Vanguard Applications Ware Technical Glossary

Overview

This glossary contains terms, and their definitions, that you will encounter in the Vanguard Applications Ware Feature Protocols Documentation Set. This section is provided to help you familiarize yourself with data communication terminology.

A

Term	Definition
AAA	Authentication, Authorization, Accounting.
AAL-x	ATM Adaptation Layer x.
ABM	See Asynchronous Balanced Mode.
AC	Access Concentrator.
Access Network	A network or subnet that serves as an access point to another network.
ACK	See Acknowledgment.
Ack TPDU	Acknowledge Transport Protocol Data Unit.
Acknowledgment	A message that is sent that an earlier message had been received at its intended destination without error.
ACTLU	Activate Logical Unit.
ACTPU	Activate Physical Unit.
Adapter	A device linking parts of systems, subsystems, hosts, or networks.
Address Mask	A bit mask that identifies network and subnetwork portions of a complete IP Address. Because the subnet portion can be determined by comparing the binary version of the mask to an IP address in that subnet, this is also called a Subnet Mask.
Address Resolution	A method of mapping low level physical network hardware addresses which correspond to higher level addresses when both correspond to the same device. (See ARP.)
Address Resolution Protocol	This is a processes which maps Internet Protocol addresses to Ethernet physical addresses. It is limited to physical networks that support broadcast packets sent to all hosts on a network.

Term	Definition (Continued)
Address Space	A collection of addresses that form a unified collection such as an internetwork or that portion of a protocol header that contains an address.
AEC	Advanced Encryption Card. Vanguard 7300 Series.
AES	Advanced Encryption Standard.
Aggregate	Behavior Aggregate, a component in the Quality of Service (QoS) feature.
AH	Authentication Header.
AIO	An Asynchronous Input/Output card used in the 6500^{PLUS}.
AIX	Advanced Interactive eXecutive; IBM's version of UNIX.
American National Standards Institute (ANSI)	A private organization that coordinates and approves US standards.
API	A Programming Interface.
AppleTalk	A networking protocol designed to support communication between Apple Computer products and other computers.
Application Layer	In the OSI model, this is the top layer that supports communication features such as e-mail and file transfer. See OSI.
ARE	All Routes Explorer.
ARP	See Address Resolution Protocol.
AS	Autonomous System.
ASBR	Autonomous System Border Router.
ASN	AS number. A community value is normally represented as "ASN:value", value is the community attribute value.
ASN.1	Abstract Syntax Notation One. The language used by ISO protocols, such as SNMP and MIBs.
Asynchronous Balanced Mode	A service used in SNA and in the data link layer IEEE 802.2 standard. Indicates that only one side of a connection can communicate.
Asynchronous Communication	A method of transmitting data where spaces between packets do not need to be of equal length without the need for timing data or synchronization.
Asynchronous Mode	An OSI model for virtual terminal operation where either side may communicate at anytime.
Asynchronous Transmission (Async)	A method of transmitting data where the time intervals between transmitted characters may be of unequal length. Transmission is controlled by start and stop bits at the beginning and end of each character.

Term	Definition (Continued)
ATM	• Automatic Teller Machine. • Asynchronous Transfer Mode, a cell-switching and multiplexing protocol.
Authentication	The verification of a process identity, or the code used to identify a process.
Auto-Answer	A feature that allows device to automatically respond to a call an incoming call.

B

Term	Definition
BA	See Behavior Aggregate.
Back-up Link	An alternate link that is used when the primary link fails.
Backbone	The main connectivity device in a distributed system. All systems that have connectivity to the backbone will communicate with each other.
Bandwidth	The difference between the highest and lowest frequency of a transmission channel. Often used to identify the amount of data that can be sent through a circuit.
Bandwidth on Demand	The capability to activate additional incremental Wide Area Bandwidth for IP traffic. This is done on a packet-by-packet basis, when congestion thresholds are exceeded on the primary SVC.
Baseband	A medium for transmitting digital signals without complicated frequency changing.
Basic Rate Access	A Canadian term that is synonymous with BRI (Basic Rate Interface).
Basic Rate Interface	A type of ISDN 144 Kbps service that includes: • Two 64 Kbps B-Channels for voice, data, or video transmission. • One 16 Kbps (B-Channel) for control information.
BCD	See Binary Coded Decimal. A binary-coded alphanumeric notation in which each decimal digit is represented by a four bit binary number.
BECN	Backward Explicit Congestion Negotiation. A bit used in a frame relay network to notify the source of the traffic that there is congestion in the frame relay network.
BER	Basic Encoding Rules.
Behavior Aggregate	Behavior Aggregate is a component on the Quality of Service (QoS) feature, and refers to a group of data flows that exhibit similar behavior such as a group of packets with the same DiffServ Code Point (See DSCP) crossing a link in a particular direction.

