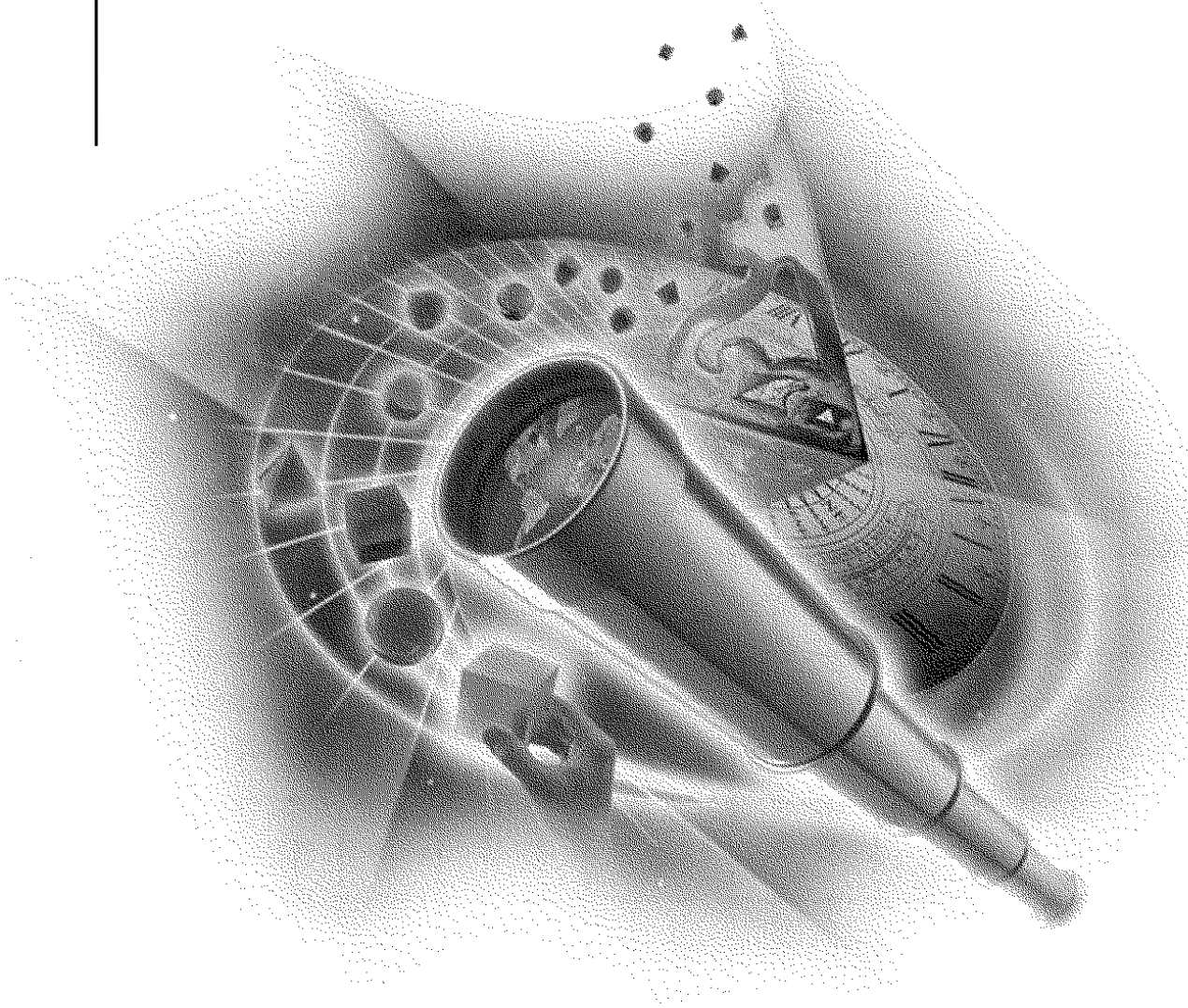


VERSION 2.0

Synchronicity
for NetWare 3
Administrator Guide



Synchronicity[™]
NETWORK DIRECTORY INTEGRATION SOFTWARE

Novell[®]

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**Synchronicity for NetWare 3 Administrator Guide
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Overview

This section contains the following information:

- “Product Overview” on page v
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- “Additional Documentation Resources” on page viii

Product Overview

Synchronicity™ is a solution that automatically synchronizes account and password information for multi-vendor networks. Synchronicity for NetWare 3 provides unprecedented integration of NetWare™ 4.1 and later with Novell® Directory Services™ (NDS™) and NetWare 3, allowing administrators to save time managing users and groups across both network environments. This integration includes remote management of NetWare 3 servers through NetWare Administrator and the automatic synchronization of NDS information including users and groups with linked accounts on NetWare 3 servers. This document provides information on the configuration and use of Synchronicity for NetWare 3.

Synchronicity for NetWare 3 offers three capabilities that ease network management and lower the cost of ownership. Synchronicity for NetWare 3 allows for

- Remote management of user and groups,
- Remote management and configuration of NetWare 3 servers, and
- Automatic synchronization of information on accounts that exist on NetWare 4 and on NetWare 3.

All remote management functions and configuration administration are supported through Novell's single administrator tool, NetWare Administrator.

Remote management of the NetWare 3 servers and their accounts does not require any use of NetWare Loadable Modules (NLMs). Remote management makes direct calls to the NetWare 3 server, ensuring rapid and accurate information as well as removing complications involved with scalability (hundreds of servers or more).

The synchronization of information is performed with NLMs. The NVGES.NLM is loaded on NetWare 4 servers to capture pertinent changes made to NDS. NVGES.NLM supports externalization of NDS events and thus needs to run with NDS, which is on NetWare 4 servers.

NVSYNNW3.NLM and NVGESAPI.NLM run on specific NetWare 4 servers and act as the management agent for any number of NetWare 3 servers. These NLMs only need to run on NetWare 4 servers that specifically manage NetWare 3 servers in their Managed NetWare 3 Servers list. These NLMs need to be manually loaded on the NetWare 4 servers that will act as managers. The Synchronicity Install automatically copies the NLMs to NetWare 4 servers and can load NVSYNNW3 on the NetWare 4 console.

These NLMs are notified of specific changes to NDS as specified by the synchronization configuration of each NetWare 3 server. No polling or repeated reading of NDS is performed for the user, group, or server configuration changes, so there is no impact on server or network load. Changes made to NDS such as object creations, deletions, and modifications will cause events to be dispatched to the synchronization agent (NVSYNNW3.NLM) that replicates the information to appropriate NetWare 3 servers. This model ensures high scalability and high response time but requires no client software. Any tool executed on any platform that changes NDS will be detected by Synchronicity. The NetWare Administrator snapins simply assist with configuration and remote management.

