Glossary

This Glossary defines terms that are italicized in the manual. It also includes definitions of less well-known abbreviations and acronyms that are used in the text.

account, local
A user account, information for which is stored in a local NetInfo domain, restricted to a single machine.

account, network
A user account, information for which is stored in an upper-level NetInfo domain, available from multiple computers on a network.

address, domain-style
A mail address in the standard format **user@domain**. See also *canonicalize*.

address, envelope recipient
The mail address of the actual recipient of a mail message.

address, network
An Internet address that identifies a network. In a network address, the bits in the host portion are all set to zero.

alias resolution
The process of converting mail aliases into user names.

anonymous user
See *unknown user*.

application server
A process that provides NetInfo information for application programs available across a network. See *server, application*.

backup, full
A backup that copies all data on your system.

backup, incremental
A backup that copies only those files that have changed since the last backup.

backup, partial
A backup that copies only specific files or directories.

bind request
A message that requests binding with the parent NetInfo domain. The message includes the sender's Internet address, the tag of the domain looking for its parent, and the tag of the parent domain. See also *binding*.

binding
A process that links the NetInfo domains served by one NeXT computer into the hierarchy of NetInfo domains. This occurs when a NeXT computer is booted on a network.

boot disk
The disk containing files necessary for system startup. System files can be installed on an external disk using the BuildDisk application.

bridge
A device that filters traffic within a single network, operating like a traffic cop to direct messages toward their destination and to exclude messages intended for other networks. A bridge can also connect networks of the same architecture.

broadcast address
An address used to send messages to all hosts with the same network address.

canonicalize
To translate a mail address into a domain-style address. This makes all mail addresses look roughly alike. For example, **rhino!user**, which isn't a domain-style address, would be converted to **user@rhino.uucp**, which is a domain-style address.

child process
A process created by another process. The child process, in turn, can create its own processes.

class
In Internet terminology, a means of grouping Internet addresses into categories. Each class allocates a specific number of bits for the network addressÐClass A allocates 8 fewer bits to the network portion of the address, more to the host portion; Class B allocates 16 the same number of bits for the network portion of the address as for the host portion; and Class C allocates 24 more bits to the host portion of the address than to the network

part. When more bits are allocated for the host portion, more hosts can be attached to the network.

client
A process that uses the network servicesÐthe resourcesÐof a server process. NEXTSTEP documentation is careful never to use the term ªclientº to refer to a computer, but rather to a process running on a particular computer.

clone server
A process that serves a read-only copy of a NetInfo domain. Compare *master NetInfo server*.

coaxial cable
A tubular cable in which one conductor is a sleeve that encircles the other, which is a wire. Compare with *twisted-pair cable*.

collision
An error condition on an Ethernet network that exists when two or more computers transmit packets at the same instant. Computers involved in a collision retransmit their packets after a random length of time.

concentrator, networking
A device that allows computers to be positioned closer together on a network cable than would otherwise be possible.

configuration server
A computer that provides clients with their Internet addresses and host names at startup. With SimpleNetworkStarter, all NetInfo servers are automatically set up as configuration servers.

CTS
Clear-to-send. The serial communication signal that indicates when a device is ready to receive data. CTS is used for hardware flow control between one computer or device and another. See also *hardware flow control*.

daemon
A process that runs continuously and performs a particular system task for other processes; for example, the **cron** daemon that executes certain programs at a specific time, the netinfod daemon provides access to a NetInfo database. NeXT documentation avoids the term ªdaemonº whenever possible as being arcane. See also *server* and *process*.

DCD
Data carrier detect. Name of the serial communication signal that indicates the presence or absence of a remote carrier.

directory, file system
A term used in this manual in place of the word *folder* found in other NeXTSTEP documentation. A directory is a collection of files and other directories, sometimes called subdirectories.

directory, NetInfo
An organizational structure within a NetInfo domain. A NetInfo directory stores properties and sometimes other NetInfo directories.

DNS
Domain Name Service. The name service for the Internet. A hierarchical naming scheme to give each host computer a unique name on the network. See also *NIC*.

domain, local NetInfo
The administrative information available to an individual computer. Compare *domain, NetInfo*.

domain name notation
One way to identify a specific domain, using a format similar to file pathnames; for example, **/boston/earth** specifies the domain **earth**, which is a child of the domain **boston**, which is a child of the root domain. See also *tagged domain notation*.

domain, NetInfo
A collection of administrative information including user accounts, host entries, file system mounting data, and so on. Information within a domain is organized into NetInfo directories. Domains are organized into a hierarchy.

