

VERSION 3

FireWALL

for NT Installation



FireWALL for NT

INTERNET SECURITY FOR NT SYSTEMS

Novell®

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About This Guide

Introduction

The purpose of this documentation is to help you install Novell® FireWALL for NT software to secure your network.

The audience for this documentation is experienced network administrators. This documentation is not intended for users of the network.

User Comments

We are continually looking for ways to make our products and our documentation as easy to use as possible.

You can help us by sharing your comments and suggestions about how our documentation could be made more useful to you and about inaccuracies or information gaps it might contain.

Submit your comments by using the User Comments form provided with the online documentation or by writing to us directly at the following address:

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We appreciate your comments.

1 ***Preparing to Install Novell FireWALL for NT***

This chapter details the system requirements and preparatory steps necessary for installing Novell® FireWALL for NT.

Note For planning and conceptual information about Novell FireWALL for NT, refer to *Novell FireWALL for NT Concepts*.

This chapter contains the following sections:

- “Product Components” on page 1
- “System Requirements” on page 2
- “Upgrading” on page 5
- “Documenting Your Environment” on page 6
- “Setting Up the Logon Script for Domains” on page 6

Product Components

Novell® FireWALL for NT includes the following product components:

- Novell FireWALL for NT CD-ROM—Contains the product software, installation utility, and documentation files.
- The Novell FireWALL for NT License Disk—Contains the license key.

System Requirements

This section lists the Novell® FireWALL for NT server requirements, Traffic Manager server requirements, additional recommendations, administrator privileges, and system checks required to install and run Novell FireWALL for NT. It contains the following sections:

- “Novell FireWALL for NT Server Requirements” on page 2
- “Traffic Manager Server Requirements” on page 3
- “Additional Recommendations” on page 4
- “Administrator Privileges” on page 5
- “System Checks” on page 5

Novell FireWALL for NT Server Requirements

This section lists the minimum server configurations required to install the Novell FireWALL for NT software. The actual configuration required for optimal performance for your implementation is dependent on the load on your Windows NT* application server.

Note Novell recommends that you install both the Novell FireWALL for NT and Traffic Manager software on the same machine.

Before you install and run the Novell FireWALL for NT component, verify that your Windows NT server meets the following minimum hardware and software requirements:

- Pentium* 200 Mhz or higher compatible processor with 64-MB RAM and 40-KB free hard disk space (100 KB if log files will be stored)
- 150-MB page file size
- A minimum of two network interface cards (NICs) connected to the server machine (more NICs are supported)
- Windows NT 4.0 server or workstation
- The latest Service Pack 3 for Windows NT (To download the service pack, go to <http://www.microsoft.com>.)

- Current TCP/IP or WINSOCK.DLL software installed
- Simple Network Management Protocol (SNMP) installed and running on the Windows NT server (required to support Novell FireWALL for NT SNMP alert notifications)

Note Install the SNMP agent from your Windows NT workstation or server CD-ROM.

Novell FireWALL for NT can be installed in a native NT environment, a Netscape* Lightweight Directory Access Protocol (LDAP) environment, or in a Novell NDS™ environment. NDS environments require the following:

- A NetWare® server, with NetWare 4™ software or higher installed and running
- The latest Novell Client™ for Windows NT on the Novell FireWALL for NT server
- The latest Novell Client on all Windows 95* client machines from which you want to administer Novell FireWALL for NT

Traffic Manager Server Requirements

This section lists the minimum server configurations required to install the Traffic Manager software. The actual configuration required for optimal performance for your implementation is dependent on the load on your Windows NT application server.

Note Novell recommends that you install both the Novell FireWALL for NT and Traffic Manager software on the same machine.

Note Real-time traffic monitoring results in extra workload on the Traffic Manager Application Server (AS) system. The system requirements described here are based on two concurrent monitoring stations.

