                         Internet Users' Glossary

Status of this Memo

   This memo provides information for the Internet community. This memo
   does not specify an Internet standard of any kind. Distribution of
   this memo is unlimited.

Abstract

   There are many networking glossaries in existence. This glossary
   concentrates on terms which are specific to the Internet. Naturally,
   there are entries for some basic terms and acronyms because other
   entries refer to them.

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Glossary

   10Base2
      A physical layer communications specification for 10Mbps, baseband
      data transmission over a coaxial cable (Thinnet) with a maximum
      cable segment length of 200 meters.

   10Base5
      A physical layer communications specification for 10Mbps, baseband
      data transmission over a coaxial cable (Thicknet) with a maximum
      cable segment length of 500 meters.

   10BaseF
      A physical layer communications specification for 10Mbps, baseband
      data transmission over a fiber-optic cable.

   10BaseT
      A physical layer communications specification for 10Mbps, baseband
      data transmission over a twisted-pair copper wire.

   802.x
      The set of IEEE standards for the definition of LAN protocols.
      See also: IEEE.

   822
      See: RFC 822

   :-)
      This odd symbol is one of the ways a person can portray "mood" in
      the very flat medium of computers--by using "smiley faces". This
      is "metacommunication", and there are literally hundreds of such
      symbols, from the obvious to the obscure. This particular example
      expresses "happiness". Don't see it? Tilt your head to the left
      90 degrees. Smiles are also used to denote sarcasm.
      [Source: ZEN]

   abstract syntax
      A description of a data structure that is independent of machine-
      oriented structures and encodings.
      [Source: RFC1208]

   Abstract Syntax Notation One (ASN.1)
      The language used by the OSI protocols for describing abstract
      syntax. This language is also used to encode SNMP packets. ASN.1
      is defined in ISO documents 8824.2 and 8825.2. See also: Basic
      Encoding Rules.

Acceptable Use Policy (AUP)
   Many transit networks have policies which restrict the use to
   which the network may be put. For example, some networks may only
   be used for non-commercial purposes. Some AUPs limit the type of
   material which can be made available to the public (e.g.,
   pornographic material). Enforcement of AUPs varies with the
   network. See also: netiquette.

Access Control List (ACL)
   Most network security systems operate by allowing selective use of
   services. An Access Control List is the usual means by which
   access to, and denial of, services is controlled. It is simply a
   list of the services available, each with a list of the hosts
   permitted to use the service.

ACK
   See: Acknowledgment

acknowledgment (ACK)
   A type of message sent to indicate that a block of data arrived at
   its destination without error. See also: Negative
   Acknowledgement.
   [Source: NNSC]

ACL
   See: Access Control List

AD
   See: Administrative Domain

address
   There are four types of addresses in common use within the
   Internet. They are email address; IP, internet or Internet
   address; hardware or MAC address; and URL. See also: email
   address, IP address, internet address, MAC address, Uniform
   Resource Locator.

address mask
   A bit mask used to identify which bits in an IP address correspond
   to the network and subnet portions of the address. This mask is
   often referred to as the subnet mask because the network portion
   of the address (i.e., the network mask) can be determined by the
   encoding inherent in an IP address. See also: Classless Inter-
   domain Routing.

address resolution
    Conversion of a network-layer address (e.g. IP address) into the
    corresponding physical address (e.g., MAC address). See also: IP
    address, MAC address.

Address Resolution Protocol (ARP)
    Used to dynamically discover the low level physical network
    hardware address that corresponds to the high level IP address for
    a given host. ARP is limited to physical network systems that
    support broadcast packets that can be heard by all hosts on the
    network. See also: proxy ARP, Reverse Address Resolution
    Protocol.

Administrative Domain (AD)
    A collection of hosts and routers, and the interconnecting
    network(s), managed by a single administrative authority.

Advanced Research Projects Agency (ARPA)
    An agency of the U.S. Department of Defense responsible for the
    development of new technology for use by the military. ARPA
    (formerly known as DARPA, nee ARPA) was responsible for funding
    much of the development of the Internet we know today, including
    the Berkeley version of Unix and TCP/IP.
    [Source: NNSC]

Advanced Research Projects Agency Network (ARPANET)
    A pioneering longhaul network funded by ARPA. Now retired, it
    served as the basis for early networking research as well as a
    central backbone during the development of the Internet. The
    ARPANET consisted of individual packet switching computers
    interconnected by leased lines. See also: Advanced Research
    Projects Agency.
    [Source: FYI4]

agent
    In the client-server model, the part of the system that performs
    information preparation and exchange on behalf of a client or
    server application.
    [Source: RFC1208]

alias
    A name, usually short and easy to remember, that is translated
    into another name, usually long and difficult to remember.

American National Standards Institute (ANSI)
    This organization is responsible for approving U.S. standards in
    many areas, including computers and communications. Standards
    approved by this organization are often called ANSI standards

(e.g., ANSI C is the version of the C language approved by ANSI).
ANSI is a member of ISO. See also: International Organization for
Standardization.
[Source: NNSC]

American Standard Code for Information Interchange (ASCII)
   A standard character-to-number encoding widely used in the
   computer industry. See also: EBCDIC.

anonymous FTP
   Anonymous FTP allows a user to retrieve documents, files,
   programs, and other archived data from anywhere in the Internet
   without having to establish a userid and password. By using the
   special userid of "anonymous" the network user will bypass local
   security checks and will have access to publicly accessible files
   on the remote system. See also: archive site, File Transfer
   Protocol, World Wide Web.

ANSI
   See: American National Standards Institute

API
   See: Application Program Interface

Appletalk
   A networking protocol developed by Apple Computer for
   communication between Apple Computer products and other computers.
   This protocol is independent of the network layer on which it is
   run. Current implementations exist for Localtalk, a 235Kb/s local
   area network; and Ethertalk, a 10Mb/s local area network.
   [Source: NNSC]

application
   A program that performs a function directly for a user. FTP, mail
   and Telnet clients are examples of network applications.

application layer
   The top layer of the network protocol stack. The application
   layer is concerned with the semantics of work (e.g. formatting
   electronic mail messages). How to represent that data and how to
   reach the foreign node are issues for lower layers of the network.
   [Source: MALAMUD]

Application Program Interface (API)
   A set of calling conventions which define how a service is invoked
   through a software package.
   [Source: RFC1208]

archie
    A system to automatically gather, index and serve information on
    the Internet. The initial implementation of archie provided an
    indexed directory of filenames from all anonymous FTP archives on
    the Internet. Later versions provide other collections of
    information. See also: archive site, Gopher, Prospero, Wide Area
    Information Servers.

archive site
    A machine that provides access to a collection of files across the
    Internet. For example, an anonymous FTP archive site provides
    access to arcived material via the FTP protocol. WWW servers can
    also serve as archive sites. See also: anonymous FTP, archie,
    Gopher, Prospero, Wide Area Information Servers, World Wide Web.

ARP
    See: Address Resolution Protocol

ARPA
    See: Advanced Research Projects Agency

ARPANET
    See: Advanced Research Projects Agency Network

AS
    See: Autonomous System

ASCII
    See: American Standard Code for Information Interchange

ASN.1
    See: Abstract Syntax Notation One

assigned numbers
    The RFC [STD2] which documents the currently assigned values from
    several series of numbers used in network protocol
    implementations. This RFC is updated periodically and, in any
    case, current information can be obtained from the Internet
    Assigned Numbers Authority (IANA). If you are developing a
    protocol or application that will require the use of a link,
    socket, port, protocol, etc., please contact the IANA to receive a
    number assignment. See also: Internet Assigned Numbers Authority,
    STD.
    [Source: STD2]

Asynchronous Transfer Mode (ATM)
   A standard which defines high-load, high-speed (1.544Mbps through
   1.2Gbps), fixed-size packet (cell) switching with dynamic
   bandwidth allocation. ATM is also known as "fast packet."

ATM
   See: Asynchronous Transfer Mode

AUP
   See: Acceptable Use Policy

authentication
   The verification of the identity of a person or process.
   [Source: MALAMUD]

Autonomous System (AS)
   A collection of routers under a single administrative authority
   using a common Interior Gateway Protocol for routing packets.

backbone
   The top level in a hierarchical network. Stub and transit
   networks which connect to the same backbone are guaranteed to be
   interconnected. See also: stub network, transit network.

bandwidth
   Technically, the difference, in Hertz (Hz), between the highest
   and lowest frequencies of a transmission channel. However, as
   typically used, the amount of data that can be sent through a
   given communications circuit.

bang path
   A series of machine names used to direct electronic mail from one
   user to another, typically by specifying an explicit UUCP path
   through which the mail is to be routed. See also: email address,
   mail path, UNIX-to-UNIX CoPy.

baseband
   A transmission medium through which digital signals are sent
   without complicated frequency shifting. In general, only one
   communication channel is available at any given time. Ethernet is
   an example of a baseband network. See also: broadband, Ethernet.
   [Source: NNSC]

Basic Encoding Rules (BER)
    Standard rules for encoding data units described in ASN.1.
    Sometimes incorrectly lumped under the term ASN.1, which properly
    refers only to the abstract syntax description language, not the
    encoding technique. See also: Abstract Syntax Notation One.
    [Source: NNSC]

BBS
    See: Bulletin Board System

BCNU
    Be Seein' You

BCP
    The newest subseries of RFCs which are written to describe Best
    Current Practices in the Internet. Rather than specifying a
    protocol, these documents specify the best ways to use the
    protocols and the best ways to configure options to ensure
    interoperability between various vendors' products. BCPs carry
    the endorsement of the IESG. See also: Request For Comments,
    Internet Engineering Steering Group.

BER
    See: Basic Encoding Rules

Berkeley Internet Name Daemon (BIND)
    Implementation of a DNS server developed and distributed by the
    University of California at Berkeley. Many Internet hosts run
    BIND, and it is the ancestor of many commercial BIND
    implementations. See also: Domain Name System.

Berkeley Software Distribution (BSD)
    Implementation of the UNIX operating system and its utilities
    developed and distributed by the University of California at
    Berkeley. "BSD" is usually preceded by the version number of the
    distribution, e.g., "4.3 BSD" is version 4.3 of the Berkeley UNIX
    distribution. Many Internet hosts run BSD software, and it is the
    ancestor of many commercial UNIX implementations.
    [Source: NNSC]

BGP
    See: Border Gateway Protocol

big-endian
    A format for storage or transmission of binary data in which the
    most significant bit (or byte) comes first. The term comes from
    "Gulliver's Travels" by Jonathan Swift. The Lilliputians, being
    very small, had correspondingly small political problems. The

   Big-Endian and Little-Endian parties debated over whether soft-
   boiled eggs should be opened at the big end or the little end.
   See also: little-endian.
   [Source: RFC1208]

binary
   11001001

BIND
   See: Berkeley Internet Name Daemon

Birds Of a Feather (BOF)
   A Birds Of a Feather (flocking together) is an informal discussion
   group. It is formed, often ad hoc, to consider a specific issue
   and, therefore, has a narrow focus. See also: Working Group.

