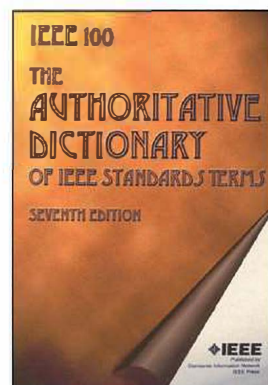


**IEEE 100**  
**The Authoritative Dictionary of**  
**IEEE Standards Terms**

**Seventh Edition**



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include computer-assisted instruction, computer-aided design, and control operations. (C) 610.2-1987

**interactive shell** A processing mode of the shell that is suitable for direct user interaction. (C/PA) 9945-2-1993

**interblock gap** An area between two consecutive blocks. *Synonyms*: record gap; block gap. (C) 610.5-1990w, 610.10-1994w

**intercalated tapes (insulation)** Two or more tapes, generally of different composition, applied simultaneously in such a manner that a portion of each tape overlies a portion of the other tape. (T&D/PE) [10]

**intercardinal plane** Any plane that contains the intersection of two successive cardinal planes and is at an intermediate angular position. *Note*: In practice, the intercardinal planes are located by dividing the angle between successive cardinal planes into equal parts. Often, it is sufficient to bisect the angle so that there is only one intercardinal plane between successive cardinal planes. (AP/ANT) 145-1993

**intercarrier sound system** A television receiving system in which use of the picture carrier and the associated sound-channel carrier produces an intermediate frequency equal to the difference between the two carrier frequencies. *Note*: This intermediate frequency is frequency modulated in accordance with the sound signal. *See also*: television. (EEC/PE) [119]

**intercept call (telephone switching systems)** A call to a line or an unassigned code that reaches an operator, a recorded announcement, or a vacant-code tone. (COM) 312-1977w

**intercept trunk (telephone switching systems)** A central office termination that may be reached by a call to a vacant number, changed number, or line out-of-order. (COM) 312-1977w

**interchange** Energy transferred from one power system to another. (PE/PSE) 858-1993w

**interchangeable** Said of two modules that, although possibly of different design, perform identical functions and have identical interface characteristics. (TT/C) 1149.5-1995

**interchangeable bushing (outdoor apparatus bushings)** A bushing designed for use in both power transformers and circuit breakers. (PE/TR) 21-1976

**interchange circuit (data transmission)** The length of cable used for signaling between the digital subset and the customer's equipment. (PE) 599-1985w

**interchange energy (power operations)** Energy delivered to or received by one electric system from another. (PE/PSE) 858-1987s, 346-1973w

**interchannel interference (modulation systems)** In a given channel, the interference resulting from signals in one or more other channels. (Std100) 270-1964w

**intercharacter gap** The space between the last bar of one character and the first bar of the next character which separates the two adjacent characters. (Also called intercharacter space). (PE/TR) C57.12.35-1996

**intercharacter spacing** In text formatting, the amount of space left between characters on a line. *Synonym*: letter spacing. *Contrast*: interword spacing. *See also*: kerning; incremental justification. (C) 610.2-1987

**interclutter visibility** The ability of a radar to detect moving targets that occur in resolution cells among patches of strong clutter; usually applied to moving-target indication (MTI) or pulsed-Doppler radars. *Note*: The higher the radar range and/or angle resolution, the better the interclutter visibility. (AES) 686-1997

**intercom (interphone)** The interference resulting from signals in one or more other channels. *See also*: intercommunicating system. (Std100) 270-1964w

**intercommunicating system** A privately owned two-way communication system without a central switchboard, usually limited to a single vehicle, building, or plant area. Stations may or may not be equipped to originate a call but can answer any call. *Synonyms*: intercom; interphone. (EEC/PE) [119]

**interconnect (1)** A collective term for structures (in an integrated circuit) that propagate a signal between the pins of cell instances with as little change as possible. These structures include metal and polysilicon segments, vias, fuses, antifuses, etc. Interconnect shall not include such structures if they occur as part of the fixed layout of a cell. (C/DA) 1481-1999

