



1000BaseT	1000 Mbps, 1 Billion bits per second data transmission over copper cabling. All four pairs of Category 6 cable utilized at 250Mbps per pair. Commonly referred to as Gigabit Ethernet.
1000BaseFX	Gigabit Ethernet over fiber optic cable.
100BaseTX	100 Mbps, 100 Million bits per second Ethernet data transmission, full-duplex baseband signalling over twisted pair copper cabling.
100BaseFX	100 Mbps Ethernet data transmissions over Fiber optic cable.
100BaseLX	100 Mbps Ethernet data transmission over Long Wavelength fiber optic transmissions - 1300nm.
100BaseSX	100 Mbps Ethernet data transmission over Short Wavelength fiber optic transmissions - 850nm.
100BaseT2	100 Mbps Ethernet running baseband signalling over two twisted pairs.
100BaseT4	Four pairs of Cat3 or better cable. Transmits at 25 Mbps on all four pairs.
100BaseTX	100 Mbps Ethernet data transmission running full-duplex baseband signalling over twisted pair copper.
10Base2	Thin Coax Ethernet, commonly referred to as Thinnet or coax, capable of shared 10 Mbps data transmissions up to 185 meters.
10Base5	Thick Coax Ethernet, commonly referred to as Thicknet, capable of shared 10 Mbps data transmissions up to 500 meters.
10BaseT	10 Mbps Ethernet data transmission running baseband signalling over twisted pair copper cable.
ACR	Attenuation to Crosstalk Ratio. The level of cross talk in relationship to the attenuated signal at the far end of the cable. Critical in Full Duplex mode.

ADSL	Asymmetric Digital Subscriber Line. A digital connection with higher bandwidth for downloading than uploading.
Alien Crosstalk	Interference picked up from an adjacent wire pair within the same cable sheath.
ANSI	American National Standards Institute.
ASCII	American Standard Code for Information Interchange. Originally a 7 bit code later 8 bit for communication interfaces.
ASIC	Application Specific Integrated Circuit. An Integrated Circuit built to perform a specific task
ATM	Asynchronous Transfer Mode. A Wide Area Network transport which provides the integration of Voice, Video and Data traffic.
Attachment cable	The cable between the workstation outlet and active equipment
Attenuation	Loss of signal strength and integrity over a given length of cable
AUI	Attachment User Interface. An IEEE 802.3 standards 15 pin 3 row 'D' type connector interface.
AWG	American Wire Gauge. The larger the number the smaller the wire diameter.
Backbone cabling	Telecommunications cabling that provides connections between telecommunications closets, equipment rooms and entrance facilities.
Balanced cable	Two identical wires carrying signal of opposite polarity but equal amplitude to eliminate interference. The wires are twisted to maintain balance over a distance
Balun	Balanced - unbalanced impedance matching connector. Connects balanced and un-balanced network cables together.
Bandwidth	The capacity of a medium to carry data bits. Measured in Hz
Baseband	The raw data is transmitted using the full bandwidth of the cable with no modulation.
BAUD	Rate of number of signal or voltage changes per second.
BNC	Bayonet connector used with RG58 coaxial cable networks. (i.e. 10base2 coax)
BPS	Bits per second
Broadband	The bandwidth of the cable is split into

	multiple modulated channels thus permitting multiple channels in data systems.
Broadcast	Process of sending data to more than one device at a time
Buffer Tube	Extruded cylindrical tubes covering optical fiber(s) used for protection and isolation.
Bus Network	A network with all devices sharing one common cable.
Category 1, Cat1	Unshielded Twisted Pair for use as speaker or door bell wire.
Category 3, Cat3	UTP for frequencies up to 16Mhz. 100 ohm
Category 4, Cat4	UTP 100 ohm for frequencies up to 20Mbps defined by EIA/TIA 568-A specifications.
Category 5, Cat5	UTP 100 ohm for frequencies up to 100Mbps defined by EIA/TIA 568-A specifications.
Category 5e, Cat5e	Enhanced Category 5. Similar to Cat 5 with improved specifications including PSELFEXT, ACR and attenuation. Defined by EIA/TIA 568-A-5.
Category 6, Cat6	Network Cabling standard to support up to 250 Mhz over UTP.
Category 7, Cat7	Proposed cabling standard to support up to 600 Mhz over UTP.
CDDI	Copper Distributed Data Interface as defined by (ANSI X3T12) for 100Mbps token passing over copper twisted pair.
Class 'C'	ISO/IEC 11801 cabling standard corresponding to the EIA/TIA Cat 3 cabling standards
Class 'D'	ISO/IEC 11801 cabling standard corresponding to the EIA/TIA Cat 5 100Mhz cabling standards
Class 'E'	ISO/IEC proposed cabling standard corresponding to the EIA/TIA Cat 6 250Mhz cabling standards
Cladding	The material surrounding the core of a fiber optic cable.
Coax	Coaxial cable with a copper screen carrying unbalanced signals
Collision domain	All the nodes on an Ethernet segment that are affected by data collisions. Switches and bridges break up networks into individual collision domains
Core	Center of a fiber optic cable

