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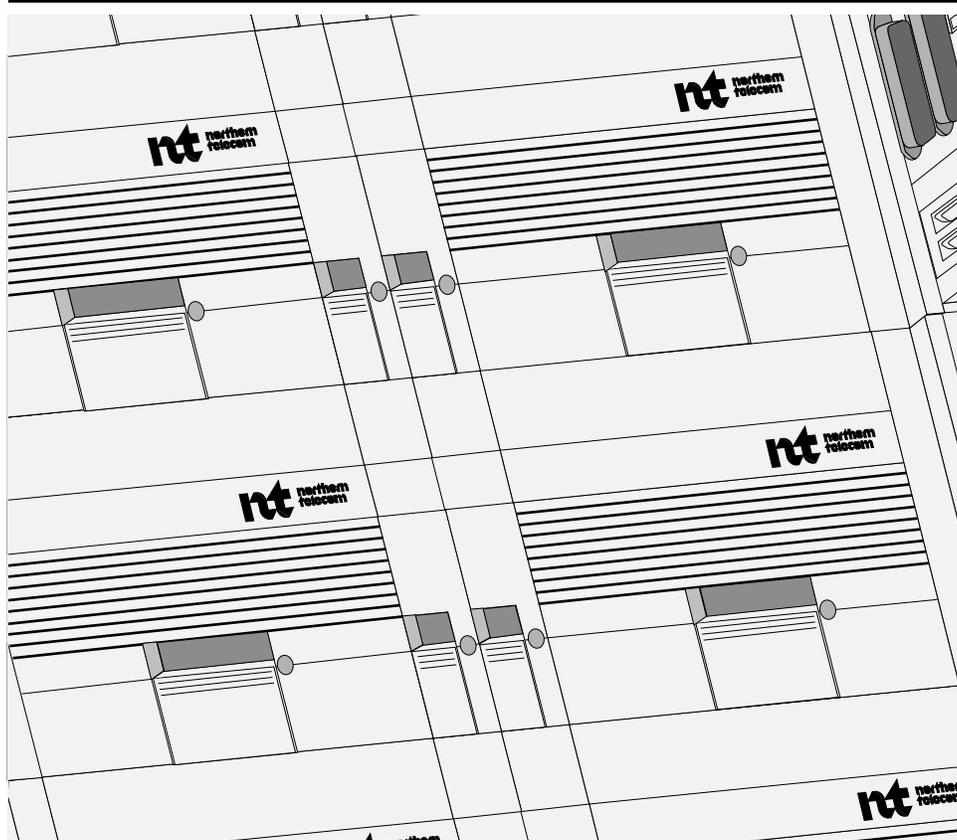
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SONET Products

AccessNode

List of Terms

Issue 2.0 June 1999



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AN15 Standard 01.01 release of the document.

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AN14 Standard 01.01 release of the document.

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AN12 Standard 01.01 release of the document.

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AN11 Standard 02.01 release of the document.

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AN10 Standard 01.01 release of the document.

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AN07 Standard release of the document.

May 1993

FWP06 Standard release of this document.

About this document

This document is for users of AccessNode and AccessNode Express documentation.

This document provides a list of initialisms, acronyms, terms, and expressions specific to AccessNode and AccessNode Express, as well as some of those generally used throughout FiberWorld and the related telecommunications industry.

When to use this document

Use this document for the current AccessNode and AccessNode Express system software releases.

List of terms

μF	MicroFarad, a unit of capacitance
0TLP	zero transmission level (reference) point, a reference point for measuring the signal power gain and loss of a circuit
2B1Q	2 Bits 1 Quaternary
2WLRB	2W loop reverse battery
ABM	access bandwidth manager, the common-equipment shelf in the AccessNode or AccessNode Express system
ac	alternating current, usually a 120 volt current that alternates between plus and minus
AccessNode	a trademark of Nortel Networks for one of the FiberWorld products, an access vehicle capable of carrying services back to the central office
ACD	automatic call distributor
ACEG	alternating current equipment ground
ACO	alarm cutoff, this function de-activates all audible alarm relays
A/D	analog to digital

ADA	applied digital access
ADM	add-drop multiplexer, a device which inserts/retrieves DS1 or DS3 channels into/from a SONET bit stream
ADP	analog digital port
ADSL	asynchronous digital subscriber line
AET	application entity
AFE	analog front end
AIC	access interface card, a plug-in module for the AccessNode common-equipment shelf
AINS	automatic in-service
AIS	alarm indication signal, a code sent to downstream sites to indicate that an upstream failure has occurred (used to prevent unnecessary downstream alarms)
AIS-CI	alarm indication signal - customer interface
AISS	AIS second (performance monitoring), a second during which an AIS condition is detected
ALIT	automatic line insulation test
ALM	alarm (log category)
ALT	automatic line test