(2) The system of wiring that carries data and control signals between the different components mounted on a printed circuit assembly. *See also*: simple interconnect; extended interconnect; differential interconnect. (C/TT) 1149.4-1999

**interconnected delta connection (power and distribution transformers)** A three-phase connection using six windings (two per phase) connected in a six-sided circuit with six bushings to provide a fixed phase-shift between two three-phase circuits without change in voltage magnitude. *Note*: The interconnected delta connection is sometimes described as a "hexagon autotransformer," or a "squashed delta." (PE/TR) C57.12.80-1978r

**interconnected star connection of polyphase circuits** *See*: zig-zag connection of polyphase circuits.

**interconnected system (A) (electric power system)** A system consisting of two or more individual power systems normally operating with connecting tie lines. *See also*: power system. (B) Two or more power systems connected by transmission facilities. (PE/PSE) 94-1970, [54], 94-1991

**interconnecting channel (of a supervisory system)** The transmission link, such as the direct wire, carrier, or microwave channel (including the direct current, tones, etc.) by which supervisory control or indication signals or selected telemeter readings are transmitted between the master station and the remote station or stations, in a single supervisory system. (SWG/PE) C37.100-1992

**interconnection (1)** The physical plant and equipment required to facilitate the transfer of electric energy between two or more entities. It can consist of a substation and an associated transmission line and communications facilities or only a simple electric power feeder. (SUB/PE) 1109-1990w

(2) The facilities that connect two power systems or control areas. (PE/PSE) 858-1993w

**interconnection device** *See*: adapter.

**interconnection diagram (packaging machinery)** A diagram showing the connections between the terminals in the control panel and outside points, such as connections to motors and auxiliary devices. (IA/PKG) 333-1980w

**interconnection tie** A feeder interconnecting two electric supply systems. *Note*: The normal flow of energy in such a feeder may be in either direction. *See also*: center of distribution. (T&D/PE) [10]

**interconnect space** The address space used for board identification, system configuration, and board specific functions such as testing and diagnostics. (C/MM) 1296-1987s

**interconnect template** A definition of the contents of the interconnect space of an agent. (C/MM) 1296-1987s

**interdendritic corrosion** Corrosive attack that progresses preferentially along interdendritic paths. *Note*: This type of attack results from local differences in composition, that is, coring, commonly encountered in alloy castings. (IA) [59]

**interdigital magnetron** A magnetron having axial anode segments around the cathode, alternate segments being connected together at one end, remaining segments connected together at the opposite end. (ED) 161-1971w, [45]

**interdigital transducer (IDT)** A comb-like conductive structure that is fabricated on the surface of a substrate and consists of interleaved metal electrodes (fingers) whose function is to transform electrical energy into acoustic energy or vice versa by means of the piezoelectric effect. (UFFC) 1037-1992w

**interdigit interval (telephony) (dial-pulse address signaling systems)** In dial-pulse signaling, an extended make interval used to separate and distinguish successive dial-pulse address digits. (COM/TA) 753-1983w

**NEITHER-NOR\*** *See*: NOR.

\* Deprecated.

**NELIAC** *See*: Naval Electronics Laboratory International Algorithmic Compiler.

**neon indicator** A cold-cathode gas-filled tube containing neon, used as a visual indicator of a potential difference or a field. (ED) [45], [84]

**neper (data transmission)** A division of the logarithmic scale so that the number of nepers is equal to the natural logarithm of the scalar ratio of two currents or two voltages. *Notes*: 1. With  $I_1$  and  $I_2$  designating the scalar value of two currents, and  $n$  the number of nepers denoting their scalar ratio:  $n \log_e (I_1/I_2)$ . 2. One neper equals 0.8686 bel. 3. The neper is a dimensionless unit. (PE) 599-1985w

**nerve-block (electrobiology)** The application of a current to a nerve so as to prevent the passage of a propagated potential. *See also*: excitability. (EMB) [47]

**NESC** National Electrical Safety Code, ANSI C2-1993. (T&D/PE) 516-1995

**nest (software)** To incorporate a computer program construct into another construct of the same kind. For example, to nest one subroutine, block, or loop within another; to nest one data structure within another. (C) 610.12-1990