Product Components

The following components are supplied with Synchronicity for NetWare 3:

Component	Description
GES™ Broker (NVGES.NLM)	A NetWare Loadable Module (NLM) for NetWare 4.1 and later, which provides event notification as changes are made to NDS.
Global Event Services API Library (NVGESAPI.NLM)	A NetWare Loadable Module (NLM) for NetWare 4.1 and later that allows other NLMs, such as the NVSYNNW3.NLM, access to Global Event Services functionality.
NetWare 3 Synchronization Agent for NetWare 4 (NVSYNNW3.NLM)	A NetWare Loadable Module (NLM) for NetWare 4.1 and later that synchronizes NDS changes reported by Global Event Services with one or more NetWare 3 servers. The agent is configured in the NetWare Administrator details pages for the NetWare 4 server executing the synchronization agent NLM.
NetWare Administrator Snapin Modules for Windows® 95™/98 and Windows NT®	These NetWare Administrator snapin modules provide capabilities for managing NetWare 3 accounts from NDS. In addition, these snapins also support management of the Global Event Services NLM. The 32-bit version of NetWare Administrator for Windows 95/98 and Windows NT is supported. Win32 is also supported.
Synchronicity Password Utilities for Windows 95/98 and Windows NT	These program files can be used by users and network administrators to change network passwords in a manner which supports synchronization with all products linked with Synchronicity products.

Additional Documentation Resources

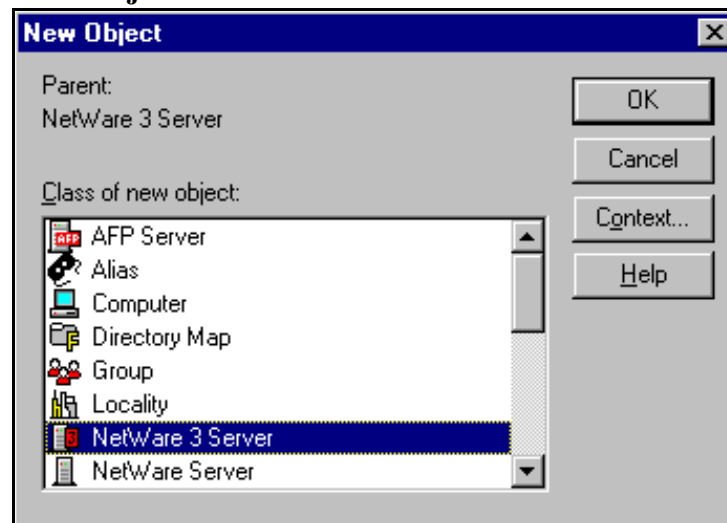
For additional information, see the following resources:

To learn more about	See
The installation process that is common to all Synchronicity products	<i>Synchronicity Overview and Installation Guide</i> . This document can be found in electronic form on the CD-ROM or on the NetVision web site, http://www.netvision.com .
The procedures to get started installing the Synchronicity products right away	<i>Quick Starts</i> . This document can be found in electronic form on the product CD-ROM or on the NetVision web site, http://www.netvision.com .
Details about using Synchronicity	Online help. Online help for the Synchronicity product is available within NetWare Administrator. To access Help, select Tools > Synchronicity Product > Help Topics on Synchronicity Product from the NetWare Administrator menu bar. You may also click Help within any dialog for context-sensitive help.
The configuration and operation of the Global Event Services Broker NLM	<i>Global Event Services Administrator Guide</i> . This document can be found in electronic form on the product CD-ROM or on the NetVision web site, http://www.netvision.com .
Vital program information such as changes to the program, files, or documentation	Readme files.

1 **Creating NetWare 3 Server Objects**

Each NetWare[®] 3 server to be managed using Synchronicity[™] for NetWare 3 must be represented in the NDS[™] tree. Synchronicity has extended the NDS schema and created a new object class named NetVis:NetWare 3 Server, or NetWare 3 Server for short. (See Figure 1-1.)

Figure 1-1
Creating NetWare 3 Server Objects



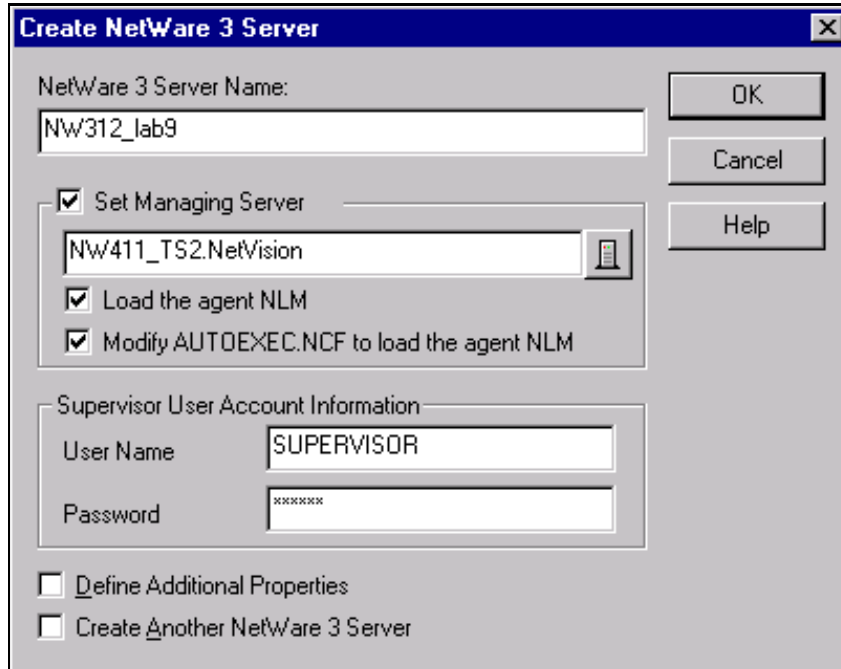
Each NetWare 3 Server object not only supports remote management of that server but also defines the synchronization configuration for the server. This allows each NetWare 3 server to have independent integration support suitable to the unique needs of the NetWare 3 server. The remote management capabilities replace the need for SYSCON.

Once a NetWare 3 Server object has been created in NDS, it can be added to the Managed NetWare 3 Servers list. This server list is part of each NetWare 4 server.

A NetWare 3 server can be placed in almost any container in NDS. It should be placed in a location that is consistent with the organizational structure of your tree. If it is a work group server it should be placed within the Organization or Organizational Unit that represents a department.