Crosstalk	Interference picked up from an adjacent wire pair within the same cable sheath (also known as Alien Crosstalk)
CSMA/CD	Carrier Sense Multiple Access with Collision Detect. A NIC transceiver "listens" to the network before transmission and can detect collisions.
Drop	Single cable outlet which contains a varying number of network cables
DTE	Data Terminal Equipment
EIA	Electronics Industry Association in America
EIA 568	UTP commercial building specifications from the EIA
EIA 568B	Now the most common UTP cable color codes and pin allocation
ELFEXT	Equal Level Far End Cross Talk
EMI	Electro Magnetic Interference. Unwanted noise from a source (i.e. Fluorescent Lighting and Electric Motors)
Ethernet	A LAN protocol in which computers access the network through CSMA/CD protocols defined by the IEEE 802.3 standards.
Fast Ethernet	100 Mbps CSMA/CD Ethernet
FDDI	Fiber Distributed Data Interface as defined by (ANSI X3T12) for 100Mbps token passing over Fiber.
Ferrule	A mechanical fixture, generally a rigid tube, used to protect and align fiber in a connector.
Fiber	A thin filament of glass. An optical waveguide consisting of a core and a cladding that is capable of carrying information in the form of light.
Fiber Optics	Light transmission through optical fibers for communication or signaling.
Frame Relay	Efficient method of packaging data into variable size frames for transmission over Wide Area Networks.
Frequency	The number of pulses or cycles per second; measured in units of Hertz (Hz) where 1 Hertz equals 1 pulse/cycle per second.
Full-duplex	Allows data transmissions in two directions at once. Transmit and receive simultaneously
Fusion Splicing	A permanent joint produced by the application of localized heat sufficient to

	fuse or melt the ends of the optical fiber, forming a continuous single fiber.
Gbps	Giga bits per second. 1 billion or 1,000,000,000 bits per second
Gigabit Ethernet	Giga bits per second. 1 billion or 1,000,000,000 bits per second
Half-Duplex	Single way transmission. Capable of either Transmitting or Receiving, but not simultaneously
Horizontal Cabling	The portion of structured cabling that provides connectivity between the horizontal cross-connect and the work area telecommunications outlet.
Hub	The center of a star wired network. May be passive or active in re-transmissions of network traffic.
Hybrid Cable	A fiber optic cable containing two or more different types of fiber, such as multimode and singlemode
Hz	Frequency per second.
IDC	Insulation Displacement Connection. The connection is made by forcing the wire between two sharp blades which cut through the plastic insulation to contact with the copper conductor.
IEEE	Institute of Electrical & Electronic Engineers
IEEE 802	The IEEE project number dealing with LAN technologies.
IEEE 802.3	Physical cabling layer standards for Ethernet.
IEEE 802.5	Physical cabling layer standards for Token Ring
Impedance	Measurement of the opposition to the flow of electrons in a cable. The combination of Resistance, Capacitance and Inductance.
Infrastructure	The collection of communication components (excluding active equipment) that together provide support for the distribution of information within a building or campus.
Insertion Loss	The attenuation of a signal as it passes through a connector.
Intranet	A private company network used to propagate internal company information to employees.
IP	Internet Protocol. Along with TCP is used to track and deliver data packets over a

	network.
IPX	Internet Packet Exchange. A Novell networking protocol.
ISDN	Integrated Digital Network Services. High speed data transfer over the PSTN.
ISO	International Standards Organization.
ISP	Internet Service Provider. The company who provides a connection to the internet.
Jabber	A transceiver on an Ethernet network that has failed and is transmitting continuously and has "flooded" the network with it's incessant jabbering.
LAN	Local Area Network
LED	Light Emitting Diode. A semiconductor device used to transmit light into a fiber in response to an electrical signal.
Link	A circuit between two telecommunications devices.
Loose Tube Cable	A cable design where coated fibers are encased in buffer tubes offering fiber protection and segregation.
MAC	Media Access Control.
MAN	Metropolitan Area Networks, Spanning a Town or City.
MAU	Multiple Access Unit. IBM terminology for a token ring hub.
Mechanical Splice	Process where two fibers are joined together by permanent or temporary mechanical means to enable a continuous signal.
Media	The physical copper or fiber optic cable used in the transmission of signals.
Mode	A term used to describe an independent light travelling in an optical fiber cable.
Modem	A device which modulates and demodulates signals between digital to analog circuits.
Multi-mode	Fiber optic cable which supports multiple wavelengths. Diameter of 50 to 100 microns (um) with a stepped refractive index. Uses LED (Light Emitting Diode) sources.
N Connector	Connectors used for Thicknet Ethernet 10Base-5 coax cable.
NEXT	Near End Cross Talk. The effect of one cable pair's signal on the adjacent pairs.
NIC	Network Interface Card

