WatchGuard® WFS to Fireware® Pro Migration Guide

WatchGuard System Manager v10.0
WatchGuard Firebox System v7.5
Revised: 01/28/2008

Notice to Users

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http://www.watchguard.com/help/documentation/

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ABOUT WATCHGUARD

WatchGuard is a leading provider of network security solutions for small- to mid-sized enterprises worldwide, delivering integrated products and services that are robust as well as easy to buy, deploy and manage. For more information, please call (206) 613 6600 or visit www.watchguard.com.

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1

Introduction

Introducing WatchGuard System Manager v10 and Fireware v10

WatchGuard® System Manager (WSM) v8.0 was an important software release for WatchGuard customers. With the WSM v8.0 release, we introduced Fireware® appliance software.

Fireware is the next generation of security appliance software available from WatchGuard. *Appliance software* is the software that supplies the run-time instructions for the Firebox® to correctly operate. Management software is the software application that you install on a computer to configure, monitor, and control the Firebox. It sends instructions to the appliance software you install on the Firebox.

WatchGuard System Manager v10 supports three versions of appliance software:

- Fireware—This is the default appliance software on Firebox X Core e-Series devices. This next generation appliance software enables WatchGuard to expand the number of features available to Firebox X customers.
- Fireware Pro—This is the default appliance software on Firebox X Peak e-Series appliances. Its advanced network features include dynamic routing, High Availability, Quality of Service, policy-based routing, and server load balancing. It enables customers with complex networks to more effectively protect their networks. Fireware Pro is available as an update for previously released Firebox X Core devices.
- WatchGuard Firebox System (WFS)—This is the default appliance software on Firebox X Core appliances.

This guide is written for users who have Firebox X Core devices running WFS appliance software and want to migrate to Fireware appliance software and take advantage of the new features and functionality available with Fireware. No automated migration tool is available at this time. Because of this, you must prepare a migration plan to match the requirements of your Firebox installation. This guide will help you prepare and deploy your migration plan.

Using Multiple Versions of Appliance Software

When you install WatchGuard® System Manager, it automatically installs the software tools you must have to configure and manage a Firebox® X Core or Peak with any version of appliance software that can run on your Firebox. These include:

- Fireware® Firebox System Manager and WFS Firebox System Manager
- Fireware Policy Manager and WFS Policy Manager
- Fireware HostWatch™ and WFS HostWatch

When you use WatchGuard System Manager to connect to a Firebox, it identifies which appliance software the Firebox uses. If you select a Firebox, and then click a management tool icon, WatchGuard System Manager automatically starts the correct management tool for the version of appliance software installed on that Firebox.

For example, connect to a Firebox X5000 using the instructions found in the *WatchGuard System Manager User Guide*. Select the Firebox X5000. Click the Policy Manager icon on the WSM toolbar. Fireware Policy Manager starts and opens the configuration file.

You can install WSM v7.5 or earlier on the same management station on which you have installed WSM v10. You might want to do this because:

- You want to see WFS v7.5 and WSM 10 on the same computer so you can use WFS v7.5 as a base for your new Fireware configuration file.
- You want to continue to use VPN Manager to manage a Firebox that has not yet migrated to Fireware.

WatchGuard Servers

WatchGuard has five servers in this release that do Firebox® management tasks:

- Management Server
- Log Server
- Report Server
- WebBlocker Server
- Quarantine Server

You can configure the servers from the WatchGuard® toolbar that you install with the servers. The toolbar appears in the Windows taskbar at the bottom of your computer monitor. It is used to start, stop, and configure each server.

Management Server

With WFS, WatchGuard enabled simple VPN configuration with the Dynamic VPN Configuration Protocol (DVCP) and VPN Manager. With VPN Manager you could control the VPN tunnels of a distributed enterprise from one easy-to-use management interface using DVCP. In earlier versions of WSM, the DVCP server had to operate on a Firebox.

With WSM v10, the VPN Manager functionality is replaced with WatchGuard Management Server. You install the Management Server on a computer with the Windows operating system. This increases scalability and flexibility for the network administrator. The Management Server has the same functions as the DVCP server from previous releases of WSM. These functions are:

- Centralized management of VPN tunnel configurations
- Certificate authority for distributing certificates for IPSec tunnels

Log Server

The Log Server collects log messages, event messages, alarms, and diagnostic messages from one or more Firebox devices. The log messages are now kept in XML format. This allows you to use third-party XML tools to create your own custom reports. The Log Server was formerly known as the WatchGuard Security Event Processor (WSEP).

Report Server

The Report Server periodically consolidates data collected by your Log Servers from your Firebox devices and other WatchGuard servers, and then generates reports. After the data is on the Report Server, you can review it using the Report Manager.

WebBlocker Server

The WebBlocker Server operates with an HTTP or HTTPS proxy policy so users cannot browse to specified web sites. You set the categories of permitted web sites during Firebox configuration. The HTTP proxy and HTTPS proxy on the Firebox then use information on the WebBlocker Server to find out if a web site is in a restricted category.

Quarantine Server

The WatchGuard Quarantine Server is a repository for email messages sent from the SMTP proxy that are suspected to be email spam or to contain a virus.

Comparing WFS and Fireware

Many of the tools and features you use in WFS are also in Fireware®. Some are enhanced with more settings or improvements in the methods used to configure and enable them. Fireware and Fireware Pro include such features as dynamic routing, multi-WAN support, Quality of Service and Traffic Management, and a signature-based intrusion prevention system. At the same time, we did not move all WFS appliance software features into Fireware.

Appliance software feature matrix

There are significant differences between the WFS v7.5 appliance software and the new Fireware v10 appliance software. A summary of these differences is shown in the table below. When both appliance software packages include a feature, but the Fireware v10 implementation is different from WFS v7.5, we include more information in the last column.

Feature or Functional Area		WFS	Fireware	Fireware Pro	Notes on Fireware/ Fireware Pro Implementation
Upgradeable	Model Upgradeable	Yes (except Firebox III)	Yes	Yes	A Firebox X Core cannot be upgraded to a Firebox X Peak.
Networking Features	Interface Independence	No	Yes	Yes	Fireware offers flexible interface configuration. Any available Firebox® interface can be configured as external, trusted, or optional.
	Default Firebox Trusted interface IP address	192.168.253.1	10.0.1.1	10.0.1.1	
	Interface trust relationships	Forced	User-defined	User-defined	
	Traffic Management/QoS	No	No	Yes	
	Multi-WAN	No	Yes	Yes	
	VLANs	No	No	Yes	
	Policy-based routing	No	No	Yes	
	Server load balancing	No	No	Yes	
	Dynamic Routing	No	Yes - RIP only	Yes - RIP, BGP, and OSPF	
	Secondary Networks	Yes	Yes	Yes	In Fireware v10, you can define secondary network addresses on the same subnet as a Firebox primary interface. This replaces the network alias function available in WFS and earlier versions of Fireware.
	DHCP Client	Yes	Yes	Yes	
	DHCP Server	Yes	Yes	Yes	In Fireware, you can add up to 6 DHCP scopes per interface.
	DHCP Relay	No	Yes	Yes	
	DHCP address reservation	No	Yes	Yes	
	Static MAC/IP address binding	No	Yes	Yes	
	Drop-In Mode	Yes	Yes	Yes	
High Availability	Active/Standby	Option	No	Yes	

Feature or Functional Area		WFS	Fireware	Fireware Pro	Notes on Fireware/ Fireware Pro Implementation
Application Layer Filtering	HTTP Inbound	No	Yes	Yes	
	HTTP Outbound	Yes	Yes	Yes	Includes substantial feature enhancements, including improved pattern matching, configurable antivirus and IPS signature scanning, and support for regular expressions. Fireware does not include the abiility to redirect HTTP traffic to a caching proxy server.
	WebBlocker	Yes	Yes	Yes	Support for 54 categories and uncategorized web sites.
	WebBlocker for HTTPS	No	Yes	Yes	
	SMTP Inbound	Yes	Yes	Yes	Includes substantial feature enhancements, including improved pattern matching, configurable antivirus and IPS signature scanning, and support for regular expressions.
	SMTP Outbound	Yes	Yes	Yes	
	POP3 Inbound	No	Yes	Yes	
	POP3 Outbound	No	Yes	Yes	
	FTP Inbound	Yes	Yes	Yes	Includes substantial feature enhancements, including the ability to block downloads and uploads by file name, IPS signature scanning, and support for regular expressions.
	FTP Outbound	Yes	Yes	Yes	
	DNS	Yes	Yes	Yes	Includes substantial feature enhancements, including the ability to block DNS queries based on pattern-matching for any query name.
	Transparent proxy support for VoIP	No	Yes	Yes	Transparent H.323, SIP, and TFTP proxies to support the use of VoIP through a Firebox.