**nest or section (multiple system)** A group of electrolytic cells placed close together and electrically connected in series for convenience and economy of operation. *See also*: electrodialysis. (EEC/PE) [119]

**net (1)** One complete circuit connecting at least one output to at least one input. *Note*: Must be some form of conductor such as a wire. *See also*: network. (C) 610.7-1995, 610.10-1994w

(2) An interconnection path between component pins, where the resistance of the path is not significantly different from zero. (C/TT) 1149.4-1999

**net assured capability (electric power supply)** The net dependable capability of all power sources available to a system, including firm power contracts and applicable emergency interchange agreements, less that reserve assigned to provide for scheduled maintenance outages, equipment and operating limitations, and forced outages of power sources. (PE/PSE) 346-1973w

**net dependable capability (1) (electric power supply)** The maximum generation, expressed in kilowatt hours per hour which a generating unit, station, power source, or system can be depended upon to supply on the basis of average operating conditions. (PE/PSE) 346-1973w

(2) The maximum system load, expressed in kilowatthours per hour that a generating unit, station, or power source can be depended upon to supply on the basis of average operating conditions. *Note*: This capability takes into account average conditions of weather, quality of fuel, degree of maintenance and other operating factors. It does not include provision for maintenance outages. *See also*: generating station. (T&D/PE/PSE) [10], [54]

**net energy for load** Net system generation plus net energy interchange. (PE/PSE) 858-1993w

**net generation (electric power system)** Gross generation minus station service or unit service power requirements. (PE/PSE) 858-1993w, 94-1991w

**net head (power operations)** The gross head less all hydraulic losses except those chargeable to the turbine. (PE/PSE) 858-1987s

**net information content** A measure of the essential information contained in a message. *Note*: It is expressed as the minimum number of bits or hartleys required to transmit the message with specified accuracy over a noiseless medium. *See also*: bit. (EEC/PE) [119]

**net interchange (control area) (power and/or energy)** The algebraic sum of the power on the tie lines of a control area. (PE/PSE) 94-1991w

**net interchange deviation (electric power system) (control area)** The net interchange minus the scheduled net interchange. (PE/PSE) 94-1970w

**net interchange error** The net actual interchange power minus the scheduled net interchange. (PE/PSE) 94-1991w

**net interchange schedule programmer (speed governing systems)** A means of automatically changing the net interchange schedule from one level to another at a predetermined time and during a predetermined period or at a predetermined rate. *See also*: speed-governing system. (PE/PSE) 94-1970w

**netlist** A point-to-point description of the interconnections between individual components in a circuit. (SCC20) 1445-1998

**net load capability** The maximum system load expressed in kilowatt hours per hour that a generating unit, station, or power source can be expected to supply under good operating conditions. *Notes*: 1. This capability provides for variations of load within the hour that it is assumed are to be spread among all of the power sources. 2. This is sometimes called net rated capability. *See also*: generating station. (T&D/PE/PE/PSE) [10], [54]

**net loss (data transmission) (circuit equivalent)** The sum of all the transmission losses occurring between the two ends of the circuit, minus the sum of all the transmission gains. (PE) 599-1985w

**net rated capability** *See*: net load capability.

**net space charge** The free, unbalanced charge in a given region, taking no account of the charges of both signs that balance each other. The preferred unit is the coulomb (C). *Note*: The term "space charge" is often used to refer to "net space charge." (T&D/PE) 539-1990, 1227-1990r

**net space-charge density** Net space charge (spacecharge) per unit volume. The preferred unit is  $C/m^3$ . This quantity provides no information about the monopolar space-charge density. (PE/T&D) 539-1990, 1227-1990r

**net structure** *See*: network structure.

**net system energy (1) (power operations)** Energy requirements of a system, including losses, defined as: A) net generation of the system, plus B) energy delivered to other systems. (PE/PSE) 858-1987s

(2) Energy requirements of a system, including losses, defined as A) net generation of the system, plus B) energy received from others, less C) energy delivered to other systems. (T&D/PE/PSE) 346-1973w