AMA	automatic message accounting
AMI	alternate mark inversion (line code, bipolar), a line coding format
AN	AccessNode, which is an access vehicle capable of carrying services back to the central office
Analog Direct	a Nortel Networks product that allows subscriber data calls to bypass the PSTN entirely by using an AccessNode network element to generate dialtone directly from its line cards. This service requires two lines - one for data and one for voice. Only outbound calls are allowed on the data line.
ANI	automatic number identification
ANSI	American National Standards Institute
ANX	AccessNode Express, which is an access vehicle capable of carrying services back to the central office with a minimum number of DS1s. With this product, the ABM shelf serves as a gateway at the central office and is called the HDT.
APC	Access processor card, a plug-in module for the AccessNode common-equipment shelf. <i>See Proc.</i>
application	the purpose for which an operating company can deploy AccessNode in a network
APR	alarm processing remote, associated with E2A telemetry
APU	access processing unit, one of two processors on the APC processor card, handling all access functions except messaging. <i>See HMU.</i>
ARP	address resolution protocol
ASIC	application-specific integrated circuit, a computer chip built for a specific application or use

ASK

amplitude shift keying

ATM

asynchronous transfer mode

AUL

automatic (ringdown) line

auxiliary shelf

In ANX, a bolt-in subassembly that can contain various voice module components.

AWG

American wire gauge, defines the size of electrical conductors

AZC

all-zeros code

B channel

an ISDN 64 kb/s telephone line; examples: B1, B2 of a 2B+D line

B3ZS

bipolar with three-zero substitution (line code), a line coding format

B8ZS

bipolar with eight-zero substitution (line code), a line coding format

BDFB

battery-distribution fuse bay

Bellcore

Bell Communications Research

BEM

battery equipment module, a hardware enclosure that provides internal mounting space for back-up batteries in modular business package applications

BER

optical bit error rate, defines the receiver sensitivity level

BIP

breaker interface panel, an equipment shelf that provides internal interface and shelf distribution of battery power, and processes system alarm and telemetry signals

BIP-n	bit-interleaved parity, where n is the number of bits in a byte of SONET overhead information
B-ISDN	broadband integrated services digital network
BITS	building-integrated timing supply
BLSR	bidirectional line-switched ring
BOC	Bell operating company (USA)
BPG	building principal ground
BPV	bipolar violation, an error condition that occurs when two positive or two negative pulses occur
BPVR	bipolar violation error rate
BR	battery return
BRA	basic rate access (ISDN)
BRI	basic rate interface
BSY	busy
BW	bandwidth
CALRS	Centralized Automated Loop Reporting System, a Nortel Networks test system for locally-switched AccessNodes
CBIC	control bus interface chip

CBN

common bonding network, a set of metallic components intrinsic to buildings that are deliberately interconnected to form an equal potential network. These components include structural steel or reinforcing rods, ac mains power conduit, and green-wire ACEG connections, cable racks, and bonding conductors.

CBus

control bus, the main communications path between the circuit packs and cards in the common equipment shelf

CCITT

Comité Consultatif International Télégraphique et Téléphonique (International Telegraph and Telephone Consultative Committee). This has been changed to International Telecommunication Union-Telecommunication Standardization Sector (ITU-T).

CCS

100 call seconds

CD

carrier detect

CD-ROM

compact disk read only memory, a type of data storage disk that contains a computer-readable version of documentation.

CDS

copper-distribution shelf, an equipment shelf that provides voice-frequency processing and line powering for user-end equipment. The shelf is equipped with 2 line drawers, each with 48 line interfaces, to provide access for VF circuits (2W, 4W, 6/8W) and T1 (DS1), or a mix of both.

CDSP

copper-distribution shelf power converter, a plug-in module of the CDS that distributes dc power to the line units. *See* DSPC.

CE

common-equipment

CEC

Canadian Electrical Code defines the electrical codes required in Canada, and is similar to the National Electrical Code (NEC) in the USA.

CEP

common-equipment power

CEPT	European Conference of Postal and Telecommunications Administrations-Digital Signal 1
CEV	controlled-environment vault, an outdoor or underground enclosure for equipment
CHAP	challenge handshake authentication protocol
CI	command interpreter (interface)
CKKST	Meridian business test set
CKTTST	Meridian business set circuit test, performed using a CKKST
CLASS	Custom Local Area Signaling Service
CLE	customer-located equipment
CLEI	Common Language Equipment Identifier, a trademark of Bell Communications Research. It is a standard identification method for telephony equipment.
CLFI	Common Language Facility Identifier, a trademark of Bell Communications Research. It is a standard identification method for local facilities.
CLLI	Common Language Location Identifier, a trademark of Bell Communications Research. It is a standard identification method for trunk groups.
CLOC	customer local loopback
Cluster	all the subnetworks within the span of control of an OPC. For example, if an OPC serves 16 network elements, then those network elements are in the same cluster.

CMIS	common management information services
CMISE	common management information service element
CMOS	complementary metal-oxide semiconductor
CMS	Call Management Services
CMT	character-mode terminal (OPC user interface), the OPC is accessed using the keyboard and keypad
CND	calling number delivery
CNET	control network
CO	central office
CODEC	coder/decoder
COH	communication overhead (bus)
COMM	communications
configuration	the set of components installed in an AccessNode network element. The capabilities of an AccessNode depend on the set of components, so the configuration indicates the function performed by that AccessNode.
control network	a communication link (2Mb/s) between microprocessor cards in collocated common-equipment shelves
COP	cable organizer panel, an equipment shelf that provides an external cabling management facility for AccessNode and S/DMS TransportNode ABM and TBM shelves

copper-distribution shelf

an equipment shelf equipped with 2 line drawers, each with 48 line interfaces, to provide access for VF circuits (2W, 4W, 6/8W) and T1 (DS1), or a mix of both.