Term	Definition (Continued)
BGP	Border Gateway Protocol.
Billing	The process of accumulating and reporting cost data on individual calls.
Binary Coded Decimal	A binary-coded alphanumeric notation where a decimal digit is represented by a four-bit binary number.
Binary Synchronous Communication (BSC)	An IBM defined byte controlled communication protocol (also called Bisync) which uses control characters and synchronized transmission of binary coded data.
Bind	An SNA or Novell term indicating that a session has been established between two logical units.
Bit Oriented Protocol	A transmission procedure or protocol that uses standard control information encoded in fields of one or more bits. Generally used with full duplex links and synchronous communication.
BN	See Branch Node.
BoD	See Bandwidth on Demand.
Boot	An abbreviation of bootstrap. The process by which new operating software is loaded into a Vanguard device.
BOP	See Bit Oriented Protocol.
BPDU	Bridge Protocol Data Unit.
BRA	See Basic Rate Access.
Branch Node	A term used to describe the Vanguard 6520.
BRI	See Basic Rate Interface. BRI is a two-wire interface between the customer premises equipment (CPE) and the telco end office (EO), and a four-wire interface at the customer premises.
Bridge	A device that is used to expand a LAN by forwarding frames between data link layers associated with two cables and usually carrying a common protocol. Bridges can usually be configured to filter packets.
Broadband	A medium that supports a range of frequencies greater than that required for a single communication channel. Simultaneously carries multiple signals by dividing its total capacity into multiple, independent broadband channels. Each channel operates on a specified range of frequencies.
Broadcast	A feature that allows a single transmission to be simultaneously sent to multiple receiving stations.
Brouter	A Bridging/Routing device that can bridges some packets while it routes others.
BRT	Border Gateway Protocol (BGP) Routing Table.

Term	Definition (Continued)
BSC 2780/3780	A model of remote batch terminals used in IBM bisynchronous environments use the BSC2780/3780 serial protocols.
BSC 3270	IBM's interactive communications terminal standard for communicating an IBM mainframe of compatible system. (Sometimes referred to as SNA.)
BSR	Bootstrap Router.
Bypass	The process of routing communications traffic without using a telephone company's circuits.
Byte Oriented Protocol	A communication protocol that uses byte-based control codes such as BSC.

C

Term	Definition
CA	Certificate Authority.
Call Accounting	See Billing.
Call Request Packet	In packet switched networks, this is the packet sent by the originating DTE showing the user ID, network facilities, and call use data.
Call User Data	User information, in packet switched networks, transmitted in a call request packet to the destination DTE.
Calling ID	A service that provides the called system (or party) with an identification of the calling system (or party).
Capture	The act of removing a token from the ring or to grab information that is passed on a link.
Carrier	A company which uses primarily its own transmission facilities (as opposed to a reseller that leases or buys most of its transmission facilities from a carrier).
	An electrical signal sent at a specific frequency that can be adjusted or modified to carry data, voice, or video.
Carrier Detect	The ability to recognize carrier in preparation for transmitting data, or the signal that signifies that the carrier has been detected.
CAS	Channel Associated Signaling.
CBR	Constant Bit Rate.
CBT	Core Based Tree.

Term	Definition (Continued)
CCITT	The organization responsible for establishing technical recommendations for telephone and data communication, for example, the X.25 protocol standard. This organization was known as the United National International Telecommunications union, ITU.
Channel	A transmission facility with defined bandwidth. Physical or logical path for information transmission. The path connecting a data source and a receiver.
Channel Loopback	A diagnostic test with the loop at the multiplexer's channel interface.
Character Oriented Protocol	A protocol where specific communication control character sequences configure and manage the data link.
CHARGEN	Character generator protocol.
Checksum	A computed value based on the contents of a group of data bits. This value travels with the group of data when it is transmitted. The receiving system computes a new checksum based on the received data and compares the two values. If they agree, the data has been received correctly.
CIDR	Classless Inter-Domain Routing
Circuit Switching	A communications technique where dedicated path is identified by switching a signal to the wires connecting the two hosts.
Class Selector	Referred to as CS, this is a component of the Quality of Service feature. CSx, where x is equal to any value from 0 to 7, is the identifier used for Class Selector PHB. See Per Hop Behavior.
Clear To Send (CTS)	EIA Interface connector signal from the DCE which indicates to the DTE that it may begin data transmission.
Closed User Group	Data communications concept in which only certain users in a group (identified by their network addresses) can access a local connection or service. This usually applies more to X.25 and ISDN communications.
CMEM	Configuration Memory file. Nonvolatile memory location used to store a nodes configuration information.
CO	Central Office
CO Trunk	Central Office Trunk is a direct connection between a local central office and the PBX which routes calls from a private to a public network.
CODEC	Coder/Decoder. A device that converts analog signals from voice, data, and video, into a digital form for retransmission over a digital medium and then back to its original analog form.

Term	Definition (Continued)
Collision	The result when two or more LAN stations attempt to simultaneously use the same transmission medium.
Collision Domain	In Ethernet, the logical single network in which all network interfaces receive all transmissions and where all collisions must be detected.
Committed Information Rate.	A congestion control feature which uses throttle data on FRI links. When congestion first occurs, the outbound data rate drops to the CIR rate and specifies the rate that a Frame Relay network agrees to transfer information under congested conditions.
Common User Access (CUA)	The common user interface component of IBM's System Application Architecture.
Communications Protocol	The rules used to control the orderly exchange of information between stations on a data link or on a data network or system.
Community	A group of destinations which share some common property.
Community Attribute	A 32 bits data block, which defines an optional transitive attribute for community. Normally the first two octets are the AS number, the last two octets are user-defined value for the community. Some well-known community attributes are also defined.
Compression	A technique to reduce the number of bits needed to represent information.
Computer Network	An interconnection of computer systems, terminals, communications facilities, and data collecting devices.
Concentrator	A communications device that can concentrate lower speed lines for transmission into and out of one or more high speed channels.
Configuration	Settings that control the way a system or service will operate.
Congestion	Too much traffic for a given router, gateway, or host.
Connect Time	As a measure of system usage, this is the interval during which a user is on-line for a session.
Connection	• A physical network link connecting two devices. • A logical network link supporting communications between two users or elements.
Connection Oriented	The data communication technique (such as TCP) where communication works through three specific phases: • link establishment • data transfer • link release