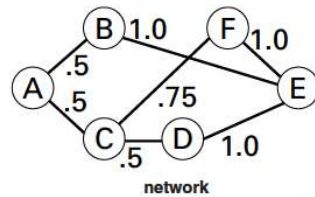
**network (1)** (measuring longitudinal balance of telephone equipment operating in the voice band) A combination of elements or devices. (COM/TA) 455-1985w

(2) (A) **(data transmission)** A series of points interconnected by communication channels. (B) **(data transmission)** The switched telephone network is the network of telephone lines normally used for dialed telephone calls. (C) **(data transmission)** A private network is a network of communications channels confined to the use of one customer. (COM/SUB/PE) 999-1992, 599-1985

(3) (A) **(software)** An interconnected or interrelated group of nodes. *See also*: documentation; node. (B) **(software)** In connection with a disciplinary or problem oriented qualifier, the combination of material, documentation, and human resources that are united by design to achieve certain objectives, for example, a social science network, a science information network. *See also*: node; documentation. (C/SE) 729-1983

(4) **(distribution of electric energy)** An aggregation of interconnected conductors consisting of feeders, mains, and services. *See also*: alternating-current distribution; network analysis. (T&D/PE) [10]

(5) (A) **(data management)** A data structure in which components are allowed to have more than one superordinate component. *See also*: hierarchy; graph. (B) **(data management)** A graph in which the edges connecting the nodes are assigned weights representing some characteristic, such as cost or quantity, related to the edge.



(C) 610.5-1990  
(6) A collection of interconnected hosts. The term network in this document is used to refer to the network of hosts. The batch system is used to refer to the network of batch servers.  
(C/PA) 1003.2d-1994

(7) A network is any set of devices or subsystems connected by links joining (directly or indirectly) a set of terminal nodes.  
(C/BA) 1355-1995

(8) An arrangement of components, or nodes, and interconnecting branches. *See also:* computer network; circuit; store-and-forward switched network; public data network; public circuit-switched network; net; decentralized computer network; centralized computer network; packet switching network; distributed computer network; communications network; public switched network; switched network; value-added network; circuit-switched network; private network; public packet switching network; software defined network.  
(C) 610.7-1995, 610.10-1994w

(9) A communication mechanism for interconnecting multiple Smart Transducers.  
(IM/ST) 1451.1-1999

**network address** A network-visible identifier used to designate specific endpoints in a network. Specific endpoints on host systems shall have addresses, and host systems may also have addresses.  
(C) 1003.5-1999

**network address attributes** The Organizational-Unit-Name-1, Organizational-Unit-Name-2, Organizational-Unit-Name-3, and Organizational-Unit-Name-4 attributes specific to the class.  
(C/PA) 1224.1-1993w

**network allocation vector (NAV)** An indicator, maintained by each station, of time periods when transmission onto the wireless medium (WM) will not be initiated by the station whether or not the station's clear channel assessment (CCA) function senses that the WM is busy.  
(C/LM) 8802-11-1999

**network analysis (networks)** The derivation of the electrical properties, given its configuration and element values.  
(Std100) 270-1966w

**network analyzer (network analyzers)** A system that measures the two-port transmission and one-port reflection characteristics of a multiport in its linear range at a common input and output frequency. *Note:* This includes systems that: (1) Measure magnitude of reflection and transmission coefficient only as well as those systems that measure magnitude and phase; (2) operate manually or automatically; (3) cover a frequency range either continuously or in small enough steps to make coverage practically continuous; (4) vary frequency manually or automatically, stepped, or swept.  
(IM/HFIM) 378-1986w

**network architecture** *See:* computer network architecture.

**network byte order** An implementation-defined way of representing an integer so that, when transmitted over a network via a network endpoint, the integer shall be transmitted as an appropriate number of octets with the most significant octet first. This term has been used in historical systems and base documents to denote this representation. This representation is used in many networking protocols, including Internet and OSI. However, it should not be assumed this representation is useful with all network protocols.  
(C) 1003.5-1999

