QWEST Communications International, Inc. Information Publication

Acronyms, Glossary, Ordering Information, and Trademarks

77001
Issue B
November 2000

NOTICE

This information publication describes the Acronyms, Glossary of Terms, Trademarks and Ordering Information that is included in QWEST Publications.

QWEST Communications International Inc. reserves the right to revise this document for any reason, including but not limited to, conformity with standards promulgated by various governmental or regulatory agencies; utilization of advances in the state of the technical arts; or to reflect changes in the design of equipment, techniques, or procedures described or referred to herein.

Liability to anyone arising out of use or reliance upon any information set forth herein is expressly disclaimed, and no representation or warranties, expressed or implied, are made with respect to the accuracy or utility of any information set forth herein.

This document is not to be construed as a suggestion to any manufacturer to modify or change any of its products, nor does this publication represent any commitment by QWEST Communications International Inc. to purchase any specific products. Further, conformance to this publication does not constitute a guarantee of a given supplier's equipment and/or its associated documentation.

Ordering information for QWEST Technical Publications can be obtained from the Reference Section of this document.

If further information is required, please contact:

QWEST Communications International Inc.
Manager – New Services Planning
700 W. Mineral Ave. MN-F15.15
Littleton, CO 80120
(303) 707-7107
(303) 707-9497 Fax #
E-mail: jhsmit2@qwest.com

COMMENTS on PUB 77001

PLEASE TEAR OUT AND SEND YOUR COMMENTS/SUGGESTIONS TO:

QWEST Corporation
Manager – New Services Planning
700 W. Mineral Ave. MN-F15.15
Littleton, CO 80120
(303) 707-7107
(303) 707-9497 Fax #
E-mail: jhsmit2@qwest.com

Information from you helps us to improve our Publications. Please take a few moments to answer the following questions and return to the above address.

Was this Publication valuable to you in understanding our requirements?	YES ____ NO ____
Was the information accurate and up-to-date?	YES ____ NO ____
Was the information easily understood?	YES ____ NO ____
Were the contents logically sequenced?	YES ____ NO ____
Were the tables and figures understandable and helpful	YES ____ NO ____
Were the pages legible?	YES ____ NO ____

If you answered NO to any of the questions and/or if you have any other comments or suggestions, please explain:

_____

_____

_____

(Attach additional sheet, if necessary)

Name _____ Date _____

Company _____

Address _____

Telephone Number

_____

E-Mail _____

CONTENTS

Section **Page**

CONTENTS

Chapter and Section **Page**

1. Introduction

1.1 General

This information publication describes the Acronyms, Glossary of Terms, Trademarks and Ordering Information that is included in QWEST Publications.

1.2 Reason For Reissue

This publication is being reissued to show changes in company information. US WEST is Now QWEST.

1.3 Scope

The information provided in this document includes Definitions for the Glossary of Terms and Acronyms. QWEST has also included Trademarks and the Ordering Information of documentation used by QWEST and its customers. This information will be updated as required.

Questions regarding QWEST Technical Publications may be referred to:

QWEST Corporation
Manager – New Services Planning
700 W. Mineral Ave. MN-F15.15
Littleton, CO 80120
(303) 707-7107
(303) 707-9497 Fax #
E-mail: jhsmit2@qwest.com

CONTENTS

Chapter and Section **Page**

2. Acronyms

0TLP	Zero Transmission Level Point
A/D	Analog to Digital
ABS	Alternate Billing Service
ac	alternating current
AC	Access Customer
ACA	Account Customers Address
ACAT	Additional Cooperative Acceptance Testing
ACCS	Automated Calling Card Service
ACD	Automatic Call Distributor
ACE	Automatic Cable Experience
ACNA	Access Customer Name Abbreviation
ACR	Abnormal Condition Report
ACS	Advanced Communication Services
ACSE	Association Control Service Element
ACTL	Access Carrier Terminal Location
AD	Amendment; for example, IS0 8327 AD2
AD4	Advanced D4
ADD	Aggregate Design Data
ADM	Add/Drop Multiplexer
ADSI	Analog Display Services Interface
ADSR	Administration of Designed Service Review
ADTS	Automated Digital Terminal System
AGC	Automatic Gain Control
AIC	Automatic Intercept Center
AIS	1) Alarm Indication Signal 2) Automated Intercept System (Minicomputer Functions)
AL	Acceptance Limit
ALITT	Automated Line Insulation Tests
AM	Amplitude Modulation

