

IBM SecureWay[®] Firewall for Windows NT[®]



Setup and Installation

Version 4 Release 1

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Note

Before using this information and the product it supports, be sure to read the general information under "Appendix. Notices" on page 19.

Fourth Edition (September 1999)

This edition applies to Version 4 Release 1 of the IBM SecureWay Firewall for Windows NT (product number 5697-F59).

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Chapter 1. Installing the IBM[®] SecureWay[®] Firewall for Windows NT[®] Version 4.1

This book will tell you how to setup and install the latest version of the IBM[®] SecureWay[®] Firewall for Windows NT[®].

Prerequisite Software and Hardware

This section describes the programs and hardware, including memory and disk space, needed by the IBM Firewall.

Software

To install and use the IBM SecureWay Firewall 4.1 for Windows NT, you must have the following software installed **and in this order**:

1. Microsoft Windows NT Server Version 4.0
The target drive (drive you will install the Firewall on) must be formatted with NTFS. However, the Windows NT operating system must also reside on an NTFS file system. If you try to use the configuration client to configure DNS, and Windows NT resides on a FAT file system, the Firewall configuration service may crash.
2. Microsoft Windows NT DNS Server, if you plan to use DNS from your Firewall. You install the Microsoft DNS Server through the Services panel of the Network configuration windows of the Control Panel. **After you install the Microsoft DNS Server, do not configure it using the Microsoft DNS Service Manager. The Microsoft DNS Server will be configured automatically by the IBM Firewall when you configure the Firewall configuration client DNS panels.**
3. Microsoft Windows NT Service Pack 3
4. Post Service Pack 3 Hot Fixes - which must be installed in the following order:
 - ndis-fix
 - dns-fix
 - simptcp-fix (chargeni.exe)
 - teardrop2-fix

These fixes are currently available from the Microsoft FTP site at:
<ftp://ftp.microsoft.com/bussys/winnt/winnt-public/fixes>.

Note: Microsoft Windows NT Service Pack 3 and the Post Service Pack 3 Hot Fixes are minimum requirements. You can optionally install Microsoft Windows NT Service Pack 4 or Service Pack 5.

5. To install the Firewall, the user must have Windows NT administrator authority.

By using User-Supplied Authentication, you can build any user-selected form of authentication. If you use User Supplied Authentication, you must compile your code on a Windows NT machine compatible with the version of the Firewall it is intended to run on.

Minimum Hardware Configuration

For security reasons, the Firewall should not be a Primary or Backup Domain Controller (PDC). The Firewall can be a standalone machine or reside in an NT domain as a standalone server. **We recommend that you install the IBM Firewall on a dedicated machine.**

The following minimum hardware configuration is recommended for the IBM Firewall.

System Unit

- Pentium Processor 400MHz
- 128MB RAM
- 1GB hard drive

Peripheral Devices

Communication Hardware: You can use any communication hardware interface supported by the TCP/IP protocol stack to make the network connections.

In order to be effective as a firewall program, the IBM Firewall must have at least two network interfaces:

- One network interface connects the secure, internal network that the Firewall protects.
- The other network interface connects to the nonsecure, outside network or Internet.

The interfaces that have been tested are:

- 16 megabit per second Token Ring
- 10 Base2 Ethernet
- 10 BaseT Ethernet
- 100 BaseT Ethernet

In general, cards and drivers manufactured in the last two years will work.

Recommended Hardware for Pager Support Notification: You need the following hardware for pager support notification:

- IBM modem or Hayes compatible modem
- A supported pager
- The service provider must support the TAP protocol.

Disk Space Requirements: The recommended disk space for this product is:

- Base Firewall - 80MB
- Netscape Communicator - 20MB
- IBM Firewall Web Traffic Express - 6MB

Memory Requirements: The recommended memory for the IBM Firewall is at least 128MB.

The recommended paging file size for virtual memory is at least 60MB for initial size and at least 100MB for maximum size.

Security Authentication Devices

The IBM Firewall directly supports the following security devices that provide remote authentication of your users. You will need one securID token for each user that needs to be authenticated.