**Network Capable Application Processor (NCAP, IEEE1451.NCAP)** (1) A device between the Smart Transducer Interface Module and the network that performs network communications, Smart Transducer Interface Module communications, and data conversion functions.  
(IM/ST) 1451.2-1997

(2) A device that supports a network interface, application functionality, and generally access to the physical world via one or more transducers. An IEEE1451.NCAP is an NCAP conformant to this standard.  
(IM/ST) 1451.1-1999

**network capacitance (charging inductors)** The effective capacitance of the pulse-forming circuit.  
(MAG) 306-1969w

**network control (telephone switching systems)** The means of determining and establishing the required connections in response to information received from the system control.  
(COM) 312-1977w

**network control host** A network management central control center that is used to configure agents, communicate with agents, and display information collected from agents.  
(C/LM) 802.3-1998

**network control program (NCP)** A software program that deals with the operation of a front-end computer or communications controller.  
(C) 610.7-1995

**network database (1) (data management)** A database in which data are organized into segments which represent nodes within a network. *Contrast:* relational database.  
(C) 610.5-1990w

(2) A database system that uses directed graphics to represent the data.  
(PE/EDPG) 1150-1991w

**network feeder** A feeder that supplies energy to a network. *See also:* center of distribution.  
(T&D/PE) [10]

**network function** Any impedance function, admittance function, or other function of  $p$  that can be expressed in terms of or derived from the determinant of a network and its cofactors. *Notes:* 1. This includes not only impedance and admittance functions as previously defined, but also voltage ratios, current ratios, and numerous other quantities. 2. Certain network functions are sometimes classified together for a given purpose (for example, those with common zeros or common poles). These represent subgroups that should be specifically defined in each special case. 3. In the case of distributed-parameter networks, the determinant may be an infinite one: the definition still holds. *See also:* network analysis.  
(Std100) 270-1966w

**network hierarchy** In data communications, a network with a single computer having control over all the nodes connected to it.  
(C) 610.7-1995

**network host name** A string of characters in the portable character set that identifies a specific host in a network.  
(C/PA) 1003.2d-1994

**network interface (1) (telephone loop performance)** The interface between the public switched telephone network and the customer premises wiring.  
(COM/TA) 820-1984r

(2) (demarcation point) The point of connection between the local loop and the end user's (customer's) wiring.  
(AMR/SCC31/SCC31) 1390-1995, 1390.2-1999, 1390.3-1999

**network interface controller** A communication device which permits the connection of information processing devices to a network.  
(C) 610.7-1995

**network interface definition language (NIDL)** A model, proposed by the Institute of Electrical and Electronics Engineers, for parallel processing and logical process partitioning across a distributed computer network.  
(C) 610.7-1995

**network layer (1) (Layer 3)** The layer of the ISO Reference Model that performs those routing and relaying services necessary to support data transmission over interconnected networks.  
(DIS/C) 1278.2-1995

(2) In Open Systems Interconnection (OSI) architecture, the layer that provides services to establish a path between open systems with a predictable quality of service.  
(LM/C) 8802-6-1994

(3) The third layer of the seven-layer OSI model; responsible for establishing routes between the sending and receiving stations. *Note:* This layer appends and removes routine headers on the data packets, selects paths for them, and regulates their flow to prevent congestion. The network layer may use intermediate systems. *See also:* entity layer; application layer;

# P

**p** *See:* pico.

**PA** Pre-arbitrated. (LM/C) 802.6-1990r

**PA access function** *See:* pre-arbitrated (PA) access function.

**PABX** *See:* private automatic branch exchange.

**pace voltage (surge arresters)** A voltage generated by ground current between two points on the surface of the ground at a distance apart corresponding to the conventional length of an ordinary pace. (PE) [8], [84]

**PACF** *See:* phase angle correction factor.

**pacing (1) (Class 1E connection assemblies)** A method of ongoing qualification by parallel age conditioning. (PE/NP) 572-1985r

(2) A method to regulate the flow of bytes read from or written to a Smart Transducer Interface Module. (IM/ST) 1451.2-1997

**pack (1)** To compress several items of data in a storage medium in such a way that the individual items can later be recovered. (C) [20], [85]