The NetWare 3 creation dialog prompts for the server name and supervisor account information. (See “NetWare 3 Server Creation Dialog” on page 2.) The server name is required to be the exact name of the NetWare 3 server. The SUPERVISOR account is not required for the Supervisor User Account Information (although if another account is specified then it needs to have SUPERVISOR privileges). This will allow the synchronization agent (NVSYNNW3.NLM) to process creations, deletions, and modifications as defined in the synchronization configuration.

Figure 1-2
NetWare 3 Server Creation Dialog



The supervisor account information is used by the synchronization agent for authentication to the NetWare 3 server. Access to this NetWare 3 Server object within NDS should be privileged because access to the object will also allow supervisory access to the NetWare 3 server.

For synchronization to occur, you must indicate which NetWare 4 server (which must be running NVSYNNW3.NLM) will manage the NetWare 3 server. Select the NetWare 4 server object in the NDS tree which will be the managing server for the NetWare 3 server object you are creating.

(You can also add NetWare 3 servers to the managing server in the Managed NetWare 3 Servers details page for the NetWare 4 server object.)

You can choose to load the Synchronicity for NetWare 3 agent NLM file after creating the object. Or you can manually load it later.

Additionally, you can modify the AUTOEXEC.NCF file so the agent NLM file automatically loads when the server reboots.

Checking Define Additional Properties is the same as creating the NetWare 3 Server object and then viewing its details. Once a NetWare 3 Server object is created, remote management and configuration of that server can be performed. It is through the details of the NetWare 3 Server object that the remote management of the server can be performed. See Chapter 2, “Managing the Synchronization Process,” on page 5 and Chapter 5, “Creating and Managing Native NetWare 3 Objects,” on page 25.

2 **Managing the Synchronization Process**

This chapter contains the following information:

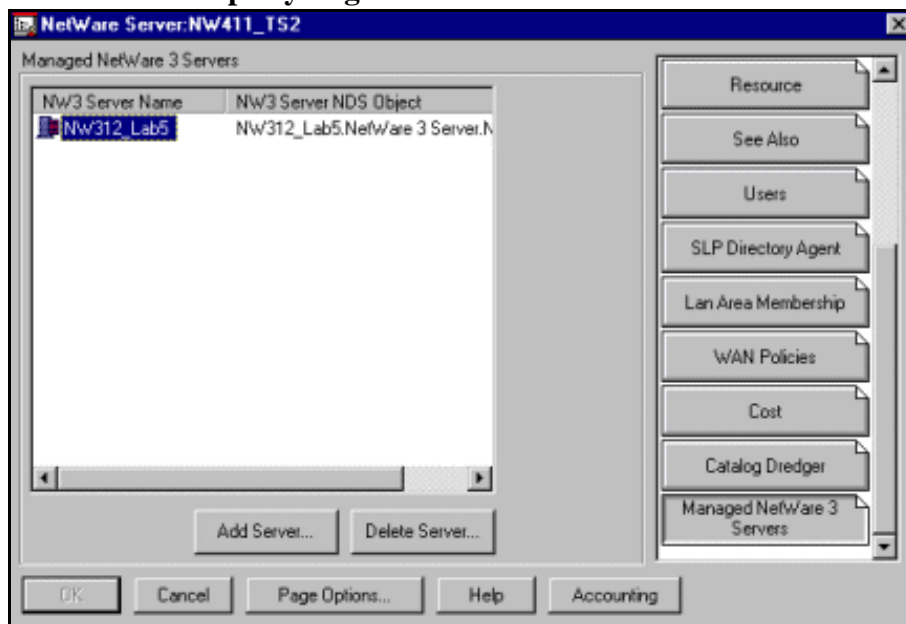
- “Specifying the NetWare 4 Server to Act as the Manager of a NetWare 3 Server” on page 6
- “User Synchronization Settings” on page 7
- “Group Synchronization Settings” on page 8
- “Initial Password Settings” on page 9
- “Synchronization Agent Settings” on page 11
- “Managing Resynchronization Actions” on page 12
 - “Types of Resynchronization Actions” on page 13
 - “Scheduling Options for Resynchronization Actions” on page 14
 - “Adding a Resynchronization Action” on page 15

By selecting the details for a NetWare 3 Server object in Novell's NetWare[®] Administrator, you can use property pages to control how the synchronization process will function in regard to the selected NetWare 3 server. If these detail screens do not appear properly or NetWare 3 Server objects appear with a question mark graphic (unknown object) instead of the graphic displayed in the various figures, the NetWare Administrator snapin modules supplied with Synchronicity[™] for NetWare 3 may not be properly installed. Detailed descriptions of each field in the property pages can be displayed by clicking the Help button or pressing F1.

Specifying the NetWare 4 Server to Act as the Manager of a NetWare 3 Server

Each NetWare 3 server that is synchronized needs to be managed by a NetWare 4 server. This NetWare 4 server runs the NVSYNNW3.NLM and dispatches the requests from NDS to any number of NetWare 3 servers. In addition to loading the NVSYNNW3.NLM on the server, the server needs to be told which NetWare 3 servers it will be managing. This is performed in the details of the NetWare 4 Server object in the tree. (You can also specify the Managing Server when creating each NetWare 3 server object.) See Figure 2-1.

Figure 2-1
Managed NetWare 3 Server Property Page



The Managed NetWare 3 Servers page allows you to add and delete managed NetWare 3 servers from the managing NetWare 4 server. There is no specified limit to the number of NetWare 3 servers a NetWare 4 server can manage. The limit is determined by the network load, NetWare 4 server workload, amount of synchronization traffic, and LAN or WAN considerations of the implementation.

