Novell NetWare

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Novell, Inc. 1800 South Novell Place Provo, UT 84606 U.S.A.

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Other Installation Options April 2003

Online Documentation: To access the online documentation for this and other Novell products, and to get updates, see www.novell.com/documentation.

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About This Guide

This guide provides an overview and description of NetWare 6.5 response file installations. The guide is intended for network administrators and is made up of the following section:

• Chapter 1, "Automating the NetWare 6.5 Installation with a Response File," on page 7 explains the features and benefits of NetWare 6.5 response file installations. It also includes instructions for implementing response file installations on your servers.

Documentation Updates

For the most recent version of the *Novell NetWare 6.5 Response File Installation Guide*, see the NetWare 6.5 product documentation Web site (http://www.novell.com/documentation/beta/nw65/ index.html?page=/documentation/beta/nw65/othr_enu/data/hz8pck9v.html).

Documentation Conventions

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

Also, a trademark symbol ($^{\mathbb{R}}$, $^{\mathbb{M}}$, etc.) denotes a Novell trademark. An asterisk (*) denotes a third-party trademark.

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

1

Automating the NetWare 6.5 Installation with a Response File

Installing the NetWare[®] 6.5 operating system software can be easier and more flexible when you use a response file. When used with the graphical server installation, a response file lets you

- Set and display specific defaults
- Bypass entire sections of the installation
- Automate the entire server installation process

A response file is a text file containing sections and keys (similar to a Windows .INI file). You can create a response file using any ASCII editor.

If you use a response file, the NetWare 6.5 server installation reads the installation parameters directly from the response file, replacing the default installation values with response file values. The installation program accepts the values as they appear and continues to the next installation screen. Because the installation program gets all the required information from the response file, you can even skip the entire sequence of installation screens.

Using a response file to install NetWare 6.5 can be very useful to a variety of customers and vendors. Novell[®] customers who have established server hardware standards in their enterprise can use the response file to rapidly deploy multiple NetWare servers. They will also find the response file useful for preconfiguring some of the NetWare installation, while leaving other parameters to the local administrator. Resellers and OEMs will find the response file useful for pre-installing NetWare prior to shipping a server to their customers.

This chapter contains the following sections:

- "Creating a Response File" on page 7
- "Using a Response File" on page 8
- "Syntax" on page 9
- "NetWare Sections and Keys" on page 13
- "Performing a Fully Automated Installation" on page 47
- "Automating the Installation of Additional Products and Services" on page 48
- "CD Boot and the Response File" on page 54
- "Customizing the Installation Using Install Scripts" on page 54
- "Performing a Factory Install" on page 56

Creating a Response File

You can create a new response file, or edit one from a previous server installation.

NOTE: You should take care when using a response file from a previous installation because it can contain advanced configuration options you don't want for your current installation.

Creating a New Response File

- 1 Open an ASCII editor such as EDIT.
- 2 Input parameters as described in "Syntax" on page 9.

Editing a Response File from a Previous Server Installation

You can generate a response file from a server installation or upgrade, and then use it as input for additional server installations or upgrades. Using the response file from another server installation works best when both servers have the same hardware configurations.

- **1** Perform the first server installation, and then reboot the server by clicking Yes on the closing screen of the installation.
- **2** Log in to the new server after it has been rebooted.
- **3** Copy RESPONSE.RSP from the SYS:NI\DATA directory to either a diskette or to the new server.
- **4** Modify the file by adjusting the parameters and removing unwanted sections.

See "Syntax" on page 9 for a description of the parameters

Using a Response File

A response file can be used during a server installation in one of two ways:

- Identified during the server installation
- Entered at the command line

Using a Response File during a Server Installation

- 1 Copy the response file to a diskette, hard disk, or network directory accessible by the PC that you are installing NetWare on.
- **2** Enter **INSTALL** to start the server installation.
- **3** On the Welcome to the NetWare Server Installation screen (the first screen after the JReport Runtime License Agreement screen), press F3 for the response file window.
- **4** Enter the path for the response file, and then press Enter.
- **5** Continue with the rest of the server installation.

Entering a Response File at the Command Line

- 1 Copy the response file to a diskette, hard disk, or network directory accessible by the server that you are installing NetWare on.
- 2 Start the server installation from CD, hard disk, or network directory by entering

INSTALL /RF=response_file_DOS_path\filename

Replace *response file DOS path* with the path for the response file, and *filename* with the name of the response file. For example, if you are installing NetWare from a CD and the response file is on a diskette, enter

D:\INSTALL /RF=A:\RESPONSE.TXT

Syntax

A response file is a Windows .INI-type file. Data items are identified as keys, and keys have associated values (Key = value). These keys are grouped in sections. For the NetWare installation program, each data input screen has one or more sections associated with it. Section names of the installation generally correspond to the function of the screens.

Section and key names are case sensitive. Values associated with keys are not case sensitive. Semicolons placed at the beginning of a line indicate that the line is a comment.

Sections can be placed in any order. However, if there are two or more sections with the same section name, the first section listed in the response file will be used and the other sections will be ignored.

The following sections apply to the NetWare server installation. They are listed in the order they are used during installation.

Section	Purpose
"[NWI:Product Information] Section" on page 13	Identifies the specific product version the response file is associated with.
"[NWI:Language] Section" on page 14	Specifies the languages to be installed on the server.
"[NWI:Install Options] Section" on page 14	Corresponds to the first data input screen.
"[NWI:Server Settings] Section" on page 16	Corresponds to the server settings screen.
"[NWI:Locale] Section" on page 17	Corresponds to the regional settings screen.
"[NWI:Mouse and Video] Section" on page 18	Corresponds to the video and mouse settings screen.
"[NWI:Hardware] Section" on page 19	Corresponds to the hardware detection and driver matching function of the installation program. If drivers are found in the Update directories, they will be used instead of the drivers found on the NetWare CD.
"[NWI:Excluded From Detection] Section" on page 22	Identifies what drivers will be excluded from the auto-detection.
"[NWI:Multi-Processor System] Section" on page 22	Identifies the driver associated with the processor system in the server.

Section	Purpose
"[NWI:Storage Adapter n] Section" on page 22	Identifies the driver and its associated parameters for a specific storage adapter. This Section can be duplicated for as many adapters as are in the server. <i>n</i> uniquely identifies the sequence of the Section (for example, 1, 2, etc.).
"[NWI:Storage Device n] Section" on page 23	Specifies storage devices. This section can be duplicated for as many devices as are in the server. <i>n</i> uniquely identifies the sequence of the Section (for example, 1, 2, etc.).
"[NWI:Network Adapter n] Section" on page 24	Identifies the driver and its associated parameters for a specific network adapter. This section can be duplicated for as many devices as are in the server. <i>n</i> uniquely identifies the sequence of the Section (for example, 1, 2, etc.).
"[NWI:Reserved Adapter n] Section" on page 26	Specifies the adapters that are to be reserved.
"[NWI:Hotplug System] Section" on page 26	Identifies the driver associated with the processor system in the server.
"[NWI:NetWare Loadable Module] Section" on page 27	Identifies NLM [™] programs that are to be loaded with the hardware drivers.
"[NWI:Misc] Section" on page 33	Functions as a container of parameters that do not correspond to a data input screen.
"[NWI:File System] Section" on page 27	Specifies the parameters for the partitions and volumes.
"[NWI:File Server] Section" on page 33	Specifies the parameters that uniquely identify the server.
"[NWI:Protocols] Section" on page 34	Controls whether the protocol screen is displayed.
"[NWI:TCPIP] Section" on page 35	Specifies TCP/IP parameters.
"[NWI:IPX] Section" on page 36	Specifies IPX [™] parameters.
"[NWI:IPCMD] Section" on page 37	Specifies Compatibility Mode parameters.
"[NWI:SNMP] Section" on page 38	Specifies Simple Network Management Protocol parameters.
"[NWI:DNS] Section" on page 39	Specifies Domain Name Service (DNS) parameters.
"[NWI:Host Name] Section" on page 40	Specifies DNS Host Name for each IP address.
"[NWI:Time Zone] Section" on page 41	Corresponds to the time zone screen.