(2) **(data management) (software)** To store data in a compact form in a storage medium, using known characteristics of the data and medium in such a way as to permit recovery of the data. *Contrast:* unpack. *See also:* packed data. (C) 610.5-1990w, 610.12-1990

**package (1) (software)** A separately compilable software component consisting of related data types, data objects, and subprograms. *See also:* encapsulation; information hiding; data abstraction. (C) 610.12-1990

(2) The combination of a node's properties, methods, and private data. (C/BA) 1275-1994

(3) An external container, substrate, or platform used to hold a semiconductor or circuit. *Note:* it may be made of plastic or ceramic with many interfacing pins. (C) 610.10-1994w

(4) A group of related OM classes. (C/PA) 1328.2-1993w, 1327.2-1993w, 1224.2-1993w, 1326.2-1993w

(5) A group of related classes. (C/PA) 1328-1993w, 1238.1-1994w, 1224-1993w, 1224.1-1993w, 1327-1993w

**package closure** The set of classes that need to be supported in order to be able to create all possible instances of all classes defined in the package. (C/PA) 1328-1993w, 1224-1993w, 1327-1993w

**package, core** *See:* core package.

**package instance** A data structure resulting from the opening of a particular package, consisting of a set of values for the package's private data. (C/BA) 1275-1994

**packaged magnetron** An integral structure comprising a magnetron, its magnetic circuit, and its output matching device. *See also:* magnetron. (ED) 161-1971w, [45]

**packager role** Where software that has been developed is organized in a form suitable for distribution. (C/PA) 1387.2-1995

**packaging (1) (software)** In software development, the assignment of modules to segments to be handled as distinct physical units for execution by a computer. (C) 610.12-1990

(2) The process of containing, connecting, protecting, and sealing circuits and components into enclosures such as devices, modules, or housings. (C) 610.10-1994w

**packaging machine** Any automatic, semiautomatic, or hand-operated apparatus that performs one or more packaging functions, such as, but not limited to, the fabrication, preparation, filling, closing, labeling, or preparing, or both, for final distribution of any type of package or container used to protect or display, or both, any product. (IA/PKG) 333-1980w

**packed array** An array in which all data elements in the set have non-trivial values. *Synonym:* dense list. (C) 610.5-1990w

**packed binary data** Binary data stored in a compact form in a storage medium, using known characteristics of the data and the medium to permit recovery of the data. (C) 610.5-1990w

**packed data** Data stored in a compact form in a storage medium, using known characteristics of the data and the medium to permit recovery of the data. *See also:* packed decimal data; packed binary data. (C) 610.5-1990w

**packed decimal data** Integer data stored in a compact form in a storage medium, using known characteristics of the data and the medium to permit recovery of the data. In the most common implementation, each decimal digit is represented in binary, occupying four bits, and the right-most decimal digit is followed by a four-bit sign digit (hexadecimal A,C,E, or F for positive; B or D for negative).

|                |                                                       |
|----------------|-------------------------------------------------------|
| decimal        | 275 <sub>10</sub>                                     |
| packed decimal | 0010 0111 0101 1111 <sub>2</sub> = 275F <sub>16</sub> |
| decimal        | -91 <sub>10</sub>                                     |
| packed decimal | 0000 1001 0001 1011 <sub>2</sub> = 091B <sub>16</sub> |

*See also:* unsigned packed decimal data. (C) 610.5-1990w

**packet (1)** A group of binary digits including data and control elements which is switched and transmitted as a composite whole. The data and control elements and possibly error control information are arranged in a specified format. (LM/COM) 168-1956w

(2) **(MULTIBUS II)** A block of information that is transmitted within a single transfer operation in message space. *See also:* message space; transfer operation. (C/MM) 1296-1987s

(3) A collection of symbols that contains addressing information and is protected by a CRC. A subaction consists of two packets, a send packet and an echo packet. (C/MM) 1596-1992

(4) A 17-bit unit of data consisting of a 16-bit word plus 1 parity bit. (TT/C) 1149.5-1995

