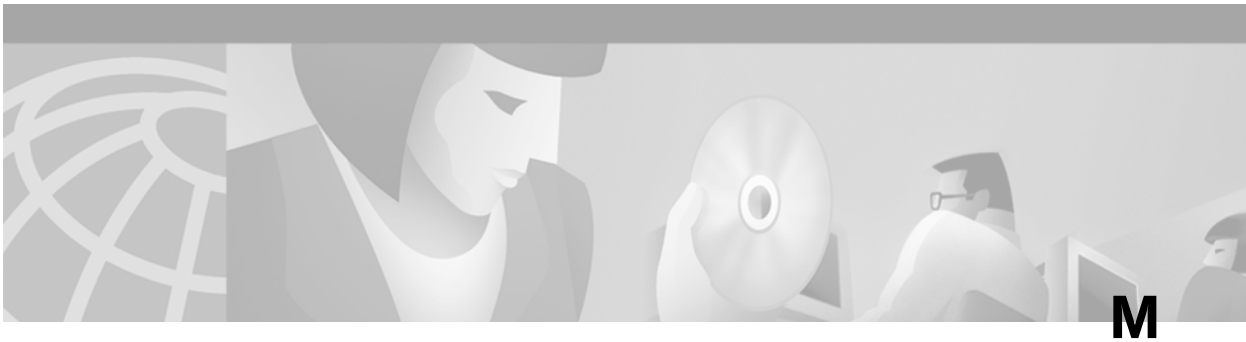

M

MAC

Media Access Control. Lower of the two sublayers of the data link layer defined by the IEEE. The MAC sublayer handles access to shared media, such as whether token passing or contention will be used. See also *data-link layer* and *LLC*.

MAC address

Standardized data link layer address that is required for every port or device that connects to a LAN. Other devices in the network use these addresses to locate specific ports in the network and to create and update routing tables and data structures. MAC addresses are 6 bytes long and are controlled by the IEEE. Also known as a *hardware address*, *MAC layer address*, and *physical address*. Compare with *network address*.

MAC address learning

Service that characterizes a learning bridge, in which the source MAC address of each received packet is stored so that future packets destined for that address can be forwarded only to the bridge interface on which that address is located. Packets destined for unrecognized addresses are forwarded out every bridge interface. This scheme helps minimize traffic on the attached LANs. MAC address learning is defined in the IEEE 802.1 standard. See also *learning bridge* and *MAC address*.

MacIP

Network layer protocol that encapsulates IP packets in DDP packets for transmission over AppleTalk. MacIP also provides proxy ARP services. See also *DDP* and *proxy ARP*.

MAC layer address

See *MAC address*.

MADI

multichannel audio digital interface. MADI is an interface standard described by the Audio Engineering Society (AES) standards AES-10 and AES-10id. It was developed by Neve, Sony, and SSL as an easy way to interface digital multitrack tape recorders to mixing consoles.

MAE

metropolitan access exchange. One of a number of Internet exchange points. Examples include MAE West and MAE East. See also *CIX*, *FIX*, and *GIX*.

mail bridge

Mail gateway that forwards e-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.

mail exchange record

See *MX record*.

mail exploder

Part of an e-mail delivery system that allows a message to be delivered to a list of addressees. Mail exploders are used to implement mailing lists. Users send messages to a single address (for example, hacks@somehost.edu), and the mail exploder takes care of delivery to the individual mailboxes in the list.

mail gateway

Machine that connects two or more e-mail systems (especially dissimilar mail systems on two different networks) and transfers messages between them. Sometimes the mapping and translation can be quite complex, and generally it 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.

Maintenance Operation Protocol

See *MOP*.

MAN

metropolitan-area network. Network that spans a metropolitan area. Generally, a MAN spans a larger geographic area than a LAN, but a smaller geographic area than a WAN. Compare with *LAN* and *WAN*.

managed object

In network management, a network device that can be managed by a network management protocol.