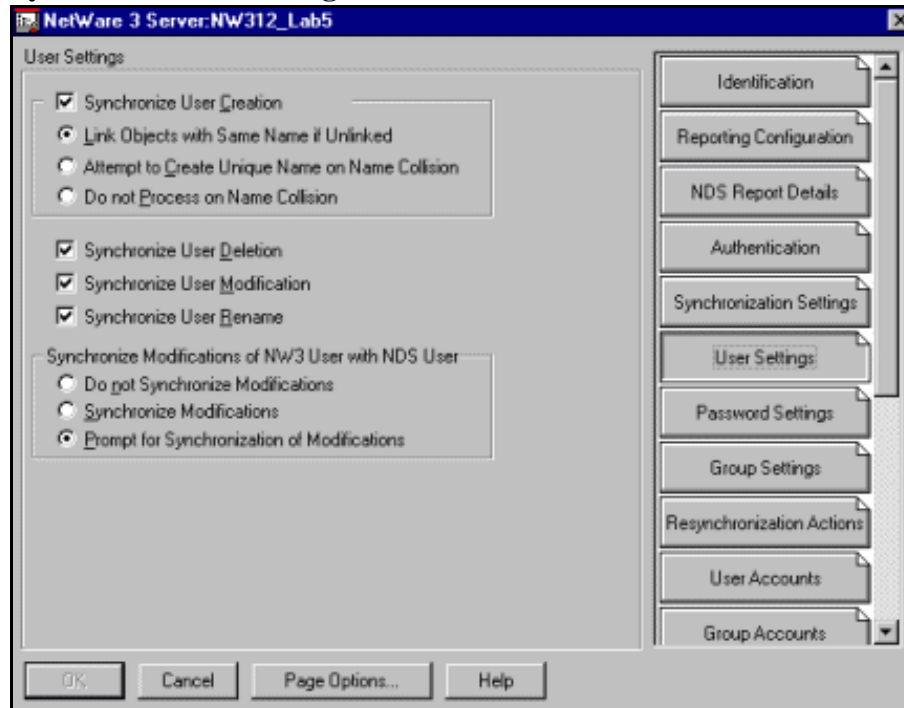
Upon installation, the NDS™ schema was modified to extend the definition of the NetWare 4 Server object to support the list of managed NetWare 3 servers. If the NVGES.NLM is not running on all NetWare 4 servers then, in addition to running on all the servers with replicas of the synchronized portion of the tree, the NVGES.NLM needs to run on all servers that contain replicas where the managed NetWare 4 Server object exists. This will ensure that changes to

the managed NetWare 3 servers list will be detected without having to reload NVSYNNW3.NLM.

User Synchronization Settings

The property page displayed in Figure 2-2 is used to control the manner in which NDS user accounts are synchronized with the selected NetWare 3 server.

Figure 2-2
Managing User Synchronization Settings

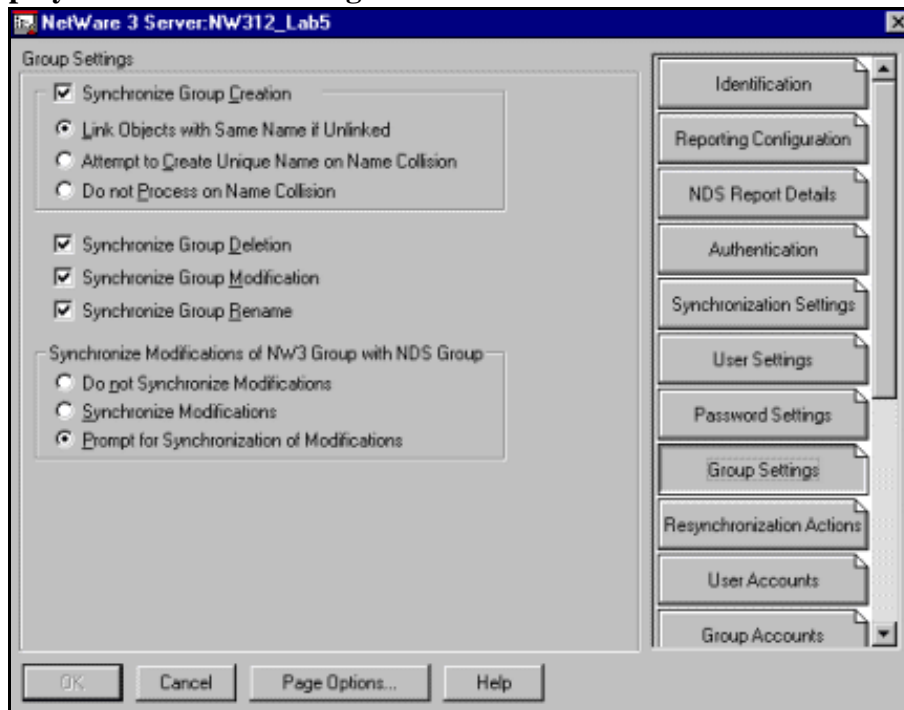


The Synchronize Modifications of NW3 User with NDS User options control how changes made to a NetWare 3 user that is linked to an NDS user affect the NDS user. For example, if the User Accounts page of this dialog is selected then all of the user accounts on the NetWare 3 server will be displayed. If a NetWare 3 user details page is selected, then remote management can be performed on that user. This management includes most of the capability of Novell's SYSCON utility. When changes are made to the NetWare 3 user account, the Synchronize Modifications of NW3 User with NDS User is checked to determine if the change should be made immediately on the synchronized NDS account. This can keep accounts synchronized in real-time even though changes were made directly on the NetWare 3 server through the Synchronicity for NetWare 3 snapin.

Group Synchronization Settings

The property page displayed in Figure 2-3 is used to control the manner in which NDS group accounts are synchronized with the selected NetWare 3 server.

