Novell NetWare® 6

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GLOSSARY

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

www.novell.com

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For a list of Novell trademarks, see “Novell Trademarks” on page 323.

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Overview

This *Novell Glossary* gives you essential information about a variety of Novell® and industry terminology used within Novell documentation.

Generic industry terms and those specific to third-party products are not listed and defined here unless they are essential to or used with Novell products; also, some of these terms might not be listed as entries but might be referred to within Novell term definitions to help better explain the Novell terms.

Terms that also have a commonly used acronym or abbreviation have two entries: one for the spelled-out term and one for the abbreviation/acronym.

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 (®, ™, etc.) denotes a Novell trademark. An asterisk (*) denotes a third-party trademark.

Symbols

@

Execute External Program

A NetWare® login script command that executes an external program on a Windows 95 or Windows NT workstation.

AAA

abend

1. Used with an agent, to bring a server to an abrupt halt; to crash a server (transitive).

Used without an agent, to crash (intransitive).

2. abnormal end

A serious software failure that halts (brings down) the server.

abort

To terminate a process before it is completed.

ABORT REMIRROR

A NetWare® NLM that stops the process of synchronizing data between logical disk partitions.

access

1. (verb) In software, to view, retrieve, or otherwise invoke objects, which include files, properties, aliases, user lists, file structures, and so on.

2. (noun) Permission granted to a user or group of users to perform various operations.

Access Control

Short for "Access Control right."

access control list

ACL

In NDS®, an optional, multivalued property of every object.

The ACL lists the objects (trustees) that can access the object, along with their explicit rights assignments. Each value contains a complete object (trustee) name, an indication of the type of rights held by the trustee, the specific rights settings, and an indication of whether the rights are inheritable. Any inherited rights filters that have been set on this object are also included.

access control list

ACL

In NetWare for SAA, a list of users or groups that have exclusive rights to a dedicated LU, OS/2 downstream PU, or LU pool.

Access Control right

A file system right that grants the ability to change the trustee assignments and inherited rights filter of a directory or file.

access rate

AR

In frame relay technology, the maximum transmission rate supported by the access link into the network.

access rate

AR

The maximum data rate of an access channel, in bits per second (bps), usually referring to network access.

account balance

A value assigned by a NetWare network administator, after installing Accounting services, to limit the amount of network services a user can use.

Account Balance

Short for "Account Balance property."

Accounting

A NetWare option that allows a network administrator to charge users for network resources and services by assigning each user an account balance. The account balance diminishes as the user uses the network. Five network resources or services can be controlled through Accounting:

Blocks read from server hard disks

Blocks written to server hard disks

Amount of time the user is logged in to the server

Amount of data stored on server hard disks

Number of requests serviced by the server

ACK

acknowledgment

In telecommunications, a code sent by the destination station to the origination station, to indicate that it is ready to accept data, or to acknowledge error-free receipt of data. In certain network protocols, ACK is the name of the field, frame, or packet that contains such a code. ACK is the mnemonic for the ACKnowledge character, ASCII code 6.

ACL

access control list

ACL

Advanced CMOS Logic

active hub

A device that amplifies transmission signals in network topologies. Active hubs are used to add workstations to a network or to extend the cable distance between stations and the server.

ACU

Automatic Client Upgrade

A group of three utilities that provides a way to automatically upgrade systems using VLM, NETx, or Client 32 software to newer Novell Client software. The three utilities are NWDETECT, NWSTAMP, and NWLOG.

ACU is executed as a series of instructions that the network administrator has put in a login script. The client is then seamlessly and silently upgraded at login time.

Adaptive QoS

Adaptive Quality of Service.

A feature of the Novell Multimedia Server component that adjusts the required bandwidth for multimedia features depending on the network conditions. It regulates the multimedia data being transferred to the workstation so that the congestion in the network minimally affects the performance of the multimedia files being played from the Multimedia Server. NetWare 5.1 Admin Solutions Guide (raburto 8/24/99)

address

To specify the location of something.

For example, in electronic mail, to specify the e-mail location of a user, resource, or group. In computer usage, to uniquely identify and specify the location of an element in a computer or computer network, for example: a location in memory or disk storage, a network or portion of a network, a station or other device on a network, and so forth.

address

1. Short for "e-mail address."

In GroupWise, a unique identifier that specifies the e-mail location of a user, resource, group, or distribution list, in order to facilitate the delivery of electronic messages. Address components include the Internet domain if one has been assigned, and the GroupWise domain, post office, and user ID.

2. A value that uniquely identifies and specifies the location of an element in a computer or computer network, for example: a location in memory or disk storage, a network or portion of a network, a station or other device on a network, etc.

Address and Control Field compression

In frame relay, the process of eliminating the All Stations Address and the Unnumbered Information fields from high-level data link control (HDLC) framing, on a per-data-link basis, so that unneeded overhead is reduced when low-bandwidth links are used.

address field

In GroupWise® 4.1 for DOS, the To, CC, or BC field in an item where you type or place user names or IDs.

address field

A frame field specifying a physical address in a LAN topology. It is comprised of the control and management fields, specifying the virtual circuit numbering or Data Link Connection Identifier (DLCI); the flow control; and the frame discard eligibility (DE).

address resolution cache

An area of software memory that contains entries that map the IP address to the physical address.

Address Resolution Protocol

ARP

A protocol in the Internet Protocol (IP) suite that enables a host to find the media access control (MAC) address of a target host on the same physical network when it knows only the targets IP address. ARP dynamically maps Internet addresses to MAC (hardware) addresses on local networks. It is limited to networks that support hardware broadcast.

To create entries, the ARP broadcasts a request with the targets IP address. The target responds with its physical address. The network board adds the physical address to its ARP table and can then send packets to the target.

Add Self right

A property right that grants a trustee the right to add or remove itself as a value of the property. This right is used only for properties that contain object names as values, such as lists of group members or mailing lists.

adjacency

The record that a NetWare Link Services Protocol (NLSP) router keeps about the state of its connection with a neighbor, and about the attributes of that neighbor.

adjacent node

A node connected to another node without intervening nodes.

administrator

The person who sets up a server, creates user login accounts and passwords, creates groups, sets security, and maintains the server.

ADSP

AppleTalkData Stream Protocol

A symmetric, connection-oriented AppleTalk protocol that provides reliable, full-duplex, byte-stream service between sockets. It guarantees that data bytes are delivered in the same order as they were sent, and that they are free of duplicates.

advanced peer-to-peer networking

APPN

A variant of Systems Network Architecture (SNA) that allows network nodes to exchange topology information dynamically, which leads to simplified parameter definitions.

Advanced Program-to-Program Communications

APPC

A part of the Systems Network Architecture (SNA) protocol. APPC establishes the conditions that enable programs to communicate across the network. This capability, involving LU 6.2 and its associated protocols, allows two or more processes in an SNA network to communicate without involving a common host system or terminal emulation.

advertising

The process by which devices or services on a network inform other devices on the network of their existence. NetWare uses the Service Advertising Protocol (SAP) to do this.

AFP

AppleTalk Filing Protocol

An AppleTalk protocol that provides the rules for communication and data transmission between file servers and clients in an AppleShare network.

AFP server

AppleTalk Filing Protocol server

A server that enables workstations to share files and programs using the AppleTalk protocol.

AFP Server

Short for "AFP Server object."

AFP Server object

A leaf object in the NDS tree that represents an AppleTalk Filing Protocol (AFP) server. The AFP server enables workstations to share files and programs using the AppleTalk protocol.

AIO

asynchronous I/O; asynchronous input/output

An I/O model in which processing overlaps input and output. This data transmission method uses start bits and stop bits to coordinate the flow of data so that the time intervals between individual characters do not need to be equal. Parity can be enabled to check the accuracy of the transmission.

AIOPAD

Asynchronous Input/Output Packet Assembler/Disassembler

A module that provides an AIO interface to an X.25 driver. It assembles data for asynchronous transmission using a synchronous protocol and then disassembles the data that has been transmitted. Using this module, remote workstations attached to a network can dial out to host computers and can dial in to network resources.

AIOTSM

Asynchronous Input/Output Topology Support Module

An NLM that provides the interface between AIO and ISDN drivers.

alarm

An audible signal from the computer to notify the user of the condition it was configured to specify. For example, an alarm can warn a user of an error condition, or it can notify the user that a certain program is being started or shut down.

alarm

A record of a network event that is specific to remote access. The record is logged in a database.

Alarm Monitor

A real-time display of all alarms that are specific to remote access.

Alarm Report

A display of all alarms that are specific to remote access and that have been logged to the database.

algorithm

A procedure for solving a problem in a finite number of steps, frequently involving repetition of an operation, as by a computer. Data compression and creating lists of random numbers are uses of algorithms.

alias

In the Common Desktop Environment (CDE), a named electronic mail address in Mailer for mailing to a group of users. By creating an alias for a group of users, you can type one name instead of each individual name to send electronic mail messages to the group.

alias

An alternative name assigned to a system, to a program, to an electronic mail address, or to another object.

Alias

Short for "Alias object."

Alias object

An NDS object that points to another object at a different location in the NDS tree. An Alias object allows a user to access an object outside of the users normal working context.

All Properties

Short for "All Properties rights."

All Properties rights

A type of rights assignment that applies to all the properties of an object. A specific (individual) property rights assignment overrides an All Properties rights assignment, but only for the specific property. The All Properties rights assignment still applies to all the other properties.

American National Standards Institute

ANSI

The organization that sets the standards for many technical fields and provides the most common standard for computer terminals.

American Standard Code for Information Interchange

ASCII

The standard adopted by ANSI for compatible data transfer between data systems and associated equipment. The 8-bit character code consists of 7 bits with the 8th bit for parity check.

The ASCII character set consists of 128 characters. These characters are the same as the first 128 characters of the ANSI character set. The extended ASCII character set consists of a second set of 128 characters, whose elements vary with different computer manufacturers and with different languages.

Annex D

An implementation standard (ANSI T1.617) that addresses signaling and other network management functions.

ANSI

American National Standards Institute

The organization that sets the standards for many technical fields and provides the most common standard for computer terminals.

API

application programming interface

A set of functions, procedures, values, or other defined interface standards that an application uses to request and carry out services performed by another program or by an operating system. A single API typically specifies how input should be requested and obtained, and how output should be done.

APPC

Advanced Program-to-Program Communications

A part of the Systems Network Architecture (SNA) protocol. APPC establishes the conditions that enable programs to communicate across the network. This capability, involving LU 6.2 and its associated protocols, allows two or more processes in an SNA network to communicate without involving a common host system or terminal emulation.

applet

1. A small application that performs a specific task, such as the Calculator in Microsoft* Windows.

2. Short for "Java applet."

Small Java programs that are application oriented rather than server oriented.

Java applets can be embedded in an HTML page and executed by a browser without waiting for server processing. This means that Java applets are particularly useful for processing intensive or time-sensitive elements of a Web page, such as multimedia, animation, or user-interactive forms.

AppleTalk

Apple* Computers suite of protocols that make up a complete network architecture. AppleTalk is a set of protocols (such as IPX™/SPX™ and NCP™) that specify communications, ranging from application interfaces to media access. AppleTalk enables the hardware and software on a network to interact and to route data so that users can share files, access printers, and communicate with one another.

AppleTalk console

ATCON

A diagnostic console utility that provides access to statistics and information about the status of various components of the AppleTalk protocol. ATCON uses SNMP to access this information from the local system.

AppleTalk Data Stream Protocol

ADSP

A symmetric, connection-oriented Apple Talk protocol that provides full-duplex, byte-stream service between sockets. It guarantees that data bytes are delivered in the same order as they were sent, and that they are free of duplicates.

AppleTalk Filing Protocol

AFP

An AppleTalk protocol that provides the rules for communication and data transmission between file servers and clients in an AppleShare network.

AppleTalk network

A collection of connected, individually controlled computers, printers, and other devices, together with the hardware and AppleTalk software used to link them.

AppleTalk NLM

appletlk.nlm

A NetWare Loadable Module that combines the AppleTalk Phase 2 protocol stack and Phase 2 router for NetWare for Macintosh and for the NetWare AppleTalk Support Package.

AppleTalk Phase 2

A version of the AppleTalk protocols introduced in 1989 to provide support for AppleTalk networks with thousands of nodes, for multiple AppleTalk zones on a network, and for token ring. AppleTalk Phase 2 also provides support for cabling for more efficient routing techniques that improve performance in multiprotocol environments.

AppleTalk Print Services NLM

atps.nlm

The NetWare Loadable Module that enables Macintosh clients to print to NetWare queues, and non-Macintosh clients to print to AppleTalk printers.

AppleTalk Remote Access

ARA

Software that enables remote Macintosh computers to communicate with AppleTalk networks over standard telephone lines.

AppleTalk Remote Access Service

ARAS

A service that provides the software that enables remote Macintosh computers to communicate with AppleTalk networks over standard telephone lines.

ARAS supports remote Macintosh clients using Apples ARA 1.0 or ARA 2.0. The Macintosh clients dial in to become remote nodes on the network.

AppleTalk stack

Short for "AppleTalk protocol stack."

A suite of AppleTalk Phase 2 protocols in appletlk.nlm that handles the transmission and receipt of packets, in order to enable Macintosh users to use NetWare® file and print services.

AppleTalk Transaction Protocol

ATP

An AppleTalk connection-oriented protocol that adds reliability to lower-layer services by providing loss-free delivery of packets from a source socket to a destination socket.

AppleTalk Update-based Routing Protocol

AURP

An AppleTalk routing protocol that operates the same as the Routing Table Maintenance Protocol (RTMP) but sends updates only when a change occurs on the network.

The principal features of AURP are

AppleTalk tunneling in TCP/IP, which enables two AppleTalk networks to be connected through a TCP/IP network.

Update-based routing through tunnels, which reduces the amount of bandwidth by sending updates to peer routers only when network routing information changes, rather than sending periodic broadcasts of the routing table.

application

In the ManageWise® SDK, the parent (and owner) that creates the particular tool window and supplies data to it.

application

A program (or set of programs) that makes calls to the operating system and manipulates data files, allowing a user to perform a specific job (such as accounting, networking, or word processing).

application layer

In the OSI and TCP/IP network architecture reference models, the topmost network layer, responsible for giving applications access to the network.

Application object class

An NDS object class representing an application, for example, Application (DOS), Application (Windows 3.x), Application (Windows 95), and Application (Windows NT).

application programming interface

API

A set of functions, procedures, values, or other defined interface standards that an application uses to request and carry out services performed by another program or by an operating system. A single API typically specifies how input should be requested and obtained, and how output should be done.

APPN

Advanced Peer-to-Peer Networking

A variant of IBMs Systems Network Achitecture (SNA) that allows network nodes to exchange topology information dynamically, which leads to simplified parameter definitions.

AR

address register

AR

access rate

The maximum data rate of an access channel, in bits per second (bps), usually referring to network access.

ARA

AppleTalk Remote Access

Software that enables remote Macintosh computers to communicate with AppleTalk networks over standard telephone lines.

ARAS

Appletalk Remote Access Service

A service that provides the software that enables remote Macintosh computers to communicate with AppleTalk networks over standard telephone lines.

ARAS supports remote Macintosh clients using Apples ARA 1.0 or ARA 2.0. The Macintosh clients dial in to become remote nodes on the network.

archive

To store items in GroupWise® in a separate database.

archive

Data transferred to long-term storage media (for example, optical disks, magnetic tape) or, the physical location of such data.

archive

To copy files to a storage device (such as a diskette, magnetic tape, or optical disc) for long-term storage or backup purposes.

Archive

A "tar" action in the Application Manager of the Common Desktop Environment (CDE). The Archive action accepts a folder argument and archives all of the files it contains together into a single tar file. This action uses the tar command ().

Archive Needed

A

Short for "Archive Needed attribute."

Archive Needed attribute

A

A file system attribute indicating that the file has been changed since the last time it was backed up. NetWare sets this attribute when the file is modified, and clears it when the file is backed up. It is shown in attribute listings but cant be set by users.

area

routing area

An administrative domain of connected IPX networks with the same area address. Users in a routing area have network-layer access to the same services.

area

In the Common Desktop Environment (CDE), a selected portion of the drawing pane in the Icon Editor primary window.

area address

The area network number and mask that together define a NetWare Link Services Protocol (NLSP) routing area.

area boundary router

A type of router that attaches an Open Shortest Path First (OSPF) area to the backbone area. An area boundary router has at least one interface in an OSPF area and one interface in the backbone area.

area mask

A 32-bit hexadecimal number that indicates how much of an area network number identifies a routing area, and how much identifies a network within the routing area. A typical area mask is FFFFFF00.

ARP

Address Resolution Protocol

A protocol in the Internet Protocol (IP) suite that enables a host to find the media access control (MAC) address of a target host on the same physical network when it knows only the targets IP address. ARP dynamically maps Internet addresses to MAC (hardware) addresses on local networks. It is limited to networks that support hardware broadcast.

To create entries, the ARP broadcasts a request with the targets IP address. The target responds with its physical address. The network board adds the physical address to its ARP table and can then send packets to the target.

ARPANET

Advanced Research Projects Agency Network

The packet-switched internetwork created by the Defense Advanced Research Projects Agency (DARPA) in the early 1970s. ARPANET later evolved into the Internet.

ASBR

autonomous system boundary router

A router that exchanges routing information with routers from other autonomous systems, from exterior gateway protocols, or from other routing protocols (such as RIP). By amassing information about external links, ASBRs can distribute routing information to the autonomous system (AS) about external destinations. ASBRs can be internal routers or area boundary routers and are not required to participate in the backbone area.

ASCII

American Standard Code for Information Interchange

The standard adopted by ANSI for compatible data transfer between data systems and associated equipment. The 8-bit character code consists of 7 bits with the 8th bit for parity check.

The ASCII character set consists of 128 characters. These characters are the same as the first 128 characters of the ANSI character set. The extended ASCII character set consists of a second set of 128 characters, whose elements vary with different computer manufacturers and with different languages.

Assign Ownership

An option on the NSS Administration menu that provides a way for a consumer to take storage free space from the NSS object bank and claim it for NSS storage group and NSS volume creation.

association

A functional connection between an element and a data object or an action object. For example, if an icon and an action are associated, clicking the icon invokes the action association.

asynchronous

Describes a data transmission method in which each character is synchronized individually, usually by means of start and stop elements. The gap between each character is not a fixed length.

asynchronous input/output

AIO, asynchronous I/O.

An I/O model in which processing overlaps input and output. This data transmission method uses start bits and stop bits to coordinate the flow of data so that the time intervals between individual characters do not need to be equal. Parity can be enabled to check the accuracy of the transmission.

ATCON

A NetWare Loadable Module that allows a network administrator to monitor the activity of and to see other information about the servers AppleTalk stack and router, and about other AppleTalk networks on the internetwork.

atomic

In computer processing, being indivisible. For example, an atomic action is an action that has no intermediate condition between initiation and completion.

atomic clock

A highly accurate clock that regulates its time by the vibration frequency of atoms or molecules.

ATP

AppleTalk Transaction Protocol

An AppleTalk connection-oriented protocol that adds reliability to lower-layer services by providing loss-free delivery of packets from a source socket to a destination socket.

ATPS

AppleTalk Print Services

The NLM that enables Macintosh clients to print to NetWare queues, and non-Macintosh clients to print to AppleTalk printers.

attach

In GroupWise, to encapsulate an object, such as an image, data, or executable file, within an electronic mail message.

attach

To establish a connection between a workstation and a NetWare server. The server assigns each client a connection number and attaches each to the servers login directory. For Macintosh clients, this restricts the user to viewing server resources without connecting to the server.

ATTACH

The login script command that authenticates users to additional servers. The format for this command is ATTACH [server[/username[;password]]]

attribute

In the Desktop SNMP Services interface, a part of an abstract object that describes one aspect of the object. For example, in a table listing system management contacts, one attribute might describe a contacts last name.

attribute

In the NetWare file system, any of the characteristics assigned to directories and files that dictate what can be done with the directories or files. Attributes include:

Archive Needed (A)
Can't Compress (Cc)
Compressed (Co)
Copy Inhibit (Ci)
Delete Inhibit (Di)
Dont Compress (Dc)
Don't Migrate (Dm)
Don't Suballocate (Ds)
Execute Only (X)
Hidden (H)
Immediate Compress (Ic)
Indexed (I)
Migrated (M)
Normal (N)
Purge (P)
Read Only (Ro)
Read Write (Rw)
Rename Inhibit (R)
Shareable (Sh)
System (Sy)
Transactional (T).

attribute

In NDS, a property belonging to a class. An attribute consists of a type identifier together with one or more values. Also known as a property.

attribute

In Novell groupware products, the elements that determine the appearance of a character (for example, bold, italic, Times New Roman, 10-point) or a graphic (for example, fill, line width, background color).

audit

To examine and verify records.

audit

In the Product Life Cycle (PLC) process, a methodology used to do an assessment. This method examines a representative sample of documents in determining whether the organization complies with a defined standard.

audit file

A system log created when auditing is enabled at the volume or Directory Services container level. At the volume level it stores a record of all audited transactions; at the Directory Services level it also stores all activities performed by the auditor. Also called "audit data file."

Audit File object

An NDS leaf object that represents an audit trails log of events associated with a container, workstation, or volume. The Audit File object can have access to various objects in an NDS tree through properties assigned to those objects. For example, a container object that is audited has an Audit File Link property pointing to the Audit File object.

The Audit File object is created by an auditing program and can be viewed using NetWare Administrator.

auditing

In NetWare, the collecting and examining of records to make sure that the servers resources are protected by the server Trusted Computing Base (TCB).

AURP

AppleTalk Update-Based Routing Protocol

An AppleTalk routing protocol that operates the same as the Routing Table Maintenance Protocol (RTMP), but sends updates only when a change occurs on the network.

authentication

A means of verifying that an NDS object (user or otherwise) is authorized to use the network. This process provides network security.

authentication database

A list of valid remote system IDs or associated data terminal equipment (DTE) addresses and a password. Each entry represents a valid partner that can communicate with a given interface.

authoritative

Describes Domain Name Service (DNS) data that is served by either the primary or secondary resident DNS server. Authoritative DNS data belongs to a resident domain and is managed by the administrator of that domain, or it is DNS data that is imported through a zone transfer.

autoexec.bat

A batch file that, if present in the root directory of a DOS computer, executes automatically when DOS or OS/2 is booted.

autoexec.ncf

A NetWare server executable batch file, located on the NetWare partition of the servers hard disk, used to load modules and set the NetWare operating system configuration.

automated hot replacement

In PCI Hot Plug technology, the process of removing a failed PCI adapter and inserting an identical adapter without removing power to the server and without reconfiguring or reloading software support.

Automatic Client Upgrade

ACU

A group of three utilities that provides a way to automatically upgrade systems using VLM, NETx, or Client 32 software to newer Novell Client software. The three utilities are NWDETECT, NWSTAMP, and NWLOG.

ACU is executed as a series of instructions that the network administrator has put in a login script. The client is then seamlessly and silently upgraded at login time.

automatic flow control

A means of controlling the flow of data across a virtual circuit. This is done by setting the window size and the packet size. Automatic flow control can be negotiated in each direction on a per-call basis.

automatic rollback

A feature of Transaction Tracking System (TTS) that returns a database to its original state. When a network running under TTS fails during a transaction, the database is "rolled back" to its most recent complete state.

autonomous system

AS

A collection of routers and networks that exchange routing information using a routing protocol, such as RIP or OSPF.

autonomous system boundary router

ASBR

A router that exchanges routing information with routers from other autonomous systems, from exterior gateway protocols, or from other routing protocols (such as RIP). By amassing information about external links, ASBRs can distribute routing information to the autonomous system (AS) about external destinations. ASBRs can be internal routers or area boundary routers and are not required to participate in the backbone area.

BBB

backbone

The central part of a network, which carries the heaviest traffic, transmits at the fastest rate, and connects smaller networks that have lower data-transfer rates.

backbone network

The primary connectivity mechanism of a hierarchical distributed system. It ensures that all systems that have connectivity to an intermediate system on the backbone have connectivity to one another.

backlink

A pointer to an NDS® object on another server. A backlink indicates that an object in a replica has an ID on a server where the replica doesnt exist.

Also, the NDS process that verifies backlinks.

backlink

backward link

On the Internet, a hypertext link from the current page back to any page containing a link to the current page.

back up

To copy data (file, directory, or volume) to storage media such as floppy disks, cartridge tapes, hard disks, or other media. Data that is backed up can be restored if the original is corrupted or destroyed.

backup

A duplicate of data (file, directory, volume), copied to a storage device (floppy diskette, cartridge tape, hard disk). A backup can be retrieved and restored if the original is corrupted or destroyed.

backup host

A NetWare® server that has a storage device and a storage device controller attached.

Backward Explicit Congestion Notification

BECN

The notification from the frame relay network to indicate that when the packet forwarding direction was reversed, the network experienced congestion.

bandwidth

The carrying capacity of a circuit, usually measured in bits per second (bps) for digital circuits, or hertz (Hz) for analog circuits.

bandwidth-on-demand

In frame relay, the capacity in an individual virtual circuit to burst above the committed information rate (CIR); also known as dynamic allocation of bandwidth.

banner

In online presentations such as a menu utility or a browser window or online help, information about the online presentation, which could include such data as software name, date and time, title or current context, or version number.

banner page

In the Common Desktop Environment (CDE), a field in the Print dialog box for specifying the text that is sent to the print command to be used as the title of the print job.

banner page

The first page of a print job that supplies information about a print job, such as the name of the user who initiated the job, and the time and date of printing.

basic input/output system

BIOS

A set of programs, usually in firmware, that enables each computers central processing unit to communicate with printers, disks, keyboards, consoles, and other attached input and output devices.

batch file

An executable file containing a sequence of several commands that are carried out in turn when the file is run. A DOS batch file has a .bat extension.

baud rate

In serial communication, the speed at which a signal changes when data is transmitted asynchronously from one digital device to another, such as over a modem or between a computer and printer.

Bc

committed burst size

The maximum number of data bits that a network agrees to transfer under typical conditions over a measured time interval.

BCUG

bilateral closed user group

A virtual private network, consisting of two data terminals, within a larger open network. The pair of terminals are configured to share unrestricted access with each other, but access to or by any other data terminal in the open network is not possible.

Be

excess burst size

The maximum number of uncommitted data bits that the network attempts to deliver over a measured time interval.

BECN

Backward Explicit Congestion Notification

The notification from the frame relay network to indicate that when the packet forwarding direction was reversed, the network experienced congestion.

Bilateral Closed User Group

BCUG

A virtual private network, consisting of two data terminals, within a larger open network. The pair of terminals are configured to share unrestricted access with each other, but access to or by any other data terminal in the open network is not possible.

bind

In SNA, the request unit (RU) involved in activating an LU6.2 session. It binds a protocol to a network board installed in the server.

BIND

The NetWare command that links a protocol and a board or network interface.

BIND

An SNA request (initiated by the APPC verb CNOS) sent from one logical unit (LU) to another to establish a session. For LU6.2, BINDs are negotiated between two LUs. The LU that initiates the BIND is known as the "primary LU," and the LU that receives the BIND is known as the "secondary LU."

Bindery

Short for "Bindery object."

bindery application

An application that makes calls to the NetWare bindery. NDS supports bindery applications with bindery services.

bindery context

The container object in the NDS tree that enables NDS to provide network information to servers and programs that depend on using the NetWare bindery.

bindery context level

A relative position within the NDS tree where bindery services are in effect. This position depends upon how the NDS tree was set up.

Bindery object

A leaf object placed in the NDS tree during an upgrade or migration from an earlier version of NetWare. Usually, NDS cannot identify the specific object, and bindery-based clients must access it with older NetWare utilities by using bindery services.

Bindery Queue object

A leaf object in the NDS tree that represents a print queue. The object is placed in the NDS tree during a migration or upgrade from a previous version of NetWare. NDS cannot identify such objects, and they must be accessed using older NetWare utilities.

bindery services

An NDS feature that creates bindery context, allowing bindery-based servers, clients, and utilities to coexist on an NDS network. In bindery services, NDS simulates a flat (nonhierarchical) structure for the objects within a container object. Only the leaf objects of the container are represented in this structure, creating limitations for bindery services users that other NDS users do not have.

BIOS

basic input/output system

A set of programs, usually in firmware, that enables each computers central processing unit to communicate with printers, disks, keyboards, consoles, and other attached input and output devices.

bit rate

The rate at which bits (binary digits) are transmitted over a communications line. Bit rate is usually expressed in bits per second (bps).

BLANK

In the AS/400 system, a default mode used to minimize configuration of network attributes.

block

In NetWare, to render inoperable or untouchable or unchangeable; to obstruct access to an NDS object, such as a directory or file.

block

The smallest amount of disk space that the server reads or writes at a time. All disk accesses are measured in blocks. The block size for a volume is defined at installation, and is usually between 4 KB and 64 KB.

block

To select or highlight text.

block ID

A three-digit hexadecimal number assigned to a physical unit (PU).

In NetWare Link/SNA, this number denotes the device type and responds to IDBLK in the VTAM PU definition statement.

In NetWare for SAA, it is the same ID assigned to the PU on the host.

block suballocation

The division of partially-used disk blocks into smaller, 512-byte blocks. Block suballocation allows the last part of several files to share one disk block rather than using one disk block for each file, using disk space more efficiently.

board

A category under the Internetworking Configuration utility (INETCFG) where interface board parameters are configured.

board

A hardware interface card, installed in a computer, that connects the computer to other hardware or devices. A removable printed circuit board that is plugged into a computers expansion slot. Boards can add memory or graphics capabilities, connect to modems or printers, and so forth.

boot

To start or restart a computer and ready it for use. A "cold" boot is done by turning on the power switch. A "warm" boot resets the computer without turning off the power source.

bootconf.sys

In a NetWare diskless workstation, the configuration file that is used by Remote Reset to determine which remote boot image file to use to boot the operating system and access the network.

boot directory

In the NetWare operating system, the directory where the server.exe file is stored. Executing server.exe starts (boots) the server operating system.

boot file

A file, such as autoexec.bat or config.sys, that starts up a computer by loading its operating system and drivers, by setting environment variables, and by handling other initialization tasks.

BOOTP

Bootstrap Protocol

A TCP/IP protocol that enables an internet node (for example, a diskless workstation) to discover certain start-up information, such as its IP address.

BOOTP relay agent

An Internet host or router that passes BOOTP messages between BOOTP clients and BOOTP servers. Because the Dynamic Host Configuration Protocol (DHCP) is designed to use the same relay agent behavior as specified in the BOOTP protocol specifcation, a BOOTP relay agent also passes DHCP messages between DHCP clients and DHCP servers.

bound-in NLM

Any NLM that is part of the server.exe file, which is the core of the NetWare operating system.

bridge

A device that connects two or more physical networks, forwarding frames between networks based on information in the data-link header. Because it operates at the data-link layer, it is transparent to the network-layer protocols.

broadcast

To send a message to all connected nodes on a data communications network (as opposed to sending a message to a single node).

broadcast

A packet delivery service in which all hosts on a network receive a copy of any frame that is designated for broadcast.

broadcast

In network transmission, a message sent to all connected nodes, as opposed to a message sent to a single node.

broadcast

In Novell GroupWise® Workflow, to send workflow steps to all receipients at once.

Broker

Short for "Broker object."

Broker object

An NDS object associated with NDPS that represents broker.nlm and provides three network support services not previously available in NetWare: the Service Registry Service (SRS), Event Notification Service (ENS), and Resource Management Service (RMS).

brouter

bridging router

A device that routes some protocols and bridges others.

Browse

In the Common Desktop Environment (CDE), a menu-bar item in Calendar used to look at the calendar appointments of others.

browse

To scan a collection of items, such as a database, a file manager view, a list box, Web pages, or text files, for a particular item or for items of interest. To browse implies observing rather than changing information.

browse

Short for "Browse right."

browser

1. In the Common Desktop Environment (CDE) Application Builder, a window that provides a symbolic, hierarchical view of a module in a user interface. The browser shows parent-child relationships and groups. It can also be used to find objects in complex modules and to edit a user interface.

2. A utility that combines viewing with the ability to perform other actions, depending on rights or other dependencies. For example, a Web browser allows a user to access pages on the World Wide Web; a NetWare Administrator browser window allows a user to access the NDS tree.

Browse right

B

An object right that grants the right to see an object in the NDS tree. The name of the object is returned when a search is made that matches the object.

B-tree

Abbreviation for "balanced tree."

A compact structure that allows the NSS system to retrieve an object from disk in no more than four I/O cycles. B-trees also allow the system to locate an object anywhere in storage without loading the entire directory entry table (DET) into memory.

Btrieve

A key-indexed record management system used in NetWare 3.0 and later that allows access, updating, creation, deletion or saving records from a database. Btrieve consists of several programs that can run in either a client-based or server-based version.

buffer

A temporary storage location in memory where data can be held for processing.

A buffer can be used to hold data in an area where it can be easily accessed. It is often used to compensate for differences in data-flow rates (for example, between a terminal and its transmission line). A buffer can also be used as a backup mechanism, holding data that can then be retransmitted if an error is detected during transmission.

buffer underflow

A condition in which a program receives an end-of-data error before it has received and read enough bytes to return the information that was requested. This usually occurs when the requested data is corrupted.

bus interrupt

A device I/O interrupt used by such devices as disk or LAN drivers.

bus topology

The linear LAN used by Ethernet networks.

CCC

cache

To hold data in a temporary storage area, such as in memory (RAM), so that the data can be accessed more quickly than from the hard disk.

cache

A quickly accessible area of RAM or a directory or a disk that stores frequently used information.

cache buffer

A block of NetWare® server memory (RAM) that temporarily stores data.

cache buffer pool

The amount of memory available for use by the operating system after the server.exe file has been loaded into memory.

cache hit

A successful search for data in a memory cache.

cache memory

Available random access memory (RAM) that NetWare uses to improve NetWare server access time. Cache memory allocates memory for the hash table, the FAT, the Turbo FAT, suballocation tables, the directory cache, a temporary data storage area for files and NLM programs, and available memory for other functions.

cache-only server

A server that has no database; it must query other name servers to obtain information. After a cache-only server receives information for a query it caches the information and can respond to subsequent queries (for the same name) without querying other name servers.

call

A request by one network node to establish communications with another network node; also, the resulting communication session or the virtual circuit over which it is conducted.

call authentication

A method of protecting against unauthorized access into a system by inbound remote calls.

call control agent

CCA

A software module that works in tandem with the call support layer (CSL). The CCA contains wide area network (WAN) media-specific connection management logic.

Call Manager utility

CALLMGR

The NetWare utility used to monitor the status of the WAN connections or to start and stop WAN calls manually.

CALLMGR

The NetWare utility used to monitor the status of the wide area network (WAN) connections or to start and stop WAN calls manually.

Call Request packet

In X.25, a type of control packet sent to data terminal equipment (DTE) to request initiation of a virtual call.

call support layer

CSL

The software module that provides a general-purpose interface for controlling wide area network (WAN) calls. Call control refers to a set of actions taken to establish, maintain, and disconnect a WAN connection.

Can’t Compress

Cc

Short for "Can’t Compress attribute."

Can’t Compress attribute

Cc

A file system attibute indicating that a file cant be compressed because of insignificant space savings. It is shown in attribute listings but cant be set by users.

CAPTURE

A NetWare command line utility used to print to a network printer from an application that is not designed to run on a network. CAPTURE can also print screen displays and save data to a network file.

CC

Customer Connections

Cc

Initialism for "Cant Compress attribute."

CC

carbon copy

CC

Cooperative Console

A Sun Microsystems, Inc. management tool.

CC

correction ceiling

CCA

Compatible Communications Architecture

CCA

Computer Corporation of America

CCA

common cryptographic architecture

CCA

communications control architecture

CCA

call control agent

A software module that works in tandem with the call support layer (CSL). The CCA contains wide area network (WAN) media-specific connection management logic.

CDM

code division multiplexing

CDM

custom device module

The driver component in the NetWare Peripheral Architecture (NPA) used to drive specific storage devices attached to the host adapter.

CEPT

Conférence Européenne des Postes et des Télécommunications (European Conference of Postal and Telecommunications Administration)

The association of the European Post, Telephone, and Telegraph agencies (PTT) that recommends communication specifications to the International Telecommunication Union Telecommunication Standardization Sector (ITU-T). This governing body created the facility used to transport 30 voice channels at 64 Kbs (for a total of 2.048 Mbps); also known as "E1."

certificate

In public-key cryptography, a digital document attesting to the binding of a public key to an owner (such as an individual or a Web server). A certificate verifies claims that a given public key does in fact belong to a given individual. It is used to prevent unauthorized users from using phony keys to impersonate legitimate users.

Certificates contain, at a minimum, a public key and a name. Normally they also contain the expiration date of the key, the name of the certifying authority that issued the certificate, and the serial number of the certificate. They can also contain the digital signature of the certificate issuer.

Also called "digital certificate," "digital ID," "digital passport," and "public key certificate."

certificate authority

An entity that issues the digital certificates used in public-key cryptography and attests to the identity of the person or organization to whom it issues the digital certificates. For example, a company may issue certificates to its employees, a university to its students, or a town to its citizens. Also called certification authority or certifying authority.

certificate signing request

CSR

An electronic document that contains distinguishing information about a Web server or service and its associated organization. A CSR must be submitted to a certificate authority (CA) in order to receive a certificate for a service. When an external certificate authority is used, the CSR must be submitted to the CA to be digitally signed.

certification authority

An entity that issues the digital certificates used in public-key cryptography and attests to the identity of the person or organization to whom it issues the digital certificates. For example, a company may issue certificates to its employees, a university to its students, or a town to its citizens. Also called certificate authority or certifying authority.

CGI

Common Gateway Interface

A standard for how a Web server communicates with external programs. CGI specifies how to pass arguments to the executing program as part of the HTTP request and defines a set of environment variables. Commonly, the program generates some HTML that is passed back to the browser, but it can also request redirection to a different URL.

This interfacing allows for interactive sites instead of just static text and images.

CGI

color graphics interface

Challenge Handshake Authentication Protocol

CHAP

An inbound call protection method that enables the receiving node to issue a challenge sequence that must be modified by the caller to use a "secret" known by both peer nodes.

Change Number of Sessions

CNOS

An Advanced Program-to-Program Communication (APPC) verb used to perform session-related operations.

channel

A path that allows the transmission of electromagnetic signals between a computer and a device; the path can consist of cables and storage devices and can include a host bus adapter.

channel-attached

Describes devices attached to a controller by cables, rather than by telecommunication lines.

channel service unit

CSU

A digital signal processing device used to connect an external digital channel (such as a T-1, DDS, or Switched 56 line) to a multiplexer or to another device that produces a digital signal (such as a digital PBX or a PC).

At the customers end of the telephone connection, CSUs perform much the same function for digital circuits that modems provide for analog connections. A CSU performs certain line coding, line-conditioning, equalization, and monitoring functions, including transmit and receive filtering, signal shaping, longitudinal balance, voltage isolation, and remote loopback testing for digital transmission.

CHAP

Challenge Handshake Authentication Protocol

An inbound call protection method that enables the receiving node to issue a challenge sequence that must be modified by the caller to use a "secret" known by both peer nodes.

character length

In serial communication, the number of bits used to form a character.

character set

The letters, numbers, and characters a computer uses for display and printing. Alphabet-based languages, such as English, usually have a character set of 256 symbols (the number of combinations one byte can hold). Unicode, with 16 bits, has a possible character set of 65,536 symbols.

charge rate

The number that is subtracted from a NetWare users account balance for a unit of service. For example, a charge rate of 2/3 for connection time means that 2 is subtracted from the users account balance for every 3 minutes of connection time.

checksum

The numeric computation that combines the bits of a transmitted message; also the resulting value. The value is transmitted with the message; the receiver recalculates the checksum and compares it to the received value to detect transmission errors.