Feature or Functional Area		WFS	Fireware	Fireware Pro	Notes on Fireware/ Fireware Pro Implementation
	Outgoing (TCP/ UDP)	No	Yes	Yes	In Fireware, this proxy detects multiple protocols and applies relevant proxy restrictions and IM/P2P application blocking.
	Firewall-based default threat protection (protocol anomaly detection)	Yes	Yes	Yes	Enhanced protocol anomaly detection including the ability to set thresholds for multiple flood-based attacks.
	Signature-based IPS	No	Yes	Yes	
	Virus Detection	Yes	Yes	Yes	In Fireware, Gateway AV detects viruses in email and in non-email protocols including FTP and HTTP.
	Spam Detection	Yes	Yes	Yes	In Fireware, spamBlocker is more effective and easier to use than SpamScreen.
	Email Quarantine	No	Yes	Yes	Fireware can quarantine email based on spam or virus classification.
Authentication	RADIUS	Yes	Yes	Yes	
	LDAP/Active Directory	No	Yes	Yes	
	Windows NT Server authentication with 2000/2003 compatibility (NTLM)	Yes	No	No	
	Firebox database	Yes	Yes	Yes	
	SecurID	Yes	Yes	Yes	
	VASCO DIGIPASS	No	Yes	Yes	
	Cryptocard	Yes	No	No	
	Single Sign-On	No	Yes	Yes	For Active Directory domains only.
	Browser-based user authentication	Yes	Yes	Yes	In Fireware, authentication is done via HTTPS and users remain authenticated after the browser is closed.
Mobile VPN	Mobile VPN with PPTP	Yes	Yes	Yes	
	Mobile VPN with SSL	No	Yes	Yes	

Feature or Functional Area		WFS	Fireware	Fireware Pro	Notes on Fireware/ Fireware Pro Implementation
	Mobile VPN with IPSec	Yes	Yes	Yes	Mobile VPN with IPSec client v10 supports Windows Vista.
Branch Office VPN	BOVPN (IPSec)	Yes	Yes	Yes	
	AES encryption	Yes	Yes	Yes	
	VPN Failover	No	Yes	Yes	
	Dead Peer Detection	No	Yes	Yes	
Management	Unified management interface	No	Yes	Yes	You can start all management tools from WatchGuard® System Manager.
	Manage more than one device	Yes	Yes	Yes	Use WatchGuard System Manager to manage one or more devices, including centralized management and monitoring of Firebox X Edge devices.
	Certificate Authority	Yes	Yes	Yes	Certificate Authority moves from the Firebox to the Management Server.
	Third-party certificate support for VPNs	No	No	Yes	
	Drag-and-drop VPN setup for WatchGuard devices	Yes	Yes	Yes	Available for these models: Firebox SOHO 6, Firebox III, Firebox X Edge, Firebox X Core and Peak, Firebox X Core and Peak e-Series
	Management Server	No	Yes	Yes	Starting with WSM v8.0. Installations of WFS v7.3 and earlier use VPN Manager instead of the WatchGuard Management Server.
	Basic DVCP	Yes	No	No	If you currently use Basic DVCP, you must use the Management Server Setup wizard to migrate your tunnels to the Management Server.
Monitoring Tools	Firebox System Manager	Yes	Yes	Yes	Fireware includes significant enhancements to Firebox System Manager.

Feature or Functional Area		WFS	Fireware	Fireware Pro	Notes on Fireware/ Fireware Pro Implementation
	HostWatch	Yes	Yes	Yes	You can now add any IP address to the Blocked Sites list from HostWatch. You can also set the Firebox interface you want as the HostWatch focus point. HostWatch no longer supports log file playback.
	Performance Console	No	Yes	Yes	Ability to graphically monitor a large number of system, policy, and VPN parameters, and to save information to XML or CSV format for use with third-party analysis tools.
Policy Management	Policy Manager	Yes	Yes	Yes	Fireware Policy Manager has two tabs so you can configure policies for network and BOVPN traffic, and Mobile VPN with IPSec traffic separately.
	Policies	Yes	Yes	Yes	Services are now known as policies.
	Policy flow logic	Incoming/ Outgoing	From/To	From/To	Because of port independence, traffic rules are set in policies "from" a source "to" a destination.
	Policy precedence control	Automatic	Automatic/ Manual	Automatic/ Manual	With Fireware, you can set policy precedence manually, or use the default precedence order set by Policy Manager.
	1:1 NAT	Yes	Yes	Yes	The rules set in Fireware Policy Manager, Network > NAT, do not apply to IPSec VPN traffic. NAT through a VPN is configured when you create the VPN tunnel.
	Dynamic NAT	Yes	Yes	Yes	The rules set in Fireware Policy Manager, Network > NAT, do not apply to IPSec VPN traffic. NAT through a VPN is configured when you create the VPN tunnel.
	Static NAT/ Port Forwarding	Yes	Yes	Yes	Fireware supports policy-based NAT. You can use an IP address for Dynamic NAT that is not the primary external interface IP address on a per-policy basis.

Feature or Functional Area		WFS	Fireware	Fireware Pro	Notes on Fireware/ Fireware Pro Implementation
Logging	Log Server	Yes	Yes	Yes	Log Server now keeps files in an SQL database for more powerful searching and reporting.
	XML Log Format	No	Yes	Yes	More verbose log message content. There is a conversion tool to move log files from WFS format to XML.
	LogViewer	Yes	Yes	Yes	Fireware includes significant enhancements to LogViewer, including filtering and searching.
	SNMP	No	Yes	Yes	You can configure the Firebox to accept SNMP polls from an SNMP server. You can also configure the Firebox to send traps to an SNMP server.
	Advanced log message options	Yes	Yes	Yes	Fireware supplies more diagnostic logging.
Reporting	Reports	Yes	Yes	Yes	

Planning Your Migration

No automated process is available to migrate your Firebox® from WFS appliance software to Fireware®. You must build a new configuration file for your Firebox. This procedure can take a lot of time, but can also give you a good opportunity to examine the policies in your configuration. You may find that you have policies in your current configuration that are not necessary. Look at each policy before you add it to your Fireware configuration and consider whether the policy is sufficiently restrictive to give your network the most security.

It is a good idea to take the time to review your security policy and make sure that you implement best-practices network security in your new Firebox configuration. For more information, see

https://www.watchguard.com/docs/whitepaper/securitypolicy_wp.pdf

As with any major software migration, a well-designed plan for your migration from WFS to Fireware or Fireware Pro can decrease the effect on your users and improve your experience. This guide has detailed instructions to successfully migrate from WFS to Fireware. These include steps to:

- Document and examine your current WFS configuration
- Create backup files of your existing configuration
- Install WatchGuard® System Manager and Fireware on your management station
- Configure the Management Server and migrate your DVCP server(s)
- Install Fireware on the device
- Connect to the Firebox from WSM and open Fireware Policy Manager
  - Make the changes in Fireware Policy Manager that reflect the WFS configuration

  - Create and test VPN tunnels as necessary
- Deploy the Firebox and test the Fireware configuration

Upgrading Subscription Services

Fireware® does not support Gateway AntiVirus (GAV) for Email or SpamScreen. Instead, Fireware users have the option to purchase subscriptions to the more robust antivirus and spam blocking solutions: Gateway AntiVirus/Intrusion Prevention Service (Gateway AV/IPS) and spamBlocker.

When you upgrade to Fireware, the GAV for Email and SpamScreen features stop working. If you have a current GAV for Email or SpamScreen subscription that has not yet expired, you can purchase the new Gateway AntiVirus/IPS and spamBlocker service subscriptions at a reduced cost. Contact your reseller for more information.

All LiveSecurity® and WebBlocker subscriptions continue with no change when you upgrade.

Using this Migration Guide

This guide includes the migration procedures for three different groups of users. Carefully read the description of the groups shown below and select the group to which you belong. The migration procedure for each group is given in a separate chapter of this guide.

WFS 7.x (No VPN Manager) to Fireware® Pro

You have a Firebox® X Core that uses WFS 7.x. You do not use VPN Manager and have never configured a WatchGuard® Management Server. For migration instructions, go to Chapter 2.

WFS 7.3 or later and VPN Manager to Fireware Pro

You have a Firebox X Core that uses WFS 7.3 or later. You use VPN Manager or Basic DVCP to configure and manage some or all of your BOVPN tunnels. For migration instructions, go to Chapter 3.

WSM/WFS 7.x to Fireware Pro

You have a Firebox X Core. You use WatchGuard System Manager 9.x or WSM v10, and your Firebox is running WFS 7.x. You have a WatchGuard Management Server already configured. For migration instructions, go to Chapter 4.

Best Practices

To reduce downtime during migration: Install WSM v10 and build your new Fireware configuration before you install Fireware on your Firebox. Make sure you read this entire guide before you continue.

2

Migrating from WFS v7.x (No VPN Manager) to Fireware Pro

This guide describes the migration procedures for three different groups of users, with separate chapters for each. Use this chapter to help you migrate to Fireware® if:

- You have a Firebox® X Core currently installed with WFS v7.x
  and
- You are not using VPN Manager along with a DVCP server to manage branch office VPN tunnels.

Migrating to Fireware

To successfully migrate to Fireware®, you must:

1. Document and analyze your current security policy.
2. Back up the WFS configuration file and image, and document the properties of any VPN tunnels you have defined.
3. Install WatchGuard® System Manager software and Fireware Pro appliance software on a management station.
4. Install Fireware on your Firebox®.
5. Build a new Fireware configuration policy using WatchGuard System Manager v10 and save it to your Firebox.

Best Practices

To reduce downtime during migration: Install WSM v10 and build your new Fireware configuration before you install Fireware on your Firebox. Make sure you read this entire guide before you continue.

