chapter 2

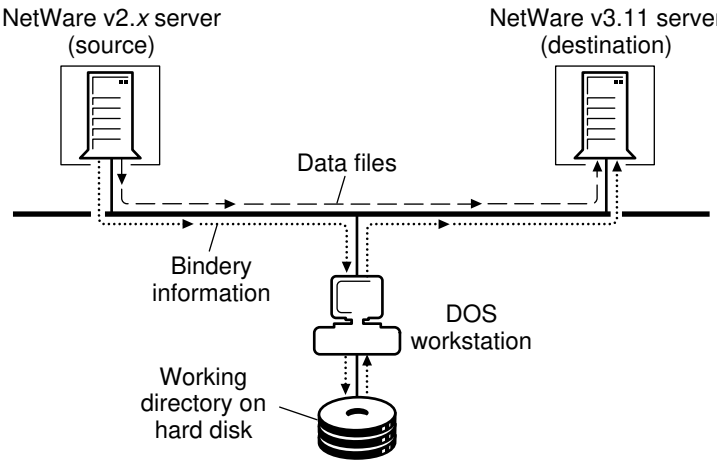
Across-the-Wire Migration

The across-the-wire migration method allows you to migrate your v2.1*x* server to another physical server on the network that has NetWare v3.11 installed.

Data files are migrated across the wire to the destination server. 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. You can migrate more than one source server to the destination server, but only one at a time.

See Figure 2-1 for an illustration of this method.

Figure 2-1
Across-the-wire migration



An advantage of using the across-the-wire method is that you do not risk losing or damaging your data. It stays on your v2.1*x* server during the migration to the v3.11 server and after the migration is complete. You can delete it after you determine that the migration was successful.

NetWare Migration Utility for v2.1x to v3.11
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31 August 1992

BETA

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

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Migrate Using the Standard Option

1. See “Before You Start” on page 1-7 and do the tasks that apply.

2. Make sure that all users are logged out of the source and destination servers and that all files (except bindery files) are closed.

3. Run BINDFIX on the source v2.1***x*** server.

   BINDFIX deletes mail subdirectories and trustee rights of all users who no longer exist on the network.

   For more information on BINDFIX, see your NetWare v3.11 manual set.

4. Start the migration utility by moving to the directory that contains the migration utility files, and typing

   `MIGRATE` <Enter>

   The “Select Migration Option” menu appears.

5. Select the Standard migration option.

   This option provides a simple way of migrating your server if you want to migrate all information from a v2.1*x* server, across the network, to a server that has v3.11 already installed. The Standard migration option migrates all information, including data files and bindery information.

   You cannot select specific information to migrate. If you want to select specific information, see “Migrate Using the Custom Option” on page 2-11.

   See Figure 2-2 for an illustration of using the Standard migration option.

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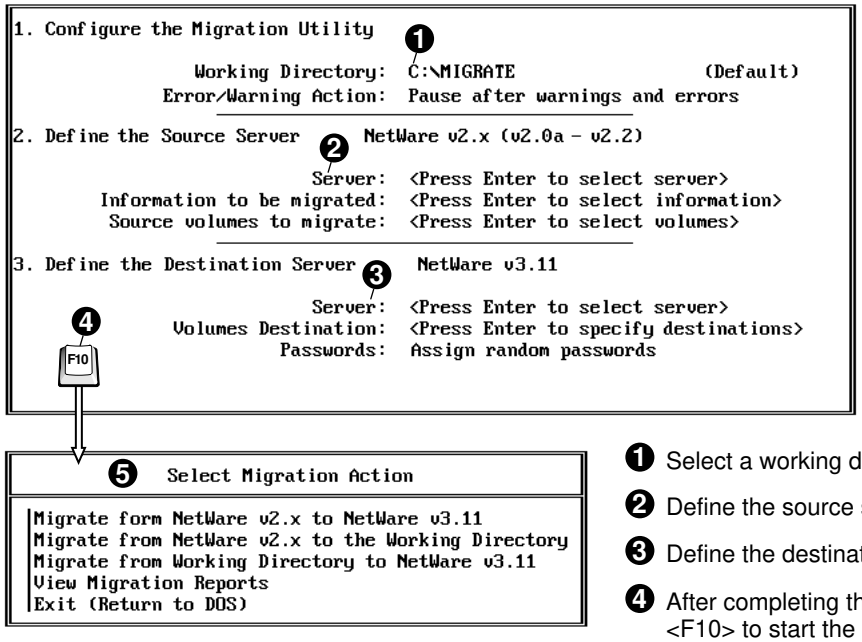
Figure 2-2
Using the Standard migration option



1. Select a working directory.
2. Define the source server.
3. Define the destination server.
4. After completing the form, press <F10> to start the migration.
5. Select an action and press <Enter>. (If you choose one of the first three actions, you are prompted to start the migration.)