CHGNETA

In the AS/400 system, a command used to change network attributes.

child VLM

A Virtual Loadable Module that receives calls from and returns calls to a parent VLM. A child VLM handles a particular implementation of a logical grouping of functionality. For example, each of the following is a child VLM of NWP.VLM:

– BIND.VLM for NetWare 2 and 3 bindery servers

– NDS.VLM for NetWare 4 NDS® servers

– PNW.VLM for Personal NetWare (NetWare desktop) servers

CI

component integration

CI

Computer Intelligence

A group that contracted with Novell to provide online information about LAN sites.

CI

congestion indicator

CI

configuration item

In the Product Life Cycle (PLC) process, an aggregation of hardware, software, or both, that is designated for configuration management and treated as a single entity in the configuration management process.

Ci

Initialism for "Copy Inhibit attribute."

CIR

committed information rate

The rate, in bits per second, at which a network offering frame relay services (FRS) agrees to transfer data on a particular virtual circuit under normal operating conditions. The rate is averaged over a minimum increment of time.

circuit

Any path that can carry an electrical current. In the context of NetWare Link Services Protocol (NLSP), an internal logical representation of network connectivity between two NLSP routers (or between two SNA/NetBIOS end stations).

circuit switching

A procedure for establishing a connection between two end devices. Once established, the connection uses a nonsharable path through the network.

Clear Request packet

In X.25, a type of control packet sent to a data terminal equipment (DTE) to request the termination of a virtual call.

Clear To Send

CTS

A control signal generated by data communications equipment (DCE) to indicate that it can transmit data.

CLI

Common Layer Interface

A layer in the Novell Storage Services (NSS) software architecture that provides naming, object, and management services.

The CLI layer defines the interfaces that Semantic Agents use to access the object engine layer.

CLI

command line interpreter

The main interface between a user and a computer. A CLI accepts commands and then performs functions.

CLI

call level interface

A database standard, as in SQL/CLI.

CLI

Compression Labs, Inc.

A vendor for video conference equipment.

CLIB

C-Library

The dynamically loaded Runtime NetWare C library that provides an interface to the NetWare operating system.

client

A system or software application that requests services from another application, usually across a network.

client/server network

A network having at least one personal computer configured as a server. The server runs the client/server network operating system and controls communication and shared network resources. The clients are workstations connected to the network and are running client software.

clock

In the Common Desktop Environment (CDE), both a software application that displays the time, and a control option in Front Panel that displays the local time.

clock

A software or hardware algorithm that provides time stamps for computer events.

clocking

A method of time synchronization of communication information.

closed user group

CUG

A facility that allows the configuration of virtual private networks within a larger public network. It allows a user to collect data terminal equipment (DTEs) into a single logical group, and restricts the ability of the group to

receive or make outgoing calls to the restricted "open" portion of the network. The number of CUGs is network-dependent. A single DTE can belong to one or more CUGs.

cluster

A group of servers that are each connected to the same storage device and are running Novell® Cluster Services software. A cluster increases availability and fault tolerance for network applications and services by providing the ability for servers to automatically load and run applications and services from other servers which fail.

cluster resource

A NetWare application, service, or volume that has been set up for high availability by being configured to work with Novell Cluster Services.

cluster server

A server that is connected to a shared storage device and is running Novell Cluster Services software.

cluster volume

A volume on shared storage or a shared disk system.

cluster-enabled volume

A volume on shared storage that has been set up as a cluster resource, with its own IP address and load and unload scripts.

See also cluster resource; load script; unload script.

CMFS

Continuous Media File System. A disk storage system used by the NetWare MultiMedia Server component that provides Disk QoS on the NetWare server. This allows multiple file accesses, delivering data at a guaranteed rate while sharing a single disk drive.

CMOS

complementary metal oxide semiconductor

A technology for making integrated circuits, widely used for processors and memories because it minimizes power needed for operation. The term is loosely used to refer to the CMOS RAM in a PC.

CMOS RAM

complementary metal oxide semiconductor random access memory

A small, battery-backed memory bank in a personal computer used to contain the PCs configuration information (time, date and system information, such as drive types). CMOS RAM is memory made of CMOS chips, which, because of their low power requirement, are increasingly being used for main memory in portable computers.

CNOS

Change Number of Stations

An Advanced Program-to-Program Communication (APPC) verb used to perform session-related operations.

Co

Initialism for "Compressed attribute."

CO

central office

A local hub for the public switched telephone network (PSTN).

CO

connection oriented

code page

CP

A table that lists the possible combinations for a character set used by a computer. For example, a DOS code page that defines the extended ASCII character set consists of 256 character combinations, using an 8-bit code. Unicode, using a 16-bit code, allows up to 65,536 unique characters. Separate code pages apply to different languages.

comatose

A cluster resource state in which the resource is not running properly on a server and is not accessible. The resource requires administrator intervention.

command format

Instructions that show how to type a command at the keyboard; also called syntax. In NetWare manuals, a command format may include constants, variables, and symbols.

committed burst size

Bc

The maximum number of data bits that a network agrees to transfer under typical conditions over a measured time interval.

committed information rate

CIR

The rate, in bits per second, at which a network offering frame relay services (FRS) agrees to transfer data on a particular virtual circuit under normal operating conditions. The rate is averaged over a minimum increment of time.

Common Gateway Interface

CGI

A standard for how a Web server communicates with external programs. CGI specifies how to pass arguments to the executing program as part of the HTTP request and defines a set of environment variables. Commonly, the program generates some HTML that is passed back to the browser, but it can also request redirection to a different URL.

This interfacing allows for interactive sites instead of just static text and images.

Common Layer Interface

CLI

A layer in the Novell Storage Services (NSS) software architecture that provides naming, object, and management services.

The CLI layer defines the interfaces that semantic agents use to access the object engine layer.

communication buffer

An area in the NetWare servers memory set aside to temporarily hold data packets arriving from clients.

communication protocol

A convention or set of rules used by a program or operating system to communicate between two or more endpoints. Although many communication protocols are used, they all allow information to be packaged, sent from a source, and delivered to a destination system.

communications controller

A machine directly attached to a host computer that processes communications to a host. The communications controller is also known as a "front-end processor."

Compare right

C

A property right that allows a trustee to compare the value of a property with another value to see if they are equal. The Compare right process returns True or False, but it does not return the actual value of the property.

complete name

An object name that includes its path from the root of the NDS tree. For example, if user KSMITH is located at O=Novell, OU=Sales, then her complete name is Ksmith.Sales.Novell. In NDS terminology, complete name is called distinguished name (DN).

COM port

communications port

A connection device between a computer and another component, such as a printer or modem. A COM port is a serial port, meaning that information is transmitted through it one bit at a time.

Compressed

Co

Short for "Compressed attribute."

Compressed attribute

Co

A file system attribute indicating that a file is compressed. The Compressed attribute is automatically set by NetWare. It is shown in attribute listings but cant be set by users.

compression

The process of compacting information for more efficient transmission or storage. The information must then be decompressed before it is used.

Computer

Short for "Computer object."

Computer object

A leaf object in the NDS tree that represents a network computer, such as a router. The object does not represent a server. The Computer object records information such as a description, serial number, and contact person.

configuration

The combination of elements, either software or hardware or both, that comprise a computer system, and the way they are set up to work together based on a number of possible choices.

Configuration Manager

Short for "Novell Configuration Manager."

Configuration Manager Console

Short for "Novell Configuration Manager Console."

configured router

An AppleTalk router that must be manually configured when it is added to a Novell network. Other routers obtain their configuration from this router.

A seed router defines the range of network numbers for all routers in an AppleTalk network segment. Each AppleTalk network segment must have at least one seed router.

A configured router is also known as a seed router.

Configure NSS Volumes

An option on the NSS Administration menu that provides a way to turn storage free space into NSS volumes. The storage free space, which comes from an object bank where it has been deposited by NSS, must first be "owned" by a consumer object.

Configure Storage Group

An option on the NSS Administration menu that puts storage free space from several devices into a group for NSS volume creation.

conformance option

One of a set of options that provide access to expert parameters for specific control of the packet level, such as the NetWare Link/X.25 packet level, and frame level operations. This includes changing the frame reject operation, setting the length of a clear confirmation packet, and managing unassigned Logical Channel Numbers (LCNs.)

congestion

The existence of excessive traffic on the network.

connection

In the Common Desktop Environment (CDE), a programmatic relationship established in the Application Builder between interface objects, wherein an event in a source object triggers an action on the target object. It is used to specify application behavior. Connections are established in the Connections editor.

connection

In VTAM programs, a physical connection to another device.

connection

In Systems Network Architecture (SNA), the network path that links two logical units in different nodes.

connection

In MPR, a session between two networks.

connection number

A unique number assigned to any process, print server, application, workstation, or other entity that attaches to a NetWare server. The number can be different each time an attachment is made. Connection numbers are used in implementing network security and for network accounting. They reflect the objects place in the file servers connection table. Additionally, they provide an easy way to identify and obtain information about the objects logged in on the network.

connectivity

The ability to link different pieces of hardware and software (Macintoshes, PCs, minicomputers, or mainframes) into a network to share resources (applications, printers, and so forth).

console

The monitor and keyboard where a user views and controls NetWare server or host activity.

console operator

A user or member of a group who has been assigned rights to manage the NetWare server.

consumer

Short for "consumer object."

consumer object

In NSS, the application that accesses storage free space (as deposit objects) from the object bank and claims ownership of the free space for NSS so that storage groups and NSS volumes can be created.

container

In the Common Desktop Environment (CDE), a control intended to hold objects or data. A folder and a notebook are examples of containers. Also, in the OSF/Motif Style Guide, a control whose specific purpose is to hold and display objects.

container

Short for "container object."

container login script

A set of commands that sets environmental variables for all users within a container. The container login script is executed when a user logs in.

container object

An NDS object that can hold, or contain, other objects. Container objects are used to logically group related objects in the NDS tree to provide those objects with rights and services. Common examples of container objects are Country, Organization, and Organizational Unit.

context

The position or location of an object in the NDS tree. When an administrator adds an object (such as a server or user) to the network, that object is placed in a container in the NDS tree. The path of containers from the root of the tree to the new object constitutes the objects context. For example, if a User object were created in a container called SALES, which itself was located in a top-level container called ACME, the context of the User object would be SALES.ACME.

CONTEXT

The login script command that sets a users current context in the Directory tree, and is the context you want the user to see after login. The format for this command is: CONTEXT. For example: CONTEXT.SALES.NOVELL_US.

Continuous Media File System

CMFS. A disk storage system used by the NetWare MultiMedia Server component that provides Disk QoS on the NetWare server. This allows multiple file accesses, delivering data at a guaranteed rate while sharing a single disk drive.

control article

Article sent to a replication site that asks the news server to create Internet discussion groups, delete outdated discussion groups, cancel articles, etc.

controlled access printer

An NDPS printer that has been added to the NDS tree as an NDS object. Access is available only to users who have been granted rights to it.

controller

A hardware device that coordinates and controls the operation of one or more input or output devices, such as a disk driver. In AS/400, controller is a synonym for physical unit (PU).

controller address

The number the operating system uses to locate the controller on a disk channel. The number is physically set (usually with jumpers) on a disk controller board.

controller board

A device that enables a computer to communicate with another device, such as a hard disk or tape drive. The controller board manages input/output and regulates the operation of its associated device.

controller description

CTLD

In AS/400, an object that contains a description of the characteristics of a controller that is attached to the system or a communication line.

control packet

A link-control or network-control packet used for establishing encapsulation format options, size limits of packets, link setup, peer authentication, or network-layer protocol management.

control point

CP

A component of a node that manages resources of that node and optionally provides services to other nodes in the network. In a type 2.1 (T2.1) advanced peer-to-peer networking (APPN) node, the CP also provides services to adjacent end nodes in the T2.1 network.

control point name

CPNAME

An operand in a Virtual Telecommunications Access Method (VTAM) definition statement coded with the network-qualified name of a control point (CP). A control point name consists of a network ID qualifier identifying the network to which the CPs node belongs, and a unique name identifying the CP. Each APPN or low-entry networking (LEN) node has one control point name.

Control point name identifies a Type 2.1 node with a subset of system services control point (SSCP) functions that allow LU6.2 sessions to be activated, controlled, and deactivated.

In NetWare Link/SNA, CPNAME corresponds to the Peripheral Node Control Point Name parameter.

control unit address

In Synchronous Data Link Control (SDLC), a two-digit hexidecimal number that denotes the physical unit (PU) address. In a Network Control Program (NCP) definition statement, this value corresponds to that of the ADDR parameter. In an AS/400 controller description, this value corresponds to that of the STNADR parameter.

convergence

The synchronization process that a network goes through immediately after a route change happens on the network. The amount of time it takes to all routers to synchronize their databases when a change occurs to the network is a major problem with the Routing Information Protocol (RIP).

convergence time

The time required for routing information to spread thoughout the network.

conversation

In NetWare for SAA, the communication between two transaction programs communicating over a Type 6.2 LU-LU session.

Copy Inhibit

Ci

Short for "Copy Inhibit attribute."

Copy Inhibit attribute

Ci

A file system attribute that prevents users from copying the file even if they have Read and File Scan rights.

core dump

A file generated under certain conditions when an error terminates a program. The file is a snapshot of the program state at the moment of termination.

cost

A metric assigned to a circuit that determines the likelihood of traffic being routed over that circuit.

Country

C

Short for "Country object."

Country object

C

An optional container object that designates one country where network sites are located, and that is used to organize other NDS objects within that object. For example: US. This object is always found at the top of the NDS tree (directly below the [Root] object). This object is not often used, but it is available for compliance with the X.500 standard.

CP

connection processor

CP

copy protected

CP

command processor

CP

control point

A component of a node that manages resources of that node and optionally provides services to other nodes in the network. In a type 2.1 (T2.1) advanced peer-to-peer networking (APPN) node, the CP also provides services to adjacent end nodes in the T2.1 network.

CP

code page

A table that lists the possible combinations for a character set used by a computer. For example, a DOS code page that defines the extended ASCII character set consists of 256 character combinations, using an 8-bit code. Unicode, using a 16-bit code, allows up to 65,536 unique characters. Separate code pages apply to different languages.

CPNAME

control point name

An operand in a Virtual Telecommunications Access Method (VTAM) definition statement coded with the network-qualified name of a control point (CP). A control point name consists of a network ID qualifier identifying the network to which the CPs node belongs, and a unique name identifying the CP. Each APPN or low-entry networking (LEN) node has one control point name.

Control point name identifies a Type 2.1 node with a subset of system services control point (SSCP) functions that allow LU6.2 sessions to be activated, controlled, and deactivated.

In NetWare Link/SNA, CPNAME corresponds to the Peripheral Node Control Point Name parameter.

CRC

cyclic redundancy check

A sophisticated checksum algorithm used to detect packet transmission errors. The CRC is built into each Ethernet frame as an error checking value to ensure data integrity.

CRC

camera-ready copy

Create right

C

A file system right that grants the ability to create new files or subdirectories, or to salvage a file after it has been deleted.

Also, an NDS object right that allows the trustee to create a new object below the current object in the tree. This right is available only for objects that can have subordinates, such as containers and volumes.

cross-post

A link to an article in an Internet discussion group. If an article is posted simultaneously to multiple discussion groups, only one copy of the article is stored in the spool. The other copies, known as cross-posts, are links to the main article.

CSL

call support layer

The software module that provides a general-purpose interface for controlling wide area network (WAN) calls. Call control refers to a set of actions taken to establish, maintain, and disconnect a WAN connection.

CSR

customer support representative

CSR

control and status register

CSR

certificate signing request

An electronic document that contains distinguishing information about a Web server or service and its associated organization. A CSR must be submitted to

a certificate authority (CA) in order to receive a certificate for a service. When an external certificate authority is used, the CSR must be submitted to the CA to be digitally signed.

CSR

cell missequenced ratio

CSR

continuous speech recognition

CSU

channel service unit

A digital signal processing device used to connect an external digital channel (such as a T-1, DDS, or Switched 56 line) to a multiplexer or to another device that produces a digital signal (such as a digital PBX or a PC).

At the customers end of the telephone connection, CSUs perform much the same function for digital circuits that modems provide for analog connections. A CSU performs certain line coding, line-conditioning, equalization, and monitoring functions, including transmit and receive filtering, signal shaping, longitudinal balance, voltage isolation, and remote loopback testing for digital transmission.

CSU

control service units

CSU

customer setup

Hardware that is designed to be set up by the customer.

CTLD

controller description

In AS/400, an object that contains a description of the characteristics of a controller that is attached to the system or a communication line.

CTS

creation time stamp

A NetWare server attribute.

CTS

clear to send

A control signal generated by data communications equipment (DCE) to indicate that it can transmit data.

CTS

carpal tunnel syndrome

CUG

closed user group

A facility that allows the configuration of one or more virtual private networks within a larger public network. It allows a user to collect a number of DTEs (data terminal equipment) into a single logical group, and restricts the ability of the group to receive incoming calls from or make outgoing calls to the restricted "open" portion of the network. The number of CUGs is network-dependent. A single DTE can belong to one or more CUGs.

current context

A users current location in an NDS tree, as reported by the Novell Client software.

custom device module

CDM

The driver component in the NetWare Peripheral Architecture (NPA) used to drive specific storage devices attached to the host adapter.

cyclic redundancy check

CRC

A sophisticated checksum algorithm used to detect packet transmission errors. The CRC is built into each Ethernet frame as an error checking value to ensure data integrity.

DDD

daemon

A background program that runs unattended, collecting information or performing operating system administration tasks. Some daemons are triggered automatically by events; others operate at timed intervals.

DARPA

Defense Advanced Research Projects Agency

The U.S. government agency that funded ARPANET.

data bit

In asynchronous transmission, any of the bits that actually comprise the data. Usually, 7 or 8 bits are grouped together.

Serial communication sends information in a stream of bits called a frame. Each frame consists of a start bit, data bits, an optional parity bit, and a stop bit. The parity bit is set to 0 or 1 so that the sum of the data bits is even or odd.

data circuit-terminating equipment

DCE

A variant of "data communications equipment."

data communications equipment

DCE

Any communications device that establishes, maintains, and terminates the connection with another device.

In the RS-232-C standard developed by Electronic Industries Association, the two types of devices are data terminal equipment (DTE), typically personal computers or data terminals, and data communications equipment (DCE),

typically modems and printers. They are differentiated by their wiring of pins 2 and 3.

NetWare® Link/X.25 requires a DTE/DCE pair to operate.

data compression

A method of reducing the amount of data used to represent the original information by eliminating redundancy, such as repeated characters or data sequences.

data fork

The part of a Macintosh file that contains information (data) specified by the user. A Macintosh file contains two parts, the data fork and the resource fork.

datagram

A data transmission packet used in connectionless mode communication. Datagrams are independent of each other in that the receiver is able to reconstitute a message without any dependency on the order in which packets are received. In general, datagrams are not acknowledged.

Datagram Delivery Protocol

DDP

An Apple Talk protocol that provides best-effort socket-to-socket delivery of datagrams across an AppleTalk internet.

data-link connection identifier

DLCI

The 10-bit routing address of the virtual circuit at either the User-Network Interface (UNI) or the Network-Network Interface (NNI). It allows the user and network management to identify the frame as being from a particular permanent virtual circuit (PVC). The DLCI is used for multiplexing several PVCs over one physical link.

data-link control

DLC

Protocols, used by nodes on a data link, that govern the exchange of packet information, including destination address, source address, and control information.

data-link control layer

DLC layer

In the Systems Network Architecture (SNA) model, the layer that consists of the link stations that schedule data transfer over a link between two nodes and that perform error control for the link.

data-link layer

The second of seven layers of the Open Systems Interconnection (OSI) reference model. The data-link layer is involved in packaging and addressing information, and in controlling the flow of separate transmissions over communication lines.

data migration

The transfer of inactive data from a NetWare volume to tape, optical disk, or other near-line or offline storage media. Data migration lets an administrator move data to a storage device, while NetWare still sees the data as residing on the volume.

Dataphone Digital Service

DDS

The AT&T four-wire, digital communications service that operates at speeds from 2,400 bps to 56 Kbps on a point-to-point connection.

data protection

A means of ensuring that data on the network is safe. NetWare protects data primarily by maintaining duplicate file directories and by redirecting data from bad blocks to reliable blocks on the NetWare servers hard disk.

data rate

The speed at which data bits are transmitted and received. The data rate is usually measured in bits per second (bps).

data set

A compilation of related information. Data sets can contain different items depending on which target service agent (TSA) they are related to.

data terminal equipment

DTE

Any communications device that receives signals from data communications equipment (DCE) devices in a packet-switched network.

In the RS-232-C standard developed by Electronic Industries Association, the two types of communications devices are data terminal equipment (DTE), typically personal computers or data terminals, and data communications equipment (DCE), typically modems and printers. They are differentiated by their wiring of pins 2 and 3.

D-bit

delivery confirmation bit

A component of a user packet. If set to 1, it specifies that an end-to-end acknowledgment is sent by the receiving data terminal equipment (DTE) to the sending DTE. This acknowledges the receipt of a complete packet sequence. If set to 0, it specifies local delivery acknowledgment.

Dc

Initialism for "Dont Compress attribute."

DC

direct current

DC

data communications

DCE

data circuit-terminating equipment

A variant of "data communications equipment."

DCE

distributed computing environment

An architecture or integrated set of services, originally developed by Open Software Foundation (OSF), Inc. DCE enables engineers to develop distributed applications to be used on heterogeneous networks. After OSF requested distributed computing technology from industry partners, DCE was augmented by several established technologies from Digital Equipment Corporation. The added technologies included Cell Directory Service (CDS), Distributed Time Service (DTS), Remote Procedure Call (RPC), and Threads Service.

DCE

data communications equipment

Any communications device that establishes, maintains, and terminates the connection with another device.

In the RS-232-C standard developed by Electronic Industries Association, the two types of devices are data terminal equipment (DTE), typically personal computers or data terminals, and data communications equipment (DCE), typically modems and printers. They are differentiated by their wiring of pins 2 and 3.

NetWare Link/X.25 requires a DTE/DCE pair to operate.

DDP

distributed data processing

DDP

Datagram Delivery Protocol

An Apple Talk protocol that provides best-effort socket-to-socket delivery of datagrams across an AppleTalk internet.

DDS

distributed directory service

DDS

Dataphone Digital Service

The AT&T four-wire, digital communications service that operates at speeds from 2,400 bps to 56 kbps on a point-to-point connection.

DDS

digital data storage

DDS

digital data service

DDS

digital data standard

DE

Discard Eligibility

In frame relay technology, the bit set by the end node that, when set and supported by the frame relay network, allows frames to be discarded in preference to other frames when a network is congested.

debugger

A tool used by developers to identify errors in a program in order to facilitate their removal.

default drive

The drive a workstation is using. The drive prompt, such as A> or F>, identifies the current drive.

default rights

Rights that are automatically conferred upon a User object by the NetWare security system. Default rights for different objects are as follows:

– The ADMIN user has all rights in NDS and in the NetWare file system.

– The PUBLIC object has the Browse right to the root of the NDS tree. This enables all objects, by inheritance, to browse the tree.

– User objects created in the container have the following rights on the Sys volume in the container: Read and File Scan to the Login and Public directories, and Create to the Mail directory. They have the same rights on the Sys volumes in all parent containers, but not on the Sys volumes in subordinate containers.

– If a home directory is created during the User object creation, the user has all rights to the home directory, no matter where it is in the tree.

default server

An NDS® property called Host Server that is mandatory for Volume and User objects.

In the case of Volume objects, its the server the physical volume is attached to.

In the case of User objects, the UI calls it Default Server and its the server the user gets a connection to during login if the user doesnt request a connection to a specific server. Its also the server used if the user makes a network request without naming the server, and its the server to which the user still has an attachment after logging out.

default server

The server a user attaches to when the NetWare Requester loads. The default server is the preferred server specified in the users net.cfg file. Also, the server the current drive is mapped to.

This applies to versions of NetWare before NetWare 5.

default zone

The zone name that has been designated for all devices on a network to be associated with by default.

Defense Advanced Research Projects Agency

DARPA

The U.S. government agency that funded the ARPANET.

definition statement

In Virtual Telecommunications Access Method (VTAM), the statement that describes an element of the network.

definition statement

In Network Control Program (NCP), a type of instruction that defines a resource to the NCP.

delay

The time it takes to send a byte of data from one system to another.

Delete Inhibit

Di

Short for "Delete Inhibit attribute."

Delete Inhibit attribute

Di

A file system attribute that prevents a directory or file from being deleted or erased, even if a user has the Erase right. This attribute is automatically set and removed when the Read Only attribute is set and removed.

Delete right

D

The ability to delete an object from the NDS tree.

Delete Self right

A property right that grants a trustee the ability to remove itself as a value of the property.

delimiter

A character, symbol, or code that marks the beginning or end of an item such as a command or command parameter, sentence, paragraph, page, record, field, or word. Delimiters used in NetWare include the comma (,), the period (.), the slash (/), the backslash (\), the hyphen (-), and the colon (:).

Also used in "dynamic delimiter" to refer to a character that expands to enclose part of an equation.

delivery confirmation bit

D-bit

A component of a user packet. If set to 1, it specifies that an end-to-end acknowledgment is sent by the receiving data terminal equipment (DTE) to the sending DTE. This acknowledges the receipt of a complete packet sequence. If set to 0, it specifies local delivery acknowledgment.

deposit object

An entity in the NSS object bank, such as storage free space or a CD-ROM, that has been recognized by an NSS provider.

designated primary server

The master primary server that services a primary zone; it is the only primary server of the zone that will update the zone information. It will also honor zone transfers. There is only one designated primary server per zone.

Designated Router

The router in a NetWare Link Services Protocol (NLSP) internetwork that represents its network. It is responsible for exchanges of link state information on behalf of all other NLSP routers in the same LAN. Its two main functions are to

Originate Link-State Advertisements (LSAs) on behalf of the network segment

Establish an adjacency relationship to all other routers on the network segment

NLSP elects the Designated Router by determining which router on the network has the highest priority number. A network administrator can configure the priority number value to determine which router is elected and which router remains the Designated Router.

designated secondary server

The master secondary server that services a secondary zone; it is the only secondary server of the zone that will perform zone transfer requests to the primary server of the zone. The designated secondary server answers queries to the zone and honors zone transfer requests to the zone. There is only one designated secondary server per zone.

destination address

In data communications, a code included in a transmission that specifies the location of the intended recipient of the transmission.

destination node

In the Open Systems Interconnection (OSI) model, either of the nodes that represent the host computers at each end of a connection. In a packet-switching network, the node attached to the data terminal equipment (DTE) that is receiving the data.

destination node address

In NetWare Link/SNA, the media access control (MAC) address of the node to which the NetWare server is attached. This parameter corresponds to the Token Interface Card (TIC) address, the MACADDR in the PORT statement for a 937X attachment, the value assigned to Question 900 of a 3174 customization, or the ADPTADR parameter in an AS.400 line description.

destination SAP

destination service access point

In NetWare Link/SNA, the two-digit service access point (SAP) number for the network node that the NetWare server is connected to.

destination server

The NetWare server to which data files, bindery files, and other information are migrated from a previous NetWare version or another network operating system during upgrade.

destination service access point

destination SAP

In NetWare Link/SNA, the two-digit service access point (SAP) number for the network node that the NetWare server is connected to.

DET

directory entry table

A table on every network volume that records directory entries for each file on the volume. The table, stored in the servers memory, enables quick access to the location of every file.

device

In the Common Desktop Environment (CDE), a physical or logical device (such as a printer, scanner, mouse, or joystick) that is accessible from the operating environment.

device

A mechanical, electrical, or electronic peripheral with a specific purpose. For example, a printer or mouse, or, in AS/400, a synonym for logical unit (LU).

device driver

The software or firmware that translates operating system requests (such as input/output requests) into a format that is recognizable by specific hardware, such as adapters, hard disks, or network boards.

device hiding filter

A type of filter that restricts access to devices and their services by filtering out the packets that advertise the services. These filters keep applications from discovering the location of devices, but do not restrict access if applications know the device locations.

device numbering

A method of identifying a device, such as a hard disk, to allow the device to work on the network. Devices are identified by three numbers: the physical address, the device code, and the logical number.

device sharing

The shared use of resources (such as printers, modems, and disk storage space) by users or software programs.

DHCP

Dynamic Host Configuration Protocol

A TCP/IP protocol that provides static and dynamic address allocation and management. It allows a host server to assign temporary IP addresses to client stations that call the server to obtain an address.

Di

Initialism for "Delete Inhibit attribute."

DIALNO

An operand in the VTAM GROUP and PATH definition statements that identifies the telephone number (in EBCDIC) used to initiate a connection with a physical unit over a switched line.

dial-up

Describes the access to a telephone circuit that requires a manual or automatic dialing sequence to establish a connection.

dial-up connection

A type of connection to a public data network (PDN). A dial-up connection is used primarily to access data residing on remote hosts. The data transmission rate usually is slower than that of leased lines.

dial-up line

A communications line accessible via dial-up facilities, typically the public telephone network.

digital service unit

DSU

A device between a users data terminal equipment (DTE) and a common carriers digital circuits. A DSU formats data for transmission on public carrier WANs and ensures that the carriers requirements for data formats are met.

digital video disk

DVD

A high-capacity disk format that is the same size as a CD-ROM (5 inches in diameter), but it is capable of holding between 4.7 and 17 gigabytes (compared to about 650 megabytes for a CD-ROM). The capacity of a DVD is determined by whether one or two substrates are used, and by whether information is recorded on one or two sides of the disk.

A recordable digital video disk (DVD-R) can store 3.8 gigabytes per side.

direct-connect printer

A printer attached directly to a workstation.

directory

A collection of files and other subdirectories. Directories are information containers, like files. However, instead of text or other data, directories contain files and other directories. In addition, directories are hierarchically organized; that is, a directory has a parent directory "above" and may also have subdirectories "below." Similarly, each subdirectory can contain other files and also can have more subdirectories. Because they are hierarchically organized, directories provide a logical way to organize files.

Directory

A network database that provides look-up information for a single, logical NDS network. In larger networks, the database is usually distributed across multiple servers. The entries in the database provide access-control information for the individual users, servers, printers, and other objects in the network.

Directory

On the Internet, one of three Web models, the others being Magazine and Virtual Storefront. In the Directory model, users are provided with a guide to information, with text linked to each menu item.

directory cache

The area of server memory where the most often requested directory entries are copied from disk directory tables. This cache reduces the time it takes to determine a files location on the disk.

directory entry

Information in a servers directory entry table (DET) that pertains to a single file or directory, including the name, owner, date and time of last update, first six trustee assignments, and location of the first data block.

directory entry table

DET

A table on every network volume that records directory entries for each file on the volume. The table, stored in the servers memory, enables quick access to the location of every file.

Directory Map

Short for "Directory Map object."

Directory Map object

In the NDS tree, a leaf object that represents a path on a volume. It allows users to map a drive to a resource without knowing its physical location. If the path to the resource changes, only the Directory Map needs to be updated; users MAP commands stay the same.

directory path

The full specification that includes server name, volume name, and name of each directory leading to a file system directory. The position of a file within the file system is its directory path.

directory rights

Rights that control what a trustee can do with a directory.

directory services

DS

A network service that provides information about an entity of interest. It is like an electronic phone book to help network clients find services. There are several designs, including the X.500 standard, the Domain Name System, and NDS.

NDS is a global, distributed, replicated database built into NetWare that maintains information about every resource on the network. It enables centralized management of networks of any size, and has a hierarchical, tree-like structure.

Directory structure

A hierarchical structure that represents how partitions are related to each other in the Directory database.

directory structure

The filing system of volumes, directories, and files that the NetWare server uses to organize data on its hard disks.

dirty cache block

A unit of measure in memory where a file block is waiting to be written to disk after having been changed.

dirty cache buffer

A location in memory where a file block is waiting to be written to disk after having been changed. Holding data in cache buffers ensures faster read and write performance.

dirty hit

A request for a disk block that is already in cache but is "dirty." A dirty cache block contains updated data that must be written to disk before the data can be used.

Discard Eligibility

DE

In frame relay technology, the bit set by the end node that, when set and supported by the frame relay network, allows frames to be discarded in preference to other frames when a network is congested.

discussion group

A collection of articles on a similar topic kept on one or more Internet news servers.

discussion group replication

The process by which two or more Internet news servers exchange articles and share information. Servers can accept discussion groups, send discussion groups, or both.

disk

A magnetically encoded information storage medium in the form of a plate.

disk accelerator

See cache.

Disk Adapter Locks

A tracked resource displayed in 3.12 MONITOR NLM screens, which tracks loadable modules that need to know about disk adapters, controllers, or host bus adapters.

disk controller

A hardware device that controls how data is written to and retrieved from the disk drive. The disk controller sends signals to the disk drives logic board to regulate the movement of the head as it reads data from or writes data to the disk.

disk driver

Software that transfers or interprets commands between the operating system and the hard disk. The disk driver communicates through an adapter connected by an internal cable to the disk drive.

disk duplexing

Duplicating data on two hard disks using separate controllers and separate disk channels. If the original disk or channel fails, the duplicate disk takes over automatically.

disk mirroring

Duplicating data on two separate hard disks using the same disk channel. If the original disk fails, the duplicate disk takes over automatically, without loss of data. If the disk channel fails, however, neither disk is accessible.

disk partition

In hard disk storage, a logical division of a physical hard disk.

In NetWare, a logical division of a server hard disk, or volume.

Disk QoS

Disk Quality of Service.

A feature of the NetWare MultiMedia Server component provided by Continuous Media File System (CMFS) for efficient disk management. It ensures that there is no break while transferring multimedia data to the program, it allows multiple file accesses, and it delivers data at a guaranteed rate while sharing a single disk drive.

disk space restrictions

Restrictions that network administrators can use to set the following:

– The maximum disk space a user (or other NDS object) can use on a particular volume.

– The maximum disk space that can be in a particular directory and its subdirectories.

Both user and directory disk space restrictions can be made in units of either 512 or 4096 bytes.

disk subsystem

An external unit that attaches to the NetWare server and contains hard disk drives, a tape drive, optical drives, or any combination of these. A disk subsystem increases server storage capacity.

distance vector

Short for "distance vector algorithm."

distance vector algorithm

An algorithm that finds best-path routes among routers by calculating total distance over which a packet would travel on each alternative route. Usually the shortest distance is the preferred route, but different routing levels, if defined, are considered as well.

Distance vector algorithms are included in ISOs Interdomain Routing Protocol (IDRP), and routing information protocols (RIPs) in both TCP/IP and in IPX/SPX.

distance vector protocol

A protocol that uses the distance vector algorithm. Examples include IP RIP, IPX RIP, and Routing Table Maintenance Protocol (RTMP).

distance vector router

A router that uses the distance vector algorithm to exchange information about accessible networks. A router using the distance vector algorithm maintains only enough information to know how to reach the next router destination (hop) on the network. Distance vector routers periodically forward this information to each other, even if the information has not changed since the last update.

DLC

data-link control

Protocols, used by nodes on a data link, that govern the exchange of packet information, including destination address, source address, and control information.

DLCI

data-link connection identifier

The 10-bit routing address of the virtual circuit at either the User-Network Interface (UNI) or the Network-Network Interface (NNI). It allows the user and network management to identify the frame as being from a particular permanent virtual circuit (PVC). The DLCI is used for multiplexing several PVCs over one physical link.

Dm

Initialism for "Don’t Migrate attribute."

DM

data migrator

A system for moving files from the volume to a storage device.

DNS

DaVinci Names Service

A DaVinci product that provides e-mail directory services.

DNS

distributed name services

DNS

Domain Name System

1. A distributed database system that provides name-to-IP address mapping for computers on an internetwork or on the Internet.

2. A UNIX directory services.

DNS domain

A group of networked computers under common Domain Name System (DNS) management. Domains can be determined by logical grouping instead of physical location. The domain naming scheme reflects the structure of the DNS hierarchy.

DNS label

Domain Name System label

The name of a single hierarchical level in a DNS domain name. For example, the name iad.novell.com is made up of three labels: iad, novell, and com.

DNS name server

A server that contains a database of information about hosts in one or more Domain Name System (DNS) domain and makes this information available to DNS clients, or resolvers, throughout the network.

DNS-NDS

A collection of DNS-NDS servers that cooperatively service a given DNS domain.

DNS-NDS server

A single NetWare server running the DNS-NDS NetWare Loadable Module (NLM).

DNS zone

A part of the DNS name space for which a name server has complete information. A DNS zone contains the domain names and data contained in a domain, except for domain names and data delegated elsewhere.

DOMAIN

distributed operating multi-access interactive network

domain

1. Short for "routing domain."

2. A logical group of network servers that provides extended network services, appearing to users as a single network server.

3. One of two memory segments (OS and OS_PROTECTED) in the NetWare OS that provides memory protection. Domains allow a developer or system administrator to isolate an NLM from the NetWare OS during development or testing. This feature is limited to NetWare 4.0 through 4.1.

4. A label of the DNS tree; each node on the DNS tree represents a domain. A domain is also known as a zone.

5. A group of page tables. A domains page tables are listed in the page directory table. Page tables map the noncontiguous pages into contiguous logical address spaces.

6. In Novell® GroupWise, physically, a directory structure on a server. The domain directory structure contains a group of processes, databases, and message-queue subdirectories. They are represented logically as GroupWise container objects in the NDS database. A domain has the following basic components: directory store, message transfer agent (MTA), administration agent (ADA), and input and output queues.

7. In GroupWise® 5, a grouping of one or more post offices. A domain serves two main purposes:

– It organizes post offices into a logical group for addressing and routing purposes within the GroupWise system.

– Through NDS, it serves as the main administration unit for the GroupWise system.

8. A high-level organizational grouping or naming hierarchy within the Internet. Domains commonly make up part of Internet addresses, and can include:

– arpa - initial Advanced Research Projects Agency (ARPA) domains

– com - commercial or business groups

– edu - colleges and universities

– gov - government organizations

– int - international organizations

– mil - military

– org - miscellaneous groups

– net - network administrative hosts

– two-digit alphanumeric string - a variable indicating a country

Syntactically, an Internet domain name consists of a sequence of names separated by periods.

domain name service

A component of DNS that provides the actual name-to-IP address mapping to locate another computer on the internetwork or Internet.

domain name space

A hierarchical representation of DNS, in which the hierarchy looks like an inverted tree structure.

Domain Name System

DNS

A distributed database that provides name-to-IP address mapping for computers on an internetwork or on the Internet.

domain.nlm

A NetWare Loadable Module that creates a protected operating system domain in NetWare 4.0 and 4.1. Any NLM under development should be tested in this special area so errors do not corrupt the system.

This utility is not included with NetWare 4.11 because improved abend recovery options and other server operating system enhancements are more effective.

Domain SAP/RIP Service

DSS

A service on a NetWare/IP network that replaces IPX broadcast services. DSS servers maintain a database that provides NetWare/IP servers and clients with SAP/RIP information (service availability and routing) required by NetWare applications.

Don’t Compress

Dc

Short for "Don’t Compress attribute."

Don’t Compress attribute

Dc

A file system attribute that prevents the file, or the files in the directory and its subdirectories, from being compressed even when the threshold set by the server is reached. In the case of a directory, individual files marked with the Immediate Compress attribute are unnaffected by this attribute.

Don’t Migrate

Dm

Short for "Dont Migrate attibute."

Don’t Migrate attribute

Dm

A file system attribute that prevents an individual file, or the files in the directory and its subdirectories, from being migrated to a secondary storage device (such as a tape drive or optical disk) even when the threshold set by the server is reached.

Don’t Suballocate

Ds

Short for "Dont Suballocate attribute."

Don’t Suballocate attribute

Ds

A file system attribute that prevents an individual file from being stored in suballocated (unused) portions of disk blocks, even if suballocation is enabled for the system.

DOS client

A workstation that boots with DOS and gains access to the network through either the NetWare DOS Requester software and its VLM programs (for NetWare 4), or a NetWare shell (for NetWare 2 and NetWare 3).

DOS device

A storage unit compatible with the DOS disk format, usually a disk drive or tape backup unit.

DOS version

The version number and name of a specific installation of DOS software, for example, DR DOS 6.0, MS DOS 3.3, and so forth. Different machine types use different versions of DOS that are generally not compatible.

downstream

Describes the destination direction of a transmission.

downstream

Describes the direction of data flow from a logical unit (LU) residing in a VTAM (SNA node type 5) host system toward a dependent LU residing in an SNA node type 2.0 or 2.1 peripheral node. This term pertains only to SNA traffic on dependent LUs.