(5) A sequence of N\_chars with a specific order and format. A packet consists of a destination followed by a payload. A packet is delimited by an end\_of\_packet marker. *See also:* destination; payload. (C/BA) 1355-1995

(6) A unit of data of some finite-size that is transmitted as a unit. *Note:* Usually consists of a header containing control information such as a sequence number, the network address of the station that originated the packet, and the network address of the packet's destination. *See also:* long packet; short packet. (C) 610.7-1995, 610.10-1994w

(7) A serial stream of clocked data bits. A packet is normally the PDU for the link layer, although the cable physical layer can also generate and receive special short packets for management purposes. (C/MM) 1394-1995

(8) A collection of symbols that contains addressing information and is protected by a CRC. A subaction consists of two packets: a send packet and an echo packet. (C/MM) 1596.3-1996

(9) A block of information that is transmitted within a single transfer operation. (C/MM) 1596.4-1996

(10) A structured field, having a start byte, a two-byte length field (the first two bytes), a flag byte, a command byte, followed by the subcommand and/or data fields. (C/MM) 1284.1-1997

(11) Consists of a data frame as defined previously, preceded by the Preamble and the Start Frame Delimiter, encoded, as appropriate, for the Physical Layer (PHY) type. (C/LM) 802.3-1998

(12) **(local area networks)** The total information transmitted over the link medium, including the preamble, the MAC frame, and the start of stream and end of stream delimiters. *See also:* frame. (C) 8802-12-1998