Bitnet
   An academic computer network that provides interactive electronic
   mail and file transfer services, using a store-and-forward
   protocol, based on IBM Network Job Entry protocols. Bitnet-II
   encapsulates the Bitnet protocol within IP packets and depends on
   the Internet to route them.

BOF
   See: Birds Of a Feather

BOOTP
   The Bootstrap Protocol, described in RFC 1542, is used for booting
   diskless nodes. See also: Dynamic Host Configuration Protocol,
   Reverse Address Resolution Protocol.

Border Gateway Protocol (BGP)
   The Border Gateway Protocol is an exterior gateway protocol
   defined in RFC 1771. It's design is based on experience gained
   with EGP, as defined in RFC 904, and EGP usage in the NSFNET
   Backbone, as described in RFCs 1092 and 1093. See also: Exterior
   Gateway Protocol.

bounce
   The return of a piece of mail because of an error in its delivery.
   [Source: ZEN]

bridge
   A device which forwards traffic between network segments based on
   datalink layer information. These segments would have a common
   network layer address. See also: gateway, router.

broadband
   A transmission medium capable of supporting a wide range of
   frequencies. It can carry multiple signals by dividing the total
   capacity of the medium into multiple, independent bandwidth
   channels, where each channel operates only on a specific range of
   frequencies. See also: baseband.

broadcast
   A special type of multicast packet which all nodes on the network
   are always willing to receive. See also: multicast, unicast.

broadcast storm
   An incorrect packet broadcast onto a network that causes multiple
   hosts to respond all at once, typically with equally incorrect
   packets which causes the storm to grow exponentially in severity.
   See also: Ethernet meltdown.

brouter
   A device which bridges some packets (i.e. forwards based on
   datalink layer information) and routes other packets (i.e.
   forwards based on network layer information). The bridge/route
   decision is based on configuration information. See also: bridge,
   router.

BSD
   See: Berkeley Software Distribution

BTW
   By The Way

Bulletin Board System (BBS)
   A computer, and associated software, which typically provides
   electronic messaging services, archives of files, and any other
   services or activities of interest to the bulletin board system's
   operator. Although BBS's have traditionally been the domain of
   hobbyists, an increasing number of BBS's are connected directly to
   the Internet, and many BBS's are currently operated by government,
   educational, and research institutions. See also: Electronic
   Mail, Internet, Usenet.
   [Source: NWNET]

Campus Wide Information System (CWIS)
   A CWIS makes information and services publicly available on campus
   via kiosks, and makes interactive computing available via kiosks,
   interactive computing systems and campus networks. Services
   routinely include directory information, calendars, bulletin
   boards, databases.

CCIRN
   See: Coordinating Committee for Intercontinental Research Networks

CCITT
   See: Comite Consultatif International de Telegraphique et
   Telephonique

CERT
   See: Computer Emergency Response Team

checksum
   A computed value which is dependent upon the contents of a packet.
   This value is sent along with the packet when it is transmitted.
   The receiving system computes a new checksum based upon the
   received data and compares this value with the one sent with the
   packet. If the two values are the same, the receiver has a high
   degree of confidence that the data was received correctly. See
   also: Cyclic Redundancy Check.
   [Source: NNSC]

CIDR
   See: Classless Inter-domain Routing

circuit switching
   A communications paradigm in which a dedicated communication path
   is established between two hosts, and on which all packets travel.
   The telephone system is an example of a circuit switched network.
   See also: connection-oriented, connectionless, packet switching.

Classless Inter-domain Routing (CIDR)
   A proposal, set forth in RFC 1519, to allocate IP addresses so as
   to allow the addresses to be aggregated when advertised as routes.
   It is based on the elimination of intrinsic IP network addresses;
   that is, the determination of the network address based on the
   first few bits of the IP address. See also: IP address, network
   address, supernet.

client
   A computer system or process that requests a service of another
   computer system or process. A workstation requesting the contents
   of a file from a file server is a client of the file server. See
   also: client-server model, server.
   [Source: NNSC]

client-server model
    A common way to describe the paradigm of many network protocols.
    Examples include the name-server/name-resolver relationship in DNS
    and the file-server/file-client relationship in NFS. See also:
    client, server, Domain Name System, Network File System.

CNI
    See: Coalition for Networked Information

Coalition for Networked Information (CNI)
    A consortium formed by American Research Libraries, CAUSE, and
    EDUCOM (no, they are not acronyms) to promote the creation of, and
    access to, information resources in networked environments in
    order to enrich scholarship and enhance intellectual productivity.

Comite Consultatif International de Telegraphique et Telephonique (
    CCITT)
    This organization is now part of the International
    Telecommunications Union and is responsible for making technical
    recommendations about telephone and data communications systems.
    Every four years CCITT holds plenary sessions where they adopt new
    standards; the most recent was in 1992. Recently, the ITU
    reorganized and CCITT was renamed the ITU-TSS. See also:
    International Telecommunications Union - Telecommunications
    Standards Sector.

Computer Emergency Response Team (CERT)
    The CERT was formed by ARPA in November 1988 in response to the
    needs exhibited during the Internet worm incident. The CERT
    charter is to work with the Internet community to facilitate its
    response to computer security events involving Internet hosts, to
    take proactive steps to raise the community's awareness of
    computer security issues, and to conduct research targeted at
    improving the security of existing systems. CERT products and
    services include 24-hour technical assistance for responding to
    computer security incidents, product vulnerability assistance,
    technical documents, and tutorials. In addition, the team
    maintains a number of mailing lists (including one for CERT
    Advisories), and provides an anonymous FTP server, at "cert.org",
    where security-related documents and tools are archived. The CERT
    may be reached by email at "cert@cert.org" and by telephone at
    +1-412-268-7090 (24-hour hotline). See also: Advanced Research
    Projects Agency, worm.

congestion
    Congestion occurs when the offered load exceeds the capacity of a
    data communication path.

connection-oriented
    The data communication method in which communication proceeds
    through three well-defined phases: connection establishment, data
    transfer, connection release. TCP is a connection-oriented
    protocol. See also: circuit switching, connectionless, packet
    switching, Transmission Control Protocol.

connectionless
    The data communication method in which communication occurs
    between hosts with no previous setup. Packets between two hosts
    may take different routes, as each is independent of the other.
    UDP is a connectionless protocol. See also: circuit switching,
    connection-oriented, packet switching, User Datagram Protocol.

Coordinating Committee for Intercontinental Research Networks (CCIRN)
    A committee that includes the United States FNC and its
    counterparts in North America and Europe. Co-chaired by the
    executive directors of the FNC and the European Association of
    Research Networks (RARE), the CCIRN provides a forum for
    cooperative planning among the principal North American and
    European research networking bodies. See also: Federal Networking
    Council, RARE.
    [Source: MALAMUD]

core gateway
    Historically, one of a set of gateways (routers) operated by the
    Internet Network Operations Center at Bolt, Beranek and Newman
    (BBN). The core gateway system formed a central part of Internet
    routing in that all groups must advertise paths to their networks
    from a core gateway.
    [Source: MALAMUD]

Corporation for Research and Educational Networking (CREN)
    This organization was formed in October 1989, when Bitnet and
    CSNET (Computer + Science NETwork) were combined under one
    administrative authority. CSNET is no longer operational, but
    CREN still runs Bitnet. See also: Bitnet.
    [Source: NNSC]

cracker
    A cracker is an individual who attempts to access computer systems
    without authorization. These individuals are often malicious, as
    opposed to hackers, and have many means at their disposal for
    breaking into a system. See also: hacker, Computer Emergency
    Response Team, Trojan Horse, virus, worm.

CRC
    See: cyclic redundancy check

CREN
   See: Corporation for Research and Educational Networking

CU-SeeMe
   Pronnounced "See you, See me," CU-SeeMe is a publicly available
   videoconferencing program developed at Cornell University. It
   allows anyone with audio/video capabilites and an Internet
   connection to videoconference with anyone else with the same
   capabilities. It also allows multiple people to tie into the same
   videoconference.

CWIS
   See: Campus Wide Information system

Cyberspace
   A term coined by William Gibson in his fantasy novel Neuromancer
   to describe the "world" of computers, and the society that gathers
   around them.
   [Source: ZEN]

Cyclic Redundancy Check (CRC)
   A number derived from a set of data that will be transmitted. By
   recalculating the CRC at the remote end and comparing it to the
   value originally transmitted, the receiving node can detect some
   types of transmission errors. See also: checksum.
   [Source: MALAMUD]

DANTE
   A non-profit company founded in July 1993 to help the European
   research community enhance their networking facilities. It
   focuses on the establishment of a high-speed computer network
   infrastructure.

DARPA
   Defense Advanced Research Projects Agency
   See: Advanced Research Projects Agency

Data Encryption Key (DEK)
   Used for the encryption of message text and for the computation of
   message integrity checks (signatures). See also: encryption.

Data Encryption Standard (DES)
   A popular, standard encryption scheme. See also: encryption,
   Pretty Good Privacy, RSA.

datagram
   A self-contained, independent entity of data carrying sufficient
   information to be routed from the source to the destination

computer without reliance on earlier exchanges between this source
and destination computer and the transporting network. See also:
frame, packet.
[Source: J. Postel]

DCA
   See: Defense Information Systems Agency

DCE
   Data Circuit-terminating Equipment

DCE
   See: Distributed Computing Environment

DDN
   See: Defense Data Network

DDN NIC
   See: Defense Data Network Network Information Center

DECnet
   A proprietary network protocol designed by Digital Equipment
   Corporation. The functionality of each Phase of the
   implementation, such as Phase IV and Phase V, is different.

default route
   A routing table entry which is used to direct packets addressed to
   networks not explicitly listed in the routing table.
   [Source: MALAMUD]

Defense Data Network (DDN)
   A global communications network serving the US Department of
   Defense composed of MILNET, other portions of the Internet, and
   classified networks which are not part of the Internet. The DDN
   is used to connect military installations and is managed by the
   Defense Information Systems Agency. See also: Defense Information
   Systems Agency.

Defense Data Network Network Information Center (DDN NIC)
   Previously called "The NIC", the DDN NIC's primary responsibility
   was the assignment of Internet network addresses and Autonomous
   System numbers, the administration of the root domain, and
   providing information and support services to the Internet for the
   DDN. Since the creation of the InterNIC, the DDN NIC performs
   these functions only for the DDN. See also: Autonomous System,
   network address, Internet Registry, InterNIC, Network Information
   Center, Request For Comments.

Defense Information Systems Agency (DISA)
     Formerly called the Defense Communications Agency (DCA), this is
     the government agency responsible for managing the DDN portion of
     the Internet, including the MILNET. Currently, DISA administers
     the DDN, and supports the user assistance services of the DDN NIC.
     See also: Defense Data Network.

DEK
     See: Data Encryption Key

DES
     See: Data Encryption Standard

dialup
     A temporary, as opposed to dedicated, connection between machines
     established over a phone line (analog or ISDN). See also:
     Integrated Services Digital Network.