Section	Purpose
"[NWI:Time Synchronization] Section" on page 41	Specifies time server configuration.
"[NWI:NDS] Section" on page 42	Corresponds to the $NDS^{\ensuremath{\mathbb{R}}}$ screen.
"[NWI:License] Section" on page 44	Identifies the location of the license file.
"[NWI:Add to Startup] Section" on page 46	Specifies lines to be added to the STARTUP.NCF file.
"[NWI:Append To Autoexec.ncf] Section" on page 47	Specifies lines to be added to the AUTOEXEC.NCF file.
"[NWI:Use NCF Settings] Section" on page 47	Specifies whether to use the response file or the AUTOEXEC.NCF file for the server name during an upgrade.
"[Novell:NOVELL_ROOT:1.0.0] Section" on page 47	Specifies full automation of installation.
"[Selected Nodes] Section" on page 49	Specifies full automation of products and services.
"[LDAP] Section" on page 51	Specifies full automation of products and services.
"[Novell:DNS_DHCP:1.0.0] Section" on page 52	Specifies full automation of products and services.
"[NWI:Install Script] Section" on page 55	Specifies full automation of products and services.
"[NWI:Factory] Section" on page 57	Specifies full automation of factory install.
"[Novell:StartupDirectory:1.0.0] Section" on page 57	Specifies full automation of factory install.
"[Novell:SYSDirectory:1.0.0] Section" on page 58	Specifies full automation of factory install.
"[Novell:ConfigDirectory:1.0.0] Section" on page 58	Specifies full automation of factory install.
"[Novell:LANFiles:1.0.0] Section" on page 58	Specifies full automation of factory install.
"[Novell:SBDFiles:1.0.0] Section" on page 59	Specifies full automation of factory install.
"[Novell:portalzip:1.0.0] Section" on page 59	Specifies full automation of factory install.
"[Novell:Rconjzip:1.0.0] Section" on page 59	Specifies full automation of factory install.
"[Novell:Perl5zip:1.0.0] Section" on page 60	Specifies full automation of factory install.

Section	Purpose
"[Novell:beanszip:1.0.0] Section" on page 60	Specifies full automation of factory install.
"[Novell:scripteszip:1.0.0] Section" on page 61	Specifies full automation of factory install.
"[Novell:scripteszip:1.0.0] Section" on page 61	Specifies full automation of factory install.
"[Novell:console1zip:1.0.0] Section" on page 61	Specifies full automation of factory install.
"[Novell:Idapzip:1.0.0] Section" on page 61	Specifies full automation of factory install.
"[Novell:wanmanzip:1.0.0] Section" on page 62	Specifies full automation of factory install.

The Prompt key is listed with each section that corresponds to a data input screen and it

- Controls whether the screen will be displayed.
- Lets you use the response file to pass in the keys and values of the section.
- Lets you bypass the screen.

If the value of Prompt is True, the screen will be displayed and the data specified in the response file will be presented as default values. The screen will not be displayed if the value of Prompt is False. If any of the required data is missing in the response file, however, the screen will be shown regardless of the Prompt value. For more information on each section's keys, see "NetWare Sections and Keys" on page 13.

In the following example, the data input screen will be displayed with the NDS information already filled in:

```
[NWI:NDS]
Prompt = True
Tree Name = Novell
New Tree = True
Server Context = O=Utah
Admin Context = O=Utah
Admin Login Name = Admin
Admin Password = install
Display Summary = True
```

In the following example, the NDS input screen and the Summary screens will not be displayed and the NetWare installation program will bypass them.

```
[NWI:NDS]
Prompt = False
Tree Name = Novell
New Tree = True
Server Context = O=Utah
Admin Context = O=Utah
Admin Login Name = Admin
Admin Password = install
Display Summary = False
```

NetWare Sections and Keys

The NetWare installation sections and their associated keys are specified below. Section names and Key names are in bold. Included with each key are the default value, possible values, whether the Key is required for the NetWare installation to run silently (for example, to create a new NDS tree without any user input, New Tree=True must appear in the response file). Also included with each Key is a short description of the Key's purpose.

[NWI:Product Information] Section

Major Version = <string>

Minor Version = <integer>

Default	NetWare 6
Values	(product name)
Key Required	Yes
Example	Major Version = NetWare 6
Purpose	Specifies the name of the product that this response file is associated with. If this value does not match that of the NetWare default response file (normally found in the INSTALL directory on the CD), the installation will not continue.
Default	10
Value	0-99
Key Required	Yes
Example	Minor Version = 10
Purpose	Specifies the revision level of the product. If this value does not match that of the NetWare default response file (normally found in the INSTALL directory on the CD image), the installation will not continue.
	NOTE: The default value was inadvertently left at 0 for the English version release. The error was corrected in the international release.

Small Business = <string>

Default	False
Value	True or False
Key Required	Νο
Example	Small Business = True

[NWI:Language] Section

Prompt = <string>

Default	True
Values	True or False
Key Required	Yes
Example	Prompt = True
Purpose	Controls whether the screen is displayed.

Server Language = <integer>

Default	4 (English)
Values	1-100
Key Required	Yes
Example	Server Language = 4
Purpose	Specifies the language that the screens of the installation program will be displayed in and that will be the default language of the server.

Additional Languages = <integers separated by commas>

Default	(none)
Values	1-100 (values are specified in INSTALL\PROFILE.TXT)
Key Required	No
Example	Additional Languages = 5,6
Purpose	Specifies additional languages that will be installed on the server.

[NWI:Install Options] Section

Prompt = <string>

Default	True
Values	True or False

Key Required	Yes
Example	Prompt = True
Purpose	Controls whether the screen is displayed.

Upgrade = <string>

-	
Default	False
Values	True or False
Key Required	Yes
Example	Upgrade = False
Purpose	Specifies whether the installation will be an upgrade or a new installation. False specifies a new installation rather than an upgrade.

Startup Directory = <string>

Default	C:\NWSERVER
Values	(existing DOS path up to 255 characters)
Key Required	Yes
Example	Startup Directory = C:\NWSERVER
Purpose	Identifies the directory where the server's initialization files will reside on the Boot Partition.

Allow User response file = <string>

Default	True
Values	True or False
Key Required	No
Example	Allow User response file = True
Purpose	Makes the F3 key available on the opening screen. It allows a user to input a path to an additional response file.
	NOTE: Values in a user response file will override the values of other response files passed in previously to the installation program.

Abort on Error = <string>

Default False

Values	True or False
Key Required	No
Example	Abort on Error = True
Purpose	Specifies whether the installation will halt when an error is encountered during an unattended installation. The user will normally see an error screen if this key is set to False.

[NWI:Server Settings] Section

Prompt = <string>

Default	True
Values	True or False
Key Required	Yes
Example	Prompt = True
Purpose	Controls whether the screen is displayed.

NDS Version = <integer>

Default	8
Values	7 or 8
Key Required	Yes
Example	NDS Version = 8
Purpose	Specifies the version of NDS to install on this server.

Load Server at Reboot = <string>

Default	True
Values	True or False
Key Required	No
Example	Load Server at Reboot = True
Purpose	Adds new AUTOEXEC.BAT and CONFIG.SYS files that sets a minimal DOS environment and automatically loads the server. Pre-existing AUTOEXEC.BAT and CONFIG.SYS files on the server will be renamed to *.000. If this value is set to True and AUTOEXEC.000 already exists, then AUTOEXEC.BAT will be renamed to AUTOEXEC.001, etc.

Default	NetWare
Values	NetWare or DOS
Key Required	No
Example	Source Media Access = NetWare
Purpose	Determines the driver type (DOS or server) used to access the CD during installation.

[NWI:Locale] Section

Prompt = <string>

Default	True
Values	True or False
Key Required	Yes
Example	Prompt = True
Purpose	Controls whether the screen is displayed.

Country Code = <integer>

Default	001
Values	(Values are specified in INSTALL\NLS\/ <i>anguage</i> number\LOCALE.TXT)
Key Required	Yes
Example	Country Code = 001
Purpose	Specifies the country-oriented settings for display.

Code Page = <integer>

Default	437
Values	(values are specified in INSTALL\NLS\ <i>language</i> <i>number</i> \LOCALE.TXT)
Key Required	Yes
Example	Code Page = 437
Purpose	Sets the character set for the server.

