Novell
BorderManager

3.9

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INSTALLATION GUIDE

Novell®

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Contents

About This Guide

Novell® BorderManager® 3.9 includes premier firewall and VPN technologies that safeguard your network and help you build a secure identity management solution. With the powerful directory-integrated features in Novell BorderManager, you can monitor users' Internet activities and control their remote access to corporate resources.

This documentation presents an introduction to installing and managing Novell BorderManager 3.9. The audience for this documentation is experienced network administrators.

It includes the following sections:

- Chapter 1, "Installation Requirements," on page 9
- Chapter 2, "Installing Novell BorderManager 3.9," on page 11
- Chapter 3, "Upgrading From Earlier Versions," on page 17

Feedback

We want to hear your comments and suggestions about this manual and the other documentation included with this product. Please use the User Comments feature at the bottom of each page of the online documentation, or go to www.novell.com/documentation/feedback.html and enter your comments there.

Documentation Updates

For the most recent version of the *Novell BorderManager 3.9 Installation Guide*, visit the Novell Documentation Site (http://www.novell.com/documentation/nbm39/index.html).

Additional Documentation

This Installation Guide is a part of documentation set for Novell BorderManager 3.9. The other documents include:

- *Novell BorderManager 3.9 Proxy and Firewall Overview and Planning Guide*
- *Novell BorderManager 3.9 Administration Guide*
- *Novell BorderManager 3.9 Virtual Private Network Client Installation Guide*
- *Novell BorderManager 3.9 Troubleshooting Guide*
- *Novell BorderManager 3.9 Virtual Private Network Deployment Frequently Asked Questions*

Documentation Conventions

In this documentation, a greater-than symbol (>) is used to separate actions within a step and items in a cross-reference path.

Also, a trademark symbol (®, ™, etc.) denotes a Novell trademark. An asterisk (*) denotes a third-party trademark.

When a single pathname can be written with a backslash for some platforms or a forward slash for other platforms, the pathname is presented with a backslash. Users of platforms that require a forward slash, such as Linux or UNIX, should use forward slashes as required by your software.

Installation Requirements

1

Novell® BorderManager® provides Internet access control and supports numerous content-filtering solutions. These features protect your network from undesirable Internet content, including programs that destroy or steal data, games that waste users' time, and Web pages that expose your company to legal liability.

Novell BorderManager includes firewall and VPN technologies that protect networks and resources, while ensuring end-user productivity. This section provides the system requirements and the preparations that you need to make before you install Novell Border Manager 3.9.

1.1 System Requirements

Novell BorderManager 3.9 can be installed on a NetWare or Open Enterprise Server (OES) server and is administered using Novell iManager 2.6.

NOTE: Using NetWare Administrator for configuring Novell BorderManager Proxy is not supported. The BorderManager Proxy is administered using iManager with this release.

1.1.1 Server Hardware

- Intel* Pentium* II or higher processor.
- Minimum of 1 GB of RAM above operating software requirements.
- Minimum of 300 MB of disk space, with an additional 40 MB available during installation (Novell BorderManager needs approximately 150 MB, and NMAS™ needs an additional 40 MB).
- CD drive that can read ISO 9660 formatted disks.
- Super VGA or higher resolution display adapter.
- One or more network interfaces.
- PS/2 or serial mouse.
- DOS partition with at least 250 MB.
- 4 GB sys: volume recommended.
- Minimum 2 GB of free drive space for the creation of a dedicated cache volume if you want to use Novell BorderManager 3.9 as a proxy server.

1.1.2 Server Software

The following prerequisites must be installed in this order:

- NetWare 6.5 SP 6 or later or OES SP 3 operating system.

- The installation server and all servers holding a copy of the partition where the Novell BorderManager 3.9 server object resides should have Novell eDirectory™ 8.7.3 or later. Novell BorderManager 3.9 must be installed on a NetWare server that holds an eDirectory read/write replica of the partition containing that server's object.
- NICI 2.6
- `Netnlm32.nlm` version 6.00.06 dated September 25, 2006

Special Requirements for VPN:

- TCP/IP secure version. Copy `bsdsock`, `tcp`, and `tcpip` files from:
  - `vpn\tcpd` directory of CD to the `System` folder of NetWare 6.5 SP 6:
  - `sys:\system\tcpip\tcpd` to the `system` folder for NW 6.5 SP 7 or later.