Before you install and run the Traffic Manager component, verify that your Windows NT server meets the following hardware and software requirements:

- For a traffic load up to 40 Mbps, where there is a sustained load at the LAN interface of the NT server, the following is required:
 - Pentium 233-Mhz or higher compatible processor with 64-MB RAM, 100-MB free disk space
 - 128-MB page file size

- For a traffic load of more than 40 Mbps, where there is a sustained load at the LAN interface of the NT server, the following is required:
 - Pentium 400-Mhz with 64-Mb RAM, 100-Mb free disk space
 - 128-Mb page file size
- Two or more Ethernet NICs installed on the machine
- Windows NT 4.0 server or workstation with TCP/IP configured
- The latest Service Pack 3 for Windows NT (To download the service pack, go to <http://www.microsoft.com>.)
- Microsoft* Remote Procedure Call Service installed
- NetWare client for an NDS environment (if running in an NDS environment)
- NetWare on all Windows 95* or Windows 98* clients from which you want to administer Traffic Manager and Novell FireWALL (if running in an NDS environment)

Additional Recommendations

For best performance, 200-Mb page file size is recommended.

Additionally, if extensive logging is expected for the implementation, additional disk space is required.

The following NICs have been tested with Novell FireWALL for NT and Traffic Manager:

Note Token Ring and SMC NICs are not supported.

- 3Com* Fast EtherLink* XL PCI 10/100 Mb adapter (3C905-TX)
- 3Com EtherLink III Parallel Tasking 16-bit 3C509B-COMBO
- Intel* EtherExpress* PRO/100 LAN adapter, Model B
- LINKSYS Ether16 LAN Card, ISA, Model No. LNE2000
- EFA Corp NE2000 Combo, InfoExpress PnP

- Vision Net RealTek RTL8029 PCI adapter
- LONG SHINE Shine Net, Model No. LCS-8634PTB
- DLink DFE 500 Tx
- Hewlett-Packard* HPJ2585B Desk Direct
- DEC* PCI Fast Ethernet DECchip 21140
- NX-32PCI adapter
- Compaq* NetFlex*-3/P PCI adapter
- NDC ND 4300 PCI Ethernet adapter
- PN102TX PCI Ethernet adapter

Administrator Privileges

To administer and manage Novell FireWALL for NT, you must have Windows NT administrative level privileges. Consult your Windows NT documentation for more information.

System Checks

To determine whether your system is set up correctly to support Novell FireWALL for NT, you must check that your NICs are operating correctly by performing a ping on the internal and external interfaces

Upgrading

Novell® FireWALL for NT can be installed as an upgrade to Ukiah Software NetROAD FireWALL and TrafficWare for NT software. To upgrade, you must uninstall the Ukiah software and install the Novell software. When you uninstall, you will be prompted to save any rules you have set up to a configuration file. After you have installed Novell FireWALL for NT, you can import these rules.

Documenting Your Environment

Before you begin installing the product, review the items listed below and record the information specific to your environment. Make sure you keep this information in a safe place.

Note In this document, the term *interface* refers to a computer's corresponding IP address. Therefore, a public interface is an Internet IP address, while a private interface is a private, or intranet, IP address.

- The IP addresses for all public and private interfaces
- The service type/service host, name, interface type, and IP address for all internal servers
- The service type, port number, external host name, and external IP addresses for all external servers

Note Use this information to help plan how to restrict Novell® FireWALL for NT access to a few external servers. You can also specify All Hosts for unrestricted outbound access.

- The default Domain Name System (DNS) domain, the IP address for the first name server to consult, and the IP address for the second name server to consult

Setting Up the Logon Script for Domains

Traffic Manager supports user-based profiling. However, in order to use Traffic Manager user-based profiling, each client must run a logon script to set up user profiling support for the particular database environment. You can set up the logon scripts for clients before or after installing Traffic Manager.

The following sections describe how to set up logon scripts:

- “Setting Up the Logon Script for NT Environments” on page 7
- “Setting Up the Logon Script for NDS Environments” on page 8

Setting Up the Logon Script for NT Environments

To set up the logon script for NT environments, complete the following steps:

1. **Create a folder to store the script on the Primary Domain Controller (for example, TMSCRIPT).**
2. **Right-click the folder > click Sharing > click Shared As. Then define a share name, such as FWALL.**
3. **From the CD-ROM, copy D:\APPLICAT\UTILS\SCRIPTS\NTSDOMAIN\NROADSCR.EXE to the folder.**
4. **Use a text editor to create a batch file (for example, NTLOGIN.BAT) containing the following line:**

```
\\primary_domain_controller\shared_foldername\NROADSCR.EXE  
ip_address
```

where *primary_domain_controller* is the machine name of the Primary Domain Controller, *shared_foldername* is the name of the shared folder, and *ip_address* is the IP address of the Traffic Manager server. (It is recommended that this IP address be the private IP address of the Traffic Manager server.)