Documenting Your Current Security Policy

A good security policy is not just a firewall configuration file. It is a process that a network administrator documents and that management regularly reviews to make sure that the rules your firewall applies correctly reflect the information management and security goals of your company. Your migration is a

good opportunity to examine your security policy. Because you must make a new configuration file for the Fireware® appliance software, it is a good idea to examine which policies you must have to do business. Use these guidelines:

- Each policy you open makes your network less secure
- Policies that allow traffic from the Internet to your network are more dangerous than policies that allow traffic from your network to the Internet
- Specify source and destination addresses to make a policy more secure

For more information about network security policies, see
https://www.watchguard.com/docs/whitepaper/securitypolicy_wp.pdf

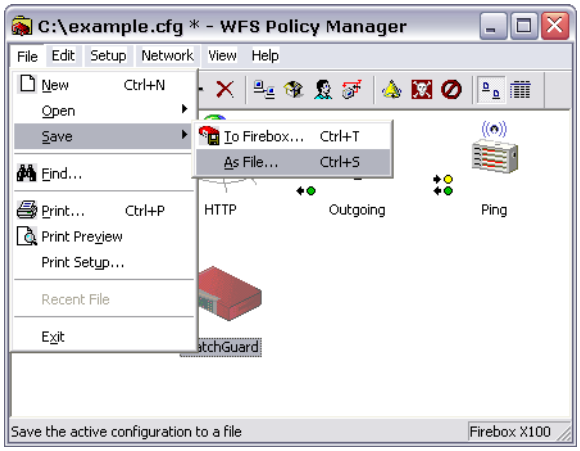
Backing Up Your WFS Configuration and Firebox Image

Before you install WatchGuard® System Manager v10 and Fireware® appliance software, you must back up the software image on your Firebox® and the configuration file kept on your management station. If you do not back up your WFS installation, you cannot go back to WFS easily if you have problems during migration.

Saving your configuration file

You can save the configuration file to the Firebox. You can also save it as a file on a local hard disk drive. Before you install an upgrade, we recommend that you save the configuration file to a local hard disk drive.

1 From WFS Policy Manager, select **File > Save > As File**.



2 Type the name of the configuration file. Click **Save**. We recommend that you also save this file to a network folder.
*The configuration file has the file extension *.cfg.*

Saving the Firebox software image

A very important step in the migration is to save the Firebox software image. This puts an encrypted copy of the Firebox flash disk on your management station. To create the WFS software backup file:

1 Open Firebox System Manager. It is not necessary to connect to the Firebox.

2 Select **Tools > Advanced > Flash Disk Management**.

3 Select **Make Backup of Current Image**. Click **Continue**.
A verification prompt appears. Make sure that the management station can connect to the Firebox trusted interface with the network (TCP/IP).

4 Click **Continue**.
The Connect To Firebox dialog box appears.

5 From the **Firebox** drop-down list, select a Firebox or type the IP address used by the management station to connect to the Firebox. Type the configuration (read/write) passphrase. Click **OK**.

6 Select a file name for the Firebox backup file.
The Enter Encryption Key dialog box appears.

7 Type a key to encrypt the backup file. Click **OK**.
This makes sure that no one can get sensitive information from the backup file. Make sure that you secure this encryption key in a safe location. You cannot restore a backup file to the Firebox if you forget this encryption key.

8 When the backup is successful, an **Operation Complete** message appears. Click **OK**.
It is not necessary to restart the Firebox after this procedure.

Documenting VPN Tunnels

If you have created manual branch office VPN tunnels to another WatchGuard® Firebox® or some other IPSec-compliant VPN endpoint, it is a good idea to completely remove the manual VPN tunnel configuration information from both VPN endpoints before you migrate to Fireware®. This is especially important if you plan to use WatchGuard System Manager and Fireware to manage your BOVPN tunnels in the future.

Make sure to document all properties of each VPN tunnel before you remove the tunnel information. You must create the branch office VPN tunnels again after you migrate to Fireware.

Installing Software on the Management Station

Before you migrate your Firebox® to Fireware® appliance software, you must first install WatchGuard® System Manager v10 and Fireware v10 on your management station. You do not have to delete WFS first. You can have both WFS and Fireware appliance software installed on your management station, as long as you install the software in two different directories.

1 Download the WatchGuard System Manager v10 and Fireware v10 software, if you do not already have it. You can download the latest software from the WatchGuard web site at https://www.watchguard.com/archive/softwarecenter.asp
Make sure that you write down the name and path of the file when you save it to your hard disk drive.

2 Open each file and use the instructions on the screens to help you through the installation. Make sure you install WSM in a different directory than WFS.
The WSM installation utility includes a screen in which you select the components of the software or the upgrades to install. You can install all the components, but you cannot configure all components without the correct feature key.

3 At the end of the WSM installation wizard, you can use the Quick Setup Wizard to create a new basic configuration for your Firebox. The next section helps you through this process.

Installing Fireware on Your Firebox

When you have created backup files of your WFS configuration file and Firebox® image and you have downloaded WSM v10 and Fireware® v10 software to your management station, you are ready to install Fireware on your Firebox. You can choose from two methods to put Fireware Pro on a Firebox that is running WFS v7.x appliance software:

- Use the Quick Setup Wizard to make a simple configuration file and save the configuration file and Fireware to the Firebox. This is the preferred method.
- Use the fbxinstall.exe command-line utility.

Using the Quick Setup Wizard

We recommend that you use the Quick Setup Wizard to put Fireware Pro and a basic configuration file on the Firebox. Before you start the wizard, make sure:

- You have saved a copy of your WFS configuration file to a directory outside the WatchGuard® installation directory with the procedure described in "Saving your configuration file" on page 12.
- You have created a backup copy of the WFS image on your Firebox with the procedure described in "Saving the Firebox software image" on page 12.
- You have downloaded and installed WatchGuard System Manager v10 and Fireware v10 on your management station.
- You copied the feature key for your Firebox from the WatchGuard LiveSecurity web site. You must paste this key into a text box in the wizard. This feature key is linked to the serial number of your Firebox. To get a copy of your feature key, go to https://www.watchguard.com/archive/manageproducts.asp
- Your management station is on the same network as the Firebox. The wizard uses TCP discovery to find the Firebox on the network. If your network has more than one Firebox, you must select the correct Firebox from a list the wizard gives you.

To start the Quick Setup Wizard from the Windows desktop, select **Start > WatchGuard System Manager 10 > Quick Setup Wizard**.

The wizard asks you for this information:

- The type of Firebox you have
- Feature key for the Firebox
- External interface information for the Firebox
- Network configuration preference (routed or drop-in mode)
- Status and configuration passphrases

When the wizard is complete, you can start to build a new Fireware configuration file that matches your business needs. For more information on how to connect to the Firebox and use Fireware Policy Manager, see Chapter 5, "Using Fireware Policy Manager."

Using fbxinstall.exe

You can also use the fbxinstall.exe utility to install Fireware Pro. Fbxinstall.exe is a command-line utility that allows you to upgrade a Firebox X Core from WFS appliance software to Fireware Pro appliance software. After this procedure is complete, you must use the Quick Setup Wizard to give the Firebox a

basic configuration. You can then modify or add to the default Fireware configuration file to meet the needs of your organization.

To install Fireware Pro on a Firebox with fbxinstall.exe:

1 Connect a serial cable between the Firebox and COM1 on your management station.

2 Connect the trusted interface of the Firebox to the Ethernet port on your management station with a cross-over cable.

3 Change the IP address on your management station to 10.0.1.2/24. Set the default gateway on your management station to 10.0.1.1.

4 Open a command prompt.

5 Type: **fbxinstall 10.0.1.1/24**
This IP address is used to connect to the Firebox to complete the reset process, but is not actually assigned to the Firebox.

6 When the fbxinstall procedure is done, use the Quick Setup Wizard to create a new configuration file. See "Using the Quick Setup Wizard" on page 14 for more information.
Remember to reset your management station IP address and default gateway back to their original state when you are done with the fbxinstall procedure.

3

Migrating from WFS v7.3 or later with VPN Manager to Fireware Pro

This guide describes the migration procedures for three different groups of users, with separate chapters for each. Use this chapter to help you migrate to Fireware® if:

- You have a Firebox® X Core currently installed with WFS v7.3 or later.

  and

- You use VPN Manager or Basic DVCP and a DVCP server to manage some or all of your branch office VPN tunnels.

Migrating to Fireware

To successfully migrate to Fireware®, you must:

- Document and analyze your security policy.
- Back up the WFS configuration file and image.
- Install WatchGuard® System Manager software and Fireware appliance software on a management station. You must upgrade to WSM/Fireware v8.3 or 9.x before you upgrade to WSM/Fireware v10.0.
- Migrate the DVCP Server on your Firebox® to a WatchGuard Management Server installed on a Windows computer.
- Install Fireware on your Firebox.
- Build a new Fireware configuration policy using WatchGuard System Manager and save it to your Firebox.
- Upgrade your WSM and Fireware installation to v10.0.

Best Practices

To reduce downtime during migration: Install WSM v10 and build your new Fireware configuration before you install Fireware on your Firebox. Make sure you read this entire guide before you continue.

Documenting Your Security Policy

A good security policy is not just a firewall configuration file. It is a process that a network administrator documents and that management regularly reviews to make sure that the rules your firewall applies reflect the information management and security goals of your company. Your migration is a good opportunity to examine your security policy. Because you must make a new configuration file for the Fireware® appliance software, it is a good idea to examine which policies you must have to do business. Use these guidelines:

- Each policy you add makes your network less secure
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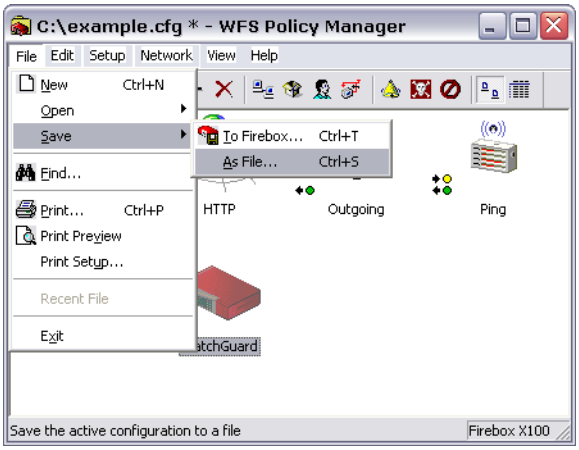
Saving your configuration file

You can save the configuration file to the Firebox. You can also save it as a file on a local hard disk drive. Before you install an upgrade, we recommend that you save the configuration file to a local hard disk drive.

