IBM Communications Server for Linux

IBM

Glossary

Version 6.2

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> **Note:**
>
> Before using this information and the product it supports, be sure to read the general information under Appendix B, "Notices," on page 41.

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This edition applies to Version 6 Release 2 of Communications Server for Linux (5724–i33 and 5724–i34) and to all subsequent releases and modifications until otherwise indicated in new editions.

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Contents

Chapter 1. Abbreviations

The following abbreviations are used:

This...	Means...
ACF	Advanced Communications Function
ACF/NCP	Advanced Communications Function for the Network Control Program
ACTLU	activate logical unit
ACTPU	activate physical unit
ANR	automatic network routing
ANSI	American National Standards Institute
APAR	authorized program analysis report
API	application programming interface
APPC	advanced program-to-program communications
APPN	Advanced Peer-to-Peer Networking®
ARB	Adaptive Rate-Based flow control
ARP	Address Resolution Protocol
ASCII	American National Standard Code for Information Interchange
ATM	Asynchronous Transfer Mode
BIU	basic information unit
bps	bits per second
BrNN	branch network node
BSC	Binary Synchronous Communication
BSD	Berkeley Software Distribution
BTU	basic transmission unit
CD	carrier detected
CDI	change-direction indicator
CDSTL	connect data set to line
CICS®	Customer Information Control System
CICS/VS	Customer Information Control System for Virtual Storage
CN	Connection Network
CNOS	change number of sessions
COS	class of service
CP	control point
CPI-C	Common Programming Interface for Communications
CPU	central processing unit
CRT	cathode ray tube
CTS	clear to send
CSMA/CD	carrier sense multiple access with collision detection
CSV	Common Service Verbs
CUD	call user data
CUT	control unit terminal mode
DACTLU	deactivate logical unit
DACTPU	deactivate physical unit
DAF	destination address field
DBCS	double-byte character set
DCD	data carrier detected
DCE	data circuit-terminating equipment
DD	device driver
DDDLU	dynamic definition of dependent LUs
DES	data encryption standard
DFC	data flow control

Abbreviations

This...	Means...
DFT	distributed function terminal
DLC	data link control
DLL	dynamic link library
DLPI	data link provider interface
DLU	dependent logical unit
DLUR	dependent logical unit requester
DLUS	dependent logical unit server
DMA	direct memory access
DR	definite response
DR1I	definite response 1 indicator
DR2I	definite response 2 indicator
DSR	data set ready
DTE	data terminal equipment
DTR	data terminal ready
EBCDIC	extended binary-coded decimal interchange code
EE	Enterprise Extender
EN	end node
EOF	end of file
ERP	error recovery procedures
ESC	escape character
FCB	Forms Control Buffer
FD	full duplex
FDX	full duplex
FEP	Front-End Processor
FM	function management
FMD	function management data
FMH	function management header
FTP	File Transfer Protocol
GB	gigabyte
GDS	general data stream
GID	group identifier
HD	half-duplex
HDLC	high-level data link control
HDX	half-duplex
HDXFF	half-duplex flip-flop
hex	hexadecimal
HLLAPI	High-Level Language Application Programming Interface
HIA	Host Interface Adapter
HPDT	High-Performance Data Traffic
HPR	High-Performance Routing
HPR/IP	High-Performance Routing over Internet Protocol. See Enterprise Extender.
Hz	hertz
ID	identification or identifier
IEEE	Institute of Electrical and Electronics Engineers
IETF	Internet Engineering Task Force
ILU	independent logical unit
IMS™	Information Management System
IMS/VS	Information Management System/Virtual Storage
I/O or IO	input/output
IP	Internet Protocol
IPC	interprocess communication
IPL	initial program load
ISR	intermediate session routing

This...	Means...
JCL	Job Control Language
JES	Job Entry Subsystem
JIS	Japanese Industry Standard
Kb	kilobit
KB	kilobyte
LAN	local area network
LAP	link-access procedures
LAPB	link-access procedure balanced
LC	link control
LCN	logical channel number
LEN	low-entry networking
LFSID	local-form session identifier
LLC	logical link control
LS	link station
LTTI	Last Transaction Time Indicator
LU	logical unit
LUA	Conventional LU Application Programming Interface
LU 0	logical unit type 0
LU 1	logical unit type 1
LU 2	logical unit type 2
LU 3	logical unit type 3
LU 6.2	logical unit type 6.2
LUWID	logical unit of work identifier
MAC	medium access control
Mb	megabit
MB	megabyte
MDS-MU	multiple domain support message unit
MHz	megahertz
MIB	Management Information Base
MPC	Multipath Channel
MS	management services
MTU	Maximum Transmission Unit
MVS™	Multiple Virtual Storage
MVS/TSO	Multiple Virtual Storage/Time Sharing Option
NAP	Network Access Process
NAU	network accessible unit
NCCF	Network Communications Control Facility
NCP	Network Control Program
NL	new-line character
NLS	national language support
NMVT	network management vector transport
NN	network node
NOF	Node Operator Facility
NR	negative response
NRZ	non-return-to-zero
NRZ-1	non-return-to-zero change-on-ones recording
NRZI	non-return-to-zero (inverted) recording
OAF	origin address field
ODAI	Origin Destination Assignor Indicator
OIA	operator information area
OS	operating system
PDIR	peripheral data information record
PID	process identifier

Abbreviations

This...	Means...
PIP	program initialization parameters
PIU	path information unit
PLU	primary logical unit
POSIX	Portable Operating System Interface for Computer Environments
PS	Presentation Services
PTF	program temporary fix
PTT	Post, Telephone, and Telegraph
PU	physical unit
PUCP	physical unit control point
PU T2.0	physical unit type 2.0
PU T2.1	physical unit type 2.1
PU T4	physical unit type 4
PU T5	physical unit type 5
PVC	permanent virtual circuit
QLLC	qualified logical link control
RCF	Remote Command Facility
RFC	Request for Comments
RH	request header or response header
RFC	Request For Comments
RISC	reduced instruction set computer
RJE	remote job entry
RLE	Run-Length Encoding
RSS	route selection services
RTM	response time monitor
RTP	Rapid Transport Protocol
RTPN	remote transaction program name
RTS	Request to Send
RU	request unit or response unit
RUI	Request Unit Interface
SAP	service access point
SATF	shared-access transport facility
SC	session control
SCS	SNA character string
SDLC	synchronous data link control
SJIS	Shift-Japanese Industrial Standard
SLI	Session-Level Interface
SLU	secondary logical unit
SN	subarea node
SNA	Systems Network Architecture
SNMP	Simple Network Management Protocol
SPCF	Service Point Command Facility
SPM	sync point manager
SPS	sync point services
SSCP	system services control point
STDERR	standard error
STDIN	standard input
STDOUT	standard output
SVC	switched virtual circuit
TCP	Transmission Control Protocol
TCP/IP	Transmission Control Protocol/Internet Protocol
TDU	topology database update
TG	transmission group
TH	transmission header

This...	Means...
TN	Telnet
TP	transaction program
TPN	transaction program name
TRS	Topology and Routing Services
TS	Transaction Service
TSO	Time Sharing Option
UCF	UNIX® Command Facility
UDP	User Datagram Protocol
VC	virtual circuit
VCB	verb control block
VM	Virtual Machine
VM/CMS	Virtual Machine/Conversational Monitor System
VM/SP	Virtual Machine/System Product
VPD	Vital Product Database
VRMF	Version Release Modification Fix
VRN	virtual routing node
VSE	Virtual Storage Extended
VTAM®	Virtual Telecommunications Access Method
WAN	wide area network

Abbreviations

Chapter 2. Notes on the Glossary

This glossary includes terms and definitions from the *IBM® Dictionary of Computing*, New York: McGraw-Hill, 1994. You can view this dictionary online at http://www.networking.ibm.com/nsg/nsgmain.htm.

The following cross-references are used in this glossary:

Contrast with
   This refers to a term that has an opposed or substantively different meaning.

Synonym for
   This indicates that the term has the same meaning as a preferred term, which is defined in its proper place in the glossary.

Synonymous with
   This is a backward reference from a defined term to all other terms that have the same meaning.

See   This refers the reader to multiple-word terms that have the same last word.

See also
   This refers the reader to terms that have a related, but not synonymous, meaning.

The following notation is used in glossary definitions:

(A)   *American National Standard Dictionary for Information Systems*, ANSI X3.172-1990, copyright 1990 by the American National Standards Institute (ANSI). Copies can be purchased from the American National Standards Institute, 11 West 42nd Street, New York, New York 10036. Definitions are identified by the symbol (A) after the definition.

Note: Appearance of a term in this Glossary does not imply that the feature is supported by CS Linux.

Glossary

A

A-string.   A character string that contains characters from the following groups only: uppercase A–Z, numeric digits 0–9, #, $, and @.

abend.   (1) The abnormal end of a task. (2) The ending of a task before its completion because of an error condition that recovery facilities cannot resolve while the task is running.

activate logical unit (ACTLU).   In SNA, a command used to start a session on a logical unit (a request to activate an SSCP-LU session).

activate physical unit (ACTPU).   In SNA, a command used to start a session on a physical unit (request to activate SSCP-PU session).

adaptive session-level pacing.   A form of session-level pacing in which session components exchange pacing windows that may vary in size during the course of a session. This allows transmission within a network to adapt dynamically to variations in availability and demand of buffers on a session-by-session basis. Session-level pacing occurs within independent stages along the session path according to local congestion at the intermediate nodes and endpoint nodes.

Address Resolution Protocol (ARP).   In the Internet suite of protocols, the protocol that dynamically maps an IP address to an address used by a supporting metropolitan or local area network such as Ethernet or token-ring.

adjacent.   In a network, pertaining to devices, nodes, programs, or domains that are directly connected by a data link or that share common control.

adjacent node.   Two nodes connected together by at least one path that passes through no other node.

Advanced Communications Function (ACF).   A group of programs licensed by IBM (principally ACF/VTAM® and ACF/NCP) that uses the concepts of Systems Network Architecture (SNA), including distribution of function and resource sharing.

Advanced Communications Function for the Network Control Program (ACF/NCP).   An IBM program that provides communication controller support for single-domain, multiple-domain, and interconnected network capability.

Advanced Peer-To-Peer Networking (APPN).   An extension to SNA featuring (a) greater distributed network control that avoids critical hierarchical dependencies, thereby isolating the effects of single points of failure; (b) dynamic exchange of network topology information to foster ease of connection, reconfiguration, and adaptive route selection; (c) dynamic definition of network resources; and (d) automated resource registration and directory lookup. APPN extends the LU 6.2 peer orientation for end-user services to network control and supports multiple LU types, including LU 0, LU 1, LU 2, LU 3, and LU 6.2.

advanced program-to-program communications (APPC).   (1) The general facility characterizing the LU 6.2 architecture and its various implementations in products. (2) Sometimes used to refer to the LU 6.2 architecture and its product implementations as a whole, or to an LU 6.2 product feature in particular, such as an APPC application programming interface.

AE-string.   A character string that contains characters from the following groups only: uppercase A–Z, lowercase a–z, numeric digits 0–9, **.** (period),#, $, and @.

AID key.   See **attention identification key**.

alert.   A message sent to a management services focal point in a network to identify a problem or an impending problem.

alias.   An alternative name used for a network name, or other network entity.

allocate.   (1) To assign a resource, such as a disk or diskette file, to perform a task. (2) An LU 6.2 application programming interface (API) verb used to assign a session to a conversation for the conversation's use. (3) Contrast with **deallocate**.

American National Standard Code for Information Interchange (ASCII).   The standard code, using a coded character set consisting of 7-bit coded characters (8-bits including parity check), that is used for information interchange among data processing systems, data communication systems, and associated equipment. The ASCII set consists of control characters and graphic characters. (A)

American National Standards Institute (ANSI).   An organization consisting of producers, consumers, and general interest groups, that establishes the procedures by which accredited organizations create and maintain voluntary industry standards in the United States. (A)

application programming interface (API).   The set of programming language constructs or statements that can be coded in an application program to obtain the specific functions and services provided by an underlying operating system or service program.

application transaction program. A program written for or by a user to process the user's application; in an SNA network, a user of a type 6.2 logical unit. Contrast with **service transaction program**.

APPN branch network node. A node that implements the APPN **Branch Extender** function, to simplify large APPN networks by separating out resources in different locations (for example in separate branches of a large organization). It appears as an **APPN end node** to the main APPN backbone network, and as an **APPN network node** to the end nodes in the branch.

APPN Control Point. A collection of tasks that provide directory and route selection functions for advanced peer-to-peer networking (APPN). An end node control point provides its own configuration, session, and management services with assistance from the control point in its serving network node. A network node control point also provides session and routing service.

APPN end node. A node that provides a broad range of end-user services and supports sessions between its local control point (CP) and the CP in an adjacent network node. It uses these sessions to dynamically register its resources with the adjacent CP (its network node server), to send and receive directory search requests, and to obtain management services.

APPN network. A collection of interconnected network nodes and their client end nodes.

APPN network node. A node that offers a broad range of end-user services and that can provide the following:

- Distributed directory services, including registration of its domain resources to a central directory server
- Topology database exchanges with other APPN network nodes, enabling network nodes throughout the network to select from optimal routes for LU-LU sessions based on requested classes of service.
- Session services for its local LUs and client end nodes
- Intermediate routing services within an APPN network

asynchronous completion. The operation of an application programming interface (API) function that enables the interface to return control to the application before processing of the verb has completed so that the application can continue with further processing while the function may complete later. See also **nonblocking mode**.

asynchronous terminal. A computer terminal that uses asynchronous signals to communicate with a host machine.

Attach. A request to start a conversation, sent from an invoking transaction program to an invoked transaction program.