6. Accept the default working directory, or specify another working directory.

   The working directory is where the bindery information and the migration reports are stored. You need 5 MB of free disk space in this directory.

   Usually, the working directory is located on the hard disk drive of the workstation, but you can also locate it on a network drive.

   The utility creates the directory for you if it doesn't exist.

   Follow the Quick Help to specify a different working directory.

7. Press <Enter> to display a list of file servers.

8. Select the source v2.1***x*** server that you want to migrate to the destination v3.11 server, then press <Enter>.

   If the v2.1*x* server you want to select is not shown, press <Insert> to see a list of available servers that you can log in to.

9. Press <Enter> to display a list of source volumes on the source v2.1***x*** server that you want to migrate trustee assignments from.

10. Select the volumes using <F5>, then press <Enter>.

    Select source volumes to migrate only if you are migrating information that is contained on those volumes.

    The Standard option defaults to "ALL" categories migrated.

11. Press <Enter> to display a list of destination file servers.

12. Select the destination v3.11 server that you want to migrate the v2.1***x*** server to, then press <Enter>.

    If the v3.11 server you want to select is not shown, follow the Quick Help to see a list of available servers that you can log in to.

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13. Press <Enter> to display a list of selected source volumes and their default destination volumes.

    Destination volumes that match the source volumes are displayed as the default.

14. Select a volume and press <Enter> to specify the destination volume and directory on the v3.11 server.

    Follow the Quick Help to see a list of available volumes and directories on the v3.11 server. If you specify a directory that does not exist on the v3.11 server, you are prompted to create it. Volumes must already be created on the destination server.

    The volume organization, as well as the directory structure, is migrated. Modify the organization on the destination server after all the source servers have been migrated.

15. Press <F10> when you have completed the destination path of the source volume.

16. Continue specifying destination paths for source volumes, or press <F10> if you are done.

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Assign Passwords

17. Press <Enter> to select a password option.

See the following table for a description of the options.

Password Option	Description
Assign random passwords (Default)	A password for each username that is migrated is generated randomly and stored in a file (NEW.PWD) in SYS:SYSTEM on the destination v3.11 server. Note: New passwords are given only to users and print servers that had a password on the source server. Only user SUPERVISOR or equivalent has access to this file. Users cannot log in until the supervisor gives them their password from this list.
Assign no passwords	After you finish the migration and bring up the new v3.11 server, all users who had a username on the v2.1*x* system can log in using their previous username. They are not prompted for a password. Note: Empty password expired only for user accounts that require a password. However, after they have logged in, they are prompted to type a new password, which the system verifies.

You are prompted to begin the migration.

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18. Select “Yes” to begin the migration, or select “No” to return to the migration utility screen.

    - If you select “Yes,” the bindery information you selected is copied to the working directory and translated into the NetWare v3.11 format, then copied to the NetWare v3.11 server. The data files are migrated directly to the v3.11 destination server.

      All information about the migration is scrolled to the screen and entered into a report file, which you can review later.

      When the migration is complete, the utility notifies you. See “After the Migration” on page 2-20.

    - If you select “No,” the migration utility screen is displayed. Make any necessary corrections and continue with Step 19.

19. If you are ready to proceed with the migration, press <F10> to display the “Select Migration Action” menu.

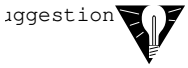
20. Select one of the following “Select Migration Action” options, then press <Enter>.

Migration Action	Descriptions
Migrate from NetWare 2.1*x* to NetWare 3.11	Select this option to migrate all the information you selected from the source server to the destination server. After you press <Enter>, you are prompted to begin the migration.
View Migration Reports	Select this option to display reports.
Exit (Return to DOS)	Select this option to exit the utility and return to the DOS prompt.

