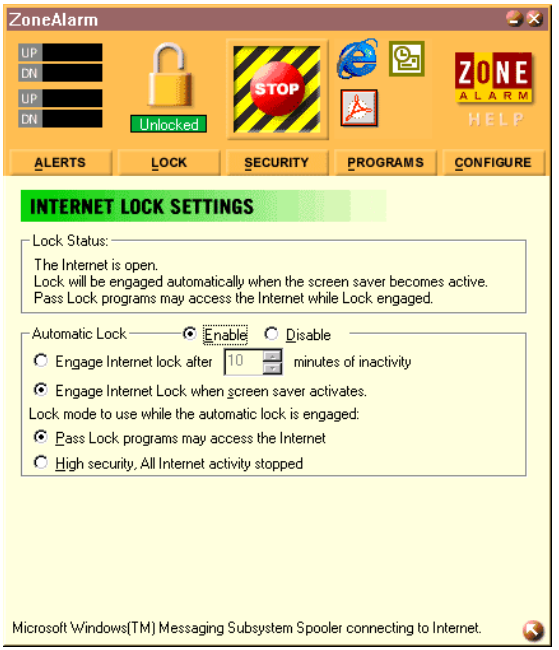
- When the bar below the Lock button is green, the Internet Lock is not on. This means that ZoneAlarm is allowing Internet traffic in and out of your computer.

If the bar displays a countdown timer, this is the time remaining before the Automatic Lock will engage.

- When the bar is red, the lock is closed and no Internet traffic is allowed. When the lock is closed, the countdown timer counts upwards, showing the amount of time the lock has been active.

Expanded Lock panel

Click the LOCK button to display the entire Lock panel.



The Automatic Lock will activate at whatever set intervals you select. You can program the Automatic Lock to activate in the following situations:

- Whenever your computer has not been used for a preset number of minutes
- Whenever the screen saver takes control of your desktop

NOTE

If Internet access is locked when the screen saver activates, it will be unlocked when the screen saver is deactivated.

The option "Pass Lock programs may access the Internet" allows Internet activity for applications that have been given rights to bypass the lock. Using this bypass feature, you can allow programs like your email client to check for mail during intervals when the Automatic Lock is in effect for all your other applications.

The High Security setting will *stop* all applications' Internet activity regardless of the program's access settings. For more information, see the section "The Programs panel" on page 57.

Undoing an inactivity lock

If you have activated the Automatic Lock using the minutes-of-inactivity option, unlock the lock by clicking on the padlock inside the Lock icon. After clicking on the padlock to deactivate the lock, the bar under the padlock will be set to green. This means that the lock is no longer stopping Internet traffic.

The Stop button

Clicking on the STOP button immediately stops *all* network traffic. This includes local traffic as well, regardless if you are on a LAN, WAN, or stand-alone workstation. The only reason to use this button is if you are monitoring activity and encounter a compromise in progress.

The STOP button overrides the Pass Lock settings in the Programs panel. This is useful for stopping Trojan horses and other malicious programs that want to gain access to the Internet from your PC. To reactivate Internet access, press the stop button again.

NOTE

Using the emergency stop button completely cuts off connections to the Internet. Connections and data transfer by all programs on your computer must be restarted.

The Security panel

The Security panel is used to regulate ZoneAlarm's protection levels.

The Local and Internet Zone each have a security level selector, that you drag up and down to change the security level. Local Zone security is displayed in green, and Internet Zone security in blue.

The default security settings are *medium* for the Local Zone and *high* for the Internet Zone.