Figure 2-3
Managing Group Synchronization Settings

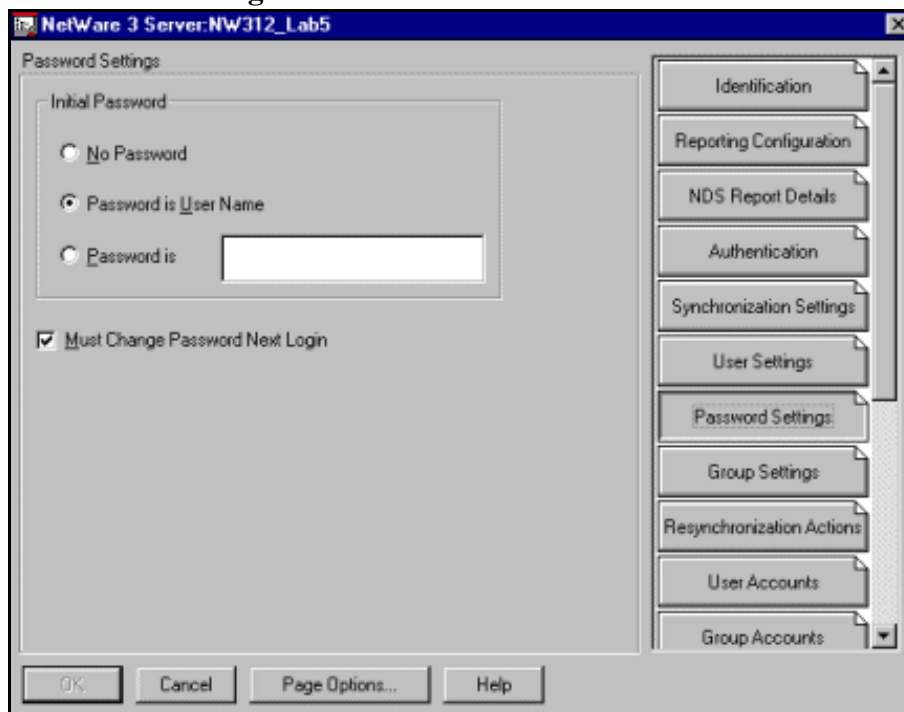


The radio buttons grouped with the label Synchronize Modifications of NW3 Group with NDS Group control how changes made to a NetWare 3 group that is linked to an NDS group affect the NDS group. For example, if the Group Accounts page of this dialog is selected then all of the group accounts on the NetWare 3 server will be displayed. If a NetWare 3 group details page is selected, then remote management can be performed on that group. This management includes most of the capability of Novell's SYSCON utility. When changes are made to the NetWare 3 group account the Synchronize Modifications of NW3 Group with NDS Group is checked to determine if the change should be made immediately on the synchronized NDS account. This can keep accounts synchronized in real-time even though changes were made directly on the NetWare 3 server through the Synchronicity for NetWare 3 snapin.

Initial Password Settings

The property page displayed in Figure 2-4 is used to control the manner in which the initial passwords are set when new user accounts are created in the selected NetWare 3 server.

Figure 2-4
Managing Initial Password Settings



The user creations can occur from an NDS user creation synchronizing to NetWare 3, from an integration of NDS users to NetWare 3 (available through the Tools > Synchronicity for NetWare 3 menu item), and through a resynchronization action from NDS to NetWare 3. The following table describes the three initial password options.

Initial Password Setting	Description
No Password	There will be no password. This must not conflict with the Default Account Restrictions settings of the NetWare 3 server.
Password is User Name	The password will be set to the username. This must not conflict with the Default Account Restrictions settings of the NetWare 3 server.

Initial Password Setting	Description
Password is _____	The password will be set to the value entered into this field. It will be used for all subsequent user creations. This must not conflict with the Default Account Restrictions settings of the NetWare 3 server.

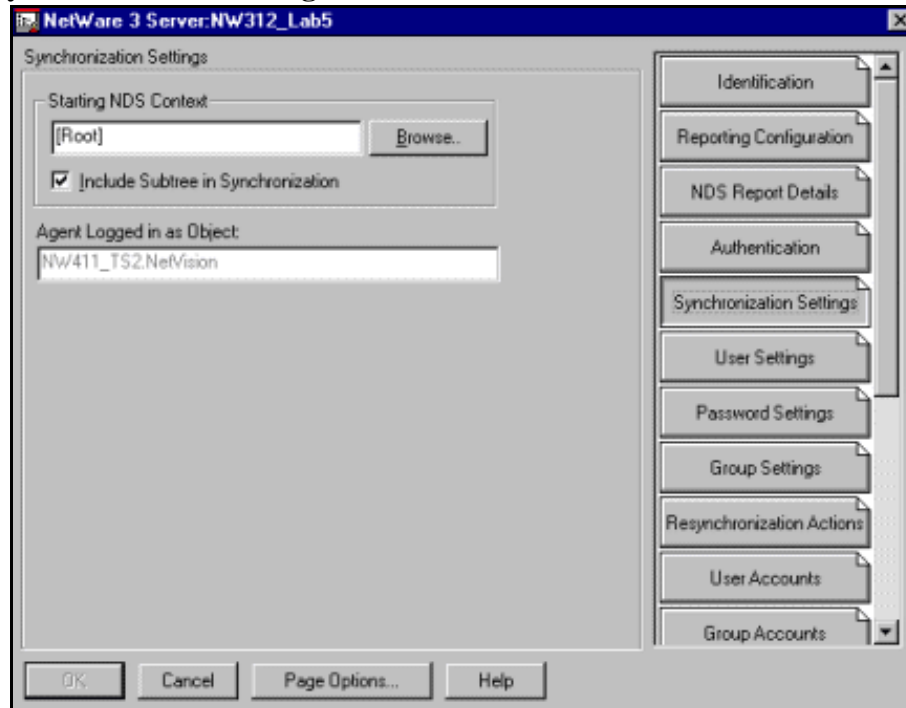
If User Must Change Password Next Login is checked then the user will be required to change his or her password the next time he or she logs in.

The initial passwords defined here must comply with the Default Account Restrictions set for each NetWare 3 server. Most important are the requirement of passwords and minimum password lengths. If the initial password is set to Password is User Name and a minimum password length is, for example five characters, a user Bob would not be created on the NetWare 3 server because his password would be "Bob" which conflicts with the native NetWare 3 Default Account Restrictions.

Synchronization Agent Settings

The property page displayed in Figure 2-5 is used to remotely configure the synchronization agent NLM™ that is synchronizing with the currently selected NetWare 3 Server object.

Figure 2-5
Managing the Synchronization Settings



The fields labeled Starting NDS Context and Include Subtree in Synchronization control the portion of the NDS tree that is being synchronized. Different NetWare 3 servers may be configured to synchronize with completely different portions of the NDS tree. This allows NetWare 3 servers to be hierarchically organized using NDS and independently configurable for their NDS integration.

The Browse button can be used to conveniently search the NDS tree and select an NDS context. The location of the NetWare 3 Server object and the selection of the Starting NDS Context are independent of each other.

When NVSYNNW3.NLM loads it logs into NDS as the NetWare server on which it is loaded. It does this for the following reasons:

- All information within NDS is considered confidential and thus must be obtained only through proper and secure NDS authority. Logging into

NDS with an account allows specific management of rights available for the account and selectable through NetWare Administrator by the administrator.