DRIVE

The login script command that specifies which drive is the default. The format for this command is: DRIVE S:.

drive

Short for "logical drive," "physical drive."

drive array

A category of disk arrays (two or more drives working together) that provide increased performance and various levels of error recovery and fault tolerance. RAID can be implemented in software using standard disk controllers, or it can be designed into the disk controller itself.

Also called RAID (redundant array of independent disks).

drive mapping

A pointer to a location in a directory stucture, represented as a letter assigned to a directory path.

driver

A software module that manages the operation of a specific device or protocol and provides services to modules running above it. Drivers allow higher-level modules, such as applications, to be device- and protocol-independent (able to run on any device or protocol for which a driver is available).

Ds

Initialism for "Dont Suballocate attribute."

DS

Directory Services

DS

data segment

DS

digital service

A data transmission standard, as in DS-0.

DS

double sided

DSDIAG

Short for "DS DIAGNOSTICS."

A NetWare Loadable Module (NLM) that enables a network administrator to document the configuration of an NDS tree, to verify the health of an NDS tree, and to diagnose or pinpoint problems in an NDS tree.

DSDIAG checks information and generates reports about the NDS tree, partition status, and server status.

DSMERGE

A NetWare Loadable Module (NLM) that enables a user to create a single NDS tree from two separate trees by merging them at the root. DSMERGE also enables a user to rename an NDS tree, to verify that all the servers in the NDS tree are responding properly, and to view time synchronization information.

DSREPAIR

A NetWare Loadable Module (NLM) that allows the network administrator to repair problems in the the NDS database on a server.

DSS

Domain SAP/RIP Service

A service on a NetWare/IP network that replaces IPX broadcast services. DSS servers maintain a database that provides NetWare/IP servers and clients with SAP/RIP information (service availability and routing) required by NetWare applications.

DSS

document and security server

DSS

Decision Support System

A spreadsheet-like business product that runs on mainframes.

DSS

DECnet System Services

DSS

Department of Social Security

An Australian government entity.

DSS

digital signature standard

DSU

digital service unit

A device between a users data terminal equipment (DTE) and a common carriers digital circuits. A DSU formats data for transmission on public carrier WANs and ensures that the carriers requirements for data formats are met.

DTE

data terminal equipment

Any communications device that receives signals from data communications equipment (DCE) devices in a packet-switched network.

In the RS-232-C standard developed by Electronic Industries Association, the two types of communications devices are data terminal equipment (DTE), typically personal computers or data terminals, and data communications equipment (DCE), typically modems and printers. They are differentiated by their wiring of pins 2 and 3.

DTE address

The X.121 address assigned to the local or remote data terminal equipment (DTE).

dual processing

A NetWare SFT III configuration that assigns parts of the operating system (the IOEngine and the MSEngine) to separate CPUs. It is also possible to run both engines on the same CPU, but running them on separate processors is what creates a dual processing system.

duplex

To duplicate data on two hard disks using separate controllers and separate disk channels. If the original disk or channel fails, the duplicate disk takes over automatically. This provides a means of data protection.

duplexing

Short for "disk duplexing."

duplicatable

A key attribute specifying that multiple records in a file can have the same value in the key field.

DVD

digital video disk

A high-capacity disk format that is the same size as a CD-ROM (5 inches in diameter), but it is capable of holding between 4.7 and 17 gigabytes (compared to about 650 megabytes for a CD-ROM). The capacity of a DVD is determined by whether one or two substrates are used, and by whether information is recorded on one or two sides of the disk.

A recordable digital video disk (DVD-R) can store 3.8 gigabytes per side.

dynamic configuration

In Windows, the ability to add or remove hardware while the machine is running so that applications can recognize and adapt to the changes.

dynamic configuration

In networking, a means of allowing the file server to allocate memory or other resources as needed, subject to availability, while the network is running.

Dynamic Host Configuration Protocol

DHCP

A TCP/IP protocol that provides static and dynamic address allocation and management. It allows a host server to assign temporary IP addresses to client stations that call the server to obtain an address.

EEE

E1

A European communications standard used to transport 30 voice channels at 64 Kbps (for a total of 2,048 Mbps).

ECB

event control block

A structure that controls events related to the transmission and reception of IPX and SPX packets. ECBs also control the establishment and termination of SPX sessions.

effective rights

The rights that an object can exercise to see or modify a particular directory, file, or object. Effective rights are a combination of inherited rights, explicitly granted rights, and security equivalences. An object's effective rights to a directory, file, or object are calculated by the system each time that object attempts an action.

EGP

Exterior Gateway Protocol

A protocol that exchanges network access information between autonomous systems. EGP is part of the TCP/IP protocol suite.

Routers within each autonomous system are chosen to use EGP to talk to the outside world, usually over the Internet. These EGP routers are called exterior routers.

The exterior routers become EGP neighbors. The EGP neighbors exchange information about the networks that can be reached within the neighbors respective autonomous systems.

elevator seeking

A process where the hard disk read-write head picks up data in the direction it is traveling across the disk, rather than in the order data is requested. In this way, disk I/O requests are organized logically according to disk head position as they arrive at the server for processing. This reduces back-and-forth movements of the disk head and minimizes head seek times.

encapsulation

The technique used by protocols in which a layer adds header information to the protocol data unit (PDU) from the preceding layer. Also used in enveloping one protocol inside another for transmission, for example, Internet Protocol (IP) inside IPX.

encoding option

In NetWare Link/SNA, the encoding used for an SDLC link. The encoding can be non-return-to-zero (NRZ) or non-return-to-zero (inverted) (NRZI).

end node

The machine or unit (node) that serves as an originator and as the final destination of network traffic. The end node does not relay traffic originated by other nodes.

end system

In the OSI model, the computer containing application processes that can communicate through all seven layers. Equivalent to an end node.

ENS

Event Notification Service

A brokered service in NDPS that allows printers to send customizable notifications to users and operators about printer events and print job status. This service supports a variety of delivery methods including NetWare pop-ups, log files, e-mail (GroupWise), and third-party programs.

ENS

Executive News Service

enterprise network

An internetwork that connects a corporations local and remote sites.

epoch

The number indicating the number of times the cluster state has changed since the cluster was first brought up. The cluster state changes each time a server joins or leaves the cluster or a resource fails over or fails back.

Erase right

A file system right that grants the ability to delete directories, subdirectories, or files.

error code

A hexadecimal or decimal number indicating that a software or hardware error has occurred that does not allow NetWare® to continue processing. This number is usually displayed within a system message for an application, although it might be displayed by itself, or with a description of the code, or with words such as "error code," "return code," "return value," or just "code" preceding it.

Many system messages and error codes display only a few digits of the full hexadecimal error code. Often a number code is truncated to two digits, so it is not the actual decimal equivalent of the hexadecimal code.

error log

A record of the system messages that have appeared on the server console. It is stored as a text file on the server and keeps growing until the network administrator clears it.

The system messages in the log might be related to NDS synchronization, file migration, NLM execution, disk mirroring, or any other server operation.

Ethernet

A high-speed local area network hardware standard that consists of a cable technology and a series of communication protocols. Ethernet uses a bus topology (configuration) and relies on the CSMA/CD access method. It is the primary communications circuitry used in many mainframe, PC, and UNIX networks.

Ethernet configuration

A network that uses an Ethernet cabling system.

EtherTalk

An AppleTalk network on Ethernet. An EtherTalk network can be either nonextended (EtherTalk 1.0) or extended (EtherTalk 2.0).

European Conference of Postal and Telecommunications Administration

CEPT (Conférence Européenne des Postes et des Télécommunications)

The association of the European Post, Telephone, and Telegraph agencies (PTT) that recommends communication specifications to the International Telecommunication Union Telecommunication Standardization Sector (ITU-T). This governing body created the facility used to transport 30 voice channels at 64 Kbs (for a total of 2.048 Mbps); also known as "E1."

event control block

ECB

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excess burst size

Be

The maximum number of uncommitted data bits that the network attempts to deliver over a measured time interval.

Exchange Identification

XID

A specific type of link unit (commands and responses) used to carry node and link characteristics between adjacent nodes.

XIDs are exchanged between link stations before activation to negotiate acceptable characteristics. XIDs are also exchanged during activation to adjust for changes in these characteristics.

Execute Only

X

Short for "Execute Only attribute."

Execute Only attribute

X

A file system attribute that prevents a file from being copied. Only users with the Supervisor right to the file can set this attribute. Once set, this attribute cant be removed, so users should have a backup copy of the file.

expert parameter

Any of the advanced parameters used to provide more specific control on packet-level operations (such as NetWare Link/X.25 Packet layer) and frame-level operations. Expert parameters are used to configure the more advanced aspects for a specific WAN call destination, and to configure permanent virtual circuits (PVCs).

expiration policy

The policy that determines how long articles in a particular discussion group will remain on the news server before they are deleted.

expire

To become invalid due to the passage of a defined period of time.

expire

The program and process in which articles in an Internet discussion group are deleted from the news server.

explorer frame

A frame used in token-ring source route bridging to determine the best route to other network devices. There are two types of explorer frames: the all-routes explorer, sent along every route between two hosts; and the spanning-tree explorer, sent only along the spanning tree.

Extended AppleTalk network

An AppleTalk network on high-speed media, such as Ethernet, token ring, or FDDI. An extended network is capable of supporting the Phase 2 addressing extensions of a network range and zones list.

extended network

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Exterior Gateway Protocol

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The exterior routers become EGP neighbors. The EGP neighbors exchange information about the networks that can be reached within the neighbors respective autonomous systems.

External Entity object

A leaf object that represents a non-native NDS® object which is imported into NDS or registered in NDS.

external reference

In Storage Management Systems (SMS), a pointer to an NDS object not found locally on the server. It is used to authenticate and reference objects that are not local to the server.

FFF

failback

The process of returning a resource (either automatically or manually by the administrator) to the original server it was running on. A failback usually happens when the hardware or software problem that caused the resource to be moved (failover) is resolved and the original server is back up and running.

See also failover.

failover

The process of moving a cluster resource (either automatically or manually by the administrator) to a different server in the cluster. A failover usually happens because of a hardware or software problem.

See also failback.

fake root

A subdirectory that functions as a root directory. NetWare® allows a user to map a drive to a fake root (a directory where rights can be assigned to users).

Fast Select

A facility that expands the Call and Clear User data fields from the typical 16 octets, making the data field more useful for short duration, low-volume, transaction-oriented applications.

FAT

file allocation table

An index table that points to the disk areas where files are located. Every volume contains a FAT.

fault tolerance

A means of protecting data from hazards such as power outages or disk failures, by providing data duplication on multiple storage devices, or by distributing the NDS® database among several servers.

FDDI

Fiber Distributed Data Interface

A LAN standard for using fiber optic cable which carries a light source generated by a laser or LED. FDDI standards govern high-speed (100 Mbps) fiber-optic connections, and are under the guidance of ANSI Committee X3T9.5.

FECN

Forward Explicit Congestion Notification

The notification set by the frame relay network to indicate that it has experienced congestion in the packet forwarding direction of the frame.

feed

The Internet discussion groups that a news server receives from other news servers.

Fiber Distributed Data Interface

FDDI

A LAN standard for using fiber-optic cable. FDDI standards govern high-speed (100 Mbps) fiber-optic connections, and are under the guidance of ANSI Committee X3T9.5.

field

1. An area in the interface where the user types information.

2. In the Common Desktop Environment (CDE), a window element that holds data, as in the Name text field or the Telephone number text field.

field

1. The smallest unit in a database. Information in a database record is entered and displayed in fields.

2. The smallest meaningful unit of data in a file.

In NetWare SQL, a vertical collection of values in a table. All the values in a given field represent the same type of information. A field is also called a column.

In Btrieve, the term field has been used historically to refer to portions of a record that have been designated as segments of a key. Technically speaking however, Btrieve records contain no fields.

file allocation table

FAT

An index table that points to the disk areas where files are located. Every volume contains a FAT.

file cache

An area of server RAM where the hash table, FAT, Turbo FAT, directory cache, and temporary data storage for files are located.

file caching

The process of holding a file in server RAM so it can be retrieved quickly.

file compression

A means of allowing more data to be stored on server hard disks by compressing (packing) files that arent being used. Enabling compression in NetWare volumes can effectively increase disk space by up to 63%.

file handle

A number used to refer to or identify a file.

file indexing

The method of indexing FAT entries for faster access to large files. For example, to go to block 128 of a file, file indexing allows a user to go right to the block instead of scanning through the 127 previous blocks.

file right

A NetWare file system property that controls what a trustee can do with a file or directory. File rights control the security in a directory structure.

File and Directory rights are

Supervisor

Read

Write

Create

Erase

Modify

File Scan

Access Control

File Scan right

A file system right that allows the trustee to see the file and its directory structure back to the root of the volume, or to see the files in the directory unless other rights are assigned below it.

file server

A computer that controls the system, runs programs, and stores files for networks or multi-user systems. In NetWare, this is called a NetWare server.

file system

The organization the NetWare server uses to store data on its hard disks. Each file is given a filename and stored at a specific location in a hierarchical filing system so that files can be located quickly.

Formerly called directory structure.

File System object

A generic name for any of the following file system components: volume, directory, file, trustee, inherited rights filter (IRF), and name space entry.

file system right

In the NetWare file system, the ability of a trustee to see or manipulate files and directories. File system rights are granted by making trustee assignments. File system rights include

Access Control

Create

Erase

File Scan

Modify

Read

Supervisor

Write

File Transfer Protocol

FTP

A part of the TCP/IP suite of control procedures for downloading files from a remote host computer to a local computer. FTP can be implemented either from a Telnet client by using mostly UNIX commands, or by using a software program such as LAN WorkPlace that automates many of the functions for you. The FTP protocol is also supported by many World Wide Web browsers such as Mosaic and Netscape.

filter

The process on a router that selectively discards packets of a certain type, or packets originating from or destined for a certain location.

Filter

1. In Novell® GroupWise®, a feature allowing a user to display items according to specific criteria.

2. In the Common Desktop Environment (CDE), a feature used to display only objects that meet certain criteria, such as a name pattern match, and to hide all other objects from view. For example, In the File Selection dialog box, Filter is a text field used for specifying a name pattern so that only objects that match the pattern are shown.

filtering rate

The speed at which packets are checked against filter criteria.

firmware

A set of software instructions that are set, permanently or semipermanently, into integrated circuitry.

flag

A field that is repeated at the beginning and end of a synchronous data link control (SDLC) or high-level data link control (HDLC) frame. The flag field always has a bit pattern of 011111110.

flag

In the NetWare file system, any of the characteristics assigned to directories and files that dictate what can be done with the directories or files. Attribute is the preferred term.

flag

To set a file or directory attribute.

flooding

The process by which the logical map of the network is updated when each router distributes its link states to all other routers, and each routers database is then updated.

flow control negotiation

A process that allows the negotiation, on a per-call basis, of the window size and maximum user packet size used on a virtual call in each direction.

folder

1. A place where applications and files can be stored.

2. A holder of documents, applications, and other folders on the (Macintosh) desktop. Folders act as subdirectories, allowing you to organize information. A folder is the secondary organizing unit on the file server.

3. In the Common Desktop Environment (CDE), an icon that represents a directory.

4. The same as "directory." In Microsofts documentation, the terms "folder" and "directory" are used interchangeably.

forced logout

The administrative option to log a user out of a server containing files due to be synchronized, before the synchronization occurs, thus ensuring that all relevant files are available for synchronization. This option can be set to force users to close the files that would otherwise be affected.

foreground

In the Common Desktop Environment (CDE), the content of a window and the color or shading used to distinguish it from the windows background.

form

1. An onscreen outline used to input and submit information for storage or processing.

2. In a NetWare printer command, the name and size of the paper used for a print job.

3. In a DOS menu utility, a screen used to set options pertaining to specific NetWare features and functions.

4. A box that contains fields in which the user enters information. Some fields have menus the user can access from the form.

forwarder

A DNS server that sends queries if the requested information cannot be found on the local server. The forwarder processes all off-site DNS queries.

Forward Explicit Congestion Notification

FECN

The notification set by the frame relay network to indicate that it has experienced congestion in the packet forwarding direction of the frame.

FQDN

fully qualified distinguished name

Also known as an absolute domain name, an FQDN specifies a nodes location in the DNS hierarchy, relative to the root of the DNS domain. For example, host1.engineering.novell.com., including the trailing period.

FQN

fully qualified name

A complete address, filename, or pathname, including the host or root and all the direct-line subdirectories. A fully qualified filename includes the name of the file at the end of the path.

fragment

One piece of a packet that has been divided by fragmentation.

fragmentation

The process in which a packet is broken into smaller pieces to fit the size requirements of the physical network it is transmitted across.

frame

In WordPerfect Presentations, a group of lines framing a side of a data chart. Frames can be on the back, front, left, right, top, or bottom of a data chart. Each line in a data chart frame represents a data value.

A box that defines an area in the drawing window for text, a chart, a bitmap image, or a figure. You can increase or decrease the size of a frame by dragging one of the handles surrounding it.

frame

In a network operating system, a data block that can contain data bits, source and destination addresses, and error checking. Each frame uses a given format or protocol for a specific medium. Some media support multiple frames, such

as Ethernet 802.2, Ethernet 802.3, Ethernet II, Ethernet SNAP, Token Ring, or Token Ring SNAP.

Frame layer

An X.25 layer that transports data across the physical link, controls the interchange between the data terminal equipment (DTE) and data circuit terminating equipment (DCE), and corrects any link errors. Also called the "Link layer."

Frame Reject frame

FRMR

A type of frame that reports an error condition not recoverable by retransmission of the frame.

frame relay

A form of packet switching that relies on high quality phone lines to minimize errors. It does error checking but no correcting in the network. The end devices, like LAN servers and clients, make corrections when necessary. When a traditional protocol like SDLC (Synchronous Data Link Control) is adapted to frame relay by a Frame Relay Access Device (FRAD), the FRAD will correct errors. Frame Relay is very good at efficiently handling high-speed, bursty data over wide area networks. It offers lower costs and higher performance for those applications in contrast to the traditional point-to-point services (leased lines).

frame relay network

A private-line network that permanently allocates dedicated transmission resources between communication end points. A frame relay network, characterized by packet switching with no error correction, uses statistical multiplexing, allocating transmission resources only when there are active communications.

frame switching

The process of quickly transporting high-level data link control (HDLC) frames through a network. Also called frame relaying (technology).

frame type

A set of standards that specifies the function and communications of the data link layer in networks. Frame types determine how packets of network data are formatted on different LANs. Ethernet, token ring, ARCnet, and other LANs use different formats. The TCP/IP and IPX protocols also require different frame types in some instances.

free space

Short for "storage free space."

FRMR

Frame Reject frame

A type of frame that reports an error condition not recoverable by retransmission of the frame.

FTP

File Transfer Protocol

A part of the TCP/IP suite of control procedures for downloading files from a remote host computer to a local computer. FTP can be implemented either from a Telnet client by using mostly UNIX commands, or by using a software program such as LAN WorkPlace that automates many of the functions for you. The FTP protocol is also supported by many World Wide Web browsers such as Mosaic and Netscape.

full-duplex transmission

A process that allows two data streams to flow in opposite directions simultaneously. The receiving application can send control information back to the sending application while the sending application continues to send data.

fully qualified distinguished name

FQDN

Also known as an absolute domain name, an FQDN specifies a nodes location in the DNS hierarchy, relative to the root of the DNS domain. For example, host1.engineering.novell.com., including the trailing period.

fully qualified name

FQN

A complete address, filename, or pathname, including the host or root and all the direct-line subdirectories. A fully qualified filename includes the name of the file at the end of the path.

GGG

garbage collection

The operating system process of reclaiming used memory blocks. The operating system deallocates blocks of memory that were once allocated but are no longer in use. It also gathers scattered blocks of free memory into larger contiguous free blocks.

gateway

A hardware and software combination that runs on the OSI application layer and allows dissimilar protocols to communicate by filtering communications through industry-standard protocols. Examples of protocols a gateway might use are TCP/IP, X.25, and SNA.

gateway

A software module that allows NDPS® clients to send jobs to printers that are not NDPS aware, and to access printers and print systems that require jobs to be placed in queues. NDPS supports third-party gateways, which are developed by printer manufacturers to support printers directly attached to the network, and the Novell® gateway, which consists of a Print Device Subsystem and a Port Handler component and supports local and remote printers, including those using NPRINTER or QMS.

gateway

In Novell GroupWise®, a connection between a GroupWise system and a foreign electronic mail system (a system other than GroupWise).

General Help Screen

A type of online help screen available in the command line utility help that provides general information about the item specified in the help command typed at the DOS or OS/2 prompt.

Grace Logins Allowed

Short for "Grace Logins Allowed property."

grant

To confer access and/or management privileges to a trustee. The trustee represents the user receiving the privileges, while the target represents the network resource the user can access or manage.

green box

A package which contains a non-English or localized version of NetWare, which is unique for each locale or language.

grid

1. A pattern of horizontal and vertical lines (usually dotted), similar to those found on graph paper, that help you measure and align objects in a form window. Grid lines do not print, and do not display in WordPerfect InForms Filler.

2. In the Common Desktop Environment (CDE), an array of locations, sometimes invisible, that you can use to align objects to those locations.

Group

Short for "Group object."

group

1. A set of related options in a dialog box, often with its own subtitle.

2. A collection of network users who share applications, perform similar tasks, or have similar needs for information.

3. In the Common Desktop Environment (CDE), a collection of users who are referred to by a common name. The rights assigned to the group determine a users access to files. In Application Builder, a group consists of two or more user interface objects that are selected in a user interface and made part of a group for layout, visibility, or internationalization purposes.

Group object

A leaf object in the NDS® tree that represents a list of User objects. It is used to provide collective, rather than individual, network administration. The Group object differs from a container object in that instead of containing the User objects, it lists them as members.

HHH

HAM

hold and modify

HAM

host adapter module

A driver component used to drive specific host adapter hardware in the NetWare® Peripheral Architecture (NPA). This component is part of the host adapter interface (HAI), which is standard for tape drives.

handle

A pointer used by a computer to identify a resource or feature. For example, a directory handle identifies a volume and a directory, such as sys:public.

handle

An on-screen marker, usually a small black square, that enables a user to size and manipulate an object or item in a drawing. Handles appear at the corners and sides of selected objects.

handler

In the Common Desktop Environment (CDE), the distinguished recipient procid of a ToolTalk request. This procid must complete the indicated operation.

handshaking

The exchange of signals between two data communications systems prior to and during data transmission to coordinate and control each phase of transmission over a serial connection.

hard disk

A high-capacity storage medium consisting of a stack of magnetic disks that hold information in concentric areas called cylinders. This device can be network or local. Internal hard disks use channel 0; external hard disks use channels 1 through 4.

Also called fixed disk.

hardware detect NLM

hwdetect.nlm

An NLM that runs automatically during the NetWare installation process to detect hardware devices and load the appropriate drivers.

hashing

The process of using the hash algorithm in order to access a file on a large volume. The algorithm calculates a files address both in cache memory and on the hard disk and predicts the address on a hash table, which is much more efficient than searching for the file sequentially.

HBA

host bus adapter

A SCSI adapter board or disk controller that adds a bus through which peripheral devices (such as hard disks, tape drives, and CD-ROM drives) are connected to the computer. These devices typically have embedded controllers.

HCSS

High Capacity Storage System

A data storage system that extends the storage capacity of a NetWare server by integrating an optical disk library, or jukebox, into the NetWare file system.

HCSS moves files between faster low-capacity storage devices (the servers hard disk) and slower high-capacity storage devices (such as optical discs in a jukebox).

HDLC

high-level data link control

A bit-oriented, synchronous, communications protocol defined for high-level, synchronous connections to X.25 packet networks. HDLC applies to the data-link layer of the OSI model.

HDLC is similar in almost all respects to synchronous data link control (SDLC).

header

The information at the beginning of a packet that defines control parameters such as size, memory requirements, and entry point of a program, as well as the locations in the program of absolute segment address references.

header

In a word processing document, the information located at the top of the pages. A header typically includes document information and a page number.

header

In the Common Desktop Environment (CDE), the basic information in Mailer about an electronic mail message as it appears in the mailbox. A message header displays the name of the sender, subject, the date and time it was received, and message size.

In the File Manager, the header describes one of the two possible ways of displaying the current path directory (complete path names or icons).

header compression

A set of standard compression options intended to eliminate nonessential information from the frame format, including address and control compression, protocol ID (PID) compression, and data compression. Header compression also maximizes the bandwidth available from public switched telephone network (PSTN) connections.

heartbeat

A number specifying the amount of time between transmits for all nodes in the cluster except the master node.

See also master watchdog; slave watchdog; tolerance.

Help Desk Policy

Short for "Help Desk Policy object."

Help Desk Policy object

An NDS® object that contains rules established by the network administrator for Help Request users.

Help Request

A user application that exposes help support options for the user, which are specified in the Help Desk Policy associated with the user. It can be made available on any workstation, even one that has not been registered.

hexadecimal

Short for "hexadecimal numbering system."

Describes something that uses a hexadecimal numbering system.

Hidden

H

Short for "Hidden attribute."

hidden

In the Common Desktop Environment (CDE), a state in which an element is not displayed on the screen. For example, in the message line of File Manager, hidden describes the state or status of a file or folder when it is not visible in a File Manager view. Files and folders may be hidden or shown depending on settings controlled by the user.

Hidden attribute

H

A file or directory attribute that hides the file or directory from the DOS DIR command and prevents the file or directory from being deleted or copied. The NetWare DIR command will list the file or directory if the user has the File Scan right.

hierarchical addressing

An addressing scheme in which a network is partitioned into sections, with the section identifier forming one part of each destination address, and the destination identifier forming another. Destination identifiers, such as server names, can be reused in different sections, because the section identifier distinguishes them. There can be more than one level of sections.

high-capacity storage device

A device, such as an optical disk, that can contain a large amount of data. Several optical disks are stored in a jukebox which uses an autochanger mechanism to mount and dismount optical disks as needed.

High Capacity Storage System

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history

In the Common Desktop Environment (CDE), usually a list of most recently accessed files, directories, or commands.

HIT

Hub information table

A Novell® software term that is part of Hub Management Interface (HMI).

hive

A registry component. Hive is a set of keys, subkeys, and values.

hole in the tree

This security feature in trustee assignments prevents users who have rights in one branch of the Directory Services tree from jumping over to a place where he or she doesnt have rights and then browsing through the entire tree.

home directory

1. In the Common Desktop Environment (CDE), a directory where you keep personal files and additional directories. By default, the File Manager and Terminal Emulator windows are set to the home directory when you first open them.

2. A network directory that the network administrator can create for a user. The user should keep personal files in this directory.

Home Directory

Short for "Home Directory property."

Home Office Network

A network of 2–3 personal computers connected in a home environment. It is designed to merely share file and print services without significant security and naming requirements.

hop

A measure of distance in routers on a network. The number of hops to a destination network is the number of routers that must be traversed to reach the network. The number of hops is part of each network entry in a Routing Information Packet (RIP).

hop count

The routing metric used to measure the distance between a source and a destination. Each hop count equals the transmission of a packet across a router.

host

1. Short for "SNA host."

In SNA, the primary upstream computer in a network. The host is the computer or one of the computers in which a system services control point (SSCP) resides. In the NetWare for SAA environment, the host is usually an IBM System/370 mainframe computer or an IBM AS/400 computer.

2. Short for "SBACKUP host."

A NetWare server that an administrator runs SBACKUP from. A storage device and a storage device controller are attached to it.

3. A computer attached to a network that provides services to another computer beyond simply storing and forwarding information. Usually refers to mainframe and minicomputers.

4. In the Common Desktop Environment (CDE), both a computer system, and in ToolTalk, the system that contains the file.

host adaptor module

HAM

A driver component used to drive specific host adapter hardware in the NetWare Peripheral Architecture (NPA). This component is part of the host adapter interface (HAI), which is standard for tape drives.

host bus adapter

HBA

A SCSI adapter board or disk controller that adds a bus through which peripheral devices (such as hard disks, tape drives, and CD-ROM drives) are connected to the computer. These devices typically have embedded controllers.

host computer

In a computer network, the computer where data or applications are stored and from which data is retrieved or applications are run.

hostname

In a network or distributed processing environment, the name used to identify the computer that provides services to other computers or terminals that can access the network.

hostname

In the Domain Name System (DNS), a unique name associated with an IP address. A hostname cannot contain a space, tab, number sign (#), or end-of-line character.

host server

A NetWare server with a host adapter and storage device, such as a tape drive, attached. Also, the NetWare server where the backup program resides.

hot expansion

In PCI Hot Plug technology, the process of adding a new adapter of any type to a running system by using hot insertion.

hot insertion

In PCI Hot Plug technology, the process of physically plugging an adapter board into a PCI slot without removing power to the server.

hot plug

Technology that allows a user to physically remove and insert industry-standard PCI devices (such as LAN adapters, disk controllers, or disk drives) without disrupting the operation of other devices in the system. This allows the same functionality to continue after replacing the device. Only individual slots are affected (the system does not need to be powered off to perform these functions). This technology requires both hardware and software that is PCI capable.

hot removal

In PCI Hot Plug technology, the process of physically removing an adapter board from a PCI slot without removing power to the server.

hot replace driver

In the NetWare operating system, a disk driver that can be loaded while the server is running and while the previous version of the disk driver is still loaded. When a hot replace driver is loaded, NetWare automatically unloads the old version of the driver with no interruption in operation.

hot replacement

The ability to change a computers hardware or software without rebooting.

In PCI Hot Plug technology, the process of removing a failed PCI adapter and inserting an identical adapter without removing power to the server.

hot spot

An icon or part of a larger image used as a hyperlink to another document or file. When the hot spot is selected by clicking on it, the linked material is searched and displayed.

hot spot

In the Common Desktop Environment (CDE), the place on the pointer that determines the exact spot on the screen where an action is performed.

In the OSF/Motif Style Guide, the actual position on the pointer that identifies the element to which input associated with the pointer is directed.

hot swap

The ability to change a computers hardware or software without rebooting.

HTML

HyperText Markup Language

The language used to create pages on the World Wide Web. Because HTML uses ASCII text character combinations to code or tag various options, it can be used on a variety of platforms. HTML coding can be used to format text, create lists, insert multimedia, create forms for collecting user input, and create links to other Web locations.

HTML form

An HTML feature that enables creation of Web pages that collect user input and submit the input to a Web server for processing. Using HTML tags, a user can create forms that contain text boxes, text blocks, menus, check boxes, radio buttons, and password boxes.

HTTP

Hypertext Transfer Protocol

The protocol that Web servers and Web browsers use to communicate with each other on the World Wide Web (WWW). Web browsers submit HTTP requests; Web servers use HTTP to respond with the requested document.

hub

A device that modifies transmission signals, allowing the network to be lengthened or expanded with additional workstations. Two kinds of hubs exist:

– Active hubs amplify transmission signals in network topologies. Active hubs are used to add workstations to a network or to extend the cable distance between stations and the server.

– Passive hubs are used in certain network topologies to split a transmission signal, allowing additional workstations to be added. Passive hubs cant amplify the signal, so network cables must run directly to a station or to an active hub.

hub

The GroupWise configuration in which all messages pass though a central domain. Specifically, a GroupWise hub is a GroupWise system that routes messages between subscriber GroupWise systems without the administrative overload of setting up an external domain for each GroupWise system.

hwdetect.nlm

hardware detect NLM

An NLM that runs automatically during the NetWare installation process to detect hardware devices and load the appropriate drivers.

hypertext

Text that contains links to other places within the same document, or to other documents stored locally or on Web servers anywhere. This method of storing and presenting information allows almost instantaneous retrieval of information.

hypertext link

A call to a location. The call is embedded in an online document to link to other places within the same document or to other documents stored either locally or on a Web server anywhere. A hypertext link allows readers to move instantaneously from the current location to the location specified by the link. Also called an anchor.

hypertext markup language

HTML

The language used to create pages on the World Wide Web. Because HTML uses ASCII text character combinations to code or tag various options, it can be used on a variety of platforms. HTML coding can be used to format text,

create lists, insert multimedia, create forms for collecting user input, and create links to other Web locations.

III

Ic

Initialism for "Immediate Compress attribute."

IC

integrated circuit

IC

input context

An X input method (XIM) component.

ICMP

Internet control message protocol

An integral part of the Internet Protocol (IP) that handles error and control messages. Specifically, gateways and hosts use ICMP to send reports of problems about datagrams back to the original datagram source. ICMP is used to report routing errors and messages.

IDBLK

A three-digit hexadecimal operand in the Virtual Telecommunications Access Method (VTAM) physical unit definition statement that denotes the device type.

IDE

Interactive Development Environments, Inc.

IDE

Integrated Drive Electronics

A hard disk interface (such as ESDI or SCSI) that has replaced the ST-506. The controller hardware is placed on the drive itself for improved performance.

IDE

integrated development environment

A part of Borlands Turbo C++ compiler.

identifier variable

A variable used in NetWare® login scripts that allows users to enter a variable (such as LOGIN_NAME) in a login script command, rather than a specific name (such as RICHARD).

idle loop

A process the computer processor executes when it is not busy performing work. The higher the percentage of processor time devoted to the idle loop process, the less active the processor.

IDNUM

An operand in the Virtual Telecommunications Access Method (VTAM) physical unit (PU) definition statement that identifies the specific device (if physical unit type 1 or 2) or the specific connection (if physical unit type 4 or 5). IDNUM is expressed as a five-digit hexadecimal value. In NetWare Link/SNA, this value is used to identify the PUID.

IEEE 802.2

A logical link control standard for local area networks (LANs). This standard of the Institute of Electrical and Electronics Engineers (IEEE) describes the function of the Logical Link Control (LLC) protocol used in both token ring and Ethernet LANs. 802.2 is one of a set of communications standards that define physical and electrical network connections. The 802.2 standard specifies the data link layer for use with 802.3 networks (thick, thin, twisted pair, and fiber-optic Ethernet networks) and with 802.5 networks (twisted pair or fiber-optic token ring networks).

IETF

Internet Engineering Task Force

The Internet Activities Board (IAB) task force responsible for solving the short-term engineering needs of the Internet. They deal with TCP/IP and develop SNMP. They are also charged with developing proposed Internet standards.

IF MEMBER OF

The NetWare login script syntax that checks the membership list of a Group object and returns TRUE if the User object is listed.

I frame

Information frame

A type of frame used to transfer packet information. An I frame can also contain data for frame-level flow control.

IF...THEN

The NetWare login script command that sets conditions under which login commands will be executed.

ignored item

A named file or directory in the root of each volume that is deliberately never replicated.

IGP

Interior Gateway Protocol

A category for protocols that are used to exchange routing table information between collaborating routers in the Internet. The Routing Information Protocol (RIP) and the Open Shortest Path First (OSPF) protocols are examples of IGPs.

Im alive packet

"Im alive" packet

A diagnostic packet that SFT III servers send back and forth over the internetwork connection to check each others status.

Each SFT III server sends an "Im alive" packet to the other SFT III server over the IPX cable at a rate of 18 times per second. These packets act as a backup communications check for the mirrored server link.

A network analyzer attached to the LAN segment between the two SFT III servers detects many "Im alive" packets per minute. However, the extra traffic generated by these diagnostic packets should not affect network performance.

Immediate Compress

Ic

Short for "Immediate Compress attribute."

Immediate Compress attribute

Ic

A file system attribute that causes a file, or the files in a directory and its subdirectories, to be compressed as soon as the operating system can do so, without waiting for a specific event to occur (such as a time delay). In the case of a directory, individual files marked with the Dont Compress attribute are unaffected by this attribute.

implied rights

Rights that are implied by some other right. Specifically:

– The Supervisor object right implies all rights to the object and all its properties.

– The Supervisor property right implies all rights to the specific property or to all properties, whichever Supervisor is specified for.

– The Read property right implies the Compare property right.

– The Write property right implies the Add Self property right.

Implied rights are not stored but are applied by the system when it calculates effective rights.

import

To retrieve information from one program into another, or to convert information so that it can be read in a platform or application that it was not originally created for.

inbound service advertisement filter

A service information filter which limits the acceptance of service advertisements received by the router to a selected set of services at a selected set of networks.

included directory

A directory within the replication set whose content, including any subdirectories and their contents, are replicated to the replica server and synchronized when scheduled (or synchronized manually). An included directory is shown in the Replication panel as a folder icon containing a plus (+) symbol.

increment

The amount by which something is increased.

indent

In word processing, the amount of space a line or paragraph is inset or extended from the normal margin of a paragraph.

independent logical unit

independent LU

A network-accessible unit that can initiate an LU-to-LU session without requesting assistance from a system services control point (SSCP). Currently, only an LU 6.2 can be an independent LU.

index

1. A list of keywords that direct you to the location of more comprehensive information.

2. A key or a group of keys that Btrieve uses to sort a file.

A structure in a Btrieve file that contains the key values for a specific key.

index balancing

The process of searching for available space in sibling index pages when a given index page becomes full, and then rotating values from the full page into the pages that have space available.

Indexed

I

Short for "Indexed attribute."

Indexed attribute

I

A file system attribute that indicates a file has been indexed for quick access. When a file reaches a certain size relative to the block size on the volume, NetWare begins keeping an index to it. This attribute is shown in attribute listings, but cant be set by users.

indexer

The process that indexes Internet discussion group articles for full-text searching purposes.

Industry Standard Architecture

ISA

Commonly accepted industry standard for the bus design used on the IBM PC/XT, which makes use of plug-in cards and expansion slots. It can accommodate 8- or 16-bit cards.

INETCFG

Internetworking Configuration utility

A menu-based NetWare Loadable Module (NLM) that simplifies the use of Novell® internetworking products by allowing a network administrator to configure interface boards and network protocols. A network administrator uses INETCFG to bind protocols to different LAN and WAN boards, and also to view the entire or selected portions of the configuration.

inews

A program that comes with the news server that enables Internet discussion group moderators to approve messages.

Information frame

I frame

A type of frame used to transfer packet information. An I frame can also contain data for frame-level flow control.

inheritable

A rights assignment option that applies only to container objects.

When this option is set, the rights assignment flows down to objects and containers below this object in the NDS® tree. This option can be set for all types of assignments, including rights to specific properties.

This feature is available only with versions of NDS that ship with NetWare 5 or later. For compatibility with previous versions of NDS, by default this option is set for object rights and all properties rights, and by default is not set for specific property rights.

inheritance

The process of applying the explicitly granted rights of one object to all subordinate objects, unless the rights are blocked by an inherited rights filter (IRF).

inherited rights

In the NetWare file system, rights acquired automatically by files, folders or directories. When a file or directory is copied to a NetWare server, that file or directory inherits the same rights as the directory in which it is placed.

In NDS, explicitly granted rights to one object that apply to all subordinate objects, unless other rights are explicitly assigned at a lower level or the rights are blocked by an inherited rights filter (IRF).

inherited rights filter

IRF

An entry in an objects access control list (ACL) that specifies which rights can and cannot flow down to the object and its subordinates.

Only inherited rights can be filtered. Rights granted at the current level, either by explicit assignment or by security equivalence, cannot be blocked.

The Supervisor right can be blocked to an object but not to a file or directory.

Object rights and property rights are inherited and filtered separately; therefore, object and property rights can be blocked individually without affecting each other.

Inherited Rights Mask

A binary value that specifies a combination of rights in the NetWare file system. When a trustee has no assigned rights to a file or directory, the trustee inherits rights from a superior directory for which rights are assigned. The Inherited Rights Mask can be used to modify those inherited rights. If the Inherited Rights Mask is 0, the trustee inherits all rights from the superior directory. In NetWare 4 this term was rendered obsolete by the inherited rights filter.

initialize

In the Common Desktop Environment (CDE), to set a variable or application to some initial state.

INN

InterNetNews.

innd

The main INN process that handles all Internet discussion group replications, listens to the specified news port, and responds to connections from newsreaders.

input

1. Communication to the computer. Input includes anything typed on the keyboard, retrieved from a disk, or received over a modem.