1 From WFS Policy Manager, select **File > Save > As File**.



2 Type the name of the configuration file. Click **Save**. We recommend that you also save this file to a network folder.
*The configuration file has the file extension *.cfg.*

Saving the Firebox software image

A very important step in the migration is to save the Firebox software image. This puts an encrypted copy of the Firebox flash disk on your management station. To create the WFS software backup file:

1 Open Firebox System Manager. It is not necessary to connect to the Firebox.

2 Select **Tools > Advanced > Flash Disk Management**.

3 Select **Make Backup of Current Image**. Click **Continue**.
A verification prompt appears. Make sure that the management station can connect to the Firebox trusted interface with the network (TCP/IP).

4 Click **Continue**.
The Connect To Firebox dialog box appears.

5 From the **Firebox** drop-down list, select a Firebox or type the IP address used by the management station to connect to the Firebox. Type the configuration (read/write) passphrase. Click **OK**.

6 Select a file name for the Firebox backup file.
The Enter Encryption Key dialog box appears.

7 Type a key to encrypt the backup file. Click **OK**.
This makes sure that no one can get sensitive information from the backup file. Make sure that you secure this encryption key in a safe location. You cannot restore a backup file to the Firebox if you forget this encryption key.

8 When the backup is successful, an Operation Complete message appears. Click **OK**.
It is not necessary to restart the Firebox after this procedure.

Documenting VPN Tunnels

If you have created manual branch office VPN tunnels to another WatchGuard® Firebox® or some other IPSec-compliant VPN endpoint, it is a good idea to completely remove the manual VPN tunnel configuration information from both VPN endpoints before you migrate to Fireware®. This is especially important if you plan to use WatchGuard System Manager and Fireware to manage your BOVPN tunnels in the future.

Make sure to document all properties of each VPN tunnel before you remove the tunnel information. You must create the branch office VPN tunnels again after you migrate to Fireware.

Installing Software on the Management Station

Before you migrate your Firebox® to Fireware® appliance software, you must install WatchGuard® System Manager v8.3 or 9.x and Fireware v8.3 or 9.x on your management station. You do not have to delete WFS first. You can have both WFS and Fireware appliance software installed on your management station, as long as you install the software in two different directories.

1 Download the WatchGuard System Manager and Fireware software, if you do not already have it. You can download the software from the WatchGuard web site at https://www.watchguard.com/archive/softwarecenter.asp
Make sure that you write down the name and path of the file when you save it to your hard disk drive.

2 Open each file and use the instructions on the screens to help you through the installation. Make sure you install WSM in a different directory than WFS.
The WSM installation utility includes a screen in which you select the components of the software or the upgrades to install. You can install all the components, but you cannot configure all components without the correct feature key.

3 You must migrate your VPN Manager configuration or any Basic DVCP tunnels to a WatchGuard Management Server before you install Fireware on the Firebox with the Quick Setup Wizard.

! If you use VPN Manager on your Firebox X Core, it is important to run the Management Server Setup wizard before you put Fireware on your Firebox. When you put Fireware on your Firebox, Fireware puts an entirely new image on the Firebox flash disk. When the new Fireware image is on the flash disk, the VPN Manager information is gone from the flash disk. You must run the Management Server Setup Wizard to pull the VPN Manager information off the Firebox before you put Fireware on your Firebox.

Introducing the WatchGuard Management Server

In older versions of its firewall software, WatchGuard® offered simple branch office VPN configuration with VPN Manager and the Dynamic VPN Configuration Protocol (DVCP). VPN Manager controls many VPN tunnels with one easy-to-use management interface. With WatchGuard Firebox® System 7.3 and earlier, the configuration information for these managed VPN tunnels was kept on a DVCP server installed on a Firebox.

With more recent releases of WatchGuard System Manager, the DVCP server is moved off the Firebox. The functionality moves to a Windows computer and the name changes to the WatchGuard Management Server. This makes the Firebox a more scalable and flexible solution for the network administrator. The Management Server has the same functions as the VPN Manager server. These functions are:

- Central management of BOVPN tunnels
- Certificate Authority to make and send out certificates for IPSec VPN tunnels

When you install WSM, you can install the Management Server at the same time. It is a good idea to install the Management Server software on a computer that is behind a Firebox with a static external IP address. The Management Server does not operate correctly if it is behind a Firebox with a dynamic IP address on its external interface.

After it is installed, you can access the Management Server configuration from an icon installed in the WatchGuard toolbar. From the Management Server Configuration window, you can:

- Start and stop the Management Server
- Set Management Server passphrases
- Enter a Management Server license key
- Configure the properties of the Certificate Authority, the client certificate, and the Certificate Revocation List

Management Server license

You must use the VPN Manager license to configure the Management Server. You must have your VPN Manager license before you can move your VPN Manager configuration from a Firebox to a Management Server. You can use a WatchGuard System Manager license to increase the total number of devices managed by the Management Server. For more information, see the Management Server sec-

tion of the product FAQs at
www.watchguard.com/support/faqs/fireware/

Migrating Your VPN Manager Data to a Management Server

WatchGuard® System Manager v8.3 or higher supplies a wizard that migrates your WFS VPN Manager configuration to the new WatchGuard Management Server. This wizard is known as the Management Server Setup wizard and is launched from the WatchGuard toolbar on the Windows taskbar.

This wizard moves your DVCP server from your Firebox® to a Windows computer that you designate as your Management Server. It also converts the Firebox you were using as a DVCP server into a gateway Firebox that protects the Management Server from the Internet. Finally, it converts any basic DVCP tunnels connected to the gateway Firebox into regular tunnels. Basic DVCP tunnels are not supported in WSM v10.

The wizard does these actions:

- Gets a master encryption key to encrypt the configuration and passphrase files of the Management Server
- Gets a passphrase to connect to the DVCP server from the management station
- Gets the IP address and configuration passphrase for the Firebox that was used as a DVCP server
- Connects to the Firebox
- Gets the VPN Manager configuration file from the Firebox
- Uses this configuration file to find whether the Firebox was a basic DVCP server or an advanced DVCP server
- Changes the “wg_dvcp” and “wg_ca” services of the gateway Firebox, and uses NAT (network address translation) to send traffic to the new Management Server on the management station
- Saves the changes to the Firebox
- Starts the Management Server

If the Firebox was a VPN Manager DVCP server

If the Firebox was a VPN Manager DVCP server, the wizard does these actions:

- Uses the configuration properties of the DVCP server to configure the CA on the Management Server
- Gets the DVCP configuration file (dvcp.cfg) from the Firebox
- Uses the DVCP configuration file to set the Management Server license key, policy templates, security templates, and DVCP clients
- Removes the DVCP server from the Firebox
- Removes the DVCP server configuration properties from the Firebox configuration file

After migration is complete, your managed VPN tunnels continue to operate correctly.

If the Firebox was a Basic DVCP server

The Management Server Setup wizard does not migrate all Basic DVCP VPN tunnels configured on the Firebox. It converts only the VPN tunnels that use the gateway Firebox as one of the endpoints. Basic DVCP tunnels are not supported in WSM v10.

If you have Basic DVCP VPN tunnels that do not have the DVCP server Firebox as one of the VPN endpoints, you must:

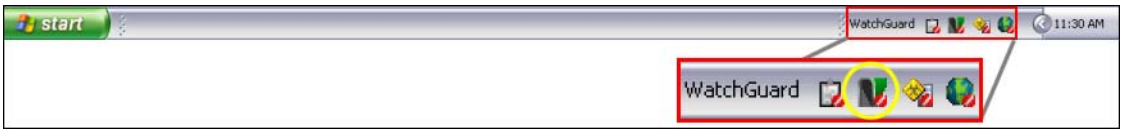
- Document the properties of the basic VPN tunnel.
- Remove the VPN tunnel information on the Basic DVCP server, and then restart the Basic DVCP Client.

You can then use the Management Server Setup wizard to migrate to a new Management Server and use the Quick Setup Wizard (described later in this chapter) to create a new configuration file for your Firebox. Then you must add the VPN endpoints to your Management Server configuration as managed devices and create the VPN tunnels again.

You must have a license available for each advanced VPN tunnel you create. This was not required when you used Basic DVCP and you may have to purchase additional licenses.

Running the Management Server Setup wizard

1 From the Windows desktop, double-click the Management Server icon in the WatchGuard toolbar.



2 Select **Start Service**.

If the Management Server has not been configured, then the Management Server Setup wizard starts automatically.

Installing Fireware on Your Firebox

When you have created backup files of your WFS configuration file and Firebox® image and you have downloaded WSM and Fireware® software to your management station, you are ready to install Fireware on your Firebox. You can choose from two methods to put Fireware Pro on a Firebox that is running WFS 7.x appliance software:

- Use the Quick Setup Wizard to make a simple configuration file and save the configuration file and Fireware to the Firebox. This is the preferred method.
- Use the fbxinstall.exe command-line utility.