Corporate Standards, 4122

NT Corporate Standards, 4122.00, *Grounding of Communication Systems*, provides generic design rules and applications guidelines for the bonding and grounding of Nortel Networks products, in accordance with current United States and Canadian practices.

CPC

common product code, a Nortel Networks part number and ordering code

CPE

customer premises equipment, equipment that is located in a home or office

CPU

central processor unit

CRC

cyclic redundancy check

CRT

cathode ray tube

CRV

call reference value, the logical address of a customer line provisioned in both the host switch and the RFT slot association table

CSA

carrier serving area; *or* Canadian Standards Association

CSC

common signaling channel; *or* cell site controller (for a mobile telephone exchange); CSC provides a path between the switch and a RFT for call processing messages

CServer

communications server

CSU

channel services unit

CTS

clear to send

customer-located equipment

equipment owned by an operating company, but located on the premises of their customer

CV

coding violation

D channel

An ISDN 16 kb/s channel, as in 2B+D

D-Link

drawer link, a signalling communication path between the copper-distribution shelves or drawer link mapper units and the common-equipment shelf in an AccessNode system

D/A

digital to analog

DARTS

Digital Analog Remote Test System, a trademark of Bell Communications Research.

DAT

digital audio tape

dB

decibel, a unit for measuring the relative strength of a signal parameter, such as power or voltage.

dBm

power level in decibels (relative to one milliwatt)

dc

direct current

DCC

data communications channel

DCD

data carrier detect

DCE

data communication equipment

DCS

digital cross-connect system; *or* Digital Channel Service

DDL	derived data link
DDP	digital dial port
DDS	digital data service
default software upgrade	this occurs when you insert a shelf processor circuit card with a software release that does not match the software release of the HDT into a voice module. The ANX system automatically upgrades the shelf processor circuit card's software release to match the software release of the HDT.
DEM	dual equipment module, a hardware enclosure that provides internal mounting space for equipment in modular business package applications
DFA	DS1-fed AccessNode, a type of AccessNode remote terminal that is connected to a central office terminal by DS1 transmission facilities
DIAG	full line-card diagnostic test
DID	direct inward dialing
DIP	dual in-line package
DLC	digital loop carrier
DLCI	digital loop carrier identifier
DMA	direct memory access
DMS	Digital Multiplex System; <i>or</i> Digital Multiplex Switch
DMS-100	Digital Multiplex System-100, Nortel Networks large local digital switch

DMS Access

this feature allows you to connect a DMS-10NA switch to a DFA using the DMSx communications protocol. The DFA emulates a RLCM becoming a VLCM.

DN

dialed number

DOD

direct outward dialing

DP

dial pulse

DPO

dial pulse originating

DPT

dial pulse terminating; *or* drop/passthrough (STS-1 output bus)

DRAM

dynamic random-access memory

DRTU

Digital Remote Test Unit (a product of Bell Canada)

DSn

digital service, where n defines the level (0, 1, 2, or 3) in the signal hierarchy. The transmission rates for each level are:

DS0	64kb/s
DS1	1.544Mb/s carrying 24 DS0s plus overhead bits
DS1C	3.152Mb/s carrying 48 DS0s plus overhead bits
DS2	6.312Mb/s carrying 96 DS0s plus overhead bits
DS3	44.7Mb/s carrying 28 DS1s plus overhead bits

DS0

See DSn.

DS0DP

digital signal zero dataport

DS1

See DSn.

DS1 PB

DS1 protection bridge card, a plug-in module for the AccessNode common-equipment shelf

DS1BIF	DS1B interface
DS1C	<i>See</i> DS <i>n</i> .
DS2	<i>See</i> DS <i>n</i> .
DS3	<i>See</i> DS <i>n</i> .
DSPC	copper-distribution-shelf power converter. <i>See</i> CDSP.
DSR	data send ready
DSX-n	Digital System Cross-connect, where n = 1, 1C, 2, or 3. DSX-1 designates a DS1 cross-connect and DSX-3 designates a DS3 cross-connect.
DTA	digital test access
DTAP	digital test access pair
DTB	drawer test bus
DTC	digital trunk controller
DTE	serial data terminal equipment port, such as a VT100 terminal
DTH	digital test head
DTMF	dual-tone multifrequency
DTR	data terminal ready
DVM	digital voltmeter

DX

duplex (signaling)

E2A

a parallel telemetry protocol

E2A TBOS

a standard telemetry byte-oriented serial protocol for communication of alarm information from network elements to an operations support system (OSS)

EBS

electronic business set service

ECL

emitter-coupled logic

ECSA

Exchange Carriers Standards Association

EDAC

error detection and correction

EDCH

enhanced D-channel handler (card)

EEPROM

electrically erasable programmable read-only memory

EGP

exterior gateway protocol

EIA

Electronic Industries Association

ELTU

enhanced line test unit

E&M signaling

a signaling arrangement that uses separate paths for signaling and voice. The M lead (derived from “mouth”) transmits ground or battery to the distant end of the circuit. Incoming signals are received as either a grounded or open condition on the E (derived from “ear”) lead.