Management Information Base

See *MIB*.

management services

SNA functions distributed among network components to manage and control an SNA network.

Manchester encoding

Digital coding scheme, used by IEEE 802.3 and Ethernet, in which a mid–bit-time transition is used for clocking, and a 1 is denoted by a high level during the first half of the bit time.

man-in-the-middle

Form of active wiretapping attack in which the attacker intercepts and selectively modifies communicated data to masquerade as one or more of the entities involved in a communication association.

Manufacturing Automation Protocol

See *MAP*.

MAP

Manufacturing Automation Protocol. Network architecture created by General Motors to meet the specific needs of the factory floor. MAP specifies a token-passing LAN similar to IEEE 802.4. See also *IEEE 802.4*.

MARS

Multicast Address Resolution Server. Mechanism for supporting IP multicast. A MARS serves a group of nodes (known as a cluster); each node in the cluster is configured with the ATM address of the MARS. The MARS supports multicast through multicast messages of overlaid point-to-multipoint connections or through multicast servers.

Martian

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 that has an altogether bogus (nonregistered or ill-formed) Internet address.

mask

See *address mask* and *subnet mask*.

masquerade attack

Type of attack in which one system entity illegitimately poses as (assumes the identity of) another entity.

master control port

A physical interface on an MPLS LSC that is connected to one end of a slave control link.

MATIP

mapping of airline traffic over IP. A standard defined in RFC 2351 for transporting airline reservation, ticketing, and messaging traffic over TCP/IP.

MATV

master antenna TV. A mini cable system relaying the broadcast channels usually to a block of flats or a small housing estate.

MAU

media attachment unit. Device used in Ethernet and IEEE 802.3 networks that provides the interface between the AUI port of a station and the common medium of the Ethernet. The MAU, which can be built into a station or can be a separate device, performs physical layer functions, including the conversion of digital data from the Ethernet interface, collision detection, and injection of bits onto the network. Sometimes referred to as a *media access unit* (also breviated *MAU*) or as a *transceiver*. In Token Ring, an MAU is known as a *multistation access unit* and usually is abbreviated *MSAU* to avoid confusion. See also *AUI* and *MSAU*.

maximum burst

Specifies the largest burst of data above the insured rate that will be allowed temporarily on an ATM PVC but will not be dropped at the edge by the traffic policing function, even if it exceeds the maximum rate. This amount of traffic will be allowed only temporarily; on average, the traffic source needs to be within the maximum rate. Specified in bytes or cells. Compare with *insured burst*. See also *maximum rate*.

maximum rate

Maximum total data throughput allowed on a given virtual circuit, equal to the sum of the insured and uninsured traffic from the traffic source. The uninsured data might be dropped if the network becomes congested. The maximum rate, which cannot exceed the media rate, represents the highest data throughput the virtual circuit will ever deliver, measured in bits or cells per second. Compare with *excess rate* and *insured rate*. See also *maximum burst*.

maximum transmission unit

See *MTU*.

Mb

megabit. Approximately 1,000,000 bits.

MB

megabyte. Approximately 1,000,000 bytes.

MBONE

multicast backbone. Multicast backbone of the Internet. MBONE is a virtual multicast network composed of multicast LANs and the point-to-point tunnels that interconnect them.

Mbps

megabits per second. A bit rate expressed in millions of binary bits per second.

MBps

megabits per second. A bit rate expressed in millions of binary bytes per second.

MBS

maximum burst size. In an ATM signaling message, burst tolerance is conveyed through the MBS, which is coded as a number of cells. The burst tolerance together with the SCR and the GCRA determine the MBS that can be transmitted at the peak rate and still be in conformance with the GCRA. See also *SCP* and *GCRA*.

MCA

micro channel architecture. Bus interface commonly used in PCs and some UNIX workstations and servers.

MCDV

maximum cell delay variation. In an ATM network, the maximum two-point CDV objective across a link or a node for the specified service category. One of four link metrics exchanged using PTSPs to determine the available resources of an ATM network. There is one MCDV value for each traffic class. See also *CDV* and *PTSP*.