2. Information going into the computer, usually from typing at the keyboard or from a program reading from disk.

Input/Output engine

I/O engine

The part of the SFT III operating system that handles physical processes, such as network and disk I/O, hardware interrupts, device drivers, timing, and routing.

insert

To bring text and graphics into a document at the cursor position.

Insert

1. Refers to the Insert key on the computer keyboard (the key that on most keyboards toggles between insert and typeover or overwrite functionality).

2. In the Common Desktop Environment (CDE), a menu item used to insert data.

instantiate

To provide data to a software structure to create or complete an instance of the structure.

Institute of Electrical and Electronic Engineers

IEEE

A professional organization for engineers in the United States that creates and publishes networking standards for cabling, electrical topology, physical topology, and access schemes. The IEEE belongs to the American National Standards Institute (ANSI) and to the International Organization for Standardization (ISO).

Integrated Drive Electronics

IDE

A hard disk interface (such as ESDI or SCSI) that has replaced the ST-506. The controller hardware is placed on the drive itself for improved performance.

Integrated Services Digital Network
ISDN

An evolving set of standards for a digital network that carries both voice and data communications.

interexchange carrier
IXC

A long distance telephone company.

interface group

A set of specified interfaces. An interface group allows protocols to request an X.25 or PPP circuit through any one interface from within the group, without having to specify which interface.

Interior Gateway Protocol
IGP

A category for protocols that are used to exchange routing table information between collaborating routers in the Internet. The Routing Information Protocol (RIP) and the Open Shortest Path First (OSPF) protocols are examples of IGPs.

internal net number

A unique hexadecimal number that is assigned to the NetWare server at installation and serves as a server identification number. It is stored in the autoexec.ncf file and should not be deleted.

IPX uses this number to advertise services and route IPX packets to the external IPX networks attached to the server. On IPX networks this number must also be different from the IPX external network number.

IP uses this number to provide passive IPX support called Compatibility Mode. This means that even though the NetWare server does not advertise or broadcast in this mode, the NetWare server can process and respond to incoming IPX requests.

internal network

A logical network that routes packets to the physical networks to which a NetWare server is attached. Used in NetWare 3 and NetWare 4.

internal network number

A logical network number that identifies an individual NetWare 3 or later version.

On IPX networks the internal network number must also be different from the IPX external network number.

International Organization for Standardization

ISO

A international organization that establishes global standards for communication and information exhange, and for many other fields of commercial activity.

International Telecommunication Union, Telecommunication Standardization Sector

ITU-T

The group within the International Telecommunication Sector that defines data communications standards. It was formerly called International Consultative Committee for Telegraphy and Telephony (CCITT).

internet

Short for "internetwork."

Internet

International Network.

A world-wide, cooperative, virtual network of computers. It is a collection of networks and routers (ARPANET, MILNET, NFSnet, and so on) that uses the TCP/IP protocol suite.

Internet address

IP address, Internet Protocol address

1. The address of a socket in an AppleTalk internet; a unique identifier for any socket in an AppleTalk internet.

2. A unique, 32-bit, software address assigned to all hosts on an IP Internet. It is divided into two parts: a network and a node address. For every computer, the network portion of its address must coincide with every other computer on the network. The node, or host, portion, however, must be unique.

Internet Control Message Protocol

ICMP

An integral part of the Internet Protocol (IP) that handles error and control messages. Specifically, gateways and hosts use ICMP to send reports of problems about datagrams back to the original datagram source. ICMP is used to report routing errors and messages.

Internet Engineering Task Force

IETF

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internet network library

A library of functions used for TCP/IP programming.

Internet Protocol

IP

The network layer protocol of TCP/IP. IP enables dissimilar nodes in a heterogenous environment to communicate with one another. IP defines the form that packets must take and the ways to handle packets when they are transmitted or received. The form the packet takes is called an IP datagram.

Internet Protocol Control Protocol

IPCP

A TCP/IP Network Control Protocol (NCP) that provides procedures for establishing, configuring, and terminating interaction between peers over a Point-to-Point Protocol (PPP) link.

internetwork

1. Two or more networks connected by a router, bridge, or gateway. Each network has a unique IPX external network number.

Users on an internetwork can use the resources (files, printers, and so forth) of all connected networks if they have security clearance.

2. A virtual network that consists of two software nodes: the AppleTalk protocol stack and the AppleTalk router.

Internetworking Configuration utility

INETCFG

A menu-based NetWare Loadable Module (NLM) that simplifies the use of Novell internetworking products by allowing a network administrator to configure interface boards and network protocols. A network administrator uses INETCFG to bind protocols to different LAN and WAN boards, and also to view the entire or selected portions of the configuration.

Internetwork Packet Exchange

IPX

A NetWare protocol that provides connectionless, datagram delivery of messages. IPX is based on Xerox Corporations Internetwork Packet protocol, XNS.

interoperability

The ability of different systems or applications to share data.

interprocessor interrupt

An interrupt generated by one processor that affects another processor.

interrupt

An asynchronous operating system condition that disrupts normal execution and transfers control to an interrupt handler. Interrupts can be issued by both software and hardware devices requiring service from the processor. When software issues an interrupt, it calls an interrupt service routine (ISR). When hardware issues an interrupt, it signals its interrupt request (IRQ) line.

Different tasks require different interrupt types, such as device I/O interrupts for LAN and disk drivers, hardware platform-specific interrupts that are local to a processor, interprocessor interrupts generated by one processor to affect another processor, and timer interrupts that provide timer services for the OS as well as preemption support.

interrupt handler

A hardware line or a software program that processes interrupts. Hardware interrupts are handled by an interrupt request (IRQ) line, and software interrupts are handled by an interrupt service routine (ISR).

interrupt mode

A transmission mode in which the data port of a printer sends a signal, or interrupt, to its port driver (NPRINTER) indicating that it is ready to accept transmission of another character. The interrupt instructs the CPU to suspend its other processing activities to service the port.

interrupt request line

IRQ

A hardware line over which devices, such as printers or modems, can send signals to the processor when the device is ready to send or receive information. Typically, each device connected to the computer uses a separate IRQ.

interrupt service routine

ISR

A software routine that is executed in response to an interrupt. An ISR, also called an interrupt handler, is registered to process a specific interrupt. When multiple ISRs are registered to process the same interrupt, the ISRs are linked. This means that each ISR can either process the interrupt or pass it on to the next ISR in the chain.

Inverse Address Resolution Protocol

Inverse ARP

A protocol that learns the Internet Protocol (IP) address of a remote nodes Data Link Connection Identifier (DLCI) on a link.

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Input/Output engine

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Internet Protocol

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IP address

Internet Protocol address

A unique, 32-bit address assigned to hosts on an IP internet. Consisting of network and node portions, the address is represented in standard decimal notation (for example, 123.45.6.7).

IPCP

Internet Protocol Control Protocol

A TCP/IP Network Control Protocol (NCP) that provides procedures for establishing, configuring, and terminating interaction between peers over a Point-to-Point Protocol (PPP) link.

IP host address

Internet Protocol host address

Part of the four-byte IP address. The IP address can be divided into two logical parts: an IP network address and a local host (node) address. The IP host address is unique for every node on a single network.

IP/IP gateway

Software that runs on the OSI application layer and allows dissimilar protocols to communicate by filtering communications through industry-standard IP.

IP network address

Internet Protocol network address

Part of the four-byte IP address. The IP address can be divided into two logical parts: an IP network address and a local host (node) address. The IP network address is the same for every node on a single network.

IP tunneling

A method by which two or more IPX networks exchange IPX packets through an Internet Protocol (IP) internetwork. The tunnel sends each IPX packet across the IP internetwork by encapsulating it in a user datagram protocol (UDP) datagram.

IPX

Internetwork Packet Exchange

A NetWare protocol that provides connectionless, datagram delivery of messages. IPX is based on Xerox Corporations Internetwork Packet protocol, XNS.

IPX address

An address made up of a 4-byte network number, a 6-byte node number, and a 2-byte socket number. The network number is assigned to each LAN segment, server, or router. The node number identifies a specific system and is typically the number assigned by the manufacturer or the network interface device. The socket number distinguishes processes within the same computer.

IPX external network number

A number that uniquely identifies a network cable segment. An IPX external network number is a hexadecimal number, one to eight digits (1 to FFFFFFFE). The number is arbitrary, and is assigned when the IPX protocol is bound to a network board in the server.

An IPX external network number is also known as a network number or network address.

IPX internal network number

A logical network number that identifies an individual NetWare server. The IPX internal network number is a hexadecimal number, one to eight digits (1 to FFFFFFFE), and is assigned to the server during installation.

Each server on an IPX network must have a unique IPX internal network number. The IPX internal network number of any node must also be different from any IPX external network number on the internetwork.

IPX/IP gateway

A system that transfers NetWare data traffic between IP and IPX segments on a mixed protocol network, translating as needed between the two protocols.

IPX network number

A number that uniquely identifies a network cable segment. An IPX external network number is a hexadecimal number, one to eight digits (1 to FFFFFFFE). The number is arbitrary, and is assigned when the IPX protocol is bound to a network board in the server.

Also known as an IPX external network number or network address.

IPXODI

Internetwork Packet Exchange Open Data-Link Interface

A module that takes workstation requests the DOS Requester has determined are for the network, packages them with transmission information (such as their destination), and forwards them to the LSL.

IPXODI requires that each packet has an initialized header specifying packet source, destination, and handling.

IPX Route Aggregation

Novell software that enables the introduction of routes learned through RIP into a NetWare Link Services Protocol (NLSP) backbone in a summarized form. Route aggregation compactly describes many IPX network numbers simultaneously by using an address and mask pair.

IRF

inherited rights filter

An entry in an objects access control list (ACL) that specifies which rights can and cannot flow down to the object and its subordinates.

Only inherited rights can be filtered. Rights granted at the current level, either by explicit assignment or by security equivalence, cannot be blocked.

The Supervisor right can be blocked to an object but not to a file or directory.

Object rights and property rights are inherited and filtered separately; therefore, object and property rights can be blocked individually without affecting each other.

IRQ

interrupt request, interrupt request line.

A hardware line over which devices, such as printers or modems, can send signals to the processor when the device is ready to send or receive information. Typically, each device connected to the computer uses a separate IRQ.

ISDN

Integrated Services Digital Network

An evolving set of standards for a digital network that carries both voice and data communication.

ISO

International Organization for Standardization

An international organization that establishes global standards for communication and information exchange, and for many other fields of commercial activity.

ISR

interrupt service routine

A software routine that is executed in response to an interrupt. An ISR, also called an interrupt handler, is registered to process a specific interrupt. When multiple ISRs are registered to process the same interrupt, the ISRs are linked. This means that each ISR can either process the interrupt or pass it on to the next ISR in the chain.

ITU-T

International Telecommunication Union, Telecommunication Standardization Sector

The group within the International Telecommunication Sector that defines data communications standards. It was formerly called International Consultative Committee for Telegraphy and Telephony (CCITT).

IXC

interchange channel

A channel or circuit between exchanges (telephone central offices).

IXC

interexchange carrier

A long distance telephone company.

JJJ

jabber

To continuously send random data (garbage).

For example, a network board that locks up a channel for longer than it takes to transmit the maximum size packet is said to be jabbering.

Java

A general-purpose, platform-independent application programming language developed by Sun Microsystems.

jukebox

A high-capacity storage device, sometimes called an optical disk library, that uses an autochanger mechanism to mount and dismount optical disks as they are needed.

junction

1. (verb) To set up a path to access files from different locations in a management context.

2. (noun) An alias that redirects users to the root of a volume where a file is stored. Users do not need to know the physical location to access the file; the junction will locate the file from anywhere in the management context.

JVM

Java Virtual Machine

A Java interpreter from the JavaSoft division of Sun, Inc. This interpreter converts Java byte code into machine language one line at a time before it executes. This product is used by software developers who incorporate Java into their Web browsers and server software.

KKK

kbit/s

kilobits per second

A data rate equal to 1024 bps.

keep-alive packet

A type of packet sent as a request to a remote peer. A response is usually sent back to the peer sending the request. A keep-alive packet serves as a continuous link-confidence test at the access interface, sent at a specified time period. Also called a "tickle packet."

kernel

The core of a network operating system. The kernel provides fundamental operating system services, such as handling interrupts and the I/O system, managing threads and processes, and allocating and scheduling processor resources.

The NetWare® 5 multiprocessing kernel (MPK) is integrated to run on both multiprocessor and uniprocessor systems; it is completely multithreaded, and it provides support for preemptible applications.

kernel memory space

The portion of server memory used by the NetWare operating system. Also known as operating system memory space.

keyboard type

The language for which a computer keyboard is designed.

Key Material object

An NDS® object that stores trusted root certificates along with a single service certificate and its associated private key. The Key Material object also contains, as a trusted root, the signer of the single service certificate. The Lightweight Directory Access Protocol (LDAP) service is configured to use a specified Key Material object during the start of a Secure Socket Layer (SSL) session. Each server links to the appropriate Key Material object so that its certificate can be found during the establishment of a Secure Socket Layer (SSL) session.

key pair

An encyrption technology consisting of a public key (available to everyone) and a private key (owned by and available only to a specific individual or entity).

A key pair is used to encrypt or convert information into a format that is difficult or impossible to read. In a digital signature system, the key pair creates and validates the digital signature. In an encryption system, the key pair encrypts and decrypts the message body.

The public and private keys have the following relationships:

-Data encrypted with the public key can be decrypted with the private key only.

-Data signed with the private key can be verified with the public key only.

-Exposing a public key does not expose the corresponding private key.

key size

The size (in bits) of the public key. Generally, the larger the key size, the more resistant the private key is to cryptanalysis (subversion of cryptosystem).

kilobits per second

kbit/s

A data rate equal to 1024 bps.

LLL

LAN

local area network

A network located within a small area or common environment, such as in a building or a building complex.

LAN driver

A device driver that transmits and receives data from the LAN. It serves as a link between a workstations operating system and the physical network.

LAPB

Link Access Procedure-Balanced; Link Access Protocol-Balanced

A CCITT and an ITU-T, bit-oriented protocol similar to the Synchronous Data Link Control (SDLC) protocol.

large Internet packet

LIP

A functionality that allows the maximum size of internetwork packets to be increased beyond 576 bytes.

latency

The delay inherent between starting to send data and that data starting to arrive at its destination.

LCGI

Local Common Gateway Interface

An implementation of the Common Gateway Interface (CGI), which is the protocol for processing user-supplied information through server scripts and applications. LCGI invokes and communicates with external processes running on a local Web server.

LCN

logical channel number

A unique number given to each virtual circuit for a call. An LCN is attached to each packet in the call and differentiates the packets from packets generated by other users for other calls.

LCP

Link Control Protocol

A packet that provides procedures for establishing, configuring, testing, and terminating the operation of PPP data-link connections. LCP also automates the configuration and establishment of serial links for bridges and routers over wide area networks (WANs), and controls the header compression and link quality on dial-up PPP links.

LDAP

Lightweight Directory Access Protocol

An X.500-related Open Systems Interconnection (OSI) protocol that clients can use to read and write Directory information. LDAP is used to publish Directory information such as telephone numbers and e-mail addresses. The Directory features available to LDAP clients are dependent upon the features built into the LDAP server and the LDAP client; some clients have the ability to read and write data, others can only read Directory data.

leading period

An NDS® syntax construction indicating that the distinguished name does not use the workstations current context.

leaf object

An NDS object, located at the end of a branch in the NDS tree, that doesnt contain any other objects. Examples include User, Group, and NetWare Server objects.

learning router

A type of router that gets its configuration from a configured router on the same network. This can be an AppleTalk non-seed router.

leased line

A dedicated communications line that is usually leased from a public data networks (PDN) vendor on a monthly basis.

least recently used

LRU

An algorithm that calculates the longest period of time that a file or page or other entity has not been accessed.

LEC

LAN Emulation Client

LEC

local exchange carrier

A telephone company that provides local connections and, if the service area is expanded, connections to the interexchange carrier (IXC).

LEN

low-entry networking

A network in which type 2.1 nodes are attached directly to one another using peer-to-peer protocols. This allows the low-entry network to support multiple and parallel sessions between logical units (LUs).

level 1 routing

The interaction of routers within the same routing area.

level 2 routing

Routing between areas to form a routing domain controlled by a single administrative unit.

For example, communications within an organization would be level 2 routing.

level 3 routing

Routing between routing domains controlled by different administrative units.

For example, communications between different companies or academic organizations would be level 3 routing.

LH

link header

The control information for data-link control at the beginning of a basic link unit.

License Certificate object

An NDS leaf object used with Novell® Licensing Services (NLS) technology to represent product license certificates. License Certificate objects are added to the License container object when an NLS-aware application is installed.

License object

PL

A container object created automatically when applications enabled for Novell Licensing Services (NLS) technology are installed, or when a license certificate is created.

Administrators can create a License Certificate through the metering option, even though an application does not comply with Licensing Services APIs. When a metering certificate is created, NLS automatically adds a License container object to NDS.

License Service Provider

LSP

An NLM that responds to requests from NetWare Licensing Services (NLS) clients and licensing service managers for licensing information or license units.

LINE

A type of definition statement.

In the NetWare® Core Protocol (NCP) software, LINE defines the name of the link to Virtual Telecommunications Access Method (VTAM).

In Virtual Telecommunications Access Method (VTAM), LINE defines the minor node name for the communication line.

line

A circuit, channel, or link that carries data communications signals.

line description

In AS/400, an object that contains information describing a particular communications line that is attached to the system.

link

In GroupWise®, to connect an item to a folder or multiple folders.

link

In the context of NetWare Link Services Protocol (NLSP) running on a LAN, a pointer to a Designated Router pseudonode.

link

The line connection and the link stations joining network or peer nodes.

link

hypertext link

An electronic cross-reference placed into "computer-viewable" files that allows the user to jump from the current location to another location within the same document or in other documents.

link

A software connection between two files or objects. A change in one is reflected by a change in the other.

link

The information required to route messages from one domain, post office, or gateway to another in a GroupWise system. Default links are created automatically when domains, post offices, and gateways are created. Links are modified with the Link Configuration tool.

Link Access Procedure-Balanced

LAPB

Synonym for "Link Access Protocol-Balanced."

A CCITT and an ITU-T, bit-oriented protocol similar to the Synchronous Data Link Control (SDLC) protocol.

Link Access Protocol-Balanced

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link header

LH

The control information for data-link control at the beginning of a basic link unit.

link layer

Shortened form for "data-link layer," "link services layer," or "link support layer."

link-level protocol

A set of rules that defines methods for communicating over a channel, circuit, or link.

Link Services Layer

LSL

Intermediary software that routes packets between LAN boards with their multiple-link interface drivers (MLIDs) and protocol stacks. The LSL maintains LAN board, protocol stack, and packet buffer information.

link state packet

LSP

A packet generated by a NetWare Link Services Protocol (NLSP) router that lists the routers neighbors and attached IPX networks.

link state protocol

A routing algorithm that controls the way each router broadcasts information about the state of its links (network attachments) to all nodes in the internetwork. This approach reduces routing loops and network traffic, but has greater memory requirements than the distance vector algorithm.

NetWare Link Services Protocol (NLSP), Open Shortest Path First (OSPF), and Intermediate System-to-Intermediate System (IS-IS) are examples of link state protocols.

link state router

A router that uses NLSP (NetWare Link State Protocol) to distribute its own link states to all other routers on the network and to update its database with link state information received from other routers.

link support layer

LSL

An implementation of the Open Data-Link Interface (ODI) specification that serves as an intermediary between the NetWare server or router LAN drivers and communication protocols, such as IPX, AFP, or TCP/IP, and AppleTalk.

link trailer

LT

The control information for data-link control at the end of a basic link unit.

LIP

large Internet packet

A functionality that allows the maximum size of internetwork packets to be increased beyond 576 bytes.

LMI

Local Management Interface

An implementation agreement that addresses signaling and other network management functions.

LMI

layer management interface

load

In the Common Desktop Environment (CDE):

1. To transfer a file from a storage device into the memory of the computer.

2. To mount a tape or disk pack so that it is ready to operate.

LOAD

1. When multiple menus are created in separate files, this Control command in the menu source file allows these menus to be started from the first menu.

2. In a menu source file, a Control command that allows multiple menus created in separate files to be started from the first menu.

load

To make a software program available in memory so that it can be executed. In NetWare, to link to the NetWare operating system. For example, NLM programs can be loaded while NetWare is running.

load automatically

To load a program during a computer or an operating system startup process without any user intervention.

Generally, this is done by adding a command to the startup file, such as config.sys, startup.ncf, or autoexec.bat. Sometimes it is done simply by setting certain parameters in a program; for example, if a program that otherwise would load automatically required a password, setting the password would allow the program to load without user intervention.

load balancing

A scheme for distributing network traffic among parallel paths. Load balancing provides redundancy while using the available bandwidth efficiently.

load sharing

The ability of two or more remote bridges or routers to share their traffic load in a parallel configuration. If one bridge or router fails, traffic is routed to the next parallel bridge or router.

load script

A script that contains the commands to start a resource or service on a cluster server or to mount a volume on a cluster server.

See also unload script.

loadable module

A program that can be loaded and unloaded from a server or a workstation while the operating system is running.

Loadable Storage Subsystem

LSS

A layer in the NSS software architecture that exchanges information with the Media Access Layer (MAL) about storage devices and volumes. Information about the devices and volumes then flows up through the object engine and into the semantic agents. LSS provides the interface for non-NSS storage formats such as CD-ROMs.

LOCADDR

The local address of a logical unit (LU) at the associated physical unit, given as a decimal integer. In NetWare Link/SNA, LOCADDR=0 is required for independent logical units on a type 2.1 node.

local area network

LAN

A network located within a small area or common environment, such as in a building or a building complex.

Local Common Gateway Interface

LCGI

An implementation of the Common Gateway Interface (CGI), which is the protocol for processing user-supplied information through server scripts and applications. LCGI invokes and communicates with external processes running on a local Web server.

local drive

A storage device that is physically contained in or attached to a workstation.

local exchange carrier

LEC

A telephone company that provides local connections and, if the service area is expanded, connections to the interexchange carrier (IXC).

local interrupt

An interrupt that is specific to a hardware platform which in turn is local to an individual processor.

Locality

L

One of the five types of container objects that can be created and added to the NDS tree. The other four are Country (C), Licensed Product (LP), Organization (O), and Organizational Unit (OU). Locality designates the location of this portion of the network. For example, if a Country object such as US exists, a Locality object, EAST, can be added for the East coast under US. The object is placed below the Country object, Organization object, or Organizational Unit object.

Local Management Interface

LMI

An implementation agreement that addresses signaling and other network management functions.

local printer

A printer attached directly to a port on the print server.

LocalTalk network

A system of cables, cable extenders, and connector boxes that connect computers and network devices as part of the AppleTalk network system. A LocalTalk network is an AppleTalk Phase 1 network that supports only a nonextended network configuration.

log file

One of the three types of files produced by each backup session. The other two are Data file and Error file. Log Files are placed in a directory on the host server and accessed through the SBACKUP "Main Menu" screen. The log files are labeled with the same description given the session. Both log and error files contain information such as the sessions date, time, and media identification, but the error file also contains a list of any errors that occurred during the backup session, such as files that were not backed up.

logical board

An instance of a LAN driver associated with a frame type. One LAN driver can be associated with up to four frame types. Each instance of the driver and one frame type constitutes one logical board.

logical channel

The mechanism that allows multiple, simultaneous virtual circuits across one physical link.

logical channel number

LCN

A unique number given to each virtual circuit for a call. An LCN is attached to each packet in the call and differentiates the packets from packets generated by other users for other calls.

logical drive

An identification for a specific directory located on a disk drive. For example, network drives point to a directory on the network, rather than to a local disk.

logical memory

Memory that might not have contiguous addresses, but that appears contiguous to NetWare processes.

logical unit

LU

A type of network accessible unit in a Systems Network Architecture (SNA) network. LUs can communicate with host systems and applications (LU Type 0, 1, 2, 3, 4, and 7) or with other LUs of the same type (LU Type 6.0, 6.1, and 6.2 only).

logical volume

A volume that is set to a specific size or that can grow dynamically according to the amount of physical space assigned to the storage pool that contains the volume.

See also storage pool.

log in

To supply a user name, and if necessary a password, to gain access to a system or desktop session.

login

The process of gaining access to a system.

Login directory

In NetWare, the directory in volume Sys, created during network installation, that contains the LOGIN and NLIST utilities. Users can use these utilities to log in and view a list of available NetWare servers.

login name

A unique name given to each user. It is required at login to identify the user.

login restriction

A limitation on a user account that controls access to the network. Examples of login restrictions include password requirements, account limits, disk space limits, number of connections, and time restrictions. When a user violates login restrictions, NetWare disables the account and no one can log in using that username.

login script

A list of commands that are executed when a user logs in to the network. The commands are typically used to establish connections to network resources. A login script is a property of a container, Profile, Template, or User object. If a

login script is defined for each of these objects (except the Template), when a user logs in, all associated login scripts will execute.

Note: The Template script establishes the Login Script property when a new User object is created. As soon as the administrator tailors the script for that particular User object, the Template script no longer executes.

Login Script

Short for "Login Script property."

logout

In NetWare, a procedure that breaks a network connection and deletes drives mapped to the network.

This procedure can terminate a connection to a single NetWare server or all connections to all NetWare servers.

logout

In the Common Desktop Environment (CDE), the termination of a desktop session.

long machine type

A six-letter name representing a DOS workstation brand.

long.nam

A module that enables NetWare to store files with long file names.

loopback

A diagnostic test of a communications port in which a signal is transmitted across a medium while the sending device waits for its return.

loopback plug

A special connector used to perform loopback testing.

low-entry networking

LEN

A network in which type 2.1 nodes are attached directly to one another using peer-to-peer protocols. This allows the low-entry network to support multiple and parallel sessions between logical units (LUs).

low-level storage device

A piece of hardware, such as a hard drive, that has a smaller data capacity than a high-capacity storage device. It is used to store data in partitions.

LPT port

Any of the parallel printer ports of a personal computer.

LRU

least recently used

An algorithm that calculates the longest period of time that a file or page or other entity has not been accessed.

LRU sitting time

A field in the Cache Utilization screen of MONITOR that displays the time elapsed since the oldest block in the Least Recently Used (LRU) list was referenced. The LRU list identifies the least recently used data blocks, that is, blocks that have been in cache the longest time without being accessed. A high LRU sitting time indicates that the server has sufficient memory to handle disk requests or that requests are fairly static.

LSL

link support layer

An implementation of the Open Data-Link Interface (ODI) specification that serves as an intermediary between the NetWare server or router LAN drivers and communication protocols, such as IPX, AFP, or TCP/IP, and AppleTalk.

LSL

link services layer

Intermediary software that routes packets between LAN boards with their multiple link interface drivers (MLIDs) and protocol stacks. The LSL maintains LAN board, protocol stack, and packet buffer information.

LSP

link state packet

A packet generated by a NetWare Link Services Protocol (NLSP) router that lists the routers neighbors and attached IPX networks.

LSP

light speed Pascal

LSP

License Service Provider

An NLM that responds to requests from NetWare Licensing Services (NLS) clients and licensing service managers for licensing information or license units.

LSP Server object

An NDS leaf object that represents a server running Novell Licensing Services. When a License Service Provider (LSP) is registered with NDS, an LSP Server object is created in the same context as the server object on which it is loaded. The LSP Server object can be moved to another context in the Directory.

LSS

Loadable Storage Subsystem

A layer in the NSS software architecture that exchanges information with the Media Access Layer (MAL) about storage devices and volumes. Information about the devices and volumes then flows up through the object engine and into the semantic agents. LSS provides the interface for non-NSS storage formats such as CD-ROMs.

LT

less than

LT

lower tester

LT

link trailer

The control information for data-link control at the end of a basic unit.

LU

logical unit

A type of network accessible unit in a Systems Network Architecture (SNA) network. LUs can communicate with host systems and applications (LU Type 0, 1, 2, 3, 4, and 7) or with other LUs of the same type (LU Type 6.0, 6.1, and 6.2 only).

LU6.2

logical unit type 6.2

A protocol that provides Advanced Program-to-Program Communication (APPC) for distributed processing in an SNA network. LU6.2 enables two applications to establish sessions that allow personal computers (PCs) and mid-range hosts to exchange data with mainframes.

MMM

M

Initialism for "Migrated attribute."

M

megabyte

A unit of measure of computer memory, equal to 1,024 kilobytes or 1,048,576 bytes.

MAC

medium access control

The middle layer of IEEE 802 LAN Protocol standard.

Magazine

One of three Web models, the others being Directory and Virtual Storefront. Electronic magazines (called "E-Zines") allow people to create a resource that is filled with information (like a magazine) and to sell their services.

MAGAZINE

1. A network server command that confirms that media requests made from the network server, such as "Insert Magazine" or "Remove Magazine," have or have not been satisfied.

2. A NetWare® NLM that confirms whether magazine requests from the server have been satisfied.

Mail directory

The sys:mail directory, created during network installation, used by mail programs that are compatible with NetWare.

mail/news gateway

A gateway that sends mail messages to an Internet discussion group.

main toolbar buttons

In NetWare Administrator, the core set of buttons that appears on the toolbar of a main view if the main view also contains corresponding menu commands. These buttons are supplemented by tool-specific or view-specific buttons.

major resource

A category of data defined by the Target Service Agent, and recognized by SBACKUP. A major resource contains data that can be backed up as a group, for example, server, volume, and so forth.

MAL

Media Access Layer

A layer in the NSS software architecture that provides an abstracted interface to storage devices such as hard drives and CD-ROMs, in order to chunk large amounts of storage free space and eventually break it into storage groups and NSS volumes.

The MAL allows NSS storage space to be independent of the physical storage platform of a host. It lets users view the storage capability of a server as storage groups and NSS volumes.

managed object

A storage free space object that is owned by NSS and is deposited in the NSS object bank for NSS use.

managed object

A device that is connected to a network and that can be managed by network management software or a protocol such as Simple Network Management Protocol (SNMP).

Management Information Base

MIB

A database of network management information about the configuration and status of nodes on a TCP/IP-based internetwork. MIB is used by the Common Management Information Protocol (CMIP) and the Simple Network Management Protocol (SNMP).

manager

An NDS® category for a user who has rights to manage other objects. To manage an object, a user must have the Write right to the Object Trustees (ACL) property.

master name server

A single server in an administrative zone that maintains an authoritative database of name and address information for that zone. It also contains information about how to contact name servers in higher- and lower-level zones.

master replica

A writable replica that contains an instance of all object information for the partition. All partition operations (create, merge, move, create a replica, delete a replica, repair) occur in relation to the master replica of the given partition. Only one master replica at a time can exist for any partition.

master watchdog

A number specifying the amount of time between transmits for the master node in the cluster.

See also heartbeat; slave watchdog; tolerance.

maximum receive unit

MRU

A Link Control Protocol (LCP) option used to negotiate the maximum packet size.

maximum transmission unit

MTU

The largest packet size, in bytes, that can be sent on a given physical network medium. For example, the MTU for Ethernet is 1500 bytes.

M-bit

more data mark

A component of a user packet. If set, it specifies that the next packet sent is a logical continuation of the data in the current packet.

mbit/s

megabits per second

A data rate equal to 1,048,576 bits per second (bps).

mbyte/s

megabytes per second

A data rate equal to 1,048,576 bytes per second.

media access control

MAC

In the OSI reference model, the data-link layer protocol that governs communication between the data-link and physical layers for controlling the use of the network hardware.

media access control layer

MAC layer

The lower half of the data-link layer in the OSI model. The MAC layer frame format allows for multiple network-layer protocols to be transported across MAC layer bridges.

Media Access Layer

MAL

A layer in the NSS software architecture that provides an abstracted interface to storage devices such as hard drives and CD-ROMs, in order to chunk large amounts of storage free space and eventually break it into storage groups and NSS volumes.

The MAL allows NSS storage space to be independent of the physical storage platform of a host. It lets users view the storage capability of a server as storage groups and NSS volumes.

Media Manager

MM

A database built into NetWare that keeps track of all peripheral storage devices and media attached to NetWare servers, and allows applications to gain access and get information.

memory

The internal dynamic storage of a computer that can be addressed by the computers operating system, referred to frequently as RAM.

Memory accepts and holds binary data. To be effective, a computer must store the data that is operated on, as well as the program that directs the operations to be performed.

Types of memory include conventional, expanded, extended, upper, high, system, etc.

memory allocation

The process of reserving specific memory locations in RAM for processes, instructions, and data.

When a computer system is installed, the installer may allocate memory for items such as disk caches, RAM disks, extended memory, and expanded memory.

Operating systems and application programs allocate memory to meet their requirements, but they can use only that memory actually available to them.

Memory can be reallocated between resources to optimize performance. The proper memory allocation mix depends on the applications that are run.

memory board

An add-on board that increases the amount of RAM within a personal computer.

memory management unit

MMU

A portion of the microprocessor that provides memory address mechanisms, such as segmentation and paging, which are used by the NetWare operating system to manage memory. The MMU partitions memory for programs and prevents unwanted access to the memory.

memory page

A 4 KB block of server memory.

message digest

A compressed or condensed form of a document, or an abstract from a document, that functions as a "digital fingerprint" of the larger document. A message digest is used to create a digital signature that is unique to a particular document.

A message digest can be made public without revealing the contents of the document from which it is derived. This is important in digital time-stamping, where, using hash functions, one can get a document time-stamped without revealing its contents to the time-stamping service.

Message Handling Service

Novells® store-and-forward technology for sending electronic mail messages.

message pacing

A technique by which a receiving component controls the rate of transmission of a sending component to prevent overrun or congestion. Message pacing sets the maximum number of request units (RUs) that the local LU can receive without sending a pacing response on sessions for the specified mode name. The maximum number of RUs is the pacing window. The range of values is 0 through 63.

message packet

A unit of information used in network communication.

MIB

Management Information Base

A database of network management information about the configuration and status of nodes on a TCP/IP-based internetwork. MIB is used by the Common Management Information Protocol (CMIP) and the Simple Network Management Protocol (SNMP).

migrate

To move the bindery, data, and files from one Novell server to another.

migrate

To move data from one location to another.

Migrated

M

Short for "Migrated attribute."

Migrated attribute

M

A file system attribute, set by NetWare, that indicates the file has been migrated. It is shown in attribute listings, but cant be set by users.

migration

The conversion of servers from NetWare 2 or NetWare 3 or another operating system to NetWare 4 or higher.

migration

The moving of data files and directories from one system to another, usually when either a system is upgraded or a different system is installed.

migration

The transfer of inactive data from a NetWare volume to tape, optical disk, or other near-line or offline storage media. Data migration lets an administrator move data to a storage device, while NetWare still sees the data as residing on the volume.

migration

The conversion of a server, router, or network from IPX to NetWare Link Services Protocol (NLSP), or from TCP/IP to Open Shortest Path First (OSPF) protocol.

MIME type

A convention used to map a data type to a particular filename extension. A MIME-type header is sent with every Web document to describe the content of the document. Web browsers use the MIME type to determine how to process the document.

minor resource

A category of data defined by the Target Service Agent and recognized by SBACKUP. A minor resource might be located in the directory structure below the selected major resource, for example, directories, subdirectories, or files.

mirror

To duplicate a disk, partition, server, or other device.

In NetWare, to duplicate data on two separate hard disks using the same disk channel. If the original disk fails, the duplicate disk takes over automatically, without loss of data. If the disk channel fails, however, neither disk is accessible.

mirrored server engine

MSEngine

The part of the SFT III operating system that handles nonphysical processes, such as the NetWare file system, queue management, and NDS.

SFT III is split into two parts: the IOEngine (Input/Output Engine) and the MSEngine. The primary server and the secondary server each have a separate

IOEngine, but they share the same MSEngine. The file system, receive buffers, and queue management system all reside in the MSEngine.

Applications and NLM programs that do not address hardware directly can be mirrored by loading them in the MSEngine. If one server fails, applications and NLM programs in the MSEngine continue to run. The MSEngine keeps track of active network processes; it provides uninterrupted network service when the primary server fails and the secondary server takes over.

Mirrored Server Link

MSL

A dedicated, high-speed connection between SFT III primary and secondary servers.

mirroring

Short for "disk mirroring."

MLID

Multiple Link Interface Driver

A device driver written to the ODI specification that handles the sending and receiving of packets to and from a physical or logical LAN medium.

MMU

memory management unit

A portion of the microprocessor that provides memory address mechanisms, such as segmentation and paging, which are used by the NetWare operating system to manage memory. The MMU partitions memory for programs and prevents unwanted access to the memory.

modem

modulator/demodulator

A device that transmits and receives digital computer data over telephone lines.

moderator

An individual who manages a newsgroup in order to keep the discussion focused.

MODETAB

An operand in a Virtual Telecommunications Access Method (VTAM) definition statement coded with the name of the login mode table used for a logical unit (LU).

mode table

A table used at login to determine the session properties of a logical unit (LU).

modifiable

A key attribute that allows you to modify the key field during an update to a file. If a key is not modifiable, you cannot change the value in the key field.

Modify bit

A file attribute set by the operating system, when a file is changed, to indicate that data has been modified.

The NetWare modify bit, called Archive Needed Attribute, appears as an "A" wherever file attributes are listed.

Modify right

A file system right that allows the trustee to rename the file or directory or to change its attributes. In the case of a directory, the trustee can also rename or modify the attributes of any subordinate file or directories.

This right doesnt allow the trustee to see or modify the actual contents of files.

modular

Describes a program that is written in component pieces that can be run independently. Object-oriented programming is used to develop self-contained modules that run independently, but that work together when plugged in.

modulo 8 or 128

A packet sequence numbering method that specifies the control over the numbering of sequential data packets in a window.

MONITOR

An NLM that the network administrator uses for managing, optimizing, and troubleshooting the performance of the NetWare server.

monitor

In GroupWise® 4.1a XTD Workflow, a person who has been designated to track the workflow.

more data mark

M-bit

A component of a user packet. If set, it specifies that the next packet sent is a logical continuation of the data in the current packet.

mount

To make a device or file or other entity locally available on a computer.

For example, in NFS (Network File System), a server maintains a list of its directories that are available to clients. When a client mounts a directory on the server, that directory and its subdirectories become part of the clients directory hierarchy.

mount

In the Common Desktop Environment (CDE),

1) To extend the directory hierarchy by attaching a file system from somewhere else in the hierarchy on a mount point directory.

2) (In File Manager: Set 30, message 4) To cause the root directory of a disk or partition to take the place of a directory on the root disk or partition.

MP

MultiProcessor

MPK

multiprocessing kernel

The core of the NetWare 5 operating system. The NetWare 5 kernel is integrated to run on both multiprocessor and uniprocessor systems; it is completely multithreaded, and it provides support for preemptible applications. MPK provides fundamental operating system services, such as handling interrupts and the I/O system, managing threads and processes, and allocating and scheduling processor resources.

MRU

maximum receive unit

A Link Control Protocol (LCP) option used to negotiate the maximum packet size.

MSEngine

mirrored server engine

The part of the SFT III operating system that handles nonphysical processes, such as the NetWare file system, queue management, and NDS.

SFT III is split into two parts: the IOEngine (Input/Output Engine) and the MSEngine. The primary server and the secondary server each have a separate IOEngine, but they share the same MSEngine. The file system, receive buffers, and queue management system all reside in the MSEngine.

Applications and NLM programs that do not address hardware directly can be mirrored by loading them in the MSEngine. If one server fails, applications and NLM programs in the MSEngine continue to run. The MSEngine keeps track of active network processes; it provides uninterrupted network service when the primary server fails and the secondary server takes over.

MSL

Mirrored Server Link

A dedicated, high-speed connection between SFT III primary and secondary servers.

MTU

maximum transmission unit

The largest packet size, in bytes, that can be sent on a given physical network medium. For example, the MTU for Ethernet is 1500 bytes.

MTU

message transfer unit

multicast

A transmission method in which only those devices listening for a specified multicast packet address accept the routing information packet.

