chapter 1

About the NetWare Migration Utility

Introduction

The *NetWare Migration Utility for v2.1x to v3.11* allows you to change your servers from v2.1*x* to v3.11 using two methods:

- Across-the-wire, where you migrate from a v2.1*x* server to a v3.11 server that is on the same network.
- Same-server, where you change your v2.1*x* server into a v3.11 server.

Across-the-Wire Migration

Across-the-wire migration allows you to preserve your user environment (users and their trustee assignments), as well as the default account balances and restrictions, accounting methods, and print queues and print servers. These entities are all contained in the *bindery.* A bindery is a database that contains definitions for entities such as users, groups, workgroups, file servers, print servers, etc. For more information on binderies, see "Bindery," in *NetWare v3.11 Concepts*.

Data files are migrated across the network to the destination server, while the selected bindery information is migrated to the working directory on the local hard drive, translated to the v3.11 bindery format, then migrated to the destination server.

When you use the across-the-wire method, you can choose either the Standard or the Custom migration option. The Standard option provides the easiest path for a simple migration: it migrates all information from the v2.1*x* server, across the network, to a v3.11 server.

The Custom option lets you select specific information from the bindery, as well as data files, so that you can migrate a server or several servers (one at a time) and create a customized destination server.

BETA

NetWare Migration Utility for v2.1x to v3.11
100-001328-001

31 August 1992

Same-Server Migration

The same-server migration allows you to use only one server, but there is some risk involved to the data because you have to remove it from the server and remove the 286 partition as well. Also, you may not be able to migrate the trustee assignments. When you use the same-server method, you can use only the Custom option because you cannot migrate data files. You must back up your data files, then restore them to the server after you install NetWare v3.11.

BETA

How Data Is Migrated Across the Wire

Migrating Files

Any file on a source server that has the same name as one that already exists on the destination server is not copied to the destination server. An error message appears on the screen during the migration, and is also written to the migration report, to let you know that a file by that name already exists on the destination server. NetWare 2.1*x* system files are not migrated.

The migration utility leaves the v2.1*x* server intact and only copies information to the v3.11 server. If a file is not copied because that filename already exists, you can rename that file and copy it to the destination server after the migration.

The system login script is not migrated. Examine each user login script after the migration and make corrections if the server name or path names have changed.

Migrating Directories

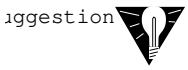
Directories with the same path and name are merged. If a directory is being migrated that has the same name as a directory that already exists on the v3.11 server, the files from both directories are merged under the one directory name.

The directory structure and the files are migrated. Modify the organization on the destination server after all the source servers are migrated.

Migrating Users

Users with the same username are merged; that is, their user designations such as user account manager, workgroup manager, console operator, and security equivalences are added together.

Passwords are not migrated. The migration utility allows you to choose to assign passwords that are generated randomly for all migrated users, or to allow users to log in to the new system without a password. Passwords that are generated randomly are stored in a file called NEW.PWD in SYS:SYSTEM on the v3.11 server and can be accessed only by SUPERVISOR.



For a complete description of what is migrated and the results, see Table A-1 in Appendix A.

How Rights and Attributes Are Migrated

In NetWare v2.1*x*, rights were assigned only at the directory level. In v3.11, rights are assigned at the file and directory levels. The NetWare Migration Utility for v2.1*x* to v3.11 translates all NetWare v2.1*x* rights and attributes into the v3.11 format when you use the across-the-wire method. It also replaces the Maximum Rights Mask with an Inherited Rights Mask, which allows rights to flow down the directory structure.

NetWare v2.1*x* rights and attributes are essentially the same as those in v3.11, except for a few new rights and attributes. You can assign these new rights and attributes after the migration is complete.

Several tables in Appendix B list the corresponding v3.11 rights and attributes.

See “Security,” “Rights,” and “Attributes” in *NetWare v3.11 Concepts* for details on changes from v2.1*x* to v3.11.

Strategies for Merging Source Servers

There are several strategies you can follow that will help you minimize the amount of time you spend customizing your v3.11 server after you have migrated several v2.1*x* servers to it.

