Novell®

BorderManager™

Authentication Service

Installation and Setup

BorderManager™
Authentication Service

DIRECTORY-ENABLED RADIUS SOFTWARE

Novell®

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Contents

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About This Guide

Introduction

The purpose of this documentation is to briefly describe how to install the components of Novell® BorderManager™ Authentication Service, and how to perform basic setup and configuration. In addition, this documentation refers you to specific online documents for more information.

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

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chapter

1 *Installing Novell BorderManager Authentication Service*

Use the following checklist to help you install and configure Novell® BorderManager™ Authentication Service:

Checklist ✔

❏ Verify the system configuration

❏ Install the Support Pack 5 software on a NetWare® 4.11 server

❏ Install the BorderManager™ Authentication Service software

❏ Access the online documentation

Refer to *Novell BorderManager Authentication Service Planning* if you are not familiar with the RADIUS protocol or remote access configuration.

Verifying the System Configuration

Before you install Novell BorderManager Authentication Service, verify the system configuration for each component of the service:

◆ Remote Authentication Dial In User Service (RADIUS) server

◆ Network access server

◆ Administration workstation

RADIUS Server Requirements

The RADIUS server must meet the following requirements:

Checklist ✔

❏ One of the following network operating systems is installed and functioning:
  ◆ NetWare (version 4.11 or later)
  ◆ Windows NT* (version 4.0 or later)

❏ 1 MB of free disk space

❏ 1 MB of free memory

❏ TCP/IP configured and functioning

❏ Support Pack 5 for NetWare servers

❏ Novell client software installed and functioning on Windows NT servers

Network Access Server Requirements

The network access server must meet the following requirements:

Checklist ❏ RADIUS compliant (IETF RFC 2138 and RFC2139 for accounting support)

❏ TCP/IP configured and functioning

❏ RADIUS authentication enabled

❏ RADIUS server address set to either the NetWare 4.11 server or Windows NT server on which the RADIUS server software will be installed

❏ RADIUS secret established and known

The RADIUS secret should be a random string of 20 to 30 alphanumeric characters. The secret is used to protect authentication information sent across the network.

Administration Workstation Requirements

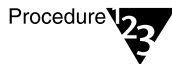The administration workstation must meet the following requirements:

Checklist ❏ Windows 95* or Windows NT 4.0 installed and functioning

❏ Novell client software for Windows 95 or for Windows NT installed and functioning

❏ NetWare Administrator utility installed and functioning

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❏   2 MB of free disk space

Installing Support Pack 5

You must install Support Pack 5 on your NetWare® 4.11 server before you can install Novell® BorderManager™ Authentication Service for the first time.

To install Support Pack 5 from a CD-ROM drive, complete the following steps:

Procedure

1. **From the administration workstation, log in as a user with administrator rights to the server on which BorderManager Authentication Service will be installed.**

2. **Verify that the SYS: volume of this server is mapped to a drive on the administration workstation.**

3. **Copy the SUPPACK5 directory and its contents from the CD-ROM to the mapped drive.**

4. **At the NetWare server console prompt, enter**

   `LOAD INSTALL`

5. **Select Product Options > Install A Product Not Installed.**

6. **Press** F3**.**

7. **Replace A:\ with SYS:\SUPPACK5 and press** Enter**.**

8. **Follow the online instructions to complete the installation.**

9. **After the installation is complete, press** Enter **to exit the installation and press** Esc **to return to the Installation Options menu.**

10. **Select NCF Files Options > Edit Startup.NCF.**

11. **If necessary, specify the correct path to the directory that contains the SERVER.EXE file, then press** Enter**.**

12. **Add the following SET commands to the STARTUP.NCF file:**

    `SET MINIMUM PACKET RECEIVE BUFFERS=500`

```
SET MAXIMUM PACKET RECEIVE BUFFERS=1000
```

13. Press F10 **to save the file and select Yes to confirm.**

14. **Exit the install utility.**

15. **Enter the following commands to restart the server:**

```
DOWN
```

```
RESTART SERVER
```

Installing Novell BorderManager Authentication Service

The Novell® BorderManager™ Authentication Service setup program performs the following:

◆   Copies the RADIUS server files to the designated NetWare® server or Windows NT server

◆   Copies the client files for use by NetWare Administrator to the administration workstation

◆   Updates the schema of the NDS™ tree with the new dial access object classes and attributes

To install the BorderManager™ Authentication Service software from a CD-ROM drive, complete the following steps:

Procedure
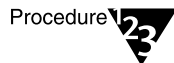
1. **From the administration workstation, log in as user with administrator rights to the server on which BorderManager Authentication Service will be installed.**

2. **Verify that the SYS: volume of this server is mapped to a drive on the administration workstation.**

3. **Change the current directory to \BMAS on the CD-ROM drive.**

4. **Run SETUP.EXE.**

5. **Click Next.**

6. **Read the license agreement and click Yes if you agree.**

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7. **Select Standard Setup or Custom Setup.**

   Standard Setup installs the administration and server files, as well as extends the NDS schema. This is the default and the recommended choice. If you selected Standard Setup, go to Step 9.

   Custom Setup allows you to select which components to install.

8. **If you selected Custom Setup, select the components you want to install. Click Next.**

9. **Insert the license diskette or select the directory path where the licenses are located.**

10. **Browse and select the NDS tree where BorderManager Authentication Service will be installed.**

11. **Select the destination directory for the administration files. This should be the same directory that contains the NetWare Administrator executable file (Windows 95 or Windows NT). Click Next.**

Note

The typical destination directory for Windows 95 is SYS:\PUBLIC\WIN95. The typical destination directory for Windows NT is SYS:\PUBLIC\WINNT.

12. **Accept the default program folder to add program icons or select from Existing Folders. Click Next.**

13. **Browse and select the NetWare server or Windows NT server on which you want to install the RADIUS server files. Click Next.**

Note

If you want to use a Windows NT server as an administration workstation, select Custom Setup to install the RADIUS server files to a NetWare server.

14. **If you selected a Windows NT server, accept the default destination to copy RADIUS server files or browse and select the destination directory.**

15. **Verify that the installation information is correct. If you want to make changes, click Back. If the installation information is correct, click Next.**

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16. **Click Finish and continue to Chapter 2, "Setting Up Novell BorderManager Authentication Service," on page 9 to create a Dial Access System object.**
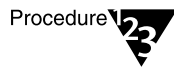
Accessing the Online Documentation

After you have installed the Novell® BorderManager™ Authentication Service software, you can either view the online documentation from the CD-ROM or install the online documentation to a selected directory.

Viewing the Online Documentation from CD-ROM

If you already have Netscape* Navigator* (version 4.0 or later) installed on your computer, you can view the BorderManager Authentication Service online documentation from the CD-ROM.

To view the online documentation from the CD-ROM, complete the following steps:

Procedure

1. **Change the current directory to \NOVDOCS.**

2. **Run VIEWDOC.EXE.**

Installing the Online Documentation from CD-ROM

You can install the online documentation to a selected directory. If you do not have Netscape Navigator (version 4.0 or later) installed on your computer, you can install the Web browser software with the Adobe* Acrobat* and Novell Knowledge Server utilities.

To install the BorderManager Authentication Service online documentation and Web browser software from the CD-ROM, complete the following steps:

Procedure
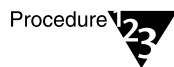
1. **Change the current directory to \NOVDOCS.**

2. **Run RUNME.EXE.**

3. **Click Install Documentation.**

4. **Read the Welcome message. Click Next.**

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5.   **Browse and select a destination folder or accept the default and click Next.**

6.   **Select the language to be installed. Click Next.**

7.   **Review the choices you made for the destination folder and installed language. To change the choices, click Back. To accept the choices, click Next.**

8.   **Click OK to install the Novell Knowledge Server utility.**

9.   **Read the Welcome message. Click Next.**

10. **Click Yes to install the Netscape browser software if it is not already installed on your computer. Follow the prompts to install the software. If the Netscape browser software is already installed, click OK to add a bookmark for Novell documentation.**
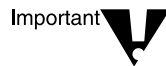
Important   Do not automatically restart your computer when prompted during the installation of the Netscape browser software. You will be prompted to manually restart your computer at the end of the Novell documentation installation.