Default	United States
Values	(values are specified in INSTALL\NLS\< <i>language</i> <i>number</i> >\LOCALE.TXT)
Key Required	Yes
Example	Keyboard = United States
Purpose	Sets the keyboard type.

[NWI:Mouse and Video] Section

Prompt = <string>

Default	True
Values	True or False
Key Required	Yes
Example	Prompt = True
Purpose	Controls whether the screen is displayed.

Mouse = <string>

Default	PS/2
Values	PS/2, Serial COM1, Serial COM2, No Mouse (values are specified in INSTALL\NLS\ <i>anguage number</i> \LOCALE.TXT)
Key Required	Yes
Example	Mouse = PS/2
Purpose	Specifies the mouse type that will be used for the graphical portion of the installation.

Use Super VGA = <string>

Default	True
Values	True or False
Key Required	No
Example	Use Super VGA = True
Purpose	Indicates whether 256-color Super VGA is set for the graphical portion of the installation. If set to False, 16-color Standard VGA is set.

[NWI:Hardware] Section

Prompt = <string>

Default	True
Values	True or False
Key Required	Yes
Example	Prompt = True
Purpose	Controls whether the screen is displayed.

Update Storage Driver Directory = <DOS path>

Default	(none)
	The Install always looks in C:\NWUPDATE as well.
Values	(existing DOS path up to 255 characters)
Key Required	No
Example	Update Storage Driver Directory = F:\DRV\UPDATE
Purpose	Specifies the directory path where updated storage (HAM and CDM) drivers will be found; the directory should already exist and be a local DOS path.
	NOTE: Associated DDI files must accompany the storage drivers in this directory.

Update Network Driver Directory = <DOS path>

Default	(none)
	The Install always looks in C:\NWUPDATE as well.
Values	(existing DOS path up to 255 characters)
Key Required	No
Example	Update Network Driver Directory = F:\DRV\UPDATE
Purpose	Specifies the directory path where updated network (LAN) drivers will be found; the directory should already exist and be a local DOS path.
	NOTE: Associated LDI files must accompany the storage drivers in this directory.

Default	(none)
	The Install always looks in C:\NWUPDATE as well
Values	(existing DOS path up to 255 characters)
Key Required	No
Example	Update PSM Driver Directory = F:\DRV\UPDATE
Purpose	Specifies the directory path where updated processor (PSM) drivers will be found; the directory should already exist and be a local DOS path.
	NOTE: Associated PDI files must accompany the storage drivers in this directory.

Update Source Drive Type = <string>

Default	(the type of the install source)
Values	Floppy or CD or Network or Other
Key Required	No, unless one or more of the Update keys above are set.
Example	Update Source Drive Type = Network
Purpose	Specifies the type of all source directories identified in the keys above; all directories must be of the same type.

PSM Detection = <string>

Default	True
Values	True or False
Key Required	No
Example	PSM Detection = True
Purpose	Controls whether driver matching is performed for the processor system. If driver information is identified in the response file (see Multi-Processor System section), detection can be set to False.

Storage Detection = <string>

Default	True
Values	True or False
Key Required	Νο
Example	Storage Detection = True

Purpose

Controls whether detection of storage adapters and driver matching is performed. If storage adapter and driver information is identified in the response file (see Storage Adapter section), detection can be set to False.

Network Detection = <string>

Default	True
Values	True or False
Key Required	No
Example	Network Detection = True
Purpose	Controls whether detection of network adapters and driver matching is performed. If network adapter and driver information is identified in the response file (see Network Adapter section), detection can be set to False.

Device Detection = <string>

Default	True
Values	True or False
Key Required	No
Example	Device Detection = True
Purpose	Controls whether detection of storage devices and driver matching is performed. If storage adapter and driver information is identified in the response file (see Storage Device section), detection can be set to False.

HotPlug Detection = <string>

Default	True
Values	True or False
Key Required	No
Example	HotPlug Detection = True
Purpose	Controls whether detection of Hot Plug devices and driver matching is performed.

[NWI:Excluded From Detection] Section

Driver File = <filename>

Default	(none)
Values	(name of driver)
Key Required	No
Example	Driver File =AHA2940.HAM
Purpose	Identifies the driver that will be excluded from auto-detection.

[NWI:Multi-Processor System] Section

Driver File = <filename>

Default	(none)
Values	(name of driver)
Key Required	No, unless PSM Detection=False
Example	Driver File = MPS14.PSM
Purpose	Identifies the driver to use for the server's multiprocessor system.

[NWI:Storage Adapter n] Section

Example	[NWI:Storage Adapter 1]
Description	This section can be included for each storage adapter in the server. Several Keys are described under this section which are optional; if the driver is detectable by NetWare, only the Driver File key is required for the section. The other Keys and Values are varied and are extracted from the driver's corresponding DDI file.

Driver File = <filename>

Default	(none)
Values	(name of driver)
Key Required	No, unless Storage Detection=False
Example	Driver File = AHA2940.HAM
Purpose	Identifies the driver to use for the storage adapter.

Default	(none)
Values	(can be a 5-digit Hardware Instance Number assigned on servers with buses that support detection—such as PCI)
Key Required	No, unless the driver is for an ISA adapter
Example	SLOT = 2
Purpose	Specifies the bus slot of the storage adapter to which the driver should be loaded.

INT = <hexadecimal number>

Default	(none)
Values	1-F
Key Required	No, unless the driver is for an ISA adapter.
Example	INT = F
Purpose	Specifies the interrupt that the adapter is set to; this parameter is commonly used for ISA bus adapters.

PORT = <number>

Default	(none)
Values	(3-digit memory address)
Key Required	No, unless the driver is for an ISA adapter
Example	PORT = 170
Purpose	Specifies the memory address the adapter is set to; this parameter is commonly used for ISA bus adapters.

[NWI:Storage Device n] Section

Driver File = <filename>

Example	[NWI:Storage Device 1]
Description	This section can be included for each storage device in the server.
Default	(none)
Values	(name of driver)

Key Required	No, unless Device Detection=False
Example	Driver File = IDECD.CDM
Purpose	Identifies the driver to use for the storage device.

[NWI:Network Adapter n] Section

-

Example	[NWI:Network Adapter 1]
Description	This section can be included for each network adapter in the server. Several Keys are described under this section which are optional; if the driver is detectable by NetWare, only the Driver File Key is required for the section. The other Keys and Values are varied and are extracted from the driver's corresponding LDI file.

Driver File = <filename>

Default	(none)
Values	(name of driver)
Key Required	No, unless Network Detection=False
Example	Driver File = 3C59X.LAN
Purpose	Identifies the driver to use for the network adapter.

SLOT = <integer>

Default	(none)
Values	(can be a 5-digit Hardware Instance Number assigned on servers with buses that support detection—such as PCI)
Key Required	No, unless the driver is for an ISA adapter
Example	SLOT = 10001
Purpose	Specifies the bus slot of the network adapter to which the driver should be loaded.

INT = <hexadecimal number>

Default	(none)
Values	1-F
Key Required	No, unless the driver is for an ISA adapter
Example	INT = F

Purpose

Specifies the interrupt that the adapter is set to; this parameter is commonly used for ISA bus adapters.

PORT = <number>

Default	(none)
Values	(3-digit memory address)
Key Required	No, unless the driver is for an ISA adapter
Example	PORT = 170
Purpose	Specifies the memory address the adapter is set to; this parameter is commonly used for ISA bus adapters.

Adapter Name = <string>

Default	(none)
Values	(text up to 255 characters)
Key Required	No
Example	Adapter Name = 3C59X_1
Purpose	Specifies a unique name for this adapter.

Frame Type *n* = <frame type>

Default	(none)
Values	(frame types supported by the driver are found in the driver's LDI file)
Key Required	No
Example	Frame Type 1 = Ethernet_802.2
Purpose	Identifies the network frame type to be used when loading the driver. There can be as many descriptions as there are frame types supported by the driver— <i>n</i> uniquely identifies the frame type (for example, 1, 2, etc.).

Logical Name *n* = <string>

Default	(none)
Values	(text combining the Frame Type with the Adapter Name)
Key Required	No
Example	Logical Name 1 = 3C59X_1_E82

Purpose

Identifies the name to be used when binding a protocol to a frame type on this adapter. There must be a logical name for each frame type loaded with the driver—nuniquely identifies the frame type (for example, 1, 2, etc.).