DTR
Data terminal ready. Name of the serial communication signal indicating that the computer or device is ready for communication.

Ethernet
A high-speed local area network technology. Ethernet is considered the industry standard for networking UNIX-based machines because of its reliability and capacity to rapidly transfer large amounts of information. Ethernet connectors are built into NeXT computers.

Ethernet address
An address that uniquely identifies each Ethernet interface on a computer. The Ethernet address is stored on the EPROM chip.

export a directory
To make a directory available to other computers on the network. A file server exports directories.

file server
A computer that supplies disk storage space for clients.

file system
A collection of files that can be accessed on a specific partition of a disk.

flow control, hardware
A ªhandshakingº mechanism that controls data transfer between a computer and a peripheral device with signals carried over specific pins on a cable. The signals communicate whether or not a device is ready to send or receive data.

flow control, software
A ªhandshakingº mechanism that controls data transfer between a computer and a peripheral device by sending special characters on the regular transmission wire.

group ID
The number assigned to a user group; for example, group ID 20 is assigned to **other**, the standard group for regular users.

group name
The name assigned to a user group; for example, **staff**.

handshaking
See *flow control*.

header
The initial portion of a mail message that includes the **From:**, **To:**, and **Cc:** lines.

home directory
The directory where a user stores personal files and other directories. Created by UserManager when the user account is set up.

host
A computer on a network.

host alias
An alternate host name for a computer.

Internet
A collection of networks throughout the world that use a standard set of protocols (TCP/IP) to communicate.

Internet address, or IP address
The number that identifies a computer, or network of computers, on a TCP/IP network.

local domain
See *domain, local NetInfo*.

loopback address
An address reserved for non-network interprocess communication and testing. On the Internet, all addresses beginning with the octet 127 are loopback addresses and aren't considered to be on the network.

mail alias
An alternate name used to address a single user or group of users.

mail exchanger
A computer that handles all the mail addressed to another computer.

mail server
A computer that stores incoming mail for the network and distributes mail messages.

mailer flags
Specific modifiers to the way a program used by **sendmail** for forwarding and delivering mail is run. The *mailer flags* are specified in the mailer definition, part of the **sendmail** configuration file.

master NetInfo server
A process that's the authoritive server of a NetInfo domain, servingthe only database for a domain that permits alteration to data.

mount
To make a connection between the file structure on one disk and an existing directory hierarchy on another disk. Typically, a NetInfo network uses NFS to export a subdirectory tree from one computer onto a subdirectory point on another computer.

mount point
The subdirectory used to connect a file structure on another disk to its existing directory hierarchy.

MX records
Mail exchanger records in the Domain Name Service (DNS).

name resolution
A process that translates host names into Internet addresses. Name resolution can be provided by NetInfo, NIS,

or DNS.

NetBooting
Booting a NEXTSTEP computer from the network rather than from its local startup disk.

netgroup
A name used to refer to a group of hosts.

network
A group of hosts that can directly communicate with each other.

NFS
Network File System. An NFS file server allows users on the network to share files as if they were on their own local disk.

NIC
Network Information Center. The organization that administers the Internet by keeping documents and standards as archival resources; by assigning Internet addresses; and by registering network and domain names. Here's how to contact the NIC:

> Mailing address:
> Government Systems, Inc.
> Attention: Network Information Center
> 14200 Park Meadow Drive, Suite 2000
> Chantilly, VA 22021

> E-mail address: **hostmaster@nic.ddn.mil**
> Telephone: 1-800-365-3642
> Fax: (703) 802-8376

NIS
Network Information Service. The network administrative service of Sun Microsystems, Inc.; formerly called Yellow Pages.

NMI mini-monitor
The nonmaskable interrupt mini-monitor. A system monitor program that provides access to a set of low-level commands. This monitor allows inspection and debugging of the operating system.

null modem
A cable for connecting two computers together without a modem.

octet
One byte of an Internet address made up of eight binary digits.

packet
An individual piece of information sent on a TCP/IP network.

parent process
The process that creates a child process. See also *process* and *child process*.

password
A character string assigned to or chosen by a user that, along with the account name, uniquely identifies that user and allows access to the system. A password should be kept secret for security reasons.

pathname, absolute
A specification of a location of a file within a filesystem with respect to the root directory, beginning with the **/** character.

pathname, relative
A specification of a location of a file within a filesystem with respect to a particular directory, not beginning with the **/** character.