AMA	Automatic Message Accounting
AMA/DDD	Automatic Message Accounting/Direct Distance Dialing
AMI	Alternate Mark Inversion
AML	Actual Measured Loss
AMMS	Advanced Material Management System
AMP	Application Management Package
AMPS	Advanced Mobile Phone Service
AMR	Accelerated Maintenance Request
ANI	Automatic Number Identification
ANI/OE	Automatic Number Identification/Order Entry -- product -- USW provides for cable companies (pay per view)
ANSI	American National Standards Institute, Inc.
AO	Audio Options - the umbrella name for all audio products
AOTT	Automatic Outgoing Trunk Test
AP	Audio Program
APMS	Air Pressure Monitoring System
APOP	Alternate Point of Presence
APOT	Actual Point Of Termination
APP	Application Date
APS	Automatic Protection Switching
APTOS	Automated Pricing, Terminals, Options and Services
AQCB	Auto Quote and Contract Billing
AR	Automatic Routing
ARS	1) Audio Response System 2) Automatic Route Selection
ARSB	Automatic Repair Service Bureau
ARU	Audio Response Unit
ASCS	Alarm Scanning and Control System (Scan-Alert)
ASN.1	Abstract Syntax Notation One
ASOG	Access Services Ordering Guide

ASR	Access Service Request
AT	1) Access Tandem 2) Advanced Technologies
AT&T	American Telephone and Telegraph
ATB	All Trunks Busy
ATI	QWEST Advanced Technologies Division
ATM	Asynchronous Transfer Mode
ATMS	Automatic Transmission Measurement Systems
ATR	Alternate Traffic Routing
ATT/C	American Telephone and Telegraph/Communications AT&T Communications
ATT/IS	AT&T Information Systems
ATTC	Automatic Transmission Test and Control Circuit
ATTCOM	AT&T Communications
AUI	Attachment Unit Interface
AUIC	Attachment Unit Interface Cable
AUTODIN	Automatic Digital Network
AUTOVON	Automatic Voice Network
AVD	Alternate Voice-Data
AWC	Alternate Wire Center
B8ZS	Bipolar with 8 Zero Substitution
BANCS	Bell Administration Network Communications System
BASE	Base document; for example, ISO 8327
BATS	Bits Access Test System
Bc	Committed Burst Size
BCC	Business Control Center
BCD	Binary Coded Decimal
BCF	Billion Conductor Feet
BCP	Bell Company Practice
BCR	Bell Communications Research

BCSC	1) Bell Customer Service Centers 2) Business Customer Service Center
BCSC/MAC	Business Customer Service Center/Major Account Center
BDAC	Business Dispatch Administration Center
BDC	Building Distribution Cable
BDFB	Battery Distribution Fuse Board
BDTVS	Broadcast Digital Transport Video Service
Be	Excess Burst Size
BECN	Backward Explicit Congestion Notification
Bellcore	Bell Communications Research, Inc.
BER	1) Basic Encoding Rules for ASN.1 2) Bit Errored Ratio 3) Bit Error Rate
BERT	Below Ground Electronics Remote Terminal
BES	Burst Errored Second
BIS	Business Information Systems
BISCUS/FACS	Business Information System-Customer Services/Facilities Assignment and Control System
BISDN	Broadband ISDN
BISYNC	Binary Synchronous Protocol
BIT	Binary Digit
BL	Bridge Lifter
BLV	Busy Line Verification
BnZS	Binary n-Zero Substitution
BOC	Bell Operating Company
BOC/WIS	Bell Operating Company/WATS Information System
BOCS	Bell Operating Companies
BOS	Bell Operating System
BOSS	Billing and Order Support System
BPNRZ	Bipolar Non-Return to Zero
BPRZ	Bipolar Return to Zero
bps	Bits Per Second (Now bit/s)