Octet Bit Order = <string>

LSB
LSB or MSB
No
Octet Bit Order = LSB
Specifies the bit order (Least Significant Bit or Most Significant Bit) that this network adapter uses for deciphering the node address.

[NWI:Reserved Adapter n] Section

Example	[NWI:Reserved Adapter 1]
Description	This section can be included for each slot in the server.
Default	(none)
Values	(can be a 5-digit Hardware Instance Number assigned on servers with buses that support detection—such as PCI)
Key Required	No, unless the driver is for an ISA adapter
Example	SLOT = 5
Purpose	Specifies the bus slot that should be reserved. If an adapter is found in this slot, an error is generated.

[NWI:Hotplug System] Section

Driver File = <filename>

SLOT = <integer>

Default	(none)
Values	(name of driver)
Key Required	No, unless HotPlug Detection=False
Example	Driver File = CPQSBD.NLM

[NWI:NetWare Loadable Module] Section

Driver File = <filename>

Default	(none)
Values	(name of NLM)
Key Required	No
Example	Driver File = ROUTE.NLM
Purpose	Identifies the NLM to load during installation. This is typically used for network support NLM programs.

[NWI:File System] Section

Prompt = <string>

Default	True
Values	True or False
Key Required	Yes
Example	Prompt = True
Purpose	Controls whether the character-based SYS Volume and Partition screen is displayed.

Allow Volume Properties = <string>

Default	True
Values	True or False
Key Required	No
Example	Allow Volume Properties = True
Purpose	Controls whether the F3 Volume Properties option is displayed.

GUI Prompt = <string>

Default	True
Values	True or False
Key Required	Yes

Example	GUI Prompt = True
Purpose	Controls whether the File System screen is displayed during the graphical portion of the install.

[NWI:Partition n] Section

Example	[NWI:Partition 0]
Description	This section allows partitions to be created on specific devices in the system during installation. The devices are specified by the key entries in the section. The zero-based sequence number ($n = 0, 1, 2, 3,$) in the section heading specifies the order in which the partitions are created. The partition on which volume SYS is created must be defined in [NWI:Partition 0].

Device Type = <string>

Default	(none)
Values	IDE or SCSI
Key Required	No
Example	Device Type = IDE
Purpose	Identifies the type of the device the partition is to be placed on.

IDE Device Serial Number = <string>

Default	(none)
Values	(string of characters)
Key Required	No
Example	IDE Device Serial Number = AX8273430930.
Purpose	Specifies the serial number of the device designated by the manufacturer. (It is usually found on a sticker attached to the device.)

IDE Device Channel = <integer>

Default	(none)
Values	1 or 2 or 3 or 4
Key Required	No
Example	IDE Device Channel = 1

Purpose

Identifies the channel on which the device is to be found.

IDE Device Type = <string>

Default	(none)
Values	Master or Slave
Key Required	No
Example	IDE Device Type = Master
Purpose	Specifies the IDE type of the device on the channel.

SCSI Device Adapter Slot = <integer>

Default	(none)
Values	1 to16
Key Required	No
Example	SCSI Device Adapter Slot = 1
Purpose	Identifies the physical slot number of the SCSI adapter

SCSI Device ID = <integer>

Default	(none)
Values	0 to 15
Key Required	Yes
Example	SCSI Device ID = 0
Purpose	Specifies the ID of the device on the SCSI chain

Partition Type = <string>

Default	NSS
Values	NetWare or NSS or Free
Key Required	No
Example	Partition Type = NSS
Purpose	Identifies the type of partition to be created

Partition Size = <integer> or <ALL FREE SPACE>

Default	(none)
Values	(up to the size of free space on the device in MB)
Key Required	No
Example	Partition Size = 1000
Purpose	Identifies the size of the partition. Note that the number is modified to align with a cylinder boundary. "ALL FREE SPACE" specifies that all remaining free space on the device will be used.

Partition HotFix Size = <integer>

Default	(calculated on Partition Size)
Values	0 to 120 (in MB)
Key Required	No
Example	Partition HotFix Size = 20
Purpose	Identifies the size of the redirection area on the partition

Mirror Partition = <integer>

Default	(none)
Values	(partition number)
Key Required	No
Example	Mirror Partition = 3
Purpose	Identifies the partition that this partition will be mirrored to.

[NWI:Volume n] Section

Example	[NWI:Volume 0]
Description	This section can be included for each volume defined on the server. Note that SYS must be Volume 0. This section allows volumes to be created on specific partitions in the system during installation. The partitions are specified by the key entries in the section. The zero-based sequence number ($n = 0, 1, 2, 3,$) in the section heading specifies the order in which the volumes are created. Volume SYS must be defined in [NWI:Volume 0].

Default	(none)
Values	(valid volume name)
Key Required	Yes
Example	Volume Name = DATA
Purpose	Identifies the name of the volume; follows naming convention found in the NetWare user documentation.

Volume Type = <string>

Default	NSS
Values	NetWare or NSS or Free
Key Required	No
Example	Volume Type = NSS
Purpose	Specifies the type of the volume to be created. Note that volume types must be created on like partition types (e.g., NSS volume on NSS partition).

Block Size = <integer>

Default	(calculated on the size of the first segment of the volume)
Values	4 or 8 or 16 or 32 or 64
Key Required	No
Example	Block Size = 64
Purpose	Identifies the volume's block size. Note that this key does not apply to NSS volumes.

Compression = <string>

D.C. II	T
Default	True
Values	True or False
Key Required	Νο
Example	Compression = True
Purpose	Specifies whether compression is enabled on the volume.

Default	True (on NetWare volume types)
Values	True or False
Key Required	No
Example	Suballocation = True
Purpose	Specifies whether suballocation is enabled on the volume. Note that this key does not apply to NSS volumes.

Data Migration = <string>

Default	False
Values	True or False
Key Required	No
Example	Data Migration = True
Purpose	Specifies whether data migration is enabled on the volume. Note that this key does not apply to NSS volumes.

Mount = <string>

Default	False
Values	True or False
Key Required	No
Example	Mount = True
Purpose	Specifies whether the volume should be mounted during installation. This is useful if additional products and services are to be installed on a volume other than SYS. Note that mounting volumes will take additional time during the server installation. Also, this key will be ignored if GUI Prompt = False is not set in the NWI:File System section; this is to avoid a conflict between this key and the mount volumes screen during installation.

Segment n Partition = <integer>

Default	(none)
Values	(any value <i>n</i> previously defined in section [NWI:Partition n])
Key Required	Yes
Example	Segment 1 Partition = 1

Purpose

Identifies the partition on which the volume segment is to be created. The number of segments n is limited from 1 to 8 for NetWare partitions and must be defined sequentially.

Segment n Size = <integer> or <ALL FREE SPACE>

Default	(none)
Values	(up to free space on a partition in MB)
Key Required	Yes
Example	Segment 1 Size = 1000
Purpose	Specifies the size of the volume segment. "ALL FREE SPACE" specifies that all remaining free space on the partition will be used.

[NWI:Misc] Section

Relogin Password = <string>

Default	(none)
Values	(text)
Key Required	No, unless it is a network installation.
Example	Relogin Password = Novell
Purpose	Specifies the password for the user connection being used while installing across the network. When this section is properly used, the install bypasses the reauthentication screen following the loading of the LAN driver and prior to the preliminary file copy.

[NWI:File Server] Section

NOTE: This is the first section used during the graphical portion of the installation.

Prompt = <string>

Default	True
Values	True or False
Key Required	Yes
Example	Prompt = True
Purpose	Controls whether the screen is displayed.

Default	(none)
Values	(text up to 47 characters—see NetWare documentation for valid set of characters)
Key Required	Yes
Example	Servername = Novell
Purpose	Specifies the name of the server. Note that a server is brought up with temporary name until a valid Servername is entered.

Server ID Number = <hexadecimal number>

Default	(randomly generated)
Values	0000001-FFFFFFF
Key Required	Yes
Example	Server ID Number = 01010101
Purpose	Uniquely identifies the server for network communication purposes. Note that this number should not conflict with any existing IPX [™] addresses on your network.