Term	Definition (Continued)
Connectionless Network Protocol	The OSI protocol offering Connectionless Network Service. The ISO counterpart of IP.
COP	See Character Oriented Protocol.
CPE	Customer Premise Equipment.
CRC	See Cyclic Redundancy Check.
CRL	Certificate Revocation List.
CRTP	Compressed Real Time Protocol.
CS	• Checksum. A method of assuring the integrity of transmitted data. • Class Selector. A component of the Quality of Service (QoS) feature.
CSDN	A circuit switched data network.
CSK	Configure Software Key. A CSK may be required to access certain functions within Vanguard Applications Ware.
CTP	Control Terminal Port. All Vanguard products use the CTP in order to configure the Vanguard Applications Ware in these products.
CTS	See Clear To Send.
CUD	Closed User Data.
CUG	See Closed User Group.
Cyclic Redundancy Check	A basic error-checking mechanism for link-level data transmissions.

D

Term	Definition
D-Bit	The delivery confirmation bit in an X.25 packet switched network. This is used to request end-to-end acknowledgment.
DA	Destination Address.
DACK	Direct memory Access Acknowledgment.
Daisy Chain	Connecting multiple devices in a serial pattern.
Data Communications	The exchange of data messages over communications circuits.
Data Link	Any serial data communications transmission path, generally between two nodes or devices and without any intermediate nodes.
Data Link Control	A standard method for sending data over a single communications link.
Datagram	The unit transmitted between a pair of internet modules. The Internet Protocol provides for transmitting blocks of data, called Datagram, from sources to destinations.
DB	Decibel.
DBR	Destination Based Routing.
DCC	Data Compression Card.
DCD	Data Carrier Detect. EIA Interface connector signal.
DCE	Data Communications Equipment. Equipment that is either part of a network, an access point to a network, a network node, or equipment at which a network circuit terminates. In the case of an EIA 232 (RS232) connection, the modem is usually regarded as DCE, while the user device is DTE. In CCITT X.25 connection, the network access and packet-switching node is viewed as the DCE. The DCE provides the functions required to establish, maintain, and terminate a data transmission connection.
DCE	Distributed Computing Environment. An architecture of standard interfaces, conventions, and server functionality for distributing applications across networks of different computers.
DER	Distinguished Encoding Rules.
DES	Data Encryption Standard.
Destination Address	The portion of an address that indicates where it is to be sent.
DHCP	Dynamic Host Configuration Protocol.
DHCP Client	A host requesting initialization parameters from a DHCP server.

Term	Definition (Continued)
DHCP Server	A host providing initialization parameters through DHCP.
Dialup	A temporary, (as opposed to dedicated) connection between devices established over a standard telephone line.
Diffe-Hellman	A key exchange mechanism specified in Internet Key Exchange (IKE).
DiffServ	Differentiated Services. This provides scalable Class of Service for an IP network. Three elements work together to deliver DiffServ service; Per Hop Behaviors (PHBs), Traffic Conditioners, and Bandwidth Brokers.
DIM	Data Interface Module.
DLCI	Data Link Control Identifier. The frame relay virtual circuit number corresponding to a particular destination.
DM	Dense Mode.
DNIC	Data Network Identification Code.
DOI	Domain of Interpretation.
DoD	Dial on Demand. An extension to On Demand SVC functionality, DoD SVCs extend WAN connectivity options to support IPX and Asynchronous traffic in addition to IP.
DOP	Degree of Preference.
DoV	Data over Voice.
Down Time	The time a system is out of service due to equipment failure.
DR	Designated Router.
DRAM	Dynamic Random Access Memory.
Dropping	As part of Quality of Service, this function drops excess packets from a microflow/aggregate to make it compliant with a specific traffic profile.
DS0	One 56k or 64k Channel in a T1 or E1.
DS	See DiffServ.
DSA	Digital Signature Algorithm.
DSCP	DiffServ Code Point. This is the first 6 bits of the Type Of Service field (IP header version 4) and is used to identify they type of service.
DSL	Digital Subscriber Line.
DSLAM	Digital Subscriber Line (DSL) Access Multiplexer.
DSP	• Digital Signal Processor. A microprocessor device used to process digital signals that were originally analog. • Display Station Protocol.

Term	Definition (Continued)
DSR	Data Set Ready. EIA Interface connector signal. Physical modem interface control signal from the DCE which indicates to the attached terminal equipment that the modem is connected to the telephone circuit.
DSU	Data Service Unit. A device used to connect computers to a digital service.
DTE	Data Terminal Equipment. Generally, end-user devices such as terminals and computers DTEs connect to data communications equipment, which either generate or receive data carried by the network. • In EIA 232 connections, designation as either DTE or DCE determines signaling role in handshaking. • In a CCITT X.25 interface, the device that manages the interface at the user premises. Also one end of X.25 link.
DTMF	Dual Tone Multi Frequency, also known as touch-tone. This specifies the double audio signals generated through touch-tone telephones and by auto-dial modems.
DTR	Data Terminal Ready. EIA Interface connector signal. Physical modem interface control signal from the DTE, indicating to the modem that the terminal is ready for transmission.
Duplex	Simultaneous two way independent transmission.
DVMRP	Distance Vector Multicast Routing Protocol.