Attach routing data. Information configured on a local LU that specifies where the application is to be started and can also define a timeout for the local application to accept the incoming conversation. Specifying a timeout ensures that the remote application is notified in case of errors that prevent the local application from starting.

attention identification key. A 3270 control key (such as PF1, CLEAR, or ENTER) that causes data to be sent from a device to the mainframe.

audit log. A log file in which CS Linux keeps a record of normal system events. Contrast with **error log**.

authorized program analysis report (APAR). A request for correction of a problem caused by a defect in a current unaltered release of a program.

automatic network routing (ANR). In High-Performance Routing (HPR), a highly efficient routing protocol that minimizes cycles and storage requirements for routing network layer packets through intermediate nodes on the route.

B

background. In multiprogramming, the conditions under which noninteractive programs are run. Contrast with **foreground**.

background process. (1) A process that does not require operator intervention but can be run by the computer while the workstation is used to do other work. (2) A mode of program execution in which the shell does not wait for program completion before prompting the user for another command. (3) Contrast with **foreground process**.

backup server. A configuration server that holds a copy of the CS Linux domain configuration but not the master copy. It can take over as the master server if the current master server becomes unavailable. See also **configuration server** and **master server**.

bandwidth. Data rate transfer in K bits, K bytes, M bits, and M bytes per second.

basic conversation. An LU 6.2 conversation type specified by the allocating transaction program. Transaction programs using basic conversation have available to them a wider variety of LU 6.2 functions, but they are responsible for more of their own error recovery and must manage details of the data stream used on the conversation.

basic information unit (BIU). In SNA, the unit of data and control information passed between half-sessions.

It consists of a request/response header (RH) followed by a request/response unit (RU).

basic transmission unit (BTU). In SNA, the unit of data and control information passed between path control components. A BTU can consist of one or more path information units (PIUs). Each PIU consists of a transmission header (TH) followed by a basic information unit (BIU) or a BIU segment.

batch processing. A processing method in which a program executes with little or no operator action. This is a background process.

baud or baud rate. (1) The number of changes in signal levels, frequency, or phase per second on a communication channel. If each baud represents 1 bit of data, baud is the same as bits per second. However, it is possible for one signal change (1 baud) to equal more than 1 bit of data. (2) A unit of signaling speed equal to the number of discrete conditions or signal events per second. For example, 1 baud equals one-half dot cycle per second in Morse code, 1 bit per second in a train of binary signals, and one 3-bit value per second in a train of signals that can each assume one of eight different states. (3) In asynchronous transmission, the unit of modulation rate corresponding to one unit interval per second; for example, if the duration of the unit interval is 20 milliseconds, the modulation rate is 50 baud.

BID. An attempt by a logical unit (LU) to gain control of a contention-loser session in order to transmit data.

binary. Pertaining to a system of numbers to the base two.

binary digit. A unit in the binary numbering system. The only permissible values for binary digits are 0 and 1. Synonymous with **bit**.

binary file. A file that contains codes that are not part of the ASCII character set. Binary files can utilize all 256 possible values for each byte in the file.

Binary Synchronous Communication (BSC). (1) A form of telecommunication line control that uses a standard set of transmission control characters and control character sequences, for binary synchronous transmission of binary-coded data between stations. (2) Contrast with **synchronous data link control (SDLC)**.

BIND image. In SNA, the session parameters that the system services control point (SSCP) sends to the primary logical unit (PLU) and the PLU sends in the BIND request to the secondary logical unit (SLU); these parameters specify the proposed protocol options for an LU-LU session.

BIND password. One of the two communication security passwords. In an LU-LU session, it is the password that the system checks against the remote system to verify that it is who it claims to be. See also **node verification** and **session-level security**.

BIND request. In SNA products, a request to activate a session between two logical units.

bit. Synonym for **binary digit**.

block. In data communications, data that is recorded, processed, or sent as a unit.

blocking mode. (1) A way of requesting a service over an interface so that if the request cannot be completed immediately, the requesting process is suspended until the request is completed. (2) Contrast with **nonblocking mode**.

Boolean. A binary numbering system named after mathematician George Boole in which zero and one are the only two values that can be returned. Traditionally, a value of zero represents FALSE while a value of one represents TRUE. See also **binary**.

bootstrap. A small program that loads larger programs during system initialization.

boundary function (BF). (1) In SNA, a capability of a subarea node to provide protocol support for attached peripheral nodes, such as: (a) interconnecting subarea path control and peripheral path control elements, (b) performing session sequence numbering for low-function peripheral nodes, and (c) providing session-level pacing support. (2) In SNA, the component that provides these capabilities.

boundary node. In SNA, a subarea node with boundary function. A subarea node may be a boundary node, an intermediate routing node, both, or neither, depending on how it is used in the network.

brackets. In SNA, one or more chains of request units and their responses, which are exchanged between two session partners and represent a transaction between them. A bracket must be completed before another bracket can be started. Examples of brackets are data base inquiries and replies, update transactions, and remote job entry output sequences to workstations.

Branch Extender. An APPN function that simplifies large APPN networks by separating out resources in different locations (for example in separate branches of a large organization). This reduces the amount of topology information that must be maintained, while still allowing efficient resource location. See also **APPN branch network node**.

branch network node (BrNN). See **APPN branch network node**.

bridge. (1) A functional unit that interconnects two local area networks that use the same logical link control protocol but may use different medium access control protocols. (2) A functional unit that

interconnects multiple LANs (locally or remotely) that use the same logical link control protocol but that can use different medium access control protocols. A bridge forwards a frame to another LAN based on the medium access control (MAC) address. (3) In the connection of local loops, channels, or rings, the equipment and techniques used to match circuits and to facilitate accurate data transmission. (4) Contrast with **gateway** and **router**.

broadcast. Simultaneous transmission of data to more than one destination.

broadcast search. The simultaneous propagation of a search request to all network nodes in an APPN network. This type of search may be used when the location of a resource is unknown to the requester. Contrast with **directed search**.

BSD. Berkeley Software Distribution of the UNIX operating system.

buffer. (1) A routine or storage used to compensate for a difference in rate of flow of data, or time of occurrence of events, when transferring data from one device to another. (A) (2) A portion of storage used to hold input or output data temporarily.

bug. An error in a program or a logic problem in the intent of the program.

bus. A facility for transferring data between devices.

button. (1) A mechanism on a pointing device, such as a mouse, used to request or initiate an action or a process. (2) A graphical device that identifies a choice. (3) A graphical mechanism that, when selected, performs a visible action. For example, when a user clicks on a list button, a list of choices appears.

byte. A group of 8 adjacent binary digits that can represent one ASCII or EBCDIC character.

C

cache. (1) A buffer storage that contains frequently accessed instructions and data; it is used to reduce access time. (2) An optional part of the directory database in network nodes where frequently used directory information may be stored to speed directory searches.

callback. (1) In CS Linux, a routine specified by an application program that issues a verb that uses asynchronous completion. When the verb completes, CS Linux uses the callback routine to notify the application. (2) Synonymous with **callback function**.

callback function. Synonym for **callback**.

call user data (CUD). In X.25 communications, data optionally included in the call-request packet by the user application.

carrier sense multiple access with collision detection (CSMA/CD). A protocol used on Ethernet LANs that requires carrier sense and in which a transmitting data station that detects another signal while transmitting, stops sending, sends a jam signal, and then waits for a variable time before trying again. (A)

case-sensitive. Able to distinguish between uppercase and lowercase letters.

cathode ray tube (CRT). A vacuum tube in which a beam of electrons can be moved to draw lines or to form characters or symbols on its luminescent screen.

CD-ROM. High-capacity read-only memory in the form of an optically read compact disk.

central logging. A method of logging CS Linux error and audit messages in files only on the master server. Contrast with **local logging**.

central processing unit (CPU). The part of a computer that includes the circuits that control the interpretation and execution of instructions. A CPU is the circuitry and storage that executes instructions. Traditionally, the complete processing unit was often regarded as the CPU, whereas today the CPU is often a microchip. In either case, the centrality of a processor or processing unit depends on the configuration of the system or network in which it is used.

chain. A group of request units delimited by begin-chain and end-chain. Responses are always single-unit chains.

change-direction indicator (CDI). In SNA, an indicator in the request header specifying that the sender has finished sending and is prepared to receive.

change-direction protocol. In SNA, a data flow control protocol in which the sending logical unit (LU) stops sending normal-flow requests, signals this fact to the receiving LU using the change-direction indicator, and prepares to receive requests.

channel. (1) A path along which signals can be sent, for example, data channel, output channel. (A) (2) On host systems, the communication path that connects to peripheral devices such as communication controllers.

character. A letter, digit, or other symbol.

character set. The set of characters (alphabetic, numeric, punctuation, and special characters such as $ and #) that can be used in a particular situation (for example, the set associated with a particular national language). See also **double-byte character set**.

checksum. In error detection, a function of all bits in a block. If the written and calculated sums do not agree, an error is indicated.

child. (1) Pertaining to a secured resource, either a file or library, that uses the user list of a parent resource. A child resource can have only one parent resource. (2) In the operating system, a child is a process, started by a parent process, that shares the resources of the parent process. Contrast with **parent**.

child process. In the operating system, a process, started by a parent process, that shares the resources of the parent process. See also **fork**.

C Language. A language used to develop software applications.

class of service (COS). A set of characteristics (such as route security, transmission priority, and bandwidth) used to construct a route between session partners. The class of service is derived from a mode name specified by the initiator of a session.

C library. A system library that contains common C language functions.

client. (1) A functional unit that receives shared services from a server. (2) In the CS Linux environment, a system that is dependent on a server to provide it with SNA communication functions.

code page. A table, typically based on EBCDIC or ASCII, that defines the mapping between graphical characters and 8-bit numbers. Code pages vary slightly from country to country. Also used for a similar mapping between double-byte characters and 16-bit numbers.

command-line administration program. The CS Linux program that enables the user to configure and manage the CS Linux system by entering commands at the Linux command prompt.

commit. To make all changes permanent that were made to one or more database files since the last commit or rollback operation, and make the changed records available to other users.

Common Programming Interface for Communications (CPI-C). An application programming interface (API) designed to achieve openness as an industry standard for communications programming. CPI-C provides access to interprogram services such as (a) sending and receiving data and (b) synchronizing processing between programs. In an SNA environment, CPI-C also makes use of APPC protocols.

In addition to the standard C-language interface, CS Linux also provides a CPI-C interface for use by **Java** applications.

Common Service Verbs (CSV). An application programming interface (API) provided by CS Linux that provides facilities for translating characters, logging messages, and tracing.

communication controller. (1) A device that directs the transmission of data over the data links of a network; its operation may be controlled by a program executed in a processor to which the controller is connected or it can be controlled by a program executed within the device. (2) A type of communication control unit whose operations are controlled by one or more programs stored and executed in the unit. It manages the details of line control and the routing of data through a network.

communications adapter. A part of a computer system that electrically or physically connects a computer or device to a data communications network.

communications check code. A message displayed on the status line of the 3270 emulation program that indicates the status of the program's communication link with the host. The message appears as **-+z_***nnn* where *nnn* is a 3-digit number.

configuration file. A file that specifies the characteristics of a system device or network.

configuration server. In a multiserver domain, any server selected to store replicated configuration information. The first available configuration server becomes the master server. See also **master server** and **backup server**.

confirmation processing. A synchronization processing level, specified during allocation of a conversation, that enables a transaction program to solicit acknowledgment from its partner TP of a message sent to the partner TP. Contrast with **sync point processing**.

connection network. A representation within an APPN network of a shared-access transport facility (SATF), such as a token ring, that allows nodes identifying their connectivity to the SATF by a common virtual routing node to communicate. Nodes connected to the SATF can communicate with any other nodes connected to the SATF without needing to configure explicitly connectivity information between each pair of communicating nodes.

connection-oriented service. A service that establishes a logical connection between two partners for the duration that they want to communicate. Data transfer takes place in a reliable, sequenced manner. Contrast with **connectionless service**.

connection-oriented transport. Synonym for **connection-oriented service**.

connectionless service. A network service that treats each packet or datagram as a separate entity that contains the source address and destination address and for which no acknowledgment is returned to the originating source. Connectionless services are on a best-effort basis and do not guarantee reliable or

in-sequence delivery. Contrast with **connection-oriented service**.

connectionless transport. Synonym for **connectionless service**.

constant request to send (RTS). An option used by a modem or SDLC adapter to hold the request-to-send (RTS) signal high constantly, forcing the other end of the connection to maintain clear-to-send (CTS) high. Selecting this option increases throughput by avoiding the delay required to raise RTS when needed and wait for CTS to be raised by the other end before sending any data. This option cannot be used on multidrop links.

contention. In a session, a situation in which both NAUs attempt to initiate the same action at the same time, such as when both attempt to send data in a half-duplex protocol (half-duplex contention), or both attempt to start a bracket (bracket contention). At session initiation, one NAU is defined to be the contention winner; its action will take precedence when contention occurs. The contention loser must get explicit or implicit permission from the contention winner to begin its action.

control point (CP). (1) A component of an APPN or LEN node that manages the resources of that node. In an APPN node, the CP is capable of engaging in CP-CP sessions with other APPN nodes. In an APPN network node, the CP also provides services to adjacent end nodes in the APPN network. (2) A component of a node that manages resources of that node and optionally provides services to other nodes in the network. Examples are a system services control point (SSCP) in a type 5 subarea node, a network node control point (NNCP) in an APPN network node, and an end node control point (ENCP) in an APPN or LEN end node. An SSCP and an NNCP can provide services to other nodes.

control unit terminal (CUT) mode. (1) An IBM protocol used for communications with an IBM 3174 or 3274 Control Unit or other appropriate interface unit. In this protocol, a program in the workstation emulates a 3278 or 3879 terminal for a user at a virtual terminal, and the interface unit is responsible for enforcing the protocol. (2) Contrast with **distributed function terminal (DFT)**.