Multiple Link Interface Driver

MLID

A device driver written to the ODI specification that handles the sending and receiving of packets to and from a physical or logical LAN medium.

multiplexing

A method that allows a single communications circuit to take the place of several parallel ones. Multiplexing is often used to allow remote terminals to communicate with front-end processor ports over a single circuit.

multiprocessing kernel

MPK

The core of the NetWare 5 operating system. The NetWare 5 kernel is integrated to run on both multiprocessor and uniprocessor systems; it is completely multithreaded, and it provides support for preemptible applications. MPK provides fundamental operating system services, such as handling interrupts and the I/O system, managing threads and processes, and allocating and scheduling processor resources.

multiserver network

A single network that has two or more NetWare servers operating.

On a multiserver network, users can access files from any NetWare server they have access rights to.

A multiserver network isnt the same as an internetwork, where two or more networks are linked through a router.

multitasking

The execution of more than one application or thread at a time in order for a computer to perform simultaneous tasks.

multithreading

The simultaneous execution of more than one thread within a process or application.

mutex

mutual exclusion

An atomic lock variable that prevents multiple threads from accessing shared data structures at the same time. Types of mutexes include spin, sleep, and barrier.

NNN

N

Initialism for "Normal attribute."

NACS

NetWare Asynchronous Communication Services

Software that enables network managers to provide LAN users with access to shared modem pools, asynchronous minicomputer ports, and X.25 and ISDN services for communications inbound to and outbound from the network. NACS enable any workstation on the network to share either dial-up phone lines or directly connected phone lines to a host computer or other asynchronous device.

NAK

negative acknowledgment

A signal that reports an error in the message received; the opposite of ACK, or acknowledgment.

NAL

Novell Application Launcher

A NetWare® utility that allows users to run applications that were previously configured by a network administrator. The applications are displayed as icons. Users double-click the icon to launch the application.

Name Binding Protocol

NBP

An AppleTalk protocol that maps entity names to their corresponding internetwork addresses. For example, Macintosh Chooser and atcon.nlm find AppleTalk entities using NBP.

name context

The position of an object in the NDS® tree. This position is described by listing the container objects leading from the object to the [Root] of the NDS tree.

name-only directory

The name and attributes of a directory that have been created as a result of replication. The contents of the directory are not replicated. Name-only directories are replicated to preserve the users view of a volumes directory structure when working with data from that volume on a replica server.

name resolution

The process by which a network address is associated with a hostname assigned by the network administrator.

In the Domain Name System (DNS) this process translates an IP address into a hostname.

name server

A server that maintains a DNS database of hostname and IP address mappings. Name servers respond to queries from servers and client workstations for host addresses. Each DNS zone must include a name server containing information about each host in the zone.

name server

A DNS entry for a Post Office Agent (POA). The name server identifies the IP address of one of the POAs in the GroupWise system. This enables the GroupWise client to connect through TCP/IP to the name server POA without the user needing to know the IP address of the POA. Once the GroupWise client is connected, the name server POA then tells the GroupWise client the IP address of the POA servicing the users post office. The GroupWise client then logs in to that POA.

There can be a primary name server and a backup name server. The DNS host name for the primary name server must be NGWNAMESERVER. The DNS host name for the backup name server must be NGWNAMESERVER2.

name space

Short for "name space module" or "name space NLM."

name space NLM

A NetWare Loadable Module that enables a NetWare server to store non-DOS files, such as Macintosh, OS/2, or UNIX.

name space support

An NLM with a .nam extension that allows users to store non-DOS filenames on a NetWare server. Files appear in native mode to users at different types of workstations.

naming services

In NSS, a layer in the Common Layer Interface (CLI) software architecture that contains basic object naming and lookup operations as well as name space management services. It contains generations of unique names across all available name spaces.

NASI

NetWare Asynchronous Services Interface

A memory-resident program that runs on a workstation, and that offers DOS and Windows communications applications network access to pooled communication resources.

NASI Connection Service

NCS

Software that establishes a logical connection between a remote access port and a network workstation. This connection enables network workstations to dial out of the network with third-party applications using a pool of modems on the server.

NASI Redirector

Now called Windows-to-Novell Connection Service (Win2NCS).

NAT

Network Address Translation

Novell software that translates IP addresses that are not globally unique on a private network to a globally unique public IP address. NAT allows IP hosts on a private network to access the Internet. NAT can also limit the access of hosts on the public network to resources on a private network.

NAT

NetWare Architectural Team

A part of the Product Life Cycle management descision process.

NAT

Network Access Terminal

NBP

Name Binding Protocol

An AppleTalk protocol that maps entity names to their corresponding internetwork addresses. For example, Macintosh Chooser and atcon.nlm find AppleTalk entities using NBP.

ncmcon.nlm

Novell Configuration Manager Console

An NLM that provides the interface for controlling all hot plug operations and functions in NetWare systems. In addition, it displays slot configuration details, including adapter driver information and status.

ncm.nlm

Novell Configuration Manager

For PCI Hot Plug servers, an NLM that manages the hot plug system and ensures proper system behavior. Its primary function is to sequence hot plug operations to ensure stability of the system. To achieve this function, the Configuration Manager properly shuts down the adapters device driver before removing power from the slot. The Configuration Manager also maps hardware resources to device driver software.

NCP

Network Co-Processor

A Vax file service product from Virtual Microsystems, Inc.

NCP

Network Control Program

In Systems Network Architecture (SNA), the network control program that does the routing and addressing of SNA devices.

NCP

NetWare Core Protocol

A packet-based protocol that enables a client to send requests to and receive replies from a NetWare server.

NCP

not copy protected

NCP

Network Control Protocol

The protocol that provides procedures for establishing, configuring, and terminating interaction between peers over a PPP link. For example, Internet Protocol Control Protocol (IPCP) is the Network Control Protocol for TCP/IP.

NCP Packet Signature

NetWare Core Protocol Packet Signature

An enhanced security feature that protects servers and workstations using NCP by preventing packet forgery.

NCS

NASI Connection Service

Software that establishes a logical connection between a remote access port and a network workstation. This connection enables network workstations to dial out of the network with third-party applications using a pool of modems on the server.

NCS

NetWare Connect Services

A Novell® software term referring to the use of NetWare to support global networks.

NCS

Network Computing System

NCS

Network Control Server

NCS

Novell Consulting Services

A Novell department that provides custom software development, network auditing, network systems design, and distributed application design services. NCS is part of Novells Developer Relations program.

NDPS

Novell Distributed Print Services

Print services software that allows network administrators to manage network printing from within NDS. Features include bi-directional feedback, configurable event notification, automatic printer driver download function, protocol independence, and backward compatibility.

NDPS Manager

Short for "NDPS Manager object."

NDPS Manager object

ndpsm.nlm

An NDS object associated with NDPS that is used to create and manage Printer Agents.

NDS

Network Disk Subsystem

NDS

Novells directory services software.

A distributed, replicated naming service that maintains information about, and provides access to, every resource on the network.

NDS browser

An application that allows clients to view objects and their attributes within the NDS tree. NDS browsers are available on many platforms, including an HTML browser for Netscape Navigator.

NDS browser tool

The tool that is activated by default when NetWare Administrator starts up. It provides a main view in which NDS appears as an expandable and collapsible tree. It is also called the "NetWare Administrator browser" or simply "the browser."

NDS database

The database used by NDS, Novells directory services software. It contains information about every resource on the network, including users, groups, printers, volumes, and computers.

NDS management request

A request that controls the physical distribution of the NDS database. Through these requests, network administrators can create new NDS partitions and manage their replicas. The following requests are supported:

Add replica

Delete replica

List replicas

Change replica type

Send updates to other replicas

Receive updates from other replicas

Create a new partition

Merge partition

Abort partition operation

NDS Manager

The graphical utility used to manage NDS partitions, replicas, and schemas.

NDS object

A record in the NDS database representing a network resource, such as an Organizational Unit, User, Printer, or Group.

NDS replica

A copy of an NDS partition.

For the NDS database to be distributed across a network, it must be stored on many servers. Rather than storing a copy of the whole NDS database on each server, NDS replicas of each partition are stored on many servers throughout the network. Administrators can create an unlimited number of NDS replicas for each partition and store them on any server.

NDS replicas serve two purposes; they eliminate single points of failure, and they provide faster access to information for users across WAN links.

Types of NDS replicas include master replicas, read/write replicas, read-only replicas, and subordinate reference replicas.

To maintain fault tolerance, the replicas of a partition are periodically (and automatically) updated, or synchronized.

NDS rights

The authority to access or manage NDS objects or their properties. The object holding authority is called the trustee, and the NDS object being accessed or managed is called the target.

NDS schema

The rules that define what will become an NDS object (such as a User, a Printer, or a Group) and which information is required or optional at the time that the NDS object is created.

NDS server

A server hosting NDS operations, with the capability of holding and synchronizing replicas.

NDS tree

A hierarchical structure of objects in the NDS database. The NDS tree includes container objects that are used to organize the network and leaf objects that represent resources.

NEB

Novell Event Bus

An NLM that facilitates communications between different software modules. The Novell Event Bus enables PCI Hot Plug Technology on multiple versions of NetWare.

NEB

Norton Enterprise Back up

neighbor

A NetWare Link Services Protocol (NLSP) router that can communicate directly with another NLSP router; that is, without the aid of an intermediate router. Open Shortest Path First (OSPF) routers can also function as neighbors.

neighboring router

In the Open Shortest Path First (OSPF) protocol, a router that shares a route to the same network with another router.

NetBIOS

Network Basic Input/Output System

An application program interface that is typically used on local area networks comprising IBM and compatible microcomputers. NetBIOS separates application programs from the networking subsystem, so that application program implementers can support multiple network designs, and so that a network system can support independently developed applications.

net.cfg

A workstation boot file, similar to config.sys in DOS, that contains network configuration values that are read and interpreted when the workstation is started.

netinfo.cfg

A NetWare server executable batch file, located on the NetWare partition of the servers hard disk.

Netinfo.cfg is used to store LOAD and BIND commands associated with protocol configuration if the network administrator uses the INETCFG utility to configure the protocols. If the INETCFG is not used, the LOAD and BIND commands are placed in the autoexec.ncf file.

NetWare Administrator

A NetWare graphical utility used to create objects and to assign properties. NetWare Administrator combines all the tools necessary to administer an entire network, using a single, intuitive interface.

NetWare Asynchronous Communication Services

NACS

Software from Novell that enables network managers to provide LAN users with access to shared modem pools, asynchronous minicomputer ports, and X.25 and ISDN services for communications inbound to and outbound from the network. NetWare Asynchronous Communication Services enable any workstation on the network to share either dial-up phone lines or directly connected phone lines to a host computer or other asynchronous device.

NetWare Asynchronous Services Interface

NASI

A memory-resident program that runs on a workstation, and that offers DOS and Windows communications applications network access to pooled communication resources.

NetWare Connect

In NetWare, referred to as remote access.

Novell communication software that enables remote users of Windows, Mac OS, and DOS to dial into a network and access all available resources including files, databases, Novell GroupWare applications, electronic mail, and minicomputer services. It also enables network users to dial out from the network and connect to bulletin boards, information services, and asynchronous minicomputers.

NetWare Connect Configuration
NWCCON

A utility that can be used instead of NIASCFG to configure and manage remote access.

NetWare Connect Services Selector
NWCSS

The NLM that automatically routes incoming calls to the appropriate service as part of remote access supporting diverse client types. The Services Selector interfaces with AIO and monitors ports on behalf of the registered services. The Services Selector determines the appropriate destination of the incoming data, then relinquishes port control to the appropriate service. In a remote dial-in connection, the Services Selector queries the caller for the available session (that is, the network workstation) to which the caller wants to connect.

NetWare Connect Supervisor
NWCSU

The NLM that provides remote access configuration and dynamic reconfiguration support. It also supports security, license checking, and network management, and it updates port status. NWCSU provides a library of functions, including security, dialback, audit trail, and alert logging.

NetWare Core Protocol
NCP

A packet-based protocol that enables a client to send requests to and receive replies from a NetWare server.

NetWare DOS Requester
The DOS client software portion of NetWare 4 and earlier. It is the connection point between local software (DOS) and network services. The DOS Requester is made up of many Virtual Loadable Module (VLM) files.

NetWare Link Services Protocol
NLSP

The link state protocol used by IPX routers and servers to share information about their routes with other devices on the network. NLSP enables network managers to interconnect small or large IPX networks without routing inefficiencies.

NetWare Link/X.25

Novell implementation of X.25 for the NetWare MultiProtocol Router. The X.25 wide area networking product was replaced by NetWare WAN Links.

NetWare Loadable Module

NLM

A program that runs on the NetWare OS. Once loaded, an NLM becomes part of the network OS. An NLM can be dynamically loaded and unloaded. Types of NLM programs include disk drivers (.dsk extension), LAN drivers (.lan extension), management utilities and server applications modules (.nlm extension), and name space support (.nam extension).

NetWare Management Agent

NMA

A group of NLM programs that provide server statistics and notify the NetWare Management System (NMS) console of alarm conditions.

When installed on each server in the network, NetWare Management Agent allows the network administrator to monitor, manage, and maintain all servers from a central console.

NetWare Management Agent provides a graphical representation of all managed objects and their attributes, including a servers hardware, software, or data components.

NetWare Management System Console

NMS Console

The part of NMS that discovers, monitors, and manages the network. All NMS applications use the NMS consoles graphic user interface and database.

Objects instrumented to Desktop SNMP can be managed from the NMS MIB Browser or other applications that "snap" into the NMS console.

The NMS console is an example of an SNMP management station.

NetWare MPR

NetWare MultiProtocol Router

A suite of PC-based routing products that enables network administrators to connect LANs using IPX, IP, OSI, or AppleTalk over a wide range of LAN and WAN types.

NetWare MultiProtocol Router provides concurrent routing of IPX, TCP/IP, AppleTalk, and SNA protocols, and source-route bridging for NetBIOS and LLC2 applications. It supports a wide range of LAN topologies and WAN connection types, including dedicated leased lines (1200 bit/s up to 2.048 Mbit/s), dial-on-demand voice-grade circuits, frame relay, X.25, ISDN, and SMDS.

NetWare MultiMedia Server

Enables multimedia streaming on a NetWare server, allowing users to play multimedia files from the workstations.

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NetWare operating system

NetWare OS

The network operating system developed by Novell, Inc. NetWare runs on the server and provides functions to the network and the applications running on it, including file and record locking, security, print spooling, and interprocess communications.

The NetWare operating system also determines performance, multivendor support, and reliability of the network.

NetWare partition

A partition created on each network hard disk, from which NetWare volumes are created.

Note that NetWare disk partitions are not related to NDS partitions. Disk partitions are subdivisions of a hard disk. An NDS partition is a subtree within the NDS tree.

NetWare Peripheral Architecture

NPA, NWPA

An extension of the NetWare Media Manager (a database built into NetWare for managing storage devices and media).

NPA separates NetWare driver support into two components: a HAM and a CDM. The HAM drives the host adapter hardware. The CDM drives storage devices or autochangers attached to a host adapter bus.

NetWare protocol

Any of the Novell Client protocols that allow clients to communicate and be understood on the network, including the following:

ARP (Address Resolution Protocol)

BOOTP (Bootstrap Protocol)

ICMP (Internet Control Message Protocol)

IP (Internet Protocol)

IPX/SPX (Internetwork Packet Exchange/Sequenced Packet Exchange)

MIB (Management Information Base)

NetBIOS (Network Basic Input/Output System)

RARP (Reverse Address Resolution Protocol)

RPL (Remote Program Load)

SNA (System Network Architecture)

SNMP (Simple Network Management Protocol)

TCP (Transmission Control Protocol)

UDP (User Diagram Protocol)

XNS (Xerox Network System)

NetWare Runtime

A limited-connection version of the NetWare operating system usually shipped with standalone Novell products.

NetWare Runtime is a network server platform supporting front-end or back-end applications as well as basic NLM programs such as communication services, database servers, electronic mail, and other third-party applications.

NetWare server

A computer that runs NetWare operating system software.

NetWare Server

Short for "NetWare Server object."

NetWare Server object

A leaf object in the NDS tree that represents a server running any version of NetWare.

NetWare SMP

NetWare symmetric multiprocessing

Novell software that allows multiprocessor-enabled NLM programs to run on a system in which all processors can perform all tasks. At runtime, an algorithm assigns tasks to each processor as necessary to balance the work load.

A symmetric multiprocessing system is the opposite of an asymmetric system, in which different processors are dedicated to different kinds of tasks.

NetWare symmetric multiprocessing

NetWare SMP

Novell software that allows multiprocessor-enabled NLM programs to run on a system in which all processors can perform all tasks. At runtime, an algorithm assigns tasks to each processor as necessary to balance the work load.

A symmetric multiprocessing system is the opposite of an asymmetric system, in which different processors are dedicated to different kinds of tasks.

NetWare transport

A component of NetWare software that allows network clients to communicate on the network. NetWare transports work in conjunction with NetWare protocols. A protocol manages data and a transport manages application messages. A protocol and transport can be provided by one piece of software or by many.

NetWare volume

A fixed amount of physical hard disk storage space. A NetWare volume is the highest level in the NetWare file system directory structure (on the same level as a DOS root directory).

NetWire

A Novell information service on the Internet, CompuServe, and the Microsoft Network (MSN) that provides 24-hour online access to technical, corporate, and product information, and connects users with others who use Novell products. NetWire® is updated daily and features downloadable files, patches and drivers, Technical Information Documents, message boards, product lists, press releases, and a calendar of events.

network

A system of interconnected, individually controlled computers and peripherals, and the hardware and software used to connect them.

network address

The internal number assigned by the network that specifies where a device (such as a server or workstation) can be located in the network cabling system.

Network Address

Short for "Network Address property."

Network Address Translation

NAT

Novell software that translates IP addresses that are not globally unique on a private network to a globally unique public IP address. NAT allows IP hosts on a private network to access the Internet. NAT can also limit the access of hosts on the public network to resources on a private network.

network administration

The task of managing the software and hardware in a network. Network administration can include system tasks on a server, such as starting up and shutting down the system, adding and removing user accounts, and backing up and restoring data, assigning addresses to devices, maintaining network data files across the network, and setting up internetwork routing.

NetWare network administration includes creating and managing all NDS objects within an NDS tree.

network administrator

The person responsible for setting up and maintaining the network. The network administrator has the Supervisor right to create and manage objects in the NDS tree.

Generally, this means the person who has a trustee assignment to the [Root] object of the NDS tree, which would include the Supervisor rights to the entire NDS tree. However, the specific part of the NDS tree where this person has rights can vary from network to network.

network architecture

A framework that facilitates the operation, maintenance, and growth of a communications network by isolating the user and application programs from network details. Protocols and software are packaged together into a usable network architecture system that organizes functions, data formats, and procedures.

network-attached printer

A printer available to all users on a network.

network backbone

A cabling system that connects NetWare servers and routers. The central cable handles all network traffic, which decreases packet transmission time and traffic on the network.

Network Basic Input/Output System

NetBIOS

An application program interface typically used on local area networks made up of IBM and compatible microcomputers. NetBIOS separates application programs from the networking subsystem so that application program implementers can support multiple network designs, and so that a network system can support independently developed applications.

network board

A circuit board that provides the interface between software and hardware in order to facilitate network communication. For example, it allows workstations to communicate with each other or with the server, or allows a printer to communicate with the server.

In NetWare documentation this is the preferred term. Documentation from other companies might use the terms "NIC" or "network card" instead. Synonymous terms include "network interface controller" and "LAN adapter."

network communication

Data transmission between workstations. Requests for services and data pass from one workstation to another through a communication medium such as cabling.

Network Control Program

NCP

In Systems Network Architecture (SNA), the network control program that does the routing and addressing of SNA devices.

Network Control Protocol

NCP

The protocol that provides procedures for establishing, configuring, and terminating interaction between peers over a PPP link. For example, Internet Protocol Control Protocol (IPCP) is the Network Control Protocol for TCP/IP.

network direct printer

A printer and third-party print queue server that connect directly to the network.

network drive

A common name for a logical drive.

network drive mapping

Network drive mappings point to volumes and directories on the network. Normally, drives F: through Z: are used for network mappings. Each user can map drive letters to different directories.

To create a network drive mapping, use the MAP command, the NETUSER text utility, or the NetWare User Tools graphical utility.

Network File System

NFS

A distributed file system developed by Sun Microsystems that allows a set of computers to access each others files cooperatively in a transparent manner.

Network Information Services

NIS

A centralized database that stores user, group, host, hostgroup, and mapping information. It is similar to DNS.

As an Internet service, NIS is designed to simplify the duties of the network administrator of a workgroup, allowing the administrator to maintain IP addresses for a group of computers in a single database. It provides host names to address translations on IP networks. It also provides information about users and groups.

network interface

The physical connection between a hardware interface card and the network.

network interface

A category in the Internetworking Configuration utility (INETCFG) where network interfaces are configured.

network interface

Information that allows client applications to locate the server and the host. The network interface for a virtual server consists of a port number and one or more Internet protocol (IP) addresses. Each virtual server and virtual host must be configured to have a unique network interface.

network interface card

NIC

A circuit board that provides the interface between software and hardware in order to facilitate network communication. For example, it allows workstations to communicate with each other or with the server, or allows a printer to communicate with the server.

network layer

The third of seven layers in the OSI model. The network layer ensures that information arrives at its intended destination. It also smooths out the differences between network media so that higher layers do not need to account for the distinctions.

network management

The process of ensuring consistent reliability and availability of a network, as well as timely transmission and routing of data. Network management can be performed by dedicated devices or programmed general-purpose devices.

network monitoring

A network management function that constantly checks the network and reports any problems.

network name

The symbolic identifier by which the network refers to a network addressable unit (NAU), a link station, or both.

Network-Network Interface

NNI

The way a frame relay network interconnects so that users subscribing to different frame relay network providers can communicate.

network node

NN

A type 2.1 node that offers full Systems Network Architecture (SNA) end-user services. NN also provides intermediate routing services within an advanced peer-to-peer networking (APPN) network and network services to its local logical units and those in any client end nodes for which it is a network node server. NN can also attach to a subarea network as a peripheral device.

network node

A personal computer or other device connected to a network by a network board and a communication medium.

A network node can be a server, workstation, router, printer, or fax machine.

network number

In an IPX network, a number that uniquely identifies a network cable segment; usually referred to as the IPX external network number.

network number

In a TCP/IP network, the number of the network. The network number can be specified with or without trailing zeros. For example, the addresses 130.57 and 130.57.0.0 denote the same IP network.

network number

In an AppleTalk network, a decimal integer between 1 and 65,279 assigned to each nonextended network supporting AppleTalk.

network numbering

In an IPX network, the system of numbers that identifies servers, network boards, and cable segments. These network numbers include the IPX external network number, IPX internal network number, and node number.

network printer

A printer shared in a network environment.

network range

In an AppleTalk network, a contiguous range of decimal integers between 1 and 65,279 assigned to each extended network that supports AppleTalk. For example, a network range might be 1 through 10.

network supervisor

Usually called "network administrator."

The person responsible for setting up and maintaining the network. The network administrator has the Supervisor right to create and manage objects in the NDS tree.

Generally, this means the person who has a trustee assignment to the [Root] object of the NDS tree, which would include the Supervisor rights to the entire NDS tree. However, the specific part of the NDS tree where this person has rights can vary from network to network.

Network Support Encyclopedia Professional Volume

NSEPro

A comprehensive CD-ROM information base that contains the technical information necessary to help install, maintain, and troubleshoot a NetWare network and network applications. The NSEPro includes the following:

– Support information for all Novell products

– Downloadable files, patches, and drivers

– Novell Technical Information Documents (TIDs)

– Novell Labs certification bulletins

– Product documentation

– Novell Application Notes

– GroupWare Professionals Guide

network topology

The arrangement of nodes on a network; usually a star, ring, tree, or bus organization.

network traffic

The transmission load carried by network connections (channels).

NETX

netx.vlm

A Virtual Loadable Module (VLM) under the NetWare DOS Requester that provides backward compatibility with NETX and other older versions of the NetWare shell.

newsfeed

Within Internet discussion groups, synonymous with replication. Newsfeed is the term used by the Usenet community.

newsreader

Software that can access and read messages stored on a news server.

news server

An Internet server that hosts discussion groups.

NFS

Network File System

A distributed file system developed by Sun Microsystems that allows a set of computers to access each others files cooperatively in a transparent manner.

NIC

Network Information Center

Located at SRI International, is the central authority that assigns all Internet addresses.

NIC

network interface card

A circuit board that provides the interface between software and hardware in order to facilitate network communication. For example, it allows workstations to communicate with each other or with the server, or allows a printer to communicate with the server.

NetWare documentation uses the term "network board." Documentation from other companies might use the terms "NIC" or "network card" instead. Synonymous terms include "network interface controller" and "LAN adapter."

NIS

Network Information Services

A centralized database that stores user, group, host, hostgroup, and mapping information. It is similar to DNS.

As an Internet service, NIS is designed to simplify the duties of the network administrator of a workgroup, allowing the administrator to maintain IP addresses for a group of computers in a single database. It provides host names to address translations on IP networks. It also provides information about users and groups.

NLM

NetWare Loadable Module

A program that runs on the NetWare OS. Once loaded, an NLM becomes part of the network OS. An NLM can be dynamically loaded and unloaded. Types of NLM programs include disk drivers (.dsk extension), LAN drivers (.lan extension), management utilities and server applications modules (.nlm extension), and name space support (.nam extension).

NLSP

NetWare Link Services Protocol

The link state protocol used by IPX routers and servers to share information about their routes with other devices on the network. NLSP enables network managers to interconnect small or large IPX networks without routing inefficiencies.

NMA

NetWare Management Agent

A group of NLM programs that provide server statistics and notify the NetWare Management System (NMS) console of alarm conditions.

When installed on each server in the network, NetWare Management Agent allows the network administrator to monitor, manage, and maintain all servers from a central console.

NetWare Management Agent provides a graphical representation of all managed objects and their attributes, including a servers hardware, software, or data components.

NMS Console

NetWare Management Station Console

The part of NMS that discovers, monitors, and manages the network. All NMS applications use the NMS consoles graphic user interface and database.

Objects instrumented to Desktop SNMP can be managed from the NMS MIB Browser or other applications that "snap" into the NMS console.

The NMS console is an example of an SNMP management station.

NN

network node

A type 2.1 node that offers full Systems Network Architecture (SNA) end-user services. NN also provides intermediate routing services within an advanced peer-to-peer networking (APPN) network and network services to its local logical units and those in any client end nodes for which it is a network node server. NN can also attach to a subarea network as a peripheral device.

NNI

Network-Network Interface

The way a frame relay network interconnects so that users subscribing to different frame relay network providers can communicate.

NNI

Nederlands Normalisatie-Instituut

NNI

Network Node Interface

NNTP

Network News Transfer Protocol

The basic Internet protocol used to exchange network news articles between multiple news servers and between news servers and newsreaders.

node

An addressable entity on a network. This term sometimes refers to a device itself. Some examples of nodes are computers, printers, and file servers.

node address

A number that uniquely identifies a network board. The number is acquired dynamically by each node when it comes up on a network.

A node address is often referred to as a node number, but some node numbers are factory set rather than being dynamic.

node number

A number that uniquely identifies a network board, also known as station address, physical node address, and node address.

Every node must have at least one network board, by which the node is connected to the network. Each network board must have a unique node number to distinguish it from all other network boards on that network.

Node numbers are assigned in several ways, depending on the network board type. For example, Ethernet and token ring boards are factory-set (with no two Ethernet boards having the same number), while ARCnet board numbers are set with jumpers or switches. Node addresses are dynamically assigned each time the node is started.

node schematic

A graphical representation of a node (NetWare server) and its managed objects.

A node schematic is the main graphical display available in the NMS software.

The node schematic is the focal point of the node with other graphical displays being launched from it.

The node schematic can display network boards, server disks, volumes, queues, users, memory, NLM programs, and event and alert messages.

nonauthoritative

Describes Domain Name Service (DNS) data that is not served by the resident DNS server. Nonauthoritative DNS data belongs to a foreign domain, is not managed by the resident DNS administrator, and is cached through responses to forwarded queries.

nondedicated router

A nondedicated router is an external router that can function simultaneously as a router and as a workstation. In a nondedicated router, the workstations NetWare workstation files runs "on top of" the router software.

nonextended network

An AppleTalk network that does not support AppleTalk Phase 2 extensions, such as zone lists and network ranges. A nonextended network is an AppleTalk Phase 1 network.

nonpersistent media

A media type that does not save data when a computer is turned off. A RAM disk is an example of this media type.

non-return-to-zero

NRZ

A binary encoding and transmission scheme in which ones and zeros are represented by opposite and alternating high and low voltages, and in which there is no return to a reference (zero) voltage between encoded bits.

non-return-to-zero inverted

NRZI

A binary encoding and transmission scheme that inverts the signal on a one and leaves the signal unchanged for a zero. A change in voltage state signals a one bit, and the absence of a change denotes a zero bit.

normal

Describes something that occurs in a natural way.

Normal

1. (N) Short for "Normal attribute."

2. In NetWare Btrieve, the default file open mode. Normal mode allows shared read/write access to Btrieve files. With Normal open mode, Btrieve performs its standard integrity processing when it updates the data files.

Normal attribute

N

A file system attribute that indicates that no NetWare file system attributes are set. The Normal attribute is automatically set by NetWare. It is shown in attribute listings but cant be set by users.

NOS

NetWare Operating System

NOS

network operating system

Software that is installed on network servers connected to a Local Area Network (LAN). The software controls computers and resources attached to the network.

Notify List Users

This is a list of users listed in the properties of the Printer object to be notified when the printer has an error.

Novell Alliance Program

A partnership between Novell and professional service companies to provide customers with comprehensive network design and support services.

Novell Application Launcher

NAL

A NetWare utility that allows users to run applications that were previously configured by a network administrator. The applications are displayed as icons. Users double-click the icon to launch the application.

Novell Client

Novell software that provides basic connectivity and access to NetWare network resources for workstations, and that provides the interface between the network and the workstations.

Novell Client software redirects basic computer functions to operate over the network rather than on the desktop. It also provides the interfaces to services that applications use to communicate with the network. Additionally, it provides advanced networking services such as rapid data transfer, file and print management, and access to NDS.

Novell Client for DOS and Windows 3.1*x*

Software that connects a DOS workstation or a Windows 3.1*x* workstation to a NetWare network. This client software also includes the utilities that configure the way the client works and that optimize the workstations performance.

Novell Client for Windows 95

Software that connects a Windows 95 workstation to a NetWare network. This client software also includes the utilities that configure the way the client works and that optimize the workstations performance.

Novell Client for Windows NT

Software that connects a Windows NT workstation to a NetWare network. This client software also includes the utilities that configure the way the client works and that optimize the workstations performance.

Novell Configuration Manager

ncm.nlm

For PCI Hot Plug servers, an NLM that manages the hot plug system and ensures proper system behavior. Its primary function is to sequence hot plug operations to ensure stability of the system. To achieve this function, the

Configuration Manager shuts down the adapters device driver before removing power from the slot. The Configuration Manager also maps hardware resources to device driver software.

Novell Configuration Manager Console

ncmcon.nlm

An NLM that provides the interface for controlling all hot plug operations and functions in NetWare systems. The Configuration Manager Console also displays slot configuration details, including adapter driver information and status.

Novell Consulting Services

NCS

A Novell department that provides custom software development, network auditing, network systems design, and distributed application design services.

Novell Desktop Systems Group

NDSG

Novell Directory Services

NDS

Novell Distributed Print Services

NDPS

Print services software that allows network administrators to manage network printing from within NDS. Features include bi-directional feedback, configurable event notification, automatic printer driver download function, protocol independence, and backward compatibility.

Novell ElectroText

Online NetWare 4.0 documentation and a viewer that allows users to access documents from their workstation. All manuals in the NetWare 4.0 documentation set, with the exception of the Quick Access Guide, are available online through Novell ElectroText.

Novell ElectroText viewer

Windows-based online help that includes online NetWare documentation.

Novell Event Bus

NEB

An NLM that facilitates communications between different software modules. The NEB enables PCI Hot Plug Technology on multiple versions of NetWare.

Novell IP Gateway

A system that runs on the OSI application layer and allows dissimilar protocols to communicate by filtering communications through industry-standard IP.

Novell IPX/IP Gateway

A system that transfers NetWare data traffic between IP and IPX segments on a mixed protocol network, translating as needed between the two protocols.

Novell JVM

Novell Java Virtual Machine

A suite of NLM programs that lets the NetWare server run Java applications and applets, including multithreaded applications, and applications that use a graphical interface.

This should not be confused with Sun's Java Virtual Machine (JVM).

Novell Licensing Services

NLS

A distributed, enterprise network service that enables administrators to monitor and control the use of licensed applications on the network.

NLS also provides a basic license metering tool and libraries that export licensing service functionality to developers of other licensing systems.

Novell Licensing Services client

NLS client

A network application that makes requests for the services of any application that has been registered with NLS. The NLS client can run on a client workstation or on a NetWare server, and it supports multiple platforms.

Novell Object Request Broker

Novell ORB

The Novell implementation of the Object Request Broker (ORB). An ORB is a component in the the CORBA programming model.

Novell ORB is required on the NetWare server to develop and distribute CORBA-compliant distributed-object applications.

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Novell Secure Authentication Services

A network service that facilitates login to and authentication services for applications, and that manages cryptography used by authentication and communication services such as Secure Socket Layer (SSL).

Novell Storage Services

NSS

A high-performance, 64-bit storage and access system that supports very large files as well as large numbers of files and NSS volumes. NSS runs with the traditional NetWare file system in NetWare. NSS installs on the server as a set of NLM programs.

Novell Technical Support

NTS

A Novell department made up of customer service representatives and support engineers who are trained to provide quality service to end users and to independent service providers who have problems that could not be solved through regular channels.

NPD file

A file that describes the capabilities of specific printers. Novell provides these files to ensure that the full features of the latest printers can be used by NDPS®. Because most printers in current use do not yet have the full bidirectional communication capabilities NDPS supports, NPD files provide detailed information about the printers they correspond to in a format that NDPS can read and report.

NPRINTER

An NLM that enables a printer attached to any server to be a network printer.

NRZ

non-return-to-zero

A binary encoding and transmission scheme in which ones and zeros are represented by opposite and alternating high and low voltages, and in which there is no return to a reference (zero) voltage between encoded bits.

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NSS Administration menu

The main menu in NSS, with options to create or modify NSS partitions, storage groups, NSS volumes, and file attributes.

NSS_Admin volume

In NSS, a read-only volume that is automatically created when a storage group and NSS volume are created. This volume contains a dynamic list of objects that NSS uses, and it cannot be deleted.

NSS file system

The system that NSS uses to create large files and NSS volumes.

NSS storage

The amount of free space that NSS claims for storage groups and NSS volumes.

NSS volume

A volume that is owned by Novell Storage Services (NSS).

NTP time consumer

A server that recognizes the NTP protocol and seeks time synchronization from an NTP time provider.

NTP time provider

A server that recognizes the NTP protocol and provides NTP time to other servers or workstations on the network.

null key

A key field that can be a user-defined character. Btrieve allows two types of null keys: any-segment (called a manual key in earlier versions of Btrieve) and all-segment (simply called a null key in earlier Btrieve versions).

An any-segment null key does not include a particular record in the index if the value of any key segment of that record matches the null value.

An all-segment null key only excludes a particular record from the index if the value of all key segment of that record matches the null value.

NWCCON

NetWare Connect Configuration

A utility that can be used instead of NIASCFG to configure and manage remote access.

NWCSS

NetWare Connect Services Selector

The NLM that automatically routes incoming calls to the appropriate service as part of remote access supporting diverse client types. The Services Selector interfaces with AIO and monitors ports on behalf of the registered services. The Services Selector determines the appropriate destination of the incoming data, then relinquishes port control to the appropriate service. In a remote dial-in connection, the Services Selector queries the caller for the available session (that is, the network workstation) to which the caller wants to connect.

NWCSU

NetWare Connect Supervisor

The NLM that provides configuration and dynamic reconfiguration support. It also supports security, license checking, and network management, and it updates port status. NWCSU provides a library of functions, including security, dialback, audit trail, and alert logging.

NWPA

NetWare Peripheral Architecture, NPA

An extension of the NetWare Media Manager (a database built into NetWare for managing storage devices and media).

NPA separates NetWare driver support into two components: a HAM and a CDM. The HAM drives the host adapter hardware. The CDM drives storage devices or autochangers attached to a host adapter bus.

Nwserver

The default name for the boot directory created by the NetWare installation program.

OOO

Obituary

A Novell® Directory Services® schema attribute used to avoid name collisions during certain operations.

object

Any line, symbol, geometric shape, bitmap image, chart, graph, or other item that you can select or manipulate in some manner. For example, in WordPerfect Presentations, an item you can draw using one of the drawing tools.

object

In the Common Desktop Environment (CDE),

1. Any related group of objects.

2. In Application Builder, any of the defined elements—windows, panes, or controls—used in building a user interface. Application Builder objects are represented by icons on the object palettes of the primary window; they become interface objects once they are dragged and dropped. An Application Builder object is composed of one or more widgets.

3. In the OSF/Motif Style Guide, an element that visually represents something that has behavior and contents not revealed solely by the visual representation. Objects are often represented as icons, but could be represented in other ways as well; for example, as list items.

object

Short for "abstract object."

In SNMP, one integral set of information.

An object can be single (a single-instance object), or can occur several times with different data representing different real-world items (a multiple-instance object). For example, a table of system management contacts is a multiple-instance object. Each contact is an instance of the table.

object

An entity defined in the NDS® database. Each object consists of properties and the values for the properties. There are three general categories of NDS objects: container objects, leaf objects, and the [Root] object.

Container objects generally represent abstract entities, including the Organization and Organizational Unit objects. Leaf objects generally contain information about physical network entities such as users and devices. A [Root] object is created during installation as the parent directory for all other objects.

object

An icon in a browser view that represents a user, server, printer, or other object in the network.

object bank

The central layer of the NSS Media Access Layer (MAL). The object bank is responsible for registration of storage managers and storage data objects. Storage free space is recognized by NSS and deposited into the object bank for NSS use.

object class

The structure that the network administrator chooses and provides with data in order to create an NDS object. The types of object classes are the same as the names of the objects themselves. For example, User, Organization, Server, etc.

object engine

Short for "object engine layer."

object engine layer

In NSS, a layer in the software architecture that stores and manages NSS objects such as files and NSS volumes.

object-key pair

A secret token, such as a password or fingerprint, that authenticates (uniquely identifies) a user to the system.

object property

A property that identifies categories of information associated with an object.

Object Request Broker

ORB

A component in the CORBA programming model that acts as the middleware between clients and servers. In the CORBA object-based computing model, a client can request a service without knowing anything about what servers are attached to the network. The various ORBs receive the requests, forward them to the appropriate servers, and then hand the results back to the client.

Novell has its own ORB.

object right

Any of the rights to access an object. The object that possesses the rights is called the trustee. Object rights dont affect properties or property rights, with the exception of the Supervisor object right, which grants access to all property values.

Object Trustees

Short for "Object Trustees property."

Occupant

A role fulfilled by a User object. The User object that is listed in an Organizational Role container object is said to be the Occupant of the Organizational Role.

octet

A sequence of eight binary digits regarded as a unit.

odd parity

Error detection method requiring an odd number of ones in each byte.

ODI

Optical Data Image

ODI

Open Data-Link Interface

The interface used on NetWare servers to support multiple network boards as well as multiple protocol stacks, such as TCP/IP, IPX/SPX, or AppleTalk.

ODINSUP

Open Data-Link Interface network driver interface specification support

An interface that allows the coexistence of two network driver interfaces: the Network Driver Interface Specification (NDIS) and the Open Data-Link Interface (ODI) specification.

OEM adapter

Original Equipment Manufacturer adapter

offline UPS

offline uninterruptible power source

A backup power unit that supplies uninterrupted power if a commercial power outage occurs. Offline UPS monitors the power line. When power drops, the UPS is activated. The drawback to this method is the slight lag before the offline UPS becomes active. However, most offline UPS systems are fast enough to offset this lag.

offspring count

The number of subdirectories and files in a directory.