BPSS	Bell Packet Switching Service
BPV	Bipolar Violation
BRA	Basic Rate Access
BRI	Basic Rate Interface
BRS	Business Radio System
BSA	Basic Serving Arrangement
BSC	Business Service Center
BSCL	Bell System COMMON LANGUAGE®
BSCTE	Bell System Center for Technical Education
BSE	Basic Service Element
BSP	Bell System Practice
BTN	Billing Telephone Number
BTS	Bell Tri-Co Services
BTV	Buffer Threshold Value
BW	Bandwidth
C, I&M	Construction, Installation & Maintenance
C/N	Carrier to Noise
C1	Use TIRKS®-C1
C1/CDS	Use TIRKS®-C1/CDS
C1/DAC	Use TIRKS®-C1/DAC
C1/DIST	TIRKS®-Circuit Layout Distribution Module
C1/INV	Use TIRKS®-C1/INV
C1/MDS	Use TIRKS®-C1/MDS
C1/PREP	TIRKS®-Circuit Layout Preparation Module
C1/REF	Use TIRKS®-C1/REF
C1/TAS	Use TIRKS®-C1/TAS
CAA	Circuit Administration Area

CABS	1) Carrier Access Billing System 2) Customer Access Billing System
CAC	1) Circuit Administration Center 2) Circuit Access Code 3) Contract Administration Center
CAD	1) Computer Aided Design 2) Computer Assisted Design 3) Computer Aided Drafting 4) Connect Aerial Drop
CAE	Computer Aided Engineering
CAE/IFS	Computer Aided Engineering/Interoffice Facility System
CAE/MEMS	Computer Aided Engineering/Mechanized Engineering Management System
CAE/MTPS	Computer Aided Engineering/Messenger Trunk Planning System
CAE/RICS	Computer Aided Engineering/Reuse Inventory Control System
CAE/SPOS	Computer Aided Engineering/Switched Plan and Order System
CAL	COMMAND A LINK
CAMA	Centralized Automatic Message Accounting
CAMIS	Construction Activities Management Information System
CAMIS J/S	CAMIS Job Scheduler
CAPS	Cable Analysis and Provisioning System
CAROT	Centralized Automatic Reporting On Trunks
CAROT2	Centralized Automatic Reporting On Trunks-2
CATLAS	Centralized Automatic Trouble Locating and Analysis System
CAU	Customer Access Unit
CB	Channel Bank
CBAC	Construction Budget Administration Center
CBD	Connected Buried Drop
CBDB	Construction Budget Data Base
CBS&A	Construction Budget Summary & Analysis
CC	Came Clear
CCA	Customer Credit Allowance

CCC	Clear Channel Capability
CCI	Corporate Communications, Inc. QWEST Corporate Communications, Inc.
CCIS	Common Channel Interoffice Signaling
CCIS/SO	Common Channel Interoffice Signaling/Signaling Office
CCITT	Consultative Committee on International Telephone and Telegraph (Now International Telecommunications Union [ITU])
CCN	Corporate Communications Network
CCNA	Customers Carrier Name Abbreviated
CCO	Circuit Control Office
CCON	Customer Contact
CCR	Customer Controlled Reconfigurability
CCS	Common Channel Signaling
CCS7	Common Channeling Signaling (System) 7
CCSAC	Common Channel Signaling Access Service
CCSS	Common Channel Signaling System
CCTV	Closed Circuit Television
CCUAP	Computerized Cable Upkeep Administration Program
CCUAP II	Computerized Cable Upkeep and Administration Program II
CD	1) Call Distribution 2) Circuit Details 3) Circuit Data
CDAC	Centralized Dispatch Administration Center
CDC	Corporate Data Communications
CDLR	1) Confirming Design Layout Record 2) Confirming Design Layout Report
CDLRD	Confirming Design Layout Record Date
CDM	Cost Distribution Module
CDO	Community Dial Office
CDR	Customer Digit Receiver
CDS	Circuit Design System
CDVM	Central office Data/Voice Multiplexer

CEC	Cellular Exchange Carrier
CECO	Civil Enforcement Consent Order
CEI	Comparably Efficient Interconnection
CEM	1) Construction Equipment Management 2) Construction Engineering Memorandum
CENTREX	Centralized Exchange for Business Customer Services
CENTREX/CENTRON	Centralized Exchange for Business Customer Services
CEO/EAEO	Conforming End Office/Equal Access End Office
CEV	Controlled Environmental Vault
CFA	1) Connecting Facility Assignment 2) Carrier Facility Assign
CI	Channel Interface
CI II	Computer Inquiry II (Two)
CI III	Computer Inquiry III (Three)
CIB	Centralized Intercept Bureau
CIC	Carrier Identification Code
CIMAP	Circuit Installation Maintenance Assistance Package
CIMAP-INE	CIMAP - Intelligent Network Elements
CIMAP/CC	CIMAP/Control Center
CIMAP/SSC	CIMAP/Special Services Center
CIN	Customer Identification Number
CIR	Committed Information Rate
CIS	Customized Intercept Service
CIU	Craft Interface Unit
CKL	Circuit Location
CKLT	Circuit Location Telephone Company Wire Center
CKTID	Circuit Identification
CLASS SM	Custom Local Area Signaling Service
CLB	Circuit Layout Bureau
CLCI™	Common Language® Circuit Identification
CLEI™	Common Language® Equipment Identification