Conventional LU Application Programming Interface (LUA). An application programming interface (API) that allows access to host applications using any of the logical unit (LU) types 0, 1, 2, or 3.

conversation. A logical connection between two transaction programs using an LU 6.2 session. Conversations are delimited by brackets to gain exclusive use of a session.

conversation-level security. A security mechanism used on LU 6.2 conversations whereby the invoking

transaction program (TP) specifies a user name and password that are validated before the invoked TP starts.

conversation state. The condition of a conversation that reflects what the past action on that conversation has been and that determines what the next set of actions can be.

conversation type. The type (basic or mapped) that determines how data is exchanged between two programs that use LU 6.2 protocols. See also **basic conversation** and **mapped conversation**.

CP-CP session. The parallel sessions between two control points, using LU 6.2 protocols and a mode name of CPSVCMG, on which network services requests and replies are exchanged. Each control point of a given pair has one contention-winner session and one contention-loser session with the other.

crash. An unexpected interruption of computer service, usually due to a serious hardware or software malfunction.

current directory. Synonym for **default directory**.

Customer Information Control System (CICS). An IBM licensed program that enables transactions entered at remote terminals to be processed concurrently by user-written application programs. It includes facilities for building, using, and maintaining databases.

D

daemon. A program that runs unattended to perform a service. Some daemons are triggered automatically to perform their task; others operate periodically. An example is the Linux **cron** daemon, which periodically performs the tasks listed in the **/usr/spool/cron/crontabs** directory.

data circuit-terminating equipment (DCE). In a data station, the equipment installed at the user's premises that provides all the functions required to establish, maintain, and end a connection, and the signal conversion and coding between the data terminal equipment (DTE) and the line.

data encryption standard (DES). In computer security, the National Institute of Standards and Technology (NIST) Data Encryption Standard, adopted by the U.S. government as Federal Information Processing Standard (FIPS) Publication 46, which allows only hardware implementations of the data encryption algorithm.

data flow control (DFC). In SNA, a session-layer component that manages the communication between the half-sessions.

datagram. A self-contained block of data, used by connectionless services, that carries sufficient information to be routed across a network without relying on earlier exchanges. See also **connectionless service**

data link. In SNA, synonym for **link**.

data link control (DLC). A set of rules used by nodes on a data link (such as an SDLC link or a token ring) to accomplish an orderly exchange of information.

data link provider interface (DLPI). An industry-standard interface between different levels of a link software component.

data set ready (DSR). Synonym for **DCE ready**.

data stream. The information (data and control commands) transmitted over a data link.

data terminal equipment (DTE). That part of a data station that serves as a data source, data sink, or both. (A)

data terminal ready (DTR). A signal to the modem used with EIA 232 protocol.

data transfer. The movement, or copying, of data from one location and the storage of the data at another location.

DCE ready. In the EIA 232 standard, a signal that indicates to the data terminal equipment (DTE) that the local data circuit-terminating equipment (DCE) is connected to the communication channel and is ready to send data. Synonymous with **data set ready (DSR)**.

deactivate LU (DACTLU). In SNA, a request issued by a system services control point (SSCP) to a logical unit (LU) to terminate an SSCP-LU session. Contrast with **ACTLU**.

deactivate PU (DACTPU). In SNA, a request issued by a system services control point (SSCP) to a physical unit (PU) to terminate an SSCP-PU session. Contrast with **ACTPU**.

deadlock. An error condition in which processing cannot continue because each of two elements of the process is waiting for an action by or a response from the other.

deallocate. (1) To end the assignment of a resource, such as a disk or diskette file, when it is no longer required to perform a task. (2) An LU 6.2 application programming interface (API) verb used to close a conversation and end its association with a session. (3) Contrast with **allocate**.

debug. To detect, locate, and correct errors in the configuration of a computer system or a software program.

debugger. A program or programs used to detect, trace, and eliminate errors in computer programs or software.

default directory. The directory name supplied by the operating system if none is specified. Synonymous with **current directory**.

default dependent APPC LU pool. A group of dependent type 6.2 logical units (LU) that can be used interchangeably by CPI-C and APPC applications. If an application does not specify which local LU it wants to use, CS Linux assigns the application an available LU from this pool, eliminating the need to configure which LU each application can use.

definite response (DR). In SNA, a protocol requested in the Form of Response Requested field of the request header that directs the receiver of the request to return a response unconditionally, whether positive or negative. See also **negative response** and **positive response**.

dependent logical unit (DLU). An LU that requires assistance from a system services control point (SSCP) in order to initiate an LU-LU session. It requires an SSCP-LU session.

dependent LU requester (DLUR). An APPN end node or an APPN network node that owns dependent logical units (LUs), but requests that a dependent LU server provide the SSCP services for those dependent LUs so that a session between dependent LUs can traverse an APPN network.

dependent LU server (DLUS). An APPN network node that provides SSCP services for a dependent LU in its own or another APPN network. Contrast with **dependent LU requester**.

destination address field (DAF). In SNA, a field in the transmission header that contains the network address of the destination. Contrast with **origin address field**.

device driver (DD). A collection of functions that control the interface between I/O device adapters and the processor.

direct memory access (DMA). The transfer of data between memory and an input/output device without processor intervention.

directed search. A search request sent to a specific destination node known to contain a resource, such as a logical unit, to verify the continued presence of the resource at the destination node and to obtain the node's connectivity information for route calculation. Contrast with **broadcast search**.

directory. (1) A table of identifiers and references to the corresponding items of data. (A) (2) Part of a file system that provides an index to the files that comprise

that file system. (3) A database in an APPN node that lists names of resources (in particular, logical units) and records the CP name of the node where each resource is located.

disk. A storage device made of one or more flat, circular plates with magnetic surfaces on which information can be stored.

disk drive. The mechanism used to seek, read, and write information on a disk.

diskette. A thin, flexible magnetic plate that is permanently sealed in a semi-rigid protective cover. It can be used to store information.

diskette drive. The mechanism used to read and write information on diskettes.

display model. A number between 2 and 5 that identifies a type of 3278 or 3279 video adapter and monitor. Model 2 is the standard display consisting of 24 rows and 80 columns. Models 3–5 are used for larger displays.

display session. A 3270 emulation session between a local computer and a host that uses a logical unit (LU) type 2 session and emulates a 3278 or 3279 display.

distributed function terminal (DFT). (1) A protocol used for communication between a terminal and an IBM 3274 or IBM 3174 control unit that allows multiple concurrent logical terminal sessions. (2) Contrast with **control unit terminal (CUT) mode**.

DLUR PU. The physical unit (PU) in the node that provides dependent LU requester (DLUR) services.

domain. The CS Linux local area network (LAN) system consisting of Linux servers, each of which contains a node and its associated connectivity components, and Linux or Windows® clients, which access the node and connectivity components on a server across the LAN.

domain configuration file. The CS Linux configuration file that contains the configuration of domain resources. Contrast with **node configuration file**.

domain resource. (1) A resource in the CS Linux system that applies to the complete CS Linux system rather than being associated with a particular node. The following are examples of domain resources:

- Information about invokable transaction programs (TPs)
- CPI-C side information

(2) Contrast with **node resource**.

double-byte character set (DBCS). A set of characters in which each character is represented by 2 bytes. Languages such as Japanese, Chinese, and Korean, which contain more symbols than can be represented by 256 code points, require double-byte character sets. Because each character requires 2 bytes, the typing, display, and printing of DBCS characters requires hardware and programs that support DBCS.

downstream. (1) In the direction of data flow from the host to the user. (2) From the processor toward an attached unit or end user.

downstream LU. A logical unit on a downstream computer that uses SNA gateway or DLUR to access a host LU.

downstream PU. A physical unit (PU) on a downstream computer with which downstream LUs are associated. See also **downstream LU**

dump. (1) To copy data in a readable format from main or auxiliary storage onto an external medium such as tape, diskette, or printer. (2) Data that has been dumped.

duplex. Pertaining to communication in which data can be sent and received at the same time. Synonymous with full-duplex. Contrast with **half-duplex**.

dynamic definition of dependent LUs. (1) A host feature that allows dependent logical units (LUs) served by a node to be added to the host configuration when the communications link from the node to the host is established, instead of requiring the LUs to be configured statically at the host. This feature reduces the initial configuration required at the host and makes later expansion easier. (2) When the communications link from CS Linux to a host is established, the host informs CS Linux whether it supports DDDLU. If the host supports DDDLU, CS Linux sends the information required to define the dependent LUs that use the link. If the host does not support DDDLU, CS Linux assumes that the LUs have been defined statically at the host and does not send any definition information.

dynamic link library (DLL). A file containing executable code and data bound to a program at load time or run time, rather than during linking. The code and data in a dynamic link library are specific to variants of the Windows operating system and can be shared by several applications simultaneously.

dynamically created link station. A link station created in one of the following situations when no suitable link station connecting to the remote node is already configured on the local node:

- The local node is part of a **connection network** and needs to contact a remote node on the same connection network to activate a session.
- A remote node attempts to connect to the local node.

This link station cannot be modified and can be used only for sessions between independent logical units.

E

editor. A program used to enter and modify programs, text, and other types of documents and data.

EIA 232. In data communication, a specification of the Electronic Industries Association (EIA) that defines the interface between data terminal equipment (DTE) and data circuit-terminating equipment (DCE), using serial binary data interchange.

EIA 422. In data communication, a specification of the Electronic Industries Association (EIA) that defines the electrical characteristics for balanced voltage digital interface circuits for the interchange of serial binary data between data terminal equipment (DTE) and data circuit-terminating equipment (DCE), or any point-to-point interconnection of serial binary signals between digital equipment. The international equivalent is CCITT Recommendation V.11.

emulation. (1) The use of programming techniques and special machine features to permit a computing system to run programs written for another system. (2) Imitation. For example, when one computer imitates the characteristics of another computer.

emulator. A program (for example, a 3270 or 5250 emulation program) that causes a computer to act as a workstation attached to another system.

encrypt. To scramble data or to convert data to a secret code that masks the meaning of the data to any unauthorized recipient.

encryption key. A key used to encrypt or decrypt data.

end node (EN). See **APPN end node**.

end of file (EOF). Notification from a file system that the end of a file has been reached.

Enterprise Extender. A mechanism to allow SNA communications over **Internet Protocol (IP)** networks, providing the benefits of **High-Performance Routing (HPR)** functionality for the SNA traffic. Also known as HPR/IP (HPR over IP).

environment variable. A variable that specifies how an operating system or another program will run.

error log. A file in a product or system where error information is stored for later access.

error message. An indication that an error has been detected.

error recovery procedures (ERP). A set of routines that attempt to recover from transmission errors.

escape character (ESC). (1) In shell programming and TTY programming, the \ (backslash) character, which indicates that the next character is not intended to have the special meaning normally assigned to it. (2) In general, a character that suppresses or selects a special meaning for one or more characters that follow.

escape sequence. (1) A character that is preceded by a \ (backslash) and is interpreted to have a special meaning to the operating system. (2) A sequence sent to a terminal to perform actions such as moving the cursor, changing from normal to reverse video, and clearing the screen. In Linux, the **terminfo** file defines these escape sequences.

Ethernet. A local area network that allows multiple stations to access the transmission medium at will without prior coordination, avoids contention by using carrier sense and deference, and resolves contention by using collision detection and delayed retransmission. Ethernet uses carrier sense multiple access with collision detection (CSMA/CD).

event. An occurrence of significance to a task; for example, an SNMP trap, the opening of a window or a submap, or the completion of an asynchronous operation.

exception. (1) In programming languages, an abnormal situation that may arise during the running of a program, perhaps causing a deviation from the normal run sequence, and for which handling facilities exist. (2) Contrast with **interrupt** and **signal**.

exchange data. In remote job entry (RJE), data that is transferred in records of up to 128 bytes, as opposed to standard data, which is transferred in records of up to 80 bytes.

exchange device. An remote job entry (RJE) output device, similar to a punch device, except that it can process data in records of up to 128 bytes instead of up to 80 bytes, which is the maximum record length for a standard punch device.

exchange identification (XID). A specific type of basic link unit that is used to convey node and link characteristics between adjacent nodes. XIDs are exchanged between link stations before and during link activation to establish and negotiate link and node characteristics, and after link activation to communicate changes in these characteristics. See also **format 0 XID** and **format 3 XID**.

exec. To overlay the current process with another executable program. See also **fork**.

executable file. A file that contains programs or commands that perform operations on actions to be taken.

executable program. A program that can be run as a self-contained procedure. It consists of a main program and, optionally, one or more subprograms.

extended binary-coded decimal interchange code (EBCDIC). A code developed for the representation of textual data. EBCDIC consists of a set of 256 eight-bit characters.

external clocking. In data communications, the ability of a modem to provide data clocking.

F

Fiber Distributed Data Interface (FDDI). An American National Standards Institute (ANSI) standard for a 100-megabit-per-second LAN using optical fiber cables.

file name. A name assigned or declared for a file.

file owner. The user who has the highest level of access authority to a file, as defined by the file.

file transfer. In remote communications, the transfer of a file or files from one system to another over a data link.

File Transfer Protocol (FTP). In the Internet suite of protocols, an application layer protocol that uses TCP and Telnet services to transfer bulk-data files between machines or hosts.

first speaker. The half-session defined at session activation as (a) able to begin a bracket without requesting permission from the other half-session to do so and (b) winning contention if both half-sessions attempt to begin a bracket simultaneously. Synonym for **contention-winner session**.

flag. A modifier that appears on a command line with the command name that defines the action of the command. A dash usually precedes a flag.

flow control. (1) In data communication, control of the data transfer rate. (2) In SNA, the process of managing the rate at which data traffic passes between components of the network. The purpose of flow control is to optimize the rate of flow of message units with minimum congestion in the network; that is, to neither overflow the buffers at the receiver or at intermediate routing nodes, nor leave the receiver waiting for more message units.

focal point. For any given management services discipline (for example, problem determination or response time monitoring), the control point that is responsible for that type of network management data for a sphere of control. This responsibility may include collecting, storing, or displaying the data, or all of these. (For example, a problem determination focal point is a control point that collects, and that may store or display, problem determination data.)

font. A family of characters of a given size and style; for example, 9-point Helvetica.

foreground. In multiprogramming, the environment in which programs that interact with users are run. Contrast with **background**.

foreground process. A process that must run to completion before another command is issued to the shell. The foreground process is in the foreground process group, which is the group that receives the signals generated by a terminal. Contrast with **background process**.

fork. To create and start a child process.

format. A defined arrangement of such things as characters, fields, and lines, usually used for displays, printouts, or files.

format 0 XID. A format of an exchange identification (XID) that does not contain a CP name. The sender is identified only by the node identifier (node ID).

format 3 XID. A format of an exchange identification (XID) that contains a CP name and a node identifier (node ID).