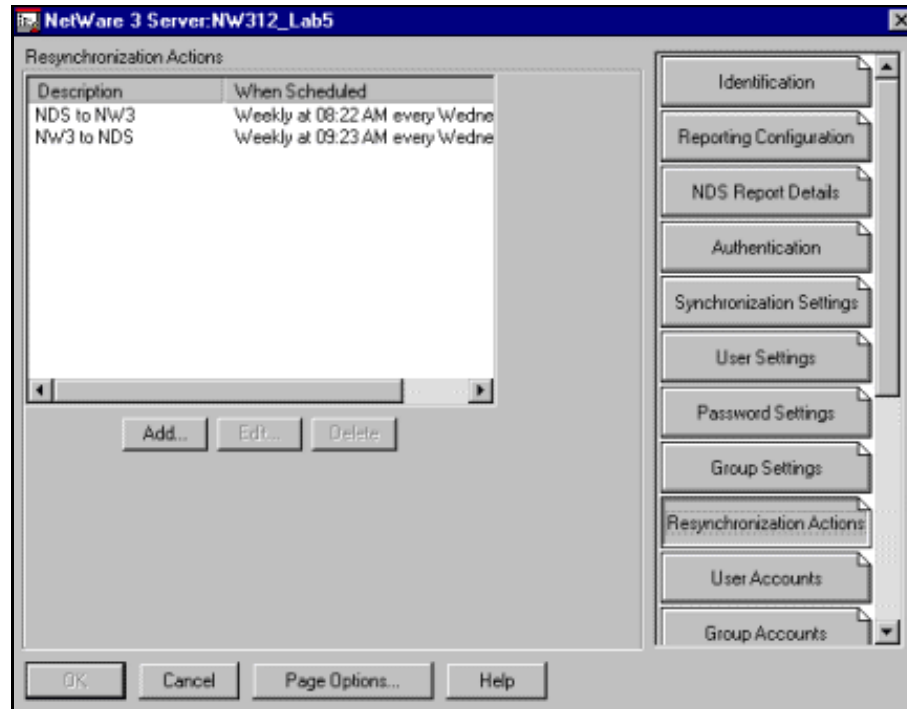
- The synchronization agent logs in as the server so that a separate NDS account does not have to be created and managed.
- Using a NetWare 4 server account reduces the risks of a perpetrator trying to hijack an existing connection or use a Novell login utility to gain access to the account.

The field labeled Agent Logged in as User identifies whether the currently selected NetWare 3 server is actively synchronizing with changes made to NDS. If this field is empty, no synchronization is active. If a synchronization is active, this field will contain the NetWare 4 server on which the synchronization agent has been loaded. This field may sometimes contain a value when no synchronization is active. This will only occur when the machine on which the synchronization agent was running has crashed or was powered down without first shutting down the software.

Managing Resynchronization Actions

Resynchronization actions allow schedulable actions to be performed to resynchronize the NDS and NetWare 3 account databases. Resynchronization actions are added, edited, and deleted by selecting the Resynchronization Actions property page in the details for a NetWare 3 Server object. See Figure 2-6. A resynchronization action is a schedulable task designed to allow automatic resynchronization in the case of server failures or administrative actions performed using unsupported administration tools, such as Novell's SYSCON.

Figure 2-6
Managing Resynchronization Actions



Types of Resynchronization Actions

The following table contains a list of the various types of resynchronization actions that can be scheduled.

Action Type	Description
NW3 to NDS Resynchronization	This type of action will synchronize NetWare 3 user and group accounts with the specified portion of the NDS tree.
NDS to NW3 Resynchronization	This type of action will synchronize users and groups in the specified portion of the NDS tree with the corresponding NetWare 3 server.

Action Type	Description
Link Integrity Check/Repair	This type of action will examine the links between NetWare 3 and NDS accounts. It can be used to report bad links or one-way links that occurred due to server failure or disabled synchronization. Bad links can cause objects to become out of sync. This action also has a repair capability that supports automatic link regeneration based on the specified rules.

Scheduling Options for Resynchronization Actions

The following table contains a list of the various methods that can be used to schedule a resynchronization action.

Action Type	Description
Once	An action scheduled with this option will execute at the specified date and time on the specified month, day and year. Once the action has completed, it will be automatically removed from the resynchronization action list.
Hourly	An action scheduled with this option will execute each hour at the specified number of minutes after the hour. This action type will remain in the action list but will be automatically rescheduled after each execution.
Daily	An action scheduled with this option will execute each specified day of the week at the specified hour and minute. By clicking the WHICH DAYS... button, a dialog is presented which allows specification of which days of the week the action will execute. This action type will remain in the action list but will be automatically rescheduled after each execution.

Action Type	Description
Weekly	An action scheduled with this option will execute each week at the specified time of day on the specified day of the week. This action type will remain in the action list but will be automatically rescheduled after each execution.
Monthly	An action scheduled with this option will execute at the specified time of day on the specified day of each month. This action type will remain in the action list but will be automatically rescheduled after each execution.
At Once	This type of action is scheduled as soon as possible. The action may not be performed immediately if another resynchronization action is already active, since only one action may be active at a time. Once the action has completed, it will be automatically removed from the resynchronization action list.

Adding a Resynchronization Action

The following steps describe the creation of a new resynchronization action.

- 1. Select the NetWare 3 Server where the resynchronization action will be processing.**
- 2. Select the Resynchronization Actions details page for the NetWare 3 Server. This details page lists all currently scheduled resynchronization actions.**
- 3. Click Add... to create a new action.**
- 4. Select the appropriate type of action and click Options... to select the detailed options for the resynchronization action type specified.**

5. **Click Schedule... to specify when the resynchronization action is to execute.**

The default is for the action to be scheduled for immediate execution.

6. **Specify a description for the action, if desired, and click OK to save the resynchronization action.**

The new action appears in the list.

3 **Creating and Managing Linked Objects**

This chapter contains information about the following:

- “Creating a Linked User Object” on page 17
- “Creating a Linked Group Object” on page 18
- “Managing a Linked User Object” on page 19
- “Managing a Linked Group Object” on page 21
- “NDS Group Object Links” on page 21
- “Deleting Linked User and Group Objects” on page 22

Once Synchronicity™ for NetWare® 3 is properly installed and configured, the creation of NDS™ user and group objects may also result in the creation of NetWare 3 representations for the objects. The current synchronization settings for each NetWare 3 server being synchronized by Synchronicity for NetWare 3 will determine if a representation of the newly created object will be created on a particular NetWare 3 server. The starting NDS context for the synchronization and whether create operations are to be synchronized are the main configuration options that will affect the process. Any method, not just NetWare Administrator with the supplied snapins, can be used to create, modify, and delete NDS objects which are to be linked.

Creating a Linked User Object

When creating a new NDS user account, the answers to the following questions will determine whether or not a corresponding NetWare 3 user account will be created in a specific NetWare 3 server.

- Is the NetWare 3 server in question being actively synchronized?
- Is the NetWare 3 Server object configured to synchronize user creations?

- Is the newly created NDS user account in an NDS container being synchronized?
- Does the user already exist in the NetWare 3 server's bindery? If so, is the synchronization agent configured to attempt to assign a unique name in the case of a name collision or to link the objects if neither is already linked?