E

Term	Definition
E1	A digital transmission system that operates at 2.048 Mbps using time division multiplexing techniques.
E&M Signalling	Signalling between a trunk circuit and an associated signalling unit using two leads to provide full-time, 2-way, 2-level supervision.
EBCDIC	Extended Binary Coded Decimal Interchange Code (EBCDIC) is a 8-bit character code scheme used in IBM environments.
EBGP	External Border Gateway Protocol (BGP).
EC	Echo Canceller.
ECC	Encryption Compression Card.
ECS	Encryption Control Subsystem.
Echo Request	An ICMP message that is used to time round-trip data transmission.

Term	Definition (Continued)
EGP	Exterior Gateway Protocol.
EIA-232/RS-232	Also known as RS-232, this is the standard interface specification for serial devices.
Encapsulation	The technique used by layered protocols in which a layer adds additional header information to the protocol data unit (PDU) from an equivalent layer of another protocol, for example, IPX encapsulation in IP.
Encryption	The manipulation of data to allow only the intended recipient to read that data.
ENQ	Enquiry: a request for a response from another node. Used to obtain identification and/or an indication of another station's status.
ENQ/ACK Protocol	HP communications protocol in which each data transmission block is followed by an ENQ. This verifies that the destination terminal is ready to receive additional data. The destination terminal answers an ENQ message with an ACK (acknowledge) message.
Error Correction	A feature that restores data integrity in received data, either by manipulating of data or by requesting retransmission from the source.
Error Detection	A feature that senses flaws in received data by examining parity bits, verifying block check characters, etc.
Error Rate	A measure of data integrity.
ESP	Encapsulated Security Payload.
Ethernet	A 10-Mbps coaxial standard for local area networks. In an Ethernet LAN all nodes connect to a cable where they contend for access to each other.
Ethernet Controller	A device that controls a computers access to the services offered by an Ethernet LAN.
Extended Community Attribute	An upgraded version of BGP Community Attribute. An 8 octets data block for a extended community, type and data are included in the data block.

F

Term	Definition
FECN	Forward Explicit Congestion Notification. A bit that is used in a frame relay network to notify the downstream node of congestion in the frame relay network.
FID	Filtering Identifier.

Term	Definition (Continued)
File Transfer Protocol (FTP)	A TCP/IP protocol that lets a computer access and transfer files to/from another computer over a network. FTP is usually the name given to the program use to accomplish this task.
Flow	Referred to in the Quality of Services feature, a Flow is the passage of data packets (known as User or Application Traffic) from it's source to destination.
Flow Control	The buffering that turns a device on and off to stop or reduce data loss during transmission.
Forward Error Correction	A data transmission method in which the receiving end uses redundant bits generated by the sending end to detect and correct transmission errors (instead of retransmitting the data).
FP	See Fast Path.
FR	Frame Relay.
FRAD	Frame Relay Access Device.
Fragment	A piece of a data packet. When a router forwards an IP packet (with a maximum packet size that is smaller that the packet) it breaks up that packet into fragments.
Frame	A series of data bytes encapsulated with a header and trailer. See Packet.
Frame Check Sequence	The CRC remainder transmitted at the end of a frame.
Frame Relay	A fast form of packet switching using smaller packet sizes and reduced error checking.
Frame Status	This is a field used in Token Ring, indicating that packet address has been recognized by a station and that the data has been copied.
FRMR	This is a LAP-B response indicating that a frame has been rejected.
Full Duplex	A circuit that allows messages to flow in both directions. See Half Duplex.
FXO	Foreign Exchange Office: a Voice function supported by the Voice Relay Daughtercard. The FXO allows you to configure a remote branch office without a PBX as an extension phone number off a larger headquarters PBX.
FXS	Foreign Exchange Station.

G

Term	Definition
G.SHDSL	Single Pair High Speed Digital Subscriber Line.
GAN	Global Area Network.
GARP	Generic Attribute Registration Protocol.
Gateway	An IP Router or a translating system that converts data travelling from one environment to another.
GMRP	GARP Multicast Registration Protocol.
GRE	Generic Routing Encapsulation.
GRT	Global Routing Table.
GVRP	GARP VLAN Registration Protocol.

H

Term	Definition
Half Duplex	A circuit transmitting/receiving from one direction at a time. (See Full Duplex.)
Handshaking	The exchange of predetermined control signals for establishing a session between data sets.
HDLC	High Level Data Link Control; a bit oriented data link control.
Header	That portion of a packet which precedes the data. It contains source address, destination address, error checking, and other control fields.
Heap	A method of storing data in which the data is not stored in any specific order. To retrieve data stored in a heap, all of the data must be scanned.
Hexadecimal	A numbering system using sixteen characters: 0 to 9 and A to F.
Host	A computer that provides services directly to one or more users. In TCP/IP, this is an IP addressed device.
Host Address	That part of an internet address that designates the node on which the subnetwork is being addressed. Sometimes called the Host Number.
Host Field	The bit field in an internet address that designates a specific host.
HPAD	Host Packet Assembler/Disassembler.

Term	Definition (Continued)
Hub	Devices that connect to several other devices, usually in a Star topology as shown here.
Hunt Group	An arrangement that lets calls find an idle circuit, in a pre-arranged multi-circuit group, to establish a link.

