

WatchGuard® Firebox® SOHO 6 Remote Management Guide

SOHO 6.1



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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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 or Pocket PC 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 then connect to the SOHO 6 configuration pages without compromising security. Another way to remotely manage your SOHO 6, is using a Pocket PC. You establish a standard Internet connection using your Pocket PC, and then connect to the SOHO 6 configuration page.

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 or Pocket PC 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.

The screenshot shows the 'System Security' configuration page. The left sidebar has the following menu items: System Status, Network (External, Trusted, Optional, Routes, Network Statistics, DynamicDNS), Administration (System Security, VPN Manager Access, Update, Upgrade, View Configuration File), Firewall (Incoming, Outgoing, Custom Service, Blocked Sites, Firewall Options, Pass Through), and Logging. The main content area is titled 'Administration System Security' and contains the following fields and options:

- HTTP Server Port:
- Enable System Security
- System Administrator Name:
- System Passphrase:
- Confirm System Passphrase:
- Enable SOHO Remote Management
- Virtual IP Address:
- Authentication Algorithm:
- Encryption Algorithm:
- VPN Client Type:

At the bottom of the form are two buttons: 'Submit' and 'Reset'.

- 3 Verify that the HTTP Server Port is set at 80.
- 4 Enable the checkbox labeled **System Security**.
- 5 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.

- 6 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.
- 7 Enter the System Passphrase again to confirm it in the appropriate field.
- 8 Enable the checkbox labeled **Enable SOHO 6 Remote Management**.
- 9 Enter the Virtual IP address which will be used by the remote management computer when connecting to the SOHO 6 in the appropriate field.
- 10 In the **Authentication Algorithm** drop list, specify the authentication: MD5-HMAC (128-bit authentication) or SHA1-HMCA (160-bit authentication).
- 11 In the **Encryption Algorithm** drop list, specify the type of encryption: DES-CBC or 3DES-CBC.
- 12 In the **VPN Client Type** drop list, specify the type of VPN client: Mobile User (MUVPN) or Pocket PC.
- 13 Click the **Submit** button.

MUVPN Preparation, Installation, and Connection

Once you configured the SOHO 6 to use the Remote Management feature through a MUVPN connection, you need to 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 Firewall.

NOTE

You can not use the MUVPN client virtual adapter. Make sure this is disabled.

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.

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.

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.

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.

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:

<https://www3.watchguard.com/archive/softwarecenter.asp>

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

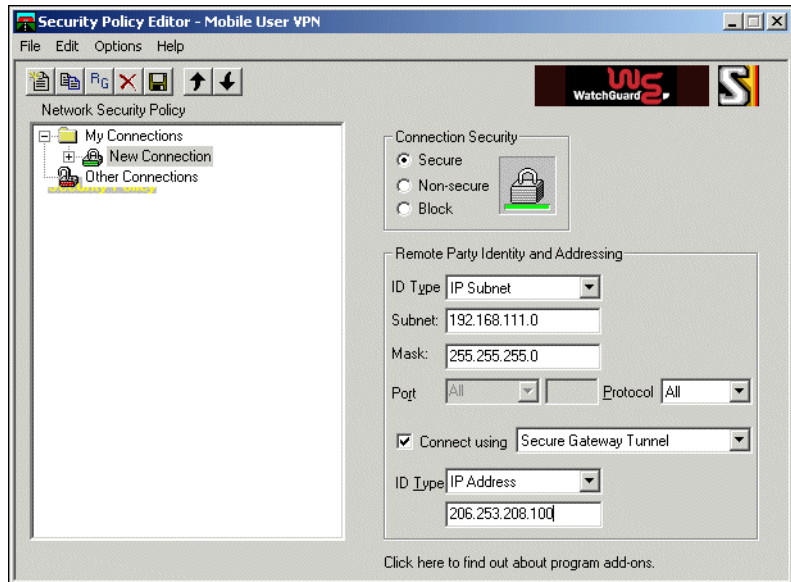
Once you have restarted the machine, the WatchGuard Policy Import dialog box appears. Click the **Cancel** button as this step is *not* necessary.

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

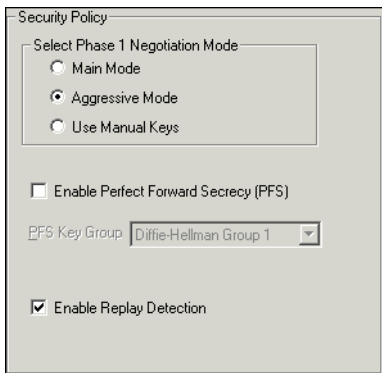
The ZoneAlarm personal firewall may immediately begin to display alerts on your Windows desktop. For more information regarding ZoneAlarm, see Chapter 3 “The ZoneAlarm Personal Firewall” on page 31.



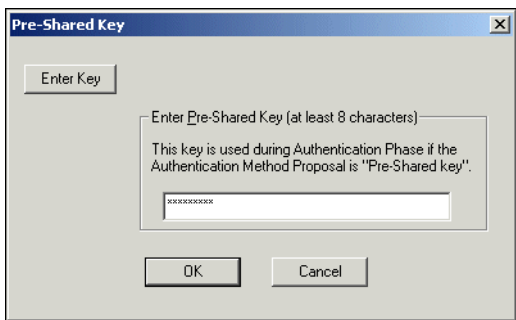
- 3 Under the Connection Security header on the right side of the Security Policy Editor window, enable the **Secure** option.
- 4 Under the Remote Party Identity and Addressing header, select **IP Subnet** from the ID Type drop list.
- 5 Enter the network IP Address of the Trusted Network behind the 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.