1.2 End User License Agreement

Before installing Novell BorderManager 3.9, you need to read the End User License Agreement (EULA). The EULA is in the relevant language directory at the root of the product directory > `\EULA.`

1.3 Documenting Your Environment

There are a number of items that you might need to note before installing Novell BorderManager 3.9.

- Location of license diskettes or path to the license file
- Public and private interfaces and their IP address bindings
- Domain name system host name
- IP addresses for up to three DNS name servers on the network
- Domain name for the Mail Proxy and whether you want to proxy an internal mail server or external mail server or both
- Server certificates if secure LDAP is to be used for schema extension
- Default gateway
- If you are installing VPN services, document the following:
  - Server certificate to be used for the VPN server
  - Trusted root certificate name
  - Trusted root object names

Installing Novell BorderManager 3.9

<div style="text-align: right; font-size: 3em;">2</div>

This section contains the following information:

2.1 Prerequisites
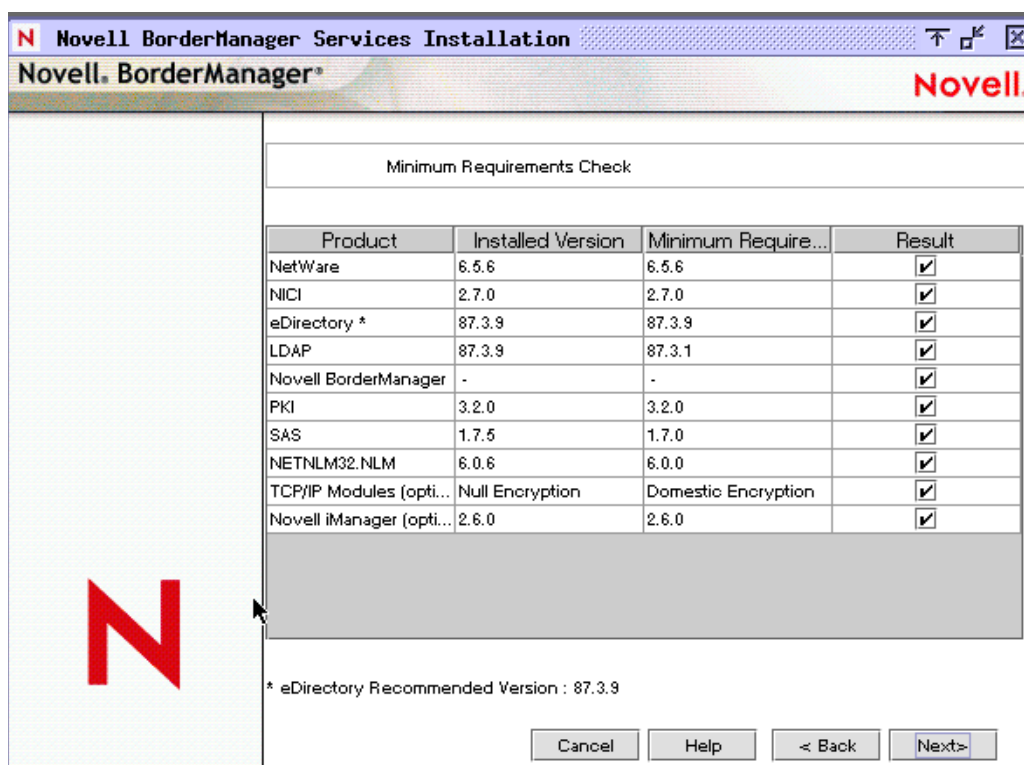
- If you are downloading the product from the Web, go to the Download Site (http://download.novell.com), download the zip file, then unzip it on a drive that is accessible from your server.

- Run INETCFG before you install Novell® BorderManager® 3.9.