I

Term	Definition
IBGP	Internal Border Gateway Protocol (BGP).
ICMP	Internet Control Message Protocol: handles errors and control messages at the IP layer. Can generate error messages, test packets, and information messages related to IP.
Idle Timer Delay	Inactivity timer, used to clear connections after expiration of a preset time.
IDN	An integrated digital network employing digital switches and digital transmission.
IDRP	Inter Domain Routing Protocol.
IEEE 802.1p	Class of service (COS) port priorities.
IEEE 802.1Q	Traffic from multiple VLANs over a single link.
IGMP	Internet Group Multicast Protocol.
IGP	Interior Gateway Protocol. A protocol used with autonomous systems. (See RIP and OSPF.)
IKE	Internet Key Exchange.
Inbound Call Translation Table	Carries the identification number to reference an entry from the public data network.
INL	Inter-Nodal Link.
IP	Internet Protocol: the network layer for the TCP/IP protocol suite. It is a connectionless, best-effort packet switching protocol providing a common layer over dissimilar networks.
IP Address	A 32 bit address defined by IP, and usually presented in dotted notation. For example, 10.10.10.2.
IPSEC	IP Security.
IPX	Internet Protocol Exchange. A router with IPX routing enabled can interconnect LANs so that Novell NetWare clients and servers can communicate. IPX provides a best-effort delivery service and is the equivalent to IP.

Term	Definition (Continued)
ISAKMP	Internet Security Association Key Management Protocol.
ISDN	Integrated Services Digital Network. Special telco service combining voice and data onto a single line.
ISDN BRI 2B	Two B Channels (2B) of ISDN BRI
ISDN BRI B	A single B Channel of of ISDN BRI
ISDN BRI D	The D Channel of ISDN BRI
ISDN BRI Data	ISDN BRI Data Daughtercards (ISDN or enhanced ISDN) S/T or U interface types.
ISDN BRI Voice	ISDN BRI Voice Daughtercard - S/T interface type.
ISDN BRI M/C	The Monitor Control (M/C) Channels of ISDN BRI.
ISP	Internet Service Provider.

K

Term	Definition
Keepalive	A message sent over a network link during periods of inactivity to tell remote node to stay operational.
Kermit	A file transfer protocol (not the same as FTP) that provides an easy method of file transfer.

L

Term	Definition
L2TP	Layer 2 Tunneling Protocol.
LAN	Local Area Network. A data network that serves a relatively small area.
LAN Adapter	An external device or card that allows a device to gain access to a local area network.
LAP-B	Link Access Protocol-Balanced: a version of HDLC in which either connected station can initiate data transfer.
LAP-D	Link Access Protocol for the ISDN D-Channel.

Term	Definition (Continued)
Layer	A portion of a stacked protocol consisting of one or more semi-independent protocols. Each layer builds on the layer beneath and feeds information to the protocols above.
LCN	Logical Channel Number. This number is in the header of X.25 packets and is a unique reference to the virtual circuit in use. Upon receiving a packet, Vanguard reads the Logical Channel Number (LCN) and consults a cross-reference look-up table to identify the destination port.
LCON	LAN Connection Table.
LDAP	Lightweight Directory Access Protocol.
Lease	The period over which a network address is allocated to a client.
Leased Line	Any circuit available for the exclusive use of a subscriber.
LED	Light Emitting Diode.
LFI	Link Fragmentation and Interleaving.
Link	The physical connection between two nodes in a network.
Link Access Protocol	This is an unbalanced version of HDLC.
LLC2	See Logical Link Control.
LMI	Logical Management Interface. A method of exchanging status information between the user device and the frame relay network.
Load Sharing	BGP route could have multiple paths to a destination. The traffic to the destination is shared among the multiple paths in a predefined manner.
Logical Link Control (LLC)	The upper portion of the data link layer. It presents a uniform interface to users of the service.
Loop Back	Any of several methods of feeding a transmitted signal back to the sender. Commonly used to test for faulty equipment or data lines in the data path.
LU	Logical Unit.
LUA	Conventional LU Application Programming Interface (API)
LU0,2	Logical Unit type 0, or type 2

M

Term	Definition
MAC	Multiple Access Control.
MAC Address	The built in hardware address of a device connected to shared media.
Marking	this is part of Quality of Service whereby a packet flow is assigned to an aggregate by assigning a particular value to the DSCP field. See DSCP.
MBGP	Multi-Protocol Border Gateway Protocol.
MD5	Message digest algorithm 5, an iterative cryptographic hash function for message authentication.
MED	Multi-Exit Discriminator.
MIBs	Management Information Base. The set of parameters that an SNMP management station queries or sets in the SNMP agent of a network device.
Microflow	An application-to-application flow of packets identified by the source/destination IP addresses, source/destination port numbers, and protocol ID.
MLPMC	Multilink PPP with Multiclass.
MLPoA	Multilink PPP over ATM.
MLPoFR	Multilink PPP over Frame Relay.
MLPPP, MLP	Multilink PPP.
MLPVP	Multilink PPP with Voice Prioritization.
Mnemonic	A symbolic name given to data, programs, or instructions to make them easier to remember.
Mnemonic Call Table	A set of mnemonics defined to represent an address for predefined destinations.
MOSPF	Multicast Open Shortest Path First.
MTBF	Mean Time Between Failures.
Multicast	A capability that allows multiple users to simultaneously communicate with a network.
Multiplexer	A device that lets multiple signals to be sent simultaneously over one physical circuit. The receiving end is demultiplexed into the same number of outputs. Sometimes called a MUX.
Multipoint	A network concept that allows multiple nodes to share a common physical medium. Each node waits for a poll by a line controller before sending data.