Creating a Linked Group Object

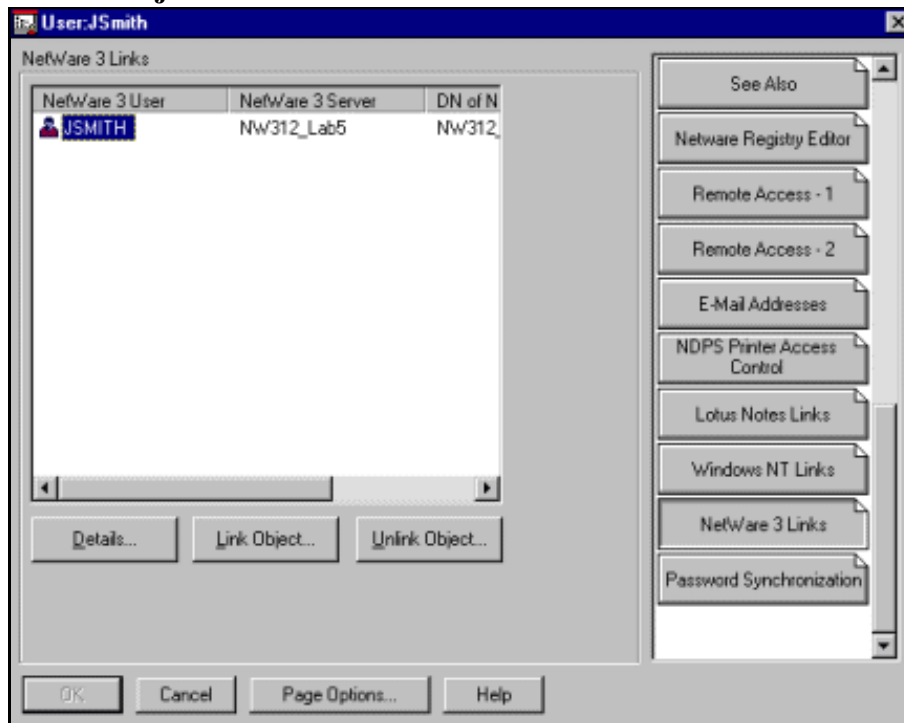
When creating a new NDS group account, the answers to the following questions will determine whether or not a corresponding NetWare 3 group account will be created in a specific NetWare 3 server.

- Is the NetWare 3 server in question being actively synchronized?
- Is the NetWare 3 Server object configured to synchronize group creations?
- Is the newly created NDS group account in an NDS container being synchronized?
- Does the group already exist in the NetWare 3 server's bindery, if so, is the synchronization agent configured to attempt to assign a unique name in the case of a name collision or to link the objects if neither is already linked?

Managing a Linked User Object

Figure 3-1 contains a view of the NetWare 3 Links property page that is added to the definition of the standard NDS User object.

Figure 3-1
Managing Linked User Objects



This property page provides a visual display of all NetWare 3 objects that are linked to the selected NDS objects. The links between NDS and NetWare 3 objects can be manually broken or created using the appropriate buttons in the property page. For NDS Group objects, an identically named property page is present.

Selecting the Details button invokes SYSCON-like management for the object. See “User Synchronization Settings” on page 7. The Link Object button allows the NDS object to be manually linked to an existing NetWare 3 object. An NDS account can have multiple links to NetWare 3 accounts. Unlink Object allows for the separation of NetWare 3 accounts from the NDS account, thereby removing all synchronization with the NDS object.

NDS User Object Links

The following items are property page names from Novell's NetWare Administrator. The pages identify which NDS attributes are synchronized with corresponding NetWare 3 attributes. Any pages that are not listed do not contain any attributes that are currently part of the synchronization process.

Identification Page

The Full Name and Description attributes are synchronized with the corresponding attributes which are displayed in SYSCON.

Login Restrictions

The Account Disabled and Account Expiration Date and Time attributes are synchronized with the corresponding attributes for a NetWare 3 User account. The Account Expiration Date And Time attribute specified in NDS will link to the end of the day specified for the corresponding NetWare 3 user account.

Password Restrictions

The Allow user to change password attribute is synchronized with the corresponding attribute which is displayed in SYSCON.

Login Time Restrictions

The Login Time Allowed Time Map attribute is synchronized with the corresponding attribute that is displayed in SYSCON.

Intruder Lockout

The Account Locked attribute is synchronized with the corresponding attribute that is displayed in SYSCON.

Group Membership

Group Memberships are synchronized to a specific NetWare 3 server if both the NDS User object and the NDS Group objects have representations on the NetWare 3 server in question.

Password Synchronization

This detail page provides a synchronized password change capability for the mapped NDS and NetWare 3 accounts. The Synchronize Passwords Via

Synchronicity button changes the password of the NDS account and all synchronized NetWare 3 accounts. If other Synchronicity products are active, then their linked account equivalents will also have their password changes synchronized.

NetWare 3 Links

This page is added by the product snapin and displays all NetWare 3 User objects that the NDS User object is currently being synchronized with.

Managing a Linked Group Object

The NetWare 3 Links property page, associated with an NDS Group object, provides a visual display of all NetWare 3 Group accounts that are linked to the selected NDS Group object. The links between NDS and NetWare 3 objects can be manually broken or created using the appropriate buttons in the property page. For NDS User objects, an identically named property page is present.

Selecting the Details button invokes SYSCON-like management for the object. See “Group Synchronization Settings” on page 8. The Link Object button allows the NDS object to be manually linked to an existing NetWare 3 object. An NDS account can have multiple links to NetWare 3 accounts. The Unlink Object allows for the separation of NetWare 3 accounts from the NDS account, thereby removing all synchronization with the NDS object.

NDS Group Object Links

The following items are property page names from Novell's NetWare Administrator and identify which NDS attributes are synchronized with corresponding NetWare 3 attributes. Any pages that are not listed do not contain any attributes that are currently being synchronized.

Identification Page

The description attribute is synchronized with the Description attribute that is displayed in SYSCON.

Members

Group members are synchronized to a specific NetWare 3 server if both the NDS User object and the NDS Group objects have representations on the NetWare 3 server in question.

NetWare 3 Links

This page is added by the product snapin and displays all NetWare 3 Group objects to which this NDS Group object is currently being synchronized.

Deleting Linked User and Group Objects

When NDS User and Group objects are deleted by any means, the linked NetWare 3 user and group accounts will also be deleted as long as the following conditions are met:

- The synchronization agent managing the NetWare 3 server is loaded.
- The NetWare 3 Server object has been configured to synchronize deletions for the type of object being deleted.