11. **Click Yes to install the Adobe Acrobat utility software if it is not already installed on your computer. Follow the prompts to install the software.**

12. **Click Next to install the Novell Knowledge Server utility software.**

13. **Browse and select the location of your Web browser software. Click Next.**
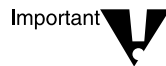
Important   Netscape browser software (version 4.0 or later) is required to search and print the BorderManager Authentication Service documentation.

14. **Review the choices you made for the BorderManager Authentication Service documentation. To change the choices, click Back. To accept the choices, click Next.**

15. **Click Finish to exit the installation program.**

16. **Restart your computer to complete the installation.**

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chapter **2** *Setting Up Novell BorderManager Authentication Service*

After you have installed the Novell® BorderManager™ Authentication Service software and licenses, use the following checklist to configure your NDS™ tree for dial access services:

Checklist

❏ Create a Dial Access System object in your NDS tree

❏ Create a Dial Access Profile object in your NDS tree

❏ Set up a user for dial access services

❏ Start the BorderManager™ Authentication Service server

❏ Test your BorderManager Authentication Service configuration

Refer to *Novell BorderManager Authentication Service Planning* if you want information about planning your BorderManager Authentication Service implementation.

Creating a Dial Access System Object

The install utility installs the RADIUS server software on a NetWare® or Windows NT server in an NDS™ tree. The Dial Access System object stores configuration information for RADIUS servers and can manage a common configuration for a collection of RADIUS servers working together. You must create at least one Dial Access System object in the NDS tree where your RADIUS server resides. All participating RADIUS servers use the Dial Access System object for configuration. The information stored in the object includes the following:

◆ Client configuration—Allows you to define IP addresses for the network access servers and the shared secrets used among the RADIUS servers, network access servers, and proxy RADIUS servers from which requests will be received.

◆ Proxy targets—Allow you to configure other RADIUS servers to which you want to forward RADIUS requests.

◆ Password policy—Allows you to define a password policy for the Dial Access System.

◆ Lookup context—Defines the search path for objects.

Note ▼ Typically, only one Dial Access System object is accessed by all users.

To create a Dial Access System object, complete the following steps:

Procedure ▼ **1. From the administration workstation, run NetWare® Administrator.**

2. Select the Organization or Organizational Unit object where you want to place the Dial Access System object.

3. Select Create from the Object menu.

The New Object dialog box appears.

4. Select Dial Access System. Click OK.

5. Enter the name for the Dial Access System object. Click Create.

6. Double-click the Dial Access System object you just created.

The Dial Access System dialog box appears.

7. Select Clients.

8. Select Add.

The Configure Client dialog box appears.

8a. Enter the IP address of the network access server in the Client Address field.

8b. Select Client Type (default: Generic RADIUS).

8c. Enter the RADIUS secret. Reenter the secret.

The RADIUS secret should be a random string of 20 to 30 alphanumeric characters. The secret is used to protect authentication information sent across the network.

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8d. Check Add Another Client if you want to add another network access server after you created this one. Leave this check box unchecked if this is the last (or only) RADIUS client that you will create.

8e. Click OK.

9. **Select Password Policy.**

10. **Select a password policy from the list.**

11. **Select Lookup Context if you want to use a common name login.**

   11a. Select Add.

   11b. Browse and select the name context.

   11c. To add another search context, check Add Another Context.

   11d. Click OK.

12. **Select Miscellaneous.**

13. **Select Change Dial Access System Password.**

   The Change Dial Access System Password dialog box appears.

   13a. Enter the new password.

   The Dial Access System password is used to generate encryption keys that protect passwords and secrets. Therefore, we recommend that the Dial Access System password be a random string of 20 to 30 alphanumeric characters. The password is required to start the service.

   13b. Reenter the new password and click OK.

14. **Click OK from the Change Dial Access System dialog box.**

15. **Click OK from the Dial Access System dialog box.**

You are now ready to create a Dial Access Profile object.