Directory Access Protocol
     X.500 protocol used for communication between a Directory User
     Agent and a Directory System Agent.
     [Source: MALAMUD]

Directory System Agent (DSA)
     The software that provides the X.500 Directory Service for a
     portion of the directory information base. Generally, each DSA is
     responsible for the directory information for a single
     organization or organizational unit.
     [Source: RFC1208]

Directory User Agent (DUA)
     The software that accesses the X.500 Directory Service on behalf
     of the directory user. The directory user may be a person or
     another software element.
     [Source: RFC1208]

DISA
     See: Defense Information Systems Agency

Distributed Computing Environment (DCE)
     An architecture of standard programming interfaces, conventions,
     and server functionalities (e.g., naming, distributed file system,
     remote procedure call) for distributing applications transparently
     across networks of heterogeneous computers. Promoted and
     controlled by the Open Software Foundation (OSF), a consortium led
     by Digital, IBM and Hewlett Packard.
     [Source: RFC1208]

distributed database
   A collection of several different data repositories that looks
   like a single database to the user. A prime example in the
   Internet is the Domain Name System.

DIX Ethernet
   See: Ethernet

DNS
   See: Domain Name System

domain
   "Domain" is a heavily overused term in the Internet. It can be
   used in the Administrative Domain context, or the Domain Name
   context. See also: Administrative Domain, Domain Name System.

Domain Name System (DNS)
   The DNS is a general purpose distributed, replicated, data query
   service. The principal use is the lookup of host IP addresses
   based on host names. The style of host names now used in the
   Internet is called "domain name", because they are the style of
   names used to look up anything in the DNS. Some important domains
   are: .COM (commercial), .EDU (educational), .NET (network
   operations), .GOV (U.S. government), and .MIL (U.S. military).
   Most countries also have a domain. The country domain names are
   based on ISO 3166. For example, .US (United States), .UK (United
   Kingdom), .AU (Australia). See also: Fully Qualified Domain Name,
   Mail Exchange Record.

dot address (dotted decimal notation)
   Dot address refers to the common notation for IP addresses of the
   form A.B.C.D; where each letter represents, in decimal, one byte
   of a four byte IP address. See also: IP address.
   [Source: FYI4]

DSA
   See: Directory System Agent

DTE
   Data Terminal Equipment

DUA
   See: Directory User Agent

dynamic adaptive routing
   Automatic rerouting of traffic based on a sensing and analysis of
   current actual network conditions. NOTE: this does not include
   cases of routing decisions taken on predefined information.
   [Source: J. Postel]

E1
   The basic building block for European multi-megabit data rates,
   with a bandwidth of 2.048Mbps. See also: T1.

E3
   A European standard for transmitting data at 57.344Mbps. See
   also: T3.

EARN
   European Academic and Research Network. See: Trans-European
   Research and Education Networking Association.

EBCDIC
   See: Extended Binary Coded Decimal Interchange Code

Ebone
   A pan-European backbone service.

EFF
   See: Electronic Frontier Foundation

EGP
   See: Exterior Gateway Protocol

Electronic Frontier Foundation (EFF)
   A foundation established to address social and legal issues
   arising from the impact on society of the increasingly pervasive
   use of computers as a means of communication and information
   distribution.

Electronic Mail (email)
   A system whereby a computer user can exchange messages with other
   computer users (or groups of users) via a communications network.
   Electronic mail is one of the most popular uses of the Internet.
   [Source: NNSC]

email
   See: Electronic mail

email address
   The domain-based or UUCP address that is used to send electronic
   mail to a specified destination. For example an editor's address

is "gmalkin@xylogics.com". See also: bang path, mail path, UNIX-
to-UNIX CoPy.
[Source: ZEN]

encapsulation
   The technique used by layered protocols in which a layer adds
   header information to the protocol data unit (PDU) from the layer
   above. For example, in Internet terminology, a packet would
   contain a header from the physical layer, followed by a header
   from the datalink layer (e.g. Ethernet), followed by a header
   from the network layer (IP), followed by a header from the
   transport layer (e.g. TCP), followed by the application protocol
   data.
   [Source: RFC1208]

encryption
   Encryption is the manipulation of a packet's data in order to
   prevent any but the intended recipient from reading that data.
   There are many types of data encryption, and they are the basis of
   network security. See also: Data Encryption Standard.

error checking
   The examination of received data for transmission errors. See
   also: checksum, Cyclic Redundancy Check.

Ethernet
   A 10-Mb/s standard for LANs, initially developed by Xerox, and
   later refined by Digital, Intel and Xerox (DIX). All hosts are
   connected to a coaxial cable where they contend for network access
   using a Carrier Sense Multiple Access with Collision Detection
   (CSMA/CD) paradigm. See also: 802.x, Local Area Network, token
   ring.

Ethernet meltdown
   An event that causes saturation, or near saturation, on an
   Ethernet. It usually results from illegal or misrouted packets
   and typically lasts only a short time. See also: broadcast storm.
   [Source: COMER]

Extended Binary Coded Decimal Interchange Code (EBCDIC)
   A standard character-to-number encoding used primarily by IBM
   computer systems. See also: ASCII.

Exterior Gateway Protocol (EGP)
   A protocol which distributes routing information to the routers
   which connect autonomous systems. The term "gateway" is
   historical, as "router" is currently the preferred term. There is
   also a routing protocol called EGP defined in RFC 904. See also:

       Autonomous System, Border Gateway Protocol, Interior Gateway
       Protocol.

   eXternal Data Representation (XDR)
       A standard for machine independent data structures developed by
       Sun Microsystems and defined in RFCs 1014 and 1832. It is similar
       to ASN.1. See also: Abstract Syntax Notation One.
       [Source: RFC1208]

   FARNET
       A non-profit corporation, established in 1987, whose mission is to
       advance the use of computer networks to improve research and
       education.

   FAQ
       Frequently Asked Question

   FDDI
       See: Fiber Distributed Data Interface

   Federal Information Exchange (FIX)
       One of the connection points between the American governmental
       internets and the Internet.
       [Source: SURA]

   Federal Networking Council (FNC)
       The coordinating group of representatives from those federal
       agencies involved in the development and use of federal
       networking, especially those networks using TCP/IP and the
       Internet. Current members include representatives from DOD, DOE,
       ARPA, NSF, NASA, and HHS. See also: Advanced Research Projects
       Agency, National Science Foundation.

   Fiber Distributed Data Interface (FDDI)
       A high-speed (100Mb/s) LAN standard. The underlying medium is
       fiber optics, and the topology is a dual-attached, counter-
       rotating token ring. See also: Local Area Network, token ring.
       [Source: RFC1208]

   file transfer
       The copying of a file from one computer to another over a computer
       network. See also: File Transfer Protocol, Kermit, Gopher, World
       Wide Web.

File Transfer Protocol (FTP)
   A protocol which allows a user on one host to access, and transfer
   files to and from, another host over a network. Also, FTP is
   usually the name of the program the user invokes to execute the
   protocol. See also: anonymous FTP.

finger
   A protocol, defined in RFC 1288, that allows information about a
   system or user on a system to be retrived. Finger also refers to
   the commonly used program which retrieves this information.
   Information about all logged in users, as well is information
   about specific users may be retrieved from local or remote
   systems. Some sites consider finger to be a security risk and
   have either disabled it, or replaced it with a simple message.

FIX
   See: Federal Information Exchange

flame
   A strong opinion and/or criticism of something, usually as a frank
   inflammatory statement, in an electronic mail message. It is
   common to precede a flame with an indication of pending fire (i.e.
   FLAME ON!). Flame Wars occur when people start flaming other
   people for flaming when they shouldn't have. See also: Electronic
   Mail, Usenet.

FLEA
   See: Four Letter Extended Acronym

FNC
   See: Federal Networking Council

Four Letter Extended Acronym (FLEA)
   A recognition of the fact that there are far too many TLAs. See
   also: Three Letter Acronym.

FQDN
   See: Fully Qualified Domain Name

fragment
   A piece of a packet. When a router is forwarding an IP packet to
   a network that has a maximum transmission unit smaller than the
   packet size, it is forced to break up that packet into multiple
   fragments. These fragments will be reassembled by the IP layer at
   the destination host. See also: Maximum Transmission Unit.

fragmentation
   The IP process in which a packet is broken into smaller pieces to
   fit the requirements of a physical network over which the packet
   must pass. See also: reassembly.

frame
   A frame is a datalink layer "packet" which contains the header and
   trailer information required by the physical medium. That is,
   network layer packets are encapsulated to become frames. See
   also: datagram, encapsulation, packet.

freenet
   Community-based bulletin board system with email, information
   services, interactive communications, and conferencing. Freenets
   are funded and operated by individuals and volunteers -- in one
   sense, like public television. They are part of the National
   Public Telecomputing Network (NPTN), an organization based in
   Cleveland, Ohio, devoted to making computer telecommunication and
   networking services as freely available as public libraries.
   [Source: LAQUEY]

FTP
   See: File Transfer Protocol

Fully Qualified Domain Name (FQDN)
   The FQDN is the full name of a system, rather than just its
   hostname. For example, "venera" is a hostname and
   "venera.isi.edu" is an FQDN. See also: hostname, Domain Name
   System.

FYI
   For Your Information

FYI
   A subseries of RFCs that are not technical standards or
   descriptions of protocols. FYIs convey general information about
   topics related to TCP/IP or the Internet. See also: Request For
   Comments.

gated
   Gatedaemon. A program which supports multiple routing protocols
   and protocol families. It may be used for routing, and makes an
   effective platform for routing protocol research. The software is
   freely available by anonymous FTP from "gated.cornell.edu".
   Pronounced "gate-dee". See also: Exterior Gateway Protocol, Open
   Shortest-Path First, Routing Information Protocol, routed.

gateway
    The term "router" is now used in place of the original definition
    of "gateway". Currently, a gateway is a communications
    device/program which passes data between networks having similar
    functions but dissimilar implementations. This should not be
    confused with a protocol converter. By this definition, a router
    is a layer 3 (network layer) gateway, and a mail gateway is a
    layer 7 (application layer) gateway. See also: mail gateway,
    router, protocol converter.

Gopher
    A distributed information service, developed at the University of
    Minnesota, that makes hierarchical collections of information
    available across the Internet. Gopher uses a simple protocol,
    defined in RFC 1436, that allows a single Gopher client to access
    information from any accessible Gopher server, providing the user
    with a single "Gopher space" of information. Public domain
    versions of the client and server are available. See also:
    archie, archive site, Prospero, Wide Area Information Servers.