N

Term	Definition
NAK	Negative Acknowledgment. This is a response to the receipt of corrupted data packets.
NAS	Network Access Server.
NAT	Network Address Translation.
NIST	National Institute of Standards & Technology.
NCCP	Network Control Channel Protocol.
Network Management System	Software used to manage SNMP resources from a computer.
Network Address	The TCP/IP network portion of an IP address.
Network Layer	The OSI layer that handles routing, switching, and subnetwork access across the entire OSI environment.
NLRI	Network Layer Reachability Information.
NO_ADVERTISE	A well-known community attribute. All routes carrying a community attribute containing this value must not be advertised to other BPG peers.
NO_EXPORT	A well-known community attribute. All routes carrying this community attribute must not be advertised outside of a BGP confederation boundary. In Vanguard BGP implementation, this value instructs the BGP speaker not to advertise a route over an EBPG peer.
NO_EXPORT_SUBCONFED	A well-known community attribute. All routes carrying a community attribute containing this value must not be advertised to EBGP peers. In our BGP implementation, this value instructs the BGP speaker not to advertise a route over an EBPG peer.
NO_PEER	A well-known community attribute. All routes carrying this community value to constrain their propagation only to transit providers and not peers.
Node	An addressable device attached to a computer environment.
Non-blocking	A switching network with a sufficient number of paths to ensure that a call always reaches any other idle subscriber with encountering a busy state.
NIC	Network Storage Option card. This is one of the 6500^{PLUS} cards.
NUI	Network User Identification.

O

Term	Definition
OSI	Open System Interconnection. This is a seven layer suite of protocols, as shown here.
OSPF	Open Shortest Path First. A routing protocol that routes packets by finding the shortest path available to the destination. In some instances, this interior gateway protocol is used in place of RIP.

P

Term	Definition
Packet	A unit of data sent across a packet switch network. In TCP/IP, it refers to the data package sent across the physical network as in Ethernet Packet.
Packet Assembly	User facility that permits non-packet-mode terminals to exchange data in the packet mode.
Packet Disassembly	User facility that enables a packet destined for delivery to a non-packet-mode terminal to be delivered in the appropriate form (e.g., in character form) at the applicable rate.
Packet Switch	A device that accepts, routes, and forward data packets in a packet switched network.
Packet Switched Network	A network designed to carry data in the form of packets. The packet and its format is internal to that network.
Packet Switching	Data transmission technique where user information is segmented and routed in packets, each with its own appended control information for routing, sequencing, and error checking. A transmission technique that allows a communication channel to be shared by many users, each using the circuit only for the time required to transmit a single packet.
PAD	Packet Assembler/Disassembler: a protocol conversion device (or program) that allows user terminals not equipped for packet switching to communicate over an X.25-based channel. A PAD allows multiple terminals or host computer ports to interface to a packet switching network.
PAP	Password Authentication Protocol.
PBR	Policy Based Routing.

Term	Definition (Continued)
PBX	Public Branch Exchange. A telephone switch which is installed at a customer site.
PDN	Public Data Network: a data network shared by many users from different organizations.
PDU	Protocol Data Unit.
PEM	Privacy Enhanced Mail.
Per Hop Behavior	A component in the Quality of Service feature, the per hop behavior is a forwarding treatment received by Flow or Behavior Aggregates. See Flow and Behavior Aggregate.
PFS	Perfect Forward Secrecy.
PHB	See Per Hop Behavior.
PHBx	This is an identifier used for Custom PHBs, where x equals a value from 1 to 15.
PIB	Policy Information Base.
PID	Parameter Identifier.
PIM	Protocol Independent Multicast.
PKCS	Public Key Cryptography Standards.
PKI	Public Key Infrastructure.
PKIX	X.509 based PKI.
PLU	Primary Logical Unit.
Point-To-Point	Circuit that connects two nodes directly together.
Polling	The process of inviting another station or node to transmit data. This requires that one station control the other stations.
Port	A physical access point to a computer, device, or network.
POTS	Plain Old Telephone Service. The standard 2-wire telephone service, without additional services such as ISDN, Caller ID, and Call Waiting.
PPP	Point-to-Point Protocol: a protocol for transmitting packets over a serial, synchronous and asynchronous point-to-point circuit that connects two nodes directly together.
PPPoA	Point-to-Point Protocol over ATM.
PPPoE	Point-to-Point Protocol over Ethernet.
PR	Absolute Priority, a component of the Quality of Service (QoS) feature.
PRI	Primary Rate Interface for ISDN.

Term	Definition (Continued)
Priority-tagged frame	A tagged frame whose tag header carries both VLAN identification and priority information.
Private Network	A network established and operated by a private organization or corporation for users within that organization or corporation.
PROM	Programmable Read-Only Memory.
Protocol	Formal set of rules governing format, timing, sequencing, and error control of exchanged messages within a data network. May also include facilities for managing a communications link and/or contention resolution. A protocol may be oriented toward data transfer over an interface, between two logical units directly connected, or on an end-to-end basis between two end-users over a large and complex network.
Proxy	The process in which one system acts for another to answer protocol requests.
Proxy Agent	An agent that queries on behalf of the manager. This is used to monitor objects not directly manageable.
Proxy ARP	The process in which one device (usually a router) answers ARP request intended for another device. The router accepts responsibility for routing packets to the real destination when it answers the ARP.
PSDN	Packet Switched Data Network.
PSTN	Public Switched Telephone Network. This is the voice network that offers nationwide, unrestricted telephone service.
PTZ	Pan/Tilt/Zoom control on video cameras.
PU	Physical Unit.
Public Data Network (PDN)	A network established and operated by communications common carriers or telecommunications administrations for the provision of circuit-switched, packet-switched, and leased-line circuits to the public.
PVC	Permanent Virtual Circuit. A circuit, such as an X.25 circuit, that is connected permanently. This is similar to a dedicated leased line on the telephone network.