21. (Conditional) If errors occur during the migration, you receive the following message:

```
A migration error has occurred and is
displayed in the migration log above. Do you
want to continue with the migration?
(Y=Yes/N=No/I=Ignore Error)
```

If you select:	Then:
Yes	The migration continues. The error is written to the report file, and you are prompted again the next time an error occurs.
No	The migration stops. The error is written to the report file. You receive this message: `Migration from the NetWare v2.1x source server to the NetWare v3.11 destination server is finished. Press <Enter> to continue.` Press <Enter> to return to the "Select Migration Action" menu. From there, press <Esc> to edit the fields, or select "Exit" to leave the utility and return to the DOS prompt.
Ignore	The migration continues. The error is written to the report file. You are no longer prompted when an error occurs, but all errors are written to the report file.



See Appendix C for explanations of error messages.

22. When the migration is complete, press <Enter>.

The "Select Migration Action" menu appears.

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23. (Optional) Select “View Migration Reports” to review the report file.

    23a. (Optional) Select the report for the migration you completed and press <Enter>.

    The reports reside in the working directory that you specified earlier.

    Use the report to help you complete and customize definitions, attributes, and access privileges on the v3.11 server. If you find errors on your destination server after the migration, review the migration report to see if you can find where they occurred. If so, see if you can resolve any problems with the help of the error message text.

    The report file is an ASCII text file that consists of the following:

- Summary information of the bindery import phase (migrating bindery data from the source server to the working directory).
- Listing of each item in each category that was read from the source server.
- Summary information of the bindery export phase (migrating bindery data from the working directory to the destination server).
- Listing of each item in each category that was written to or created on the destination server.
- The number of errors that occurred during the migration.

    23b. Press <Esc> twice to exit the report.

24. Select “Exit (Return to DOS).”

    Exit the utility and return to the DOS prompt.

25. To complete the migration to the v3.11 server, see “After the Migration” on page 2-20.

Migrate Using the Custom Option

1. See “Before You Start” on page 1-7 and do the tasks that apply.
2. Make sure that all users are logged out of the source and destination servers and that all files (except bindery files) are closed.
3. Run BINDFIX on the source v2.1***x*** server.

   BINDFIX deletes mail subdirectories and trustee rights of all users who no longer exist on the network

   For more information on the BINDFIX utility, see your NetWare v3.11 manual set.
4. Start the migration utility by moving to the directory that contains the migration utility files and typing

   `MIGRATE` <Enter>

   The “Select Migration Option” menu appears.
5. Select the Custom migration option.

   This option lets you select the types of information you want to migrate in order to customize the migration to your special needs.

   For example, if you don’t want to overwrite default account balances and restrictions, you do not have to migrate the default account balances and restrictions from any source servers.

   For more information on how to customize the destination server, see “Strategies for Merging Source Servers” on page 1-3.

   See Figure 2-3 for an illustration of the Custom migration option.

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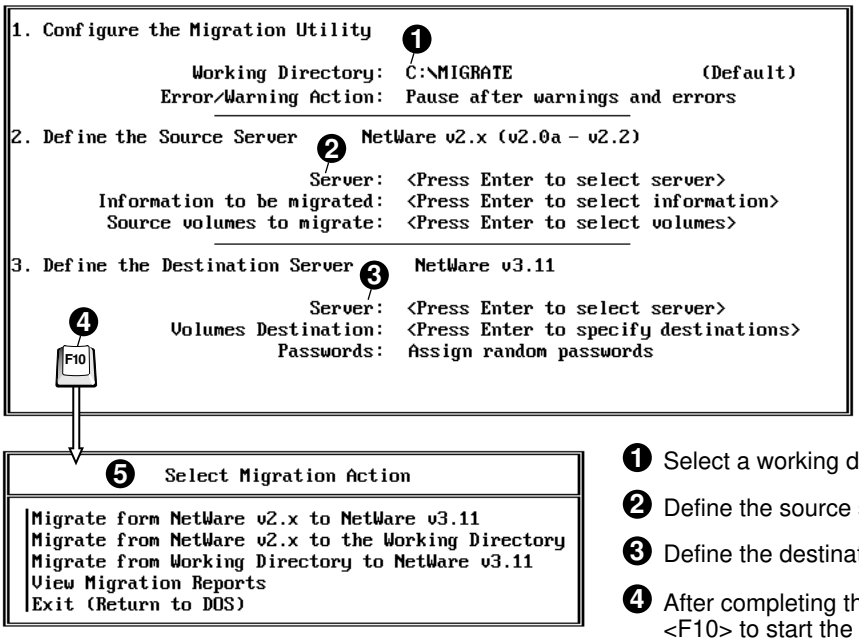
NetWare Migration Utility for v2.1x to v3.11
100-001328-001