2.2 Installation Procedure

To install Novell BorderManager 3.9 on the server:

1 Do one of the following:

- If you are downloading the product from the Web, unzip Novell BorderManager 3.9 on a drive that is accessible from your server.

- If you are using a product CD, mount the Novell BorderManager 3.9 CD on the server by entering CDROM at the server console.

2 On the server side, go to the X-Server Graphical Console. If the X-Server Graphical Console is not loaded, enter STARTX at the server console.

If STARTX is already loaded, press Ctrl+Esc and select the option for X-Server Graphical Console.

3 Click *Novell*, then select *Install* to display the list of currently installed products.

4 Click *Add*, then browse to the root of the Novell BorderManager 3.9 directory and select product.ni, which is displayed in the right frame. Click *OK*.

5 Click *OK*. The Welcome page is displayed.

6 Click *Next*. The License agreement page is displayed.

7 Read the license agreement. If you accept the terms of the agreement, click *I Accept*. The Novell Border Manager Services installation page is displayed.

8 Select the check boxes next to the services you want to install them.

9 Select *Trial License* or shipping license from the *Enter a License Location Path* drop-down list. Trial Licenses are selected by default. Trial and Shipping licenses are located in the *licenses* directory at the root of the CD.

10 Click *Next*. The Minimum Requirements page is displayed.

Product	Installed Version	Minimum Require...	Result
NetWare	6.5.6	6.5.6	✔
NICI	2.7.0	2.7.0	✔
eDirectory *	87.3.9	87.3.9	✔
LDAP	87.3.9	87.3.1	✔
Novell BorderManager	-	-	✔
PKI	3.2.0	3.2.0	✔
SAS	1.7.5	1.7.0	✔
NETNLM32.NLM	6.0.6	6.0.0	✔
TCP/IP Modules (opti...	Null Encryption	Domestic Encryption	✔
Novell iManager (opti...	2.6.0	2.6.0	✔

The Minimum Requirements page displays the installed version as well as the minimum requirement version of the software.

If any of the minimum requirements except TCP/IP modules or iManager 2.6 is not met, the installation stops. Meet the requirements according to the displayed table in the minimum requirements page and restart the installation.

If the base requirements for the TCP/IP modules are not met, a warning is displayed. You can ignore the warning and install, but you need to copy the right TCP/IP modules later if you want to use VPN services.

If iManager 2.6 is not installed, the plug-ins for Novell BorderManager Firewall Configuration, Novell BorderManager Proxy configuration, and Novell BorderManager VPN Configuration are not installed. If that is the case, install iManager 2.6 after Novell BorderManager installation to automatically install the Novell BorderManager Firewall Configuration and Novell BorderManager VPN Configuration plug-ins.

If the minimum system requirements are met, click *Next* to proceed.

11 On the NDS Authentication page, specify your credentials to log in.

User Name: Specify either your fully distinguished name (FDN) or provide only the name. You must have administrative rights to the root of the eDirectory tree. This requirement applies to any user who is a trustee with Supervisor rights at a container at the same level as the server. Administrative rights are required to extend the eDirectory schema, install product licenses, and configure Novell BorderManager 3.9 for the first time.

User Password: Specify your password.

Tree: Specify the name of the tree.

User Context: Specify the user context in the tree. You must specify this information if you have not entered your FDN in the *User Name* field.

12 Click *OK*.

13 If you are installing Novell BorderManager firewall/caching services or Novell BorderManager VPN services, review the list of network interfaces and their IP bindings.

For firewall and caching services, you must specify a public IP address to secure the network border. Public IP addresses specify server interfaces to a public network, typically the Internet. Private IP addresses specify server interfaces to a private network or intranet.

13a Select the *Public* or *Private* check box to specify a network interface as public, private, or both for proxy and firewall services.

13b Specify the default gateway in the *Default Gateway Field*.

13c By default, the *Install iManager Snap-ins for Firewall* check box is selected. Deselect the check box if you do not want to install the iManager plug-ins.