For all three security levels, the application privileges in the Program panel are enforced. The following is a description of the three security levels:

Low

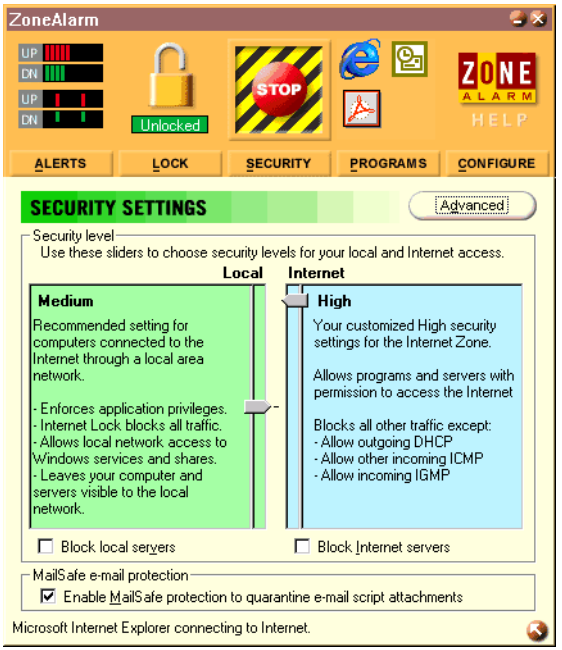
This is the minimal security setting. The Internet Lock feature allows only application traffic, not server traffic (that is, traffic outbound from the computer but not inbound from the network). All local network access to and from your computer and server applications are allowed, such as Windows file and print shares.

Medium

This is the recommended setting for computers connected to the Internet through a LAN or WAN. The Internet Lock feature blocks *all* traffic. All local network access to and from your computer and server application is allowed, such as Windows file and print shares.

High

This is the maximum security setting. The Internet Lock feature blocks *all* traffic. All local network access to and from your computer and server application is blocked, such as Windows file and print shares. All ports not is use are hidden.



Use the block servers checkbox for each zone to prevent all programs from acting as servers for that zone. By checking this option, no application will be allowed to listen for incoming connections in that zone, even if you've checked the Allow Server option in the Programs panel.

Definition of Zones

ZoneAlarm divides traffic into two separate zones: the Local Zone and the Internet Zone.

The purpose of the Local Zone is to enable ZoneAlarm to recognize what you as the user, deem as permissible traffic.

The Local Zone is made up of the computers and resources you have defined as trusted. These are usually resources on your local network but they can include any resource of your choosing. Use the Advanced button on the Security panel to define and modify the components of the Local Zones.

The members of the Internet Zone are defined as all computers and addresses you have not included in your trusted Local Zone for protection.

Members of the Local Zone can include hosts, Web sites, trusted IP Addresses, IP Subnets, and IP Ranges.

Configuring the Local Zone

Click the 

button in the Security panel to display the Local Zone Properties.

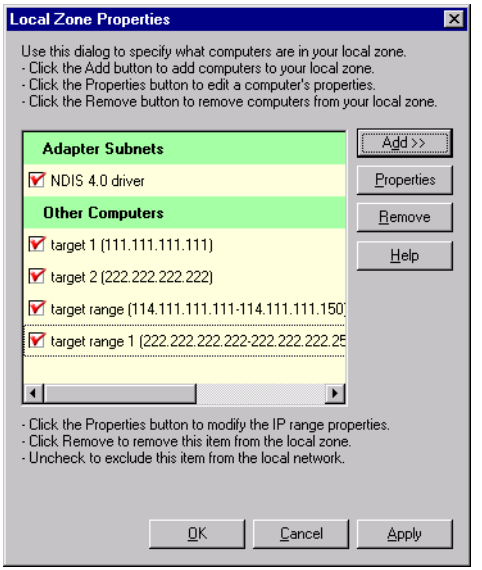
Use the Local Zone Properties to add the following:

- Web sites
- IP addresses or ranges of IPs
- Subnets

Click the Add button to add any of these elements and the Remove button to remove items from your Local Zone list. Click the Properties button to modify the name or IP address of any element of your Local Zone properties.

The Adapter Subnets section lists all the Network Interface Cards (NICs) on your machine. Checking an adapter automatically adds the network adapter's local subnet to the Local Zone.

If you are on a local area network, checking an adapter automatically adds any computers and other devices such as printers using that subnet to your Local Zone. On a LAN or WAN using multiple subnets, you would need to add these individually.



To add items to the Local Zone, follow these instructions:

1 At the Security panel, click the **Advanced** button.
The Local Zone Properties window appears.

2 Click **Add** and select Host/Site (where you have the URL of the remote server Web site rather than the IP address), IP address, IP Range or Subnet.