EMC

embedded maintenance channel

EMI

electromagnetic interference

En	European signal level n
EOC	embedded operations channel
Epsilon	family of low-cost line cards providing basic POTS services
EQL	equalize voltage
ERL	echo return loss
ERTU	external remote test unit
ES	errored second
ESC	external synchronous carrier, houses two ESI plug-in modules
ESD	electrostatic discharge, a transfer of energy from one electromagnetic potential to another. ESD protection is provided for AccessNode on the LCAP to allow for a grounded wrist strap connection by local maintenance personnel.
ESF	extended superframe
ESF DL	extended superframe data link
ESI	external synchronization interface, a plug-in module for the common-equipment shelf
ESIA	external synchronization interface module A
ESIB	external synchronization interface module B
ESWD	electronic software delivery

ETAS

emergency technical assistance service

ETIC

enhanced transport interface card

ETO

equalized transmission only

ExpressLine

a non-provisionable 2-wire station line card used with ANX

FAM

facility assignment manager

FC

ferrule connector

FCC

Federal Communications Commission (USA)

FCOT

fiber central office terminal, a type of AccessNode central office terminal that is connected to a remote office terminal by fiber optic cable. In a basic fiber-fed system, the FCOT interfaces to central-office equipment such as switches, and it multiplexes the traffic that flows through the AccessNode system. It is the center of operations, administration, and provisioning control for the system.

FCOT_BLSR

fiber central office terminal in a bidirectional line-switched ring, a type of AccessNode central office terminal that is connected to other ring nodes in a VTBM ring by fiber optic cable. FCOT_BLSR shelf functions also apply to ABM and TBM shelves.

FDDI

Fiber Distributed Data Interface

FELB

far-end loop back

FEM

field expansion module, a hardware enclosure that provides internal mounting space for equipment in modular business package applications

FERF

far-end receiver failure, a signal to indicate to the transmit site that a failure has occurred at the receive site.

FGB	floor ground bar
FLS	frame loss second (performance monitoring)
FLT	float voltage
FMF	fiber manager frame
FMIP	Falcon management interface protocol
FOPI	fiber outside plant interface
FOTS	fiber-optic transmission system
Fractional T1	fractional T1 makes a portion of the DS1 bandwidth between the ANX voice module and HDT available for interconnection to customer premise equipment (CPE), such as routers, using a Tandem DS1 interface at the HDT. This capability allows a mix of voice and data traffic between the HDT and the voice module on the same DS1 link.
FRAD	frame relay access device
FSR	frequency-selective ringing
FTP	file transfer protocol
FTTC	fiber to the curb
FTTH	fiber to the house
FWDB	FiberWorld database

FWP

FiberWorld Product (release). The letters FWP followed by a two-digit code identifies the product release; for example, FWP08, the standard software release version of December 1994.

FWPUI

FiberWorld product user interface

FX

foreign exchange

FXO

foreign exchange office (interface)

FXS

foreign exchange station (interface)

GLIF

glue logic interface

GMT

Greenwich Mean Time

GR-303 DMS

Bellcore GR-303 standard for a local switch interface plus proprietary extensions for the DMS-100 switch

GR-303 MVI

Bellcore standard for a generic local digital switch interface, based on the AT&T 5ESS

GUI

graphical user interface

HCDS

high capacity digital service

HDBH

high day busy hour

HDLC

high-level data link control

HDSL

high-bit-rate digital subscriber line

HDT	host digital terminal in ANX, which is the GR-303/TR-08 gateway to local digital switches, digital cross-connects, Internet dialup switches, and other service vehicles for the remote ANX voice module.
HDTV	high-definition television
HHT	hand-held terminal
HLU	HDSL line unit
HMI	human-machine interface (<i>formerly</i> MMI)
HMU	host messaging unit, one of two processors on the ABM or TBM shelf's processor card, handling messaging functions. <i>See</i> APU.
HRE	HDSL remote enclosure
HSU	high-speed unit
HT	height
HVSD	high voltage shutdown
hub	networking element that accepts several inputs originating from different areas
hut	an above-ground building for housing telecommunications equipment
Hz	hertz, a unit of frequency equal to one cycle per second
IBN	isolated bonding network, a grounding system defined as an equipment area having a single point ground (SPG) connection to either a common bonding network (CBN) or other IBN.