Security Dynamics SecurID Card:

- Model SD200 (standard card without buttons)
- PINPAD (card with buttons)

Refer to your Security Dynamics ACE Server documentation for more information.

Hardening for Windows NT System Configuration

During installation you are given the option to harden your system. Hardening is irreversible. If you uninstall the IBM Firewall, you cannot reverse the hardening process. If you choose hardening, you may want to back up your system before you install the IBM Firewall.

During installation, hardening maximizes security and efficiency. After installing the IBM Firewall software, including the configuration files, the installation starts editing the system resources that might compromise security.

Services that are not needed for the IBM Firewall configuration and that are a potential threat to security, are disabled. All non TCP/IP protocols are deleted. Logins for all user accounts except those with administrator authority are disabled.

Migration

Migration allows you to install the IBM Firewall for Windows NT on top of an existing version of the IBM Firewall for Windows NT without removing the existing version. The migration process upgrades the existing configuration files.

Installing the IBM SecureWay Firewall

You will first install the IBM Firewall Support Driver. Enabling IP forwarding and adding the protocol are part of this.

1. Click Windows NT Start.
2. Click Settings.
3. Click Control Panel.
4. Double-click the Network object.
5. To enable IP forwarding, click the Protocols tab on the Network dialog.
 - a. From the Protocols page, select TCP/IP protocol.
 - b. Click Properties.
 - c. Click the Routing tab.
 - d. Select the check box to enable IP Forwarding.
 - e. Click OK to return to the Protocols page.
6. To add the protocol:
 - a. From the Protocols page, click Add. A Select Network Protocol dialog is displayed.
 - b. Click Have Disk...
 - c. Enter x:\nt40\en_US in the Install From Disk dialog's entry field, where x: is your CDROM drive.
 - d. On the Insert Disk dialog, click OK.
 - e. On the Select OEM Option dialog, select IBM Intermediate Support Device Driver and click OK.
 - f. Click Close on the Network dialog.
 - g. On the Network Settings Change dialog, click No - do not restart your computer at this time.

To continue with the installation:

1. Click Start, select Run, and specify *x:\nt40\en_US\setup.exe*, where *x*: is your CD-ROM drive.
2. Click OK to start the installation program.
3. Click Next and the components list is displayed. Select the components you wish to install:
 - a. IBM SecureWay Firewall
 - b. IBM Firewall Web Traffic Express
 - c. Netscape Communicator

Note, IBM online documentation requires a frames-enabled browser. If you do not have a frames-enabled browser, you can select the Netscape Communicator 4.07 from the components list.
4. Assuming you checked the Firewall box, the Firewall installation will begin:
 - a. Click Next and the software license agreement is displayed.
 - b. Click Accept and the copyright statement is displayed.
 - c. Click OK and the IBM Firewall Installation Options dialog will be displayed.
 - d. Click Next.
 - e. Double-check your configuration; click Next.
 - f. You are asked if you want hardening performed.
If you had existing configuration files in your target directory, it will not replace them.
5. If you selected IBM Firewall Web Traffic Express, its installation will begin.
6. If you selected Netscape Communicator, its installation will begin.
7. If you have installed the IBM Firewall, be sure to **REBOOT** your system before proceeding. When you reboot, the Firewall filter is active using the default filter rules described in the *IBM SecureWay Firewall User's Guide*.
8. Click Finish to exit the installation.
9. After you reboot, configure the firewall using the configuration client. Your Firewall is not secure until you configure it. Please refer to the *IBM SecureWay Firewall User's Guide*, in order to configure a usable Firewall.
After you log onto the IBM Firewall for the first time, the setup wizard appears automatically. It aids you with the initial configuration of the Firewall. It is especially helpful if you do not have extensive knowledge of the firewall configuration because it enables you to have a basic firewall configuration up and running quickly after installation. See the *IBM SecureWay Firewall for AIX User's Guide* for more information.

Chapter 2. Installing the Triple DES Feature

If you are in a country that allows stronger encryption, you may be eligible to upgrade your IBM Firewall V4R1 with the Triple DES feature.

You can install the Triple DES feature from a zip file. You can obtain the zip file from a web site. See the IBM Firewall product README file for more information.