Forms Control Buffer (FCB). A definition of the page layout used to format remote job entry (RJE) output sent to a printer device. The FCB determines parameters such as the page length and top and bottom margins.

frame. The unit of transmission in some networks, including Token-Ring and SDLC. The unit includes delimiters, control characters, information, and checking characters.

frame level. In X.25 communications, the level between the physical level and the packet level, which works according to the high-level data link control procedure (HDLC). Synonymous with **data-link level** and **level 2**. See **packet level**.

frame relay. (1) An interface standard describing the boundary between a user's equipment and a fast-packet network. In frame-relay systems, flawed frames are discarded; recovery comes end-to-end rather than hop-by-hop. (2) A technique derived from the integrated services digital network (ISDN) D channel standard. It assumes that connections are reliable and dispenses with the overhead of error detection and control within the network.

Front-End Processor (FEP). A dedicated communications processor that is used to offload communications functions from the host.

full duplex (FD or FDX). Synonym for **duplex**.

fully qualified name. In SNA, a name that uniquely identifies a specific resource (such as an LU or a CP) within a specific network. It consists of a network identifier and a resource name, each of which is a 1- to

8-byte symbol string. The network identifier and resource name are separated by a period (.).

function. A subroutine that returns the value of a single variable, such as subroutines that compute mathematical functions.

function call. An expression that moves the path of execution from the current function to a specified function and evaluates to the return value provided by the called function. A function call contains the name of the function to which control moves and a parenthesized list of values.

function keys. Keys that request actions but do not display or print characters. This includes the keys that normally produce a printed character, but produce a function instead when used with the code key.

function management data (FMD). In SNA, an RU category used for end-user data exchanged between logical units (LUs) and for requests and responses exchanged between network services components of LUs, PUs, and SSCPs.

function management header (FM header or FMH). One or more headers, optionally present in the leading request units (RUs) of an RU chain, that allow one LU to (a) select a transaction program or device at the session partner and control the way in which the end-user data it sends is handled at the destination, (b) change the destination or the characteristics of the data during the session, and (c) transmit between session partners status or user information about the destination (for example, a program or device). Function management headers can be used with LU type 0, 1, 4, 6.0, and 6.2 protocols.

function management (FM) profile. In SNA, a specification of various data flow control protocols (such as RU chains and data flow control requests) and FMD options (such as use of FM headers, compression, and alternate codes) supported for a particular session. Each function management profile is identified by a number.

G

gateway. (1) A functional unit that interconnects two computer networks with different network architectures. A gateway connects networks or systems of different architectures. A bridge interconnects networks or systems with the same or similar architectures. (2) A functional unit that connects two networks or subnetworks having different characteristics, such as different protocols or different policies concerning security or transmission priority. (3) In CS Linux, the feature that supports the establishment and use of dependent LU sessions between host computers and downstream PUs through the CS Linux node. This feature removes the need for a separate connection between the host and each downstream LU.

general data stream (GDS). The data stream used for conversations in LU 6.2 sessions.

gigabyte (GB). 1,073,741,824 in decimal notation when referring to memory capacity; in all other cases, it is defined as 1,000,000,000 (one billion).

group. A collection of users who can share access authorities for protected resources.

group ID (GID). A number that corresponds to a specific group name. The group ID can often be substituted in commands that take a group name as a value.

group name. A name that uniquely identifies a group of users to the system.

H

half-duplex (HD or HDX). Pertains to communications in which data can be sent in only one direction at a time. Contrast with **duplex**.

half-duplex flip-flop (HDXFF). A normal-flow send/receive mode in which one half-session sets the Change Direction indicator in the RH on an end of chain to allow the other half-session to begin sending.

half-session. A session-layer component consisting of the combination of data flow control and transmission control components comprising one end of a session.

handle. A data structure that is a temporary local identifier for an object.

hardware. The physical equipment of computing and computer-directed activities. The physical components of a computer system.

header. System-defined control information that precedes user data.

heap. A collection of dynamically allocated variables.

Help. A choice that gives a user access to helpful information about objects, choices, tasks, and products. A Help choice can appear on a menu bar or as a push button.

help file. A file, separate from the source code of a program, that contains help definitions in a special help format that the operating system can use.

hertz (Hz). A unit of frequency equal to one cycle per second.

hexadecimal (hex). Pertaining to a system of numbers to the base 16; hexadecimal digits range from 0 through 9 and A through F, where A represents 10 and F represents 15.

high-level data link control (HDLC). In data communications, the use of a specified series of bits to control data links in accordance with the International Standards for HDLC: ISO 3309 Frame Structure and ISO 4335 Elements of Procedures. This DLC is similar to **synchronous data link control (SDLC)**.

High-Level Language Application Programming Interface (HLLAPI). An application programming interface that provides a way for users and programmers to access the presentation space of a 3270 or 5250 emulator.

high-order. Most significant; leftmost. For example, the digit 5 in the number 526819.

High-Performance Routing (HPR). (1) An addition to APPN that enhances data-routing performance and session reliability. (2) See also **automatic network routing (ANR)** and **Rapid Transport Protocol (RTP)**. (3) Contrast with **intermediate session routing (ISR)**.

home directory. (1) A directory associated with an individual user. (2) The user's current directory after login or after issuing the **cd** command with no argument.

hop count. (1) In Internet communications, the number of routers that a datagram passes through on its way to its destination. (2) In SNA, a measure of the number of links to be traversed in a path to a destination.

host. (1) In the Internet suite of protocols, an end system. The end system can be any workstation; it does not have to be a mainframe. (2) In SNA, the primary or controlling computer in a communications network, typically a mainframe.

host node. In SNA, a subarea node that contains a system services control point (SSCP).

host response time. The amount of time a host computer takes to reply to a message sent to it by a 3270 emulation program. See also **response time monitor** and **last transaction time indicator**.

hot-key. (1) The key combination used to change from one session to another on the workstation. (2) To jump from a host session to an application on the workstation, or from the workstation to the host session.

hypertext. A way of presenting information online with connections between one piece of information and another. These connections are called hypertext links. Thousands of these hypertext links enable you to explore additional or related information throughout the online documentation. See also **hypertext link**.

hypertext link. A connection between one piece of information and another. In the graphics interface, the link is displayed in a rectangular box, and in the ASCII interface, it is displayed as underlined text. When you select one of these links, you are taken to a target piece of information that is then displayed.

I

icon. A graphic symbol, displayed on a screen, that a user can point to with a device such as a mouse in order to select a particular function or software application.

IEEE. Institute of Electrical and Electronics Engineers.

IEEE 802.2. An IEEE standard describing how data is formatted into frames for LAN transmission.

IEEE 802.3. Ethernet LAN specification.

IEEE 802.5. Token Ring LAN specification.

IEEE 802.7. Fiber Distributed Data Interface specification.

include file. A text file that contains declarations used by a group of functions, programs, or users.

incoming call. In X.25 communications, a call arriving at the data terminal equipment (DTE).

IND$FILE. An IBM file transfer program that operates in the CICS, VM/CMS, and MVS/TSO environments and enables files to be transferred between a local computer and the host.

independent logical unit (ILU). An LU that is able to activate an LU-LU session (that is, send a BIND request) without assistance from an SSCP. It does not have an SSCP-LU session. Currently, only an LU 6.2 can be an independent LU.

Information Management System (IMS). Synonym for **Information Management System/Virtual Storage (IMS/VS)**.

Information Management System/Virtual Storage (IMS/VS). A database/data communication (DB/DC) system that can manage complex databases and networks. Synonymous with **IMS**.

initial program load (IPL). The initialization procedure that causes an operating system to commence operation.

input method. A facility for entering characters from double-byte character sets using a standard keyboard.

input/output (I/O). Pertaining to input, output, or both between a computer and a device.

intermediate session routing (ISR). (1) A type of intermediate routing function within an APPN network node that provides session-level outage reporting and

flow control for all routes passing through the node but whose end points are elsewhere. (2) Contrast with **automatic network routing**.

Internet. The internet administered by the Internet Architecture Board (IAB), consisting of large national backbone networks and many regional and campus networks all over the world. The Internet uses the Internet suite of protocols.

Internet Protocol (IP). A connectionless protocol that routes data through a network or interconnected networks. IP acts as an intermediary between the higher protocol layers and the physical network.

interprocess communication (IPC). The process by which programs communicate data to each other and synchronize their activities. Semaphores, signals, and internal message queues are common methods of interprocess communication.

interrupt. (1) A suspension of a process, such as execution of a computer program caused by an external event, and performed in such a way that the process can be resumed. (A) (2) To stop a process in such a way that it can be resumed.

invokable TP. An APPC or CPI-C application that can be started, either by an operator or automatically by CS Linux, in response to a request from an invoking transaction program (TP). Contrast with **invoking TP**.

invoke. To start a command, procedure, or program.

invoked TP. An APPC or CPI-C application that is started, either by an operator or automatically by CS Linux, in response to a request from an invoking transaction program (TP). See also **invokable TP** and **invoking TP**.

invoking TP. An APPC or CPI-C application that issues a request, specifying the name of an invokable transaction program (TP), to start a conversation with that TP. Contrast with **invokable TP** and **invoked TP**.

J

Japanese Industry Standard (JIS). A standard for coding character sets.

Java™. Java is an object-oriented programming language. Unlike other languages such as C, Java is compiled into Java byte codes, and not into native instructions for a specific computer or operating system. These byte codes are interpreted at run time by a piece of software known as the Java Virtual Machine.

CS Linux provides a **CPI-C application programming interface (API)** for use in Java applications (in addition to the standard C-language CPI-C API).

job. A unit of work defined by a user that is to be accomplished by a computer. Loosely, the term job is

sometimes used to refer to a representation of a job. This representation may include a set of computer programs, files, and control statements to the operating system. (A)

Job Control Language (JCL). A control language used to identify a job to an operating system and to describe the job's requirements.

Job Entry Subsystem (JES). An IBM licensed program that receives jobs into the system and processes all output data produced by the jobs.

job file. In remote job entry (RJE), a file sent to the host that includes commands to be executed at the host and optionally includes data to be processed by the host.

job queue. A list of jobs waiting to be processed by the system.

K

kanji. A Japanese ideographic alphabet. In kanji, each character is represented by 2 bytes. See also **katakana**.

katakana. One of the two common Japanese phonetic alphabets (the other is hiragana). In katakana, each character is represented by 1 byte. Katakana is primarily used to write foreign words phonetically. See also **kanji**.

kernel. The part of an operating system that performs basic functions such as allocating hardware resources.

kernel dump. Synonym for **system dump**.

kernel mode. The state in which a process runs kernel code. Contrast with **user mode**.

keyboard. An input device consisting of various keys that allows the user to input data, control cursor and pointer locations, and to control the dialog with the workstation.

key pad. A physical grouping of keys on a keyboard such as the numeric key pad and the cursor key pad.

kill. An operating system command that stops a process.

kilobit (Kb). (1) For processor storage, real and virtual storage, and channel volume, 1024 bits. (2) For disk storage capacity and communications volume, 1000 bits.

kilobyte (KB or K-byte). (1) For processor storage, real and virtual storage, and channel volume, 1024 bytes. (2) For disk storage capacity and communications volume, 1000 bytes.

L

Last Transaction Time Indicator (LTTI). An indicator, displayed on the 3270 status line, that shows the time it took for the host to respond the last time an AID key was pressed. See also **host response time** and **response time monitor**.

leased line. Synonym for **nonswitched line**.

library. A collection of functions, calls, subroutines, or other data.

line. The portion of a data circuit external to data circuit-terminating equipment (DCE), that connects the DCE to a data switching exchange (DSE), that connects a DCE to one or more other DCEs, or that connects a DSE to another DSE.

linefeed. An ASCII character that causes an output device to move forward one line.

line printer. A printer that prints output, one line of characters at a time, as a unit. Output of line printers is in constant-width characters.

line speed. (1) The rate at which data is transmitted from one point to another over a telecommunication line. (2) The number of binary digits that can be sent over a telecommunication line in one second, expressed in bits per second (bps).

link. (1) In data communications, a transmission medium and data link control component that together transmit data between adjacent nodes. (2) In SNA, the combination of the link connection (the transmission medium) and two link stations, one at each end of the link connection. A link connection can be shared among multiple links in a multipoint or SATF configuration. (3) To interconnect items of data or portions of one or more computer programs: for example, the linking of object programs by a linkage editor, linking of data items by pointers.

link access procedures (LAP or LAPB). In X.25 communications, the link level elements used for data interchange between a DCE and a DTE.

link role. The role (primary, secondary, or negotiable) that the link station is configured to play on the current link. See also **negotiable link station**, **primary station**, and **secondary station**.

link station. The hardware and software components within a node representing a connection to an adjacent node over a specific link. For example, if node A is the primary end of a multipoint line that connects to three adjacent nodes, node A will have three link stations representing the connections to the adjacent nodes.

link trace. A sequential log of events that occur on the link. This log can help determine the source of a recurring error.