ICMP

Internet control management protocol

I-CPE

interface - customer premises equipment

ID

inside diameter

IDCU

integrated digital carrier unit, a #5ESS switch interface module

IDLC

integrated digital loop carrier

IDT

integrated digital terminal

IEC

interexchange carrier

IETF

Internet engineering task force

IG

Interface group

ILC

IRTU line card

ILS

inter LAN services

INE

intelligent network element

INWATS

inward wide area telephone service

I/O

input/output

IP

Internet protocol

IPX

internetwork packet exchange

IR	intermediate-reach
IRTU	integrated remote test unit
IS	in service
ISDN	integrated services digital network
IS-NR	in-service normal
ISP	Internet service provider
ISU	incremental software upgrade
ISVMS	Intelligent Services Node Management System (a product of Bell Canada)
ITBP	integrated test bypass pair
ITL	Internet transport link
ITS	integrated test system
ITU	integrated test unit
ITU-T	International Telecommunications Union-Telecommunication Standardization Sector (<i>formerly</i> CCITT)
kbps	kilobits per second
L2F	layer two forwarding
LAIC	loopback access interface card, a plug-in module on the HDT shelf in an ANX

LAN	local area network
LAPB	link access protocol—B channel, a protocol for digitally encoded data, voice, and control signals
LAPD	link access protocol—D channel, a protocol for digitally encoded control signals
laser	acronym for light amplification by stimulated emission of radiation
LASS	log/alarm system; <i>or</i> local analog switch
LBC	laser bias current
LBO	line build-out
LC	line card, a general term for a plug-in module for the AccessNode copper-distribution shelf
LCAP	local craft access panel, an equipment shelf that provides a manual access and interface to system testing and communications facilities
LCDC	line card diagnostic circuitry
LCM	line concentrating module, Nortel Networks equipment located in the CO that allows subscriber lines to be hosted into a DMS-10 switch.
LDS	local digital switch
LEC	local exchange carrier
LED	light-emitting diode

L-frame	<i>See</i> Wall box.
LGB	loop ground business
LIC	line interface card, a plug-in module for the line drawer in the copper-distribution shelf
line (SONET)	a SONET line, defined as that segment of the fiber transmission system between network elements where traffic originates and terminates
link-loss budget	the totaled losses of fiber cable, splices, connectors, and other system factors and margins, balanced against the system gain of an optical transmitter and receiver between any two sites
LIT	line insulation test
LLC	logical link control
LMOS	Loop Maintenance Operations System; a trademark of AT&T
LNINV	line inventory table in DMS-100 datafill
LOF	loss of frame
LOH	line overhead
LOP	loss of pointer
LOS	loss of signal
LOSW	loss of sync word
LOW	local orderwire

LPF	low-pass filter
LR	long-reach
LRB	loop reverse battery
LS	locally switched
LSAS	line-side answer supervision
LSR	loop-start residential
LSS	locally-switched service
LTC	local test cabinet
LTD	local test desk
LTO	line termination object
LTP	line test position
LTPLTA	A DMS-100 line testing tools
LTS	local test system
LUOC	line unit output condition
MAP	maintenance and administration position; <i>or</i> master alarm position
MAPCI	MAP command interpreter

MAT	metropolitan area trunking, a 25-gauge cable used in some urban areas
MAU	media access unit
MBIF	MBUS interface (circuit)
MBP	modular business package, a configuration of AccessNode system characterized by a cabinet-type enclosure that is suitable for mounting at customer-owned facilities
Mbps	mega (million) bits per second, sometimes written as Mb/s
MBS	Meridian business set; <i>or</i> the name of an optional software package that supports P-phone. <i>See</i> P-phone.
MBUS	maintenance bus protocol
MCM	microcomputer maintenance chip
MDC	Meridian Digital Centrex, a trademark of Nortel (Northern Telecom)
MDF	main distribution frame
MF	multifrequency
MH-#	manhole (and number)
MIB	management information base
MIC	maintenance interface card, a plug-in module for the common-equipment shelf in AccessNode and AccessNode Express
MLT	Mechanized Loop Testing (system) (AT&T)

ModCab

a set of compact, self-contained cabinet modules that extend AN and ANX services to remote locations (up to 192 lines).

MOH

maintenance overhead bus

MOP

method of procedure

MPP

modular power package, a configuration of AccessNode MBP system powering equipment characterized by a cabinet-type enclosure that is suitable for mounting at customer-owned facilities

MPR

modular power rectifier

MRD

manual ringdown

MTA

metallic test access

MTAC

metallic test access card, a plug-in module for the line drawer in the copper-distribution shelf

MTAPT

metallic test access path termination

MTAU

metallic test access unit

MTAVERT

MTA vertical

MTU

multi-line test unit

multihosting

refers to an arrangement in which the following occurs:

- some of the switched lines from an HDT are switched by (“hosted by”) one switch
- other lines from the HDT are switched by another switch

Each line has a fixed association with only one switch, but different lines or groups of lines from the HDT are allotted to different switches.

Wherever multihosting is used in the AccessNode library, it refers to the arrangement in which different *digital* host switches switch different lines or groups of lines from an HDT.

MVI

multivendor interface, part of the GR-303 specification

MVOA

miniature variable-optical attenuator

N/A

not applicable; *or* not assigned

NC

normally closed (connection); *or* no connection

NCD

network computing device

NCTE

network channel terminating equipment

NE

network element, equipment that performs some operation in routing or transporting a telecommunication signal. *See* network element.