3 Under Description, enter a name for the entry. This description can be anything and has no bearing on functionality. It is intended to help you distinguish multiple entries in the Local Zone.

4 Enter the name of the Host/Site, IP Address, IP Range, or Subnet.
For example, www.addhostsite.com or 10.10.10.1

5 Click the **OK** (or **Next** if adding a Host/Site) button.

6 Click **Finish** (if adding a Host/site).

7 Click the **OK** button to close the Local Zone Properties window.

NOTE

The MUVPN client should add the VPN destinations contained within the end-user profile (the .wgx file) to the Local Zone by default.

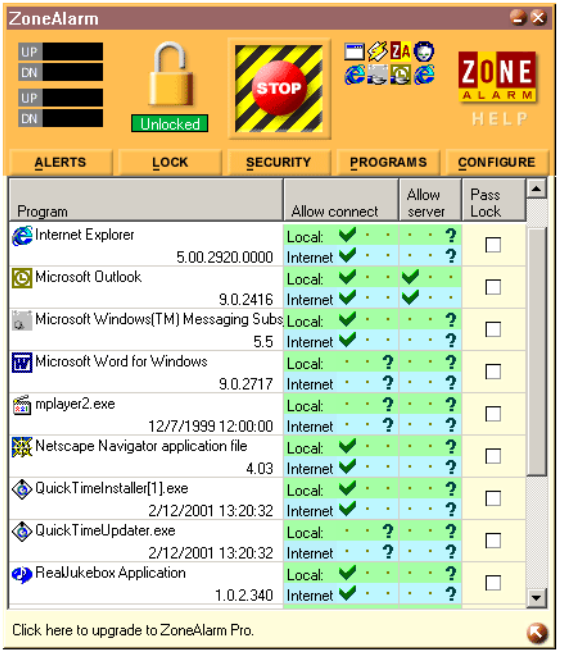
The Programs panel

The programs panel displays programs that have attempted to access the Internet.

The extended portion of the Programs panel is the Program List. This is the list of programs installed on your machine that have attempted to connect to the Internet. Use the checkboxes in this panel to control the connection behavior of any program on the list or to specify each program's access rights for the Local Zone or the Internet Zone.

The same functions are available by bringing up the popup menu by right-clicking on a program name in the Program list.

In the Program List, the Allow server column allows you to control which applications can perform server functions. The Allow connect column allows you to control which applications make outgoing connections to the Internet or the Local Zone. Run your mouse pointer over the Programs List or right-click an entry in the list to see more statistics.



Using the panel

Go to the Allow connect column in the main body of the panel to change a program's permissions. Click directly on the dots within the column to change the access level.

In the same way, you can change the settings in the Allow server column.

- The question mark indicates that ZoneAlarm will prompt you each time that particular program attempts to pass traffic to or from the Internet or Local zones.

- The checkmark indicates that ZoneAlarm allows that program access to the selected zone.

- The red X indicates that ZoneAlarm denies that program access to the selected zone.

- The column labeled “Allow connect” is for a program that is attempting to make a connection out to the Internet.
- The column labeled “Allow server” is for a program that is attempting to make a connection in to your computer.
- The column labeled “Pass Lock” allows an exception to the Internet lock feature.

In the Program column, the program's name and version number are displayed. Run your mouse over the program name to see more statistics:

- Product name
- The name of the file used to access the Internet
- The location of the file
- Product version
- Creation date and file size