MCLR

maximum cell loss ratio. In an ATM network, the maximum ratio of cells that do not successfully transit a link or node compared with the total number of cells that arrive at the link or node. One of four link metrics exchanged using PTSPs to determine the available resources of an ATM network. The MCLR applies to cells in the CBR and VBR traffic classes whose CLP bit is set to zero. See also *CBR*, *CLP*, *PTSP*, and *VBR*.

MCNS

Multimedia Cable Network System Partners Ltd. Consortium of cable companies providing service to the majority of homes in the United States and Canada. This consortium drives a standard with the goal of having interoperable cable modems.

MCR

minimum cell rate. Parameter defined by the ATM Forum for ATM traffic management. MCR is defined only for ABR transmissions, and specifies the minimum value for the ACR. See also *ABR (available bit rate)*, *ACOM*, and *PCR*.

MCTD

maximum cell transfer delay. In an ATM network, the sum of the MCDV and the fixed delay component across the link or node. One of four link metrics exchanged using PTSPs to determine the available resources of an ATM network. There is one MCTD value for each traffic class. See also *MCDV* and *PTSP*.

MD

mediation device. Device that provides protocol translation and concentration of telemetry information originating from multiple network elements and transport to an OSS. See also *OSS*.

MD5

Message Digest 5. A one-way hashing algorithm that produces a 128-bit hash. Both MD5 and Secure Hash Algorithm (SHA) are variations on MD4 and are designed to strengthen the security of the MD4 hashing algorithm. Cisco uses hashes for authentication within the IPSec framework. Also used for message authentication in SNMP v.2. MD5 verifies the integrity of the communication, authenticates the origin, and checks for timeliness. See also *SNMP2*.

MDL

The Cisco Message Definition Language; a high-level language used to specify protocols and protocol conversion operations on the VSC.

MDN

message disposition notification. Message returned to the originator of an e-mail message indicating that the e-mail message has been opened. Specifications for MDN are described in RFC 2298.

MDS

Message Delivery Service. The facilities used by ICM nodes to communicate with each other. The MDS plays a key role in keeping duplexed components synchronized.

media

Plural of medium. Various physical environments through which transmission signals pass. Common network media include twisted-pair, coaxial, and fiber-optic cable, and the atmosphere (through which microwave, laser, and infrared transmission occurs). Sometimes called *physical media*.

Media Access Control

See *MAC*.

media access unit

See *MAU*.

media attachment unit

See *MAU*.

Media Gateway

A gateway that supports both bearer traffic and signaling traffic.

Media Gateway Controller

Another term for call agent.

media interface connector

See *MIC*.

media rate

Maximum traffic throughput for a particular media type.

media stream

A single media instance, for example, an audio stream.

medium

See *media*.

megabit

Abbreviated Mb. Approximately 1,000,000 bits.

megabits per second

Abbreviated Mbps.

megabyte

Abbreviated MB. Approximately 1,000,000 bytes.

MEL CAS

Mercury Exchange Limited (MEL) Channel Associated Signaling. A voice signaling protocol used primarily in the United Kingdom.

mesh

Network topology in which devices are organized in a manageable, segmented manner with many, often redundant, interconnections strategically placed between network nodes. See also *full mesh* and *partial mesh*.

message

Application layer (Layer 7) logical grouping of information, often composed of a number of lower-layer logical groupings, such as packets. The terms *datagram*, *frame*, *packet*, and *segment* alsoare used to describe logical information groupings at various layers of the OSI reference model and in various technology circles.

Message Digest 5

See *MDS*.

message handling system

See *MHS*.

Message Queuing Interface

See *MQI*.

message switching

Switching technique involving transmission of messages from node to node through a network. The message is stored at each node until such time as a forwarding path is available. Contrast with *circuit switching* and *packet switching*.

message unit

Unit of data processed by any network layer.

metasignaling

Process running at the ATM layer that manages signaling types and virtual circuits.

metering

See *traffic shaping*.

metric

See *routing metric*.

metropolitan-area network

See *MAN*.