[NWI:Protocols] Section

Prompt = <string>

Default	True
Values	True or False
Key Required	Yes
Example	Prompt = True
Purpose	Controls whether the protocols screen is displayed.

Single Network Adapter=<string>

Default	False
Values	True or False
Key Required	No
Example	Single Network Adapter=True

Purpose

If this key is set to True then in the [NWI:TCPIP] and [NWI:IPX] sections of the response file the "Logical Name 1" key is automatically filled in with the logical name of the first network card found in the system. The logical name will be bound to the TCPIP and IPX addresses specified in the [NWI:TCPIP] and [NWI:IPX] sections of the response file.

Default IP Frame Typer=<string>

Default	(none)
Values	(Frame types that are supported by a driver are found in the driver's LDI file
Key Required	No
Example	Default IP Frame Type=Ethernet II
Purpose	Identifies the network frame type to be bound to the IP stack when the "Single Network Adapter" is set to True.

Default IPX Frame Typer=<string>

Default	(none)
Values	(Frame types that are supported by a driver are found in the driver's LDI file
Key Required	No
Example	Default IPX Frame Type=Ethernet 802.2
Purpose	Identifies the network frame type to be bound to the IPX stack when the "Single Network Adapter" is set to True.

[NWI:TCPIP] Section

Logical Name n = <string>

Default	(none)
Values	(name identified in the Network Adapter sections of the response file)
Key Required	No, unless IP is to be bound.
Example	Logical Name 1 = 3C59X_1_EII
Purpose	Identifies the name of the adapter and frame type that the protocol is to be bound to.

Default	(none)
Values	(valid IP address)
Key Required	No, unless Logical Name is set
Example	IP Address 1 = 130.1.130.1
Purpose	Specifies the IP address to be bound.

Subnet Mask n = <decimal number>

Default	(none)
Values	(valid IP address)
Key Required	No, unless Logical Name is set.
Example	Subnet Mask 1 = 255.255.255.0
Purpose	Specifies the subnet. Divides the IP address into network address and node address.

Gateway n = <decimal number>

Default	(none)
Values	(valid IP address)
Key Required	No
	Gateway 1 = 127.127.0.254
Purpose	Identifies the gateway or router through which this server can communicate outside the subnet.

[NWI:IPX] Section

Logical Name n = <string>

Default	(none)
Values	(name identified in the Network Adapter sections of the response file)
Key Required	No, unless IPX is to be bound
Example	Logical Name 1 = 3C59X_1_E82
Purpose	Identifies the name of the adapter and frame type that the protocol is to be bound to.

Default	(address detected by the installation program)
Values	0000001-FFFFFFF
Key Required	No, unless Logical Name is set
Example	IPX Address 1 = 01010102
Purpose	Specifies the IPX address to be bound.

[NWI:IPCMD] Section

IPX Compatibility = <string></string>		
	Default	True
	Values	True or False
	Key Required	No
	Example	IPX Compatibility = True
	Purpose	Controls whether SCMD is loaded on this server.

Migration Agent = <string>

Default	True
Values	True or False
Key Required	No
Example	Migration Agent = True
Purpose	Controls whether the Migration Agent (SCMD /MA) is loaded on this server.

CMD Net Number = <string>

Default	(none)
Values	0000001-FFFFFFF
Key Required	No
Example	CMD Net Number = 01010101
Purpose	Specifies the network number.

Default	(none)
Values	(valid IP address)
Key Required	No
Example	Preferred IP Address = 130.1.130.1
Purpose	Specifies the IP address.

[NWI:SNMP] Section

Hardware = <string>

Default	(none)
Values	Values (text)
Key Required	No
Example	Hardware = Personal Computer
Purpose	Identification information that is sent with SNMP traps to assist in troubleshooting.

Location = <string>

Default	(none)
Values	(text)
Key Required	No
Example	Location = Building A
Purpose	Identification information that is sent with SNMP traps to assist in troubleshooting.

Contact = <string>

Default	(none)
Values	(text)
Key Required	No
Example	Contact = John Doe
Purpose	Identification information that is sent with SNMP traps to assist in troubleshooting.

Trap Targets TCPIP = <decimal numbers separated by commas>

Default	(none)
Values	(valid IP addresses)
Key Required	No
Example	Trap Targets TCPIP = 127.1.127.3
Purpose	Identifies IP address of a computer to which SNMP traps are sent.

Trap Targets IPX = <MAC address separated by commas>

Default	(none)
Values	(8-character IPX address:12-character node number)
Key Required	No
Example	Trap Targets IPX = C9990111:000001B555555
Purpose	Identifies MAC addresses of a computer to which SNMP traps are sent.

[NWI:DNS] Section

Prompt = <string>

Default	True
Values	True or False
Key Required	Yes
Example	Prompt = True
Purpose	Controls whether the DNS screen is displayed.

Domain = <string>

Default	(none)
Values	(text)
Key Required	No
Example	Domain = novell.com
Purpose	Specify a domain.

-

Default	(none)
Values	(valid IP addresses)
Key Required	No
Example	Nameservers = 131.1.131.1, 131.1.131.2
Purpose	Identifies the servers to be used for name resolution.

[NWI:Host Name] Section

Prompt =	<string></string>
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Default	True
Values	True or False
Key Required	Yes
Example	Prompt = True
Purpose	Controls whether the screen is displayed.

Host Name n = <string>

Default	(none)
Values	(text)
Key Required	No
Example	Host Name 1 = install.novell.com
Purpose	Specifies the host name associated with an IP address already bound.

IP Address n = <decimal number>

Default	(none)
Values	(valid IP address)
Key Required	No
Example	IP Address 1 = 130.1.130.1
Purpose	Specifies the IP address associated with a Host Name. Note that Host Name 1 will be set as the Primary address.

[NWI:Time Zone] Section

Prompt = <string>

Default	True
Values	True or False
Key Required	Yes
Example	Prompt = True
Purpose	Controls whether the time zone screen is displayed.

Time Zone = <string>

Default	(none)
Values	(string—see COMOTHR.ILS)
Key Required	Yes
Example	Time Zone = (GMT-06:00) U.S. and Canada Central Time
Purpose	Specifies the standard time zone. Note that the exact string from COMOTHR.ILS (in INSTALL\NLS\4) must be used.

Use Daylight Saving Time = <string>

Default	True, if Time Zone supports Daylight Saving Time
Values	True or False
Key Required	No
Example	Use Daylight Saving Time = True
Purpose	Controls whether daylight saving time is set.

[NWI:Time Synchronization] Section

Default Time Server Type = <string>

Default	(Single if new tree, Secondary if existing tree)
Values	Single, Primary, Secondary
Key Required	No
Example	Default Time Server Type = Single
Purpose	Specifies the time server type.

[NWI:NDS] Section

Prompt = <string>

Default	True
Values	True or False
Key Required	Yes
Example	Prompt = True
Purpose	Controls whether the NDS screen is displayed.

Tree Name = <string>

Default	(none)
Values	(text)
Key Required	Yes
Example	Tree Name = Novell
Purpose	Specifies the tree name for either a new tree or an existing tree to install the server into.

New Tree = <string>

Default	False
Values	True or False
Key Required	Yes
Example	New Tree = True
Purpose	Specifies whether the NDS tree to be installed is a new tree or install into an existing tree.
	NOTE: This key is only used when Prompt = False.

Server Context = <string>

Default	(none)
Values	(NDS distinguished name)
Key Required	Yes
Example	Server Context = .install.novell
Purpose	Identifies the NDS context that the server is to be installed into.

Default	(none)
Values	True or False
Key Required	No
Example	Add Replica = True
Purpose	Controls whether a replica is added to the server. This only applies if the server is not one of the first three servers added to an NDS tree (by default the first three servers receive replicas).

Upgrade User Conflict Action = <string>

Default	(none)
Values	Delete, Merge, or Rename
Key Required	No, unless it is an upgrade from NetWare $3.1x$
Example	Upgrade User Conflict Action = Merge
Purpose	Determines what action is to be taken during the upgrade of a NetWare 3.1 <i>x</i> server when objects of the same name are found during the conversion of the bindery to NDS.