GOSIP
    See: Government OSI Profile

Government OSI Profile (GOSIP)
    A subset of OSI standards specific to U.S. Government
    procurements, designed to maximize interoperability in areas where
    plain OSI standards are ambiguous or allow excessive options.

hacker
    A person who delights in having an intimate understanding of the
    internal workings of a system, computers and computer networks in
    particular. The term is often misused in a pejorative context,
    where "cracker" would be the correct term. See also: cracker.

header
    The portion of a packet, preceding the actual data, containing
    source and destination information. It may also error checking and
    other fields. A header is also the part of an electronic mail
    message which precedes the body of a message and contains, among
    other things, the message originator, date and time. See also:
    Electronic Mail, packet, error checking.

heterogeneous network
    A network running multiple network layer protocols. See also:
    DECnet, IP, IPX, XNS, homogeneous network.

   hierarchical routing
      The complex problem of routing on large networks can be simplified
      by reducing the size of the networks. This is accomplished by
      breaking a network into a hierarchy of networks, where each level
      is responsible for its own routing. The Internet has, basically,
      three levels: the backbones, the mid-levels, and the stub
      networks. The backbones know how to route between the mid-levels,
      the mid-levels know how to route between the sites, and each site
      (being an autonomous system) knows how to route internally. See
      also: Autonomous System, Exterior Gateway Protocol, Interior
      Gateway Protocol, stub network, transit network.

   High Performance Computing and Communications (HPCC)
      High performance computing encompasses advanced computing,
      communications, and information technologies, including scientific
      workstations, supercomputer systems, high speed networks, special
      purpose and experimental systems, the new generation of large
      scale parallel systems, and application and systems software with
      all components well integrated and linked over a high speed
      network.
      [Source: HPCC]

   High Performance Parallel Interface (HIPPI)
      An emerging ANSI standard which extends the computer bus over
      fairly short distances at speeds of 800 and 1600 Mb/s. HIPPI is
      often used in a computer room to connect a supercomputer to
      routers, frame buffers, mass-storage peripherals, and other
      computers. See also: American National Standards Institute
      [Source: MALAMUD]

   HIPPI
      See: High Performance Parallel Interface

   HTML
      See: Hypertext Markup Language

   homogeneous network
      A network running a single network layer protocol. See also:
      DECnet, IP, IPX, XNS, heterogeneous network.

   hop
      A term used in routing. A path to a destination on a network is a
      series of hops, through routers, away from the origin.

host
    A computer that allows users to communicate with other host
    computers on a network. Individual users communicate by using
    application programs, such as electronic mail, Telnet and FTP.
    [Source: NNSC]

host address
    See: internet address

hostname
    The name given to a machine. See also: Fully Qualified Domain
    Name.
    [Source: ZEN]

host number
    See: host address

HPCC
    See: High Performance Computing and Communications

HTTP
    See: Hypertext Transfer Protocol

hub
    A device connected to several other devices. In ARCnet, a hub is
    used to connect several computers together. In a message handling
    service, a hub is used for the transfer of messages across the
    network.
    [Source: MALAMUD]

hyperlink
    A pointer within a hypertext document which points (links) to
    another document, which may or may not also be a hypertext
    document. See also: hypertext.

hypertext
    A document, written in HTML, which contains hyperlinks to other
    documents, which may or may not also be hypertext documents.
    Hypertext documents are usually retrieved using WWW. See also:
    hyperlink, Hypertext Markup Language, World Wide Web.

Hypertext Markup Language (HTML)
    The language used to create hypertext documents. It is a subset
    of SGML and includes the mechanisms to establish hyperlinks to
    other documents. See also: hypertext, hyperlink, Standardized
    General Markup Language.

   Hypertext Transfer Protocol (HTTP)
      The protocol used by WWW to transfer HTML files. A formal
      standard is still under development in the IETF. See also:
      hyperlink, hypertext, Hypertext Markup Language, World Wide Web.

   I-D
      See: Internet-Draft

   IAB
      See: Internet Architecture Board

   IANA
      See: Internet Assigned Numbers Authority

   ICMP
      See: Internet Control Message Protocol

   IEEE
      Institute of Electrical and Electronics Engineers

   IEEE 802
      See: 802.x

   IEN
      See: Internet Experiment Note

   IEPG
      See: Internet Engineering Planning Group

   IESG
      See: Internet Engineering Steering Group

   IETF
      See: Internet Engineering Task Force

   IINREN
      See: Interagency Interim National Research and Education Network

   IGP
      See: Interior Gateway Protocol

   IMHO
      In My Humble Opinion

   IMR
      See: Internet Monthly Report

Integrated Services Digital Network (ISDN)
   An emerging technology which is beginning to be offered by the
   telephone carriers of the world. ISDN combines voice and digital
   network services in a single medium, making it possible to offer
   customers digital data services as well as voice connections
   through a single "wire." The standards that define ISDN are
   specified by CCITT. See also: CCITT.
   [Source: RFC1208]

Interagency Interim National Research and Education Network (IINREN)
   An evolving operating network system. Near term (1992-1996)
   research and development activities will provide for the smooth
   evolution of this networking infrastructure into the future
   gigabit NREN.
   [Source: HPCC]

Interior Gateway Protocol (IGP)
   A protocol which distributes routing information to the routers
   within an autonomous system. The term "gateway" is historical, as
   "router" is currently the preferred term. See also: Autonomous
   System, Exterior Gateway Protocol, Open Shortest-Path First,
   Routing Information Protocol.

Intermediate System (IS)
   An OSI system which performs network layer forwarding. It is
   analogous to an IP router. See also: Open Systems
   Interconnection, router.

Intermediate System-Intermediate System (IS-IS)
   The OSI IGP. See also: Open Systems Interconnection, Interior
   Gateway Protocol.

International Organization for Standardization (ISO)
   A voluntary, nontreaty organization founded in 1946 which is
   responsible for creating international standards in many areas,
   including computers and communications. Its members are the
   national standards organizations of the 89 member countries,
   including ANSI for the U.S. See also: American National Standards
   Institute, Open Systems Interconnection.
   [Source: TAN]

International Telecommunications Union (ITU)
   An agency of the United Nations which coordinates the various
   national telecommunications standards so that people in one
   country can communicate with people in another country.

   International Telecommunications Union -
          Telecommunications Standards Sector (ITU-TSS)
      The new name for CCITT since the ITU reorganization. The function
      is the same; only the name has been changed

   internet
      While an internet is a network, the term "internet" is usually
      used to refer to a collection of networks interconnected with
      routers. See also: network.

   Internet
      (note the capital "I") The Internet is the largest internet in the
      world. Is a three level hierarchy composed of backbone networks
      (e.g. Ultranet), mid-level networks (e.g., NEARnet) and stub
      networks. The Internet is a multiprotocol internet. See also:
      backbone, mid-level network, stub network, transit network,
      Internet Protocol.

   internet address
      A IP address that uniquely identifies a node on an internet. An
      Internet address (capital "I"), uniquely identifies a node on the
      Internet. See also: internet, Internet, IP address.

   Internet Architecture Board (IAB)

      The IAB has been many things over the years. Originally the
      Internet Activities Board, it was responsible for the development
      of the protocols which make up the Internet. It later changed its
      name and charter to become the group most responsible for the
      architecture of the Internet, leaving the protocol details to the
      IESG. In June of 1992, it was chartered as a component of the
      Internet Society; this is the charter it holds today. The IAB is
      responsible for approving nominations to the IESG, architectural
      oversight for Internet Standard Protocols, IETF standards process
      oversight and appeals, IANA and RFC activities, and liaison to
      peer standards groups (e.g., ISO). See also: Internet Engineering
      Task Force, Internet Research Task Force, Internet Engineering
      Steering Group, Internet Assigned Numbers Authority, Request for
      Comments.

   Internet Assigned Numbers Authority (IANA)
      The central registry for various Internet protocol parameters,
      such as port, protocol and enterprise numbers, and options, codes
      and types. The currently assigned values are listed in the
      "Assigned Numbers" document [STD2]. To request a number
      assignment, contact the IANA at "iana@isi.edu". See also:
      assigned numbers, STD.

Internet Control Message Protocol (ICMP)
   ICMP is an extension to the Internet Protocol. It allows for the
   generation of error messages, test packets and informational
   messages related to IP.
   [Source: FYI4]

Internet-Draft (I-D)
   Internet-Drafts are working documents of the IETF, its Areas, and
   its Working Groups.   As the name implies, Internet-Drafts are
   draft documents. They are valid for a maximum of six months and
   may be updated, replaced, or obsoleted by other documents at any
   time. Very often, I-Ds are precursors to RFCs. See also:
   Internet Engineering Task Force, Request For Comments.

Internet Engineering Planning Group (IEPG)
   A group, primarily composed of Internet service operators, whose
   goal is to promote a globally coordinated Internet operating
   environment. Membership is open to all.

Internet Engineering Steering Group (IESG)
   The IESG is composed of the IETF Area Directors and the IETF
   Chair. It provides the first technical review of Internet
   standards and is responsible for day-to-day "management" of the
   IETF. See also: Internet Engineering Task Force.

Internet Engineering Task Force (IETF)
   The IETF is a large, open community of network designers,
   operators, vendors, and researchers whose purpose is to coordinate
   the operation, management and evolution of the Internet, and to
   resolve short-range and mid-range protocol and architectural
   issues. It is a major source of proposals for protocol standards
   which are submitted to the IAB for final approval. The IETF meets
   three times a year and extensive minutes are included in the IETF
   Proceedings. See also: Internet, Internet Architecture Board.
   [Source: FYI4]

Internet Experiment Note (IEN)
   A series of reports pertinent to the Internet. IENs were
   published in parallel to RFCs and were intended to be "working
   documents." They have been replaced by Internet-Drafts and are
   currently of historic value only. See also: Internet-Draft,
   Request For Comments.

Internet Monthly Report (IMR)
   Published monthly, the purpose of the Internet Monthly Reports is
   to communicate to the Internet Research Group the accomplishments,
   milestones reached, or problems discovered by the participating
   organizations.

   internet number
      See: internet address

   Internet Protocol (IP, IPv4)
      The Internet Protocol (version 4), defined in RFC 791, is the
      network layer for the TCP/IP Protocol Suite. It is a
      connectionless, best-effort packet switching protocol. See also:
      packet switching, TCP/IP Protocol Suite, Internet Protocol Version
      6.

   Internet Protocol Version 6 (IPng, IPv6)
      IPv6 (version 5 is a stream protocol used for special
      applications) is a new version of the Internet Protocol which is
      designed to be an evolutionary step from its predecessor, version
      4. There are many RFCs defining various portions of the protocol,
      its auxiliary protocols, and the transition plan from IPv4. The
      core RFCs are 1883 through 1886. The name IPng (IP next
      generation) is a nod to STNG (Star Trek Next Generation).

   Internet Registry (IR)
      The IANA has the discretionary authority to delegate portions of
      its responsibility and, with respect to network address and
      Autonomous System identifiers, has lodged this responsibility with
      an IR. The IR function is performed by the DDN NIC. See also:
      Autonomous System, network address, Defense Data Network...,
      Internet Assigned Numbers Authority.

   Internet Relay Chat (IRC)
      A world-wide "party line" protocol that allows one to converse
      with others in real time. IRC is structured as a network of
      servers, each of which accepts connections from client programs,
      one per user. See also: talk.
      [Source: HACKER]

   Internet Research Steering Group (IRSG)
      The "governing body" of the IRTF. See also: Internet Research
      Task Force.
      [Source: MALAMUD]

   Internet Research Task Force (IRTF)
      The IRTF is chartered by the IAB to consider long-term Internet
      issues from a theoretical point of view. It has Research Groups,
      similar to IETF Working Groups, which are each tasked to discuss
      different research topics. Multi-cast audio/video conferencing
      and privacy enhanced mail are samples of IRTF output. See also:
      Internet Architecture Board, Internet Engineering Task Force,
      Privacy Enhanced Mail.