MF

Multifrequency tones. Made of 6 frequencies that provide 15 two-frequency combinations for indication digits 0 through 9 and KP/ST signals.

MFT

multiflex trunk module.

MG

Media Gateway. The emerging industry standard generic term for a gateway.

MGC

Media Gateway Controller. The emerging industry standard generic term for the VSC.

MGC Switchover

The rerouting of signalling traffic by the signalling gateway as required (and requested by the MGCs) between related MGCs in the event of failure or unavailability of the currently used MGC. The traffic is rerouted from the primary MGC to the backup MGC.

MGCP

Media Gateway Control Protocol. A merging of the IPDC and SGCP protocols.

MHP

multimedia home platform. A set of common application programming interfaces (API) designed to create an operating system–independent, level playing field for broadcasters and consumer-electronics manufacturers. The goal is to provide all DVB-based terminals (set-tops, TVs, and multimedia PCs) full access to programs and services built on the DVB Java (DVB-J) platform.

MHS

message handling system. ITU-T X.400 recommendations that provide message handling services for communications between distributed applications. NetWare MHS is a different (though similar) entity that also provides message-handling services. See also *IFIP*.

MIB

Management Information Base. Database of network management information that is used and maintained by a network management protocol, such as SNMP or CMIP. The value of a MIB object can be changed or retrieved using SNMP or CMIP commands, usually through a GUI network management system. MIB objects are organized in a tree structure that includes public (standard) and private (proprietary) branches.

MIC

media interface connector. FDDI *de facto* standard connector.

MICA

Modem ISDN channel aggregation. Modem module and card used in the Cisco AS5300 universal access servers. A MICA modem provides an interface between an incoming or outgoing digital call and an ISDN telephone line; the call does not have to be converted to analog as it does with a conventional modem and an analog telephone line. Each line can accommodate, or aggregate, up to 24 (T1) or 30 (E1) calls.

micro channel architecture

See *MCA*.

microcode

Translation layer between machine instructions and the elementary operations of a computer. Microcode is stored in ROM and allows the addition of new machine instructions without requiring that they be designed into electronic circuits when new instructions are needed.

microfilter

Device that prevents data frequencies (intended for a data device, such as a router) from traveling over the telephone line and interfering with telephone calls.

microsegmentation

Division of a network into smaller segments, usually with the intention of increasing aggregate bandwidth to network devices.

microwave

Electromagnetic waves in the range 1 to 30 GHz. Microwave-based networks are an evolving technology gaining favor due to high bandwidth and relatively low cost.

MID

message identifier. In ATM, used to identify ATM cells that carry segments from the same higher-layer packet.

mid-level network

Makes up the second level of the Internet hierarchy. They are the transit networks that connect the stub networks to the backbone networks. Also referred to as *regionals*.

midsplit

Broadband cable system in which the available frequencies are split into two groups: one for transmission and one for reception.

MII

media independent interface. Standard specification for the interface between network controller chips and their associated media interface chip(s). The MII automatically senses 10- and 100-MHz Ethernet speeds.

Military Network

See *MILNET*.

millions of instructions per second

See *mips*.

MILNET

Military Network. Unclassified portion of the DDN. Operated and maintained by the DISA. See also *DDN* and *DISA*.

MIME

Multipurpose Internet Mail Extension. Standard for transmitting non-text data (or data that cannot be represented in plain ASCII code) in Internet mail, such as binary, foreign language text (such as Russian or Chinese), audio, or video data. MIME is defined in RFC 2045.

minimum cell rate

See *MCR*.

MIP

See *MIP* in the “Cisco Systems Terms and Acronyms” section.

mips

millions of instructions per second. Number of instructions executed by a processor per second.

MIX

multiservice interchange.

MLP

Multilink PPP. Method of splitting, recombining, and sequencing datagrams across multiple logical data links.