Admin Login Name = <string>

Default	(none)
Values	(text)
Key Required	Yes
Example	Admin Login Name = Admin
Purpose	Specifies the name for the server administrator.

Admin Context = <string>

Default	(none)
Values	(NDS distinguished name)
Key Required	Yes
Example	Admin Context = .install.novell
Purpose	Identifies the NDS context in which the server administrator is to be installed into.

Default	(none)
Values	(text)
Key Required	Yes
Example	Admin Password = Novell
Purpose	Specifies the password for the server administrator. Note that for security purposes, this password is removed from the response file after NDS is installed.

Admin Language = <integer>

Default	4 (English)
Values	1-100
Key Required	Yes
Example	Admin Language = 4
Purpose	Specifies the language of the server administrator. User objects created by the server administrator will be assigned this language.

Display Summary = <string>

True
True or False
Yes
Display Summary = True
Controls whether the NDS Summary screen is displayed

[NWI:License] Section

Prompt = <string>

Default	True
Values	True or False
Key Required	Yes
Example	Prompt = True
Purpose	Controls whether the license screen is displayed.

Default	True
Values	True or False
Key Required	Yes
Example	Display License Agreement = False
Purpose	Controls whether the license agreement screen at the beginning of the server install is displayed

Install Licenses Later = <string>

-

Default	False
Values	True or False
Key Required	No
Example	Install Licenses Later = True
Purpose	Specifies that no licenses will be installed on the server. If this key is set to True, all remaining licensing keys will be ignored.

License File = <string>

Default	(none)
Values	(existing DOS path and envelope file name—up to 255 characters)
Key Required	No, unless a license is to be installed
Example	License File = C:\NWSERVER\0000001.NLF
Purpose	Identifies the directory and filename of a license envelope file.

NICI Foundation Key File = <string>

Default	(none)
Values	(existing DOS path and envelope file name—up to 255 characters)
Key Required	No
Example	NICI Foundation Key File = C:\LIC\92942492.NFK
Purpose	Identifies the directory and filename of a region specific cryptography module.

Default	True
Values	True or False
Key Required	Yes
Example	Search For Existing License = False
Purpose	Controls whether the licenses (such as MLA licenses) are searched for in the tree. Used in conjunction with the next key.

Auto Skip If License Found = <string>

Default	False
Values	True or False
Key Required	Yes
Example	Auto Skip If License Found = True
Purpose	Controls whether the license that was found using the previous key is used; this is particularly useful for MLA accounts.

[NWI:Add to Startup] Section

Prepend Line n = <decimal number>

Default	(none)
Values	(decimal number)
Key Required	No
Example	Prepend Line 1 = SET IGNORE DISK GEOMETRY=ON
Purpose	Adds the line to the beginning of the STARTUP.NCF file. If multiple lines are listed, <i>n</i> should increment sequentially.

Append Line n = <decimal number>

Default	(none)
Values	(decimal number)
Key Required	No
Example	Append Line 1 = LOAD NFS.NAM

[NWI:Append To Autoexec.ncf] Section

Line n = <decimal number>

Default	(none)
Values	(decimal number)
Key Required	No
Example	Line 1 = LOAD MONITOR
Purpose	Adds the line to the end of the AUTOEXEC.NCF file. If multiple lines are listed, <i>n</i> should increment sequentially.

[NWI:Use NCF Settings] Section

Override NCF = <True or False>

Default	(False)
Values	(True or False)
Key Required	No
Example	Override NCF = True
Purpose	During an upgrade, if set to True, the server name is specified in the response file instead of the AUTOEXEC.NCF file.

Performing a Fully Automated Installation

The following parameters must be present to completely automate an installation or upgrade. The syntax and values for the supplementary NetWare installation sections and their associated keys are specified below. For a fully automated installation to work, these sections must appear in the response file in addition to all of the required keys listed in "NetWare Sections and Keys" on page 13.

[Novell:NOVELL_ROOT:1.0.0] Section

closeScreen = <string>

Default	(none)
Values	SilentCloseScreen

Key Required	Yes
Example	closeScreen = SilentCloseScreen
Purpose	When this parameter is set, the final installation screen is not shown.

Reboot = <string>

Default	(none)
Values	True or False
Key Required	Yes
Example	Reboot = False
Purpose	Controls whether the server is restarted after the final screen of the installation is closed.

allowSummary = <string>

Default	True
Values	True or False
Key Required	Yes
Example	allowSummary = False
Purpose	Controls whether the installation Summary screen is displayed.

silent = <string>

Default	False
Values	True or False
Key Required	Yes
Example	silent = False
Purpose	Global key that controls whether the installation runs in silent mode with no user interaction. Some sections do not support this key. If this is the case, use a "prompt=false" key instead.

Automating the Installation of Additional Products and Services

As part of the overall NetWare installation, you can auto-install additional products and services by including a [Selected Nodes] section in the response file. Because this section of the response file is not as easy to configure as the other sections are, we recommended the following:

- **1** Perform a manual installation, selecting the products you want to have installed on the server.
- **2** Modify the resulting response file for use as input to future NetWare installations.
- **3** Add a [Selected Nodes] section to the input response file.
- **4** Add the following lines under the [Selected Nodes] section heading:

Novell:NetWare5:1.0.0=Novell:NetWare5OS:5.0.0,Novell:Products:1.0.0,Novell:NWUpdateGroup:1.0.0

```
Novell:NetWare5OS:5.0.0=Novell:DiskCarver:1.0.0,Novell:Protocols:1.0.0,Novell:DS_Install:1.0.
0, Novell:LicensePrompt:1.0.0,Novell:NW:1.0.0,Novell:NDPS Server Files:1.0.0
Novell:NW:1.0.0=Novell:Startup:1.0.0,Novell:SYS:1.0.0,Novell:DriverFiles:1.0.0
Novell:SYS:1.0.0=Novell:SYSDirectory:1.0.0,Novell:ETCDirectory:1.0.0,Novell:PROFINST_NODE:1.0
.0
Novell:DriverFiles:1.0.0=Novell:LANFiles:1.0.0,Novell:SBDFiles:1.0.0
Novell:NDPS Server Files:1.0.0=Novell:NDPS System:1.0.0,Novell:NDPS Public:1.0.0
Novell:Products:1.0.0=Novell:NICIInstall:1.0.0
Novell:NICIInstall:1.0.0=Novell:NICIModule:1.0.0
Novell:NICIInstall:1.0.0=Novell:NUCIModule:1.0.0
```

NOTE: You can add more lines according to your needs, but these represent the minimum information that must be included in the [Selected Nodes] section.

[Selected Nodes] Section

Prompt = <string>

Default	True
Values	True or False
Key Required	Yes
Example	Prompt = True
Purpose	Controls whether the Additional Products and Services screen is displayed.

Product Selection = <string>

Default	(none)
Values	Default or Web
Key Required	No
Example	Product Selection = Web
Purpose	Specifies which bundle of Additional Products and Services to install. Default will install the Web Services bundle. Web will install the Web Services bundle plus WebSphere* Application Server. To specify a custom bundle of Additional Products and Services, do not include this key, and specify each product as described below.

Default	Novell:NICIInstall:1.0.0
	NOTE: This NICI install string must be included.
Values	Novell:NDPS:2.0.0 Novell:lpLdapService:3.0.0 Novell:lpCatalogService:1.0.0 Novell:DWanmanService:1.0.0 Novell:SecuritySASInstall:1.0.0 Novell:PKIInstall:1.0.0 Novell:NICIInstall:1.0.0 Novell:RAS:4.1.0 Novell:SMS:1.0.0 Novell:DNS_DHCP:1.0.0
Key Required	Yes
Example	Novell:Products:1.0.0=Novell:NICIInstall:1.0.0,Novell:NDP S:2.0.0
Purpose	Specifies the additional products and services to be installed on the server.

Installing Multiple Products on a Server

To install multiple products on a server, make sure that the Novell:Products: 1.0.0 key has multiple values, separated by commas as shown in the example above.

Product Keys and Values

In addition to identifying the product in the Novell:Products:1.0.0 key, each product has its own keys and values for the [Selected Nodes] section. These keys and values for each product are listed below. We recommended that you reuse a response file from a previous installation rather than attempting to type these keys and values into the file. If you do not enter them exactly as shown, the NetWare Installation will fail abruptly with no information to help you troubleshoot the problem.