Table A-1 in Appendix A shows the types and descriptions of information you can choose to migrate from a source server. Read through these categories and their descriptions, then read the suggestions for setting up your destination server on the next page.

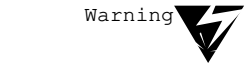
BETA

To	Do this
Set up default account balances and restrictions on the destination server	Set up the Default Account Balance/ Restrictions on the first source server and include that category in the information to be migrated. On subsequent source servers that you want to migrate to the same destination server, do not migrate that category.
Set up uniform user restrictions on the destination server	On the first source server, set up the Default Account Balances/Restrictions with the values you want on the destination server. Select Users and Default Account Balances/ Restrictions as categories to migrate, but do not select User Restrictions. On subsequent source servers, do not select User Restrictions or Default Account Balances/Restrictions.
Preserve each user's individual user restrictions	Select User Restrictions for each source server.
Migrate all the groups you have set up on all the source servers you want to merge	Select the category Groups on all the source servers. The corresponding users on the destination server are added to the appropriate groups.
Set up all your print queues and print servers to point to the same device	Select the Print Queues and Print Servers category from one source server instead of from all of them. If print queues and print servers are migrated from each source server, and they point to the same device, delete the redundant print queues and print servers.

BETA

NetWare v3.*x* Overview

For a discussion of new features in NetWare v3.1 and v3.11, see "NetWare 386 Overview" in *NetWare v3.11 Installation*. You may want to refer to other manuals in the NetWare v3.11 documentation set to familiarize yourself with v3.11 and the changes made since v2.1*x*.

Warning 

The NetWare Migration Utility for v2.1x to v3.11 is not the same utility as UPGRADE that is documented in *NetWare v3.11 Installation*. Do not use the UPGRADE instructions.

BETA

BETA

Requirements for Across-the-Wire Migration

- ✔ ❑ The *NetWare Migration Utility for v2.1x to v3.11* files from NetWare Express.
- ❑ A DOS workstation with at least 640 KB of memory.
- ❑ Either a hard drive on the workstation with 5 MB of memory free or another network drive.
- ❑ A 386-processor or higher machine with NetWare v3.11 installed.
- ❑ A network with the DOS workstation, source server, and destination server attached.

Requirements for Same-Server Migration

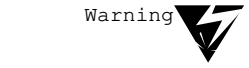
- ✔ ❑ The *NetWare Migration Utility for v2.1x to v3.11* files from NetWare Express.
- ❑ A DOS workstation with at least 640 KB of memory.
- ❑ Either a hard drive on the workstation with 5 MB of memory free or another network drive.
- ❑ A 386-processor or higher machine as the server.
- ❑ A backup device to back up data files from the v2.1*x* server and restore it to the v3.11 server.

Before You Start

Check the following items and do the tasks that apply.

- **Back up your source server**.

  Use your regular backup utility to back up your current v2.1*x* server at least twice to insure a good copy.

Warning 

If you are doing a same-server migration, note that the NetWare v3.11 installation procedure destroys all data on your hard disk.

- **Remove unnecessary files**.

  Decide if you want to migrate .BAK files or .LST files, or any other temporary files. You may want to consolidate some files and directories.

  VAPS that are in a directory that you migrate are copied to the destination v3.11 server, but you cannot use them. You may want to delete them before you start the migration.

- **Prepare Macintosh file support.**

  If you want to store Macintosh files and folders on the new NetWare v3.11 server, install NetWare Services for Macintosh (a separate Novell product) on the v3.11 server. This product provides native-mode support for Macintosh workstations that connect to the v3.11 server.

  You must also add name space support to any volume that needs to store files with long names. See “Name Space Support,” in *NetWare v3.11 Installation* for instructions.

BETA

BETA

- **Rename DOS files and directories that have 14-character names.**

  NetWare v2.1*x* lets you give directories and files 14-character names. NetWare v3.11 allows only DOS naming conventions for DOS directories and files. (Macintosh files can still follow Macintosh naming conventions.)

  Either rename DOS files and directories that have 14-character names or allow the migration utility to rename them by truncating the name to 8 characters with a 3-character extension.