NEBS

network equipment-building system, a set of standards for equipment buildings intended for housing communications and associated equipment

NEC

National Electrical Code, defines the electrical codes required in the USA, similar to the CEC in Canada

NEID

network element identification, a set of alpha-numeric characters that uniquely identify an element in a network

NELB

near-end loop back

network element

refers to each AccessNode. A network element is a collection of equipment at one location that functions and is administered as a single entity.

NEUI	network element user interface, used to commission, provision, and monitor a specific AccessNode network element
NI	network interface
NID	network interface device
NIU	network interface unit
NLIC	narrowband line-interface card, a plug-in module for the line drawer in the copper-distribution shelf
NLS	non-locally switched services
NMA	network monitoring and analysis
NMS	network management system
NNI	node to network interface
NO	normally open
NREM	network remote loopback
NS	non-switched (special service circuits)
NSA	non-service affecting, a non-service affecting condition will not interrupt service on the subscriber line
NSS	non-switched service; <i>or</i> network surveillance system
NT	network termination; <i>or</i> Nortel Networks

NT1	network termination point of an ISDN service, located close to the terminal equipment
NTP	Nortel Networks Publication
NTT	no test trunk
NVS	non-volatile storage
O2WO	Omega 2W office, a plug-in module for the line drawer in the copper-distribution shelf
O2WS	Omega 2W station, a plug-in module for the line drawer in the copper-distribution shelf
O4W	Omega 4W, a plug-in module for the line drawer in the copper-distribution shelf
O68W	Omega 6/8W, a plug-in module for the line drawer in the copper-distribution shelf
OAM&P	operations, administration, maintenance, and provisioning
OC-n	optical signal carrier, where n defines the level (1, 3, 9, 12, 24, 36, or 48) equal to the STS signal of the same level. The only difference between STS and OC is that STS is transmitted digitally, while OC is transmitted optically.
OCE	optical common equipment
OCU	office channel unit
OCUDP	office channel unit dataport
OD	outside diameter

OFFL	off-line
OHT	on-hook transmission (service)
OIM	operations interface module
OM	Operational measurements
OMC	operations maintenance channel (for OAM&P)
Omega	a family of software-driven line cards providing a very wide variety of 2-wire, 4-wire, 6-wire, and 8-wire services, from POTS to DDS to E&M trunks
OOS	out of service
OPC	operations controller, a plug-in module for the common-equipment shelf or an operations controller shelf
OPCUI	operations controller user interface, used to commission, provision, and monitor all of the network elements controlled by a single OPC
OPS	off-premise or outside plant station (service)
OPS/INE	Operational Processing System/Intelligent Network Element provisioning operations system, a trademark of Bell Communications Research.
OPX	off-premise extension
ORB	office repeater bay
OS	operations system
OSI	open systems interconnection

OSP	outside plant
OSPF	open shortest path first
OSS	operations support system
outside-plant cabinet	an outdoor cabinet mounted on a concrete slab and located in remote areas for the purpose of housing an AccessNode and other equipment
OW	orderwire
PACK	positive acknowledgment
PAD	packet assembler/disassembler
PAP	password authentication protocol
P/AR	peak-to-average ratio
path	the path layer of SONET overhead is a logical connection between a point where an STS or VT is multiplexed to the point where it is demultiplexed
payload	the portion of the SONET signal available to carry the service such as DS1, DS2, and DS3
payload pointers	indicates the location of the beginning of the synchronous payload envelope
PBX	private branch exchange
PC	power converter, a plug-in module for the copper-distribution shelf

PAA	personal computer (PC)–based graphical user interface, PC Access Assist in the ANX voice module, used to commission, provision, and monitor a single voice module
PCB	printed circuit board
PCM	pulse-code modulation, a method of encoding an analog voice signal into a digital bit stream
PEC	product engineering code, a Nortel Networks product identifier and ordering code
PES	parity errored second
PGTC	pair gain test controller
PLAR	private line automatic ringdown
PLL	phase-locked loop
PLO	permanent lock out
PLR	pulse link repeater (signaling)
PM	performance monitoring
POH	path overhead
POTS	plain old telephone service
PP	passport
P-phone	business set, which is a product of Nortel Networks. <i>See</i> MBS.

PPL	point-to-point link
PPP	point to point protocol
PPS	pulses per second
PRI	ISDN primary rate interface
PRM	performance report message
Proc	processor card, a plug-in module for the common-equipment shelf. <i>See</i> APC.
PROM	programmable read-only memory
PSU/RA	power supply unit and ring amplifier, a circuit card that provides power to the ANX VM and ringing amplification to the ExpressLine line cards in the VM shelf
PSES	parity severely-errored second
PSN	packet switched network
PSTN	public switched telephone network (PSTN port on orderwire cards), the voice network that is available to anyone who has a telephone and access privileges
PSTNCI	public switched telephone network command interpreter
PTC	power termination card, inserts in the I/O slot area of the common-equipment shelf for battery power access
PUPS	point-of-use power supply
PVC	permanent virtual circuit

QRC	quick reference card
QRG	quick reference guide
QRSS	quasi-random signal source
RAI-CE	remote alarm indicator - customer interface
RAM	random access memory
RBOC	regional Bell operating company
RDS	Rapport dial-up switch
RDT	remote digital terminal, a generic term signifying a remote subnetwork serving an integrated application
RDTINV	RDT data table in a DMS-100 switch
REN	ringer equivalence number
REX	routine exercise (of equipment and features)
RFI	radio frequency interference
RFT	remote fiber terminal, a type of AccessNode remote terminal that is connected to a central office terminal by fiber optic cable. RFT shelf functions also apply to ABM shelves.
RFT_BLSR	remote fiber terminal in a bidirectional line-switched ring, a type of AccessNode remote terminal that is connected to other ring nodes in a VTBM ring by fiber optic cable. RFT_BLSR shelf functions also apply to ABM shelves.