Using the Quick Setup Wizard

We recommend that you use the Quick Setup Wizard to put Fireware Pro and a basic configuration file on the Firebox. Before you start the wizard, make sure:

- You have saved a copy of your WFS configuration file to a directory outside the WatchGuard® installation directory with the procedure described in “Saving your configuration file” on page 18.
- You have created a backup copy of the WFS image on your Firebox with the procedure described in “Saving the Firebox software image” on page 19.
- You have downloaded and installed WatchGuard System Manager and Fireware on your management station.

- You copied the feature key for your Firebox from the WatchGuard LiveSecurity® web site. You must paste this key into a text box in the wizard. This feature key is linked to the serial number of your Firebox. To get a copy of your feature key, go to https://www.watchguard.com/archive/manageproducts.asp
- Your management station is on the same network as the Firebox. The wizard uses TCP discovery to find the Firebox on the network. If your network has more than one Firebox, you must select the correct Firebox from a list the wizard gives you.

To start the Quick Setup Wizard from the Windows desktop, select **Start > WatchGuard System Manager > Quick Setup Wizard**

The wizard asks you for this information:

- The type of Firebox you have
- Feature key for the Firebox
- External interface information for the Firebox
- Network configuration preference (routed or drop-in mode)
- Status and configuration passphrases

When the wizard is complete, you can start to build a new Fireware configuration file that matches your business needs. For more information on how to connect to the Firebox and use Fireware Policy Manager, see Chapter 5, "Using Fireware Policy Manager."

Using fbxinstall.exe

You can also use the fbxinstall.exe utility to install Fireware Pro. Fbxinstall.exe is a command-line utility that allows you to upgrade a Firebox X Core from WFS appliance software to Fireware Pro appliance software. After this procedure is complete, you must use the Quick Setup Wizard to give the Firebox a basic configuration. You can then modify and add to the default Fireware configuration file to meet the needs of your organization.

To install Fireware Pro on a Firebox with fbxinstall.exe:

1. Connect a serial cable between the Firebox and COM1 on your management station.
2. Connect the trusted interface of the Firebox to the Ethernet port on your management station with a cross-over cable.
3. Change the IP address on your management station to 10.0.1.2/24. Set the default gateway on your management station to 10.0.1.1.
4. Open a command prompt.
5. Type: `fbxinstall 10.0.1.1/24`
   This IP address is used to connect to the Firebox to finish the reset process, but is not actually assigned to the Firebox.
6. When the fbxinstall procedure is done, use the Quick Setup Wizard to create a new configuration file. See "Using the Quick Setup Wizard" on page 22 for more information.
   Remember to reset your management station IP address and default gateway back to their original state when you are done with the fbxinstall procedure.

Upgrading to WSM/Fireware v10.0

After you upgrade to WSM/Fireware v8.3 or 9.x, you can download and install WSM/Fireware v10.0. Use the WSM/Fireware v10.0 release notes for instructions on how to complete the upgrade.

4

Migrating from WSM/WFS v7.x to Fireware Pro

This guide describes the migration procedures for three different groups of users, with separate chapters for each. Use this chapter to help you migrate to Fireware® if:

- You use WatchGuard® System Manager v9.x or v10 and have a Firebox® X Core currently installed with WFSv 7.x

  and

- You have a WatchGuard Management Server already installed and running, or do not use a Management Server at all.

Migrating to Fireware

To successfully migrate to Fireware®, you must:

- Document and analyze your security policy.
- Back up the WFS configuration file and image.
- Install the latest WatchGuard® System Manager software (if necessary) and Fireware appliance software on a management station.
- Install Fireware on your Firebox®.
- Build a new Fireware configuration policy using WatchGuard System Manager v10 and save it to your Firebox.

Best Practices

To reduce downtime during migration: Install WSM v10 and build your new Fireware configuration before you install Fireware on your Firebox. Make sure you read this entire guide before you continue.

Documenting Your Security Policy

A good security policy is not just a firewall configuration file. It is a process that a network administrator documents and that management regularly reviews to make sure that the rules your firewall applies correctly reflect the information management and security goals of your company. Your migration is a good opportunity to examine your security policy. Because you must make a new configuration file for

the Fireware® appliance software, it is a good idea to examine which policies you must have to do business. Use these guidelines:

- Each policy you open makes your network less secure
- Policies that allow traffic from the Internet to your network are more dangerous than policies that allow traffic from your network to the Internet
- Specify source and destination addresses to make a policy more secure

For more information about network security policies, see
https://www.watchguard.com/docs/whitepaper/securitypolicy_wp.pdf

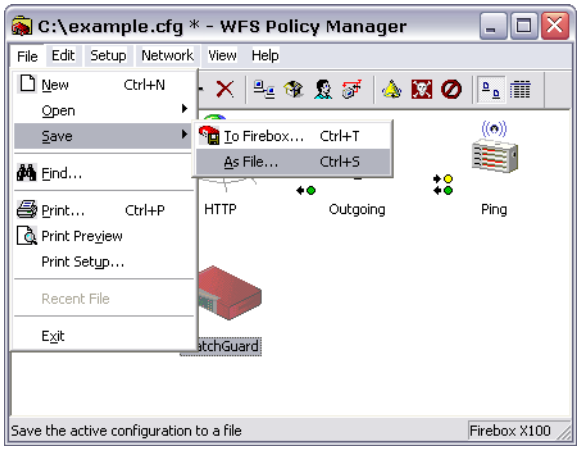
Backing Up Your WFS Configuration and Firebox Image

Before you install WatchGuard® System Manager v10 and Fireware® appliance software, you must back up the software image on your Firebox® and the configuration file kept on your management station. If you do not back up your WFS installation, you cannot go back to WFS easily if you have problems during migration.

Saving your configuration file

You can save the configuration file to the Firebox. You can also save it as a file on a local hard disk drive. Before you install an upgrade, we recommend that you save the configuration file to a local hard disk drive.

1 From WFS Policy Manager, select **File > Save > As File**.



2 Type the name of the configuration file. Click **Save**. We recommend that you also save this file to a network folder.
*The configuration file has the file extension *.cfg.*

Saving the Firebox software image

A very important step in the migration is to save the Firebox software image. This puts an encrypted copy of the Firebox flash disk on your management station. To create the WFS software backup file:

1 Open Firebox System Manager. It is not necessary to connect to the Firebox.

2 Select **Tools > Advanced > Flash Disk Management**.

3 Select **Make Backup of Current Image**. Click **Continue**.
A verification prompt appears. Make sure that the management station can connect to the Firebox Trusted interface with the network (TCP/IP).

4 Click **Continue**.
The Connect To Firebox dialog box appears.

5 From the **Firebox** drop-down list, select a Firebox or type the IP address used by the management station to connect to the Firebox. Type the configuration (read/write) passphrase. Click **OK**.

6 Select a file name for the Firebox backup file.
The Enter Encryption Key dialog box appears.

7 Type a key to encrypt the backup file. Click **OK**.
This makes sure that no one can get sensitive information from the backup file. Make sure that you secure this encryption key in a safe location. You cannot restore a backup file to the Firebox if you forget this encryption key.

8 When the backup is successful, an **Operation Complete** message appears. Click **OK**.
It is not necessary to restart the Firebox after this procedure.

Documenting VPN Tunnels

Before you install Fireware® appliance software on your Firebox®, you must document any manual and managed BOVPN tunnel information.

If you have manual BOVPN tunnels

If you have manual branch office VPN tunnels that you have created to another WatchGuard® Firebox or some other IPSec-compliant VPN endpoint, it is a good idea to completely remove the manual VPN tunnel configuration information from both VPN endpoints before you migrate to Fireware. This is especially important if you plan to use WatchGuard System Manager and Fireware to manage your BOVPN tunnels in the future.
Make sure to document all properties of each VPN tunnel before you remove the tunnel information. You must create the branch office VPN tunnels again after you migrate to Fireware.

If you have managed BOVPN tunnels

If you have managed BOVPN tunnels with configuration information kept on your current Management Server, all your tunnel information is lost when you migrate to Fireware. Before you install Fireware on your Firebox, make sure you remove all managed VPN tunnels. After you install Fireware, you must add the managed devices again and create new VPN tunnels using drag-and-drop.

Installing Software on the Management Station

Before you migrate your Firebox® to Fireware® appliance software, you must first install WatchGuard® System Manager v10 and Fireware v10 on your management station. You do not have to delete WFS first. You can have both WFS and Fireware appliance software installed on your management station, as long as you install the software in two different directories.

1 Download the WatchGuard System Manager v10 and Fireware v10 software, if you do not already have it. You can download the latest software from the WatchGuard web site at https://www.watchguard.com/archive/softwarecenter.asp
Make sure that you write down the name and path of the file when you save it to your hard disk drive.

2 Open each file and use the instructions on the screens to help you through the installation. Make sure you install WSM in a different directory than WFS.
The WSM installation utility includes a screen in which you select the components of the software or the upgrades to install. You can install all the components, but you cannot configure all components without the correct feature key.

3 At the end of the WSM installation wizard, a check box appears that you can select to start the Quick Setup Wizard. The next section helps you through this process.

Installing Fireware on Your Firebox

When you have created backup files of your WFS configuration file and Firebox® image and you have downloaded WSM v10 and Fireware® v10 software to your management station, you are ready to install Fireware on your Firebox. You can choose from two methods to put Fireware Pro on a Firebox that is running WFS 7.x appliance software:

- Use the Quick Setup Wizard to make a simple configuration file and save the configuration file and Fireware to the Firebox. This is the preferred method.
- Use the fbxinstall.exe command-line utility.