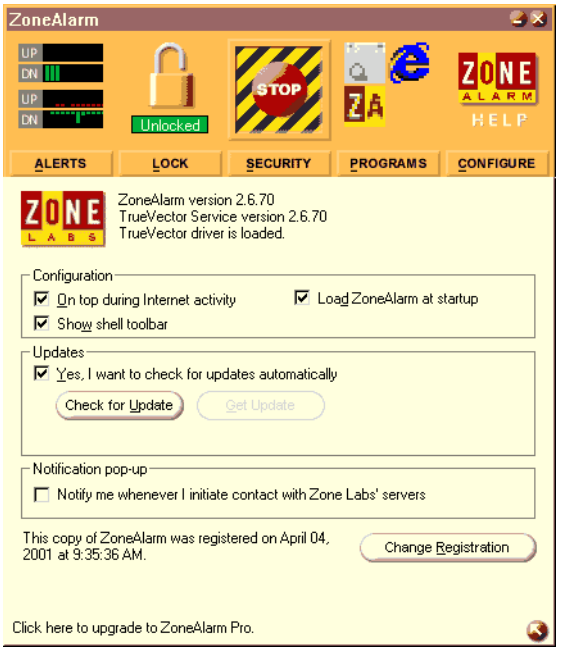
See the section of this document titled, “Allowing Traffic through ZoneAlarm” for more information on allowing a few common applications and all of their necessary programs through the ZoneAlarm personal firewall.

The Configuration panel

Use the configuration panel to set the basic operational characteristics for ZoneAlarm.

Click the CONFIGURE button to display the Configuration panel. This button is located directly below the Help button in the top right corner of ZoneAlarm. Use the checkboxes and buttons in the Configuration Panel to determine the following:

- ZoneAlarm should be displayed on top of other applications on your computer screen when Internet activity is selected.
- The Desk Band Tool bar should be displayed (applies to Windows 98 and NT 4 only).
- ZoneAlarm should load when you start your computer.
- To check for product updates.
- To change the registration information you've submitted to Zone Labs.



The first checkbox on the Configuration Panel is On top during Internet activity. This checkbox controls whether or not ZoneAlarm will be displayed *on top* of other applications whenever Internet activity is detected.

The Load ZoneAlarm at Startup checkbox is selected by default. This causes ZoneAlarm to be loaded when you start your computer. If you disable this checkbox, Internet traffic monitoring will not begin until you start ZoneAlarm on your machine.

NOTE

The ZoneAlarm personal firewall may interfere with regular Local network traffic. Please see the troubleshooting item in this document titled, "Why am I not prompted for my user name and password when I turn my computer on?"

Older versions of Windows NT (those without the Windows Shell Update) allow you to choose a "Show shell toolbar" option. Under newer

versions and Windows 98/ME or Windows 2000, this option is part of the Windows Shell.

The Check for update button contacts the web for ZoneAlarm product updates.

The Change Registration button allows you to review and change your ZoneAlarm registration information

Frequently Asked Questions about ZoneAlarm

What is Internet Traffic?

ZoneAlarm keeps an eye on all Internet traffic.

Internet traffic includes all data movement to and from the Internet. It also includes all connection attempts from your machine to the Internet and vice versa.

The ZoneAlarm personal firewall only stops undesired traffic. When it does stop an instance of traffic, ZoneAlarm will issue an alert. The alert can be displayed and stored in a number of places.

Data movement and connection attempts that are allowed according to your rules in ZoneAlarm, will be allowed to pass through the firewall.

What is an Internet Alert?

An alert is basically a blocked Internet connection. When ZoneAlarm blocks some kind of inbound or outbound Internet traffic, an alert is produced based on the rules you've set up in the various ZoneAlarm panels.

By going to the Alerts panel, you can easily find out the basic information behind an alert.

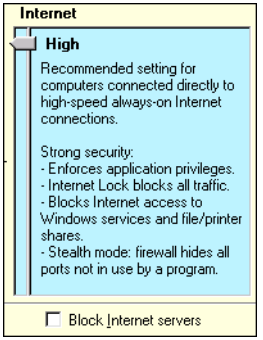
What Will ZoneAlarm Block?

What ZoneAlarm blocks is the result of how selections are made in ZoneAlarm panels in these two ways:

- Default settings that were installed with the product that you did not change.

- Modifications made to those settings by you or your system administrator.

The higher the security setting in a zone, the more ZoneAlarm will block. In the Security panel, if you allow overall security for the Internet Zone to be set to high, the firewall will block, and create an alert, for the three events shown in the lower part of the example below.