CLEO™	Common Language® Equipment Order
CLF	Creation Load Factor
CLFI™	Common Language® Facility Identification
CLI	Calling Line Identification
CLLI™	Common Language® Location Identification
CLO	Circuit Layout Order
CLONES	COMMON LANGUAGE® Online Extract System
CLR	Called Line Report
CLRC	Circuit Layout Record Card
CLS	1) A COMMON LANGUAGE® Circuit Identifier 2) COMMON LANGUAGE® Circuit Serial Number
CMC	1) Cellular Mobile Carrier 2) Construction Management Center 3) Change Management and Control
CMI	Control Mode Idle
CMIP	Common Management Information Protocol
CMISE	Common Management Information Service Element
CMO	1) Cable Management Organization 2) Cable Management Office
CMRF	Circuit Maintenance Record File
CMS	Circuit Maintenance System (Also see CMT)
CMS 1	Circuit Maintenance System 1
CMS 3A	Circuit Maintenance System 3A
CMS-1	Circuit Maintenance System-1
CMS 3A	Circuit Maintenance System 3A
CMSMC	Circuit Maintenance System Maintenance Center
CMT	Circuit Maintenance System (Also see CMS)
CMTS	Centralized Maintenance Test System
CN	1) Circuit Number 2) Change Notice 3) Completion Notice
CNA	Communications Network Architecture
CND	Calling Number Delivery

CNDB	Calling Number Delivery Blocking
CNM	Customer Network Management
CO	Central Office
COAM	Customer Owned And Maintained
COC	1) Circuit Order Control 2) Circuit Order Center 3) Central Office Connection
COCC	1) Central Office Connecting Channel 2) Central Office Cross Connect
COCE	Central Office Circuit Equipment
COCS	Circuit Order Control System
COCTX	Central Office CenTreX
COE	1) Central Office Equipment 2) Customer Owned Equipment
CORD	Customer Order Retrieval and Display
COSMOS	Computer System for Mainframe Operation
COT	1) Central Office Termination 2) Central Office Technician
CP	Communications Processor
CPC	1) Circuit Provisioning Center 2) Cable Pressure Contactors
CPE	Customer Provided Equipment
CPIW	Customer Provided Inside Wire
CPN	Calling Party Number
CPR	Continuing Property Record
CPS	Cycles Per Second
CRAS	Cable Repair Administrative System
CRC	Cyclic Redundancy Check
CRC-6	6 bit Cyclic Redundancy Check
CREG	Concentrated Range Extender with Gain
CRIS	1) Customer Records Inventory System 2) Customer Record Information System
CRO	Critically Related Order

CRSAB	1) Centralized Repair Service Attendant Bureau 2) Centralized Repair Service Answering Bureau
CS	Class of Service
CSC	Complex Services Center
CSDC	Circuit Switched Digital Capacity
CSDN	Corporate Shared Data Network
CSG	Controlling Service Group
CSMA/CD	Carrier Sense Multiple Access with Collision Detection
CSO	Carrier Service Order
CSP	Customer Systems Pricing
CSP	Carrier Selection Parameter
CSS	Controlled Slip Seconds
CST 3	Circuit Switched Trunk 3
CSU	1) Channel Service Unit 2) Customer Service Unit
CSW	Customer Service Wire
CT	Channel Termination
CTEC	Circuit Transmission Engineering Center
CTNN	Cable Trouble Ticket Number
CTS	Clear To Send
CTX	Centrex
CU	Channel Unit
CUS	Customer Code
CV	1) Code Violation 2) Coding Violations
CVTS	Corporate Video Teleconferencing Service
CWG	Construction Work Group
CWL	Circuit Work Location
CXR	Carrier
DA	Directory Assistance
DACS	Digital Access Cross-connect System (AT&T)