- (13) A sequence of bits transmitted on Serial Bus and delimited by DATA\_PREFIX and DATA\_END.  
(C/MM) 1394a-2000
- (14) A group of bytes, including address, data, and control elements.  
(C/MM) 1284.4-2000
- packet assembler/disassembler (PAD)** (1) A device that assembles and disassembles packets.  
(LM/C/COM) 8802-9-1996
- (2) A protocol conversion device that performs packet assembly/disassembly. *Note:* Generally refers to a terminal multiplexer device that connects hosts and terminals on a network.  
(C) 610.7-1995
- packet assembly/disassembly** The process of dividing a message into packets for transmission over a packet switching network and then reassembling the packets in the original message.  
(C) 610.7-1995
- PACKET COUNT packet** A packet by means of which an M-module conveys to addressed S-modules the number of packets to follow in the current message. S-modules may or may not include the ability to use the data in this packet.  
(TT/C) 1149.5-1995
- packet data network** *See:* packet switching network.
- packet data transfer** A very fast, but technology-dependent, noncompelled transfer mechanism used to transfer data from a source to a destination.  
(C/BA) 1014.1-1994w
- packet data transfer protocol** A very fast but technology-dependent noncompelled transfer mechanism that uses a compelled protocol over the entire packet to provide flow control.  
(C/BA/C/BA) 10857-1994, 896.4-1993w
- packet error** An error that occurs when a packet is lost in the network. *See also:* type error; address error; abnormal preamble; alignment error.  
(C) 610.7-1995
- packet handler (PH)** A device for processing packets or frames in a manner so as to be able to route individual frames or packets out of one data stream into multiple different data streams.  
(LM/C/COM) 8802-9-1996
- packetized data transfer** Transfer of data through a network where data is conveyed in packets and/or frames in a statistical manner. Packets or frames are propagated through the network and delivered to destinations based on addressing information contained therein. (LM/C/COM) 8802-9-1996
- packet latency** During a send/receive message, the number of packet transfers by which the first non-NULL DATA packet returned by the addressed S-module lags the first non-null DATA packet transmitted by the M-module.  
(TT/C) 1149.5-1995
- packet layer** The layer of the protocol concerned with end-to-end transmission of information, possibly through a number of intermediate routers. It is at the packet layer that the routing decisions are taken.  
(C/BA) 1355-1995
- packet mode protocol** The access protocol based on the use of out-of-band control and Link Layer multiplexing.  
(LM/C/COM) 8802-9-1996
- packet pair** Two packets, one transmitted by the M-module and one by an S-module, such that the last 14 bits of the M-module-originated packet are transmitted simultaneously with the first 14 bits of the S-module-originated packet.  
(TT/C) 1149.5-1995
- packet-switched data network (PSDN)** A packet-switched subnetwork that can be a PPSN (private) or a PSPDN (public) packet-switched network. (LM/C/COM) 8802-9-1996
- packet switched network** *See:* packet switching network.
- packet switched public data network (PSPDN)** A public subnetwork that is accessed via the CCITT X.25 protocol and that provides virtual circuit service.  
(LM/C/COM) 8802-9-1996
- packet switching** (1) A data transmission process, utilizing addressed packets, whereby a channel is occupied only for the duration of transmission of the packet. *See also:* store-and-forward switching; message switching; circuit switching.  
(LM/COM) 168-1956w
- (2) A technique used in data communications in which messages are broken into finite-size packets and are forwarded to the other party over the network. Packets may vary in size so long as the size does not exceed the maximum size convention for the local network or protocol in use. *Note:* The packets need not travel the same path. At the end of the circuit, the packets are reassembled into the messages and are then passed on to the receiving terminals. *Contrast:* cell switching. *See also:* fast packet switching; virtual circuit.  
(C) 610.7-1995
- packet switching network** A network that uses packet switching techniques for transmission of data. *Synonyms:* packet switched network; packet data network. (C) 610.7-1995
- packet symbol** A symbol contained within a packet and protected by the packet's CRC. (Exception: part of the second symbol in a packet contains flow control information that is not covered by the CRC, but the symbol as a whole is still considered to be within the packet.) (C/MM) 1596-1992
- packing density (computers)** The number of useful storage cells per unit of dimension, for example, the number of bits per inch stored on a magnetic tape or drum track.  
(MIL/C) [2], [85], [20]
- packing fraction (fiber optics)** In a fiber bundle, the ratio of the aggregate fiber cross-sectional core area to the total cross-sectional area (usually within the ferrule) including cladding and interstitial areas. *See also:* ferrule; fiber bundle.  
(Std100) 812-1984w
- packing gland** An explosion-proof entrance for conductors through the wall of an explosionproof enclosure, to provide compressed packing completely surrounding the wire or cable, for not less than 0.5 in measured along the length of the cable. *See also:* mine feeder circuit. (EEC/PE) [119]
- PAD** *See:* packet assembler/disassembler; packet assembly/disassembly.
- pad (1) (data transmission) (attenuating pad)** A nonadjustable passive network that reduces the power level of a signal without introducing appreciable distortion. *Note:* A pad may also provide impedance matching. (PE) 599-1985w
- (2) (data management)** To fill an item such as a record or block with one or more filler characters in order to satisfy some prescribed condition. For example, in order to right justify a seven-character string in a ten-position field, three blank characters are used to pad the data. *See also:* zero fill; character fill. (C) 610.5-1990w
- (3) (local area networks)** Any combination of octets used to extend the end of the data field of the ISO/IEC 8802-3 MAC frame so that it will meet minimum length requirements.  
(C) 8802-12-1998
- padding (A)** The technique of filling out a fixed-length block of data with dummy characters, words, or records.
- (B)** Dummy characters, words, or records used to fill out a fixed-length block of data. (C) 610.12-1990
- paddle** A cursor control device consisting of a rotatable knob and potentiometer used to control the position of a cursor on a display device. (C) 610.10-1994w
- pad electrode (dielectric heating)** One of a pair of electrode plates between which a load is placed for dielectric heating.  
(IA) 54-1955w, 169-1955w
- pad-mounted (1)** A method of supporting equipment, generally at ground level. (NESC) C2-1977s
- (2)** A general term describing equipment positioned on a surface-mounted pad located outdoors. The equipment is usually enclosed with all exposed surfaces at ground potential.  
(SWG/PE) C37.100-1992
- pad-mounted equipment** A general term describing enclosed equipment, the exterior of which enclosure is at ground potential, positioned on a surface-mounted pad.  
(NESC) C2-1997
- pad-mounted fused switchgear (PMFSG)** Load-interrupter switch and fuse assemblies in which all energized parts are insulated and completely enclosed within an enclosure when the doors and covers are securely closed. The overall en-