LLC2. A protocol for connection-oriented data transfer across a local area network (LAN). For example, used for transporting SNA data traffic over a Token Ring or Ethernet LAN.

local area network (LAN). A computer network located on a user's premises within a limited geographical area. Communication within a local area network is not subject to external regulations; however, communication across the LAN boundary may be subject to some form of regulation. See also **wide area network**.

local host. (1) In Transmission Control Protocol/Internet Protocol, the host on the network at which a particular operator is working. (2) In an internet, the host to which a user's terminal is connected without using the internet.

local logging. A method of logging CS Linux error and audit messages in files on each server. Contrast with **central logging**.

local LU. The logical unit that manages a session on a local node. See also **logical unit**, **session**, and **local node**.

local node. A network point immediately accessible without use of a telecommunication line.

local-form session identifier (LFSID). A dynamically assigned value used at a type 2.1 node to identify traffic for a particular session using a given transmission group (TG). The LFSID is encoded in the ODAI, OAF, and DAF fields of the transmission headers that accompany session messages exchanged over the TG.

lock. The means by which integrity of data is ensured by preventing more than one user from accessing or changing the same data or object at the same time.

log. (1) To record. For example, to record all messages on the system printer. (2) A list of messages, such as an error log.

log file. A file used to store messages generated by CS Linux, which report events such as: failures of software, hardware, or links; damaged or missing files; connection statistics; configuration problems; and system status. This file can be viewed using a text editor. See also **audit log** and **error log**.

logical channel. In X.25 packet mode operation, a sending channel and a receiving channel that together are used to send and receive data over a data link at the same time. Several logical channels can be established on the same data link by interleaving the transmission of packets.

Logical Channel Number (LCN). A number that uniquely identifies a logical channel.

logical link control (LLC) protocol. In a local area network, the protocol that governs the exchange of transmission frames between data stations independently of how the transmission medium is shared. The LLC protocol was developed by the IEEE 802 committee and is common to all LAN standards.

logical unit (LU). (1) A type of network accessible unit that enables end users to communicate with each other and gain access to network resources. (2) In SNA, a port through which an end user accesses the SNA network in order to communicate with another user. An LU may be capable of supporting many sessions with other LUs.

Logical unit of work identifier (LUWID). An identifier, consisting of a fully qualified LU name, transaction instance number, and sequence number, that is used by a resource recovery manager to identify backout synchronization points. See also **sequence number**.

Logical Unit Type 0 (LU 0). An LU that uses SNA Transmission Control and SNA Flow Control layers. Higher-layer protocols are end user and product-defined.

Logical Unit Type 1 (LU 1). An SNA session that supports communication between an application and multiple input/output devices. This type of session is used for 3270 printing and remote job entry (RJE) functions.

Logical Unit Type 2 (LU 2). An SNA session that uses a 3270 device data stream to support communication between an application and a display.

Logical Unit Type 3 (LU 3). An SNA session that uses a 3270 device data stream to support communication between an application and a printer.

Logical Unit Type 6.2 (LU 6.2). A type of logical unit that supports general communication between programs in a distributed processing environment. LU 6.2 is characterized by (a) a peer relationship between session partners, (b) efficient utilization of a session for multiple transactions, (c) comprehensive end-to-end error processing, and (d) a generic application programming interface (API) consisting of structured verbs that are mapped into a product implementation.

log in. (1) To begin a session at a display station. (2) To gain access to a computer system by entering identification and authentication information at the workstation.

login name. A string of characters that uniquely identifies a user to the system.

login shell. The shell that is started when a user logs into the Linux computer system. The login shell for a particular user is determined by the entry in the **/etc/passwd** file for that user. See also **shell**.

log off. To end a session with a computer system at a display station.

log on. Synonym for **log in**.

log out. Synonym for **log off**.

low-entry networking (LEN). A capability of nodes to attach directly to one another using basic peer-to-peer protocols to support multiple and parallel sessions between logical units.

low-entry networking node (LEN node). A type 2.1 node that supports independent LU protocols but does not support CP-CP sessions. It may be a peripheral node attached to a boundary node in a subarea network, an end node attached to an APPN network node in an APPN network, or a peer-connected node directly attached to another LEN node or APPN end node. Contrast with **APPN end node** and **APPN network node**.

low-order. Least significant; rightmost. For example, the digit 9 in the number 526819.

LU-LU session. In SNA, a session between two logical units (LUs) of the same type that supports communication between two end users, or between an end user and an LU services component.

LU pool. A group of host LUs with common characteristics that enable only LUs in the group to be used interchangeably for a particular purpose.

LU type 0–3. A generic name for logical units (LUs) used by 3270 emulation, RJE, or LUA applications.

M

MAC address. A unique address assigned to each Token Ring or Ethernet adapter card and used to identify a specific node on the local area network (LAN).

macro. (1) A label that is declared at the start of a program or file. The label can then be used to represent the values assigned to the label in the declaration. (2) A name or label used in place of a number of other names.

mainframe. A large computer, particularly one to which other computers can be connected so that they can share facilities the mainframe provides. The term usually refers to hardware only and typically applies to an IBM System/370™ computer.

main program. The first program unit to receive control when a program is run.

Management Information Base (MIB). (1) A collection of objects that can be accessed by means of a network management protocol. (2) A definition for management

information that specifies the information available from a host or gateway and the operations allowed.

management services (MS). One of the types of network services in control points (CPs) and physical units (PUs). Management services are the services provided to assist in the management of SNA networks, such as problem management, performance and accounting management, configuration management, and change management.

mapped conversation. An LU 6.2 conversation type specified by the allocating transaction program. Transaction programs using a mapped conversation can exchange messages of arbitrary format regardless of the underlying data stream. System-defined or user-defined mappers can perform data transformation for the transaction programs. Contrast with **basic conversation**.

master server. The server that holds the master copy of the CS Linux domain configuration. Changes to the running configuration must be made to the configuration file on this server; they are automatically copied to other servers on the LAN. See also **backup server**.

medium access control (MAC). In local area networks, the sublayer of the data link control layer that supports medium-dependent functions and uses the services of the physical layer to provide services to the logical link control (LLC) sublayer. The MAC sublayer includes the method of determining when a device has access to the transmission medium.

megabit (Mb). (1) For processor storage, real and virtual storage, and channel volume, 1,048,576 bits. (2) For disk storage capacity and communications volume, 1,000,000 bits.

megabyte (MB). (1) For processor storage, real and virtual storage, and channel volume, 1,048,576 bytes. (2) For disk storage capacity and communications volume, 1,000,000 bytes.

megahertz (MHz). A unit of measure of frequency. One megahertz equals 1,000,000 hertz.

memory. All of the addressable storage space in a processing unit and other internal storages that is used to execute instructions.

memory dump. The means by which the computer system records its state at the time of a failure.

menu. A list of options displayed to the user by a data processing system, from which the user can select an action to be initiated.

menu bar. A rectangular area at the top of the client area of a window that contains the titles of the standard pull-down menus for that application.

mode name. The name used by the initiator of a session to designate the characteristics desired for the session, such as traffic pacing values, message-length limits, sync point and cryptography options, and the class of service within the transport network.

modem (modulator-demodulator). A device that converts digital data from a computer to an analog signal that can be transmitted on a telecommunication line, and converts the analog signal received to digital data for the computer.

modem eliminator. A device that connects a workstation directly to a computer port. When two devices both function as DTEs (data terminal equipment), the cable that connects them must transmit send and receive signals using a modem eliminator. For some protocols (for example, SDLC), the modem eliminator is an active device that generates signals such as clock signals. Similar to **null modem**.

mode name. In SNA, the name used by the initiator of a session to designate the characteristics desired for that session, such as traffic pacing values, message length limits, and the class of service within the transport network.

Motif. A graphical user interface that runs on the X Windows system.

Motif administration program. The CS Linux program that enables the user to configure and manage the CS Linux system by entering information and making choices in the windows of a Motif application.

mouse. A commonly used pointing device, containing one or more buttons, with which a user can interact with a product or the operating environment.

multidrop link. (1) A link with more than two stations. (2) In SDLC, a means whereby one primary station can communicate with multiple secondary stations on the same line. (3) Contrast with **point-to-point link**.

Multipath Channel (MPC). A multiplexing communications protocol over a channel adapter between IBM systems.

multiple domain support (MDS). A technique for transporting management services data between management services function sets over LU-LU and CP-CP sessions.

multiple domain support message unit (MDS_MU). A general data stream (GDS) variable that contains routing, status, and error information for an APPN network.

multiple sessions. More than one connection between two LU pairs over the same link.

Multiple Virtual Storage (MVS). (1) Implies MVS/370, the MVS/XA™ product, and the MVS/ESA™ product. (2) Consists of MVS/System Product Version 1 and the MVS/370 Data Facility Product operating on a System/370 processor.

Multiple Virtual Storage/Time Sharing Option (MVS/TSO). A type of operating system used on an IBM System/370 computer.

multiplex. To interleave or simultaneously transmit two or more messages on a single channel.

multitasking. A mode of operation that provides for concurrent performance or interleaved processing of two or more tasks.

multiuser mode. A mode of operation that enables two or more users to use the services of a processor within a given period of time.

N

negative response. In SNA, a response indicating that a request did not arrive successfully or was not processed successfully by the receiver. Contrast with **positive response**.

negotiable link station. A link station that can perform the role of either a primary station or a secondary station. During activation of the link, this link station and the remote link station determine which station will perform as primary and which will perform as secondary.

NetView®. An IBM monitoring and reporting system that runs on a host computer and gathers data for administrative tasks such as operations management, problem determination, and performance management.

network. (1) A configuration of data processing devices and software connected for information interchange. (2) A group of nodes and the links interconnecting them.

Network Access Process (NAP). The CS Linux component on PC clients that handles communications with CS Linux servers across the local area network (LAN). The NAP must be running on a client before any other CS Linux programs can be used.

network accessible unit (NAU). A logical unit (LU), physical unit (PU), control point (CP), or system services control point (SSCP). It is the origin or the destination of information transmitted by the path control network. Synonymous with **network addressable unit**. See also **network address**.

network address. (1) An identifier for a node, station, or unit of equipment in a network. (2) In a subarea network, an address, consisting of subarea and element fields, that identifies a link, link station, physical unit, logical unit, or system services control point. Subarea nodes use network addresses; peripheral nodes use local addresses or local-form session identifiers (LFSIDs). The boundary function in the subarea node to which a peripheral node is attached transforms local addresses or LFSIDs to network addresses and vice versa.

network addressable unit (NAU). Synonym for **network accessible unit**.

Network Communications Control Facility (NCCF). An IBM licensed program that serves as a base for command processors that can monitor, control, and improve the operation of a network.

Network Control Program (NCP). An IBM licensed program that provides communication controller support for single-domain, multiple domain, and interconnected network capability.

network identifier. (1) In TCP/IP, that part of the IP address that defines a network. The length of the network ID depends on the type of network class (A, B, or C). (2) A 1- to 8-byte customer-selected name or an 8-byte IBM-registered name that uniquely identifies a specific subnetwork. (3) In MPTN architecture, the address qualifier of a transport provider address that identifies a group of nodes according to the network in which they reside.

network management. The process of planning, organizing, and controlling a communication-oriented data processing or information system.

network management vector transport (NMVT). A management services request/response unit (RU) that flows over an active session between control point management services and physical unit management services (SSCP-PU session).

network name. The symbolic identifier by which users refer to a network accessible unit, a link, or a link station within a given subnetwork. In APPN networks, network names are also used for routing purposes. Contrast with **network address**.

network node (NN). See **APPN network node**.

network node server. An APPN network node that provides network services for its local LUs and client end nodes.

network provider. In X.25 communications, the organization, often a PTT, that provides a public network.

network user address (NUA). In X.25 communications, the X.121 address containing up to 15 binary code digits.

new-line character (NL).   A control character that causes the print or display position to move down one line. Usually a carriage return is implicitly associated with an NL.

node.   An endpoint of a link or a junction common to two or more links in a network. Nodes can be processors, communication controllers, cluster controllers, or terminals. Nodes can vary in routing and other functional capabilities.

node configuration file.   The CS Linux configuration file that contains the configuration of a node and its associated resources. Contrast with **domain configuration file**.

node identifier (node ID).   A unique string of characters that identifies the node on a network.

node operator facility (NOF).   The CS Linux application programming interface (API) that enables applications to configure and manage CS Linux resources.

node resource.   (1) A resource that provides the communications capabilities of a particular node and is configured in the node configuration file. The following are types of node resources:

- Connectivity resources (data link controls, ports, link stations, and connection networks)
- Logical units
- Modes and classes of service
- Directory information

(2) Contrast with **domain resource**.

node type.   A designation of a node according to the protocols it supports or the role it plays in a network. Node type was originally denoted numerically (as 1, 2.0, 2.1, 4, and 5) but is now characterized more specifically by protocol type (APPN network node, LEN node, subarea node, and interchange node, for example) because type 2.1 nodes and type 5 nodes support multiple protocol types and roles.

node verification.   An additional level of security beyond that provided by the network addressing scheme. Node verification helps to ensure that a connection reaches the correct remote station. It is available on LU 6.2 connections only. See also **BIND password** and **session-level security**.

noise.   A disturbance that affects a signal and potentially distorts the information carried by that signal.

nonblocking mode.   (1) A way of requesting a service over an interface so that if the request cannot be completed immediately, the requesting process is able to continue and is not suspended. (2) Contrast with **blocking mode**. See also **asynchronous completion**.

nonproductive.   Data traffic on the media that is only made up of repetitive control information and does not contain end user data.

nonqueued TP.   An invokable transaction program (TP) that is loaded automatically every time an incoming request to start a conversation arrives at the local logical unit (LU) after having been issued by an invoking TP.

non-return-to-zero (NRZ).   A binary code system in which a signal condition must be sustained for the full time interval and does not revert to a standby or quiescent state between signal elements.

non-return-to-zero (inverted) recording (NRZI).   An alternative binary code system to NRZ.

nonswitched line.   (1) A telecommunication line on which connections do not have to be established by dialing. (2) Synonymous with **leased line**. Contrast with **switched line**.

NULL.   In the C language, a pointer guaranteed not to point to a data object.

null modem.   A simplified form of modem elimination that is passive and cannot itself generate clock signals.

null-terminated.   Having a zero byte at the end. In the C language, character strings are stored this way.