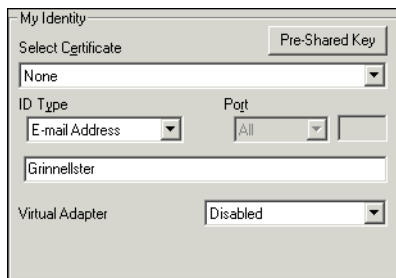


- 14 Select **My Identity**.
- 15 Click the **Pre-Shared Key** button.
The Pre-Shared Key window appears.



- 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**.

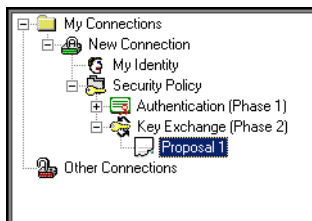


- 20 Enter the same Username configured on the SOHO 6. In our example, Grinnellster.

NOTE

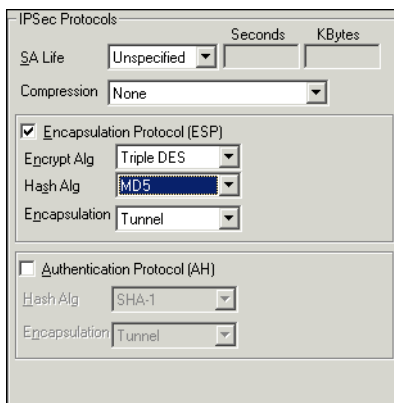
Both the Pre-Shared Key and the E-mail Address, *must* exactly match the System Passphrase and System Administrator Name configured on the SOHO 6 or the connection will fail.

- 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 settings *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



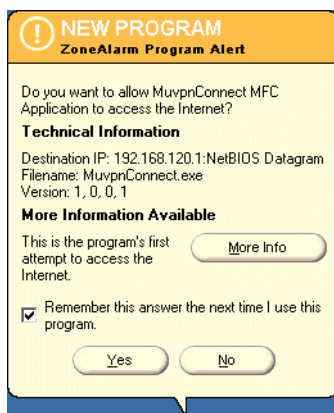
The MUVPN client has established at least one secure, MUVPN tunnel connection. The red and green bars on the right of the icon indicate that the client is transmitting both secured and unsecured data.

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

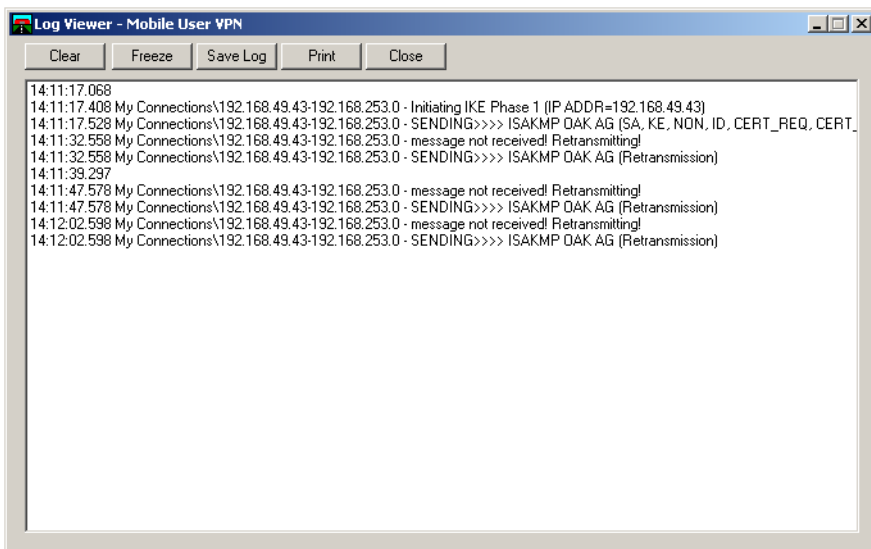
There are two tools that accompany the MUVPN client which can be used to monitor your connection and diagnose problems that may occur: the Log Viewer and the Connection Monitor.

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.

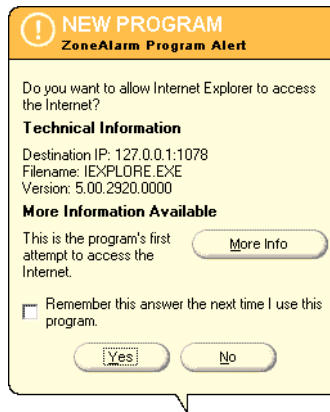
- When a single Phase 1 SA to a gateway protects multiple Phase 2 SAs, there is a single Phase 1 connection with the SA icon and individual Phase 2 connections with the key icon displayed above that entry.

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.

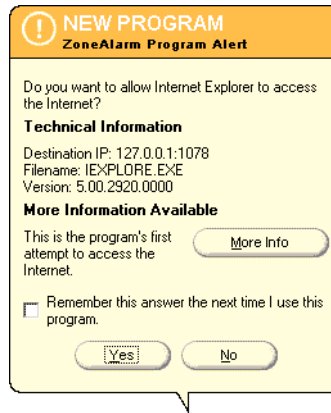
ZoneAlarm Features

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.

For more information on ZoneAlarm features and configuration, please refer to the ZoneAlarm Help system. To access the Help system, select **Start ⇒ Programs ⇒ Zone Labs ⇒ ZoneAlarm Help**.

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

<i>MUVPN client</i>	IreIKE.exe MuvpnConnect.exe
<i>MUVPN Connection Monitor</i>	CmonApp.exe
<i>MUVPN Log Viewer</i>	ViewLog.exe


Programs Which *May* be Allowed

<i>MS Outlook</i>	OUTLOOK.exe
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<i>MS Internet Explorer</i>	IEXPLORE.exe
Netscape 6.1	netscp6.exe
<i>Opera Web browser</i>	Opera.exe
<i>Standard Windows network applications</i>	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.

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.