MLS

multilayer switching.

MM fiber

multimode fiber. A fiber-optic medium in which light travels in multiple modes.

MMDS

Multichannel Multipoint Distribution Service. MMDS is comprised of as many as 33 discrete channels that are transmitted in a pseudo random order between the transmitters and the receivers. The FCC allocated two bands of frequencies for each BTA: 2.15 to 2.161 GHz and 2.5 to 2.686 GHz.

MMF

multimode fiber. Optical fiber supporting the propagation of multiple frequencies of light. See also *single-mode fiber*.

MML

Man-Machine Language. Industry standard command line language used to manage telecommunications network elements.

MMLS-RP

Multicast MLS-Route Processor. Routing platform running Cisco IOS software that supports IP multicast MLS. The MMLS-RP interacts with the IP multicast routing software and updates the MLS cache in the MMLS-SE. When the IP Multicast MLS feature is enabled, the MMLS-RP continues to handle all non–IP-multicast traffic while off-loading IP multicast traffic forwarding to the MMLS-SE.

MMLS-SE

Multicast MLS-Switching Engine. Catalyst 5000 series switch with hardware that supports IP multicast MLS. The MMLS-SE provides layer 3 LAN-switching services.

MMoIP

Multimedia Mail over IP.

MMoIP dial peer

Multimedia Mail over IP dial peer. Dial peer specific to Store and Forward Fax. The MMoIP dial peer is the vehicle you use to assign particular line characteristics (such as a destination telephone number) to the connection between the Cisco router or the access server and the SMTP mail server during on-ramp faxing.

MMP

Multichassis Multilink PPP. Extends MLP support across multiple routers and access servers. MMP enables multiple routers and access servers to operate as a single, large dial-up pool, with a single network address and an ISDN access number. MMP correctly handles packet fragmenting and reassembly when a user connection is split between two physical access devices.

modem

modulator-demodulator. Device that converts digital and analog signals. At the source, a modem converts digital signals to a form suitable for transmission over analog communication facilities. At the destination, the analog signals are returned to their digital form. Modems allow data to be transmitted over voice-grade telephone lines.

modem eliminator

Device allowing the connection of two DTE devices without modems.

modulation

Process by which the characteristics of electrical signals are transformed to represent information. Types of modulation include AM, FM, and PAM. See also *AM*, *FM*, and *PAM*.

modulator-demodulator

See *modem*.

monomode fiber

See *single-mode fiber*.

MOP

Maintenance Operation Protocol. Digital Equipment Corporation protocol that provides a way to perform primitive maintenance operations on DECnet systems. For example, MOP can be used to download a system image to a diskless station.

Mosaic

Public-domain WWW browser developed at the NCSA. See also *browser*.

MOSPF

Multicast OSPF. Intradomain multicast routing protocol used in OSPF networks. Extensions are applied to the base OSPF unicast protocol to support IP multicast routing.

MOSS

MIME Object Security Services. Internet protocol [RFC 1848] that applies end-to-end encryption and digital signature to MIME message content, using symmetric cryptography for encryption and asymmetric cryptography for key distribution and signature.

moves, adds, and changes

See *MAC*.

MPEG

Motion Picture Experts Group. Standard for compressing video. MPEG1 is a bit stream standard for compressed video and audio optimized to fit into a bandwidth of 1.5 Mbps. *MPEG2 is* intended for higher quality video-on-demand applications and runs at data rates between 4 and 9 Mbps. *MPEG4* is a low–bit-rate compression algorithm intended for 64-kbps connections.

MPLS

Multiprotocol Label Switching. Switching method that forwards IP traffic using a label. This label instructs the routers and the switches in the network where to forward the packets based on preestablished IP routing information.

MPOA

Multiprotocol over ATM. ATM Forum standardization effort specifying how existing and future network-layer protocols, such as IP, IPv6, AppleTalk, and IPX, run over an ATM network with directly attached hosts, routers, and multilayer LAN switches.