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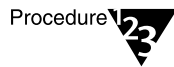
Creating a Dial Access Profile Object

Each Dial Access Profile object defines common attributes of a service used by one or more dial-in users. This simplifies administration by eliminating the need to configure the attributes of each user. You can define as many profiles as required to define different services. For example, you can create a Telnet profile that enables users to connect a terminal server to a host. You can also create a Telnet profile that enables users to connect to a host using a terminal or a terminal emulation program.

The Dial Access Profile object contains a list of RADIUS attributes that specify the configuration for creating a specific service.

Creating a Dial Access Profile Object for PPP Service

To create a Dial Access Profile object for PPP Service, complete the following steps:

Procedure

1. **From the administration workstation, run NetWare® Administrator.**

2. **Select or create the Organizational Unit where you want to place the Dial Access Profile object.**

3. **Select Create from the Object menu.**

   The New Object dialog box appears.

4. **Select Dial Access Profile. Click OK.**

5. **Enter a name for the Dial Access Profile object (such as "PPP"). Click Create.**

6. **Double-click the Dial Access Profile object you just created.**

   The Dial Access Profile dialog box appears.

7. **Select Attributes. Click Add.**

   The Add Attribute dialog box appears.

   7a. Double-click Generic.

   7b. Select Service-Type from the Attribute list and select Framed in the Value field.

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7c. **Select Framed-Protocol from the Attribute list and select PPP in the Value field.**

8. **Select the appropriate attributes from the list. Click OK.**

9. **Uncheck Add Another Attribute when you have finished adding attributes. Click OK from the Edit Attribute dialog box.**

10. **Click OK from the Dial Access Profile dialog box.**

You are now ready to enable users for dial access services.

Creating a Dial Access Profile Object for Telnet Service

To create a Dial Access Profile object for Telnet Service, complete the following steps:

Procedure

1. **From the administration workstation, run NetWare® Administrator.**

2. **Select or create the Organizational Unit where you want to place the Dial Access Profile object.**

3. **Select Create from the Object menu.**

   The New Object dialog box appears.

4. **Select Dial Access Profile. Click OK.**

5. **Enter a name for the Dial Access Profile object (such as "Telnet"). Click Create.**

6. **Double-click the Dial Access Profile object you just created.**

   The Dial Access Profile dialog box appears.

7. **Select Attributes. Click Add.**

   The Add Attribute dialog box appears.

   7a. **Double-click Generic.**

   7b. **Select Service-Type from the Attribute list and Select Login in the Value field.**

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    7c.   Select Login-Service from the Attribute list and select Telnet in the Value field.

    7d.   Select Login-IP-Host from the Attribute list and enter the host IP address in the Value field.

  8. Uncheck Add Another Attribute when you have finished adding attributes. Click OK from the Edit Attribute dialog box.

  9. Click OK from the Dial Access Profile dialog box.

You are now ready to enable users for dial access services.

Enabling a User for Dial Access Services

Dial access properties are added to the User object when the Novell® BorderManager™ Authentication Service software is installed. The User Dial Access Services property page allows you to

◆ Enable a user for dial access services

◆ Select the appropriate Dial Access System for the user

◆ Set the dial access password for the user (if you use separate passwords for dial-in users)

◆ Configure or define dial-in services for the user

◆ Select a default service if a user is configured for more than one dial access service

In addition, the Organization and Organizational Unit Dial Access Services property pages provide you a way to define default dial access properties for all users in the selected container.

Note   You can specify dial access properties that are unique to a User object on a per-property basis. This means that a User object dial access setting can override the dial access setting of the parent container object, but other settings that are not overridden in the User object will always be inherited from the parent container object.

To enable a user for dial access services, complete the following steps:

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Procedure

1. **From the administration workstation, run NetWare®
   Administrator.**

2. **Select the User object that you want to enable for dial access
   services.**

3. **Select Dial Access Services.**

   The Dial Access Services page appears.

4. **Select one of the following Dial Access Control settings:**

   ◆ **Disable** disables dial access services for this user.

   ◆ **Enable** enables dial access services for this user.

   ◆ **Use Container Setting** specifies that the Dial Access Control
     setting will be inherited from the parent container object.

Note

You can still specify dial access properties that are unique to a User object
on a per-property basis when Use Container Setting is selected. Settings
that are not overridden are always inherited from the parent container
object.