O

Operator Information Area (OIA).   (1) The bottom line on a 3270 or 5250 session window that displays information about the status of that display session. (2) A term used in HLLAPI for the status line on an IBM display terminal.

operator-loaded TP.   An invokable transaction program (TP) that is manually started by an operator.

operating system (OS).   Software that controls the execution of programs and that may provide services such as resource allocation, scheduling, input/output control, and data management.

origin address field (OAF).   In SNA, a field in a FID0 or FID1 transmission header that contains the address of the originating network accessible unit (NAU). Contrast with **destination address field (DAF)**.

outgoing call.   In X.25 communications, a call being made to another data terminal equipment (DTE).

owner.   The user who has the highest level of access authority to a data object or action, as defined by the object or action; usually the creator of the object.

P

pacing. A technique used by a receiving component to control the rate of transmission by sending a component to prevent overrun or congestion.

pacing response. In SNA, an indicator that signifies the readiness of a receiving component to accept another pacing group. The indicator is carried in a response header (RH) for session-level pacing.

packet. In data communications, a sequence of binary digits, including data and control signals, that is transmitted and switched as a composite whole.

packet header. In X.25 communications, control information at the start of the packet; the contents of the packet depend on the packet type.

packet level. (1) The packet format and control procedures for exchange of packets containing control information and user data between data terminal equipment (DTE) and data circuit-terminating equipment (DCE). (2) A part of Recommendation X.25 that defines the protocol for establishing logical connections between two DTEs and for transferring data on these connections.

packet-level interface. In X.25 packet mode operation, the level of the interface between data terminal equipment (DTE) and data circuit-terminating equipment (DCE) associated with the exchange of data and signals contained in packets.

packet mode operation. Synonym for **packet switching**.

packet size. In X.25 communications, the length of the user data in a data packet.

packet switching. Routing and transferring data by addressing packets so that a channel is occupied only during packet transmission. On completion of the transmission, the channel is available for transfer of other packets. Synonymous with **packet mode operation**.

pad. To fill unused positions in a field with dummy data, usually zeros or blanks.

padding. Bytes inserted in the data stream to maintain alignment of the protocol requests on natural boundaries. Padding increases the ease of portability to some machine architectures.

page. (1) A block of instructions, data, or both. (2) The number of lines that can fit into a window. (3) In a virtual storage system, a fixed-length block that has a virtual address and is transferred as a unit between real storage and auxiliary storage. (A)

parallel processing. The condition in which multiple tasks are being performed simultaneously within the same activity.

parallel sessions. In SNA, two or more concurrently active sessions between the same two network accessible units (NAUs) using different pairs of network addresses or local-form session identifiers. Each session may have independent session parameters.

parent. (1) A process that has spawned a child process using the fork primitive. (2) Pertaining to a secured resource, either a file or library, whose user list is shared with one or more files or libraries. Contrast with **child**.

parent directory. The directory one level above the current directory.

partner. In data communications, the remote application program or the remote computer.

partner LU. In SNA, the remote participant in a session. See also **logical unit** and **session**.

password. (1) A value used in authentication or a value used to establish membership in a set of people having specific privileges. (2) A unique string of characters known to a computer system and to a user, who must specify the character string to gain access to a system and to the information stored within it. (3) In computer security, a string of characters known only to the user and the system. The user must specify it to gain access to a system and the data stored with it.

password security. The process of requiring a user to enter a password in order to log on to a system.

path. (1) In a network, any route between any two nodes. (2) The route used to locate files; the storage location of a file. A fully qualified path lists the drive identifier, directory name, subdirectory name (if any), and file name with the associated extension.

path control network. Synonym for **transport network**.

path information unit (PIU). In SNA, a message unit consisting of a transmission header (TH) alone, or a TH followed by a basic information unit (BIU) or a BIU segment.

path name. A file name specifying all directories leading to the file. See **relative path name**.

peer network. A network made up of connections between type 6.2 LUs.

peer system. In SNA, a system containing a type 2.1 physical unit supporting type 6.2 independent LUs. Peer systems cooperatively establish LU-LU sessions without the services of a SNA host.

peer-to-peer communications. Pertaining to data communications between two nodes that have equal status in the interchange. Either node can begin the conversation. See also **Logical Unit Type 6.2**.

peripheral data information record (PDIR). In remote job entry (RJE), a data record sent by the host to indicate how the data that follows the PDIR is to be processed.

peripheral node. In SNA, a node that uses local addresses for routing and therefore is not affected by changes in network addresses. A peripheral node requires boundary-function assistance from an adjacent subarea node. A peripheral node can be a type 1, 2.0, or 2.1 node connected to a subarea boundary node.

permanent virtual circuit (PVC). In X.25 and frame-relay communications, a virtual circuit that has a logical channel permanently assigned to it at each data terminal equipment (DTE). Call-establishment protocols are not required. Contrast with **switched virtual circuit**.

permissions. Codes that determine how the file can be used by any users who work on the system.

physical unit (PU). The component that manages and monitors the resources (such as attached links and adjacent link stations) associated with a node, as requested by an SSCP via an SSCP-PU session. An SSCP activates a session with the physical unit in order to indirectly manage, through the PU, resources of the node such as attached links. This term applies to type 2.0, type 4, and type 5 nodes only.

physical unit control point (PUCP). In SNA, a component that provides a subset of system services control point (SSCP) functions for activating the physical unit (PU) within its node and its local link resources. Each type 1, type 2, and type 4 node contains a PUCP; a type 5 node contains an SSCP.

pipe. (1) To direct the data so that the output from one process becomes the input to another process. The standard output of one command can be connected to the standard input of another with the pipe operator (|). Two commands connected in this way constitute a pipeline. (2) A one-way communication path between a sending process and a receiving process.

pointer. An identifier that indicates the location of an item of data. (A)

point-to-point link. A switched or nonswitched link that connects a single remote link station to a node or to another station. Contrast with **multidrop link**.

poll. In data communications, an interrogation that determines whether a station is ready to transmit information.

port. (1) An access point for data entry or exit. (2) A connector on a device to which cables for other devices

such as display stations and printers are attached. (3) The representation of a physical connection to the link hardware. A port is sometimes referred to as an adapter; however, there can be more than one port on an adapter. There may be one or more ports controlled by a single DLC process. (4) An abstraction used by transport protocols to distinguish among multiple destinations within a host machine. (5) In the Internet suite of protocols, a 16-bit number used to communicate between TCP or UDP and a higher-level protocol or application. Some protocols, such as File Transfer Protocol (FTP) and Simple Mail Transfer Protocol (SMTP), use the same well-known port number in all TCP/IP implementations.

Portable Operating System Interface For Computer Environments (POSIX). An IEEE standard for computer operating systems.

positive response. (1) A response that indicates a message was received successfully. (2) In SNA, a response indicating that a request arrived and was successfully received and processed. Contrast with **negative response**. See also **definite response**.

post processor. A computer program that effects some final computation on a datastream.

preprocessor. A computer program that effects some preliminary computation on a datastream.

presentation space. A conceptual two-dimensional surface in storage on which data for a portion of the display surface is represented.

primary logical unit (PLU). In SNA, the logical unit (LU) that contains the primary half-session for a particular LU-LU session and thus sends the BIND to activate a session with its partner LU. Contrast with **secondary logical unit**. See also **logical unit**.

primary station. (1) In SNA, the station on a data link that is responsible for control of the data link. There can be only one primary station on a data link. All traffic over the data link is between the primary station and a secondary station. Specific responsibilities assigned to the primary station include initialization of control signal interchange, organization of data flow, and actions to perform error control and error recovery functions. (2) Contrast with **secondary station**.

print queue. A file containing a list of the names of files waiting to be printed.

print spooler. A program (such as **lp** on Linux) to which printer output can be directed instead of sending it directly to the printer. The spooler manages the printing process, enabling control to be returned to the process that generated the print request without waiting for printing to be completed.

printer. A device externally attached to the system unit, used to print system output on paper.

priority. (1) A rank assigned to a task that determines its precedence in receiving system resources, the CPU in particular. (2) The relative significance of one job to other jobs in competing for allocation of resources.

privileged user. A user logged on to an account with root user authority.

process. An activity within the system that is started by a command, a shell program, or another process. When a program is running, it is called a process.

process group. Each process in the system is a member of a process group that is identified by a process group ID. This grouping permits the signalling of related groups of processes. A newly created process joins the process group of its creator.

process identification number (PID). A unique number assigned to a process by the operating system. The number is used internally by processes to communicate.

program. (1) A sequence of instructions suitable for processing by a computer. Processing may include the use of an assembler, a compiler, an interpreter, or a translator to prepare the program for execution, as well as to execute it. (2) To design, write, and test computer programs. (A)

program initialization parameters (PIP). The initial parameter values passed to a target program as input or used to set up the process environment.

program temporary fix (PTF). A temporary solution or bypass of a problem diagnosed by IBM in a current unaltered release of the program.

protected field. A displayed field in which a user cannot enter, modify, or erase data.

protocol. (1) A set of semantic and syntactic rules that determine the behavior of functional units in achieving communication. (2) In SNA, the meaning of, and the sequencing rules for, requests and responses used for managing a network, transferring data, and synchronizing the states of network components.

punch, RJE. A device associated with a remote job entry (RJE) workstation that handles unformatted output data from the host.

Q

qualified logical link control (QLLC). An X.25 protocol that allows the transfer of data link control information between two adjoining SNA nodes that are connected through an X.25 packet-switching data network. The QLLC provides the qualifier "Q" bit in X.25 data packets to identify packets that carry logical link protocol information.

qualified name. A name made unique by the addition of one or more qualifiers.

qualifier. A modifier that makes a name unique.

quality of service negotiation. An optional CCITT-specified facility that provides a function similar to the SNA class of service. See also **class of service**.

queued TP. An invokable transaction program (TP) that can be started by only one incoming conversation request at a time. Incoming conversation requests that arrive while the queued TP is running do not start the TP again. The incoming requests are queued until the TP finishes execution and is restarted or, for an APPC TP, until the TP issues another RECEIVE_ALLOCATE verb. Contrast with **nonqueued TP**.

R

Rapid Transport Protocol (RTP). The processing used by the endpoints of an RTP connection for route setup, nondisruptive route switching, adaptive-route-based congestion control, and error recovery. This protocol is used in High-Performance Routing (HPR).

Rapid Transport Protocol (RTP) connection. In High-Performance Routing (HPR), the connection established between the endpoints of the route to transport session traffic.

receive pacing. In SNA, the pacing of message units that a component is receiving. See **pacing**. Contrast with **send pacing**.

receive timeout. In data communications, a condition that occurs when no data is received in a given period of time.

reduced instruction set computer (RISC). A class of computer designs that uses a relatively small, simplified set of frequently used instructions for rapid execution.

regular expression. A set of characters, meta characters, and operators that define a string or group of strings in a search pattern.

relative path name. The name of a directory or file expressed as a sequence of directories followed by a file name, beginning from the current directory. Relative path names do not begin with a / (slash) but are relative to the current directory.

remote. Pertaining to a system, program, or device that is accessed through a telecommunication line.

Remote Command Facility (RCF). A feature of CS Linux that enables an operator at the host NetView program to issue CS Linux administration commands (see **SPCF**) or Linux operating system commands (see **UCF**) on the CS Linux computer.

remote host. Any host on the network except the one at which a particular operator is working.

remote job entry (RJE). Submission of a job through an input unit that has access to a computer through a data link.

remote login. Initiating a session on a system that is accessed through a communications line.

remote node. A node other than the local node to which physical and logical connections can be established.

remote print. Issuing print jobs to one machine (client) to print on another machine (server) on a network.

remote system. A system that is connected to your system through a communication line.

request. In SNA, a message unit that signals initiation of an action or protocol. Synonym for **request unit**.

request/response header (RH). Control information associated with a particular request/response unit (RU). The RH precedes the RU and specifies its type (request unit or response unit).

request to send (RTS). A signal activated on an SDLC link prior to a transmission, to indicate readiness to send data.

request unit (RU). In SNA, a message unit that contains control information such as a request code, or function management (FM) headers, end-user data, or both. Synonymous with **request**.

Request Unit Interface (RUI). The low-level interface implemented by the CS Linux Conventional LU Application Programming Interface (LUA) that enables applications to send and receive data in the form of SNA request units and response units. See also **Session-Level Interface (SLI)**.

request/response unit (RU). In SNA, a generic term for a request unit or a response unit.

response. In SNA, a message unit that acknowledges receipt of a request; a response consists of a response header (RH), a response unit (RU), or both.

response time. (1) The elapsed time between the end of an inquiry or demand on a computer system and the beginning of the response; for example, the length of time between an indication of the end of an inquiry and the display of the first character of the response at a user terminal. (A) (2) For response time monitoring, the time from the activation of a transaction until a response is received, according to the response time definition coded in the performance class.

response time monitor (RTM). A 3270 and NetView facility that monitors the amount of time it takes for a

host to respond during 3270 display sessions. See also **host response time** and **Last Transaction Time Indicator**.

response unit (RU). A message unit that acknowledges a request unit. It may contain prefix information received in a request unit. If positive, the response unit may contain additional information such as session parameters in response to a BIND session. If negative, it contains sense data defining the exception condition.

return code. A value that is returned to a program to indicate the results of an operation requested by that program.

return value. The value returned by a function.

reverse charging acceptance. A facility that enables a data terminal equipment (DTE) to receive incoming packets that request reverse charging.

root. The user name for the system user with the most authority.

root directory. The directory (/) that contains all other directories in the system.

root file system. The basic Linux file system, onto which all other file systems can be mounted. The root file system contains the operating system files that get the rest of the system running.

route. (1) An ordered sequence of nodes and transmission groups (TGs) that represent a path from an origin node to a destination node traversed by the traffic exchanged between them. (2) The path that network traffic uses to get from source to destination.

route selection services (RSS). A subcomponent of the topology and routing services component of APPN that determines the preferred route between a specified pair of nodes for a given class of service.

router. (1) A computer that determines the path of network traffic flow. The path selection is made from several paths based on information obtained from specific protocols, algorithms that attempt to identify the shortest or best path, and other criteria such as metrics or protocol-specific destination addresses. (2) An attaching device that connects two LAN segments, which use similar or different architectures, at the reference model network layer. (3) In TCP/IP, synonymous with **gateway**. (4) Contrast with **bridge**.

routing. (1) The process of determining the path to be used for transmission of a message over a network. (2) The assignment of the path by which a message is to reach its destination. (3) In SNA, the forwarding of a message unit along a particular path through a network as determined by parameters carried in the message unit, such as the destination network address in a transmission header.