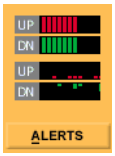


What Are the Red and Green Traffic Indicators

The most visible Internet traffic indicators are the red and green bars you can see at any time inside the first box on the left side of the DeskBand Toolbar.

Red bars indicate data being sent; green bars indicate data being received. These indicators don't indicate alerts or illegal traffic, but simply that Internet traffic is occurring.

When you open the product, you see a larger version of these indicators on the Alerts icon:



Whenever red or green flashing bars appear in the Alerts icon, the application receiving or sending traffic is shown as a blinking icon inside the Programs icon.

How Do I View My Internet Traffic?

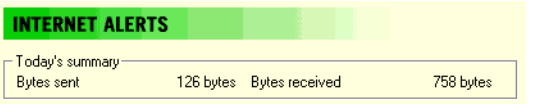
If you really want to see Internet traffic every single time it occurs, make sure the first checkbox below, located on the Configuration panel, is enabled.

This means that, in addition to being able to view the red and green bars, you will also see the main ZoneAlarm panel displayed on top of all the other applications on your desktop.

This will make it obvious that Internet traffic is occurring. Since so much Internet traffic can occur when you have a live Internet connection, many ZoneAlarm users disable this checkbox and rely on the red and green bars only.

How Do I Know How Many Bytes Are Sent and Received?

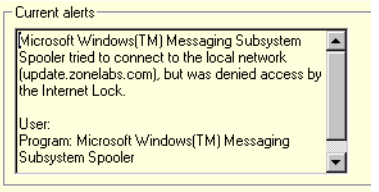
About Internet traffic, you can always view how many bytes have been sent to your PC and how many have been received since you launched ZoneAlarm. These statistics are available at the top of the Alerts panel as shown below.



Why Did I Get That Alert?

Just below the Bytes received area in the Alerts panel, statistics are always available immediately after your ZoneAlarm personal firewall detects an Internet connection attempt that it is being blocked by the firewall rules you've set up throughout ZoneAlarm.

The example below shows that a connection attempt by Internet Explorer was blocked.

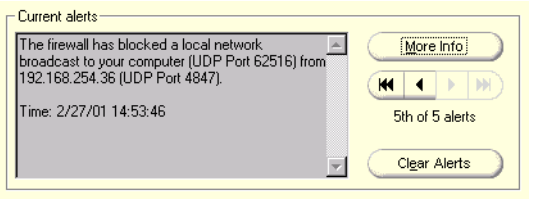


A number of rules could be responsible for this alert. One possibility is that, in the Allow connect column of the Programs panel, you have established a rule to block Internet Explorer's access to the Zone where the IP address mentioned in the alert.

In this case, the IP address would be in the Internet zone, because the Red X is in the Internet Zone area.

How Do I Get More Info about a Particular Alert

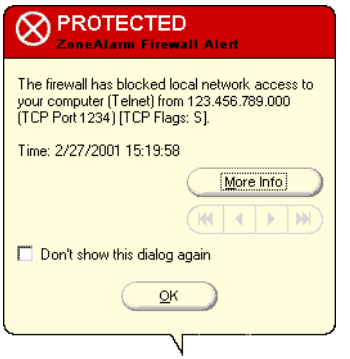
Clicking on the More Info button, located to the right of the alert description, gives you access to the Alert Analyzer, located on the Zone Labs web site.



How Do I Control ZoneAlarm for Displaying Alerts?

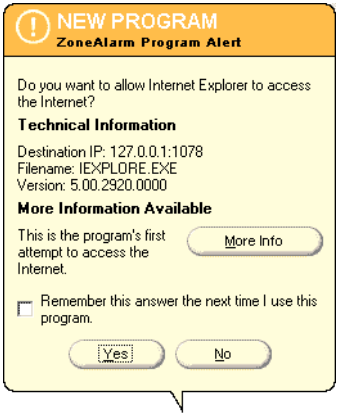
The area at the bottom of the Alerts panel allows you to control whether you want the Alert Log to be created, and whether or not you want alert popups to be displayed each time there is an alert.

If you enable the second checkbox, you'll get a display like the example below each time firewall rules trigger an alert.