RIP	routing interface protocol
RLCM	remote line concentrating module, Nortel equipment located remotely from the CO that allows subscriber lines to be hosted into a DMS-10 switch.
RLEV	receive level
RMA	return material authorization
RMM	remote maintenance module, optional Nortel equipment that provides maintenance functionality, such as line/loop testing and alarm telemetry, to the RLCM.
RMU	remote measurement unit
RSU	remote switching unit
RT	remote terminal
R-TEC	T-9/SX mechanized loop tester
RTMP	routing table management protocol
RTS	request to send
RTU	remote test unit
Rx	receive (also denoted by Rcv)
SA	service-affecting, a service-affecting condition will interrupt service on one or more subscriber lines
SAA	service adaptive access

SAP	service access point
SAI	serving area interface, a provision for outside-plant cabling access to an outdoor cabinet
SARTS	Switched-Access Remote Test System; a trademark of AT&T
SC	subscriber connector
SCC	SONET communication controller
SCCS	switching center control system
SCM	system commissioning manager
SCOTS	Surveillance and Control of Transmission Systems parallel telemetry system
SCSI	small computer systems interface
SCURR	sealing current
SD	signal distribution
SDCC	section data communications channel
S/DMS	SONET/Digital Multiplex System
S/DMS SuperNode	a trademark of Nortel Networks for one of the FiberWorld products
S/DMS TransportNode	a trademark of Nortel Networks for one of the FiberWorld products
SDP	signal distribution point

SEAN	single-ended AccessNode
SERVORD	service order system for DMS-100 switch
section (SONET)	that segment of the SONET transmission system between two network elements where at least one of the network elements does not originate or terminate traffic. This network element will, however, terminate the second overhead.
SEFS	severely errored frame seconds
SES	severely errored second (performance monitoring)
SF	superframe
SF-RAI	superframe - remote alarm indication
Shell shelf	In ANX, a modular shelf that allows two voice modules to be located on either side of the shell shelf enclosure. A separate shell shelf houses the auxiliary shelf and rectifier shelf subassemblies.
SID	shelf ID (identification)
SIL	side interconnect left, a bolt-in module for the common-equipment shelf
SIR	side interconnect right, a bolt-in module for the common-equipment shelf
SL	slope
SLAT	system line-up and test
SLIP	serial line interface protocol

SMA	Subscriber Carrier Module-100 Access
S/N	signal-to-noise
SNMP	simple network management protocol
SOAM	subscriber operation, administration, and maintenance
SOC	span of control
SOH	SONET overhead bus
SONET	Synchronous Optical Network, a standard for optical transport that defines optical carrier levels and their electrically equivalent synchronous transport signals. The SONET standard allows for a multi-vendor environment, positioning of the network for transport of new services, synchronous networking, and enhanced OAM&P.
SPD	secure public dial
SPE	synchronous payload envelope
SPG	single-point ground, used to reference equipment or systems to a single ground through which no dc current flows, unless a fault condition exists. The SPG is the point of reference for the frame grounds, logic returns, battery return bus, and green-wire ACEG conductors of the ac circuits serving the system.
SPLB	special loopback
SPRM	supplemental performance report message
SRL	singing return loss
SRP	STS-1 reorder and protection ASIC

SRU	sub-rate data																
SS	special service																
SSDN	special services digital network																
STB	shelf test bus																
stratum	the level of clock source used to categorize the accuracy of a clock																
STS	synchronous transport signal																
STSBM	synchronous transport signal bandwidth manager																
STS-n	synchronous transport signal, where n defines the level (1, 3, 9, 12, 24, 36, or 48) in the SONET hierarchy. The line rates for each level are: <table> <tr> <td>STS-1</td> <td>51.840 Mb/s</td> <td>STS-24</td> <td>1244.16 Mb/s</td> </tr> <tr> <td>STS-3</td> <td>155.52 Mb/s</td> <td>STS-36</td> <td>1866.24 Mb/s</td> </tr> <tr> <td>STS-9</td> <td>466.56 Mb/s</td> <td>STS-48</td> <td>2488.32 Mb/s</td> </tr> <tr> <td>STS-12</td> <td>622.08 Mb/s</td> <td></td> <td></td> </tr> </table>	STS-1	51.840 Mb/s	STS-24	1244.16 Mb/s	STS-3	155.52 Mb/s	STS-36	1866.24 Mb/s	STS-9	466.56 Mb/s	STS-48	2488.32 Mb/s	STS-12	622.08 Mb/s		
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STS-nc	synchronous transport signal, where n defines the number of concatenated STS-1s. An STS-2c has two concatenated STS-1s and an STS-3c has three concatenated STS-1s (maximum for STS-1, higher concatenation is done with multiples of STS-3c).																
subnetwork	refers to more than one AccessNode. If a subnetwork is composed of multiple network elements, they are interconnected by SONET fiber feeders. The number of network elements in a subnetwork depends on the application the subnetwork serves. Each subnetwork is managed by a single OPC.																
SVC	switched virtual circuit																
SWACT	switch of activity																

system

the AccessNode hardware and software installed to serve an application. A system can include one or more network elements. The following types of AccessNode systems are available:

- fiber-fed AccessNode
- DS1-fed AccessNode
- single-ended AccessNode

ANX uses two DS1-fed AccessNodes (the HDT) to support voice and data traffic.