- **Move files that you want to keep out of the SYS:MAIL directory.**

  Files, including user login and PRINTCON.DAT files, in the users' SYS:MAIL directory are migrated, but because a new ID is created for each user, these files may be difficult to find. They appear in the subdirectory where the user's mail ID is located. Neither of these files is migrated unless you are migrating data files. To prevent losing files in SYS:MAIL directories, either make a list of all the user IDs and their associated usernames, or move all the files that you want to keep out of the SYS:MAIL directory.

  User print job configurations (PRINTCON.DAT) and user login scripts for both DOS and OS/2 are migrated from SYS:MAIL.

- **Set maximum subdirectory depth to 25.**

  NetWare v3.11 sets the default for subdirectory depth to 25 levels; however, the migration utility does not copy subdirectories deeper than 25. If the v2.1*x* server has subdirectories deeper than 25, modify the subdirectory structure so that the subdirectories aren't so deep. Do this before you start the migration.

- **Prepare the workstation.**

  Load your LAN drivers on the DOS workstation, and run NET*x*.COM.

- **Plan for space on the destination server**.

  If you are merging two or more NetWare v2.1*x* servers onto the NetWare v3.11 server, plan for extra disk space for the v3.11 SYS: volume. The volume needs extra space for the additional users and their login scripts.

- **Obtain NLMs to replace any third-party VAPs that are currently running on the v2.1*x* server.**

  VAPs do not run on a v3.*x* system. Contact your vendor about NLMs that are available to replace your third-party VAPs, or contact the product information department at Novell by calling 1-800-NETWARE.

- **For across-the-wire migration, set up the destination v3.11 server.**

  Create the volumes that you want to migrate data to. You cannot create volumes from the migration utility. You may want to create a directory to migrate the v2.1*x* SYS: volume to so that you can remove unnecessary v2.1*x*-specific files more easily.

BETA

BETA

About this Utility

Defaults and Prompts

When you first use this utility, all the fields display either defaults or prompts. After you select options or information for each field, your selections are displayed.

Return to a Field

To change information before starting the migration, return to any field by using the Up- and Down-arrow keys.

Exit the Utility

Exit the utility at any time by pressing <Esc>.

Quick Help, Function Keys, and Online Help

Quick Help appears at the bottom of each screen to help you select information from each field. Follow the directions in the Quick Help to move through the fields and to select information for each field.

Function keys appear in a key line below the Quick Help. Use these keys to select information, to save information, to escape from the utility, etc.

Online help appears when you press <F1>. This online help defines the field your cursor is in, and gives brief procedural detail.

If a Power Failure Occurs

If a power failure occurs, or if the migration utility stops while you are running it, restart the utility.

When the utility finds a file that has not been copied—that is, a file that does not exist on the destination server—it copies the file and continues the migration.

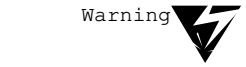
Install the Migration Utility

To install the NetWare migration Utility, type

```
copy a: *.* c:\migrate
```

The following files are copied:

MIGRATE.MSG	Contains message information for the menus in the utility.
BRINFO.MSG	Contains message information while the utility is reading the bindery import data.
MNCOPY.MSG	Contains message information during the copying of files.
BWINFO.MSG	Contains message information while the utility is writing the bindery export data.
MIGRATE.EXE	Contains the executable code for the migration utility.
MIGRATE.HEP	Contains the help files for the migration utility.

Warning 

You cannot use the old message files located in the PUBLIC directory. Copy the newer version (listed below) to the directory that contains the migration utility files.

SYS$HELP.HEP

SYS$ERR.IDX

SYS$MSG.MSG

IBM$RUN.OVL

BETA

BETA

Where to Go from Here

Use the following chart to determine where to go from here.

To migrate using the across-the-wire method	See “Across-the-Wire Migration” on page 2-1
To migrate using the same-server method	See “Same-Server Migration” on page 3-1
To see what information can be migrated	See “Information To Be Migrated” on page A-1
To see how rights and attributes are migrated	See “Migrating Rights and Attributes” on page B-1