Q

Term	Definition
QCL	QoS Control List. A component of the Quality of Service feature.
QLLC	Quality Logical Link Control.
QoS	See Quality of Service.
Quality Of Service	This is the collective effect of service performances which determine the degree of user satisfaction. QoS is the performance of a traffic flow through networks, intended to provide end-to-end service guarantees to user traffic.

R

Term	Definition
RA	Registration Authority.
RADIUS	Remote Authentication Dial-In User Service.
Remarking	This is part of Quality of Service where an aggregates DiffServ Code Point is changed in a manner that does not change the level of service received by the aggregate. This ensures that the level of Quality of Service applied within one network continues to apply in another network.
Remote Access	The ability of network nodes, or remote computers to gain access to a computer which is at a different location.
RI	Ring Indicator. EIA Interface connector signal which indicates to a attached DTE that an incoming call is present.
RIB	Routing Information Base.
RIP	Routing Information Protocol. An interior gateway protocol that allows a group of hosts located on a local network, to share information. See IGP.
RIPv2	Routing Information Protocol Version 2.
RFC	Request for Comment.
RJ11	A standard 6-wire modular jack or plug using 2 to 6 conductor, often used for telephones and some data communication.
RJ45	A standard 8-wire modular jack or plug that uses 2 to 8 conductor, often used for telephones and data communication.

Term	Definition (Continued)
RJE	Remote Job Entry
Route	The path that network traffic follows from its source to its destination. Sending a packet or frame of data through a network to its correct destination.
Route Backup	BGP route could have multiple paths to a destination. Once the primary one is out of order, the next path (backup path) will be chosen to keep connectivity.
Router	A device that forwards traffic between networks or subnetworks, and operates at either the OSI Network layer or the IP layer in TCP/IP.
Routing	The process of selecting the correct interface and next hop for a packet being forwarded.
Routing Table	A network layer directory (in each router) containing the addresses of other networks or devices and additional information on how to reach them.
RP	Rendezvous Point.
RPF	Reverse Path Forwarding.
RTS	Request To Send. EIA Interface connector signal. Physical modem interface control signal from DTE, requesting clearance to transmit.

S

Term	Definition
SA	Security Association.
SABM	Set Asynchronous Balanced Mode: sent when the node is initially powered up to bring a link up to allow communication.
SABME	Set Asynchronous Balance Mode Extended.
SAD	Security Association Database.
SAM	Security Association Management.
SCEP	Simple Certificate Enrollment Protocol.
SDB	Serial Data Board.
SDLC	Synchronous Data Link Control: the IBM data link protocol used in SNA networks.
Selecting	The polled BSC process that lets a station know that the next transmission is directed to it.

Term	Definition (Continued)
Sequence Number	A unique number for every packet on a particular connection maintained by a reliable transport layer service. The sequence number lets the transport layer know if any packets were lost or delivered out of sequence by the lower network layers.
Serial	A transmission method that sends each data bit sequentially on a single channel.
Serial Line IP (SLIP)	An internet protocol used to run IP over serial lines, such as telephone lines, connecting two systems. (See PPP)
Service Advertisement Protocol (SAP)	The NetWare protocol for publicizing the current network address of available services.
Service Level Agreement (SLA)	This identifies the agreement to provide service between either a user domain and DiffServ domains or between two DiffServ domains.
SES	Serial Emulation Support.
Session	The logical stream of data flowing between two programs communicating over a network.
SGMP	Simple Gateway Management Protocol. The predecessor of SNMP.
SHA-1	Secure Hash Algorithm 1.
Shaping	This is part of Quality of Service. Shaping changes the timing relationship between packets in a microflow/aggregate to make it compliant to a given traffic profile.
SHDSL	Symmetric High Speed DSL.
SIMM	Single In-line Memory Module. A series of memory chips attached to a small circuit board. SIMMs are used to increase the available onboard memory available to Vanguard products.
SIP	Slim Internet Protocol.
SLIP	Serial Line Internet Protocol.
SM	Sparse Mode.
SMDS	Switched Multimegabit Data Service. A high-speed, datagram-based, public data network service used by telephone companies in their data networks.
SNA	Systems Network Architecture. This is a proprietary networking architecture used by IBM (and compatible) mainframe computers.
SNAP	SNA Processor (Data Connections Limited).
SNMP	Simple Network Management Protocol. Rules used to perform network management functions. SNMP uses Internet suite of protocols. (See MIBS.)

Term	Definition (Continued)
SoTCP	Serial Protocol over TCP is a proprietary protocol that allows a Vanguard device to encapsulate and transport serial protocols over the IP network.
SPD	Security Policy Database.
SPI	Security Parameter Index.
SPT	Source Specific Tree.
SSCP	System Service Control Point.
SSM	Source Specific Multicast.
Station	A network location capable of sending or receiving data.
Subnet	A portion of a network that shares a network address with other subnets but is distinguished by a unique subnet number.
Subnet Address	The significant part of the locally administered portion of a network IP address. This can be identified by using a Subnet Mask.
Subnet Mask	See Address Mask.
Subnet Number	Part of an internet address that designates a subnet. This is usually ignored during Internet routing but is important for Intranet routing and management.
SVC	Switched Virtual Circuit. Channels available for the user to select a desired destination. An SVC user cam select any network resource subject to restrictions imposed by user priority and security, and the network configuration.
Synchronous Transmission (Sync)	Data communications where characters or bits are sent at a fixed rate, with the transmitting and receiving devices synchronized. This eliminates the need for start and stop bits basic to asynchronous transmission, and significantly increases data throughput rates.