5. **Copy the batch file (in the example, NTRLOGIN.BAT) to the Repl\Import\Scripts directory, located in the WINNT\SYSTEM32 directory.**
6. **From the Administrative Tools (Common) program group, click User Manager for Domains.**
7. **Enter the user's full name, description, and password and click OK.**
8. **Double-click the user's Full Name field and click Profile to associate a user with the logon script.**
9. **Enter the batch file name (in the example, NTLOGIN.BAT) in the Logon script field and click OK.**

When the user logs in from the client to the Primary Domain Controller machine, the script executes on the client, and the user can be authenticated.

Setting Up the Logon Script for NDS Environments

To set up the logon script for NDS™ environments, complete the following steps:

1. **Create a directory to store the script on the NetWare® server.**
2. **Copy the NROADSCR.EXE script from the NDSNOV directory to the newly created directory (for example, C:\TMSCRIPT).**
3. **Run NetWare Administrator.**
4. **Right-click the organizational unit, organization, or user you want to associate with the logon script, then select Details.**
5. **Select Login and enter the following:**

```
#\\tree\volume.context\directory\NROADSCR.EXE ip_address
```

where *tree* is the NDS tree, *volume.context* is the volume and context, *directory* is the directory where the script is stored, and *ip_address* is the IP address of the Traffic Manager server. (It is recommended that this IP address be the private IP address of the Traffic Manager server.)

6. **Click OK.**

When a user logs in from the client on to the NetWare server, the script executes on the client, and the user can be authenticated.

Note If you want users to be able to log in from the Microsoft client, the procedure is identical to that described above; however, users must be assigned rights to execute the script.

2 **Installing Novell FireWALL for NT**

This chapter explains how to install Novell® FireWALL for NT on your Windows NT* 4.0 machine. It also explains how to set Windows* parameters, uninstall the product, install the administration utilities, and modify system parameters.

Note For planning and conceptual information about Novell FireWALL for NT, refer to *Novell FireWALL for NT Concepts*. For information about setting up Novell FireWALL for NT after installation, refer to *Novell FireWALL for NT Setup*.

This chapter contains the following sections:

- “Installing Novell FireWALL for NT and Traffic Manager Software” on page 9
- “Uninstalling Novell FireWALL for NT and Traffic Manager” on page 12
- “Installing the Novell FireWALL for NT and Traffic Manager Remote Administrators” on page 12
- “Modifying Windows NT Network System Configuration Parameters” on page 13

Installing Novell FireWALL for NT and Traffic Manager Software

Novell® FireWALL for NT includes the following software components:

- FireWALL for NT
- Traffic Manager

Note Novell recommends that you install both the Novell FireWALL for NT and Traffic Manager software on the same machine.

To install the products, complete the following steps:

1. **Right-click the Windows NT Network Neighborhood icon.**
2. **Click Properties > Services > Add.**
3. **From the Select Network Services screen, click Have Disk.**
4. **Insert the CD-ROM, select the path to the installation directory on the CD-ROM (for example, D:\), and click OK.**
5. **Verify that the Novell FireWALL for NT driver is selected in the Select OEM Option screen and click OK.**

A message displays, saying, "SETUP will now analyze your computer. This may take a few minutes after you click OK."

6. **At the Software License Agreement screen, read the agreement and click Yes to accept the terms.**
7. **At the Welcome screen, click Next to continue.**
8. **When prompted for a license, insert the product license disk. (For trial versions of the product only, browse the product CD-ROM and select the license directory for the desired bandwidth.)**
9. **Verify the path in which to install the product (the default is C:\Novell\NTFW\), browse to change the path if necessary, and click OK.**
10. **Select the database type.**

You can install the database in an NT environment, an NDS™ environment as an NDS object, or a Netscape* Lightweight Directory Access Protocol (LDAP) environment (running on the Netscape Directory server).