14 Click *Next*. The Novell BorderManager Services Installation page is displayed.

15 Select the check boxes for the services that you want to enable. Filter exceptions for these services are created on the public interface.
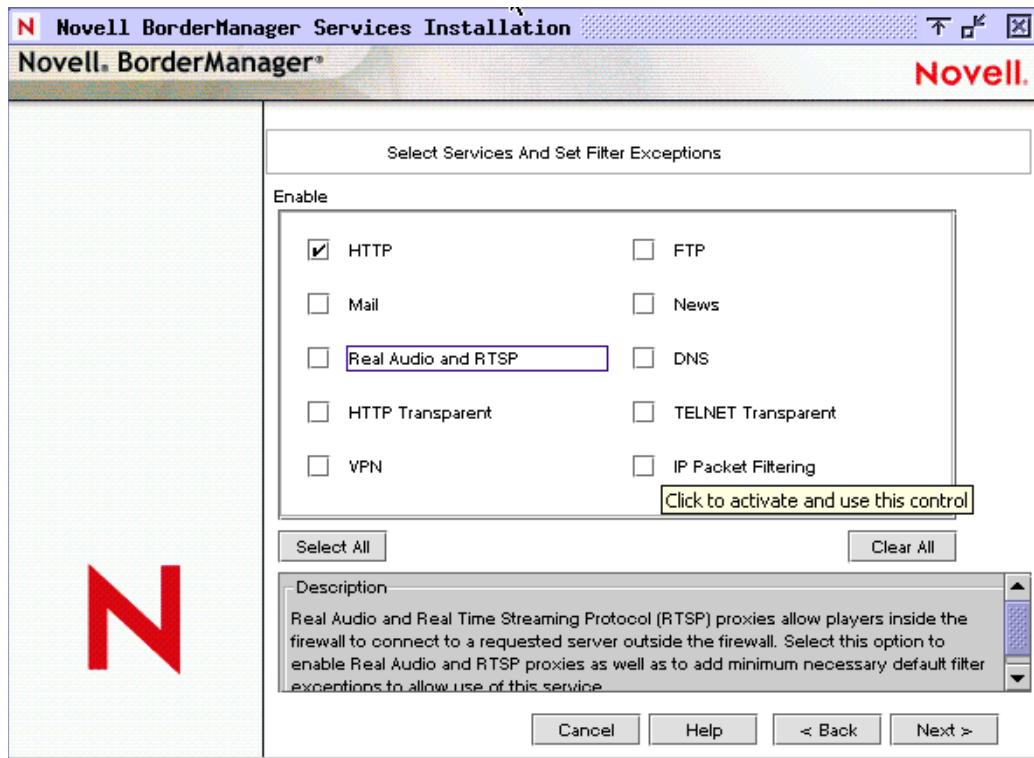
On a single interface machine, filter exceptions are created but the filters are not enabled. Filter exceptions corresponding to the selected services are created on the public interface. Filter exceptions are activated along with the filters if *IP Packet Filtering* is selected. IP packet filtering is not enabled if only one interface is available. If this is an upgrade, existing filters are preserved. *Deny All Filters* is not set on public interfaces.

16 Click *Next*.

17 (Optional) If you selected *Mail*, select either or both of the External/Internal check boxes in order to set appropriate filter exceptions, depending on whether you want to proxy internal mail servers, external mail servers, or both. Specify the name of one domain for the mail proxy.

18 (Optional) NetWare provides the facility to create cache volumes automatically. If HTTP, FTP, HTTP Transparent is selected in the Select Services and Filter Exception page, click *Create Volume* and provide the required details to create traditional volumes for caching. You can also use existing traditional volumes for caching.

NOTE: If you do not create a volume or select a traditional volume for caching, the `sys:\etc\proxy\cache` directory is used.

To create a new cache volume, see the *Novell BorderManager 3.9 Troubleshooting Guide*.

19 The *Access Control* check box is enabled by default. We recommend that you accept the default. Access control enforces additional security by denying all proxy services traffic.

Access control rules can be set using the iManager. Access rules are used to allow or deny access from any source or to any destination. This option comes up only if you selected *Proxy Services* on the previous page.

20 Click *Next* to continue.

21 Specify a unique DNS domain name for your network in the *DNS Domain Name* field, then click *Next*.

22 Click *Add*, then specify at least one or up to three DNS server IP addresses. By default, the existing DNS entry is used.