To install from a zip file, unzip the file, put it into a temporary directory and run `setup.exe` from the command line.

Chapter 3. Removing the Installed IBM SecureWay Firewall

Note: If you remove the IBM Firewall, hardening will not be reversed.

To remove the IBM Firewall:

1. Click Windows NT Start.
2. Click Programs.
3. Click IBM Firewall.
4. Click Uninstall.

The uninstall process will delete the Firewall configuration files. If you want to keep your configuration files, you have two options:

1. Back up your configuration files manually. Save all the files that exist in the config directory. This directory is located under the IBM Firewall installation directory.
2. Reinstall the IBM Firewall for Windows NT on top of an existing version of the IBM Firewall for Windows NT without removing the existing version. Reinstallation does not delete the configuration files.

If you wish, you can manually delete the log files.

Hardening cannot be reversed by removing the IBM Firewall.

Removing the IBM Firewall Support Driver

1. Click Windows NT Start.
2. Click Settings.
3. Click Control Panel.
4. Double-click the Network object.
5. From the Protocols page, select IBM Intermediate Support Driver.
6. Click Remove.

Chapter 4. Installing the IBM SecureWay Firewall Configuration Client for Windows

The IBM Firewall configuration client consists of:

- Remote Configuration Client
- Report Utilities
- Socks Monitor

Before you install the IBM Firewall Configuration Client, please read the following:

Prerequisite Software and Hardware

This section describes the programs and hardware, including memory and disk space, needed by the IBM Firewall configuration client.

Software

To install and use the IBM Firewall Configuration Client, you must have Microsoft Windows NT Version 4.0, Windows 95, or Windows 98 installed.

Minimum Hardware Configuration

IBM Firewall configuration client requires the following hardware configuration.

System Unit

- Pentium Processor 100MHz
- 32MB RAM
- 1GB hard drive

Disk Space Requirements

The recommended disk space for this product is:

- Configuration client - 17MB and 5MB for each additional language you wish to install
- Netscape Communicator - 15MB
- Report Utilities - 6MB
- Socks Monitor - 4MB

Note: These disk space requirements are based upon installing on a FAT partition of less than 512MB. If your FAT partition is more than 512MB, then the space used on your hard drive can be more than the given requirements above.

Memory Requirements

The recommended memory for the IBM Firewall configuration client is at least 32MB.

Installing the IBM Firewall Configuration Client

1. Click Start, select Run, and specify `x:\nt40\en_US\Client\setup.exe`, where `x:` is your CDROM drive.
2. Click OK to start the installation program.
3. Click Next and the copyright statement is displayed.
4. Click OK. You are given the option to install the Netscape Communicator program.
5. When the Netscape Communicator installation has completed, click OK to continue.
After you install Netscape, the IBM Firewall install program continues.
6. From the IBM Firewall Configuration Client Installation Options dialog, select the items you want to install from the components list.
If you install the configuration client, you can choose to install support for additional languages.
7. Click Next.
8. Double-check your configuration; click Next.
9. Click Finish to exit installation.

Reboot your system.

Note that the configuration client displays help by using the default program associated with .html files. If you choose to install Netscape Communicator 4.07 as provided with the IBM Firewall, you will need to manually associate .html files with Netscape. See *associating file types with programs* in the Windows help utility for details.

Chapter 5. Installing the IBM SecureWay Firewall Configuration Client for AIX

This section explains how to install the IBM SecureWay Firewall configuration client on an AIX machine so that you can remotely configure the IBM Firewall for Windows NT.

Before you install the IBM Firewall Configuration Client, please read the following:

Prerequisite Software and Hardware

This section describes the programs and hardware, including memory and disk space, needed by the IBM Firewall configuration client.

Software

IBM AIX/6000 Version 4.3.2 and the Java Development Kit for AIX, available at <http://www.ibm.com/java/jdk/download> or IBM AIX/6000 Version 4.3.2.

Minimum Hardware Configuration

IBM Firewall configuration client requires the following hardware configuration.

System Unit

A RISC System/6000[®] that is supported by the AIX/6000 Version 4.3.2 operating system, excluding shared memory multiprocessors.