T

Term	Definition
T1	A digital transmission system that operates at 1.544 Mbps using time division multiplexing techniques. It supports up to 24 circuits.
T3/E3	T3 (up to 44.736 Mbps) and E3 interfaces (up to 34.368 Mbps).
TB	Transparent Bridging.
TBOP	Transparent Bit Oriented Protocol.
TCOP	Transparent Character Oriented Protocol.
TCP	Transmission Control Protocol. An Internet standard transport protocol in the Internet protocol suite for reliable, connection-oriented, full-duplex data streams.
TC-PAM	Trellis Coded Pulse Amplitude Modulation.
TCP/IP Protocol Suite	Transmission Control Protocol over Internet Protocol. This refers to the suite of transport and application protocols which run over IP (such as IP, ICMP, TCP, UDP, FTP, Telnet, SMTP, SNMP, TFTP).
TDM	Time Division Multiplexer.
TDMA	TDM Access.
Telco	A local telephone company.
Telnet	A virtual terminal protocol in the Internet suite of protocols. This lets users on one host work as a terminal user on a remote host.
Terminal Port (TP)	A physical port through which data is transferred to and from a local user terminal.
TFTP	Trivial File Transfer Protocol.
Throughput	The measure of the rate at which data flows through a device. For example, if 4000 characters per second enter one port and exit another port on a device, the throughput is 4000 characters per second. If 2000 characters per second both enter and exit one port and enter and exit another port the throughput is still 4000 characters per second.
TN	Telnet
TN3270	Telnet 3270

Term	Definition (Continued)
Token Ring (TR)	A network access method and topology in which a token is passed from station to station in a sequential order. Stations with data to transmit must wait for the token before transmitting their data. In a token ring, the next logical station is also the next physical station on the ring.
Topology	A standard way of connecting systems on a network.
TOS	Type of Service.
TPA	Transparent Polled Asynchronous. Transaction Protocol Data Unit. See TPDU.
TPAD	Terminal Packet Assembler/Disassembler.
TPDU	Transaction Protocol Data Unit.
TR	See Token Ring.
Traffic Conditioning Agreement (TCA)	This is part of a Service Level Agreement containing details about the traffic profile a user can send to a DiffServ domain.
Triple-DES	3 Key Data Encryption Standard.
TRIM	Token Ring Interface Module.
Trivial File Transfer Protocol (TFTP) Server	The TFTP Server provides the capability to download software image files and CMEM configuration files to a remote TFTP client using the TFTP file transfer protocol over the UDP/IP protocol stack.
TTL	Time To Live. This is a field in the IP header indicating how long the associated packet has to survive before being discarded.

U

Term	Definition
UBR	Unspecified Bit Rate.
UDLC	Universal Data Link Control. This is a bit-oriented HDLC-based protocol.
UDP	User Datagram Protocol. An Internet standard transport protocol that exchanges datagrams without acknowledgments or guaranteed delivery.
User Data	X.25 routing file parameter specifying the data in hexadecimal ASCII format to enter into the user data field of the generated call packet.

V

Term	Definition
V.24	CCITT recommendation defining interchange circuits between data communications equipment (DCE) and data terminal equipment (DTE). Similar to, and operationally compatible with, EIA-232.
V.35	CCITT recommendation defining a standard for data transmission at 48 kbps using 60 to 108 kHz group band circuits.
VBR-nrt	Variable Bit Rate - Non-real time
VBR-rt	Variable Bit Rate - Real time
VC	Virtual Connection.
Virtual Circuit	A network service that lets two processes communicate as if they were directly connected without regard for the underlying network structure.
	In packet-switching, network facilities that give appear to the user as an actual end-to-end circuit.
	A dynamically variable network connection where sequential user data packets are routed differently during the course of a virtual connection.
	Enables transmission facilities to be shared by many virtual circuits simultaneously.
Virtual Router	An abstract object managed by VRRP that acts as a default router for hosts on a shared LAN.
VLAN	Virtual LAN.
VLAN - tagged frame	A tagged frame whose header carries both VLAN identification and priority information.
VoFR	Voice Over Frame Relay.
VoIP	Voice Over IP.
VPMT	Virtual Port Mapping Table.
VPN	Virtual Private Network.
VSA	Vendor Specific Attribute.
VTAM	• Virtual Telecom Access Method. • Vortex Telecommunications Method.
VRID	A virtual router identifier used to identify a virtual router.
VRRP	Virtual Router Redundancy Protocol.
VRRP Router	A router running VRRP.

W

Term	Definition
WAN	Wide Area Network. This type of network covers a very large geographic area. See LAN.
Wideband	A term applied to facilities having bandwidths greater than those needed for a single channel. See Broadband.

X

Term	Description
X.21	CCITT recommendation defining the general purpose interface between DTE and DCE for synchronous operation on public data networks.
X.25	A CCITT data communications interface specification describing how data passes in and out of PDNs.
X.25 Network Level	Also referred to as Packet Level, it is at this level that individual channels are defined for the users and calls are established and cleared for channels. Each frame on the link is dedicated to an individual user and the data field of the frame is the user's data packet. Users are separated from one another on the link by unique channel number assignments found in these packets.
X.28	DTE/DCE interface for an asynchronous mode data terminal accessing a PAD facility in a public data network.
X.29	CCITT recommendation defining procedures for exchanging control information and user data between a packet assembler/disassembler (PAD) and a packet mode DTE or another PAD.
X.3	A CCITT recommendation describing the operation of a PAD device in a PDN.
XID	Exchange Identification. This is a LAP-D command/response.
XOFF	Transmitter Off.
XOn	Transmitter On.