MQI

Message Queuing Interface. International standard API that provides functionality similar to that of the RPC interface. In contrast to RPC, MQI is implemented strictly at the application layer. See also *RPC*.

MR

Modem Registrar. One of the suite of software products included in the Cisco Subscriber Registration Center (CSRC) product. MR is a policy-based cable modem management product that provides dynamic cable modem configuration.

MRM

Multicast Routing Monitor. A management diagnostic tool that provides network fault detection and isolation in a large multicast routing infrastructure. It is designed to notify a network administrator of multicast routing problems in near real time.

MRP

Multiservice route processor. A card that acts as a voice-and-data–capable router and that can carry voice traffic over an IP network and can link small-to-medium-size remote Ethernet LANs to central offices (COs) over WAN links. The MRP has two slots that support WAN interface cards (WICs), voice interface cards (VICs), or both in combination.

MS

mobile station. Refers generically to any mobile device, such as a mobile handset or computer, that is used to access network services. GPRS networks support three classes of MS, which describe the type of operation supported within the GPRS and the GSM mobile wireless networks. For example, a Class A MS supports simultaneous operation of GPRS and GSM services.

MSAU

multistation access unit. Wiring concentrator to which all end stations in a Token Ring network connect. The MSAU provides an interface between these devices and the Token Ring interface of a router. Sometimes abbreviated *MAU*.

MSB

most significant bit. Bit n-1 in an *n* bit binary number, the bit with the greatest weight (2^(n-1)). The first or leftmost bit when the number is written in the usual way.

MSC

mobile switching center. Provides telephony switching services and controls calls between telephone and data systems.

MS-CHAP

Microsoft CHAP (Challenge Handshake Authentication Protocol). See *CHAP*.

MSLT

Minimum Scan Line Time. The time set by the receiving fax machine and sent to the sending machine during the initial handshaking. MSLT defines how much time the receiving machine requires to print a single scan line.

MSLT adjustment

Minimum Scan Line Time adjustment. An alternative to Scan Line Fix Up meant to eliminate fax failures caused by an excessive number of received page errors because of data loss. MSLT adjustment sets a minimum MSLT value that an ingress gateway communicates to a sending fax machine. This value overrides an MSLT of lesser value that is supplied by a receiving fax machine.

MSO

multiple service operator. Cable service provider that also provides other services, such as data and/or voice telephony.

MSU

Message Signal Unit. SS7 message that carries call control, database traffic, network management, and network maintenance data in the signalling information field (SIF).

MTA

1. Message Transfer Agent. OSI application process used to store and forward messages in the X.400 Message Handling System. Equivalent to Internet mail agent.

2. Mail Transfer Agent. Software that implements SMTP and provides storage for mail messages to be forwarded or delivered to a local user. MTAs implement SMTP (RFC 821).

MTBF

mean time between failure.

MTP

Message Transfer Part. Layers 1 (physical), 2 (data), and 3 (network) of the SS7 signaling protocol.

MTP1

Message Transfer Part Level 1. SS7 architectural level that defines the physical, electrical, and functional characteristics of the digital signaling link.

MTP2

Message Transfer Part Level 2. SS7 data link layer protocol. SS7 architectural level that exercises flow control, message sequence validation, error checking, and retransmission.

MTP3

Message Transfer Part Level 3. S7 architectural level that provides messages between signalling points in the network, helping control traffic when congestion or failures occur.

MTTR

Mean time to repair. The average time needed to return a failed device or system to service.

MTU

maximum transmission unit. Maximum packet size, in bytes, that a particular interface can handle.