PPID
Parent process ID. A number that identifies the parent of a given process.

process
A program running on the system. A process consists of a set of instructions and a set of data structures. The data structures contain the information necessary to run the process.

process identifier, or **process ID**
A number that uniquely identifies a process.

repeaters
Devices that are used to join lengths of network cable, or to split a network cable into multiple segments.

rewriting rules
The instructions in a **sendmail** configuration file for interpreting and modifying mail addresses.

ROM monitor
A system monitor program located in ROM on a NeXT computer (and some other computers, but typically not Intel-based PC computers) that allows low-level inspection of the system hardware.

router
A device that directs messages between different networks.

RTS
Request-to-send. The name of a serial communication signal that turns on or off to indicate that a device is ready to send data. RTS is used for hardware flow control between a computer and a peripheral device. See also *CTS*; *hardware flow control*.

ruleset
A collection of rewriting rules in a **sendmail** configuration file used to perform a certain function. For example, a ruleset might translate mail addresses into a standard format that's easier for other rulesets to translate.

SCSI
Small Computer Systems Interface. A standard connector and communications protocol used for connecting devices such as disk drives to computers.

SCSI ID
A number from 0 to 7 that the computer uses to identify the devices connected to it. See also *SCSI*.

server
A process that provides resources to other (client) processes. NEXTSTEP documentation is careful never to use the term ªserverº to refer to a computer, but rather to a particular process running on a computer.

server, application
A process that provides a shared directory that stores application programs.

server, general purpose file
A process that provides directories that are made available across the network so that users can share them; for example, a projects directory.

server, home directory
A process that provides access across the network to a directory that holds home directories for user accounts.

server, NetInfo
A process that provides storage for and access to a NetInfo domain. See also *domain, NetInfo*.

setgid file
A file that's set to execute with the privileges of the group associated with the file rather than the group associated with the user who executed the file.

setuid file
A file that's set to execute with the privileges of the user associated with the file rather than the user who executed the file. See also *setgid*.

SMTP
Simple mail transfer protocol. A facility used to transfer mail messages.

SNMP
Simple network management protocol. A facility that allows you to collect statistics for a network of computers.

subnet
A logical division of a network into smaller subnetworks, usually divided by routers.

subnet mask
A number used on the Internet that indicates which bits of an Internet address are used as the network portion, and which are used as the host portion.

superuser
The **root** account with the UID of 0. Every local domain has a superuser. This account is the logical parent of all processes and thus can bypass file permissions.

swapping
Moving data back and forth between main memory and disk. See also *swap disk*.

swap space
A space on the hard disk used specifically for holding data that overflows main memory.

tag
A name that identifies a NetInfo database.

tagged domain notation
One of the ways to identify a specific NetInfo domain, where the host serving the domain and the tag of the database are both specified; for example, **rhino/network** is the database tagged **network** on host **rhino**. See also *domain name notation*.

TCP/IP
Transmission Control Protocol/Internet Protocol. The protocols used to deliver messages between computers over the network. TCP/IP support is included with your NeXT computer.

TIFF

Tagged Image File Format. A format for storing graphics.

token
To parse or read an input string, it's deivded into words, or tokens. Specific to **sendmail** configuration files.

traffic
Amount of information flowing on a network at a particular time.

twisted-pair cable
A cable that consists of two pairs of wires, one for transmitting and one for receiving data. The wires in each pair are twisted together, hence the name. Twisted-pair cables can be used as a medium for Ethernet-based communications. See also *coaxial cable*.

unknown user
A user who is logged into a host that has access to a remote directory but is logged in with an account that isn't recognized on the file server. Usually, this user has limited access to files.

user account
A collection of information about a user, including the user name, password, user ID, home directory, and default user group.

user group
A collection of users who have common access to files. Each member of the group can read and write some (or all) of the files of other members, according to the file permissions that are set up.

user ID
The number used by the system to identify each user. User IDs (UID) are automatically assigned by UserManager to new users. Note that the system uses the UID, not the user's name, as its means of identifying the user and the user's files. Be sure that each user has a unique UID for the entire network; do not allow duplicate UIDs.

user name
The name a user logs in with. Each name must be unique, contain no more than 8 characters, be all lowercase, and contain no spaces.

UUCP
UNIX-to-UNIX copy. An intermachine communication system that runs over direct serial lines, network connections, or ordinary telephone lines. Note that **uucp**, the UNIX command, is used to copy files from one UNIX system to another.

XON/XOFF
A type of software flow control supported by certain devices. See also *software flow control*.