S

scroll. To move a display image vertically or horizontally to view data that otherwise cannot be observed within the boundaries of the display screen.

scroll bar. A window component that shows a user that more information is available in a particular direction and can be scrolled into view. Scroll bars can be either horizontal or vertical.

secondary logical unit (SLU). In SNA, the logical unit (LU) that contains the secondary half-session for a particular LU-LU session. It receives BIND requests from a primary LU. Contrast with **primary logical unit**.

secondary station. In SNA, a station on a link that operates under the control of a primary station. Contrast with **primary station**.

segmenting of BIUs. In SNA, an optional function of path control that divides a basic information unit (BIU) received from transmission control into two or more path information units (PIUs). The first PIU contains the request header (RH) of the BIU and usually part of the RU. The remaining PIU or PIUs contain the remaining parts of the RU. When segmenting is not done, a PIU contains a complete BIU.

semaphore. Entity used to control access to system resources. Processes can be locked to a resource with semaphores if the processes follow certain programming conventions.

send pacing. In SNA, the pacing of message units that a component is sending. Contrast with **receive pacing**.

sense code. A value sent or received, or a negative response to indicate what error occurred.

sequence number. In communications, a number assigned to a particular frame or packet to control the transmission flow and receipt of data.

server. (1) A functional unit that provides shared services to workstations over a network; for example, a file server, a print server, a mail server. (2) A CS Linux server is an SNA node and provides SNA communications functions to clients.

service access point (SAP). A logical address that allows a system to route data between a remote device and the appropriate communications support.

Service Point Command Facility (SPCF). A CS Linux facility that enables a NetView user to issue administration commands from the NetView console to manage a CS Linux system.

service transaction program. (1) A program that provides a function internal to CS Linux. (2) A transaction program implemented by a transaction processing system. Service transaction programs

perform such functions as providing access to remote data bases and remote queues. Contrast with **application transaction program**. See **transaction program**.

session. In SNA, a logical connection between two network accessible units (NAUs) that can be activated, tailored to provide various protocols, and deactivated, as requested. Each session is uniquely identified in a transmission header (TH) accompanying any transmissions exchanged during the session.

session control (SC). In SNA, (a) one of the components of transmission control. Session control is used to purge data flowing in a session after an unrecoverable error occurs, resynchronize the data flow after such an error, and perform cryptographic verification; and (b) an RU category used for requests and responses exchanged between the session control components of a session and for session activation/deactivation requests and responses.

session connector. A session-layer component in an APPN network node or in a subarea node boundary or gateway function that connects two stages of a session. Session connectors swap addresses from one address space to another for session-level intermediate routing, segment session message units as needed, and (except for gateway function session connectors) adaptively pace the session traffic in each direction. See also **half-session**.

Session-Level Interface (SLI). The higher-level interface implemented by the CS Linux Conventional LU Application Programming Interface (LUA). Provides equivalent functions to **Request Unit Interface (RUI)**, but allows simpler application programming because the interface handles some of the complexity of the underlying SNA protocols.

session-level pacing. In SNA, a flow control technique in which a receiving half-session or session connector controls the data transfer rate (the rate at which it receives request units on the normal flow). It is used to prevent overloading a receiver with unprocessed requests, when the sender can generate requests faster than the receiver can process them.

session-level security. For logical unit (LU) 6.2, partner LU verification and session cryptography. See **BIND password** and **node verification**.

session limit. The maximum number of concurrently active LU-LU sessions that a particular logical unit (LU) can support.

shared-access transport facility (SATF). A transmission facility, such as Ethernet, FDDI, or token ring, on which multiple pairs of nodes can form concurrently active links.

shell. A software interface between a user and the operating system of a computer. Shell programs

interpret commands and user interactions on devices such as keyboards, pointing devices, and touch-sensitive screens and communicate them to the operating system. Shells simplify user interactions by eliminating the user's concern with operating system requirements. A computer may have several layers of shells for various levels of user interaction.

shell prompt. The character string on the command line indicating that the system can accept a command (typically the $ character).

shell script. In the Linux operating system, a series of commands, combined in a file, that carry out a particular function when the file is run.

shell variables. Facilities of the shell program for assigning variable values to constant names.

Shift-Japanese Industrial Standard (SJIS). An encoding scheme consisting of single bytes and double bytes used for character encoding. Because of the large number of characters in the Japanese and other Asian languages, the 8-bit byte is not sufficient for character encoding.

side information. In CPI-C, predefined information about a conversation, stored in a side information profile. Side information provides initial values for the partner LU name, mode name, and TP name conversation characteristics. The use of side information is optional.

signal. (1) A simple method of communication between two processes. One process can inform the other process when an event occurs. (2) In operating system operations, a method of interprocess communication that simulates software interrupts.

signal handler. A subroutine called when a signal occurs.

Simple Network Management Protocol (SNMP). In the Internet suite of protocols, a network management protocol that is used to monitor routers and attached networks. SNMP is an application layer protocol. Information on devices managed is defined and stored in the application's Management Information Base (MIB).

SNA character string (SCS). In SNA, a character string composed of EBCDIC controls, optionally intermixed with end-user data, that is carried within a request/response unit.

SNA host. A type 5 node, which contains an SSCP.

SNA network. The part of a user-application network that conforms to the formats and protocols of Systems Network Architecture. It enables reliable transfer of data among end users and provides protocols for controlling the resources of various network configurations. The SNA network consists of network

accessible units (NAUs), boundary function, gateway function, and intermediate session routing function components; and the transport network.

socket. (1) A unique host identifier created by the concatenation of a port identifier with a TCP/IP address. (2) A port on a specific host; a communications end point that is accessible through a protocol family's addressing mechanism. A socket is identified by a socket address.

source code. The input to a compiler or assembler, written in a source language.

source program. Synonym for **invoking program**.

spool. In remote job entry (RJE), a queue of jobs submitted by users of a particular RJE workstation. The jobs are held on the spool until the workstation can send them to the host for processing.

spooler. A program that intercepts data going to a device driver and writes it to a disk. The data is later printed or plotted when the required device is available. A spooler prevents output from different sources from being intermixed.

spool file. (1) A disk file containing output that has been saved for later printing. (2) Files used in the transmission of data among devices.

SSCP-LU session. In SNA, a session between a system services control point (SSCP) and a logical unit (LU). The session enables the LU to request the SSCP to help initiate LU-LU sessions.

SSCP-PU session. In SNA, a session between a system services control point (SSCP) and a physical unit (PU); SSCP-PU sessions allow SSCPs to send requests to and receive status information from individual nodes in order to control the network configuration.

stack. (1) An area in storage that stores temporary register information and return addresses of subroutines. (2) A list constructed and maintained so that the next data element to be retrieved is the most recently stored.

stack traceback. The calling sequence that indicates the path taken by a process to get to its current location.

stand-alone workstation. A workstation that can perform tasks without being connected to other resources such as servers or host systems.

standard error (STDERR). The place where many programs place error messages.

standard input (STDIN). The primary source of data going into a command. Standard input comes from the

keyboard unless redirection or piping is used, in which case standard input can be from a file or the output from another command.

standard output (STDOUT). The primary destination of data coming from a command. Standard output goes to the display unless redirection or piping is used, in which case standard output can go to a file or another command.

station. (1) A computer or device that can send or receive data. (2) An input or output point of a system that uses telecommunication facilities, such as one or more systems, computers, workstations, devices, and associated programs at a particular location that can send or receive data over a telecommunication line. (3) A location on a device at which an operation is performed. (4) In SNA, a link station.

status line. The bottom line on a 3270 emulation display, which is reserved for system messages and information about the current 3270 session. HLLAPI refers to the status line as the Operator Information Area (OIA).

structured field. A means of encoding variable-length data, or data that is not intended for 3270 display, for transmission in a 3270 data stream.

subarea network. Interconnected subareas, their directly attached peripheral nodes, and the transmission groups that connect them. Contrast with **APPN network**.

subarea node. A node that uses network addresses for routing and maintains routing tables that reflect the configuration of the network. Subarea nodes can provide gateway function to connect multiple subarea networks, intermediate routing function, and boundary function support for peripheral nodes. Type 4 and type 5 nodes can be subarea nodes.

switched line. A telecommunication line in which the connection is established by dialing. Contrast with **nonswitched line**.

switched virtual circuit (SVC). An X.25 circuit that is dynamically established when needed. The X.25 equivalent of a switched line. Contrast with **permanent virtual circuit (PVC)**.

symbolic destination name. A name used during conversation initialization by a CPI-C application to identify a particular set of side information parameters in the CS Linux configuration file. This set of side information parameters includes the partner application's transaction program (TP) name and LU name, the mode used for communications, and any security information required by the partner application.

sync point manager (SPM). The component of the node that implements two-phase commit and resynchronization processing. The subcomponents of the SPM are sync point services (SPS) and the protection managers (the conversation resource protection managers and the local resource protection managers).

sync point processing. A synchronization processing level, specified during allocation of a conversation, that enables distributed transaction programs to synchronize their resources at user-specified points, called synchronization points. Contrast with **confirmation processing**.

sync point services (SPS). The component of the sync point manager that is responsible for coordinating the managers of protected resources during sync point processing. SPS coordinates two-phase commit protocols, resync protocols, and logging.

synchronization point. An intermediate or end point during processing of a transaction at which an update or modification to one or more of the transaction's protected resources is logically complete and error free.

synchronous. Occurring with a regular or predictable time relationship.

synchronous data link control (SDLC). A discipline conforming to subsets of the Advanced Data Communication Control Procedures (ADCCP) of the American National Standards Institute (ANSI) and High-level Data Link Control (HDLC) of the International Organization for Standardization, for managing synchronous, code-transparent, serial-by-bit information transfer over a link connection. Transmission exchanges may be duplex or half-duplex over switched or nonswitched links. The configuration of the link connection may be point-to-point, multipoint, or loop.

synchronous transmission. In data communication, a method of transmission in which the sending and receiving of characters are controlled by timing signals.

system console. A console, usually equipped with a keyboard and display screen, that is used by an operator to control and communicate with a system.

system dump. A copy from storage of selected data areas. Synonymous with **kernel dump**.

system management. The tasks involved in maintaining the system in good working order and modifying the system to meet changing requirements.

system services control point (SSCP). In SNA, the component within a SNA subarea network for managing the configuration, coordinating network operator and problem determination requests, and providing directory support and other the session services for network end users. Multiple SSCPs, cooperating as peers, can divide the network into domains of control, with each SSCP having a

hierarchical control relationship to the physical units and logical units within its domain. Contrast with **peer system**.

Systems Network Architecture (SNA). The description of the logical structure, formats, protocols, and operational sequences for transmitting information units through, and controlling the configuration and operation of, networks. The layered structure of SNA allows the ultimate origins and destinations of information, that is, the users, to be independent of and unaffected by the specific SNA network services and facilities used for information exchange.

T

tab. To move a cursor to a preset location on a display screen.

target. A system, a program within a system, or a device that interprets, rejects, or satisfies, and replies to requests received from a source.

target program. (1) An object program suitable for execution. (2) A program that receives a conversation from and interacts with a source program. (3) Synonym for **invoked program**.

Telnet. In the Internet suite of protocols, a protocol that provides remote terminal connection service. It allows users of one host to log on to a remote host and interact as directly attached terminal users of that host.

Telnet client. A TN3270 or TN3270E client that accesses **TN Server**.

terminal. A device, usually equipped with a keyboard and a display device, capable of sending and receiving information over a communications line. See **workstation**.

terminal controller. A node in an SNA subarea network that connects to a host over a communications line, is responsible for controlling the use of the link, and routes data to terminals. Examples of terminal controllers are the IBM 3174 and 3274 products.

terminfo. The Linux database that holds information about the capabilities of different terminal types (for example, whether the terminal supports an alternate character set and the keys available on the terminal's keyboard).

timeout. A time interval allotted for certain operations to occur; for example, response to polling or addressing before system operation is interrupted and must be restarted.

Time Sharing Option (TSO). An operating system option; for the IBM System/370 system, the option provides interactive time sharing from remote terminals.

TN server. The CS Linux feature that enables TN3270 programs to communicate with an SNA host computer over a CS Linux host connection, instead of using TCP/IP to access the host directly.

TN3270. A subset of Telnet protocols used to support 3270 communications over TCP/IP.

TN3270E. Standard extensions to TN3270 that enable TN3270 clients to request a specific logical unit (LU) or to select the printer LU associated with a specific display LU.

token ring. (1) According to IEEE 802.5, network technology that controls media access by passing a token (special packet or frame) between media-attached stations. (2) See also **local area network (LAN)**.

topology. In communications, the physical or logical arrangement of nodes in a network, especially the relationships among nodes and the links between them.

topology database update (TDU). A message about a new or changed link or node that is broadcast among APPN network nodes to maintain the network topology database, which is fully replicated in each network node. A TDU contains information that identifies the following:

- The sending node
- The node and link characteristics of various resources in the network
- The sequence number of the most recent update for each of the resources described

trace. (1) A record of the execution of a computer program. It exhibits the sequences in which the instructions were executed. (A) (2) For data links, a record of the frames and bytes transmitted or received.

trace daemon. A component of CS Linux that reads from the trace device driver and writes to the trace log file.

trace file. A CS Linux file in which tracing data is stored. Trace files normally have the extension **.trc**.

transaction. An exchange between a workstation and a program, two workstations, or two programs that accomplish a particular action or result. Some examples are the entry of a customer's deposit and the updating of the customer's balance.

transaction program (TP). A program that processes transactions in an SNA network. The two kinds of transaction programs are application transaction programs and service transaction programs. See also **conversation**.