Novell Distributed Print Services (NDPS)

```
Novell:NDPS:2.0.0=Novell:NDPS Server Files:1.0.0,Novell:NDPS Resource Files:1.0.0
Novell:NDPS Resource Files:1.0.0=Novell:NDPS Banner:1.0.0,Novell:NDPS Font:1.0.0,Novell:NDPS
Prndef:1.0.0,Novell:NDPS Prndrv:1.0.0
Novell:NDPS Prndrv:1.0.0=Novell:NDPS Prndrv W31:1.0.0,Novell:NDPS Prndrv W95:1.0.0,Novell:NDPS
Prndrv NT4:1.0.0
```

LDAP Services

Novell:SecuritySASModule:1.0.0=Novell:SASFiles:1.0.0 Novell:PKIModule:1.0.0=Novell:PKIFiles:1.0.0

NDS Catalog Services

Novell:IpCatalogService:1.0.0=Novell:DfgCatalogService:1.0.0

WAN Traffic Manager Services

Novell:IpWanmanService:1.0.0=Novell:DfgWanmanService:1.0.0

Secure Authentication Services

```
Novell:SecuritySASInstall:1.0.0=Novell:SecuritySASModule:1.0.0,Novell:PKIModule:1.0.0,Novell:
NICIModule:1.0.0
Novell:SecuritySASModule:1.0.0=Novell:SASFiles:1.0.0
Novell:PKIModule:1.0.0=Novell:PKIFiles:1.0.0
```

Novell PKI Services

Novell:PKIInstall:1.0.0=Novell:PKIModule:1.0.0,Novell:NICIModule:1.0.0 Novell:PKIModule:1.0.0=Novell:PKIFiles:1.0.0

Novell Internet Access Server

```
Novell:RAS:4.1.0=Novell:RAS Server
Files:1.0.0,Novell:SVCDEF_NODE:1.0.0,Novell:SupportedOS:1.0.0,Novell:UpgradeFrom:1.0.0
Novell:RAS Server Files:1.0.0=Novell:RAS System Connect:1.0.0,Novell:RAS System Connect
Scripts:1.0.0,Novell:RAS Public:1.0.0
```

Storage Management Services

```
Novell:SMS:1.0.0=Novell:SMSFiles:1.0.0
Novell:SMSFiles:1.0.0=Novell:SMSSystemFiles:1.0.0,Novell:SMSPublicFiles:1.0.0
```

Novell DNS/DHCP Services

No additional keys and values are used for the installation of this service.

Additional Services

Two of the additional services available with NetWare, LDAP Services and Novell[®] DNS/DHCP Services, have data input screens for their configuration. These services have response file sections that must be included in addition to the keys and values mentioned above.

NOTE: Be sure to use the proper case (upper or lower) when entering any of these keys and values.

[LDAP] Section

prompt = <string>

Default	(none)
Values	true or false
Key Required	Yes
Example	prompt=false
Purpose	Controls whether the LDAP configuration screen is displayed.

Default	(none)
Values	(NDS distinguished name)
Key Required	Yes
Example	adminID=.CN=admin.O=install
Purpose	Identifies the Admin name and NDS context; this should correspond with the Admin Login Name and Admin Context identified in the NWI:NDS section of the response file. Note the case of the characters in the string.

installCatalog = <string>

Default	(none)
Values	true or false
Key Required	Yes
Example	installCatalog=false
Purpose	Controls whether an LDAP catalog is installed. Corresponds to the question: Enable use of LDAP catalog?

useCatalogOnly = <string>

Default	(none)
Values	true or false
Key Required	Yes
Example	useCatalogOnly=false
Purpose	Controls whether the LDAP catalog is used exclusively for searching. Corresponds to the LDAP screen prompt: Catalog Usage for Searching.

[Novell:DNS_DHCP:1.0.0] Section

Prompt = <string>

Default	None
Values	true or false
Key Required	Yes
Example	Prompt=false

Purpose	Controls whether the DNS/DHCP configuration screen is
	displayed.

TreeName = <string>

Default	(none)
Values	(text)
Key Required	Yes
Example	TreeName=Novell
Purpose	Specifies the NDS tree name in which DNS/DHCP Services will be installed.

UserName = <string>

Default	(none)
Values	(NDS distinguished name)
Key Required	Yes
Example	UserName=.CN=admin.O=install
Purpose	Identifies the Admin name and NDS context; this should correspond with the Admin Login Name and Admin Context identified in the NWI:NDS section of the response file. Note the case of the characters in the string.

ExtendDNIPSchema = <string>

Default	(none)
Values	true or false
Key Required	Yes
Example	ExtendDNIPSchema=true
Purpose	Controls whether the schema is extended for DNS/DHCP Services. Note that this should be set to true.

LocatorNDSContext = <string>

Default	(none)
Values	(NDS distinguished name)
Key Required	Yes
Example	LocatorNDSContext=O=install

Purpose

Identifies the NDS context that the Locator Object is to be installed into.

GroupNDSContext = <string>

Default	(none)
Values	(NDS distinguished name)
Key Required	Yes
Example	GroupNDSContext=O=install
Purpose	Identifies the NDS context that the Group Object is to be installed into.

RootSrvrNDSContext = <string>

Default	(none)
Values	(NDS distinguished name)
Key Required	Yes
Example	RootSrvrNDSContext=O=install
Purpose	Identifies the NDS context that the RootSrvr Zone is to be installed into.

In addition to the DNS/DHCP keys identified above, there must also be a line in the [Settings] section with the entry: Novell:DNS_DHCP:1.0.0=

CD Boot and the Response File

There are two options available for passing a response file into the NetWare installation: using the /RF switch at the command line, or from the Install Options screen.

If you start the install by booting directly to the NetWare CD, you cannot pass in the response file automatically unless you have a RESPONSE.TXT file in the C:\NWUPDATE directory. When the NetWare CD is booted, the startup utility checks for a RESPONSE.TXT file in the C:\NWUPDATE directory. If such a file exists, the installation program bypasses the DOS partitioning utility and uses RESPONSE.TXT as the input response file.

Customizing the Installation Using Install Scripts

In NetWare, install scripts are supported by the NWCONFIG utility and the NetWare installation system.

NOTE: For more information on using install scripts, see Automating the NetWare Installation with a Response File (http://www.developer.novell.com/research/appnotes/1998/december/a1frame.htm) and More About Automating the NetWare Installation with a Response File (http://www.developer.novell.com/research/appnotes/1999/february/a3frame.htm).

There are two places in the NetWare installation where you can use install scripts:

- At the end of the preliminary file copy (just prior to the launching of the graphical portion of the install). An install script executed here can be used for copying files from the DOS partition to the SYS volume.
- At the end of the NetWare installation. It is called right after you answer AOK@ or ANo@ on the closing screen and before the install cleanup process. This script is useful if you want to manage files and launch NLM programs (for example, those that install other products) as part of the NetWare installation.

The following response file syntax is used to run install scripts during the NetWare installation:

[NWI:Install Script] Section

Script Location = <string>

Default	None
Values	(existing DOS path up to 255 characters)
Key Required	No
Example	Script Location = C:\NWUPDATE\PRECOPY.IC?
Purpose	Identifies the filename and path of an Install Script that will be executed at the end of the preliminary file copy (prior to the launching of the graphical portion of the install).
	NOTE: Usage of the ? wildcard in the extension of the filename will suppress an error if the specified file does not exist.

Support Pack Script = <string>

Default	Support Pack Script = C:\spack\silent.ics
Values	(existing DOS path up to 255 characters)
Key Required	No
Example	If the support pack image is located on the C: drive, use this path: Support Pack Script=c:\nw51sp1\spack.ips e=c:\facterr.log s=c:\nw51sp1
	If the support pack image is on a mounted CDROM, use this path: Support Pack Script=NW51:\spack.ips e=c:\err.log s=NW51:\
	If the support pack image is on a remote server, use this path: Support Pack script=prv- athena\images:nw5\cobra\sp1 128.524\spack.ips TRANSPORT=IPX u="SITESTER2" a=01010155:0000000001:0451 DS c="CN=SITESTER2.OU=INSTALL.OU=DEV.O=NOVELL" z=PRV-ATHENA-TREE e=C:\err.log s=PRV- ATHENA\IMAGES:NW5\COBRA\SP1 128.524

Purpose

Identifies the filename and path of an Install Script that will be executed at the end of the install.