Using the Quick Setup Wizard

We recommend that you use the Quick Setup Wizard to put Fireware Pro and a basic configuration file on the Firebox. Before you start the wizard, make sure:

- You have saved a copy of your WFS configuration file to a directory outside the WatchGuard® installation directory with the procedure described in "Saving your configuration file" on page 26.
- You have created a backup copy of the WFS image on your Firebox with the procedure described in "Saving the Firebox software image" on page 26.
- You have downloaded and installed WatchGuard System Manager v10 and Fireware v10 on your management station.
- You copied the feature key for your Firebox from the WatchGuard LiveSecurity® web site. You must paste this key into a text box in the wizard. This feature key is linked to the serial number of your Firebox. To get a copy of your feature key, go to https://www.watchguard.com/archive/manageproducts.asp
- Your management station is on the same network as the Firebox. The wizard uses TCP discovery to find the Firebox on the network. If your network has more than one Firebox, you must select the correct Firebox from a list the wizard gives you.

To start the Quick Setup Wizard from the Windows desktop, select
Start > WatchGuard System Manager 10 > Quick Setup Wizard

The wizard asks you for this information:

- The type of Firebox you have
- Feature key for the Firebox
- External interface information for the Firebox
- Network configuration preference (routed or drop-in mode)
- Status and configuration passphrases

When the wizard is complete, you can start to build a new Fireware configuration file that matches your business needs. For more information on how to connect to the Firebox and use Fireware Policy Manager, see Chapter 5, "Using Fireware Policy Manager."

Using fbxinstall.exe

You can also use the fbxinstall.exe utility to install Fireware Pro. Fbxinstall.exe is a command-line utility that allows you to upgrade a Firebox X Core from WFS appliance software to Fireware Pro appliance software. After this procedure is complete, you must use the Quick Setup Wizard to give the Firebox a basic configuration. You can then add to the Fireware configuration file to meet the needs of your organization.

To install Fireware Pro on a Firebox with fbxinstall.exe:

1. Connect a serial cable between the Firebox and COM1 on your management station.
2. Connect the trusted interface of the Firebox to the Ethernet port on your management station with a cross-over cable.
3. Change the IP address on your management station to 10.0.1.2/24. Set the default gateway on your management station to 10.0.1.1.
4. Open a command prompt.
5. Type: **fbxinstall 10.0.1.1/24**
   This IP address is used to connect to the Firebox to complete the reset process, but is not actually assigned to the Firebox.
6. When the fbxinstall procedure is done, use the Quick Setup Wizard to create a new configuration file. See "Using the Quick Setup Wizard" on page 28 for more information.
   Remember to reset your management station IP address and default gateway back to their original state when you are done with the fbxinstall procedure.

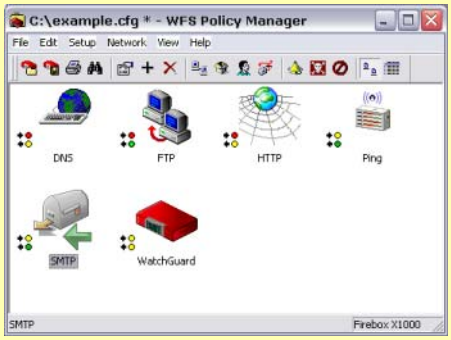
5

Using Fireware Policy Manager

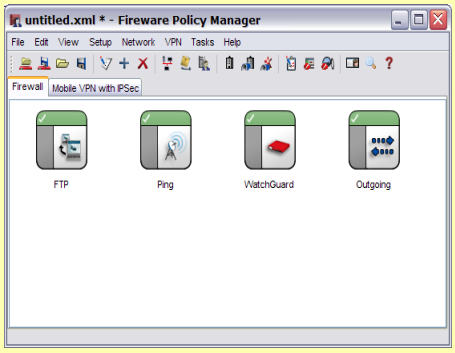
At this time, no configuration tool that automatically converts a WFS 7.x configuration file to a Fireware/Fireware® Pro configuration file is available. The two appliance software versions are very different. You must start with the configuration file you saved at the end of the Fireware Quick Setup Wizard.

One method to quickly make your Fireware configuration file is to open the new Fireware file in one window. At the same time, open the WFS configuration file in a second window. Put the two windows on the Windows desktop so that you can see them at the same time. You might want to resize each window so that they are tiled horizontally.

WFS 7.3 Policy Manager



Fireware Policy Manager



Rebuilding Your Network Configuration with Fireware Policy Manager

When you complete the Fireware® Quick Setup Wizard, you have a very basic configuration that allows you to install the WatchGuard® Firebox® on your network. We recommend that the first thing you do after you install the Firebox is to connect to it with Policy Manager and add any additional configuration information necessary for your Firebox to operate correctly on your network.

This type of configuration information can include:

- Adding secondary networks
- Adding network and host routes
- Setting up DHCP
- Configuring NAT

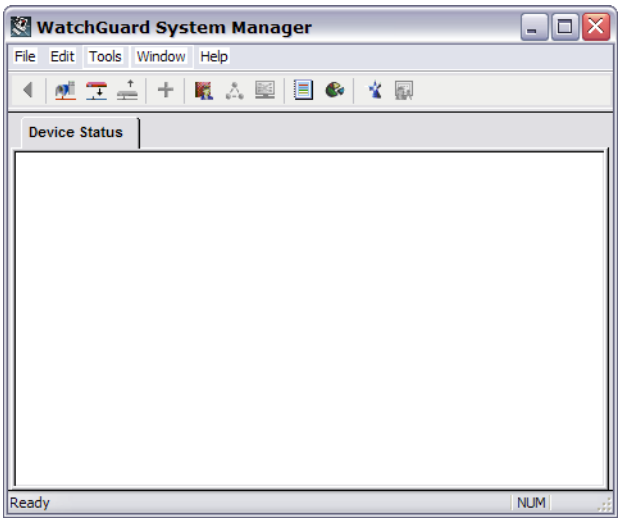
With Fireware, you also have the option to configure additional external interfaces. This feature is known as multi-WAN and is described in the *WatchGuard System Manager User Guide*.

In this section, we show you some of the user interface changes that you see when you configure network properties for your Firebox.

Opening Policy Manager

To open Policy Manager, you first want to open WatchGuard System Manager and connect to your Firebox:

1 From your Windows Start menu, select **All Programs > WatchGuard System Manager 10 > WatchGuard System Manager**.



2 Select **File > Connect to Device** or the Connect to Device icon.

3 Type the IP address and status passphrase for your Firebox.

4 Right-click on the Firebox name in WSM and select **Policy Manager** or select the Policy Manager icon.

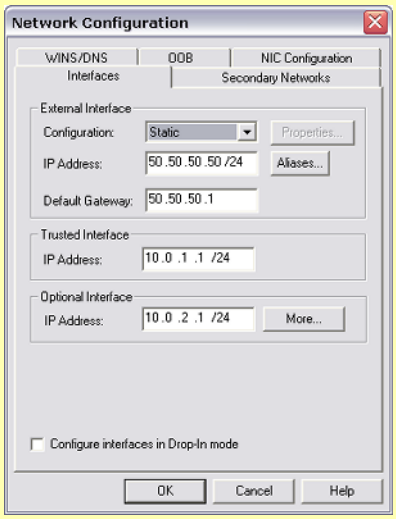
Fireware Policy Manager launches and shows the configuration file for your Firebox.

Working with interfaces

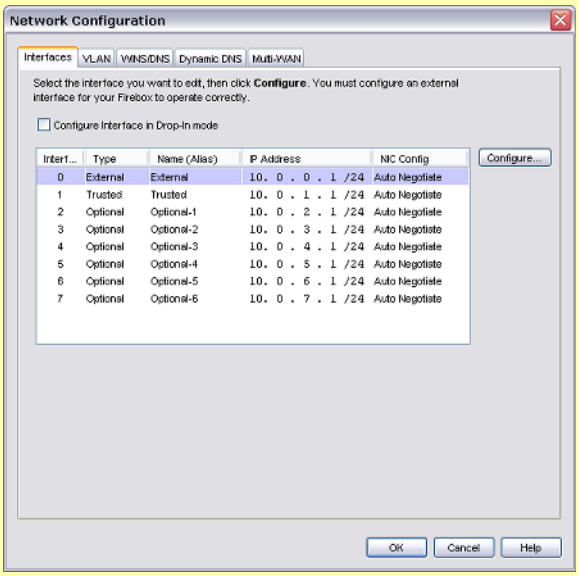
When you select **Network > Configuration**, you can see that the user interface is now more flexible in how each physical interface is mapped to a particular interface type, such as trusted, optional, or exter-

nal. For each interface defined in WFS Policy Manager, configure a matching entry in Fireware Policy Manager. To do this, select the appropriate interface entry and click **Configure**. If an interface is not necessary, select **Disabled** as the interface type.

WFS 7.3 Network Configuration



Fireware Network Configuration



To support the new multi-WAN feature of Fireware, you can now have more than one interface configured as external, trusted, or optional. Because of this, new Firebox aliases are available when you configure policies. The WFS alias “external” is different from the Fireware alias “external.” In Fireware, the Any-External alias is equivalent to the external alias in WFS. Some of these default aliases are:

Any-Trusted
: This is an alias for all Firebox interfaces configured as “trusted” interfaces (as defined in Policy Manager: select **Network > Configuration**), and any network you can get access to through these interfaces.

Any-External
: This is an alias for all Firebox interfaces of type “external” (as defined in Policy Manager: select **Network > Configuration**), and any network you can get access to through these interfaces.

Any-Optional
: This is an alias for all Firebox interfaces of type “optional” (as defined in Policy Manager: select **Network > Configuration**), and any network you can get access to through these interfaces.