Numerical Aperture	The angle at which a fiber optic cable will gather light and propagate it down the core.
NVP	Nominal Velocity of Propagation. The speed a signal will travel down an electrical cable measured as a percentage of the speed of light in a vacuum. Normally 70% - 75%
OSI	Open Systems Interconnection. The worldwide reference for the networking protocol stack.
OTDR	Optical Time Domain Reflectometer. A device for measuring the length or finding breaks in fiber optic cables.
PBX	Private Branch Exchange, A switchboard.
Packet	A string of bits containing command information, destination and source addresses and data
Patch Cable	The cable connecting the network patch panel or workstation outlet and the active switch or workstation.
Patch panel	An array of connectors in the telecommunication room or wiring closet to allow circuit rearrangements by plugging in patch cords.
Physical layer	Layer One of the seven OSI layers. This layer is responsible for the transmission of signals between devices on a network.
Plenum	An air handling space found above drop ceilings or beneath raised floors. Also, a fire rating for indoor cable.
POP	Point of Presence. The connection point to the ISP or Telecommunications Carrier.
POTS	Acronym for Plain Old Telephone System, or PSTN.
Premises cabling	The complete structured cabling infrastructure for the transmission of voice, data and video through a given building.
Propagation delay	The time for a signal to travel from the input to the output of a device.
Protocol	A data transfer mode using Bit codes, Start Stop bits, Parity. Both transmitter and receiver must use the same protocols.
PSELFEXT	Power Sum Equal Level Far End Cross Talk. Measures the summed cross talk from 3 pairs on the remaining pair having compensated for the known attenuation of the cable.

PSNEXT	Power Sum Near End Cross Talk. The effect on one pair of the summed crosstalk of the three other pairs.
Pulling tension	The maximum pulling force which can be applied to a data cable without affecting its electrical characteristics and its network performance.
PVC	An abbreviation used to denote Polyvinyl-Chloride. A type of plastic material used for cable jacketing. Typically used in flame-retardant cables.
Reflection	The return of electromagnetic energy that occurs when components are mismatched in network cabling. These reflections can cause data errors resulting in poor network performance.
Repeater	A device, usually a network hub or switch that receives, amplifies and resends data. The signal is boosted and the wave reshaped allowing extended transmission distances.
Reversed Pairs	An issue where single wires in a pair have been reversed resulting in inoperation of the connection.
RG 58	The specification of the coaxial cable used for Thinnet (10base2) Ethernet networks.
Riser	Pathways for indoor cables that pass between floors such as a vertical shaft. Also, a fire code rating for indoor cable.
RJ11	Registered Jack number 11. Small 4-pin line plug and socket used on telephone handsets and modem connections.
RJ45	Registered Jack number 45. Larger 8-pin plug and socket used primarily for data transmission applications and equipment.
RS-232	Serial communication signalling protocol using 2 pairs.
RX	Transmission Receive
SC connector	A Small Connector for terminating fiber optic cables.
SCSI	Small Computer Systems Interface. Connects peripherals to the computer mother board.
Segment	The area of a network that all nodes can see each other. Often referred to as a collision domain.
Shielded	Cable with a braided or foil shield to keep out RFI and EMI.
Singlemode	An optical waveguide (or fiber) which the

Fiber	signal travels in one mode. The fiber has a small core diameter, typically 8.3µm. Uses LASER (Light Amplified by Stimulated Emission of Radiation) sources.
Skew	The differential delay between two adjacent cables carrying data transmitted simultaneously.
SNMP	Simple Network Management Protocol. A protocol governing network management and device handling.
SOHO	Small Office Home Office network system often mixing voice, data and video on the same cables.
Splicing	The permanent joining of bare fiber ends to another fiber
Split Pairs	Where the single wires from two different pairs have been swapped. If the same at both ends will not affect short cable transmissions, but will fail over longer distance.
ST connector	Straight Tip. A connector used for fiber optic terminations .
Star network	All devices are attached to a central hub in a star configuration.
STP	Shielded Twisted Pair copper cable.
Structured cabling	The complete structured cabling infrastructure for the transmission of voice, data and video through a given building.
Switch	An active equipment Ethernet device which reads MAC addresses and routes data to an individual node or network hub. Switches split up networks into smaller individual collision domains. A switch can route data at wire speed through all its ports simultaneously.
TCP	Transmission Control Protocol. Used with IP to track and deliver packets of data over a network.
TDR	Time Domain Reflectometer. A device for measuring the length of cables by "bouncing" a signal off the far end. The NVP must be known and programmed into the machine.
Terminator	An electrical connector attached to the end of a cable to reduce signal reflections and unwanted noise.
TIA	Telecommunication Industry Association
Token Ring	A network where a single token is passed around a network between computers. A

	computer must grab and hold onto the token before it can transmit. After transmission it releases the token back onto the network.
Topology	Network architecture, circuit design and transmission protocols.
Transceiver	An electronic circuit designed to transmit and receive data over a network. A NIC contains a transceiver as does a hub and a switch.
Twisted Pair	Copper wires twisted together to reduce RFI and Crosstalk.
TX	Transmission Transmitter
USB	Universal Serial Bus. A 12 Mbs connection port for games, printers, scanners and other PC peripherals
USOC	Universal Service Ordering Codes Cabling system originally used in the telephone systems.
UTP	Unshielded Twisted Pair. 4 twisted pairs in one sheath.
WAN	Wide Area Network