T1

carrier with a transmission rate of 1.544Mb/s

T3

carrier with a transmission rate of 44.7Mb/s

TA

terminal adapter

TAC

test access card, a plug-in module for the common-equipment shelf

TAO

terminal access option

TAP

test access path, a plug-in module for the I/O slot area of the common-equipment shelf

TASC

telecommunications alarm surveillance and control

TBF

talk battery filter circuit card

TBOS

telemetry byte-oriented serial (protocol)

TBM

transport bandwidth manager (shelf), the common equipment shelf in the TransportNode system

TBP

test bypass pairs, a plug-in module for the I/O slot area of the common-equipment shelf

TCL	total cable length
TCP	Transmission control protocol
TDM	tandem (signaling); <i>or</i> time-division multiplexing
TGR	transmission-ground reference, the common single-point ground reference for DS3 cables that are required to route from within an isolated bonding network to equipment outside the isolated bonding network
TH	test head
TIC	transport interface card, a plug-in module for the common-equipment shelf
TID	target identifier, used in TL1 messages
TIMS	transmission impairment measurement set
T-interface	the network side of the NT1 of an ISDN service
TL1	Transaction Language 1, a Bellcore standard-compliant interface that allows any network surveillance system to monitor and control a group of network elements under the span of control of an OPC
TLOS-LB	transmit loss of signal - loopback
TLP	transmission level point
TMC	time slot management channel
TN_BLSR	TransportNode TBM shelf running AccessNode software in an AccessNode bidirectional line-switched ring; <i>or</i> a TBM shelf function.

TO	transmission only
TOD	time of day
TOP	transport overhead processor
TP-ANI	two-party automatic number identification
TR-08	Bellcore Standard TR-TSY-000008: Digital Interface between DLC and an LDS
TRC	test response circuit
TRKGRP	trunk group table in DMS-100 datafill
TSC	test system controller
TSGR	transport system generic requirements
TTU	test tone unit
Tx	transmit
TXC	timing and cross-connect, a plug-in module for the common-equipment shelf
UART	universal asynchronous receiver transmitter
UAS	unavailable seconds
UDLC	universal digital loop carrier
UDP	User datagram protocol

UI	user interface
UE9000	universal edge 9000, a universal access shelf that can support both voice and data applications. The UE9000 shelf resides in an AccessNode and provides greater line density than a copper distribution shelf.
U-interface	the terminal equipment side of the NT1 of an ISDN service
UL	Underwriters Laboratories, Inc. is an organization that tests the electrical safety requirements of products.
UNI	user network interface
UNIX	UNIX operating system. UNIX is a trademark licensed exclusively through X/Open Company, Ltd.
UVG	universal voice grade station line card, a plug-in module for the copper-distribution shelf
VCXO	voltage-controlled crystal oscillator
VF	voice frequency, an analog frequency between 300 to 3000 Hz. This is the frequency that human speech is best captured and transmitted in.
VGR	vertical ground risers
VLCM	virtual line concentrating module, a Nortel Networks product that allows an AccessNode network element to host subscriber lines into a DMS-10NA switch. The AccessNode network element emulates the functionality of a RLCM and RMM.
voice module	In ANX, a bolt-in shelf subassembly that can house up to 48 line cards. If two voice modules are installed in the ANX, 96 line cards are supported.
VPDN	virtual private dial-up network

VT

virtual tributary

VT100

a computer terminal with [de facto] standard characteristics, trademark of Compaq Computer Corporation

VTBM

virtual tributary bandwidth manager, type of ring

VT-n

virtual tributary, synchronous sub-STS-1 signals, where n = the level (1.5, 2, 3, or 6) within the SONET hierarchy. The line rates for each level are:

VT1.5	1.728Mb/s	VT3	3.456Mb/s
VT2	2.304Mb/s	VT6	6.912Mb/s

Wall box

In ANX, the Express wall box is the anchor package from which other packages are developed. The wall box is a lockable metal box that can enclose a variety of modules.

For floor mount configurations, the wall box is used with an “L” frame.

WAN

wide area network

WATS

wide area telephone service

WCN

warranty control number

WECO

Western Electric Company

WTR

wait to restore

X.11/X.25

International Standards Organization data communication standard

XDM

X terminal display manager

XOW

express orderwire

XPM

extended peripheral module hardware and software

ZBTSI

zero byte time slot interface

SONET Products

AccessNode

List of Terms

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