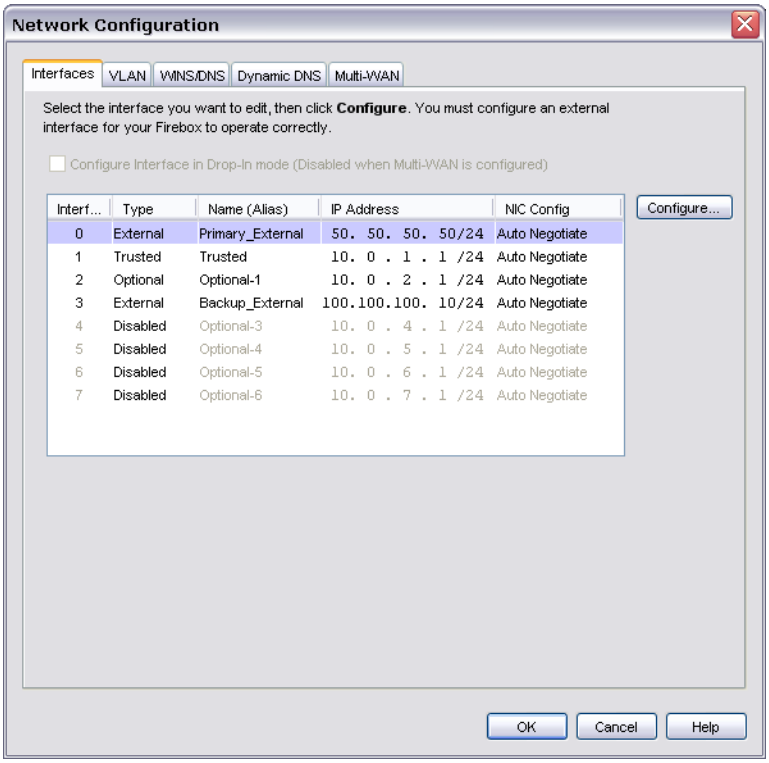
Secondary networks and external alias addresses

In the **Network Configuration** dialog box for each interface, you have the option to define secondary networks and addresses. The secondary network feature has been expanded in Fireware to allow support for secondary networks on the same network segment as the primary interface IP address. The enhanced secondary networks and addresses feature replaces the network alias function available in WFS. In WFS, you added a host IP address as an "Alias" to the external interface to use the IP address for static NAT in a service. In Fireware, to use an additional IP address on the external interface for static NAT, you add the IP address in slash notation, and you add it as a secondary network.

DHCP Server

The procedure to configure DHCP server functionality on a Firebox with Fireware is different from WFS. You must configure DHCP server functionality on each trusted or optional interface you want to define as a DHCP server. You can configure up to six DHCP scopes per interface. You can also configure the DHCP server with reserved MAC addresses and set a different DNS server for the Firebox to give with DHCP-assigned IP addresses.

1 From Fireware Policy Manager, select **Network > Configuration**.

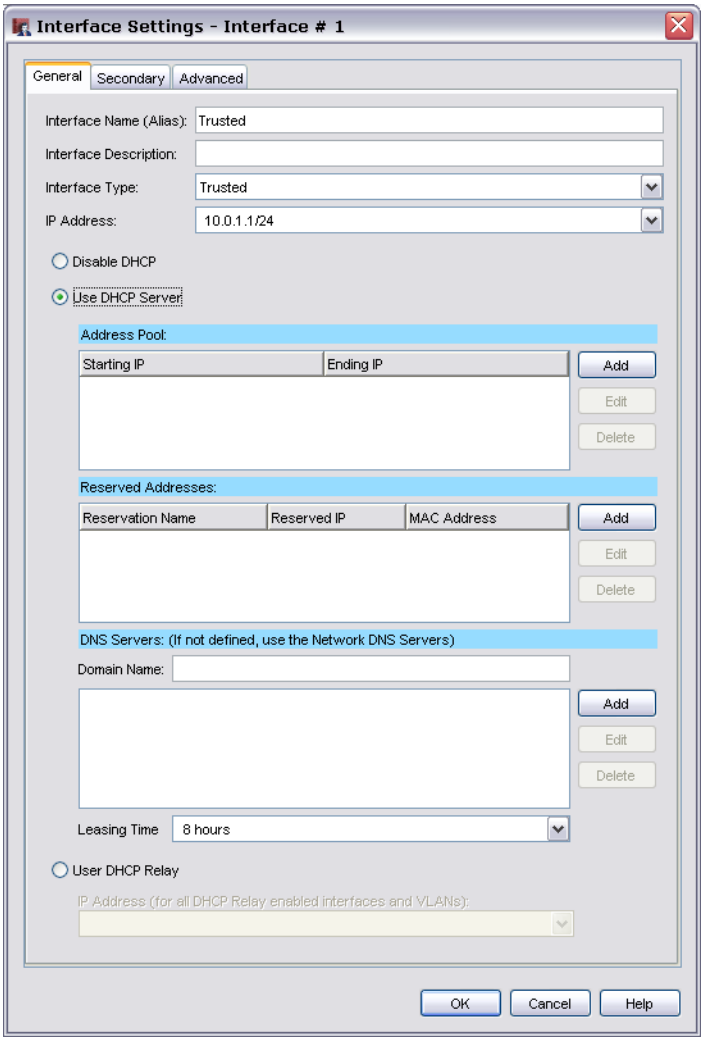


2 Select any trusted or optional interface and click **Configure**.

3 Select the **DHCP Server** radio button.

4 To add an IP address range, click **Add** and type the first and last IP addresses.
You can configure a maximum of six address ranges.

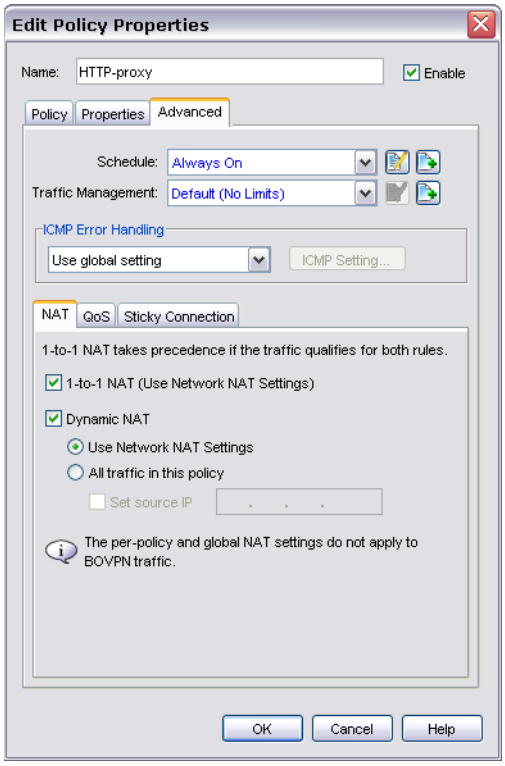
5 Use the arrow buttons to change the default lease time.
This is the time interval that a DHCP client can use an IP address that it receives from the DHCP server. When the time is near its limit, the client sends data to the DHCP server to get a new lease.



Network Address Translation (NAT)

NAT functionality has changed slightly between WFS and Fireware®. To find the firewall NAT settings, the navigation has changed from **Setup > NAT** in WFS, to **Network > NAT** in Fireware. In Fireware, because 1-to-1 NAT has higher precedence than dynamic NAT, you no longer need to add exceptions for 1-to-1 NAT rules.

Policy-based NAT (service-based NAT in WFS) is enabled by default in Fireware. However, it still functions exactly as WFS versions do, making use of the firewall dynamic and 1-to-1 NAT tables that you see if you select **Network > NAT** in Fireware Policy Manager. If you have a policy that must manage NAT settings differently than those supplied by the firewall NAT tables, edit the NAT rules on the **Advanced** tab on the **New/Edit Policy Properties** dialog box.



Virtual Private Networking

You can see all firewall and BOVPN policies on the main tab of Fireware® Policy Manager. You can identify BOVPN policies when you assign the policies a different color with the new policy highlighting feature available in **View > Policy Highlighting**. Policies for Mobile VPN with IPSec appear on the **Mobile VPN with IPSec** tab.

Mobile VPN with IPSec and Fireware

Both WFS and Fireware appliance software use the same Mobile VPN with IPSec client software. There are two primary differences between the Mobile VPN implementation of WFS and Fireware:

- In WFS, you could create Mobile VPN profiles for individual users or for groups. In Fireware, you must configure group accounts that enable extended authentication. You then send the same .wgx file to all users in that group. You cannot configure a .wgx file for a single user.
- In Fireware Policy Manager, you can allow Mobile VPN users to get access to the Internet through the Firebox by using a setting in the Mobile VPN wizard. You do not have to configure rules for this manually as you did in WFS Policy Manager.

BOVPN and Fireware

If you use NAT through a branch office VPN tunnel, it is important to understand that the NAT settings you apply to your firewall policy on the Policy Manager **Firewall** tab do not apply to any VPN tunnels. If you want to use NAT through a VPN tunnel, you must configure NAT when you configure the VPN tunnel. For more information about the use of NAT in a BOVPN tunnel, see the Branch Office VPN section of the product FAQs available at:

www.watchguard.com/support/faqs/fireware/

In Fireware, the routing policies configured in a BOVPN tunnel are known as "Local-Remote Pairs."

Services

In Fireware® you configure services with a very different procedure from WFS. The largest change is that there are no **Incoming** and **Outgoing** tabs in the definitions. Also, services are now known as *policies*.