MUD

multi-user dungeon. Adventure, role playing games, or simulations played on the Internet. 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.

mu-law

North American companding standard used in conversion between analog and digital signals in PCM systems. Similar to the European a-law. See also *a-law* and *companding*.

multiaccess network

Network that allows multiple devices to connect and communicate simultaneously.

multicast

Single packets copied by the network and sent to a specific subset of network addresses. These addresses are specified in the Destination Address Field. Compare with *broadcast* and *unicast*.

multicast address

Single address that refers to multiple network devices. Synonymous with group address. Compare with *broadcast address* and *unicast address*. See also *multicast*.

multicast backbone

See *MBONE*.

multicast forward VCC

VCC set up by the BUS to the LEC as a leaf in a point-to-multipoint connection. See also *BUS*, *LEC* (LAN Emulation Client), and *VCC*.

multicast group

Dynamically determined group of IP hosts identified by a single IP multicast address.

Multicast OSPF

See *MOSPF*.

multicast router

Router used to send IGMP query messages on their attached local networks. Host members of a multicast group respond to a query by sending IGMP reports noting the multicast groups to which they belong. The multicast router takes responsibility for forwarding multicast datagrams from one multicast group to all other networks that have members in the group. See also *IGMP*.

multicast send VCC

In an ATM network, a bi-directional point-to-point VCC set up by an LEC to a BUS. One of three data connections defined by Phase 1 LANE. Compare with *control distribute VCC* and *control direct VCC*. See also *BUS*, *LEC* (LAN Emulation Client), and *VCC*.

multicast server

Establishes a one-to-many connection to each device in a VLAN, thus establishing a broadcast domain for each VLAN segment. The multicast server forwards incoming broadcasts only to the multicast address that maps to the broadcast address.

MultiChannel Interface Processor

See *MIP* in the "Cisco Systems Terms and Acronyms" section.

multidrop line

Communications line with multiple cable access points. Sometimes called a multipoint line.

multihomed host

Host attached to multiple physical network segments in an OSI CLNS network.

multihoming

Addressing scheme in IS-IS routing that supports the assignment of multiple area addresses.

Multi-instance option

A DOCSIS option that can occur multiple times in an option set.

multilayer switch

Switch that filters and forwards packets based on MAC addresses and network addresses. A subset of LAN switch. Compare with *LAN switch*.

Multilink PPP

Multilink Point-to-Point Protocol. This protocol is a method of splitting, recombining, and sequencing datagrams across multiple logical data links.

multimode fiber

See *MMF*.

multiple domain network

SNA network with multiple SSCPs. See also *SSCP*.

multiplexer

See *Mux*.

multiplexing

Scheme that allows multiple logical signals to be transmitted simultaneously across a single physical channel. Compare with *demultiplexing*.

Multipoint

1. Line or channel connecting three or more different service points.

2. Circuit that has points served by three or more switches. Single communications channel (typically a leased telephone circuit) to which two or more stations or logical units are attached although only one can transmit at a time. Such arrangements usually require a polling mechanism under the control of a master station to ensure that only one device transmits at a time.

multipoint control unit

Endpoint on the LAN that provides the capability for three or more terminals and gateways to participate in a multipoint conference.

multipoint line

See *multidrop line*.

multipoint-unicast

A process of transferring protocol data units (PDUs) where an endpoint sends more than one copy of a media stream to different endpoints. This might be necessary in networks that do not support multicast.

multipoint-unicast

A process of transferring protocol data units (PDUs) where an endpoint sends more than one copy of a media stream to different endpoints. This might be necessary in networks that do not support multicast.

Multiprotocol over ATM

See *MPOA*.

Multipurpose Internet Mail Extension

See *MIME*.

Multiservice route processor

See *MRP.*

multistation access unit

See *MSAU*.

multi-user dungeon

See *MUD*.

multivendor network

Network using equipment from more than one vendor. Multivendor networks pose many more compatibility problems than single-vendor networks. Compare with *single-vendor network.*

MUX

multiplexer. Equipment that enables several data streams to be sent over a single physical line. It is also a function by which one connection from an (ISO) layer is used to support more than one connection to the next higher layer. A device for combining several channels to be carried by one line or fiber.

MX record

mail exchange record. DNS resource record type indicating which host can handle e-mail for a particular domain.