Internet Society (ISOC)
    The Internet Society is a non-profit, professional membership
    organization which facilitates and supports the technical
    evolution of the Internet, stimulates interest in and educates the
    scientific and academic communities, industry and the public about
    the technology, uses and applications of the Internet, and
    promotes the development of new applications for the system. The
    Society provides a forum for discussion and collaboration in the
    operation and use of the global Internet infrastructure. The
    Internet Society publishes a quarterly newsletter, the Internet
    Society News, and holds an annual conference, INET. The
    development of Internet technical standards takes place under the
    auspices of the Internet Society with substantial support from the
    Corporation for National Research Initiatives under a cooperative
    agreement with the US Federal Government.
    [Source: V. Cerf]

Internetwork Packet eXchange (IPX)
    Novell's protocol used by Netware. A router with IPX routing can
    interconnect LANs so that Novell Netware clients and servers can
    communicate. See also: Local Area Network.

InterNIC
    A five year project, partially supported by the National Science
    Foundation, to provide network information services to the
    networking community. The InterNIC began operations in April of
    1993 and is now a collaborative project of two organizations:
    AT&T, which provides Directory and Database Services from South
    Plainsfield, NJ; and Network Solutions, Inc., which provides
    Registration Services from their headquarters in Herndon, VA.
    Services are provided via the Internet, and by telephone, FAX, and
    hardcopy.

interoperability
    The ability of software and hardware on multiple machines from
    multiple vendors to communicate meaningfully.

IP (IPv4)
    See: Internet Protocol

IPng (IPv6)
    See: Internet Protocol Version 6

IP address
    The 32-bit address defined by the Internet Protocol in RFC 791.
    It is usually represented in dotted decimal notation. See also:
    dot address, internet address, Internet Protocol, network address,
    subnet address, host address.

   IP datagram
      See: datagram

   IPX
      See: Internetwork Packet eXchange

   IR
      See: Internet Registry

   IRC
      See: Internet Relay Chat

   IRSG
      See: Internet Research Steering Group

   IRTF
      See: Internet Research Task Force

   IS
      See: Intermediate System

   IS-IS
      See: Intermediate System-Intermediate System

   ISDN
      See: Integrated Services Digital Network

   ISO
      See: International Organization for Standardization

   ISO Development Environment (ISODE)
      Software that allows OSI services to use a TCP/IP network.
      Pronounced eye-so-dee-eee. See also: Open Systems
      Interconnection, TCP/IP Protocol Suite.

   ISOC
      See: Internet Society

   ISODE
      See: ISO Development Environment

   ITU
      See: International Telecommunications Union -
           Telecommunications Standards Sector

   ITU-TSS
      See: International Telecommunications Union

JKREY
   Joyce K. Reynolds

KA9Q
   A popular implementation of TCP/IP and associated protocols for
   amateur packet radio systems. See also: TCP/IP Protocol Suite.
   [Source: RFC1208]

Kerberos
   Kerberos is the security system of MIT's Project Athena. It is
   based on symmetric key cryptography. See also: encryption.

Kermit
   A popular file transfer protocol developed by Columbia University.
   Because Kermit runs in most operating environments, it provides an
   easy method of file transfer. Kermit is NOT the same as FTP. See
   also: File Transfer Protocol
   [Source: MALAMUD]

Knowbot
   A "Knowledge Robot" is a program which seeks out information based
   on specified criteria. "Knowbot," as trademarked by CNRI, refers
   specifically to the search engine for Knowbot Information
   Services. See also: Corporation for National Research
   Initiatives, X.500, white pages, whois, netfind.

Knowbot Information Services
   An experimental directory service. See also: white pages, whois,
   X.500.

LAN
   See: Local Area Network

layer
   Communication networks for computers may be organized as a set of
   more or less independent protocols, each in a different layer
   (also called level). The lowest layer governs direct host-to-host
   communication between the hardware at different hosts; the highest
   consists of user applications. Each layer builds on the layer
   beneath it. For each layer, programs at different hosts use
   protocols appropriate to the layer to communicate with each other.
   TCP/IP has five layers of protocols; OSI has seven. The
   advantages of different layers of protocols is that the methods of
   passing information from one layer to another are specified
   clearly as part of the protocol suite, and changes within a
   protocol layer are prevented from affecting the other layers.
   This greatly simplifies the task of designing and maintaining
   communication programs. See also: Open Systems Interconnection,

TCP/IP Protocol Suite.

LDAP
   See: Lightweight Directory Access Protocol

Lightweight Directory Access Protocol
   This protocol provides access for management and browser
   applications that provide read/write interactive access to the
   X.500 Directory.   See also: X.500.

link
   A pointer which may be used to retreive the file or data to which
   the pointer points.

list server
   An automated mailing list distribution system. List servers
   handle the administrivia of mailing list maintenance, such as the
   adding and deleting of list members.

little-endian
   A format for storage or transmission of binary data in which the
   least significant byte (bit) comes first. See also: big-endian.
   [Source: RFC1208]

LLC
   See: Logical Link Control

Local Area Network (LAN)
   A data network intended to serve an area of only a few square
   kilometers or less. Because the network is known to cover only a
   small area, optimizations can be made in the network signal
   protocols that permit data rates up to 100Mb/s. See also:
   Ethernet, Fiber Distributed Data Interface, token ring,
   Metropolitan Area Network, Wide Area Network.
   [Source: NNSC]

Logical Link Control (LLC)
   The upper portion of the datalink layer, as defined in IEEE 802.2.
   The LLC sublayer presents a uniform interface to the user of the
   datalink service, usually the network layer. Beneath the LLC
   sublayer is the MAC sublayer. See also: 802.x, layer, Media
   Access Control.

Lurking
   No active participation on the part of a subscriber to an mailing
   list or USENET newsgroup. A person who is lurking is just
   listening to the discussion. Lurking is encouraged for beginners
   who need to get up to speed on the history of the group. See

     also: Electronic Mail, mailing list, Usenet.
     [Source: LAQUEY]

   Lycos
     Lycos, Inc. is a new venture formed in late June 1995, to develop
     and market the Lycos technology originally developed under the
     direction of Dr. Michael ("Fuzzy") Mauldin at Carnegie Mellon
     University. The part of Lycos you see when you do a search is the
     search engine. "Lycos" comes from Lycosidae, a cosmopolitan
     family of relatively large active ground spiders (Wolf Spiders)
     that catch their prey by pursuit, rather than in a web.
     [Source: Lycos's FAQ]

   MAC
     See: Media Access Control

   MAC address
     The hardware address of a device connected to a shared media. See
     also: Media Access Control, Ethernet, token ring.
     [Source: MALAMUD]

   mail bridge
     A mail gateway that forwards electronic mail between two or more
     networks while ensuring that the messages it forwards meet certain
     administrative criteria. A mail bridge is simply a specialized
     form of mail gateway that enforces an administrative policy with
     regard to what mail it forwards. See also: Electronic Mail, mail
     gateway.
     [Source: NNSC]

   Mail Exchange Record (MX Record)
     A DNS resource record type indicating which host can handle mail
     for a particular domain. See also: Domain Name System, Electronic
     Mail.
     [Source: MALAMUD]

   mail exploder
     Part of an electronic mail delivery system which allows a message
     to be delivered to a list of addresses. Mail exploders are used
     to implement mailing lists. Users send messages to a single
     address and the mail exploder takes care of delivery to the
     individual mailboxes in the list. See also: Electronic Mail,
     email address, mailing list.
     [Source: RFC1208]

   mail gateway
      A machine that connects two or more electronic mail systems
      (including dissimilar mail systems) and transfers messages between
      them. Sometimes the mapping and translation can be quite complex,
      and it generally requires a store-and-forward scheme whereby the
      message is received from one system completely before it is
      transmitted to the next system, after suitable translations. See
      also: Electronic Mail.
      [Source: RFC1208]

   mail path
      A series of machine names used to direct electronic mail from one
      user to another. This system of email addressing has been used
      primarily in UUCP networks which are trying to eliminate its use
      altogether. See also: bang path, email address, UNIX-to-UNIX
      CoPy.

   mail server
      A software program that distributes files or information in
      response to requests sent via email. Internet examples include
      Almanac and netlib. Mail servers have also been used in Bitnet to
      provide FTP-like services. See also: Bitnet, Electronic Mail,
      FTP.
      [Source: NWNET]

   mailing list
      A list of email addresses, used by a mail exploder, to forward
      messages to groups of people. Generally, a mailing list is used
      to discuss certain set of topics, and different mailing lists
      discuss different topics. A mailing list may be moderated. This
      means that messages sent to the list are actually sent to a
      moderator who determines whether or not to send the messages on to
      everyone else. Requests to subscribe to, or leave, a mailing list
      should ALWAYS be sent to the list's "-request" address (e.g.
      ietf-request@cnri.reston.va.us for the IETF mailing list) or
      majordomo server. See also: Electronic Mail, mail exploder, email
      address, moderator, majordomo.

   majordomo
      A program which handles mailing list maintenance (affectionately
      known as administrivia) such as adding and removing addresses from
      mailing lists. See also: email address, mailing list.

   MAN
      See: Metropolitan Area Network

Management Information Base (MIB)
    The set of parameters an SNMP management station can query or set
    in the SNMP agent of a network device (e.g. router). Standard,
    minimal MIBs have been defined, and vendors often have Private
    enterprise MIBs. In theory, any SNMP manager can talk to any SNMP
    agent with a properly defined MIB. See also: client-server model,
    Simple Network Management Protocol.
    [Source: BIG-LAN]

Martian
    A humorous term applied to packets that turn up unexpectedly on
    the wrong network because of bogus routing entries. Also used as
    a name for a packet which has an altogether bogus (non-registered
    or ill-formed) internet address.
    [Source: RFC1208]

Maximum Transmission Unit (MTU)
    The largest frame length which may be sent on a physical medium.
    See also: frame, fragment, fragmentation.

mbone
    The Multicast Backbone is based on IP multicasting using class-D
    addresses. The mbone concept was adopted at the March 1992 IETF
    in San Diego, during which it was used to audiocast to 40 people
    throughout the world. At the following meeting, in Cambridge, the
    name mbone was adopted. Since then the audiocast has become full
    two-way audio/video conferencing using two video channels, four
    audio channels, and involving hundreds of remote users. See also:
    multicast, Internet Engineering Task Force.

MD-2, MD-4, MD-5
    See: Message Digest

Media Access Control (MAC)
    The lower portion of the datalink layer. The MAC differs for
    various physical media. See also: MAC Address, Ethernet, Logical
    Link Control, token ring.