OK

In the Common Desktop Environment (CDE), a choice that accepts the information in a window and closes it. If the window contains changed information, those changes are applies before the window is closed.

on-demand call

A type of call that is activated by the presence of data traffic directed to or through the remote peer system.

on-demand connection

A method of connecting to a remote system that enables occasional instead of permanent access, thereby saving connection expense and maximizing the use of network resources. This type of connection uses static routing information to advertise the presence of exterior networks, although no route currently exists.

on-demand SVC

on-demand switched virtual circuit

A virtual circuit that is closed after data has been transmitted over the established switched virtual circuit (SVC). The circuit remains closed until more data is queued for sending, at which point connection is reestablished.

on-demand switched virtual circuit

on-demand SVC

A virtual circuit that is closed after data has been transmitted over the established switched virtual circuit (SVC). The circuit remains closed until more data is queued for sending, at which point connection is reestablished.

online help

1. An electronic documentation file formatted according to the requirements of the destination operating system. Help files generally contain short instructions about how to perform certain features. They generally have fewer graphics than printed or electronic books of the same material. Help files reformat as needed to the screen window dimensions, and make heavy use of hypertext linking, pop-up boxes, and so forth. Help files are context-sensitive, which means that you can jump to a specific topic within the help file directly from the applications dialog and menu interface, etc.

2. A feature that provides a convenient means of accessing information about NetWare functions and concepts from any workstation on the network.

On the Road

A location option while installing the NetWare® Connect Service Client in the workstation. It defines a profile for situations when you are not connected to the network. (Context: "Includes dial up access to the network to allow you to be more productive at home and on the road, saving you time".)

Open Data-Link Interface

ODI

The interface used on NetWare servers to support multiple network boards as well as multiple protocol stacks, such as TCP/IP, IPX/SPX, or AppleTalk.

Open Protocol Technology

OPT

Open Shortest Path First protocol

OSPF protocol

A hierarchical Interior Gateway Protocol routing algorithm that relies on OSPF routers having constructed a complete topology of the network from link states. For each destination, the router examines its link state database and selects the shortest path as the route to that destination. OSPF then allows the routers to derive such information as least-cost routing, equal-cost routing, and load balancing.

Open Systems Interconnection
OSI

Short for "Open Systems Interconnection model."

Open Systems Interconnection model
OSI model

A seven-layer model for data communication which is the standard network architecture developed by the International Organization for Standardization (ISO). The layers are as follows: physical, data-link, network, transport, session, presentation, and application.

operating system API function
operating system application programming interface function

operating system memory space
The portion of server memory used by the NetWare operating system. Also known as kernel memory space.

operating system protected domain
OSP domain

An area in memory reserved to run untested third-party NetWare Loadable Modules.

operator hold
A hold placed on a print job by a Queue Operator.

optical disc
A form of removable media used to store data. An optical disc can be one-sided or two-sided. Some optical discs are read-only; others can be read from and written to.

optical disc library
A high-capacity storage device, sometimes called a jukebox, that uses an autochanger mechanism to mount and dismount optical discs as needed.

ORB

Object Request Broker

A component in the CORBA programming model that acts as the middleware between clients and servers. In the CORBA object-based computing model, a client can request a service without knowing anything about what servers are attached to the network. The various ORBs receive the requests, forward them to the appropriate servers, and then hand the results back to the client.

Novell has its own ORB.

Organization

O

Short for "Organization object."

Organization

Short for "Organization property."

organization

In the Product Life Cycle (PLC) process, the entity responsible for producing products or providing services, or the management structure of such entities.

Organizational CA

A certificate authority (CA) that a network administrator creates using ConsoleOne. The Organizational CA is specific to your organization and uses a private key for signing operations.

Organizational Role

Short for "Organizational Role object."

Organizational Role object

A leaf object in the NDS tree that represents a position or role, such as Team Leader or Accounting Resources Manager, that can be filled by any designated user. Using it simplifies rights management, because an administrator grants rights to the Organizational Role object. The designated user who fills that role then has those rights.

Organizational Unit

OU

Short for "Organizational Unit object."

Organizational Unit object

OU object

An optional container object in an NDS tree that represents a unit within an organization, such as a department or business unit. It contains the objects that represent the network users and resources in the actual unit, and must reside either immediately under an Organization object or under another Organizational Unit.

Organization object

O

A mandatory container object in the NDS tree that represents an organization such as a corporation, university, or operating division. It contains the objects that represent the network users and resources in the actual organization. It must reside either immediately under the root of the tree, or under a Country object.

orphan

1. A GroupWise® message that has been deleted by all users but still exists in the message database, or

2. A file in the attachment directory that is not referenced by any messages.

3. A typesetting term for the first line of a paragraph printed by itself at the bottom of a page or column of text.

4. Short for "orphaned partition."

OS

operating system

Runs in the server and controls system resources and information processing on the entire network.

OS/400

In AS/400, a function of the operating system that gives the user the capability to run Cross System Product/Application Development (CSP/AE) applications.

OSI

Open Systems Interconnection

Short for "Open Systems Interconnection model."

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OSPF

Open Shortest Path First

A hierarchical Interior Gateway Protocol routing algorithm that relies on OSPF routers having constructed a complete topology of the network from link states. For each destination, the router examines its link state database and selects the shortest path as the route to that destination. OSPF then allows the routers to derive such information as least-cost routing, equal-cost routing, and load balancing.

Outbound Service Advertisement Filter

These service information filters limit the service advertisements propagated by the router to a selected set of services at a selected set of networks.

output

1. Communication from your computer. Output includes data that is printed, sent to disk, shown on your screen, or sent across a network.

2. Data that the computer sends to the console, disk, or some other device.

overbook

To create multiple logical volumes where the combined space exceeds the allotted amount of space in the storage pool.

Owner

In the Common Desktop Environment (CDE),

1. A file manager option used to set access permissions for the owner of a file or directory.

2. The user who owns and controls a file or folder.

owner

1. In Novell GroupWise, the user assigned the responsibility to accept or decline requests for specific resources. The owner must be a user on the same post office as the resource.

2. Short for "resource owner."

The user responsible for accepting or declining scheduling requests for a resource.

owner

A user who creates a file or directory. A file or directory owner does not inherit special access rights in NetWare.

If the network administrator has set per-user disk space restrictions, then the file owner is used to identify the user who is charged for the disk space associated with a file or directory.

PPP

pacing

A technique by which a receiving component controls the rate of transmission of a sending component to prevent overrun or congestion. Message pacing sets the maximum number of request units (RUs) that the local LU can receive without sending a pacing response on sessions for the specified mode name. The maximum number of RUs is the pacing window. The range of values is 0 through 63.

pacing window size

The number of RUs that a program can send before getting permission to send more.

packet

A group of bits transmitted as a unit of information on a network. These bits include data and control elements. The control elements include the addresses of the packets source and destination and, in some cases, error-control information.

In packet-switching networks, a transmission unit of a fixed maximum size that consists of binary digits representing both data and a header.

Packet Burst

A transmission mode that does not require the operating system to wait for verification that a packet has been received before sending the next packet. Both file and print services can use Packet Burst to speed processing of data across the network.

Because Packet Burst transfers multiple packets before requiring a response, users are able to send large amounts of data quickly across both LANs and WANs. Packet Burst technology not only greatly speeds the transfer of data across the wire but also reduces network traffic.

Packet Burst protocol

A protocol built on top of IPX that speeds the transfer of multiple-packet NetWare® Core Protocol (NCP) file reads and writes by eliminating the need to sequence and acknowledge each packet.

Packet Burst protocol is more efficient than the one-request/one-response protocol in early NetWare versions. With Packet Burst protocol, the server or workstation can send a whole set (burst) of packets before it requires an acknowledgment.

packet forwarding

Copying a packet from one interface to another through an intermediate system.

packet frame

A set of information added to a packet to ensure its proper transmission across the network. The format of frame information depends upon the physical medium on which the data travels.

packet layer

An X.25 layer that controls call setup and clearing, packet transfer, and network facility selection.

packet receive buffer

An area in the NetWare servers memory set aside to temporarily hold arriving data packets.

The packets remain in this buffer until the server is ready to process them and send them to their destination. This ensures the smooth flow of data into the server, even during times of particularly heavy input/output operations.

The number of packet receive buffers is set during server installation. This number is increased by the operating system as needed due to heavy buffer activity.

packet size

The size of an incoming or outgoing data packet.

packet-switched network

A group of interconnected, individually controlled computers that use packets to transmit information to each other.

packet switching

A data communications process in which messages are broken into finite-sized packets. The message packets are forwarded over different routes. At the other end of the routes, the packets are reassembled into the message, which is then passed on to the receiving terminal or device.

page

In the Common Desktop Environment (CDE), to advance text displayed in a window by one full screen at a time, usually using a scroll bar.

page

A unit of a data file. A page is the smallest unit of storage that Btrieve moves between main memory and disk. Pages contain a multiple of 512 bytes (up to 4,096 bytes).

Btrieve uses the following types of pages: data page, index page and variable pages.

A data page contains fixed-length records (or the fixed-length portion of variable length records.)

An index page contains key values and pointers to the associated records for those values (which reside on a data page.)

A variable page contains variable-length portions of records.

page

A unit of memory.

For example, a page of expanded memory is a 16 KB block. A page of server memory is a 4 KB block.

page fault

An error that occurs when a program attempts to access a memory page that either does not exist or that the program does not have the right to access.

paging

An architectural feature that allows NetWare to assign memory noncontiguously.

Page tables are used to map physical addresses to logical memory. Each page table entry corresponds to a page in memory. A memory page is a 4 KB block of RAM. A group of page tables is a domain.

PAP

Printer Access Protocol

An Apple protocol consisting of the layer of network software that maintains communication between a workstation and a print service.

PAP

Password Authentication Protocol

An inbound call protection method used by Point-to-Point Protocol (PPP) that enables an exchange of peer ID/password pairs used to validate the calling node. The ID/password pair is compared to a local list of authorized pairs.

PAP authentication

Password Authentication Protocol authentication

An inbound call protection method used by Point-to-Point Protocol (PPP) that enables an exchange of peer ID/password pairs used to validate the calling node. The ID/password pair is compared against a local list of authorized pairs.

parallel port

A connector between a computer and another component, such as a printer, that uses a parallel interface. It transmits eight bits (one byte) of information at a time, unlike a serial port which transmits only one bit at a time.

parent directory

A directory that contains subdirectories and files.

parent object

A container object that contains other objects.

parent partition

The original partition. A partition that has a boundary in the NDS tree above another partition.

parity

Short for "parity checking."

parity checking

An error-checking system in computer memory and communications that adds noninformation bits to a message to detect any changes in the original bit structure.

partition

A logical unit into which hard disks can be divided.

partition

A logical division of the NDS® global database. A partition forms a distinct unit of data in the NDS tree that network administrators use to store and replicate NDS information.

Each partition consists of a container object, all objects contained in it, and the data about those objects. Partitions do not include any information about the file system or the directories and files contained there.

partition management

The method of managing NDS database partitions and replicas. Partition management divides NDS into partitions and makes and manages various replicas of these partitions.

Partition management allows network administrators to

– Create, merge, and move NDS partitions

– Display partitions and partition details

– Add, delete, synchronize, and display NDS replicas

partition regeneration

Error recovery that excludes a lost replica (or, the regeneration of a Directory database after the loss of a replica).

passive hub

A device used in some network topologies to split a transmission signal, allowing additional workstations to be added. In ARCnet, these are unpowered connecting boxes. Unused ports on passive hubs must be terminated.

passive primary server

A DNS server that services a primary zone. A passive primary server honors zone transfer requests, but will not update the zone information. Multiple passive primary servers can service the same primary zone.

passive secondary server

A DNS server that services a secondary zone. A passive secondary server honors zone transfer requests and answers queries to the zone, but will not

perform zone transfer requests to the primary server of the zone. Multiple passive secondary servers can service the same secondary zone.

password

A combination of characters that allows users to log on to a system or to access a program or file.

Password Authentication Protocol

PAP

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path

A text string that specifies the hierarchical location or address of a file or folder.

PCI

Peripheral Component Interconnect

An Intel standard.

PCI

Personal Computer Integration

PCI

Program Control Information

A hidden variable controlling color, window size, and so on.

PCI

Peripheral Component Interface

PCI Hot Plug

Technology that allows a user to physically remove and insert industry-standard PCI devices (such as LAN adapters, disk controllers, or disk drives) without disrupting the operation of other devices in the system. This allows the same functionality to continue after replacing the device. Only individual slots are affected (the system does not need to be powered off to perform these functions). This technology requires both hardware and software that is PCI capable.

PCONSOLE

A menu utility that controls print jobs, print queues, print servers, and printers.

PDN

public data network

A network that provides data transmission services to the public; usually a public packet-switched or circuit-switched network.

PDS

Processor Direct Slot

PDS

Professional Development Series

PDS

Print Device Subsystem

An NDPS server component used by the Novell® printer gateway, first to retrieve printer-specific information by reading Page Description Language (PDL), and second, to store it in a database. The PDS is used when creating a Printer Agent to represent a printer that either is not connected directly to the network (a local or remote printer), or is directly connected to the network but either its manufacturer does not provide a proprietary NDPS® gateway or it is running in PSERVER mode.

PDS

Public Domain SoftWare

PDU

protocol data unit

A packet of data units in the IEEE 802.2 standard, consisting of data and control information that is exchanged between two nodes using a protocol.

peripheral node

A network node that uses local addresses for routing and, therefore, is not affected by changes in network addresses. It has no intermediate routing function, so it is dependent upon an intermediate or host node to provide certain network or boundary-function services.

Peripheral Node Control Point Name

In NetWare Link/SNA, a parameter that corresponds to control point name (CPNAME).

CPNAME is an operand in a Virtual Telecommunications Access Method (VTAM) definition statement coded with the network-qualified name of a control point (CP). A control point name consists of a network ID qualifier identifying the network to which the CPs node belongs, and a unique name identifying the CP. Each APPN or low-entry networking (LEN) node has one control point name.

Perl

Practical Extraction and Report Language

A general-purpose scripting language for creating scripts on the Web, popular because of its ease of use and availability on a wide range of platforms. Perl 5 supports regular expressions, run-time libraries, exception handling, data structures, and object-oriented features. Also called "Pathologically Eclectic Rubbish Listener."

permanent connection

A method of connecting to a remote system that enables a constant connection to a remote peer.

permanent SVC

permanent switched virtual circuit

A virtual circuit that is in a connected state until the user or application disconnects it.

permanent virtual circuit

PVC

A continuously available communications path that connects two fixed end points. A PVC is similar to a leased line.

permission

In the Common Desktop Environment (CDE), a setting that determines how users or groups of users may access an object, such as a file, directory, or printer.

permission

A right that determines a users access to a particular Internet discussion group. A set of rights associated with a user role.

physical address

The OSI data-link layer address of a network device.

physical drive

A storage device that data is written to and read from, such as a disk drive or tape drive. A drive that is physically contained in or attached to a workstation is called a local drive.

physical layer

The first of seven layers of the OSI model, the physical layer details the protocols that govern transmission media and signals.

In X.25, the physical layer is the layer of the interface that defines the physical interface between data terminal equipment (DTE) and data circuit-terminating equipment (DCE). It specifies the procedures used to establish, maintain, and release the physical connections or data circuits between network end points.

physical memory

Any memory that can be physically addressed by the processor.

physical unit

PU

In Systems Network Architecture (SNA), a node that supports one or more logical units (LUs) and provides communications, data processing, or both.

physical volume

The file system volume associated with a Volume object in NDS.

PING

packet Internet groper

A program used to test the accessibility of destinations by sending them an Internet Control Message Protocol (ICMP) echo request and waiting for a reply.

ping

To test the connectivity of a particular network node by transmitting a diagnostic packet that requires a response from that node.

PKCS #12

Public Key Cryptography Standard #12.

An RSA Data Security, Inc., standard that specifies a portable format for storing or transporting a users private keys, certificates, miscellaneous secrets, etc.

PKCS #7

Public Key Cryptography Standard #7.

An RSA Data Security, Inc., standard for encapsulating signed data such as a certificate chain.

platform support module

PSM

A loadable hardware abstraction layer for processor and interrupt support. A PSM is specific to a particular hardware platform.

PLU

primary logical unit

The logical unit (LU) that sends the BIND command to activate a session with its partner LU, which means it contains the primary half-session for a particular LU-LU session.

A logical unit can contain secondary and primary half-sessions for different active LU-LU sessions.

Point-to-Point Protocol

PPP

An industry-standard protocol that enables point-to-point transmissions of routed data. The data is sent across transmission facilities between interconnected LANs by using a synchronous or an asynchronous serial interface.

Point-to-Point Protocol Remote Node Service

PPPRNS

A service that provides PPP support for remote DOS and Windows clients that are using the Internetwork Packet Exchange (IPX) software or Internet Protocol (IP).

poison pill

An abend command sent through the split brain detector to a server in the cluster which has lost communication with the other cluster servers. The poison pill causes the server that receives it to automatically abend, which removes it from the cluster and prevents a split brain condition.

See also split brain; split brain detector.

polled mode

In NetWare queue-base printing, the default transmission mode for printers. In this mode, the printer port driver (NPRINTER) periodically checks, or polls, its data port to determine whether its ready to accept data transmission. The ports status is indicated by an electronic signal called a flag. Checks are made at each CPU timer tick (18 per second).

polling

Any procedure that periodically checks the status of each device or terminal on the network, noting such things as new data available for processing.

port

The point of contact between two hardware devices or two software elements.

A hardware port can be the physical connection point between a printer cable and the computer.

A software port, represented by a memory address, can be the logical contact point between a LAN driver and the protocol bound to it, or the point of access to a service on a TCP/IP host computer.

portable software

Software that is developed for a variety of hardware platforms. It can be installed and run on different computers and operating systems. Novell Storage Services (NSS) is an example of portable software.

port driver

A driver that routes print jobs through the proper port (for example, LPT1, LPT2, COM1) to the printer that will handle the job. The NPRINTER utility functions as a port driver in NetWare.

Port Handler

An NDPS server component used by the Novell printer gateway to ensure that the Print Device Subsystem can communicate with the printer through hardware ports and legacy methods, including a servers serial and parallel ports (local printers), queue-based printing (QMS), and remote printers (RP mode).

Poster

The predefined user role that enables a user to post to, read, and view an Internet discussion group.

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preemption

An operating system scheduling technique that allows the operating system to take control of the processor at any instant, regardless of the state of the currently running application. Preemption guarantees better response to the user and higher data throughput. Most operating systems are not preemptive multitasking, meaning that task-switching occurs asynchronously and only when an executing task relinquishes control of the processor.

primary logical unit

PLU

The logical unit (LU) that sends the BIND command to activate a session with its partner LU, which means it contains the primary half-session for a particular LU-LU session.

A logical unit can contain secondary and primary half-sessions for different active LU-LU sessions.

primary server

The SFT III NetWare server that has been operating longer than its partner and is currently servicing workstations. The primary server handles workstation requests for network services. It also handles routing packets from routers on the internetwork.

If the primary server fails, the secondary server becomes the new primary server.

primary time server

A server that synchronizes the time with at least one other primary time server or reference time server and provides the time to secondary time servers and workstations.

primary zone

A DNS zone that is authoritative, and that is serviced by one designated primary server and one or more passive primary servers.

PRINTCON

In NetWare queue-based printing, a DOS-based utility used to customize print jobs by allowing users to predefine a set of printing options, including the following:

– Printer to be used

– Print queue to be used

– Number of copies to print

– Use of a banner page

– Printer form

– Print device mode

PRINTDEF

In NetWare queue-based printing, a DOS-based utility used to customize print jobs by defining printer devices and print forms.

print device

1. A printer, plotter, or other peripheral that prints from the network.

2. A defined set of printer functions and modes that are supported for the Printer objects in a container. Print devices can be saved as print device files (.pdf files).

print device definition

A set of functions and modes found in a file (with a .pdf extension) that corresponds to a printer, plotter, or other peripheral.

Print device definitions contain the necessary control sequences for setting or resetting the printer, and for controlling bold, emphasis, italics, print size, font selection, colors, and other features, depending on the printer.

A print device definition does not necessarily represent the full functionality of the printer. A print device definition can be modified to change the functions the machine can perform.

Print Device Subsystem

PDS

An NDPS server component used by the Novell printer gateway, first to retrieve printer-specific information by reading Page Description Language (PDL), and second, to store it in a database. The PDS is used when creating a Printer Agent to represent a printer that either is not connected directly to the network (a local or remote printer), or is directly connected to the network but either its manufacturer does not provide a proprietary NDPS gateway or it is running in PSERVER mode.

printer

1. A computer device used to produce printed material.

2. In the Common Desktop Environment (CDE), an object that represents a physical printer.

3. In Calendar, the Printer Settings field is used to specify the printer on which to print a calendar or list.

Printer

Short for "Printer object."

Printer Access Protocol

PAP

An Apple protocol consisting of the layer of network software that maintains communication between a workstation and a print service.

Printer Agent

A logical entity that represents an NDPS printer, combining the functions previously performed by a printer, print queue, print server, and spooler into one intelligent and simplified entity. Before a printer can be incorporated into an NDPS printing environment, it must be represented by a Printer Agent.

Printer Communications Protocol

PCP

An SPX-based communications protocol used by printer drivers (nprinter.nlm and nprinter.exe) to communicate with print servers (pserver.nlm).

printer definition file

.pdf

A file, containing a print device definition, that controls a printer, plotter, or other peripheral.

Print device definitions contain the necessary control sequences for setting or resetting the printer, and for controlling bold, emphasis, italics, print size, font selection, colors, and other features, depending on the printer.

A print device definition does not necessarily represent the full functionality of the printer. A print device definition can be modified to change the functions the machine can perform.

printer driver

The software that allows a computer to communicate with a printer.

printer form

A defined set of paper dimensions that can be specified for a print job. When a print job requests a form not in the printer, the print server must wait to service the job until the user mounts the form.

printer function

An action that the printer can perform, such as bold text or proportional spacing. The printer performs the function when it receives control sequences in the print job.

printer language

A protocol or type of printing that a printer can receive, for example: PCL, PCL 5, or PostScript.

Printer Manager

A Windows-based Novell utility that allows NDPS users to manage NDPS printing tasks, including printer installation, customized printer configuration, and print job management. Printer Manager displays all the NDPS printers that are currently installed on an individuals workstation, and, through its graphical interface, allows users to add and configure additional printers.

printer mode

A sequence of print functions (also called printer commands, control sequences, or escape sequences) that determines the appearance of the printed file. For example, a user might define a printer mode called Title that includes functions for bold, double wide, and letter-quality printing.

Printer object

In the NDS tree, a leaf object that represents a physical print device in the network, such as a printer or plotter. Each network printer requires a NetWare printer driver, such as nprinter.exe or nprinter.nlm, to service network print jobs.

print header

In NetWare queue-based printing, an administrator-set number of bytes preceding the print job file. The header consists of the control codes for the modes defined in PRINTDEF. The control codes are transported to the queue in two parts of the print job file, the print header and the print tail. This is especially critical for PostScript printing.

print job

In NetWare queue-based printing, a file stored in a print queue directory. As soon as a print server sends a print job to the printer, the print job is deleted from the queue directory.

print job configuration

A predefined set of options that a user can apply to a print job. It frees the user from having to specify each option setting when using print utilities such as NPRINT and CAPTURE. The characteristics can include the following:

– Printer to be used

– Print queue to be used

– Number of copies to print

– Use of a banner page

– Printer form

– Print device mode

Users can create print job configurations using NetWare Administrator or PRINTCON.

print queue

A sequence of print job requests stored and waiting to be processed.

Print Queue

Short for "Print Queue object."

Print Queue object

A leaf object in the NDS tree that represents a print queue that stores print jobs sent from workstations. All print queues reside in the Queues directory at the root of a NetWare volume.

print queue operator

In NetWare queue-based printing, a user who has the rights to edit other users print jobs, delete print jobs from the print queue, or modify the print queue status by changing the operator flags. Print queue operators can also change the order in which print jobs are serviced.

print queue sampling interval

In NetWare queue-based printing, the time interval the print server waits between checking the print queues for jobs ready and waiting to be printed.

print server

In the Common Desktop Environment (CDE), a host computer to which one or more printers are connected, or the UNIX process that that manages those printers.

print server

In NetWare queue-based printing, a server that monitors print queues and printers. The print server takes waiting print jobs out of a print queue and sends them to a network printer.

Print Server

Short for "Print Server object."

Print Server object

A leaf object in the NDS tree that represents a network print server that monitors print queues and printers. The Print Server object contains information about the print server it represents, including a list of printers that it serves.

print server operator

In NetWare queue-based printing, a user or member of a group delegated rights by user ADMIN to manage the print server.

A print server operator has rights to control notify lists, printers, and queue assignments.

Print Server Status and Control Protocol

PSSCP

In NetWare queue-based printing, an SPX-based communications protocol that requests certain services from the print server (pserver.nlm)

Network users and administrators can perform services such as requesting the status of print jobs, deleting print jobs, or changing forms. A user can only access his or her own job; an operator can access any print job.

print tail

In NetWare queue-based printing, an administrator-set number of bytes at the end of the print job file. The print tail consists of control codes for the modes defined in PRINTDEF. The control codes are transported to the queue in two parts of the print job file, the print header and the print tail. This is especially critical for PostScript printing.

private key

An encrypted mathematical formula that belongs to a subject (user, application, or computer) and is never revealed to anyone. The subject uses the private key to decrypt messages that it receives, and that are encrypted with the subjects public key.

A private key can also encrypt a message digest sent by the subject to anyone else. Using the subjects public key, anyone can decrypt the digest and be assured that the message originated from that subject.

process

1. In the Common Desktop Environment (CDE), a program running on the computer. In ToolTalk, it is one execution of an application, tool, or program that uses the ToolTalk service.

2. A sequence of steps performed for a given purpose, for example, the software development process.

3. One or more threads and the resources allocated to them by the processor, including a virtual address space. Each instance of any application runs within its own process.

processor

The data processing unit of a computer. Computers can be uniprocessing or multiprocessing. A uniprocessor system has only one run queue from which the processor can pick up threads for execution. In a multiprocessing system, however, more than one processor is available for the distribution of threads.

PROFILE

The login script command that sets or overrides a users assigned profile script. It is used when defining a group profile. The format for this command is: PROFILE profile_object_name.

profile

1. A component of a SoftSolutions document that describes the general characteristics of the document, such as document name, document type, the author, and so forth.

2. In SoftSolutions document managment, a profile is equivalent to GroupWise® document properties.

profile

A type of login script that sets the environment for multiple users in one or more groups. It is a property of a Profile object. Only one profile script is allowed per user.

Profile

Short for "Profile object"; "Profile property."

profile login script

A type of login script that sets environments for a group of users. Network administrators use profile login scripts to manage groups of users with identical login script needs.

Profile login scripts are optional; if used, they execute after the container login script and before the user login script.

Profile object

In the NDS tree, a leaf object that provides a login script that executes after the container login script but before the user login script. It provides a common set of login script commands for either of the following:

User objects in different containers

A subset of the User objects in a container

prompt

An FTP command that toggles interactive prompting for multiple file transfers.

prompt

A character or message that appears on the display screen and requires a response (such as a command or a utility name) from the user.

property

In the Common Desktop Environment (CDE), one of the appearance or behavior attributes of a particular user interface object in Application Builder. Properties include such things as object type, object name, color, position, help text, and so on. Each type of object has a unique set of properties, which are set in the objects property editor.

property

An item of information about a network object, such as a name, network address, or password. Some properties can have multiple values. For example, the Telephone property, found in many objects, can contain several telephone numbers.

property pages

In NetWare Administrator, a secondary view provided by the browser tool in which the properties of an object are displayed as a set of notebook-style pages.

property right

Any of the rights to access the properties of an object. The object that possesses the rights is called the trustee. Rights include Compare, Read, Write, Add or Delete Self, and Supervisor.

protected memory space

A portion of server memory designated as protected. A protected memory space has limited and carefully controlled access to the server operating system, so that modules running within the protected space cannot abend the server. Also known as a user memory space.

protocol

1. Short for "protocol stack."

2. A set of rules for computers and related hardware to communicate between two endpoints. A protocol specifies the format, timing, and sequence in which the network transmits data. Common protocols include AFP, ALAP, RTMP, NCP, and IPX.

PROTOCOL

A console command that displays the standards (protocols) used by the network server. It is also used to register new standards.

protocol data unit

PDU

A packet of data units in the IEEE 802.2 standard, consisting of data and control information that is exchanged between two nodes by a protocol.

protocol-dependent

Describes routing based on a network layer or software address. It is specific to the type of network-layer protocol, for example, IP, IPX, or DDP (AppleTalk Datagram Delivery Protocol).

Protocol Field compression

A process of reducing the Protocol ID (PID) field to a single byte, from the high-level data link control (HDLC) framing standard of two bytes. This reduces the unneeded overhead when using low-bandwidth links.

protocol stack

A complete suite of protocols that includes hierarchical layers required to handle the transmission and receipt of packets.

protocol suite

A hierarchical set of related networking protocols that provides the communications and services needed to enable computers to exchange messages and other information. The protocol suite typically does this by managing physical connections, communications services and application support.

provider

In the Product Life Cycle (PLC) process, a component project or a functional subproject that delivers an output that satisfies one or more milestone dependencies for some other component project.

provider

In NSS, the program that finds storage free space from various media, manages storage objects in the Media Access Layer (MAL), and determines the size of storage objects.

Sometimes called "storage provider."

provider group

A group of servers that synchronize time among each other or have a common external time source, and that provide time to secondary time servers.

proxy ARP

A technique by which a router replies to an Address Resolution Protocol (ARP) request from a host on behalf of the ARP target host. By faking its identity, the router accepts responsibility for routing packets to the real destination. This allows a site to use a single IP network address for two physical networks.

A stub network (stub subnetwork) is a common use of proxy ARP.

PSERVER

pserver.nlm

In NetWare queue-based printing, an NLM that provides network print services, moves print jobs from a print queue to a network printer, and manages printers and print servers. It uses the print server name provided in the LOAD command to locate the Print Server object in NDS.

This software can send a print job over a serial, parallel, or IPX connection to a printer; with atxrp.nlm, it can also send a job to a printer over an AppleTalk connection.

PSERVER emulation

In NetWare queue-based printing, a feature of the NDPS Port Handler configuration utility that allows a Printer Agent to represent a printer that is one of the following:

– Attached to a workstation

– Attached to a remote file server

– Attached directly to the network and running in NPRINTER mode, and for which no gateway is available

A Printer Agent configured in this mode emulates a legacy print server and does not require the pserver.nlm.

PSETUP

An NDPS command line utility that must be run on a workstation in order for printers to be added automatically to the workstations list of installed printers.

pseudo hop count

The number of hops that the primary server adds to the true hop count (the number of internal and external bridges and routers between a client and the server) when it advertises the route to the SFT III MSEngine.

If SFT III servers reside on different network segments, the hop count for one server is higher than the other. To ensure that packets are rerouted properly to the surviving server in the event one server fails, the primary server advertises an artificially high hop count (the true hop count plus a pseudo hop count).

pseudonode

A fictitious NetWare Link Services Protocol (NLSP) router that represents an entire LAN in the link state database. The Designated Router represents the pseudonode for link state packet (LSP) exchanges.

pseudo-switched link

A dial-up link established over the public switched telephone network (PSTN) by using a pair of synchronous modems.

PSM

platform support module

A loadable hardware abstraction layer for processor and interrupt support.

PSM

Platform Specific Module

Part of NetWare SMP supplied by hardware vendors.

PSTN

public switched telephone network

A service provider that offers switched circuit lines, such as switched/56 service, and asynchronous communications. By offering unrestricted access, PSTN makes inbound authentication an important consideration.

The United States uses PSTN.

PU

physical unit

In Systems Network Architecture (SNA), a node that supports one or more logical units (LUs) and provides communications, data processing, or both.

Public

[Public]

A special entity in NDS that represents any user, logged in or not. [Public] can be a trustee, but [Public] is not considered an object or object class.

public access printer

An NDPS printer available to all network users and not associated with an NDS object. Users can select and print to any public access printer they can view from their workstations. However, these printers have no security, and job event notification is limited.

public data network

PDN

A network that provides data transmission services to the public; usually a public packet-switched or circuit-switched network.

Public directory

The sys:public directory, created during NetWare installation, that allows general access to the network and contains NetWare utilities and programs for network users.

public file

One of the files that must be accessed by all NetWare users, including NetWare utilities, help files, and some message and data files.

public key

An encrypted mathematical formula that belongs to a subject (user, application, or computer) and is revealed to everyone. It is used to encrypt messages that are sent to the subject as well as to verify the signature of the subject. To ensure that the public key really belongs to the subject, it is embedded in a digital certificate.

public key certificate

A digital document verifying that a public key belongs to an individual or entity (such as a server). A public key certificate prevents unauthorized users from using phony keys to impersonate legitimate users.

Public Key Cryptography

One of two methods that use keys to encrypt messages. The other one is Symmetric Key Cryptography (also known as Secret Key Cryptography). In Public Key Cryptography, each user has two mathematically related keys, a public key and a private key. The public key is readily available. The private key is stored as a secret in a key database file on the users computer.

public key pair

An encryption technology consisting of a public key (available to everyone) and a private key (owned and available only to a specific individual). A public key pair uses encryption to convert information into a format that is difficult or impossible to read.

In a digital signature system, the public key pair is used only to encrypt and decrypt the message digest.

public switched telephone network

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A service provider that offers switched circuit lines, such as switched/56 service, and asynchronous communications. By offering unrestricted access, PSTN makes inbound authentication an important consideration.

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Public trustee

[Public] trustee

A special trustee that can be added to any object, directory, or file. By default, [Public] includes the Read right and the File Scan right. [Public] is used only in trustee assignments and must always be entered within square brackets.

PUID

physical unit identification

The low-order 20 bits (5 hexadecimal digits) of an SNA node ID that together with the block ID identifies a station in an SNA network. This is the same ID that is assigned to that SNA node on the host. The PUID is transmitted as a part of an exchange identification (XID) command, along with the nodes block number.

In NetWare Link/SNA, PUID corresponds to the IDNUM operand in the Virtual Telecommunications Access Method (VTAM) physical unit (PU) definition statement.

pure IP

Describes an IP implementation in NetWare. It is pure in the sense that it does not retain an IPX-based encapsulation (or, in the case of NT Server, a NetBIOS encapsulation).

Purge

P

Short for "Purge attribute."

Purge attribute

P

A file system attribute that causes NetWare to purge the directory or file when it is deleted.

PVC

permanent virtual circuit

A continuously available communications path that connects two fixed end points. A PVC is similar to leased line.

QQQ

Q-bit

Qualifier bit

A component of a user packet. It determines whether the user data field contains data for the user or high-level control information.

QMS

Queue Management System

Also called NetWare® queue-based printing.

The NetWare Queue Management System allows for creation and management of queues for printing and other tasks.

QMS

Quality Micro Systems

Qualifier bit

Q-bit

A component of a user packet. The Q-bit determines whether the user data field contains data for the user or high-level control information.

queue

A line or list formed by items waiting for service, from which elements can be removed only in the same order in which they were inserted, or in a specified order of priority.

Examples include print jobs waiting to be processed, tasks waiting to be performed, stations waiting for connection, or messages waiting for transmission.

queue-based printing

A NetWare printing system that allows for creation and management of queues for printing and other tasks.

Queue Management System (QMS) is the original name for queue-based printing. It is not used in current documentation, but exists still in some system messages.

queue sampling interval

Short for "print queue sampling interval."

In NetWare queue-based printing, the time interval the print server waits between checking the print queues for jobs ready and waiting to be printed.

queue server mode

In NetWare queue-based printing, an operating mode used by many network-direct printers and hardware queue servers. These devices either connect to a printer and then to the network or are installed in a port at the printer. In queue server mode, the hardware print server directly accesses the print queue using NCP calls.

quorum

The number of servers that must be running in a cluster before resources will start to load.

RRR

RAID

redundant array of independent disks

A category of disk arrays (two or more drives working together) that provide increased performance and various levels of error recovery and fault tolerance. RAID can be implemented in software using standard disk controllers, or it can be designed into the disk controller itself.

See also stripe.

RAM

random access memory

The internal dynamic storage of a computer that can be addressed by the computers operating system. RAM is erased when the power is turned off.

RAMA

Remote Access Management Agent

An NLM (ncma.nlm) that provides all remote access information to the ManageWise® software or to any SNMP-based console on the network.

RARP

Reverse Address Resolution Protocol

An Internet protocol used by some hosts to find an Internet address at startup. It maps a physical address to an Internet address.

read-after-write verification

A NetWare® feature that protects data from failures in network hardware. When the NetWare network operating system writes data to a block on the hard disk, it reads back the data and compares it to the original data still in

memory. If the data from the disk matches the data in memory, the data in memory is released. If the data does not match, Hot Fix marks that block on the disk as bad and redirects the data to another location on the hard disk.

reader

The predefined role that enables a user to view and read articles in a particular Internet discussion group or discussion group hierarchy.

read-only

Ro

Short for "read-only attribute."

read-only attribute

Ro

A file system attribute that prevents a file or directory from being deleted, renamed, or written to (modified). When this attribute is set, the rename inhibit and delete inhibit attributes are automatically set.

read-only replica

A copy of the master replica that can be used to allow users only to read NDS database information.

Read right

R

A file system or property right.

In a file system, the trustee can open and read files, open and scan directory contents, and execute any program files located in the directory. Rights assigned at the file level can override the Read directory right.

In the case of a property, the trustee can read and compare the values of the property. The Read property right implies the Compare property right.

Read Write

Rw

Short for "Read Write attribute."

Read Write attribute

Rw

A file system attribute automatically assigned to all files created on the network that allows users to read and write files. When the Read Write attribute is set, the Rename Inhibit and Delete Inhibit attributes arent set.

read/write replica

A type of replica that can be used to read or update NDS® database information. It cannot be used to create a new partition.

reboot

To restart a computer.

REBUILD

An NSS utility that rebuilds damaged NSS volumes only when either a hardware crash or a corrupted data blocks event occurs.

receiver not ready

RNR

In the high-level data link control (HDLC) protocol, a control field message indicating a temporary busy condition.

receiver ready

RR

In the high-level data link control (HDLC) protocol, a control field in a packet indicating that data has been successfully received and that data can be sent.

receiver ready packet

In the high-level data link control (HDLC) protocol, a type of control packet that is sent to data terminal equipment (DTE) to indicate that the receiving DTE is ready to receive a data packet.

record locking

A type of concurrency control that enables an application to lock the record it is accessing within a file. Other users can read the record, but no other user can lock, update, or delete the record until the application that holds the lock releases it.

redirection area

Short for "Hot Fix redirection area."

The space on a hard disk set aside for redirection of data from faulty disk blocks.

redundant array of independent disks

RAID

A category of disk arrays (two or more drives working together) that provide increased performance and various levels of error recovery and fault tolerance. RAID can be implemented in software using standard disk controllers, or it can be designed into the disk controller itself.

reentrant

Having the ability to be safely executed concurrently by more than one process or thread. A thread that calls a reentrant routine must be guaranteed control over shared data controlled by the routine.

reentrantly

Describes the concurrent loading of the same program, function, or other application.

refeed

To resend the Internet discussion groups that a news server receives from other news servers.

reference time server

A server that provides the time to which all other time servers and workstations on an eDirectory network synchronize.

Reference time servers can be synchronized with an external time source, such as an atomic clock. Reference time servers vote with other primary or reference time servers to determine what the common network time should be. However, reference time servers don't adjust their internal clocks; instead, the primary servers internal clocks are adjusted to synchronize with the reference time server.

registration

The process whereby an application, such as NetWare Administrator, stores the users preferences or customizations for the application in some type of "registry" (which could be the local Windows registry, a configuration file such as .ini, or NDS). The registration process then retrieves these preferences when the application is launched.

registration

In the Common Desktop Environment (CDE),

1) the process of integrating a printer into the desktop, or the process of integrating an application into the desktop.