Transmission Control Protocol (TCP). A communications protocol used in Internet and any other network following the U.S. Department of Defense standards for internetwork protocol. Provides a

reliable host-to-host protocol in packet-switched communications networks and in an interconnected system of such networks. It assumes that the Internet Protocol is the underlying protocol.

Transmission Control Protocol/Internet Protocol (TCP/IP).   A set of communications protocols that support peer-to-peer connectivity functions for both local and wide area networks.

transmission group (TG).   (1) A connection between adjacent nodes that is identified by a transmission group number. (2) In a subarea network, a single link or a group of links between adjacent nodes. When a transmission group consists of a group of links, the links are viewed as a single logical link, and the transmission group is called a multilink transmission group (MLTG). A mixed-media multilink transmission group (MMMLTG) is one that contains links of different medium types (for example, token-ring, switched SDLC, nonswitched SDLC, and frame-relay links). (3) In an APPN network, a single link between adjacent nodes.

transmission header (TH).   In SNA, control information, optionally followed by a basic information unit (BIU) or a BIU segment, that is created and used by path control to route message units and to control their flow within the network. See also **path information unit**.

transparent data.   In remote job entry (RJE), data sent from the host that is marked by control codes to indicate that the output device (printer or punch) receiving it should pass it through as received and not search for further control codes.

transport network.   The part of the SNA network that includes the data link control and path control layers. Synonymous with **path control network**.

tty.   In the operating system, any device that uses the `termio` standard terminal device interface. `tty` devices typically perform input and output on a character-by-character basis.

type-A EBCDIC string.   A character string that contains EBCDIC characters from the following groups only: uppercase A–Z, numeric digits 0–9, #, $, and @.

type-AE EBCDIC string.   A character string that contains EBCDIC characters from the following groups only: uppercase A–Z, lowercase a–z, numeric digits 0–9, **.** (period),#, $, and @.

type 2.0 node.   A node that attaches to a subarea network as a peripheral node and provides a range of end-user services but no intermediate routing services.

type 2.1 node.   A node that can be an APPN network node, an APPN end node, or a LEN node. It can also attach as a peripheral node to a subarea boundary node in the same way as a type 2.0 node.

type 4 node.   A node that is controlled by one or more type 5 nodes. It can be a subarea node, or, together with other type 4 nodes and their owning type 5 node, it can be included in a group of nodes forming a composite LEN node or a composite network node.

type 5 node.   A node that can be any one of the following:
- APPN end node
- APPN network node
- LEN node
- Interchange node
- Migration data host (a node that acts as both an APPN end node and a subarea node)
- Subarea node (with an SSCP)

Together with its subordinate type 4 nodes, it can also form a composite LEN node or a composite network node.

U

unformatted file.   A file displayed with data that is not arranged with particular characters.

UNIX Command Facility.   A CS Linux facility that enables a NetView user to issue Linux commands on a CS Linux computer.

User Datagram Protocol (UDP).   In the Internet suite of protocols, a protocol that provides unreliable, connectionless datagram service. It enables an application program on one machine or process to send a datagram to an application program on another machine or process. UDP uses the Internet Protocol (IP) to deliver datagrams.

user mode.   A mode in which a process is carried out in the user's program rather than in the kernel. Contrast with **kernel mode**.

user name.   (1) A string of characters that uniquely identifies a user to the system. (2) The name the user types in at the login prompt.

user space.   The address space seen by a process in user mode.

V

V.24.   In data communication, a specification of the CCITT that defines the list of definitions for interchange circuits between data terminal equipment (DTE) and data circuit-terminating equipment (DCE).

V.25 bis.   A procedure defined by the CCITT that allows call establishment and data transfer to take place over the same link. The support eliminates the need for two physical lines or ports when automatic calling units (ACUs) are employed in a switched connection.

V.35. In data communication, a specification of the CCITT that defines the list of definitions for interchange circuits between data terminal equipment (DTE) and data circuit-terminating equipment (DCE) at various data rates.

verb control block (VCB). A data structure used in the APPC, CSV, LUA, NOF, and MS programming interfaces that contains supplied and returned parameters.

virtual circuit (VC). (1) In packet switching, the facilities provided by a network that give the appearance to the user of an actual connection. See **switched virtual circuit** and **permanent virtual circuit**. (2) A logical connection established between two DTEs.

virtual machine (VM). A virtual data processing system that appears to be at the exclusive disposal of a particular user, but whose functions are accomplished by sharing the resources of a real data processing system.

Virtual Machine/System Product (VM/SP). An IBM-licensed program that manages the resources of a single computer so that multiple computing systems appear to exist. Each virtual machine is the functional equivalent of a real machine.

virtual routing node (VRN). A representation of an end node's connectivity to a connection network defined on a shared-access transport facility, such as a token ring.

Virtual Telecommunications Access Method (VTAM). An IBM licensed program that controls communication and the flow of data in an SNA network. It provides single-domain, multiple-domain, and interconnected network capability.

VSE (Virtual Storage Extended). A system that consists of a basic operating system (VSE/Advanced Functions) and any IBM supplied and user-written programs required to meet the data processing needs of a user. VSE and the hardware it controls form a complete computing system. Its current version is called VSE/ESA™.

W

well-known port. In Internet communications, one of a set of preassigned protocol port numbers that address specific functions used by transport level protocols (for example, TCP and UDP).

white space. Space characters, tab characters, and new-line characters.

wide area network (WAN). (1) A network that provides communication services to a geographic area larger than that served by a local area network or a metropolitan area network, and that may use or

provide public communication facilities. (2) Contrast with **local area network (LAN)**.

Windows client. A CS Linux client PC running Windows.

workstation. (1) One or more programmable or nonprogrammable devices that allow a user to do work. (2) A terminal or microcomputer, usually one that is connected to a mainframe or to a network, at which a user can perform applications.

workstation, RJE. The remote job entry (RJE) program that takes jobs from the spool and sends them to a host for processing and that receives and routes output returned from the host.

X

X Window system. Linux system software that provides support for graphical user interfaces, such as the Motif interface.

X.21. An International Telegraph and Telephone Consultative Committee (CCITT) recommendation for a general-purpose interface between data terminal equipment and data circuit-terminating equipment for synchronous operations on a public data network.

X.25. An International Telegraph and Telephone Consultative Committee (CCITT) recommendation for the interface between data terminal equipment and packet-switched data networks. See also **packet switching**.

Numerics

3270. IBM's information display system, which is a family of products composed of displays, printers, and controllers that act as terminals to IBM host systems. See also **emulation**.

3270 Device Emulation. Support that allows a local or remote device on one system to appear as a 3270 device to another system.

3270 emulation program. The program that enables a terminal on your Linux system, or a client PC, to emulate an IBM 3270 terminal and enables you to control the appearance and function of this emulation.

3770. An IBM machine that enables access to a remote host and provides printer and punch devices that can be used by local users as though they were located at the host.

5250. An IBM information display system, which is a family of products composed of displays, printers, and controllers that act as terminals to IBM AS/400® systems and use the 5250 datastream.

5250 emulation program. The program that enables a terminal on your Linux system, or a client PC, to emulate an IBM terminal such as an IBM 5251, 3477, or 5555, and enables you to control the appearance and function of this emulation.

Appendix A. Accessibility

Accessibility features help a user who has a physical disability, such as restricted mobility or limited vision, to use software products successfully. The major accessibility features in Communications Server for Linux enable users to:

- Use assistive technologies such as screen readers and screen magnifier software
- Operate specific or equivalent features using only the keyboard, when these devices are supported by the underlying operating system
- Customize display attributes such as color, contrast, and font size

Using assistive technologies

Assistive technology products, such as screen readers, function with the user interfaces found in this product. Consult the assistive technology documentation for specific information when using such products to access Communications Server for Linux interfaces.

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- CS Linux, Version 6.2
- Host Publisher
- Systems Network Architecture (SNA)
- Host configuration
- Virtual Telecommunications Access Method (VTAM)
- Advanced Program-to-Program Communication (APPC)
- Programming
- Other IBM networking topics

For books in the CS Linux library, brief descriptions are provided. For other books, only the titles, order numbers, and, in some cases, the abbreviated title used in the text of this book are shown here.

CS Linux Version 6.2 Publications

The CS Linux library comprises the following books. In addition, softcopy versions of these documents are provided on the CD-ROM. See *IBM CS Linux Quick Beginnings* for information about accessing the softcopy files on the CD-ROM. To install these softcopy books on your system, you require 9–15 MB of hard disk space (depending on which national language versions you install).

- *IBM CS Linux Quick Beginnings* (GC31-6768-00 and GC31-6769-00)

  This book is a general introduction to CS Linux, including information about supported network characteristics, installation, configuration, and operation.
- *IBM CS Linux Administration Guide* (SC31-6771-00)

  This book provides an SNA and CS Linux overview and information about CS Linux configuration and operation.
- *IBM CS Linux Administration Command Reference* (SC31-6770-00)

  This book provides information about SNA and CS Linux commands.
- *IBM CS Linux CPI-C Programmer's Guide* (SC31-6774-00)

  This book provides information for experienced "C" or Java programmers about writing SNA transaction programs using the CS Linux CPI Communications API.
- *IBM CS Linux APPC Programmer's Guide* (SC31-6773-00)

  This book contains the information you need to write application programs using Advanced Program-to-Program Communication (APPC).
- *IBM CS Linux LUA Programmer's Guide* (SC31-6776-00)

  This book contains the information you need to write applications using the Conventional LU Application Programming Interface (LUA).
- *IBM CS Linux CSV Programmer's Guide* (SC31-6775-00)

  This book contains the information you need to write application programs using the Common Service Verbs (CSV) application program interface (API).
- *IBM CS Linux MS Programmer's Guide* (SC31-6777-00)

This book contains the information you need to write applications using the Management Services (MS) API.

- *IBM CS Linux NOF Programmer's Guide* (SC31-6778-00)

  This book contains the information you need to write applications using the Node Operator Facility (NOF) API.

- *IBM CS Linux Diagnostics Guide* (GC31-6779-00)

  This book provides information about SNA network problem resolution.

- *IBM CS Linux APPC Application Suite User's Guide* (SC31-6772-00)

  This book provides information about APPC applications used with CS Linux.

- *IBM Communications Server for Linux Glossary* (GC31-6780-00)

  This book provides a comprehensive list of terms and definitions used throughout the IBM Communications Server for Linux library.

Publications for Host Publisher

The following books contain information about the Host Publisher feature that is included with CS Linux:

- *User's Guide for IBM Host Publisher, Version 2* (GC31-8728)
- *Planning and Installation Guide for Host Publisher, Version 2 for Windows NT®, AIX® and Solaris* (SC31-8730)

Systems Network Architecture (SNA) Publications

The following books contain information about SNA networks:

- *Systems Network Architecture: Format and Protocol Reference Manual—Architecture Logic for LU Type 6.2* (SC30-3269)
- *Systems Network Architecture: Formats* (GA27-3136)
- *Systems Network Architecture: Guide to SNA Publications* (GC30-3438)
- *Systems Network Architecture: Network Product Formats* (LY43-0081)
- *Systems Network Architecture: Technical Overview* (GC30-3073)
- *Systems Network Architecture: APPN Architecture Reference* (SC30-3422)
- *Systems Network Architecture: Sessions between Logical Units* (GC20-1868)
- *Systems Network Architecture: LU 6.2 Reference—Peer Protocols* (SC31-6808)
- *Systems Network Architecture: Transaction Programmer's Reference Manual for LU Type 6.2* (GC30-3084)
- *Systems Network Architecture: 3270 Datastream Programmer's Reference* (GA23-0059)
- *Networking Blueprint Executive Overview* (GC31-7057)
- *Systems Network Architecture: Management Services Reference* (SC30-3346)
- *APPN Architecture and Product Implementations Tutorial* (GG24-3669)

Host Configuration Publications

The following books contain information about host configuration:

- *ES/9000, ES/3090 IOCP User's Guide Volume A04* (GC38-0097)
- *3174 Establishment Controller Installation Guide* (GG24-3061)
- *3270 Information Display System 3174 Establishment Controller: Planning Guide* (GA27-3918)
- *OS/390 Hardware Configuration Definition (HCD) User's Guide* (SC28-1848)

VTAM Publications

The following books contain information about VTAM:

- *VTAM V4R4 Network Implementation Guide* (SC31-8370)
- *VTAM V4R4 Diagnosis* (LY43-0078)
- *VTAM V4R4 Resource Definition Reference* (SC31-8377)

APPC Publications

The following books contain information about Advanced Program-to-Program Communication (APPC):

- *APPC Application Suite V1 User's Guide* (SC31-6532)
- *APPC Application Suite V1 Administration* (SC31-6533)
- *APPC Application Suite V1 Programming* (SC31-6534)
- *APPC Application Suite V1 Online Product Library* (SK2T-2680)
- *APPC Application Suite Licensed Program Specifications* (GC31-6535)
- *OS/390 Communications Server: APPC Application Suite User's Guide* (SC31-8085)

Programming Publications

The following books contain information about programming:

- *Common Programming Interface Communications Reference* (SC26-4399)
- *Communications Server for OS/2® Version 4 Application Programming Guide* (SC31-8152)

Other IBM Networking Publications

The following books contain information about other topics related to CS Linux:

- *Advanced Data Communications for Stores: Programming Reference and Operations Manual* (SH20-2406)
- *Local Area Network Concepts and Procedures* (SK2T-1306)
  - Volume 1 (SG24-4753)
  - Volume 2 (SG24-4754)
  - Volume 3 (SG24-4755)
  - Volume 4 (SG24-4756)
- *IBM Network Control Program Resource Definition Guide* (SC30-3349)
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