Disk Space Requirements

The recommended disk space for the configuration client is: 88MB (not including the browser).

Memory Requirements

The recommended memory for the IBM Firewall configuration client is at least 32MB.

Setting the Language Environment for AIX/6000

On AIX/6000, set the language environment to access the catalog. The base firewall is provided with U.S English (en_US codepage) catalogs. The catalogs for all other supported languages are separately installable.

See “Using SMIT to Select Your Language Environment” to select a language environment, if you have not already done so. Note, the AIX default selection of “Generic C”, which sets \$LANG to C, causes installation of the IBM Firewall to fail.

Using SMIT to Select Your Language Environment

1. Enter `smit mle_cc_set_hdr` at the AIX command line.
2. Click List to get a list of languages.
3. Scroll to select the desired language (the base firewall ISO8859-1 en_US code page).
4. Click OK.
A dialog appears.
5. It may be necessary to install additional language support filesets from the AIX installation media. If so, fill in the INPUT device/directory for software field.
6. Click List to see a list of input devices.
7. Move the cursor to select an input device.
If any additional filesets are necessary, SMIT will automatically install them from your media.
8. Click OK.
9. Reboot for these changes to take effect.

Installing the IBM Firewall Configuration Client

After you have selected your language environment, you are ready to install the IBM Firewall configuration client for AIX.

1. Insert the IBM Firewall CD-ROM into the CD-ROM drive.
2. Start the installation program by entering `SMIT` at the command line. Then select *Software Installation and Maintenance, Install and Update Software*, and then *Install and Update from All Available Software*.
3. Select List to see the list of available installation media.
4. Select the `/dev/cd0` option from the list to install the IBM Firewall from the CD-ROM drive.

5. Click OK.
6. Select F4 to see a list of software packages you can install. Note: Do not enter *ALL* in the *Software to Install* field.
7. Under FW package select the IBM SecureWay Firewall Remote Configuration Client option.
The Netscape Communicator is included when you install the configuration client.
8. Click OK after making your selection.
The previous SMIT menu reappears with the IBM Firewall selected.
Click Enter to start the installation. The next screen asks whether you want to continue.
9. Click OK; SMIT installs the selected items.
10. When the installation is complete, select Exit SMIT from the Exit menu or press F12 to Exit.
The SMIT window is closed.

After you install the IBM Firewall configuration client on your disk, read the *README* file, which contains any updates to product installation instructions and functions. The *README* file is accessible through the IBM Firewall Configuration Client. Click Help on the main configuration client panel and choose Read Me from the dropdown box selections.

Chapter 6. Installing the IBM SecureWay Firewall Documentation

To install the following documentation:

- *IBM SecureWay Firewall for Windows NT Setup and Installation*
- *IBM SecureWay Firewall for Windows NT User's Guide*
- *IBM SecureWay Firewall for Windows NT Reference*
- *Guarding the Gates Using the IBM eNetwork Firewall for Windows NT 3.3* (a redbook)

download the following files from the `x:\books\en_US` directory on your IBM Firewall CDROM to your workstation:

- *fwinstal.pdf* - (this book)
- *fwuser.pdf*
- *fwref.pdf*
- *fwinstal.html* - (this book)
- *fwredbk.pdf* - available in English only from the English directory.

Use the Adobe Acrobat Reader Version 3.0 to view these books. If you do not have the Adobe Acrobat Reader installed, you can go to the Adobe Web Site at: www.adobe.com/prodindex/acrobat/ to learn more about the Adobe Acrobat Reader and to get a copy.

You can also order a hardcopy of the *IBM SecureWay Firewall for Windows NT User's Guide*, GC31-8658-03 and the *IBM SecureWay Firewall for Windows NT Reference*, SC31-8659-03

Appendix. Notices

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	Very Satisfied	Satisfied	Neutral	Dissatisfied	Very Dissatisfied
Overall satisfaction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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Easy to find	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Easy to understand	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Well organized	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Applicable to your tasks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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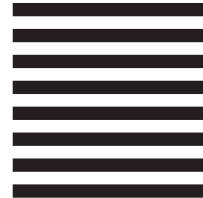
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