2) (in Help) the process of declaring a help volume to be accessible for browsing or cross-volume linking.

remote access

NetWare software formerly called NetWare Connect.

A feature of NetWare that enables remote users of Windows, Mac OS, and DOS to dial into a network and access all available resources including files, databases, Novell Groupware applications, electronic mail, and minicomputer services. It also enables network users to dial out from the network and connect to bulletin boards, information services, and asynchronous minicomputers.

Remote Access Management Agent

RAMA

An NLM (ncma.nlm) that provides all remote access information to the ManageWise software or to any SNMP-based console on the network.

remote boot

A method that allows a user to boot a workstation from remote boot image files on a NetWare server rather than from a boot diskette in the workstations local drive.

Client workstations that can start using remote booting do not need a floppy or hard drive to function on the network, and are therefore called diskless workstations.

A diskless workstation relies on a programmable read-only memory (PROM) chip installed in its network board to communicate with the boot server.

remote connection

An attachment between a workstation and a network, using something other than network cabling.

Remote Console

RCONSOLE

DOS-based and Java-based utilities, both of which let a network administrator use a network workstation as a NetWare server console.

Remote Console enhances security because network administrators can lock servers in a safe place and remove the keyboards and monitors.

Remote Console

An application included with NetWare client for Mac OS. Remote Console enables network administrators to use their Mac OS computer to manage remote servers. Network administrators can back up servers, load and unload NLMs, install an d remove products, and change configuration parameters form their Mac OS computer. In addition, Remote Console provides administrators with a capability not found in the DOS remote console: the ability to open windows to multiple servers simultaneously.

remote control

A connection mode for a workstation running Novell® Client software.

With remote control connections, the remote workstation controls a dedicated workstation on the network. Only keystrokes and screen updates are transmitted over the communications link. Data processing occurs on the dedicated workstation.

remote node

A Novell Client workstation using Novell Remote Access Dialer software. A remote node connection functions as if it were a workstation connected directly to the network. All data required for a session (file data and application packets) is transferred over the communications link. Data processing occurs on the remote workstation.

remote printer

In NetWare, a network printer that is not directly connected to the server but to a workstation. Also, a printer that is connected directly to a NetWare server (not running print server software), yet is available for shared network printing.

Remote Program Load

rpl.nlm

A NetWare Loadable Module that enables remote booting of workstations, and allows the booting of workstations from files on the server rather than from boot diskettes.

remote reset

Software that allows a user to boot a DOS workstation (including a diskless workstation) from a remote boot image file on a NetWare server, rather than from a boot diskette in the workstations local drive.

Remote Server Sessions

A tracked resource displayed in 3.12 MONITOR NLM screens, which tracks the number of remote servers that have at least one remote connection.

remote workstation

A terminal or personal computer connected to the LAN by a router or through a remote asynchronous connection. A remote workstation can be either a standalone computer or a workstation on another network.

Rename Inhibit

R

Short for "Rename Inhibit attribute."

Rename Inhibit attribute

R

A file system attribute that prevents users from renaming the file or directory, even if they have the Modify right. This attribute is automatically set and removed when the Read Only attribute is set or removed.

Rename right

R

An object right that allows the trustee to change the name of the object. This changes the value of the Name property.

Only the last part of the complete name can be changed with this right. Changing other parts of the name implies a move operation.

replica

A copy of an NDS database partitions information, which can be stored on several servers.

For the NDS database to be distributed across a network, it must be stored on many servers. Rather than storing a copy of the whole NDS database on each server, replicas of each NDS partition are stored on many servers throughout the network.

An unlimited number of replicas can be created for each NDS partition and stored on any server.

The types of replica include master, read-only, and read/write.

replica

A file system object that has been created as the result of replication.

replica ring

A group of servers holding replicas of the same NDS partition.

replica synchronization

A means of ensuring that replicas of an NDS partition contain the same information as other replicas of that partition. The update is triggered when properties for an object are added, deleted, moved, or changed.

replication

Copying the NDS partition and putting the copy in a separate location from the original (usually on another server).

replication

A Novell Replication Services process by which copies of file system objects existing on a server are created on other servers in a network.

replication

The process by which two or more Internet news servers exchange articles and share information. Servers can accept discussion groups, send discussion groups, or both.

replication host

A news server that sends or receives Internet discussion groups.

request header

RH

In the high-level data-link control (HDLC) protocol, the control information that precedes a request unit.

request to send

RTS

An RS-232C control signal between a modem and user digital equipment that initiates the data transmission sequence in a communications line. The request to send signal is used to prepare a modem for transmitting data.

request unit

RU

A message that contains control information such as a request code, function management headers (FMHs), end-user data, or a combination of these types of information.

Reset Request packet

In the high-level data-link control (HDLC) protocol, a type of control packet that is sent to data terminal equipment (DTE) to request the reset of a virtual call.

resolution

1. The number of dots per inch used to create an image.

2. The process by which a DNS client (host) sends a query to the name server to locate another host, and the name server replies to that query.

resolve a name

The process a DNS client performs in sending queries to a name server to get information about hosts in one or more DNS domains.

resolver

A DNS client that sends queries to a name server to get information about hosts in one or more DNS domains.

resource

1. In basic networking

The manageable components of a network, including

– Networking components, such as cabling, hubs, concentrators, adapters, and network boards

– Hardware components, such as servers, workstations, hard disks, and printers

– Major software components, such as the NetWare operating system and resulting network services (including file, mail, queue, and communication)

– Minor software components that are controlled by the operating system of its subsystems, such as protocols, gateways, LAN and disk drivers

– Data structures and other network resources, such as volumes, queues, users, processes, and security

2. In the Product Life Cycle (PLC) process

Any factor, except time, required or consumed to accomplish an activity in project management. Any substantive requirement or activity that can be quantified and defined, such as manpower, equipment, material, etc.

3. In the Common Desktop Environment (CDE)

– (In Application Builder) An appearance or behavior attribute of a widget. For Application Builder use, resources are significant only when you use them to generate code.

– A mechanism of the X Window System for specifying an attribute (appearance or behavior) of a window or application. Resources are usually named after the elements they control.

4. In Novell Cluster Services

A NetWare application, service, or volume that has been set up for high availability by being configured to work with Novell Cluster Services.

5. In Novell GroupWise®

An item or place, such as a computer, company vehicle, or conference room, that users can schedule. Each resource has an owner that accepts or rejects requests for the resource.

Resource

Short for "Resource property."

Resource Management Service

RMS

A brokered service in NDPS that allows resources to be installed in a central location and then downloaded to clients, printers, or any other entity on the network that needs them. The Resource Management Service supports adding, listing, and replacing resources, including printer drivers, printer definition (PDF) files, banners, and fonts.

resource record

RR

A record containing the DNS data associated with domain names. Each entity on the Internet has one or more resource records describing the entity, including such things as the Internet address, host name, and mail server.

resource record set

RRset

A collection of DNS resource records that are composed of the same name, type, and class.

resource tag

An operating system tag that keeps track of NetWare server resources such as screens and allocated memory.

NLM programs request a resource from the NetWare server for each kind of resource they use and then give it a resource tag name.

NLM programs return resources when they no longer need them. When the NLM is unloaded, the resources are returned to the NetWare server.

Resource tags ensure that allocated resources are properly returned to the operating system upon termination of an NLM.

response unit

RU

A message that acknowledges a request unit, indicating successful receipt of data or an error condition. An RU can contain prefix information received in a request unit. If positive, the RU can contain additional information (such as session parameters in response to BIND). If negative, the RU can contain sense data that define the exception condition.

responsible LU

The LU responsible for deactivating a session when it is no longer being used by two LUs for a conversation.

Restart Request packet

In the high-level data-link control (HDLC) protocol, a type of control packet that is sent to data terminal equipment (DTE) to request the restart of a virtual call. All switched virtual circuits (SVCs) are cleared and all permanent virtual circuits (PVCs) are reset.

restore

1. To retrieve data previously backed up to storage media. A restore is performed if data has been lost or corrupted since the backup.

2. In the Common Desktop Environment (CDE), to re-create (in Style Manager) a desktop session as it was in a previous session or the home session.

restripe

To reallocate striped data across the physical storage devices on a RAID after you have added a new physical storage device to the RAID. The physical storage devices on a RAID always contain equal amounts of data.

See also RAID; stripe.

resynchronization

The process of returning SFT III servers to a mirrored (identical) state. When both SFT III servers are restored to operation following a failure, they automatically resynchronize memory images and remirror disks.

retrieve

In WordPerfect, to insert a document into a new document window.

Reverse Address Resolution Protocol

RARP

An Internet protocol used by some hosts to find an Internet address at startup. It maps a physical address to an Internet address.

reverse charging

A facility that offers the equivalent of a collect call. This facility is allowed on a per-call basis, and is specified in the Call Request packet by the calling data terminal equipment (DTE).

RH

request header

In the high-level data link control (HDLC) protocol, the control information that precedes a request unit.

Ri

Initialism for "Rename Inhibit attribute."

RI

referential integrity

In NetWare SQL, the assurance that when a field in one table references a field in another table, changes to these fields will be synchronized.

RI

Ring Indicator

A modem signal.

rights

An assignment that allows access to or manipulation of a resource in some way; for example, browse, read/write, or create.

Depending on the resource type, a different back end will enforce the rights: NDS enforces rights to network objects and properties, and the NetWare file system enforces rights to network files and directories.

ring address assignment

In data communications, the address information coded for 3174 Customization Question 940.

RIP

Remote Imaging Protocol

RIP

Routing Information Packet

Xerox Network Services (XNS) packet type for Internetwork Packet eXchange (IPX).

RIP

Raster Image Processor

RIP

Routing Information Protocol

A distance vector internal gateway protocol for TCP/IP and IPX networks. A TCP/IP Routing Information Protocol (RIP) router periodically broadcasts a routing update message that contains an entry for each network it can reach and the cost (distance) to that network. TCP/IP RIP routers listen to all TCP/IP RIP broadcast messages.

RIP II

An enhancement to the TCP/IP Routing Information Protocol (RIP) that includes the subnetwork mask in its routes.

The lack of subnetwork mask information limits RIP to advertising only network routes, or requires RIP routers to make assumptions about the subnetwork mask. When RIP is used in subnetworks, all subnetworks are usually required to use the same subnetwork mask.

RIP II can be used in network topologies requiring variable length subnetwork masks, and it is able to support subnetwork 0. RIP II can also authenticate routing message exchanges.

Not all RIP routers support RIP II.

RMS

Resource Management Service

A brokered service in NDPS® that allows resources to be installed in a central location and then downloaded to clients, printers, or any other entity on the network that needs them. The Resource Management Service supports adding, listing, and replacing resources, including printer drivers, printer definition (PDF) files, banners, and fonts.

RMTCPNAME

In AS/400, an operand in the controller description that corresponds to the Peripheral Node Control Point Name (CPNAME).

RNR

receiver not ready

In the high-level data-link control (HDLC) protocol, a control field message indicating a temporary busy connection.

Ro

Initialism for "Read Only attribute."

root directory

The highest directory level in a hierarchical directory structure.

With NetWare, the root directory is the volume; all other directories are subdirectories of the volume.

The root directory is represented by a slash (/) in UNIX systems.

root domain

The domain (or node) at the top of the DNS tree.

Root object

[Root] object

An object in the NDS tree whose purpose is to provide a highest point to access different Country and Organization objects, and to allow trustee assignments granting rights to the entire NDS tree. Country, Organization, and Alias objects can be created at the [Root] object. The [Root] object is a place holder; it contains no information.

Sometimes called a directory root.

route

A route determines which computers are accessible from yours across the network. A route has two parts separated by a colon; the network address and the machine address.

route

In Novell GroupWise Workflow, a line that connects steps and indicates the flow from step to step.

route

To direct a message packet from one node (source) to another (destination).

route metric

The measure that determines the preferred route of two different routes generated by the same protocol to the same destination. In Transmission Control Protocol/Internet Protocol (TCP/IP), an Open Shortest Path First (OSPF) route entry has two metrics: an internal metric and an external metric.

router

A device that connects two networks using the same networking protocol for managing the exchange of data packets. It operates at the network layer (Layer 3) of the OSI model.

Router Discovery Protocol

A protocol in the TCP/IP suite that allows hosts to find routers on locally attached networks. This protocol ends the need to configure hosts with a routing table or a default router.

routing

The transmission of a datagram from one node to another node. Routing encompasses the process of route discovery as well as the actual sending of the datagram.

routing area

An administrative domain consisting of connected IPX networks with the same area address. Users in a routing area have network-layer access to the same services.

routing domain

A group of routing areas joined by level 2 routers. A routing domain can be a company, a university, an agency, or even a public carrier connecting two or more business or academic organizations. Within a routing domain, each local campus or other suborganization constitutes a routing area.

routing information filter

A filter that restricts the exchange of routing information between routers. To increase security, these filters limit the visibility of selected networks and reduce the network bandwidth consumed by the periodic exchange of routing information.

Routing Information Protocol

RIP

A distance vector protocol that provides a measure of distance, or hops, from a transmitting system to a receiving system. RIP allows NetWare routers to create and maintain a database (or router table) of current internetwork routing information.

Routing Information Table

In the context of Routing Information Protocol (RIP), a table stored in an IPX RIP router. The table contains network numbers, routes to a particular destination network, and metrics, such as hops and ticks, associated with those routes. The router uses this information to forward packets to their destinations by the best possible route.

routing protocol

A protocol that uses a specific routing algorithm. Examples of routing protocols include Routing Information Protocol (RIP), Open Shortest Path First (OSPF), Network Link Services Protocol (NLSP), Routing Table Maintenance Protocol (RTMP), and AppleTalk Update-based Routing Protocol (AURP).

routing table

A database in a router that keeps track of routes (and in some cases, metrics associated with those routes) to local and remote network destinations. The routing table enables a router to forward datagrams from a source socket to a destination socket.

In IP, routing tables are maintained on all hosts.

Routing Table Maintenance Protocol

RTMP

A distance vector protocol that updates tables every 10 seconds; used by routers to exchange information.

RTMP is the routing protocol used by AppleTalk. It is very similar to RIP.

routing update

A message sent from a router to indicate that a network can be reached. The message includes associated cost information. A routing update is typically sent at regular intervals as well as after a change in network topology.

RPL

Remote Program Load

A NetWare NLM that enables remote booting of IBM PC-compatible diskless workstations that have network boards installed.

RPL

ROLM Processing Language

A high-level language for the CBX II 9000 processor.

RR

resource record

A record containing the DNS data associated with domain names. Each entity on the Internet has one or more resource records describing the entity, including such things as the Internet address, host name, and mail server.

RR

receiver ready

In the high-level data-link control (HDLC) protocol, a control field message indicating that data has been successfully received and that data can be sent.

RRset

resource record set

A collection of DNS resource records that are composed of the same name, type, and class.

RTMP

Routing Table Maintenance Protocol

A distance vector protocol that updates tables every 10 seconds; used by routers to exchange information.

RTMP is the routing protocol used by AppleTalk. It is very similar to RIP.

RTS

request to send

An RS-232C control signal between a modem and user digital equipment that initiates the data transmission sequence in a communications line. The request to send signal is used to prepare a modem for transmitting data.

RTS

Residual Time Stamp

RU

request unit

A message that contains control information such as a request code, function management headers (FMHs), end-user data, or a combination of these types of information.

RU

response unit

A message that acknowledges a request unit, indicating successful receipt of data or an error condition. An RU can contain prefix information received in a request unit. If positive, the RU can contain additional information (such as session parameters in response to BIND). If negative, the RU can contain sense data that define the exception condition.

RU size

The number of bytes that can be sent within a single Systems Network Architecture (SNA) message packet.

RW

Resource Workshop

Rw

Initialism for "Read Write attribute."

SSS

SAA

Systems Application Architecture

An application architecture used to develop applications for the IBM SNA environment. Through Common User Access (CUA) architecture guidelines, Common Programming Interface (CPI) definitions, and Common Communications Support (CCS) protocols and conventions, SAA provides a basic structure for developing applications that are consistent across systems, including microcomputers, minicomputers, and mainframes.

salvage

To recover files that were deleted but have not yet been purged.

Salvage tool

A tool in NetWare Administrator for recovering files that were deleted but not yet purged from a NetWare volume.

SAN

Storage area network.

See shared storage.

SAP

Service Advertising Protocol

A protocol used by NLM programs to inform clients of a servers presence. Servers advertise their services, by both name and type, with SAP, allowing routers to create and maintain a database of current internetwork server information. This information goes to all nodes on an IPX network.

SAP

service access point

A virtual port on a data link adapter. A SAP provides communication points between adjacent local area network (LAN) protocol layers. A SAP is referred to by a three-digit hexadecimal number.

SAP

secondary audio program

SBACKUP

An NLM in Storage Management Services (SMS) which a NetWare® server uses to provide backup and restore capabilities. It is used to back up data across the network.

SBD

solution business division

SBD

System Bus Driver

In PCI Hot Plug technology, software that

– Abstracts the platform-specific implementation of a PCI Hot Plug system

– Controls the system hardware necessary to perform hot plug functions

– Is responsible for the enabling or removing of power from a hot plug slot upon request

– Is responsible for the configuring of hardware by assigning resources such as memory, PCI, and interrupts of PCI adapters in hot plug slots

scalability

The ability to adapt or use a program from within a very limited or small environment to a very large environment.

In NetWare, it is the incremental increase in throughput, or work accomplished relative to processor 0, when additional processors are brought online.

scatter gather

A feature of many disk drivers that improves the performance of disk reads and writes by combining many small I/O requests into one.

If data is to be written to sequential locations on disk, the driver "gathers" the data from different locations in RAM and combines the data into one write.

If data is to be read from sequential locations on disk, the driver executes one read and then "scatters" the data to different locations in RAM.

schema

The rules that define how the NDS® tree is constructed. These rules define specific types of information that dictate the way information is stored in the NDS database.

schema epoch

An instance in time that is arbitrarily selected as a point of reference for the NDS database.

When a schema epoch is declared, the master replica of the [Root] partition is contacted and illegal time stamps on the schema record are repaired. Then a new epoch for the schema is declared on that server. All other servers receive a new copy of the schema, which includes the repaired time stamps.

schema synchronization

The synchronization of modifications made to NDS schema data among all the replicas in the tree. Synchronization is necessary to maintain the consistency of the schema information throughout the NDS tree.

SCSI

Small Computer Systems Interface

An industry standard that defines both hardware and software communications between a host computer and any peripheral devices (such as hard drives or tape backup systems). Computers and peripheral devices designed to meet SCSI specifications have a large degree of compatibility.

SCSI bus

Small Computer Systems Interface bus

An interface that connects additional host bus adapters (HBAs) to controllers and hard disks. A SCSI bus is identified by its 50-pin connector (as opposed to an IDE bus, which has a 40-pin connector.)

SDLC

synchronous data-link control

A data-link communications protocol developed by IBM. SDLC manages synchronous, code-transparent, serial bit-by-bit information transfer over a link connection.

search drive

A drive that the operating system searches when a requested file isnt found in the current directory. Search drives are supported only from DOS workstations. A search drive allows a user working in one directory to access an application or data file located in another directory.

search mode

A method of operation that specifies how a program will use search drives when looking for a data file.

secondary logical unit

SLU

The logical unit that receives the BIND command to activate a session with its partner LU, which means it contains the secondary half-session for a particular LU-LU session.

A logical unit can contain secondary and primary half-sessions for different active LU-LU sessions.

secondary server

The SFT III server that is activated after the primary server is activated.

The secondary server mirrors the primary server, provides split seeks, and acts as a router for the local network segments to which it is directly attached (if the primary server isnt attached to those segments). It cannot do any additional work because it uses all its CPU cycles to keep current its mirror of the primary server.

If the primary server fails, the secondary server becomes the primary server.

secondary time server

A time server that obtains the time from a single, primary, or reference time server.

secondary zone

In Domain Name Service, a zone that is nonauthoritative and that is serviced by a single, designated secondary DNS server and one or more passive secondary DNS servers.

Secure Socket Layer

SSL

The set of rules governing the exchange of information between two devices using a public key encryption system. SSL establishes and maintains secure communication between SSL-enabled servers and clients across the Internet.

Secure Socket Layer handshake

The initial communication between an SSL server and client. At this stage, they agree on a protocol version, select cryptographic algorithms, optionally authenticate each other, and optionally generate a shared secret.

security

In Novell® GroupWise® Workflow, the rights that can be assigned to an attachment in a workflow. For example, the originator can assign (or not) the right to a recipient to see previous and future recipients of a step.

security

Elements that control access to the network or to specific information on the network. Six categories of NetWare security are

-Login security

-Trustees

-Rights

-Inheritance

-Attributes

-Effective rights

Security Equal To

Short for "Security Equal To property."

Security Equal To Me property

An optional, multivalued property that lists the users that are granted security equivalence to this object. Each value must be a complete name.

Security Equal To property

An optional, multivalued property that lists the objects that the user is granted security equivalence to. It does not list implicit security equivalences, such as parent containers and the [Public] trustee.

Each value must be a complete name.

security equivalence

An NDS feature that allows a user to possess all the rights of another object. Only users can have security equivalence.

A user is automatically security-equivalent to the Groups and Organizational roles that he or she belongs to, and is implicitly security-equivalent to the [Public] trustee and to each container above the user in the tree, including [Root]. A user is explicitly security-equivalent to the objects listed in his or her Security Equals property.

seeding

The broadcasting process by which an AppleTalk router is enabled to learn its network and zone configuration from other routers connected to that network.

seed router

An AppleTalk router that must be manually configured when it is added to a Novell network. Other routers obtain their configuration from this router.

A seed router defines the range of network numbers for all routers in an AppleTalk network segment. Each AppleTalk network segment must have at least one seed router.

A seed router is also known as a configured router.

segment

A discrete portion of a network, such as a LAN without routers or bridges. Bridges and routers can be used to isolate network traffic to specific segments.

segment

In virtual memory systems, a variable-sized portion of data that is swapped in and out of main memory.

segment

A term used in the TCP specification to describe a single transport-layer unit of information. In the OSI world, the equivalent of IPs term "fragment."

semantic agent

SA

A module that represents a client in the NSS software architecture. Semantic agents are defined above the common layer for access to the object engine layer. In the object engine, a semantic agent can access storage objects, such as NSS volumes.

semantic agent layer

A layer in the NSS software architecture that contains loadable software modules. The modules define client-specific interfaces, such as the Novell client, that are available to stored objects such as NSS volumes.

semaphore

An interprocess communication signal that indicates the status of a shared system resource, such as shared memory. There are several types of semaphores:

1. Event semaphore: Allows a thread to tell other threads that an event has occurred and it is safe for them to resume execution.

2. Mutual exclusion (mutex) semaphore: protects system resources, such as files, data, and peripheral devices, from simultaneous access by several processes.

3. Multiple wait (muxwait) semaphore: Allows threads to wait for multiple events to take place, or for multiple resources to become free.

Sequenced Packet Exchange

SPX

A NetWare DOS Requester module that enhances the IPX protocol by supervising data sent out across the network.

SPX verifies and acknowledges successful packet delivery to any network destination by requesting a verification from the destination that the data was received.

The SPX verification must include a value that matches the value calculated from the data before transmission. By comparing these values, SPX ensures not only that the data packet arrived at the destination, but that it arrived intact.

serial communication

The transmission of data between devices over a single line, one bit at a time. NetWare uses the RS-232 serial communication standard to send information to serial printers, remote workstations, remote routers, and asynchronous communication servers.

Serial Line Internet Protocol

SLIP; Serial Line IP

An Internet protocol used to run IP over serial lines, such as telephone circuits or RS-232 cables, to interconnect two systems. SLIP is being replaced by the Point-to-Point Protocol (PPP).

serial port

A connector between a computer and another component, such as a printer or modem, that uses a serial interface. Serial communications can be synchronous if controlled by a clock or asynchronous if coordinated by start and stop bits

serial transmission

A transmission method in which bits are sent one after the other on the same wire.

server

A powerful computer running software that supplies network clients with services, such as file, print, communication, or application services.

Examples of servers include

1. Routing servers, which connect nodes and networks of similiar architectures.

2. Gateway servers, which connect nodes and networks of different architectures by performing protocol conversions.

3. Terminal servers, print servers, disk servers, and file servers, which provide an interface between compatible peripheral devices on a local area network.

Server Certificate object

An NDS object that contains the public key, private key, certificate, and certificate chain. It is also known as a Key Material Object (KMO) or, in the NDS schema, as NDSPKI:Key Material.

server console

The monitor and keyboard where the network administrator views and controls server activity.

server mirroring

An SFT III feature that provides an identical server to take over network operations if the primary server fails. Server mirroring requires two similarly configured servers; if they are unequal in terms of speed, memory, and storage capacity, server mirroring will perform at the lower servers level. The servers are directly connected by a mirrored server link, but they can reside on different network segments.

servertop

The graphical user interface of the NetWare server.

service access interface

A point that determines what happens between routers and the edge node (or switch) of the frame relay network.

service access point

SAP

A virtual port on a data link adapter. A SAP provides communication points between adjacent local area network (LAN) protocol layers. A SAP is referred to by a three-digit hexadecimal number.

Service Advertising Protocol

SAP

A protocol used by NLM programs to inform clients of a servers presence. Servers advertise their services, by both name and type, with SAP, allowing routers to create and maintain a database of current internetwork server information. This information goes to all nodes on an IPX network.

service information filter

A filter that restricts service access by excluding the packets that advertise the services. These filters keep applications from discovering the location of services, but do not restrict access to services if applications already know the locations of the services.

Service Registry Service

SRS

A brokered service in NDPS® that allows public access printers to advertise themselves so that administrators and users can find them. This service maintains information about device type, device name, device address, and other device-specific information such as the manufacturer and model number.

service request

A service request initiates an action. For example, a Busy Search produces a service request for the Post Office Agent (POA) or a directory synchronization request produces a service request for the Message Transfer Agent (MTA).

service request

Any request from the network that causes the server to invoke a NetWare Core Protocol routine. Examples include a request to authenticate a user, a request to read a disk block, or a request to queue a print job.

servlet

A small, server-based routine written in Java programming code.

session

A logical connection between two computers or other devices, including the communications exchanged between them while they are connected.

session

In the Common Desktop Environment (CDE):

1. A particular configuration of workspaces that includes Style Manager settings, open applications, and the size and position of objects.

2. The elapsed time between user login and logout.

3. An option in the Login screen menu used to choose the type of session to log in to.

4. A group of processes in ToolTalk that are related either by the same desktop or the same process tree.

session layer

The fifth of seven layers in the OSI model. The session layer allows dialog control between end systems.

SFT

System Fault Tolerance

A means of protecting data by providing procedures that allow a network server to automatically recover from hardware failures. SFT protects data by providing data duplication on multiple storage devices; if one storage device fails, the data is available from another device.

There are three levels of SFT: Hot Fix, disk mirroring or duplexing, and server mirroring. Each level of redundancy (duplication) decreases the possibility of data loss.

SFT

software fault tolerance

SFT

system file table

Sh

Initialism for "Shareable attribute."

SH

Session Header

A header put on Open Systems Interconnection (OSI) Session layer data units.

Shareable attribute

SH

A file system attribute that allows the file to be used by more than one user at a time. It is usually set only for files with the Read Only attribute.

shared storage

An external disk system that is connected via fiber channel or SCSI hardware to each of the servers in a cluster. The external disk system is accessible by each of the cluster servers connected to it. This is sometimes referred to as a storage area network (SAN).

short machine type

A name, with four characters or fewer, representing a brand of DOS workstation. The short machine type is similar to the long machine type, except the short machine type is used specifically with overlay files.

Files using the short machine type include the ibm$run.ovl file for windowing utilities and the cmpq$run.ovl file that uses a default black-and-white color palette for NetWare menus.

The short machine type is set in the net.cfg file, using the SHORT MACHINE TYPE parameter. The default is IBM.

SIDF

system independent data format

A Novell standard for data interchange. SBACKUP uses this format. All data backed up using SBACKUP can be read by other backup applications that read and write SIDF.

Simple Network Management Protocol

SNMP

A TCP/IP protocol used for communicating between a network management console (SNMP Manager) and the devices the console manages. The protocol allows the SNMP Manager to gather information about the configuration and status of the TCP/IP protocol stacks of network nodes.

single time server

Previously known as *single reference time server*.

A primary time server that acts as the sole source of time on the network and provides time to secondary time servers and to client workstations. The first server installed on a eDirectory tree by default is configured as a single time server.

slave watchdog

A number specifying the amount of time the master node has to signal that it is alive.

See also heartbeat; master watchdog; tolerance.

slave server

A DNS server that answers queries from its primary server and cached data, but relies entirely on forwarders for external information. A slave server will not contact other servers if forwarders do not reply. A slave server can be a primary or secondary server for its authoritative data.

SLIP

Serial Line Internet Protocol, Serial Line IP

An Internet protocol used to run IP over serial lines, such as telephone circuits or RS-232 cables, to interconnect two systems. SLIP is being replaced by the Point-to-Point Protocol (PPP).

SLU

secondary logical unit

The logical unit that receives the BIND command to activate a session with its partner LU, which means it contains the secondary half-session for a particular LU-LU session.

A logical unit can contain secondary and primary half-sessions for different active LU-LU sessions.

Small Computer Systems Interface

SCSI

An industry standard that defines both hardware and software communications between a host computer and any peripheral devices (such as hard drives or tape backup systems). Computers and peripheral devices designed to meet SCSI specifications have a large degree of compatibility.

SMDR

Storage Management Data Requester

The Storage Management Services (SMS) module responsible for passing commands and data between SBACKUP, Target Service Agents (TSAs), and the Storage Device Interface (SDI).

SMDS

Switched Multimegabit Data Service

The Metropolitan Area Network (MAN) cabling technology based on the IEEE 802.6 standard. SMDS has certain LAN characteristics, even though it spans large geographic distances, for example, the size of a city.

SMP

1. symmetric multiprocessing

2. symmetric multiprocessor

3. symmetrical multi-processing NetWare

4. A multiprocessing system in which all processors can perform all tasks. At runtime, an algorithm assigns tasks to each processor as necessary to balance the work load. A symmetric multiprocessing system is the opposite of an asymmetric system, in which different processors are dedicated to different knds of tasks.

SMP

simple management protocol

SMP

symmetric multiprocessing

A system in which all processors can perform all tasks. At runtime, an algorithm assigns tasks to each processor as necessary to balance the work load. A symmetric multiprocessing system is the opposite of an asymmetric system, in which different processors are dedicated to different kinds of tasks.

SMS

system managed storage

SMS

Systems Management Server

SMS

Storage Management System

SMS

Storage Management Services

Services that enable a user to back up or restore the NDS database, the file system, or an individual workstations hard disk. The SMS architecture is independent of backup/restore hardware and file systems and provides an interface to all storage devices, including tape, optical, and jukebox.

SMSDI

Storage Management Services Device Interface; commonly shortened to "Storage Device Interface."

A software module in Storage Management Services (SMS) which passes commands and information between SBACKUP and the storage devices and media.

SNA

Systems Network Architecture

A structure defining how computer equipment connects and communicates. SNA specifies the logical structure, formats, protocols, and operational sequences for transmitting information units by controlling the configuration and operation of networks. The SNA model includes the application, presentation, data flow control, transmission control, path control, data link, and physical functional layers.

snapshot

An NSS option that captures the most recently saved copy of a file. This file is retained as a backup for files that lose data in a crash.

SNMP

Simple Network Management Protocol

A TCP/IP protocol used for communicating between a network management console (SNMP Manager) and the devices the console manages. The protocol allows the SNMP Manager to gather information about the configuration and status of the TCP/IP protocol stacks of network nodes.

SOA

start of authority

The server in a DNS zone that is flagged with the SOA record.

SOA record

start of authority record

A flag that identifies a DNS name server as authoritative for its zone. There can only be one SOA record in a domains database or database file. The server that is flagged with the SOA record is said to be the "start of authority" in its zone.

socket

A software structure that acts as a communications end point.

In an IPX network, the part of an IPX internetwork address, within a network node, that represents the destination of an IPX packet. Some sockets are reserved by Novell for specific applications. For example, IPX delivers all NCP request packets to socket 451h.

source route bridging

Software that allows supporting end stations to discover routes dynamically and to determine which route to use when sending data to any particular destination. Source route bridging enables users to link token ring networks and create an extended network. This functionality is compatible with the source route bridging mechanism used by IBM to handle the flow of data between token ring networks.

source route transparent bridging

A type of bridging scheme that merges the two bridging strategies, source route bridging and transparent bridging, to employ both technologies in one device. No translation is done between them.

source routing

A bridging mechanism to route frames through multiple LANs by specifying in each frame the route that the frame will follow. To determine the route, the end stations use a discovery process supported by source route bridges.

source server

The server from which data files, bindery files, and other information are migrated to a NetWare destination server during upgrade.

spanning

A technique for improving I/O performance by placing frequently used segments of a file system or database on separate disks.

spanning tree

An algorithm that ensures that only one bridge path between any two networks is active at a time. If a bridge path fails, another will be activated automatically.

A loop-free subset of a network topology connecting all the nodes.

Spanning Tree Algorithm

An algorithm used by bridges to dynamically discover and maintain a loop-free subset of a complex network topology; specified in IEEE standard 802.1d.

Spanning Tree Protocol

A protocol using a hierarchical control structure to determine which bridge interfaces are allowed to forward single-route frames. It ensures that there is only a single data path between any two end stations, and thus eliminates data loops. Spanning Tree Protocol is commonly used in bridge applications.

sparse file

A file with at least one empty block. (NetWare wont write any block that is completely empty.) Databases often create sparse files.

For example, suppose the disk allocation block size for volume Vol1 is 4 KB. Also suppose that a database opens a new file, seeks out the 1,048,576th byte, writes five bytes, and closes the file. An inefficient operating system would save the entire file to disk.The file would be comprised of 256 zero-filled disk allocation blocks (the first 1 MB) and one more disk allocation block with five bytes of data and 4,091 zeros. This method would waste 1 MB of disk space. However, NetWare writes only the last block to disk, saving time and disk space.

specific property right

The right to access a single property of an object. Specific property rights override All Property rights, and cannot be inherited.

split brain

A condition in which two servers in a cluster have lost communication with each other. Each of the servers views itself as the master server in the cluster and tries to load all cluster resources.

See also poison pill; split brain detector.

split brain detector

A partition written to free space on a shared disk system during the Novell Cluster Services installation. The split brain detector lets cluster servers communicate with each other through the shared disk system, which helps prevent a split brain condition when network communication is lost or slow.

See also poison pill; split brain.

split horizon

A routing technique used by distance vector routing protocols to reduce routing traffic on the network. With split horizon, information about routes is not propagated back to the same interface from which it was learned.

split seek

In SFT III, a method of dividing multiple read requests between two mirrored servers disks for faster disk reads.

spurious interrupt

A software interrupt that is not serviced or claimed by any of the registered interrupt handlers (interrupt service routines) for that interrupt.

SPX

Sequenced Packet Exchange

A NetWare DOS Requester module that enhances the IPX protocol by supervising data sent out across the network.

SPX verifies and acknowledges successful packet delivery to any network destination by requesting a verification from the destination that the data was received.

The SPX verification must include a value that matches the value calculated from the data before transmission. By comparing these values, SPX ensures not only that the data packet arrived at the destination, but that it arrived intact.

SRS

system requirements specification

SRS

Service Registry Service

A brokered service in NDPS that allows public access printers to advertise themselves so that administrators and users can find them. This service maintains information about device type, device name, device address, and other device-specific information such as the manufacturer and model number.

SSI

supplemental security income

Government help available to legal aliens.

SSI

server-side include

A set of commands, embedded in an HTML document, that are executed by the server for a Web site before the document is sent to the browser that requested the document.

SSI

small scale integration

SSI

Speech Systems, Inc.

An organization that develops telephony-based speech recognition tools with AT&T.

SSL

Secure Socket Layer

The set of rules governing the exchange of information between two devices using a public key encryption system. SSL establishes and maintains secure communication between SSL-enabled servers and clients across the Internet.

standard

A set of rules or procedures agreed upon by industry participants.

start of authority

SOA

The server in a DNS zone that is flagged with the SOA record.

startup.ncf

A NetWare server boot file that loads such things as the NetWare servers disk driver, name spaces, and some SET parameters.

static routing

A method for updating entries in a routing table.

When used as a configuration option in the TCP/IP Protocol Configuration menu, Static Routing is set to Enabled to update the table whenever the server starts or is reinitialized.

Static Routing

A configuration option that applies in the TCP/IP Protocol Configuration menu. It is set to Enabled to create static routes whenever the server boots up or is reinitialized.

station

A shortened form for workstation. The term can also refer to a server, router, printer, fax machine, or any computer device connected to a network by a network board and a communication medium.

station address

A number that uniquely identifies a network board; usually referred to as the node number.

statistical multiplexing

A method that uses a time-division multiplexer (TDM) to dynamically allocate line time to each of the attached terminals, depending on whether a terminal is active or inactive at a particular moment. Buffering and queuing functions are also included. Also called a "stat mux."

statistical time-division multiplexing

STDM

A method of data transmission that allows X.25 to maximize bandwidth use by dynamically allocating portions of the available bandwidth to active devices on demand. STDM provides better throughput than time-division multiplexing (TDM), which dedicates a fixed bandwidth of the network medium to connect services regardless of whether they are active.

status bar

A configurable strip along the bottom of the window that displays key information about the current session or task.

status flag

An attribute that specifies status information for the file. It is similar to a file attribute, but its value is set by the NetWare file system.

STDM

synchronous time division multiplexer

STDM

statistical time-division multiplexing

A method of data transmission that allows X.25 to maximize bandwidth use by dynamically allocating portions of the available bandwidth to active devices on demand. STDM provides better throughput than time-division multiplexing (TDM), which dedicates a fixed bandwidth of the network medium to connect services regardless of whether they are active.

stop bit

A signal that indicates where one character stops and another starts. Communication programs normally add one, or sometimes two, stop bits on the end of each character.

storage adapter

An adapter for a storage device, such as a hard drive or a CD ROM drive.

storage area network

SAN

See shared storage.

storage deposit

In NSS, free space that is identified by an NSS provider and deposited in the NSS object bank.

storage device

A device, such as a tape drive or optical disk, used to store the contents of a server or workstation. An example of a storage device is an external tape drive that backs up data from hard disk to magnetic tape.

storage device driver

Software that controls the operation of a storage device attached to a compatible host adapter.

storage device driver database

A database file on the host server that contains the list of supported storage device drivers.

storage device interface

SDI

A software module in Storage Management Services (SMS) that passes commands and information between SBACKUP and the storage devices and media.

Storage Device Interface

SMSDI

Short for "Storage Management Services Device Interface."

A software module in Storage Management Services (SMS) that passes commands and information between SBACKUP and the storage devices and media.

storage free space

In NSS, a block of unassigned partition space on a hard disk or free space in a NetWare volume that has not been claimed by either the traditional NetWare file system or by Novell Storage Services (NSS).

Also called "free space."

storage group

A pool of storage free space that represents logical space owned by NSS. Once free space is claimed by NSS, the free space becomes a managed object which can be divided into other storage groups and NSS volumes.

storage group configuration

A way of organizing and managing storage free space claimed by NSS.

In the NSS Media Access Layer (MAL), unassigned partition space from any number of hard drives can be managed by a provider and owned by a consumer. This process stamps the storage object as belonging to NSS. The storage objects then become NSS partitions which can then be divided into storage groups and NSS volumes.

Storage Management Data Requester

SMDR

The Storage Management Services (SMS) module responsible for passing commands and data between SBACKUP, Target Service Agents (TSAs), and the Storage Device Interface (SDI).

Storage Management Services

SMS

Services that enable a user to back up or restore the NDS database, the file system, or an individual workstations hard disk. The SMS architecture is independent of backup/restore hardware and file systems and provides an interface to all storage devices, including tape, optical, and jukebox.

storage manager

A Novell Storage Services (NSS) consumer or provider.

storage object

An object representing free space claimed by NSS. A storage object can be used to create NSS storage groups and NSS volumes.

storage pool

In NSS, free space that is gathered from various media and that is deposited into the object bank. Free space from the pool can be owned by NSS and used to create storage groups and NSS volumes.

storage provider

In NSS, the program that finds storage free space from various media, manages storage objects in the Media Access Layer (MAL), and determines the size of storage objects.