Message Digest (MD-2, MD-4, MD-5)
    Message digests are algorithmic operations, generally performed on
    text, which produce a unique signature for that text. MD-2,
    described in RFC 1319; MD-4, described in RFC 1320; and MD-5,
    described in RFC 1321 all produce a 128-bit signature. They
    differ in their operating speed and resistance to crypto-analytic
    attack. Generally, one must be traded off for the other.

message switching
    See: packet switching

Metropolitan Area Network (MAN)
    A data network intended to serve an area approximating that of a
    large city. Such networks are being implemented by innovative
    techniques, such as running fiber cables through subway tunnels.
    A popular example of a MAN is SMDS. See also: Local Area Network,
    Switched Multimegabit Data Service, Wide Area Network.
    [Source: NNSC]

MIB
    See: Management Information Base

Microcom Networking Protocol (MNP)
    A series of protocols built into most modems which error-check or
    compress data being transmitted over a phone line.

mid-level network
    Mid-level networks (a.k.a. regionals) make up the second level of
    the Internet hierarchy. They are the transit networks which
    connect the stub networks to the backbone networks. See also:
    backbone, Internet, stub network, transit network.

MIME
    See: Multipurpose Internet Mail Extensions

MNP
    See: Microcom Networking Protocol

moderator
    A person, or small group of people, who manage moderated mailing
    lists and newsgroups. Moderators are responsible for determining
    which email submissions are passed on to list. See also:
    Electronic Mail, mailing list, Usenet.

MOSPF
    Multicast Open Shortest-Path First. See: Open Shortest-Path First.

MTU
    See: Maximum Transmission Unit

MUD
    See: Multi-User Dungeon

multicast
    A packet with a special destination address which multiple nodes
    on the network may be willing to receive. See also: broadcast,
    unicast.

multihomed host
    A host which has more than one connection to a network. The host
    may send and receive data over any of the links but will not route
    traffic for other nodes. See also: host, router.
    [Source: MALAMUD]

Multipurpose Internet Mail Extensions (MIME)
    An extension to Internet email which provides the ability to
    transfer non-textual data, such as graphics, audio and fax. See
    also: Electronic Mail

Multi-User Dungeon (MUD)
    Adventure, role playing games, or simulations played on the
    Internet. Devotees call them "text-based virtual reality
    adventures." The games can feature fantasy combat, booby traps
    and magic. Players interact in real time and can change the
    "world" in the game as they play it. Most MUDs are based on the
    Telnet protocol. See also: Telnet.
    [Source: LAQUEY]

MX Record
    See: Mail Exchange Record

NAK
    See: Negative Acknowledgment

name resolution
    The process of mapping a name into its corresponding address. See
    also: Domain Name System.
    [Source: RFC1208]

namespace
    A commonly distributed set of names in which all names are unique.
    [Source: MALAMUD]

National Institute of Standards and Technology (NIST)
    United States governmental body that provides assistance in
    developing standards. Formerly the National Bureau of Standards.
    [Source: MALAMUD]

National Research and Education Network (NREN)
    The NREN is the realization of an interconnected gigabit computer
    network devoted to Hign Performance Computing and Communications.
    See also: HPPC, IINREN.
    [Source: HPCC]

National Science Foundation (NSF)
    A U.S. government agency whose purpose is to promote the
    advancement of science. NSF funds science researchers, scientific
    projects, and infrastructure to improve the quality of scientific
    research. The NSFNET, funded by NSF, was once an essential part
    of academic and research communications. It was a highspeed,
    hierarchical "network of networks." At the highest level, it had
    a backbone network of nodes, interconnected with T3 (45Mbps)
    facilities which spaned the continental United States. Attached
    to that were mid-level networks, and attached to the mid-levels
    were campus and local networks. See also: backbone network, mid-
    level network.

Negative Acknowledgment (NAK)
    Response to the receipt of either a corrupted or unnexpected
    packet of information. See also: Acknowledgement.

netfind
    A research prototype to provide a simple Internet "white pages"
    user directory. Developed at the University of Colorado, Boulder,
    it tries to locate telephone and email information given a
    person's name and a rough description of where the person works.
    See also: Knowbot, whois, white pages, X.500.
    [Source: Ryan Moats]

netiquette
    A pun on "etiquette" referring to proper behavior on a network.
    RFC 1855 (FYI 28) contains a netiquette guide produced by the User
    Services area of the IETF. See also: Acceptable Use Policy,
    Internet Engineering Task Force.

Netnews
    See: Usenet

network
    A computer network is a data communications system which
    interconnects computer systems at various different sites. A
    network may be composed of any combination of LANs, MANs or WANs.
    See also: Local Area Network, Metropolitan Area Network, Wide Area
    Network, internet.

network address
    The network portion of an IP address. For a class A network, the
    network address is the first byte of the IP address. For a class
    B network, the network address is the first two bytes of the IP
    address. For a class C network, the network address is the first
    three bytes of the IP address. In each case, the remainder is the
    host address. In the Internet, assigned network addresses are

      globally unique. See also: Internet, IP address, subnet address,
      host address, Internet Registry.

   Network File System (NFS)
      A protocol developed by Sun Microsystems, and defined in RFC 1094
      (RFC 1813 defines Version 3), which allows a computer system to
      access files over a network as if they were on its local disks.
      This protocol has been incorporated in products by more than two
      hundred companies, and is now a de facto Internet standard.
      [Source: NNSC]

   Network Information Center (NIC)
      A NIC provides information, assistance and services to network
      users. See also: Network Operations Center.

   Network Information Services (NIS)
      A set of services, generally provided by a NIC, to assist users in
      using the network. See also: Network Information Center.

   Network News Transfer Protocol (NNTP)
      A protocol, defined in RFC 977, for the distribution, inquiry,
      retrieval, and posting of news articles. See also: Usenet.

   network mask
      See: address mask

   network number
      See: network address

   Network Operations Center (NOC)
      A location from which the operation of a network or internet is
      monitored. Additionally, this center usually serves as a
      clearinghouse for connectivity problems and efforts to resolve
      those problems. See also: Network Information Center.
      [Source: NNSC]

   Network Time Protocol (NTP)
      A protocol that assures accurate local timekeeping with reference
      to radio and atomic clocks located on the Internet. This protocol
      is capable of synchronizing distributed clocks within milliseconds
      over long time periods. See also: Internet.
      [Source: NNSC]

   NFS
      See: Network File System

   NIC
      See: Network Information Center

NIC.DDN.MIL
   This is the domain name of the DDN NIC. See also: Defense Data
   Network, Domain Name System, Network Information Center.

NIS
   See: Network Information Services

NIST
   See: National Institute of Standards and Technology

NNTP
   See: Network News Transfer Protocol

NOC
   See: Network Operations Center

Nodal Switching System (NSS)
   Main routing nodes in the NSFnet backbone. See also: backbone,
   National Science Foundation.
   [Source: MALAMUD]

node
   An addressable device attached to a computer network. See also:
   host, router.

NREN
   See: National Research and Education Network

NSF
   See: National Science Foundation

NSS
   See: Nodal Switching System

NTP
   See: Network Time Protocol

OCLC
   See: Online Computer Library Catalog

octet
   An octet is 8 bits. This term is used in networking, rather than
   byte, because some systems have bytes that are not 8 bits long.

Online Computer Library Catalog
   OCLC is a nonprofit membership organization offering computer-
   based services to libraries, educational organizations, and their
   users. The OCLC library information network connects more than

      10,000 libraries worldwide. Libraries use the OCLC System for
      cataloging, interlibrary loan, collection development,
      bibliographic verification, and reference searching.
      [Source: OCLC]

   Open Shortest-Path First (OSPF)
      A link state, as opposed to distance vector, routing protocol. It
      is an Internet standard IGP defined in RFCs 1583 and 1793. The
      multicast version, MOSPF, is defined in RFC 1584. See also:
      Interior Gateway Protocol, Routing Information Protocol.

   Open Systems Interconnection (OSI)
      A suite of protocols, designed by ISO committees, to be the
      international standard computer network architecture. See also:
      International Organization for Standardization.

   OSI
      See: Open Systems Interconnection

   OSI Reference Model
      A seven-layer structure designed to describe computer network
      architectures and the way that data passes through them. This
      model was developed by the ISO in 1978 to clearly define the
      interfaces in multivendor networks, and to provide users of those
      networks with conceptual guidelines in the construction of such
      networks. See also: International Organization for
      Standardization.
      [Source: NNSC]

   OSPF
      See: Open Shortest-Path First

   packet
      The unit of data sent across a network. "Packet" a generic term
      used to describe unit of data at all levels of the protocol stack,
      but it is most correctly used to describe application data units.
      See also: datagram, frame.

   Packet InterNet Groper (PING)
      A program used to test reachability of destinations by sending
      them an ICMP echo request and waiting for a reply. The term is
      used as a verb: "Ping host X to see if it is up!" See also:
      Internet Control Message Protocol.
      [Source: RFC1208]

Packet Switch Node (PSN)
    A dedicated computer whose purpose is to accept, route and forward
    packets in a packet switched network. See also: packet switching,
    router.
    [Source: NNSC]

packet switching
    A communications paradigm in which packets (messages) are
    individually routed between hosts, with no previously established
    communication path. See also: circuit switching, connection-
    oriented, connectionless.

PD
    Public Domain

PDU
    See: Protocol Data Unit

PEM
    See: Privacy Enhanced Mail

PGP
    See: Pretty Good Privacy

PING
    See: Packet INternet Groper

Point Of Presence (POP)
    A site where there exists a collection of telecommunications
    equipment, usually digital leased lines and multi-protocol
    routers.

Point-to-Point Protocol (PPP)
    The Point-to-Point Protocol, defined in RFC 1661, provides a
    method for transmitting packets over serial point-to-point links.
    There are many other RFCs which define extensions to the basic
    protocol. See also: Serial Line IP.
    [Source: FYI4]

POP
    See: Post Office Protocol and Point Of Presence

port
    A port is a transport layer demultiplexing value. Each
    application has a unique port number associated with it. See
    also: Transmission Control Protocol, User Datagram Protocol.

   Post Office Protocol (POP)
      A protocol designed to allow single user hosts to read electronic
      mail from a server. Version 3, the most recent and most widely
      used, is defined in RFC 1725. See also: Electronic Mail.

   Postal Telegraph and Telephone (PTT)
      Outside the USA, PTT refers to a telephone service provider, which
      is usually a monopoly, in a particular country.

   postmaster
      The person responsible for taking care of electronic mail
      problems, answering queries about users, and other related work at
      a site. See also: Electronic Mail.
      [Source: ZEN]

   PPP
      See: Point-to-Point Protocol

   Pretty Good Privacy (PGP)
      A program, developed by Phil Zimmerman, which cryptographically
      protects files and electronic mail from being read by others. It
      may also be used to digitally sign a document or message, thus
      authenticating the creator. See also: encryption, Data Encryption
      Standard, RSA.

   Privacy Enhanced Mail (PEM)
      Internet email which provides confidentiality, authentication and
      message integrity using various encryption methods. See also:
      Electronic Mail, encryption.