Allowing Traffic through ZoneAlarm

When an application requires access through the ZoneAlarm personal firewall, a Program Alert will be displayed on the Windows desktop informing the user which particular program needs access. Often, the program associated with the application is not readily indicative of the application the user is attempting to execute.



In the example above, the Internet Explorer Web browser application has been launched and is attempting to access the users home page. The program which actually needs to pass through the firewall is "IEXPLORE.EXE".

In order to allow this program access each time the application is executed, enable the **Remember the answer each time I use this program** checkbox.

Here is a list of a few essential programs which will need access through the ZoneAlarm personal firewall in order to operate some important applications.

Programs Which *Must* Be Allowed	
MUVPN client	IreIKE.exe MuvpnConnect.exe
MUVPN Connection Monitor	CmonApp.exe
MUVPN Log Viewer	ViewLog.exe
Programs Which *May* be Allowed	
MS Outlook	OUTLOOK.exe
MS Internet Explorer	IEXPLORE.exe
Netscape 6.1	netscp6.exe
Opera Web browser	Opera.exe
Standard Windows network applications	lsass.exe services.exe svchost.exe winlogon.exe

Shutting Down ZoneAlarm

From the Windows desktop system tray:

1 Right-click the ZoneAlarm icon and select **Shutdown ZoneAlarm**.
The ZoneAlarm dialog box appears.

2 Click the **Yes** button when prompted to quit ZoneAlarm.

Uninstalling ZoneAlarm

From the Windows desktop:

1 Select **Start ⇒Programs ⇒Zone Labs ⇒Uninstall ZoneAlarm**.
The Confirm Uninstall dialog box appears.

2 Click the **Yes** button.
The ZoneLabs TrueVector service dialog box appears.

3 Click the **Yes** button to continue with uninstalling the TrueVector service and disable its Internet Security features.
The Select Uninstall Method window appears.

4 Verify that **Automatic** is selected and then click the **Next** button.

5 Click the **Finish** button to perform the uninstall.

NOTE

The Remove Shared Component window may appear. During the initial installation of ZoneAlarm, some files were installed that could be shared by other programs on the system. Click the **Yes to All** button to completely remove all of these files.

6 The Install window appears and prompts you to restart the computer. Click the **OK** button to reboot your system.

CHAPTER 4

Troubleshooting Tips

WatchGuard maintains a knowledge base on our Web site, including an In-Depth FAQ section on configuring and using the SOHO 6 Remote Management (MUVPN) client. This is available at:

www.watchguard.com/support

A few of the most common issues found in installing, configuring, and using the SOHO 6 Remote Management (MUVPN) client are described below.

Why is my computer hung up just after installing the SOHO 6 Remote Management (MUVPN) client?

This is most likely because the SOHO 6 Remote Management (MUVPN) client is active and is unsuccessfully attempting to create an IPSec connection.

When the SOHO 6 Remote Management (MUVPN) client is not in use, the client should be disconnected and deactivated.

1 First, reboot your computer.

2 From the Windows desktop system tray, right-click on the **Mobile User VPN** client icon.

3 Select **Disconnect All**.
The SOHO 6 Remote Management (MUVPN) client closes all IPSec connections.

4 Right-click on the **Mobile User VPN** client icon and select **Deactivate Security Policy**.
The SOHO 6 Remote Management (MUVPN) icon will display a red slash to indicate that the Security Policy has been deactivated.

How can I tell if the SOHO 6 Remote Management (MUVPN) tunnel is working?

The SOHO 6 Remote Management (MUVPN) client icon, which appears in the Windows desktop system tray once it has been launched, displays a key once the client has connected.

To test the connection, ping the IP address of the Trusted network on the SOHO 6.

For example, if using the default IP address of the SOHO 6, select **Start ⇒Run**, then type `ping 192.168.111.1`.

What is TCP/IP and how do I install and configure it?

TCP/IP is a protocol that enables very diverse computer operating systems to communicate over a network. TCP/IP must be installed to establish a connection with your Internet service provider. You may need to install and configure TCP/IP if your computer has never before been networked.