31 August 1992

BETA

Figure 2-3
Using the Custom option



1. Select a working directory.
2. Define the source server.
3. Define the destination server.
4. After completing the form, press <F10> to start the migration.
5. Select an action and press <Enter>. (If you choose one of the first three actions, you are prompted to start the migration.)

6. Accept the default working directory, or specify another working directory.

   The working directory is where the bindery information and the migration reports are stored.

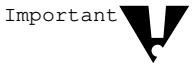
   Usually, the working directory is located on the hard disk drive of the workstation, but you can locate it on a network drive.

   The migration utility creates the directory for you if it doesn't exist.

   Follow the Quick Help to specify a different working directory.

7. Press <Enter> to select a default error/warning action.

Error/Warning Action	Description
Pause after warnings and errors.	Select this option if you want the utility to stop after each warning and error and prompt you to continue with the migration. Each time an error is reported and you are prompted, you can choose to discontinue the prompting.
Do not pause after warnings and errors.	Select this option if you do not want to be prompted after each warning and error.



All errors are listed in the report file regardless of the option you select.

8. Press <Enter> to display a list of file servers.

9. Select the source v2.1***x*** server that you want to migrate to the destination v3.11 server, then press <Enter>.

   If the v2.1*x* server you want to select is not shown, follow the Quick Help to see a list of available servers that you can log in to.

10. Press <Enter> to display categories of information you want to migrate.

11. Select the information you want to migrate, then press <Enter>.

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Select as many of the categories as necessary.

Follow the Quick Help for details on how to select information. See Table A-1 in Appendix A for a description of each category, or press <F1> to get online help.

Important

If you select "All Information," make sure no other categories are selected. If other categories are selected, only those categories are migrated.

12. Press <Enter> to display a list of source volumes on the source v2.1***x*** server that you want to migrate data from.

13. Select the volumes using <F5>, then press <Enter>.

    Select source volumes to migrate only if you are migrating data files or trustee assignments on those volumes. For example, you do not need to select a source volume if you are only migrating any of the following categories:

    Users
    User Restrictions
    Groups
    Default Account Balance/Restrictions
    Accounting Charge Rates
    Print Queues

    You must select a source volume to migrate if you select any of the following categories to migrate:

    All Information
    Data Files
    Trustee Assignments

14. Press <Enter> to display a list of file servers.

15. Select the destination v3.11 server that you want to migrate the v2.1***x*** server to, then press <Enter>.

    If the v3.11 server you want to select is not shown, follow the Quick Help to see a list of available servers that you can log in to.

16. Press <Enter> to display a list of selected source volumes and their default destination volumes.

    Destination volumes that match the source volumes are displayed as the default.

17. Select a volume and press <Enter> to specify the destination volume and directory on the v3.11 server.

    Follow the Quick Help to see a list of available volumes and directories on the v3.11 server. If you specify a directory that does not exist on the v3.11 server, you are prompted to create it. Volumes must already be created on the destination server.

    The volume organization, as well as the directory structure, is migrated. Modify the organization on the destination server after all the source servers have been migrated.

18. Press <F10> when you have completed the destination path of the source volume.

19. Continue specifying destination paths for source volumes, or press <F10> if you are done.

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20. Press <Enter> to select a password option.

    See the following table for a description of the options.

Password Option	Description
Assign random passwords (Default)	A password for each username that is migrated is generated randomly and stored in a log file (NEW.PWD) in SYS:SYSTEM on the destination v3.11 server. Users that are merged receive only one password. Note: New passwords are given only to users and print servers that had a password on the source server. Only user SUPERVISOR or equivalent has access to this file. Users cannot log in until the supervisor gives them their password from this list.
Assign no passwords	After you finish the migration and bring up the new v3.11 server, all users who had a username on the v2.1*x* system can log in using their previous username. They are not prompted for a password. Note: Empty passwords expired only for user accounts that require a password. However, after they have logged in, they are prompted to type a new password, which the system verifies.