   Prospero
      A distributed filesystem which provides the user with the ability
      to create multiple views of a single collection of files
      distributed across the Internet. Prospero provides a file naming
      system, and file access is provided by existing access methods
      (e.g. anonymous FTP and NFS). The Prospero protocol is also used
      for communication between clients and servers in the archie
      system. See also: anonymous FTP, archie, archive site, Gopher,
      Network File System, Wide Area Information Servers.

   protocol
      A formal description of message formats and the rules two
      computers must follow to exchange those messages. Protocols can
      describe low-level details of machine-to-machine interfaces (e.g.,
      the order in which bits and bytes are sent across a wire) or
      high-level exchanges between allocation programs (e.g., the way in
      which two programs transfer a file across the Internet).
      [Source: MALAMUD]

protocol converter
    A device/program which translates between different protocols
    which serve similar functions (e.g. TCP and TP4).

Protocol Data Unit (PDU)
    "PDU" is internationalstandardscomitteespeak for packet. See
    also: packet.

protocol stack
    A layered set of protocols which work together to provide a set of
    network functions. See also: layer, protocol.

proxy ARP
    The technique in which one machine, usually a router, answers ARP
    requests intended for another machine. By "faking" its identity,
    the router accepts responsibility for routing packets to the
    "real" destination. Proxy ARP allows a site to use a single IP
    address with two physical networks. Subnetting would normally be
    a better solution. See also: Address Resolution Protocol
    [Source: RFC1208]

PSN
    See: Packet Switch Node.

PTT
    See: Postal, Telegraph and Telephone

queue
    A backup of packets awaiting processing.

RARE
    Reseaux Associes pour la Recherche Europeenne. See: Trans-
    European Research and Education Networking Association.

RARP
    See: Reverse Address Resolution Protocol

RBOC
    Regional Bell Operating Company

Read The F*cking Manual (RTFM)
    This acronym is often used when someone asks a simple or common
    question.

Read The Source Code (RTSC)
    This acronym is often used when a software developer asks a
    question about undocumented code.

reassembly
    The IP process in which a previously fragmented packet is
    reassembled before being passed to the transport layer. See also:
    fragmentation.

recursive
    See: recursive

regional
    See: mid-level network

remote login
    Operating on a remote computer, using a protocol over a computer
    network, as though locally attached. See also: Telnet.

Remote Procedure Call (RPC)
    An easy and popular paradigm for implementing the client-server
    model of distributed computing. In general, a request is sent to
    a remote system to execute a designated procedure, using arguments
    supplied, and the result returned to the caller. There are many
    variations and subtleties in various implementations, resulting in
    a variety of different (incompatible) RPC protocols.
    [Source: RFC1208]

repeater
    A device which propagates electrical signals from one cable to
    another. See also: bridge, gateway, router.

Request For Comments (RFC)
    The document series, begun in 1969, which describes the Internet
    suite of protocols and related experiments. Not all (in fact very
    few) RFCs describe Internet standards, but all Internet standards
    are written up as RFCs. The RFC series of documents is unusual in
    that the proposed protocols are forwarded by the Internet research
    and development community, acting on their own behalf, as opposed
    to the formally reviewed and standardized protocols that are
    promoted by organizations such as CCITT and ANSI. See also: BCP,
    FYI, STD.

Reseaux IP Europeens (RIPE)
    A collaboration between European networks which use the TCP/IP
    protocol suite.

Reverse Address Resolution Protocol (RARP)
    A protocol, defined in RFC 903, which provides the reverse
    function of ARP. RARP maps a hardware (MAC) address to an
    internet address. It is used primarily by diskless nodes when
    they first initialize to find their internet address. See also:

Address Resolution Protocol, BOOTP, internet address, MAC address.

RFC
   See: Request For Comments

RFC 822
   The Internet standard format for electronic mail message headers.
   Mail experts often refer to "822 messages." The name comes from
   RFC 822, which contains the specification. 822 format was
   previously known as 733 format. See also: Electronic Mail.
   [Source: COMER]

RIP
   See: Routing Information Protocol

RIPE
   See: Reseaux IP Europeenne

Round-Trip Time (RTT)
   A measure of the current delay on a network.
   [Source: MALAMUD]

route
   The path that network traffic takes from its source to its
   destination. Also, a possible path from a given host to another
   host or destination.

routed
   Route Daemon. A program which runs under 4.2BSD/4.3BSD UNIX
   systems (and derived operating systems) to propagate routes among
   machines on a local area network, using the RIP protocol.
   Pronounced "route-dee". See also: Routing Information Protocol,
   gated.

router
   A device which forwards traffic between networks. The forwarding
   decision is based on network layer information and routing tables,
   often constructed by routing protocols. See also: bridge,
   gateway, Exterior Gateway Protocol, Interior Gateway Protocol.

routing
   The process of selecting the correct interface and next hop for a
   packet being forwarded. See also: hop, router, Exterior Gateway
   Protocol, Interior Gateway Protocol.

routing domain
   A set of routers exchanging routing information within an
   administrative domain. See also: Administrative Domain, router.

   Routing Information Protocol (RIP)
      A distance vector, as opposed to link state, routing protocol. It
      is an Internet standard IGP defined in RFC 1058. See also:
      Interior Gateway Protocol, Open Shortest-Path First.

   RPC
      See: Remote Procedure Call

   RSA
      A public-key cryptographic system which may be used for encryption
      and authentication. It was invented in 1977 and named for its
      inventors: Ron Rivest, Adi Shamir, and Leonard Adleman. See also:
      encryption, Data Encryption Standard, Pretty Good Privacy.

   RTFM
      See: Read The F*cking Manual

   RTSC
      See: Read The Source Code

   RTT
      See: Round-Trip Time

   SDH
      See: Synchronous Digital Hierarchy

   Serial Line IP (SLIP)
      A protocol used to run IP over serial lines, such as telephone
      circuits or RS-232 cables, interconnecting two systems. SLIP is
      defined in RFC 1055, but is not an Internet Standard. It is being
      replaced by PPP. See also: Point-to-Point Protocol.

   server
      A provider of resources (e.g. file servers and name servers). See
      also: client, Domain Name System, Network File System.

   SGML
      See: Standardized Generalized Markup Language

   SIG
      Special Interest Group

   signature
      The three or four line message at the bottom of a piece of email
      or a Usenet article which identifies the sender. Large signatures
      (over five lines) are generally frowned upon. See also:
      Electronic Mail, Usenet.

Simple Mail Transfer Protocol (SMTP)
   A protocol used to transfer electronic mail between computers. It
   is specified in RFC 821, with extensions specified in many other
   RFCs. It is a server to server protocol, so other protocols are
   used to access the messages. See also: Electronic Mail, Post
   Office Protocol, RFC 822.

Simple Network Management Protocol (SNMP)
   The Internet standard protocol developed to manage nodes on an IP
   network. The first version is defined in RFC 1157 (STD 15).
   SNMPv2 (version 2) is defined in too many RFCs to list. It is
   currently possible to manage wiring hubs, toasters, jukeboxes,
   etc. See also: Management Information Base.

SLIP
   See: Serial Line IP

SMDS
   See: Switched Multimegabit Data Service

SMI
   See: Structure of Management Information

SMTP
   See: Simple Mail Transfer Protocol

SNA
   See: Systems Network Architecture

snail mail
   A pejorative term referring to the U.S. postal service.

SNMP
   See: Simple Network Management Protocol

SONET
   See: Synchronous Optical NETwork

Standardized Generalized Markup Language (SGML)
   An international standard for the definition of system-
   independent, device-independent methods of representing text in
   electronic form. See also: Hypertext Markup Language.

STD
   A subseries of RFCs that specify Internet standards. The official
   list of Internet standards is in STD 1. See also: Request For
   Comments.

stream-oriented
    A type of transport service that allows its client to send data in
    a continuous stream. The transport service will guarantee that
    all data will be delivered to the other end in the same order as
    sent and without duplicates. See also: Transmission Control
    Protocol.
    [Source: MALAMUD]

Structure of Management Information (SMI)
    The rules used to define the objects that can be accessed via a
    network management protocol. These rules are defined in RFC 1155
    (STD 17). The acronym is pronounced "Ess Em Eye." See also:
    Management Information Base. .br [Source: RFC1208]

stub network
    A stub network only carries packets to and from local hosts. Even
    if it has paths to more than one other network, it does not carry
    traffic for other networks. See also: backbone, transit network.

subnet
    A portion of a network, which may be a physically independent
    network segment, which shares a network address with other
    portions of the network and is distinguished by a subnet number.
    A subnet is to a network what a network is to an internet. See
    also: internet, network.
    [Source: FYI4]

subnet address
    The subnet portion of an IP address. In a subnetted network, the
    host portion of an IP address is split into a subnet portion and a
    host portion using an address (subnet) mask. See also: address
    mask, IP address, network address, host address.

subnet mask
    See: address mask

subnet number
    See: subnet address

supernet
    An aggregation of IP network addresses advertised as a single
    classless network address. For example, given four Class C IP
    networks: 192.0.8.0, 192.0.9.0, 192.0.10.0 and 192.0.11.0, each
    having the intrinsic network mask of 255.255.255.0; one can
    advertise the address 192.0.8.0 with a subnet mask of
    255.255.252.0. See also: IP address, network address, network
    mask, Classless Inter-domain Routing.

Switched Multimegabit Data Service (SMDS)
   An emerging high-speed datagram-based public data network service
   developed by Bellcore and expected to be widely used by telephone
   companies as the basis for their data networks. See also:
   Metropolitan Area Network.
   [Source: RFC1208]

Synchronous Digital Hierarchy (SDH)
   The European standard for high-speed data communications over
   fiber-optic media. The transmission rates range from 155.52Mbps
   to 2.5Gbps.

Synchronous Optical NETwork (SONET)
   SONET is an international standard for high-speed data
   communications over fiber-optic media. The transmission rates
   range from 51.84Mbps to 2.5Gbps.

Systems Network Architecture (SNA)
   A proprietary networking architecture used by IBM and IBM-
   compatible mainframe computers.
   [Source: NNSC]

T1
   A term for a digital carrier facility used to transmit a DS-1
   formatted digital signal at 1.544 megabits per second.

T3
   A term for a digital carrier facility used to transmit a DS-3
   formatted digital signal at 44.746 megabits per second.
   [Source: FYI4]

TAC
   See: Terminal Access Controller (TAC)

talk
   A protocol which allows two people on remote computers to
   communicate in a real-time fashion. See also: Internet Relay
   Chat.

TCP
   See: Transmission Control Protocol

TCP/IP Protocol Suite
   Transmission Control Protocol over Internet Protocol. This is a
   common shorthand which refers to the suite of transport and
   application protocols which runs over IP. See also: IP, ICMP,
   TCP, UDP, FTP, Telnet, SMTP, SNMP.

TELENET
    The original name for what is now SprintNet. It should not be
    confused with the Telnet protocol or application program.

Telnet
    Telnet is the Internet standard protocol for remote terminal
    connection service. It is defined in RFC 854 and extended with
    options by many other RFCs.