Note Novell LDAP is not supported at this time.

- To select the Windows NT environment, click NT Environment, specify the NT domain, and click Next.
The database is automatically written to the NT environment.
- To select the NDS environment, click NDS Environment; specify the NDS Tree, the NDS context within the tree, the NetWare®

administrator username, and the NetWare administrator password; and click Next.

- To select the LDAP environment, click LDAP; specify the LDAP scope, username, password, server IP address, and server port; and click Next.

11. Configure the network interfaces found on your computer.

11a. Designate each interface as either public (connected to untrusted or unknown networks) or private (connected to your trusted private network).

11b. For each interface you designate as public, enter the IP address for the gateway to the untrusted or unknown network. For each interface you designate as private, Novell recommends that you not enter a gateway address.

11c. To specify multiple IP addresses or gateways for an interface, click Advanced, enter the IP address or gateway address, and click Add > OK.

11d. When you have completed editing the IP information for all the interfaces, click Next.

12. To complete the installation, click Finish and reboot the server.

Note If you go to Control Panel > Network > Bindings > Show bindings for all services, you will notice that the Novell FireWALL for NT driver is apparently disabled. Do not change this. The firewall is functional at this point.

At this time, FireWALL for NT is launched and is set to operate in maximum security mode. This means the firewall operates in default deny stance and Internet users are unable to access your private network. To allow access to your private network you must enable Internet services. You can set up and administer Novell FireWALL for NT and Traffic Manager from the following utilities:

Note There is no remote FireWALL Administrator or remote Traffic Manager Administrator for NDS™ or Netscape* LDAP services. You must use the local (NT-based) FireWALL Administrator and Traffic Manager Administrator to administer NDS or LDAP.

- The native FireWALL Administrator on the server
- The native Traffic Manager Administrator on the server

Uninstalling Novell FireWALL for NT and Traffic Manager

You can uninstall Novell® FireWALL for NT and Traffic Manager through the Network control panel applet from Windows NT. To uninstall the software, complete the following steps:

1. **Right-click the Windows NT Network Neighborhood icon.**
2. **Click Properties > Services.**
3. **From the Network Service list, select the Novell FireWALL for NT driver and click Remove.**
4. **Exit all dialog boxes and windows and reboot the server.**

Installing the Novell FireWALL for NT and Traffic Manager Remote Administrators

The system requirements for installing the Novell® FireWALL for NT and Traffic Manager Remote Administrator agents are as follows:

- Pentium 150 MHz, 32-MB RAM, 100-MB free disk space
- Windows NT 4.0 software (workstation or server)
- One Ethernet NIC installed on the Windows NT 4.0 machine
- NT user account with administrative privilege on the NT server in which Novell FireWALL for NT and Traffic Manager have been installed and “Logon Locally” configured correctly on this machine
- Microsoft Remote Procedure Call Service installed on the Novell FireWALL for NT and Traffic Manager server machine as well as on the machine on which Remote Administrator agents are installed

To install the Remote Administrator agents, complete the following steps:

1. **Insert the CD-ROM in the CD-ROM drive of the workstation on which to install the Remote Administrator.**

2. **Open a DOS window and enter the following:**

D:\APPLICAT\REMOTE\SETUP

where D: is the drive letter for the CD-ROM drive.

3. **Follow the prompts to complete the installation.**

Modifying Windows NT Network System Configuration Parameters

Windows NT system configuration executables are called applets. Network-related system configuration parameters, such as IP addresses, DNS identifiers, subnet masks, and interface types are set by a Windows NT network control panel executable or applet. During installation, Novell® FireWALL for NT replaced the default network control panel applet with its own applet and set the network configuration parameters. If you need to modify the system configuration parameters after installation, use the Novell FireWALL for NT control panel applet.

To modify system configuration parameters, complete the following steps:

1. **Double-click My Computer > Control Panel > Novell FireWALL for NT Control.**
2. **Set the parameters and click OK.**