Each policy icon has a tab to configure the familiar **From** and **To** traffic settings, a tab to see and manage the properties of the policy, and an **Advanced** tab. When you migrate a WFS service to Fireware Policy Manager, you must create at least one policy for the information shown in the WFS **Incoming** tab and one for the **Outgoing** tab. This change is necessary only when the current WFS connection setting is either **Enabled and Allowed** or **Enabled and Denied** with log messages enabled for denied packets.

The direction of the traffic the policy controls is decided by the network or host address information you enter in the policy. For example, a policy that allows traffic from Trusted to External is similar to a WFS service icon with the **Outgoing** tab set to allow traffic from Trusted to External. This increases flexibility, especially when you have more than one type of physical interface in use. However, it also gives the potential to misuse the Any service when you complete the **From** and **To** entries.

Using the policy generated by the Quick Setup Wizard

The Firebox® configuration file created when you use the Fireware Quick Setup Wizard is different in several ways from the default configuration file created with WFS. In Fireware, you can set policy precedence automatically or manually. If you change your Policy Manager to show in detailed mode (**Policy Manager > View > Details**), the policies are shown in order of precedence. You can move policies up or down in the view to change their precedence, or select **View > Auto-Order Mode** to change the order automatically.

Using the "Any" alias

The "Any" alias refers to all traffic sent from any source to any destination. You must restrict the use of the "Any" alias in your policies as much as you can. When you manage the migration, apply the "Any" alias only when no other policy will operate correctly. For example, when you migrate a WFS service that allows incoming from Any to Any, migrate it to a Fireware policy that allows from External to Firebox (maybe with a NAT entry specified to port forward the connections to a trusted server).

Policy Manager and Firebox management

WatchGuard® System Manager v10 includes the ability to create and manage VPN tunnels, similar to the features of VPN Manager in WFS. It also includes a feature that allows you to centrally configure and manage a large number of Firebox X Edge devices from a central location. If you manage other Firebox devices with a Management Server protected by a WatchGuard Firebox, make sure that the configuration of your gateway Firebox includes these provisions:

- If you manage Firebox SOHO or Firebox X Edge devices, make sure your gateway Firebox includes the **WG-SmallOffice-Mgmt** policy, configured to apply static NAT and allow traffic from the Any-External alias to the IP address of your Management Server. You make your

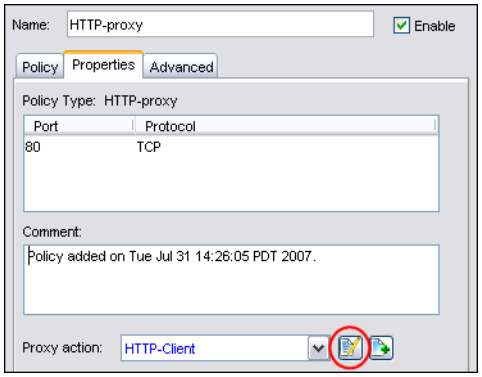
configuration more secure if you replace the Any-External alias with the external IP addresses of any managed devices.

- If you manage Firebox III, Firebox X Core, or Firebox X Peak devices, make sure your gateway Firebox includes the **WG-Mgmt-Server** policy, configured to apply static NAT and allow traffic from the Any-External alias to the IP address of your Management Server. You make your configuration more secure if you replace the Any-External alias with the external IP addresses of any managed devices.

Proxies

Proxy configuration for Fireware® has many more features and greater flexibility than WFS. Because of this, very few direct correlation points exist between what is configured in WFS Policy Manager and where a feature appears in Fireware Policy Manager. The most important thing to understand is that the proxies in Fireware are all configured with similar procedures. After you understand the procedures, they supply a powerful tool to protect resources comprehensively and intelligently. For more information about configuring proxies in Fireware, see the *WatchGuard® System Manager User Guide*, "Proxy Policies" chapter.

The configuration properties for the proxies in Fireware are now separate from the policies. It is possible to create proxy configurations, known as a proxy action, that you can share among multiple policies. Fireware includes default configurations for the different proxy policies. You cannot change these default configurations. To edit a configuration, or action, you use a clone feature that allows you to create a new action based on an existing action.



The default proxy actions are named to represent the situations in which they are used to protect resources. For example, Fireware has an HTTP Client proxy action and an HTTP Server proxy action. The HTTP-Client proxy action was created to protect HTTP clients. In other words, it is most likely used on a policy applied to outbound traffic. The HTTP-Server proxy action was created to protect a web server. It is most likely used on a policy that allows access to a web server from external users.

To open proxy actions in Fireware Policy Manager, select **Setup > Actions > Proxies**.

*Each proxy action has a **Turn on logging for reports** check box. If you do not select this check box, you do not get detailed report data in Report Manager.*

Quick Setup Wizard and proxies

When you used the Quick Setup Wizard in WFS, an "Outgoing" service was automatically added to your Firebox® configuration. This service allowed outgoing TCP and UDP connections by default and did not apply any proxies to this traffic.

The Fireware Quick Setup Wizard does not enable any proxies by default. If you want to enable a proxy, you must add a proxy policy and apply a proxy action to the policy.

Authentication

With Fireware®, the list of supported authentication servers has changed significantly. Windows native mode (NT) and CRYPTOCard authentication are not supported in Fireware. If you used WFS NT Server authentication, you can now use Active Directory or RADIUS authentication if you have a Windows 2000/2003 domain.

Supported authentication methods include:

Firebox
There are no changes in Firebox® authentication.

RADIUS Server
You must make sure your RADIUS server supports both PAP and MSCHAPv2. Fireware uses PAP when authenticating any firewall or MUVPN user. It uses MSCHAPv2 when authenticating a PPTP user (if PPTP is configured to use RADIUS).

VASCO DIGIPASS
To configure the Firebox to work with VASCO DIGIPASS, you use the same user interface as that used to configure RADIUS authentication.

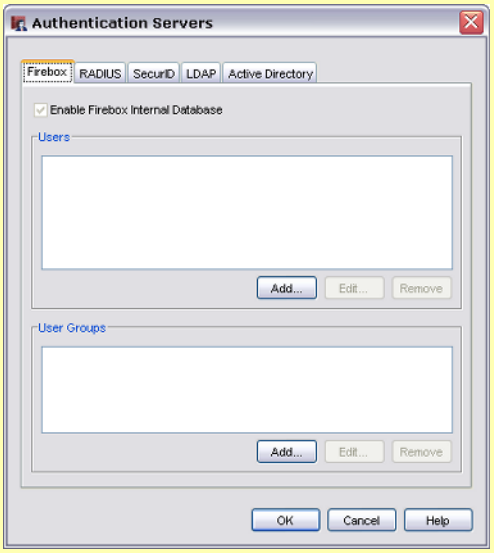
SecurID Server
There are no changes in SecurID authentication.

LDAP
With Fireware, you can use an LDAP (Lightweight Directory Access Protocol) authentication server to authenticate your users to the Firebox.

Active Directory
With Fireware, you can use an Active Directory authentication server to authenticate your users to the Firebox. If you use Active Directory, you also have the option to enable Single Sign-On.

WSM 7.x Firewall Authentication

Fireware Authentication Servers



Authenticating through the Firebox

The Java applet used for firewall authentication in WFS is not used in Fireware Pro/Fireware. Instead, a web page is available at the same URL if you use *https* instead of *http*.

In WFS, your users authenticated with the URL that looked like: http://10.1.1.1:4100

In Fireware, your users must type:

https://*IP address of a Firebox interface*:4100/
or
https://*Host name of the Firebox*:4100

Authentication timeouts

In WFS, when an authenticated user closed the web browser window in which they authenticated, the authenticated session stopped. In Fireware, if the user closes the web browser window in which they authenticated, the user stays authenticated until the authentication timeout occurs. This timeout is controlled in **Policy Manager > Setup > Authentication > Authentication Settings**.

Using Firebox System Monitor to close authentication sessions

You can see a list of all users currently authenticated on the Firebox® on the **Firebox System Manager > Authentication List** tab. You can also remove an authenticated user from the list. To do this, right-click their user name and then stop their authenticated session.

Default Threat Protection

Many of the same options are available in Fireware® as were available in WFS Policy Manager. However, by default, log messages for broadcast traffic are turned on. To turn this off, add a policy that matches the traffic and disable log messages in that policy.

The **Auto-block source of packets not handled** option is disabled by default. If you enable this option, you must be very careful or you could block many external sites that you do not want to block.

Fireware uses a new algorithm to block SYN flood attacks that is based on threshold limits instead of validation.

Blocked Sites

Fireware's blocked sites support has changed. The Blocked Sites list can now apply to all interfaces. Be very careful to not add entries here that could also include any real networks accessible from the Firebox such as trusted, optional, external, or other routed networks. If it is necessary to include these (such as by way of a supernet), make sure to add a **Blocked Sites Exceptions** entry for the networks or hosts that are safe.

Fireware automatically adds sites to the Blocked Sites list on any interface.

Migrating WFS blocked sites to Fireware

Fireware blocks sites on all interfaces. WFS blocks sites only on the external interface. Therefore you cannot copy the default Blocked Sites list from a WFS configuration to a Fireware configuration. A default WFS configuration includes the private subnets (10.0.0.0/8, 192.168.0.0/16, 172.16.0.0/16) on the Blocked Sites list. If you copy this configuration to Fireware, all internal subnets are blocked on all interfaces, which could cause a Denial of Service (DoS) and effectively disable the trusted network.

Using HostWatch to block sites

You can now add sites to the Blocked Sites list from the HostWatch™ user interface. Right-click on a connection in the connections list and select the site to block.