Usually called "provider."

STREAMS

An NLM that provides a common interface between NetWare and transport protocols such as IPX/SPX, TCP/IP, SNA, and OSI that need to deliver data and requests to NetWare for processing. By making the transport protocol transparent to the network operating system, STREAMS allows services to be provided across the network, regardless of the transport protocols used.

stripe

1. (verb) To spread data in equal amounts across mulitple physical storage devices using a RAID virtual storage device in order to improve network performance.

2. (noun) A segment of virtual disk space allocated to a RAID virtual storage device.

See also RAID; restripe.

stub network

An Internet protocol (IP) network segment that uses a subset of an existing parent network address.

The parent network and the stub network are separated by a router. An example is a parent network with an address range of 89.0.0.1 to 89.255.255.254 and a stub network with an address range of 89.1.0.1 to 89.1.255.254.

Also called "stub subnetwork."

subarea node

In a Systems Network Architecture (SNA) network, a communications controller or host that uses network addresses for routing and maintains routing tables that reflect the network configuration. Type 4 and type 5 nodes are subarea nodes.

subdirectory

A directory contained within another directory, sometimes called the parent directory.

subnet

The portion of the network backbone that shares a common address component and that is partitioned by repeaters, bridges, or routers.

subnet addressing

The process of locally extending the network address portion of an IP address by using a subnet mask.

As an IP network grows, each segment requires a separate IP address. By using subnet addressing, a network administrator can create an address for each new segment of the organizations network, based on the Internet address already in use.

subnet address mask

A filter that selects bits from an Internet address to create a subnet. More commonly called a "subnet mask."

subnet mask

A 32-bit number that defines how many bits in the IP address identify the network and how many bits identify the host. A "1" indicates that a bit identifies the network; a "0" indicates that a bit identifies a host. A subnet mask locally extends the network address portion of an IP address.

subordinate object

Any NDS object that is below another object in the NDS tree. For example, a leaf object is subordinate to its parent container, a file is subordinate to its parent directory, and an Organizational Unit is subordinate to its parent Organization.

subordinate reference replica

A type of replica that is automatically placed on a server by NDS if the server holds a replica of a partition, but not a replica of the partitions child. Subordinate reference replicas do not contain detailed information about leaf objects. They cannot be created, deleted, or modified by an administrator.

supervisor

Usually called "network administrator" in NetWare.

The person responsible for setting up and maintaining the network. The network administrator has the Supervisor right to create and manage objects in the NDS tree.

Generally, this means the person who has a trustee assignment to the [Root] object of the NDS tree, which would include the Supervisor rights to the entire NDS tree. However, the specific part of the NDS tree where this person has rights can vary from network to network.

Supervisor

Short for "Supervisor right."

SUPERVISOR bindery login

An administrative login that is not represented by an NDS object. The bindery SUPERVISOR is kept with each server, and is not affected by replication of NDS objects.

Note that the NDS object called Supervisor is not the same as the SUPERVISOR bindery login.

Supervisor right

S

A NetWare file system right that grants all rights to a directory or file. Also, an NDS object right that grants all rights to an object (including all its properties). Also, an NDS property right that grants all rights to a specific property.

The Supervisor right can be blocked by an inherited rights filter (IRF) on an object or property, but it cannot be blocked by an IRF on a directory or file.

There is no automatic Supervisor user in NetWare versions after NetWare 3.

SVC

switched virtual channel

SVC

switched virtual circuit

A type of virtual circuit that is established dynamically with call setup and call clearing procedures. A permanent SVC is left in a connected state until the user or application disconnects it. An on-demand SVC is disconnected after data has been transmitted over the established SVC. The circuit remains disconnected until more data is queued for sending, at which point the connection is reestablished.

swap file

A file created to hold data swapped out of memory and stored on disk.

In the NetWare virtual memory system, there is one swap file for the sys volume. The user can create one swap file for each additional volume on the server.

switched link

A service, such as switched 56 Kbps, that provides for temporary file transfer or management. When the link is idle, the vendor uses the channel for other users. When a link becomes active, any available 56-Kbps channel is switched to the active link.

Switched Multimegabit Data Service

SMDS

The Metropolitan Area Network (MAN) cabling technology based on the IEEE 802.6 standard. SMDS has certain LAN characteristics, even though it spans large geographic distances, for example, the size of a city.

switched virtual circuit

SVC

A type of virtual circuit that is established dynamically with call setup and call clearing procedures. A permanent SVC is left in a connected state until the user or application disconnects it. An on-demand SVC is disconnected after data has been transmitted over the established SVC. The circuit remains disconnected until more data is queued for sending, at which point the connection is reestablished.

Sy

Initialism for "system attribute."

symmetric multiprocessing

SMP

A system in which all processors can perform all tasks. At runtime, an algorithm assigns tasks to each processor as necessary to balance the work load. A symmetric multiprocessing system is the opposite of an asymmetric system, in which different processors are dedicated to different kinds of tasks.

synchronization

1. Short for "time synchronization."

2. A means of ensuring that replicas of an NDS partition contain the same information as other replicas of that partition. Replica synchronization updates the replicas and runs periodically at a cycle controlled by the network administrator.

3. The Novell Replication Services process by which changes made to file and directory replicas are applied to their master versions, and vice versa. This can

be performed manually when required, or can be scheduled to occur at specific times or frequencies.

4. In Novell GroupWise, short for "directory synchronization."

synchronous

Describes a mode of data transfer in which information is transmitted in blocks (frames) of bits separated by equal time intervals.

synchronous data-link control

SDLC

A data-link communications protocol developed by IBM. SDLC manages synchronous, code-transparent, serial bit-by-bit information transfer over a link connection.

syntax

The rules for organizing elements in an operation. For example, equation and macro commands require a certain correct syntax or organization for them to function properly.

synthetic time

A time stamp issued to NDS when the time on the server is changed and no longer matches the time stamp of the partition. NDS uses synthetic time to prevent objects from being time-stamped incorrectly.

sys$log.err

In NetWare, the server error log file.

system

Sy

Short for "system attribute."

system

In the Common Desktop Environment (CDE)

1) The computer, any peripheral devices, the operating system, and applications.

2) The operating system.

system attribute

Sy

A file or directory attribute that reserves the file or directory for operating-system use and prevents it from being deleted, renamed, or copied.

system bus driver

SBD

In PCI Hot Plug technology, software that

– Abstracts the platform-specific implementation of a PCI Hot Plug system

– Controls the system hardware necessary to perform hot plug functions

– Is responsible for the enabling or removing of power from a hot plug slot upon request

– Is responsible for the configuring of hardware by assigning resources such as memory, PCI, and interrupts of PCI adapters in hot plug slots

System directory

The directory created during NetWare installation that contains NetWare operating system files as well as NLM programs and other NetWare utilities for managing the network. It is always located in volume Sys. By default, the user ADMIN, or a user with ADMIN-equivalent rights, has rights to the System directory.

system fault screen

The screen on which an abend message appears. Because the abend message is displayed on the system fault screen instead of on the main console screen, it does not replace any console messages that were displayed before the abend happened. The user can start the debugger and then toggle between the system fault screen and the main console screen.

System Fault Tolerance

SFT

A means of protecting data by providing procedures that allow a network server to automatically recover from hardware failures. SFT protects data by providing data duplication on multiple storage devices; if one storage device fails, the data is available from another device.

There are three levels of SFT: Hot Fix, disk mirroring or duplexing, and server mirroring. Each level of redundancy (duplication) decreases the possibility of data loss.

system ID

A unique, 6-byte hexadecimal number that identifies a NetWare Link Services Protocol (NLSP) router.

system login script

In NetWare 2 and NetWare 3, a type of login script that sets general environments for all users. In NetWare 4 and later versions, the container login script replaces the system login script.

system message

Any type of message sent by an affected component to a screen, a message box, or a log file. A system message indicates the status of, or a problem with, the hardware, or the operating system or any other software component.

Systems Application Architecture

SAA

An application architecture used to develop applications for the IBM SNA environment. Through Common User Access (CUA) architecture guidelines, Common Programming Interface (CPI) definitions, and Common Communications Support (CCS) protocols and conventions, SAA provides a basic structure for developing applications that are consistent across systems, including microcomputers, minicomputers, and mainframes.

Systems Network Architecture

SNA

A structure defining how computer equipment connects and communicates. SNA specifies the logical structure, formats, protocols, and operational sequences for transmitting information units by controlling the configuration and operation of networks. The SNA model includes the application, presentation, data flow control, transmission control, path control, data link, and physical functional layers.

TTT

T

Initialism for "Transactional attribute."

T1

A network communications line that transmits at a high rate (up to 1.544 Mbps).

tape backup device

A tape drive, either internal or external, that backs up data from hard disks.

target

In NDS®, an object representing a network resource that a trustee has authority to access or manage.

target

In networking, any server, workstation, or service that has a Target Service Agent loaded.

target

In Storage Management Services (SMS), a server from which data is backed up or to which data is restored. If the administrator is backing up and restoring to the host server, the target and the host are the same.

Target Service Agent

TSA

A program that processes the data moving between a specific target and a Storage Management Services (SMS) backup engine such as SBACKUP.

Target Service Agent resource

A category of data, referred to as either a major resource or a minor resource, created by each Target Service Agent.

task-switching support software

The tb12.com and taskid.com files that act as a buffer and manager between IPX and SPX requests and an applications calling process in a task-switching environment.

For example, when switching DOS sessions within Windows in standard or real mode, having task-switching support software installed ensures that IPX and SPX transport protocols send all application calls to the proper network resource. In this example, without task-switching software, a client workstation could experience session failure.

TCP

test coordination procedure

TCP

Transmission Control Protocol

The major transport protocol in the Internet suite. TCP provides reliable, connection-oriented, full-duplex streams. It uses Internet Protocol (IP) for delivery.

TCPCON

TCP/IP console

A NetWare® NLM that enables a network administrator to monitor server or router activity in the TCP/IP segments of the network.

TCP/IP

Transmission Control Protocol/Internet Protocol

A protocol suite developed by the Advanced Research Projects Agency (ARPA). It includes TCP (Transmission Control Protocol) as the primary transport protocol and IP (Internet Protocol) as the network layer protocol.

TDM

time-division multiplexing

Data transmission that dedicates a fixed bandwidth of the network medium to connected devices, regardless of whether they are active. This allows lower-speed channels to share time on a high-speed communications circuit by allocating separate time slots to each channel.

Telnet

A protocol in the TCP/IP suite that governs character-oriented terminal traffic. Telnet supports character terminals, block terminals, and graphics terminals. It is used for remote login on an Internet network.

Template

Short for "Template object."

template

In the Product Life Cycle (PLC) process, a form that accompanies step guides and details the type and extent of information which must be provided to produce PLC documents. Templates also allow information from different projects to be viewed in a common order.

template

1. A model or form for a page layout, spreadsheet, database, or other similar item.

2. (Slide) A page layout, chart, or background format you can use to make different slides look consistent with each other.

3. (Keyboard) A quick reference card placed on a keyboard that lists program keystrokes.

Template object

In the NDS tree, a leaf object that provides a base set of properties and setup procedures for creating new user accounts. It cant be used to apply changes to existing users. When a new User object is created based on a Template object, the properties of the Template object are copied to the new User object.

terabyte

TB

A unit of measure for memory or disk storage capacity; two to the 40th power (approximately one trillion) bytes. 1,024 gigabytes.

TH

transport header

The header put on Open Systems Interconnection (OSI) Transport layer data units.

TH

transmission header

The control information created and used by the path control to route message units and to control their flow within the network.

TH

Target Hotline

thrashing

The rapid back-and-forth movement of the disk head across the disk as the disk head seeks requested data locations in the sequence the requests are received. Thrashing happens when elevator seeking is not implemented.

thread

1. In computer processing, a sequence of instructions executed as an independent entity and scheduled by system software. A thread is also known as an executable object.

2. Within an Internet discussion group, an ongoing discussion about a particular topic. Sometimes called a conversation.

threaded discussion

On the Internet, a running log of discussion remarks about a subject.

throughput

The total amount of useful data that is processed or communicated during a specific time period between a source and a destination.

throughput class

A type of class negotiation that specifies, on a per-call basis, the throughput of data that can be transferred on a virtual circuit. The range is between 75 bps and 64 Kbps.

throughput negotiation

A type of facility that specifies whether to allow negotiation, on a per-call basis, of the throughput of data that can be transferred on a virtual circuit. If selected, incoming calls containing the throughput facility are passed to the destination application. Otherwise, any incoming call containing a throughput facility is cleared if its value does not match the default.

TIC

token ring interface card

An adapter that can connect a 3720, 3725, or 3745 Communication Controller to an IBM token ring network.

TIC

TCP/IP interprocess communications

TIC

token-ring interface coupler

tick

In WorkPerfect Presentations, a small line used in data charts to mark off amounts such as dollars, distances, or numbers of items.

tick

A period of time measuring approximately 1/18 of a second (there are 18.21 ticks in a second).

time consumer

A NetWare server that seeks time from other NetWare servers to synchronize its time. This server can also act as a time provider for other servers and client workstations on the network.

time provider

A NetWare server that provides time to other NetWare servers so they can synchronize their time with the time provider.

time provider group

A collection of time servers on a given NetWare network, consisting of one server designated as a reference time server and two servers designated as primary time servers. The reference time server polls the two primary time servers to vote on the correct time for the network. A time provider group adds to fault tolerance and optimal network usage through time synchronization.

time server

A NetWare server that runs the TimeSync utility and is designated as one of four types of time servers. The four types of time server are: primary, reference, secondary, and single reference.

time slicing

A thread pre-emption technique which allocates some amount of the resources time to each of the multiple threads (applications or tasks) requesting the resource.

The scheduler allows the current thread to run on a given processor until either the thread blocks or a time slice (a predetermined length of time) expires. At that time, the scheduler stops execution of the running thread and allows another eligible thread to run...until either it blocks or the time slice expires, and so on.

time source

In a NetWare network, the designated server or group of servers that provide UTC time to all other servers in the network.

time stamp

An NDS code reporting the identity of an NDS event and the time of its occurrence. Time stamps establish the order of events (such as object creation and NDS partition replication), record "real world" time values, and set expiration dates.

time synchronization

In a multiple-server environment, the functionality to maintain a common time for all NetWare servers in the network.

timer interrupt

An interrupt that provides timer services for the operating system as well as preemption support. In multiprocessing systems, timer interrupts are local to a processor.

time-division multiplexing

TDM

Data transmission that dedicates a fixed bandwidth of the network medium to connected devices, regardless of whether they are active. This allows lower-speed channels to share time on a high-speed communications circuit by allocating separate time slots to each channel.

time-out condition

An error condition indicating that a specified amount of waiting time has elapsed without the occurrence of an expected event.

TimeSync

A NetWare Loadable Module (NLM) that controls time synchronization on servers running NDS.

timesync.cfg

A configuration file containing parameters used by TimeSync to control time synchronization and time zone settings, which ensure that the time reported by all servers is consistent.

token ring interface card

TIC

An adapter that can connect a 3720, 3725, or 3745 Communication Controller to an IBM token ring network.

token ring network

A type of LAN that uses a ring topology and token passing, as in the IEEE 802.5 standard for media access control (MAC) or the IBM token ring network.

TokenTalk

An AppleTalk network on token ring.

TokenTalk is also Apples implementation of the AppleTalk protocol over token ring. AppleTalk provides the rules for low-level communication over token ring media.

tolerance

A number specifying the amount of time the master node in the cluster gives all other nodes in the cluster to signal that they are alive.

See also heartbeat; master watchdog; slave watchdog.

tool

An installable module (.dll file) that adds capabilities to NetWare Administrator. For example, the NDS Manager tool adds NDS database maintenance capabilities.

tool

In the Common Desktop Environment (CDE), a method of doing a specific task, for example, check spelling, or a small application such as Clock. In this sense "tool" is a synonym for "utility." In a broad sense, "tool" may be a synonym for "application."

In Icon Editor, tool is a specialized pointer, selected from a palette that enables the user to perform various operations.

toolbar

A configurable strip of buttons that appears by default just below the menu bar. Each item on the toolbar is a shortcut to a menu command.

topology

The physical layout of network components (cables, stations, gateways, and hubs). Three basic interconnection topologies are star, ring, and bus networks.

TP

twisted pair

A cable type, as in TP-PMD, where "PMD" is the acronym for "Physical Media Dependent."

TP

transaction program

In an SNA network, a part of an application program that performs transactions with one or more remote programs. A single application program can contain many TPs. A TP might require services from more than one system, and in such cases it is executed on each system.

For example, a TP written to APPC can be used for something as simple as file transfer from a mainframe to an intelligent workstation. A TP written to APPC can also be something as complex as a distributed system with many TPs on many interconnected workstations communicating with one another to implement a complex application program.

traditional NetWare file system

In NSS, the name used to refer to the standard file and directory organizational system used in NetWare. This name provides a distinction from the NSS file system.

traffic

Activity over a network communications channel.

trailing period

The period at the end of a relative name or context in NDS, indicating that the distinguished name uses the workstations current context to establish its own context.

Transactional

T

Short for "Transactional attribute."

Transactional attribute

T

A file system attribute that indicates that a file is protected by the Transaction Tracking System (TTS) feature, which allows interrupted operations to be backed out of the file, restoring it to an uncorrupted state. A file with this attribute set cant be deleted or renamed.

transaction logging

In NSS, a method of keeping track of file and directory events such as read/write or open/close. The object engine in NSS can locate a file system error on disk by referencing the transaction log, noting an incomplete transaction, and rapidly correcting it.

transaction program

TP

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Transaction Tracking System

TTS

A NetWare feature that protects database applications from corruption by backing out incomplete transactions that result from a failure in a network component.

translation bridging

A type of bridging required on networks that have dissimilar media access control (MAC) sublayer protocols. Translation bridging resolves differences in header formats and protocol specifications.

Transmission Control Protocol

TCP

The major transport protocol in the Internet suite. TCP provides reliable, connection-oriented, full-duplex streams. It uses Internet Protocol (IP) for delivery.

Transmission Control Protocol/Internet Protocol

TCP/IP

A protocol suite developed by the Advanced Research Projects Agency (ARPA). It includes TCP (Transmission Control Protocol) as the primary transport protocol and IP (Internet Protocol) as the network layer protocol.

transmission header

TH

The control information created and used by the path control to route message units and to control their flow within the network.

transmission medium

The physical path used to carry information, such as twisted-pair wires, coaxial cable, fiber-optic cable, terrestrial microwave, and satellite transmission methods.

transparent

Describes a function that operates without being evident to the user.

Transparent

In the Common Desktop Environment (CDE), a dynamic "color" that allows the color of the background area to show through. Icon Editor provides the transparent color in a palette of drawing colors.

transport layer

The fourth of seven layers in the OSI model. The transport layer provides reliable, end-to-end delivery and detects transmission sequential errors.

transport network

A private or public data network that transfers data between nodes. It is usually a public packet-switched or circuit-switched network.

trap

To test for a particular condition in a running program; for example, to "trap an interrupt" means to wait for a particular interrupt to occur and then execute a corresponding routine. An error trap tests for an error condition and provides a recovery routine. A debugging trap waits for the execution of a particular instruction in order to stop the program and analyze the status of the system at that moment.

trap

1. An unsolicited message sent by a Simple Network Management Protocol (SNMP) agent to a network management system that indicates the occurance of a significant event. The SNMP manager that receives a trap can poll for additional information.

2. An SNMP protocol data unit (PDU) that indicates an exceptional condition.

3. A type of command within the SNMP protocol. A special command the agent uses to inform the (SNMP) manager of a special event. By default, the traps are sent to a local system.

4. A type of message that can be transmitted for any reason.

5. An SNMP trap is a message sent by an agent to a manager when certain events are detected.

tree

Short for "NDS tree."

A hierarchical structure of objects in the NDS database. The NDS tree includes container objects that are used to organize the network. The structure of the NDS tree can be based on a logical organization of objects, and not necessarily on their physical location.

tree

In NetWare Administrator, a main view that displays NDS as an expandable and collapsible tree.

trusted root

An entity, usually a certification authority (CA), that a particular system recognizes and trusts to verify a public key. Any public key certificate signed by a trusted root is considered valid.

trusted root certificate

A certificate that contains the public key of a trusted root.

Trusted Root Certificate object

An NDS object that contains a trusted root certificate. The objects NDS schema name is NDSPKI:Trusted Root Object. The trusted root certificate can be exported and used as needed.

Trusted Root container object

An NDS object that contains Trusted Root Certificate objects. The container objects NDS schema name is NDSPKI:Trusted Root.

Trusted Root container objects can be created in the following containers:

-Security

-Organization

-Organizational Unit

-Country

-Locality

trustee

Any object that has rights to access a network resource such as a directory, file, or object. Rights are granted to objects (making them trustees) by trustee assignments.

trustee assignment

The granted right of an object to access or perform actions upon another object in the NDS tree. Trustee assignments are stored in the access control list (ACL) property of the object that is being targeted for access.

TSA

Technical Support Alliance

A consortium of software vendors created in 1991 to provide support.

TSA

Target Service Agent

A program that processes the data moving between a specific target and a Storage Management Services (SMS) backup engine such as SBACKUP.

TTS

Transaction Tracking System

A NetWare feature that protects database applications from corruption by backing out incomplete transactions that result from a failure in a network component.

tts$log.err

Transaction Tracking System error log file

tunneling

The process of encapsulating a packet within a packet of a different protocol.

turbo FAT index

An index of the blocks that pertain to a particular file. When a file exceeds 64 blocks, the traditional NetWare file system creates a turbo FAT index that groups together all FAT entries to the corresponding file. This index enables a large file to be accessed quickly.

two-way channel

A type of channel that allows both incoming and outgoing calls.

type 2.1 node

T2.1 node

A Systems Network Architecture (SNA) device that can be configured as an end point or intermediate routing node in a T2.1 network, or as a peripheral node attached to a subarea network.

type 4 node

T4 node

A subarea device that contains a physical unit control point (PUCP) rather than a system services control point (SSCP), and that is controlled by one or more type 5 nodes.

type 5 node

T5 node

A subarea device that contains a system services control point (SSCP), and that has hierarchical control of peripheral nodes and type 4 subarea nodes.

Type code

Every Macintosh file has a four-character Type code that identifies the nature of the file.

typeface

A specific style or shape of type, such as Courier or Helvetica.

typeful name

The NDS object name that includes the name type (OU, O, and so forth) of each object when identifying the distinguished name of that object.

typeless name

The NDS object name that excludes the name type (OU, O, and so forth) of each object when identifying the distinguished name of that object.

UUU

UA

User Account

UA

unnumbered acknowledgment

A packet that acknowledges the receipt of a Set Mode command.

UART

Universal Asynchronous Receiver/Transmitter

A chip made by National Semiconductor for serial communication.

UDP

User Datagram Protocol

A transport protocol in the Internet suite of protocols. UDP, like Transmission Control Protocol (TCP), uses IP for delivery; however, unlike TCP, UDP provides for exchange of datagrams without acknowledgement or guaranteed delivery.

unbind

To remove a communication protocol from network boards and LAN drivers.

UNBIND

The RU involved in deactivating an LU Type 6.2 session.

UNC redirection

universal naming convention redirection

A technology that allows a user to map to network resources without formally connecting to them. Using UNC redirection, a user can do the following:

– Use applications and programs within MS Windows to access network volumes and directories

– Assign network applications, volumes, and directories to icons within MS Windows

UNI

user-network interface

A description of how a router connects and accesses frame relay network services.

Unicode

A fixed-width 16-bit code, defined by the Unicode Consortium, that supports up to 65,536 unique combinations. Each combination forms a character. Unicode allows mathematics, technical, graphical, and publishing symbols, punctuation marks, as well as the characters from written languages to be represented, each by a single 16-bit character.

uniform resource locator

URL

A generalization of the file naming concepts already in common use on the Internet. A URL extends the filename and pathname used to refer to files on a computer by adding an Internet address and protocol component. A URL specifies the computer and access method (protocol) in addition to the filename and thus can be used to refer to files anywhere on a network.

While URLs are used in various forms by different systems, they are most closely associated with the World Wide Web.

uniform resource name

URN

On the World Wide Web, a naming convention to identify a specific file; it is independent of the address.

uninterruptible power supply

UPS

A backup power unit that supplies power if commercial power fails. A UPS can be either online or offline. Some are battery powered; others include generators that can provide standby power indefinitely.

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A chip made by National Semiconductor for serial communication.

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universal time coordinated

UTC

The mean solar time of the meridian of Greenwich, England (0° longitude), used as the prime basis of standard time throughout the world.

Unknown object

A leaf object representing an NDS® object that has been corrupted and cant be identified as belonging to any of the other object classes. After migrating to NetWare® 4 or later versions from NetWare 2 or 3, bindery objects might appear as Unknown objects.

unload

To remove a software program, such as an NLM, from operating system memory so that the program no longer can execute.

unload script

A script that contains the commands to terminate a resource or service on a cluster server or to dismount a volume on a cluster server.

See also load script.

unnumbered acknowledgment

UA

A packet that acknowledges the receipt of a Set Mode command.

unnumbered frame

In the high-level data link control (HDLC) protocol, a frame that does not contain a sequence number. In IEEE 802.2, frames are called connectionless datagrams.

upgrade

To install an improved version of software or a hardware device, whether from the same or a different manufacturer.

upgrade

The process of converting a network from any earlier version of NetWare or from another network operating system to the latest version of NetWare. Upgrade methods consist of in-place and across-the-wire.

upgrade

A new version of a product released on a periodic basis.

UPS

uninterruptible power supply

A backup power unit that supplies power if commercial power fails. A UPS can be either online or offline. Some are battery powered; others include generators that can provide standby power indefinitely.

UPS monitoring

The process a NetWare server uses to ensure that an uninterruptible power supply (UPS) is functioning properly.

URL

uniform resource locator

A generalization of the file naming concepts already in common use on the Internet. A URL extends the filename and pathname used to refer to files on a computer by adding an Internet address and protocol component. A URL specifies the computer and access method (protocol) in addition to the filename and thus can be used to refer to files anywhere on a network.

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URN

uniform resource name

On the World Wide Web, a naming convention to identify a specific file; it is independent of the address.

Usenet

A global collection of Internet newsgroups.

user

1. Someone who is authorized to log in to a network and/or database when security is installed and who has access rights to specific filenames, directories, and files.

2. Any person allowed to work on the network. A user logs in to the server with a username identifying him or her as someone allowed to use server resources.

user

1. A user object in NDS that has been given a GroupWise® account. A user can receive messages from and send messages to other users, and act as a resource owner or GroupWise administrator.

2. In GroupWise, a person who is registered on a message server and can use GroupWise to send and receive messages and requests.

User

Short for "User object."

User

A login script type that sets the environment for a single user. It is a property of the User object. This fulfills a users individual network setup needs, such as mapping to a specific working directory or connecting to a printer. This login script executes last. When a user is created (User object), this login script automatically sets up mappings to the users home directory and to the PUBLIC directory on the server. Youll find it in a User object of your company such as an employee. For example, if you open the NEAT utility, click on a users name to select it, and click the Login Script tab for the user, the users personal login script will open.

user certificate

A digital document attesting to the binding of a public key to a User object. Users have access to their own user certificates, which can be used for authentication, data encryption/decryption, digital signing, and secure e-mail. User certificates can be signed by a certificate authority based on NDS or by an external certificate authority.

User Datagram Protocol

UDP

A transport protocol in the Internet suite of protocols. UDP, like Transmission Control Protocol (TCP), uses IP for delivery; however, unlike TCP, UDP provides for exchange of datagrams without acknowledgement or guaranteed delivery.

user login script

A type of login script that sets environments specific to a user. User login scripts are optional; if used, they execute after system and profile login scripts.

user memory space

A protected memory space that has limited and carefully controlled access to the server operating system, so that modules running within the user space cannot abend the server. Also known as a protected memory space.

user-network interface

UNI

A description of how a router connects and accesses frame relay network services.

User object

A leaf object in the NDS tree that represents a person who uses the network. It contains information about the network user it represents, such as login name, telephone number, address, and group membership.

User object ADMIN

A User object created at installation in the NDS tree. It is automatically assigned the Supervisor (S) right to all objects in the NDS tree.

user template

A file containing default information that applies to new User objects to give them default property values. This helps a network administrator create many User objects that need the same property values.

UTC

universal time coordinated

The mean solar time of the meridian of Greenwich, England (0° longitude), used as the prime basis of standard time throughout the world.

utility

In NetWare, a program that adds functionality to the NetWare operating system. Examples include NLM programs, DOS-based command line utilities, Java utilities, menu utilities, and server console utilities.

VVV

value-added process

VAP

A process that ties enhanced operating system features to a NetWare® 2 operating system without interfering with the networks normal operation. VAPs run on top of the operating system in much the same way a word processing or spreadsheet application runs on top of DOS. NLM programs provide this type of enhancement for NetWare 3 and later versions.

VAP

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A process that ties enhanced operating system features to a NetWare 2 operating system without interfering with the networks normal operation. VAPs run on top of the operating system in much the same way a word processing or spreadsheet application runs on top of DOS. NLM programs provide this type of enhancement for NetWare 3 and later versions.

VDT

volume definition table

A table that keeps track of volume segment information such as volume name, volume size, and where volume segments are located on various network hard disks. Each NetWare volume contains a volume definition table in its NetWare partition.

VDT

Video Dial Tone

A type of network that carries TV over telephone lines.

VDT

Video Display Terminal

View

In the Common Desktop Environment (CDE), a menu item used to access other menu items that enable a user to choose how an item is presented, how much information is presented, and in what order it is presented, among others.

In the OSF/Motif Style Guide, it is:

a) a presentation of information by an application in the viewing area of a window, or

b) the representation of an object within a window.

view

In NSEPro, a collection of folios displayed in one window.

view

In NetWare Administrator, a window that lets a user view, and possibly edit, some type of network information. A main view provides the main window in which a user works, and it controls the menu bar; a secondary view is a dialog box that provides more detail or options for an item in the main view.

view

In GroupWise®, a type of GroupWise display. There are two types of views: item views and calendar views. When you open an item from the Main Window, GroupWise displays a message view containing buttons and text boxes for entering and sending information. When you open the Calendar, GroupWise displays a calendar view containing your schedule. Unlike a window, a view cannot be sized.

view-specific toolbar buttons

In NetWare Administrator, the set of toolbar buttons that are unique to the active tool. They are inserted in the position marked by [Active View Buttons] on the Toolbar - Main Features tab.

virtual circuit

A type of circuit that provides a connection-oriented service similar to that of circuit switching, but with the following exceptions:

– It is limited to a connection between two end points.

– It has the advantage of economical statistical multiplexing for establishing a logical path through the network.

This logical path can be provided either on a permanent basis by a permanent virtual circuit (PVC), which is equivalent to a leased circuit, or on a request basis by an switched virtual circuit (SVC). Once the logical path is established, the packets are transferred between connected ends, as desired.

virtual circuit number

A method that determines which packets belong to a virtual circuit. Each packet can contain a 4-bit logical group number and an 8-bit logical channel number.

virtual discussion group

An Internet discussion group that presents the results of a search across multiple discussion groups in order to enable easy access to a specific topic.

virtual host

In the Novell® Web Server environment, a logical entity within a virtual server that acts as a Web Server, with its own DNS hostname or IP address. A virtual host has its own document and log files, but it uses the virtual servers configuration files.

virtual link

The software that extends a network backbone area by linking two partitioned areas.

Virtual Loadable Module

VLM

An executable program for a DOS workstation to enable various kinds of communications with a server, or to enable applications on a server running NetWare 4 or an earlier version.

For example, the NetWare DOS Requester is a suite of VLM programs, as is Desktop SNMP.

virtual memory

A portion of computer memory that is made to act like a very fast disk. Also referred to as memory disks or RAM disks.

virtual memory

A memory management scheme that permits execution of programs larger than the size of physical memory. Using virtual memory, least-used data is moved out of memory to disk, thus freeing memory for other uses. When the data is needed again, it is returned to memory where it is swapped for other data that is then moved to disk.

Virtual Telecommunications Access Method

VTAM

An IBM-licensed program composed of loadable modules that control telecommunications by identifying communications resources to the host operating system (System/370).

VLM

Virtual Loadable Module

An executable program for a DOS workstation to enable various kinds of communications with a server, or to enable applications on a server running NetWare 4 or an earlier version.

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vol$log.err

The NetWare volume error log.

volume

A physical amount of hard disk storage space, fixed in size, that is the highest level in the directory structure of NetWare (same level as a DOS root directory). Each volume is also a Volume object in the NDS tree.

volume

In the Common Desktop Environment (CDE), the loudness or intensity of a sound. The Style Manager Beep dialog box provides a control for adjusting the volume of the system beep.

Volume

Short for "Volume object."

volume construction

In Novell Storage Services (NSS), an option in the Administration menu that allows NSS partitions and storage groups, when they are created, to be subdivided into NSS volumes.

volume definition table

A table that keeps track of volume segment information such as name, size, and location on various network hard disks. Each NetWare volume contains a volume definition table in its NetWare partition.

volume icon

On the desktop, an icon that looks like a filing cabinet. In the Browser, an icon that resembles a hard disk. Each icon represents a volume on the server.

Volume object

A leaf object in the NDS tree that represents a physical volume on the network. Its properties can store information about its location, owner, space use restrictions, statistical information, and so forth.

volume segment

A physical division of a volume. A volume can span up to 32 disk drives. If a volume includes more than one drive, each drive in the volume is a volume segment.

VTAM

Virtual Telecommunications Access Method

An IBM-licensed program composed of loadable modules that control telecommunications by identifying communications resources to the host operating system (System/370).

WWW

wait time

In a NetWare® UPS, the number of seconds the UPS will wait before signaling to the NetWare server that the normal power supply is off. The NetWare server then alerts attached workstations to log out.

WAN

wide area network

A network, not confined to a single location, that communicates over a long distance, such as across a city or around the world. A WAN is usually formed by connecting smaller local area networks (LANs).

WAN call destination

A remote call configuration for a WAN link. One call configuration equals one virtual circuit on one WAN link and contains the parameters needed by the WAN link driver to establish and maintain links to a given destination.

watchdog

Short for "watchdog packet."

watchdog packet

Packets used to make sure workstations are still connected to the NetWare server.

All settings are determined by the SET parameters.

Server parameters can be set so that if the server hasnt received a packet from a station in a certain time, a watchdog packet is sent to the station. If the station doesnt respond within a certain time, another watchdog packet is sent.

If the station still doesnt respond to a certain number of watchdog packets, the server assumes that the station is no longer connected and clears the stations connection.

The time period before the first watchdog packet, the time period between watchdog packets, and the number of watchdog packets are configurable using the SET utility.

Web browser

A client application that connects to a Web server over a network or other communication link. It can also browse locally. Browsers send FTP, HTTP, or other types of requests to view HTML or other documents or to access services on the Web. The browser serves as a front end to the World Wide Web, for viewing documents on the Web.

Web server

A server application that publishes HTML and other types of documents on the World Wide Web. When a Web server receives an HTTP, FTP, or other type of request for a document from a Web browser, it responds by sending the document to the browser.

wide area network

WAN

A network, not confined to a single location, that communicates over a long distance, such as across a city or around the world. A WAN is usually formed by connecting smaller local area networks (LANs).

Win2NCS

Windows-to-Novell Connection Service

A collection of software programs that allow users to dial out from the network though a pool of modems connected to the server so they can access bulletin boards, host computers, or other resources, or to dial in and remotely control a dedicated network workstation using third-party communications applications.

Win2NCS allows users to "redirect" data to and from a Windows communication port. Instead of going through a modem connected to the workstations COM port, data is routed to a port controlled by the Novell® Connection Service (NCS) on the Novell Internet Access Server (NIAS) 4.1 server. In this way Win2NCS gives a sharing capability to modems similar to the capability that print servers have given to printers. Instead of having a modem on each machine, users only need a modem pool on the server.

Previously called the NASI Redirector.

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Previously called the NASI Redirector.

workstation

A personal computer or terminal device connected to a network, through which a user can access a server.

Also called "client," "node," or "station."

Workstation class

An NDS® schema class similar to the Computer class, but with unique attributes associated with workstation management. When the workstation is imported, it is used to create a Workstation object in NDS.

workstation context

A users current location in an NDS tree, as reported by the Novell Client software.

Workstation Import Policy object

An NDS object that contains workstation naming and remote control policy information. A subset of this information is important for workstation registration.

Workstation Import utility

A NetWare Administrator snapin tool or standalone executable program (with and without a GUI interface) that allows network administrators to import the network addresses of workstations that have run the Workstation Registration program.

Workstation Import utility is part of the ZENworks utility suite.

Workstation object

An NDS object created to allow network administrators to manage workstations through NDS. When a workstation is registered and imported, the object is automatically created and instantiated.

Workstation Registration program

An executable program on a workstation that registers the workstation in NDS and makes the workstation available for importing.

Workstation Registration program is part of the ZENworks utility suite.

Write right

W

A NetWare file system or property right.

In the file system, the trustee can open and write to a file or directory. In the case of individual files in a directory, the trustee can open and modify them unless rights assigned at the file level block the Write right.

In the case of a multivalued property, the trustee can add, change, or remove values. The Write property right implies the Add Self property right.

XXX

X

Initialism for "Execute Only attribute."

X.500

The Open Systems Interconnection (OSI) standard that defines where to find the address for the electronic envelope of an X.400 transmission. It becomes part of an X.500 directory of names and addresses similar to the yellow pages of a telephone directory.

X.509

A framework for authentication to the X.500 directory.

A widely used specification for digital certificates that has been a recommendation of the ITU (International Telecommunications Union—Geneva, Switzerland) since 1988.

X.509 certificate

A standard format for a digital certificate that is internationally recognized as an electronic document used to bind a name to a public key and to prove ownership of the public key over a communication network. It contains the issuers name, the users identifying information, and the issuers digital signature, as well as other possible extensions in version 3 of the X.509 standard.

Xerox Network Systems

XNS

A protocol on which Novell IPX is based. One major difference between IPX and XNS is that they do not use the same ethernet encapsulation format. A second difference is that IPX uses Novells proprietary Service Advertisement Protocol (SAP).

XID

Exchange Identification

A specific type of link unit (commands and responses) used to carry node and link characteristics between adjacent nodes.

XIDs are exchanged between link stations before activation to negotiate acceptable characteristics. XIDs are also exchanged during activation to adjust for changes in these characteristics.

XNS

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A protocol on which Novell® IPX is based. One major difference between IPX and XNS is that they do not use the same ethernet encapsulation format. A second difference is that IPX uses Novells proprietary Service Advertisement Protocol (SAP).

XON/XOFF

A handshake protocol that prevents a sending system from transmitting data faster than a receiving system can accept it by using a Clear to Send signal.

For example, it can be used between a port and a printer to avoid troubleshooting the printer or cable pin configuration.

ZZZ

ZENworks

A NetWare® Administrator snapin utility that is an integrated suite of utilities for distributing and managing applications, configuring and managing workstation and Windows desktops, and remotely repairing workstation software. ZENworks reduces the total cost of ownership for networked computers by leveraging the information in NDS®.

ZIP

Zone Information Protocol

An AppleTalk protocol that enables each router to maintain and access zone information for an AppleTalk internet. It also enables non-router nodes to obtain zone information.

zone

A logical grouping of devices that are physically located on one or more networks. Each nonextended network must have exactly one zone name assigned to it. Each extended network must have at least one zone name (or up to 255 zone names) assigned to it.

Zone Information Protocol

ZIP

An AppleTalk protocol that enables each router to maintain and access zone information for an AppleTalk internet. It also enables non-router nodes to obtain zone information.

zone list

In DNS, a list of up to 255 unique zone names.

zone transfer

The process by which a DNS master name server transfers a complete copy of the zones DNS database to a replica name server.

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