Use the *Up* and *Down* buttons to move the order of IP addresses, if you have added two or more IP addresses.

To delete a DNS server IP address, click *Delete*.

23 Click *Next* to continue.

24 By default the *Install iManager Plug-Ins for VPN* check box is selected. Deselect the box if you do not want the plug-ins to be installed.

Click *Next*.

25 Click *Finish* if you are done, or click *Back* to return to previous pages and modify your selections.

26 Do one of the following:

- Click *Reboot* for Novell BorderManager 3.9 services to come up.
- Click *Close* to complete the installation and return to the GUI screen.
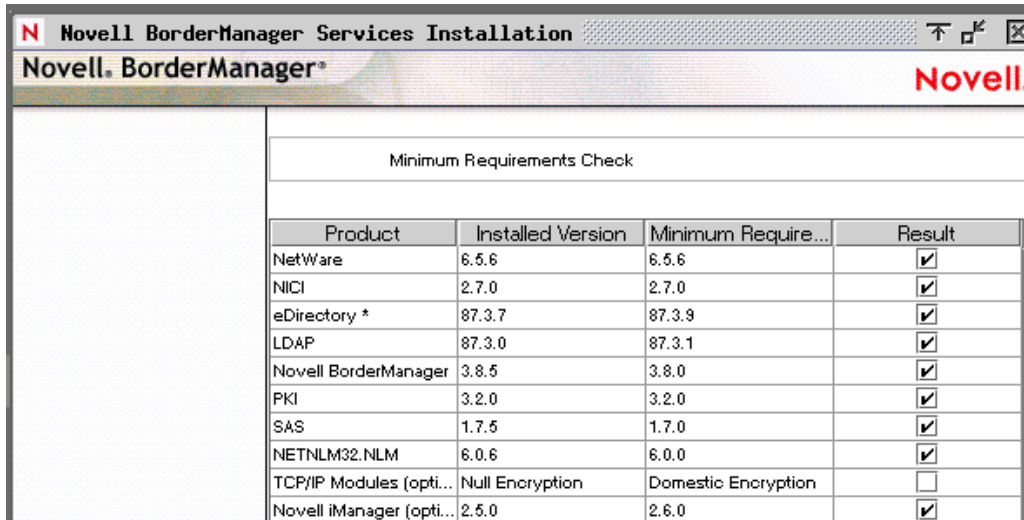- Click *Readme* to view the Readme.

The install summary is available in `sys:\ni\data\nbm_instlog.csv`. The Readme is available at the root of the CD under `Documents/ReadMes/enu`.

Upgrading From Earlier Versions

3

To upgrade from Novell BorderManager 3.8 to Novell Border Manager 3.9, do the following:

1 Do one of the following:

- If you are downloading the product from the Web, unzip Novell BorderManager 3.9 on a drive that is accessible from your server.

- If you are using a product CD, mount the Novell BorderManager 3.9 CD on the server by entering `CDROM` at the server console.

2 On the server side, go to the X-Server Graphical Console. If the X-Server Graphical Console is not loaded, enter `STARTX` at the server console.

If STARTX is already loaded, press Ctrl+Esc and select the option for X-Server Graphical Console.

3 Click *Novell*, then select *Install* to display the list of currently installed products.

4 Click *Add*, then browse to the root of the Novell BorderManager 3.9 directory and select `product.ni`, which is displayed in the right frame. Click *OK*.

5 Click *OK*. The Welcome page is displayed.

6 Click *Next*. The License agreement page is displayed.

7 Read the license agreement. If you accept the terms of the agreement, click *I Accept*. The Novell Border Manager Services installation page is displayed.

8 Select the check boxes next to the services you want to install them.

9 Select *Trial License* or shipping license from the *Enter a License Location Path* drop-down list. Trial Licenses are selected by default. Trial and Shipping licenses are located in the *licenses* directory at the root of the CD.