21. Review the fields on the migration utility screens and make any necessary corrections.

22. If you are ready to proceed with the migration, press <F10> to display the “Select Migration Action” menu.

23. Select one of the following “Migration Action” options, then press <Enter>.

Migration Action Option	Descriptions
Migrate from NetWare 2.1*x* to NetWare 3.11	Select this option to migrate all the information you selected from the source server to the destination server.
Migrate from NetWare 2.1*x* to the working directory	Select this option to migrate the information you selected from the source server to the working directory. No data files are migrated with this option.
Migrate from working directory to NetWare 3.11	Select this option to migrate the information you selected from the working directory to the destination server. No data files are migrated with this option.
View migration reports	Select this option to display reports.
Exit (return to DOS)	Select this option to exit the utility and return to the DOS prompt.

You are prompted to begin the migration.

24. Select “Yes” to start the migration, or select “No” to return to the migration utility screen.

    - If you select “Yes,” the bindery information that you selected is copied to the working directory and translated into the NetWare v3.11 format, then copied to the NetWare v3.11 server.

      All information about the migration is scrolled to the screen and entered into a report file, which you can review later.

      When the migration is complete, the migration utility notifies you.

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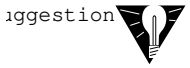
- If you select "No," the migration utility screen appears. Make any necessary corrections, then press <F10> to select the migration action. Or, press <Esc> to exit the utility and return to the DOS prompt.

25. (Conditional) If errors occur during the migration, and you chose to be prompted after errors and warnings, you receive the following error message:

```
A migration error has occurred and is
displayed in the migration log above. Do you
want to continue with the migration?
(Y=Yes/N=No/I=Ignore Error):
```

If you select:	Then:
Yes	The migration continues. The error is written to the report file, and you are prompted again the next time an error occurs.
No	The migration stops. The error is written to the report file. You receive this message: `Migration from the NetWare v2.1x source server to the NetWare v3.11 destination server is finished. Press <Enter> to continue.` Press <Enter> to return to the "Select Migration Action" menu. From there, press <Esc> to edit the fields, or select "Exit" to leave the utility and return to the DOS prompt.
Ignore	The migration continues. The error is written to the report file. You are no longer prompted when an error occurs, but all errors are written to the report file.



Refer to Appendix C for explanations of error messages.

26. When the migration is complete, press <Enter>.

The “Select Migration Action” menu appears.

27. (Optional) Select “View Migration Reports” to review the report file.

    27a. Select the report for the migration you completed and press <Enter>.

    The reports reside in the working directory that you specified earlier.

    Use the report to help you complete and customize definitions, attributes, and access privileges on the v3.11 server. If you find errors on your destination server after the migration, review the migration report to see if you can find where they occurred.

    The report file is an ASCII text file that consists of the following:

- Summary information of the bindery import phase (migrating bindery data from the source server to the working directory).
- Listing of each item in each category that was read from the source server.
- Summary information of the bindery export phase (migrating bindery data from the working directory to the destination server).
- Listing of each item in each category that was written to or created on the destination server.
- The number of errors that occurred during the migration.

    27b. Press <Esc> twice to exit the report.

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28. Select “Exit (Return to DOS).”

    Exit the utility and return to the DOS prompt.

29. To complete the migration to the v3.11 server, see “After the Migration” on page 2-20.

After the Migration

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After the migration is complete, check the v3.11 server and do the following if they apply:

- Examine any references to the server in the user login scripts if you changed the server name. While user login scripts are migrated, they are not modified and server names and directory paths are not changed to match your new environment.
- Check third-party applications in case you need to reinstall them before they will work properly. You may also need to enter new paths in the setup files for any third-party applications.
- Examine the files in merged directories and reorganize them if necessary. Any directories that were merged may contain unrelated files.
- Adjust file structures if you migrated them to keep the directories from being merged.
- Examine migrated print queues and print servers to make sure they are pointing to the right devices.
- Check user restrictions and accounting charge rates to make sure your system is configured the way you want it.
- Set any new directory and file attributes.
- If you chose to assign random passwords, you may want to print the NEW.PWD file and distribute the old password information to your users. The users should change their passwords immediately. The report, an ASCII text file, shows passwords sorted by date. If users were migrated from more than one server, the current password is the last one listed on the report.

End of Chapter