5. **Browse the NDS™ tree and select a Dial Access System
   object.**

   In most situations, all users select the same Dial Access System object.

6. **If the password policy is set to Use Separate Dial Access
   Passwords, complete the following substeps:**

6a. **Click Set Dial Access Password.**

6b. **Enter the password. Reenter the password and click OK.**

   The Set Dial Access Password button might be disabled for one of
   the following reasons:

   ◆ Use NDS Password is selected in the Dial Access System
     object.

   ◆ No Dial Access System object is specified for the User object
     or the parent container.

   ◆ No password is set for the Dial Access System object.

7. **If desired, select additional configured services and the appropriate attributes. Click OK twice.**

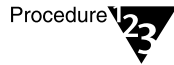You are now ready to start BorderManager™ Authentication Service.

Starting Novell BorderManager Authentication Service

You should have already performed the following tasks before you start Novell® BorderManager™ Authentication Service:

◆ Create a Dial Access System object in your NDS™ tree

◆ Create a Dial Access Profile object in your NDS tree

◆ Enable one or more User objects for dial access services

NetWare

To start the BorderManager™ Authentication Service program on a NetWare® server, complete the following steps:

Procedure 23

1. **Enter the following command at the server console for BorderManager Authentication Service:**

   `LOAD RADIUS`

   TCP/IP should already be configured and running.

2. **Enter the distinguished name of the Dial Access System object.**

3. **Enter the password of the Dial Access System object.**

   The following message should be displayed:

   `RADIUS services initialized successfully.`

You are now ready to use BorderManager™ Authentication Service.

Refer to "Testing Novell BorderManager Authentication Service" on page 18 if you want to test whether your BorderManager Authentication Service configuration is working properly.

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Windows NT

To start BorderManager Authentication Service as a service on a Windows NT server, complete the following steps:

Procedure

1. **Select Settings from the Start menu.**

2. **Select Control Panel.**

3. **Double-click Services.**

4. **Double-click BorderManager Authentication Service.**

   The Service dialog box appears.

5. **Browse and select Administrator in the This Account field under Log On As.**

6. **Enter the Administrator password. Reenter the password.**

7. **Click OK.**

8. **Select Programs from the Start menu.**

9. **Select the BorderManager Authentication Service program folder.**

10. **Select BorderManager Authentication Service SCM.**

11. **Select Start from the File menu.**

    The Start Service dialog box appears.

12. **Enter the name of the NDS tree that will be used to authenticate users in the NDS Tree field.**

13. **Enter the name of a user with administrator rights to authenticate to the selected NDS tree in the Login Name field.**

14. **Enter the password for the login name.**

15. **Enter the distinguished name of the Dial Access System object to be used for authentication in the Dial Access System field.**

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16. Click OK.

You are now ready to use BorderManager Authentication Service.

Refer to "Testing Novell BorderManager Authentication Service" on page 18 if you want to test whether your BorderManager Authentication Service configuration is working properly.

Testing Novell BorderManager Authentication Service

To determine whether your Novell® BorderManager™ Authentication Service configuration is working properly, complete the following steps:

Procedure
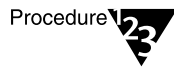
1. From the administration workstation, run NetWare® Administrator.

2. Check that you have a valid Dial Access System object.

3. Create a new Dial Access Profile object.

4. Enter PPP for the Dial Access Profile name. Click OK.

5. Select the newly created PPP Dial Access Profile object.

6. Select Attributes and click Add.

7. In the Attribute field, select Service-Type from the list.

8. In the Value field, select Framed.

9. Uncheck Add Another Attribute. Click OK twice.

10. Select the User object that you want to enable for PPP access.

11. Select Dial Access Services.

12. Select the Dial Access System object that you already created.

13. Under Configured Services, select Add.

14. Select the PPP Dial Access Profile object that you already created and click OK twice.

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15. **From a dial-in client configured to use PPP, connect to the network access server.**

16. **When prompted for a username, enter the distinguished name of the newly enabled User object, for example, .eric.acme.**

17. **Enter the password for the user.**

18. **Check the dial-in client to see whether it has access to the network.**

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