Close Script = <string>

Default	None
Values	(existing DOS path up to 255 characters)
Key Required	No
Example	Script Location = SYS:\OTHER.ICS
Purpose	Identifies the filename and path of an Install Script that will be executed when the final screen of the NetWare server installation is closed.
	NOTE: This script is executed just prior to some housekeeping that is done by the Close Screen routine.

Performing a Factory Install

A Factory Install can reduce the complexity and time spent on an installation. Much of the hardware configuration and file copy is done in the Factory so that you only need to use the graphical portion of the NetWare installation to complete the on-site configuration. Because the network operating system files are pre-copied to the server, installation time is reduced to a few minutes.

A Factory Install splits the installation of NetWare into two phases:

- Phase 1 performs the disk detection, disk partitioning, volume SYS creation, and file copy
 portions of the install. This phase is meant to be performed in a factory or configuration center.
- Phase 2 focuses on user configuration. It includes the setting of the server name, protocol binding, creation of volumes other than SYS, and configuration of time zone, NDS, licensing, and other products. This phase is meant to be performed by the customer at the server's permanent location.

Once Phase 1 is completed, the machine should be rebooted or powered off. When the machine is powered on and the server is started, the AUTOEXEC.NCF file will launch Java* for Phase 2 of the installation.

A Factory Install is implemented with the response file sections below. A default Factory Install response file can be created by combining the FACTORY.TXT and RESPONSE.TXT files found in the \INSTALL directory of the NetWare Operating System CD.

he Preinstall key of the [NWI:Factory] section is the primary key that directs the NetWare Installation to perform a factory install. The Precopy key of the other sections specifies whether the file group should be recopied during the final file copy routine of the NetWare Installation. If Precopy=True, the files will be verified, but not copied. The Installation will appear, however, as if it is copying the files because you will see each file name displayed in the copy status box.

NOTE: The NetWare CD must be inserted in Phase 2 of the Factory Install in order to perform this file verification.

All other required keys for an automated install must also be included in the response file. See "Performing a Fully Automated Installation" on page 47 for more information.

[NWI:Factory] Section

Preinstall = <string>

Default	True
Values	True or False
Key Required	Yes
Example	Preinstall = True
Purpose	Controls whether the Factory Install option of the NetWare installation is invoked. If Preinstall=True, the remaining keys are checked.

Copy Products to SYS = <string>

Default	False
Values	True or False
Key Required	No
Example	Copy Products to SYS = True
Purpose	Controls whether the products directory of the NetWare Installation CD is copied to volume SYS so that products can be selected and installed during Phase 2 without the need for a NetWare Operating System CD.

Remove Directory = <local path>

Default	(none)
Values	(existing DOS path up to 255 characters)
Key Required	No
Example	Remove Directory = SYS:\PRODUCTS
Purpose	Removes a directory from the system at the end of Phase 2.

[Novell:StartupDirectory:1.0.0] Section

Precopy = <string>

Default True

Values	True or False
Key Required	No
Example	Precopy = True
Purpose	Controls whether the files in the \STARTUP\NLS directory of the install image and destined for the C:\Startup_Directory\NLS directory are copied in Phase 2. If Precopy = True, the files are not copied again in the final file copy routine.

[Novell:SYSDirectory:1.0.0] Section

Precopy = <string>

Default	True
Values	True or False
Key Required	No
Example	Precopy = True
Purpose	Controls whether the files in the \STARTUP\NLS directory of the install image and destined for the C:\ <i>Startup_Directory</i> \NLS directory are copied in Phase 2. If Precopy = True, the files are not copied again in the final file copy routine.

[Novell:ConfigDirectory:1.0.0] Section

Precopy = <string>

Default	True
Values	True or False
Key Required	No
Example	Precopy = True
Purpose	Controls whether the files in the \CONFIG directory of the install image, destined for volume SYS, are copied in Phase 2. If Precopy = True, the files are not copied again in the final file copy routine.

[Novell:LANFiles:1.0.0] Section

Precopy = <string>

Default

True

Values	True or False
Key Required	No
Example	Precopy = True
Purpose	Controls whether the LAN files in the \DRIVERS\LAN directory of the install image, destined for the SYS:SYSTEM directory, are copied in Phase 2. If Precopy = True, the files are not copied again in the final file copy routine.

[Novell:SBDFiles:1.0.0] Section

Precopy = <string>

Default	True
Values	True or False
Key Required	No
Example	Precopy = True
Purpose	Controls whether the files in the \DRIVERS\SBD directory of the install image, destined for the SYS:SYSTEM directory, are copied in Phase 2. If Precopy = True, the files are not copied again in the final file copy routine.

[Novell:portalzip:1.0.0] Section

Precopy = <string>

Default	True
Values	True or False
Key Required	No
Example	Precopy = True
Purpose	Controls whether the files in the zip file destined for volume SYS are copied in Phase 2. If Precopy = True, the files are not copied again in the final file copy routine.

[Novell:Rconjzip:1.0.0] Section

Precopy = <string>

Default	True
Values	True or False

Key Required	No
Example	Precopy = True
Purpose	Controls whether the files in the zip file, destined for volume SYS, are copied in Phase 2. If Precopy = True, the files are not copied again in the final file copy routine.

[Novell:Perl5zip:1.0.0] Section

Precopy = <string>

Default	True
Values	True or False
Key Required	No
Example	Precopy = True
Purpose	Controls whether the files in the zip file, destined for volume SYS, are copied in Phase 2. If Precopy = True, the files are not copied again in the final file copy routine.

[Novell:beanszip:1.0.0] Section

Precopy = <string>

Default	True
Values	True or False
Key Required	No
Example	Precopy = True
Purpose	Controls whether the files in the zip file, destined for volume SYS, are copied in Phase 2. If Precopy = True, the files are not copied again in the final file copy routine.

[Novell:nscriptzip:1.0.0] Section

Precopy = <string>

Default	True
Values	True or False
Key Required	No
Example	Precopy = True

Controls whether the files in the zip file, destined for volume SYS, are copied in Phase 2. If Precopy = True, the files are not copied again in the final file copy routine.

[Novell:scripteszip:1.0.0] Section

Precopy = <string>

Default	True
Values	True or False
Key Required	No
Example	Precopy = True
Purpose	Controls whether the files in the zip file, destined for volume SYS, are copied in Phase 2. If Precopy = True, the files are not copied again in the final file copy routine.

[Novell:console1zip:1.0.0] Section

Precopy = <string>

Default	True
Values	True or False
Key Required	No
Example	Precopy = True
Purpose	Controls whether the files in the zip file, destined for volume SYS, are copied in Phase 2. If Precopy = True, the files are not copied again in the final file copy routine.

[Novell:Idapzip:1.0.0] Section

Precopy = <string>

Default	True
Values	True or False
Key Required	No
Example	Precopy = True
Purpose	Controls whether the files in the zip file, destined for volume SYS, are copied in Phase 2. If Precopy = True, the files are not copied again in the final file copy routine.

[Novell:wanmanzip:1.0.0] Section

Precopy = <string>

Default	True
Values	True or False
Key Required	No
Example	Precopy = True
Purpose	Controls whether the files in the zip file, destined for volume SYS, are copied in Phase 2. If Precopy = True, the files are not copied again in the final file copy routine.

Install Command Line Options

The following command line options that can be used when initiating the installation executable.

/SERVER_LOG = <string>

Default	(none)	
Values	(existing DOS path up to 255 characters)	
Key Required	No	
Example	Install /LOG=C:\TMP\ERROR.LOG	
Purpose	Designates where an installation log file will be created.	

/IIPX <decimal number> or /SERVER_ID <hexadecimal number>

Default	(none)	
Values	1 - FFFFFFF	
Key Required	No	
Example	Install /IIPX 38483933 or	Install\SERVER_ID
	38483933	
_		
Purpose	Allows a specific internal net address to be used for the server being installed.	
Purpose		