TERENA
    See: Trans-European Research and Education Networking Association

Terminal Access Controller (TAC)
    A device which was once used to connect terminals to the Internet,
    usually using dialup modem connections and the TACACS protocol.
    While the device is no longer in use, TACACS+ is a protocol in
    current use.

terminal emulator
    A program that allows a computer to emulate a terminal. The
    workstation thus appears as a terminal to the remote host.
    [Source: MALAMUD]

terminal server
    A device which connects many terminals to a LAN through one
    network connection. A terminal server can also connect many
    network users to its asynchronous ports for dial-out capabilities
    and printer access. See also: Local Area Network.

Three Letter Acronym (TLA)
    A tribute to the use of acronyms in the computer field. See also:
    Extended Four Letter Acronym.

Time to Live (TTL)
    A field in the IP header which indicates how long this packet
    should be allowed to survive before being discarded. It is
    primarily used as a hop count. See also: Internet Protocol.
    [Source: MALAMUD]

TLA
    See: Three Letter Acronym

TN3270
    A variant of the Telnet program that allows one to attach to IBM
    mainframes and use the mainframe as if you had a 3270 or similar
    terminal.
    [Source: BIG-LAN]

   token ring
      A token ring is a type of LAN with nodes wired into a ring. Each
      node constantly passes a control message (token) on to the next;
      whichever node has the token can send a message. Often, "Token
      Ring" is used to refer to the IEEE 802.5 token ring standard,
      which is the most common type of token ring. See also: 802.x,
      Local Area Network.

   topology
      A network topology shows the computers and the links between them.
      A network layer must stay abreast of the current network topology
      to be able to route packets to their final destination.
      [Source: MALAMUD]

   traceroute
      A program available on many systems which traces the path a packet
      takes to a destination. It is mostly used to debug routing
      problems between hosts. There is also a traceroute protocol
      defined in RFC 1393.

   Trans-European Research and Education Networking Association (TERENA)
      TERENA was formed in October 1994 by the merger of RARE and EARN
      to promote and participate in the development of a high quality
      international information and telecommunications infrastructure
      for the benefit of research and education. See also: Reseaux
      Associes pour la Recherche Europeenne, European Academic and
      Research Network.
      [Source: TERENA Statutes]

   transceiver
      Transmitter-receiver. The physical device that connects a host
      interface to a local area network, such as Ethernet. Ethernet
      transceivers contain electronics that apply signals to the cable
      and sense collisions.
      [Source: RFC1208]

   transit network
      A transit network passes traffic between networks in addition to
      carrying traffic for its own hosts. It must have paths to at
      least two other networks. See also: backbone, stub network.

   Transmission Control Protocol (TCP)
      An Internet Standard transport layer protocol defined in RFC 793.
      It is connection-oriented and stream-oriented, as opposed to UDP.
      See also: connection-oriented, stream-oriented, User Datagram
      Protocol.

   Trojan Horse
      A computer program which carries within itself a means to allow
      the creator of the program access to the system using it. See
      also: virus, worm.

   TTFN
      Ta-Ta For Now

   TTL
      See: Time to Live

   tunnelling
      Tunnelling refers to encapsulation of protocol A within protocol
      B, such that A treats B as though it were a datalink layer.
      Tunnelling is used to get data between administrative domains
      which use a protocol that is not supported by the internet
      connecting those domains. See also: Administrative Domain.

   twisted pair
      A type of cable in which pairs of conductors are twisted together
      to produce certain electrical properties.

   UDP
      See: User Datagram Protocol

   unicast
      An address which only one host will recognize. See also:
      broadcast, multicast.

   Uniform Resource Locators (URL)
      A URL is a compact (most of the time) string representation for a
      resource available on the Internet. URLs are primarily used to
      retrieve information using WWW. The syntax and semantics for URLs
      are defined in RFC 1738. See also: World Wide Web.

   Universal Time Coordinated (UTC)
      This is Greenwich Mean Time.
      [Source: MALAMUD]

   UNIX-to-UNIX CoPy (UUCP)
      This was initially a program run under the UNIX operating system
      that allowed one UNIX system to send files to another UNIX system
      via dial-up phone lines. Today, the term is more commonly used to
      describe the large international network which uses the UUCP
      protocol to pass news and electronic mail. See also: Electronic
      Mail, Usenet.

urban legend
    A story, which may have started with a grain of truth, that has
    been embroidered and retold until it has passed into the realm of
    myth. It is an interesting phenonmenon that these stories get
    spread so far, so fast and so often. Urban legends never die,
    they just end up on the Internet! Some legends that periodically
    make their rounds include "The Infamous Modem Tax," "Craig
    Shergold/Brain Tumor/Get Well Cards," and "The $250 Cookie
    Recipe."
    [Source: LAQUEY]

URL
    See: Uniform Resource Locators

Usenet
    A collection of thousands of topically named newsgroups, the
    computers which run the protocols, and the people who read and
    submit Usenet news. Not all Internet hosts subscribe to Usenet
    and not all Usenet hosts are on the Internet. See also: Network
    News Transfer Protocol, UNIX-to-UNIX CoPy.
    [Source: NWNET]

User Datagram Protocol (UDP)
    An Internet Standard transport layer protocol defined in RFC 768.
    It is a connectionless protocol which adds a level of reliability
    and multiplexing to IP. See also: connectionless, Transmission
    Control Protocol.

UTC
    See: Universal Time Coordinated

UUCP
    See: UNIX-to-UNIX CoPy

uudecode
    A program which reverses the effect of uuencode. See also:
    uuencode.

uuencode
    A program which reversibly converts a binary file in ASCII. It is
    used to send binary files via email, which generally does not
    allow (or garbles) the transmission of binary information. The
    original binary can be restored with uudecode. The encoding
    process generally creates an ASCII file larger than the original
    binary, so compressing the binary before running uuencode is
    highly recommended.

Veronica
    A Gopher utility which effectively searches Gopher servers based
    on a user's list of keywords. The name was chosen to be a "mate"
    to another utility named "Archie." It later became an acronym for
    Very Easy Rodent Oriented Netwide Index to Computer Archives. See
    also: archie, Gopher.

virtual circuit
    A network service which provides connection-oriented service
    without necessarily doing circuit-switching. See also:
    connection-oriented.

virus
    A program which replicates itself on computer systems by
    incorporating itself into other programs which are shared among
    computer systems. See also: Trojan Horse, worm.

W3
    See: World Wide Web

WAIS
    See: Wide Area Information Servers

WAN
    See: Wide area network

WebCrawler
    A WWW search engine. The aim of the WebCrawler Project is to
    provide a high-quality, fast, and free Internet search service.
    The WebCrawler may be reached at "http://webcrawler.com/".
    [Source: WebCrawler's "WebCrawler Facts"]

WG
    See: Working Group

white pages
    The Internet supports several databases that contain basic
    information about users, such as e-mail addresses, telephone
    numbers, and postal addresses. These databases can be searched to
    get information about particular individuals. Because they serve
    a function akin to the telephone book, these databases are often
    referred to as "white pages." See also: Knowbot, netfind, whois,
    X.500, InterNIC.

whois
    An Internet program which allows users to query a database of
    people and other Internet entities, such as domains, networks, and
    hosts. The primary database is kept at the InterNIC. The

       information stored includes a person's company name, address,
       phone number and email address. The latest version of the
       protocol, WHOIS++, is defined in RFCs 1834 and 1835. See also:
       InterNIC, white pages, Knowbot, netfind, X.500.

    Wide Area Information Servers (WAIS)
       A distributed information service which offers simple natural
       language input, indexed searching for fast retrieval, and a
       "relevance feedback" mechanism which allows the results of initial
       searches to influence future searches. Public domain
       implementations are available. See also: archie, Gopher,
       Prospero.

    Wide Area Network (WAN)
       A network, usually constructed with serial lines, which covers a
       large geographic area. See also: Local Area Network, Metropolitan
       Area Network.

    Working Group (WG)
       A working group, within the IETF, is a group of people who work
       under a charter to achieve a certain goal. That goal may be the
       creation of an Informational document, the creation of a protocol
       specification, or the resolution of problems in the Internet.
       Most working groups have a finite lifetime. That is, once a
       working group has achieved its goal, it disbands. There is no
       official membership for a working group. Unofficially, a working
       group member is somebody who is on that working group's mailing
       list; however, anyone may attend a working group meeting. See
       also: Internet Engineering Task Force, Birds Of a Feather.

    World Wide Web (WWW, W3)
       A hypertext-based, distributed information system created by
       researchers at CERN in Switzerland. Users may create, edit or
       browse hypertext documents. The clients and servers are freely
       available.

    worm
       A computer program which replicates itself and is self-
       propagating. Worms, as opposed to viruses, are meant to spawn in
       network environments. Network worms were first defined by Shoch &
       Hupp of Xerox in ACM Communications (March 1982). The Internet
       worm of November 1988 is perhaps the most famous; it successfully
       propagated itself on over 6,000 systems across the Internet. See
       also: Trojan Horse, virus.

    WRT
       With Respect To

WWW
   See: World Wide Web

WYSIWYG
   What You See is What You Get

X
   X is the name for TCP/IP based network-oriented window systems.
   Network window systems allow a program to use a display on a
   different computer.   The most widely-implemented window system is
   X11 - a component of MIT's Project Athena.

X.25
   A data communications interface specification developed to
   describe how data passes into and out of public data
   communications networks.   The CCITT and ISO approved protocol
   suite defines protocol layers 1 through 3.

X.400
   The CCITT and ISO standard for electronic mail. It is widely used
   in Europe and Canada.

X.500
   The CCITT and ISO standard for electronic directory services. See
   also: white pages, Knowbot, whois.

XDR
   See: eXternal Data Representation

Xerox Network System (XNS)
   A protocol suite developed by Xerox Corporation to run on LAN and
   WAN networks, where the LANs are typically Ethernet.
   Implementations exist for both Xerox's workstations and 4.3BSD,
   and 4.3BSD-derived, systems. XNS denotes not only the protocol
   stack, but also an architecture of standard programming
   interfaces, conventions, and service functions for authentication,
   directory, filing, email, and remote procedure call. XNS is also
   the name of Xerox's implementation. See also: Ethernet, Berkeley
   Software Distribution, Local Area Network, Wide Area Network.
   [Source: Jeff Hodges]

XNS
   See: Xerox Network System

   Yahoo!

      Yahoo! is a hierarchical subject-oriented guide for the World Wide
      Web and Internet. Yahoo! lists sites and categorizes them into
      appropriate subject categories. Yahoo! may be reached at
      "http://www.yahoo.com/".
      [Source: Yahoo's "What is Yahoo?"]

   Yellow Pages (YP)
      A historic (i.e., no longer in use) service used by UNIX
      administrators to manage databases distributed across a network.

   YP
      See: Yellow Pages

   zone
      A logical group of network devices.

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Security Considerations

   While security is not explicitly discussed in this document, some of
   the glossary's entries are security related. See the entries for
   Access Control List (ACL), authentication, Computer Emergency
   Response Team (CERT), cracker, Data Encryption Key (DEK), Data
   Encryption Standard (DES), encryption, Kerberos, Message Digest (MD-
   2, MD-4, MD-5), Pretty Good Privacy (PGP), Privacy Enhanced Mail
   (PEM), RSA, Trojan Horse, virus, and worm.

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