4 *Managing Passwords*

This chapter contains information about the following:

- “New User Password Initialization” on page 23
 - “User Password Utility” on page 24
 - “Administrator Password Utility” on page 24
 - “NetWare Administrator Synchronize Passwords Via Synchronicity” on page 24

Synchronicity™ for NetWare 3 supports a variety of mechanisms for supporting passwords on NetWare® 4 and NetWare 3. On User object creation within NDS™, the initial passwords are determined through the Password Settings page located in the details page of the NetWare 3 Server object. The synchronization of the same password on both NetWare platforms is supported by two password utilities and an NetWare Administrator snapin. Each is described below. Changing a user’s password through any other means is likely to cause inconsistent passwords.

New User Password Initialization

When a new User is created in NDS (or in NetWare 3 and then integrated or resynchronized to NDS), then the password for the new object is set according to the Password Settings details page found in the NetWare 3 Server object in NDS. The new account can have no password, can be set to the username, or a password can be specified.

Select User Must Change Password Next Logon to force the user to change the password the next time he or she logs in. Remember to change the password with the following utilities if this is selected.

User Password Utility

The User Password Utility is a simple utility designed for users. The utility only needs the current password and the new password. The trees and domains that the user is currently logged into will be displayed and selectable. Changing the password will change the passwords immediately on these systems as well as cause the password to synchronize to all accounts not logged in currently but which are being synchronized. The username is determined from the current authentication information of the client workstation.

This utility works on Windows[®] 95[™]/98, Windows NT Workstation 4.0, and Windows NT Server 4.0. It requires the Novell NetWare Client for the workstation.

Administrator Password Utility

The Administrator Password Utility is designed for the manager, help desk operator, or workgroup administrator. The NDS tree and users in any context to which that administrator has rights are selectable. Options for resetting intruder lockout and requiring an immediate password next login are also available. Administrator rights are not required for this utility. The operator needs object Browse rights to the portion of the tree and attribute Compare, Read, and Write rights for the NetVisn:Synchron Password attribute. Changing the password will change the passwords concurrently on the NDS accounts as well as cause the password to synchronize to all accounts that are being synchronized.

This utility works on Windows 95/98, Windows NT Workstation 4.0, and Windows NT Server 4.0. It requires the Novell NetWare Client for the workstation.

NetWare Administrator Synchronize Passwords Via Synchronicity

Synchronicity provides a button to synchronize the changing of a user's password across NetWare 4 and all synchronized NetWare 3 servers. The button is accessible through the details page of each user within NDS. The Synchronicity for NetWare 3 snapin adds the property page Password Synchronization. Click Synchronize Passwords via Synchronicity, then enter and confirm a password to change for NetWare 4 and NetWare 3 accounts to which this NDS account is linked.

5 **Creating and Managing Native NetWare 3 Objects**

This chapter contains information about the following:

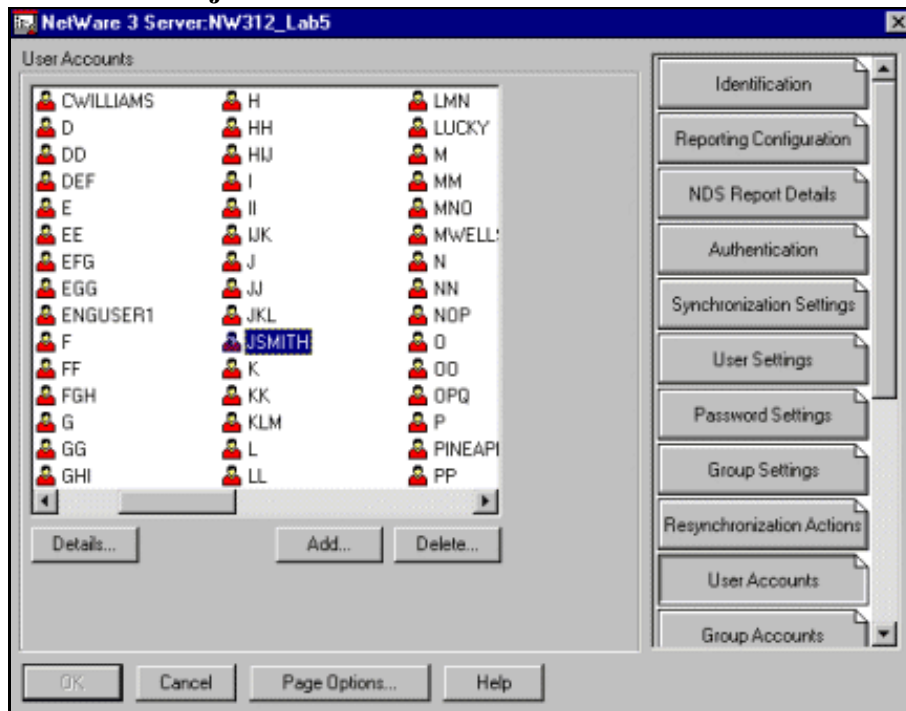
- “Creating Native NetWare 3 User and Group Objects” on page 25
- “Deleting Native NetWare 3 User and Group Objects” on page 26

Synchronicity™ for NetWare® 3 has the ability to create and manage native NetWare 3 User and Group accounts from NetWare Administrator. This provides a single point of administration for managing NDS™-only accounts, linked NDS and NetWare 3 accounts, and native NetWare 3 accounts.

Creating Native NetWare 3 User and Group Objects

Accounts can be created in individual NetWare 3 servers by clicking Add in the User Accounts or Group Accounts detail pages of a NetWare 3 Server object. See Figure 5-1.

Figure 5-1
Creating Native NetWare 3 Objects



These detail pages will display a list of all user and groups accounts on the NetWare 3 server, if there is an existing connection to the server or the username and password specified in the Authentication detail page can be used to create a connection.

Deleting Native NetWare 3 User and Group Objects

Accounts can be deleted from individual NetWare 3 servers by clicking Delete in the User Accounts or Group Accounts detail pages of a NetWare 3 Server object. These detail pages will display a list of all user and groups accounts on the NetWare 3 server, if there is an existing connection to the server or the username and password specified in the Authentication detail page can be used to create a connection.

6 *Integration of Existing Users*

The integration of existing users from NDS™ to NetWare® 3 and from NetWare 3 to NDS can be performed through resynchronization actions. See “Managing Resynchronization Actions” on page 12.

Integrate NDS and NetWare 3 Users and Groups

The integrations can also be performed through NetWare Administrator with the Synchronicity™ for NetWare 3 snapin under Tools > Synchronicity for NetWare 3. This allows existing users to be migrated and integrated to the other platform simultaneously. Multiple objects can be selected for mass migration/integration. This functionality is described in detail within the online help available from the snapin. This method is the easiest and most flexible means of integration.