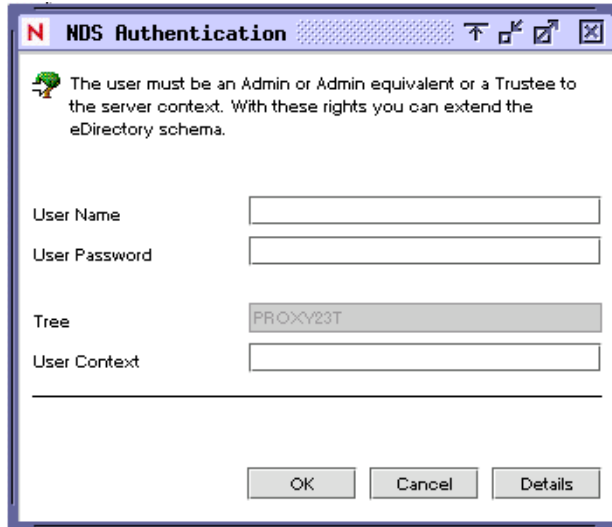**10** Click *Next*. The Minimum Requirements page is displayed.

Product	Installed Version	Minimum Require...	Result
NetWare	6.5.6	6.5.6	✔
NICI	2.7.0	2.7.0	✔
eDirectory *	87.3.7	87.3.9	✔
LDAP	87.3.0	87.3.1	✔
Novell BorderManager	3.8.5	3.8.0	✔
PKI	3.2.0	3.2.0	✔
SAS	1.7.5	1.7.0	✔
NETNLM32.NLM	6.0.6	6.0.0	✔
TCP/IP Modules (opti...	Null Encryption	Domestic Encryption	☐
Novell iManager (opti...	2.5.0	2.6.0	✔

The Minimum Requirements page displays the installed version as well as the minimum requirement version of the software.

Meet the requirements according to the displayed table in the minimum requirements page and restart the installation. Click *Next* to continue.

**11** On the NDS Authentication page, specify your credentials to log in.

User Name: Specify either your fully distinguished name (FDN) or provide only the name. You must have administrative rights to the root of the eDirectory tree. This requirement applies to any user who is a trustee with Supervisor rights at a container at the same level as the server. Administrative rights are required to extend the eDirectory schema, install product licenses, and configure Novell BorderManager 3.9 for the first time.

User Password: Specify your password.

Tree: Specify the name of the tree.

User Context: Specify the user context in the tree. You must specify this information if you have not entered your FDN in the *User Name* field.

12 Click *OK* to continue.

13 You are prompted with the following dialog box:
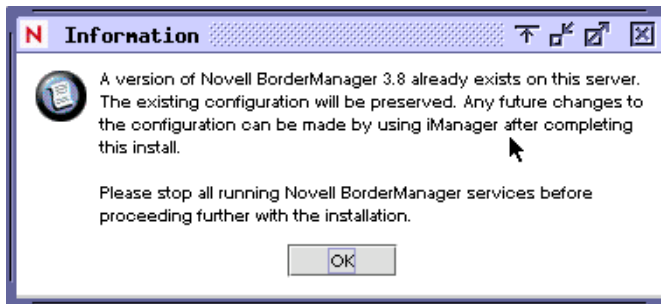
Click *OK* to proceed.

14 By default the *Install iManager plug-ins for VPN* check box is selected. Deselect the box if you do not want the plug-ins to be installed.

Click *Next*.

15 Click *Finish* if you are done, or click *Back* to return to previous pages and modify your selections.

16 Do one of the following:

  ◆ Click *Reboot* for Novell BorderManager 3.9 services to come up.

  ◆ Click *Close* to complete the installation and return to the GUI screen.

  ◆ Click *Readme* to view the Readme.

The install summary is available in `sys:\ni\data\nbm_instlog.csv`. The Readme is available at the root of the CD under `Documents/ReadMes/enu`.

NOTE: Novell BorderManager 3.9 provides the option to recover from a failed install. The Install program pops up an option after the authentication dialog box (Step 11 on page 13). To recover from a failed install, select the Fresh Install Option or select the Upgrade option. Continuing with the Fresh Install option with a working Novell BorderManager 3.9 server may give unexpected results, particularly with existing filter exceptions. After using this option, review your iManager configuration and filter exceptions.