DATH	Display, Abbreviate Trouble History
dB	decibel
DBM	Dynamic Bandwidth Management
dBrnC	Decibel Reference Noise C-Message Weighting
dBrnC0	dBrnC referred to 0 TLP
dBv	Decibels Relative to voltage
dc	direct current
DCC	Data Communications Channel
DCE	Data Circuit-Terminating Equipment
DCPR	Detailed Continuing Property Record
DCS	Digital Cross-connect System
DCSO	Display Completed Service Order
DCTTN	Display Cable Trouble Ticket Number
DD	Due Date
DDAL	Direct Digital Access Line
DDD	Direct Distance Dialing
DDJ	Due Date Jeopardy
DDN	Digital Data Network
DDOV	Digital Data Over Voice
DDS	1) Direct Dialing Service 2) Digital Data Service 3) Dataphone Digital Service
DE	Discard Eligibility
DID	Direct Inward Dialing
DILEP	Digital Line Engineering Program
DLC	Digital Loop Carrier
DLCI	Data Link Connection Identifier
DLCS	Data Line Concentrator System
DLETH	Display Long Extended Trouble History
DLR	1) Design Layout Record 2) Display Line Record
DLRD	Design Layout Record Date

DM	Delayed Maintenance
DOD	Direct Outward Dialing
DOJ	Department of Justice (U S Federal Government)
DOP	Dedicated Outside Plant
DOPAC	Disk Oriented Property and Cost Accounting system
DQDB	Distributed Queue Dual Bus
DRI	Design Related Information
DS0	Digital Signal Level 0 (64 kbit/s) (1 voice channel)
DS1	High Capacity 1.544 Mbit/s Service Digital Signal Level 1 (1.544 Mbit/s)
DS2	Digital Signal Level 2 (6.312 Mbit/s)
DS3	High Capacity 44.736 Mbit/s Service Digital Signal Level 3 (44.736 Mbit/s)
DS4	Digital Signal Level 4 (274.176 Mbit/s)
DSAS	DATAPHONE® Select-A-Station
DSOC	1) Digital Systems Operations Center 2) Digital Services Operations Center
DSR	DCE Ready
DSS	Digital Switched Services[SM]
DSU	1) Digital Service Unit 2) Data Service Unit
DSX	Digital Signal Cross-connect
DSX-1	Digital Signal Level 1 Cross-connect
DSX-3	Digital Signal Level 3 Cross-connect
DTAU+	Heikemian Digital Test Access Unit +
DTE	Data Terminal Equipment
DTMF	Dual Tone MultiFrequency
DTN	Data Telephone Number
DTR	DTE Ready
DUV	Data Under Voice
DVA	Designed, Verified and Assigned
DVJ	Designed, Verified and Assigned Jeopardy

DX	Duplex Signaling
E-911	Enhanced 911 Services
E/M	Electromechanical
E1	Use TIRKS®-E1
E1/REF	Use TIRKS®-E1/REF
E1/TAS	Use TIRKS®-E1/TAS
EA	Equal Access
EADP	Equal Access Deployment Plan
EAS	Extended Area Service
EC	Exchange Carrier
EC CO	Exchange Carrier Central Office
ECD	Estimated Completion Date
ECO	Electronic Central Office
ECP-1	Use TIRKS®-ECP-1
ECP-1A	Use TIRKS®-ECP-1A
ECP-1B	Use TIRKS®-ECP-1B
ECRS	Enhanced Call Receipt System
EDIMS	Electronic Documentation Information Management System
EDS	Extended Digital Service
EDSX	Electronic Digital Signal Cross-connect
EEC-FAC	Equipment Engineering Center-Facilities
EFAR	Economic Feeder Administration and Relief
EFRAP	Exchange Feeder Route Analysis Program
EFRAP/CFT	Exchange Feeder Route Analysis Prog/Cumulative Fill Tab
EFRAP/TICS	Exchange Feeder Route Anal Prog/Time-Share Cable Size
EFRAP/TIFS	Exchange Feeder Route Anal Prog/TICS Input File System
EFS	Error Free Seconds
EIA	Electronic Industries Association
EICT	Expanded Interconnect Channel Termination
ELAC	Equipment Location Access Code
ELEPL	Equal Level Echo Path Loss

EM	Electronic Mail
EO	End Office
EPIC	(EEPS) Engineering and Planning Interface Construction (Budget)
EPL	Echo Path Loss
EPOC	Engineering Point of Contact
EPRC	Engineering Property Records and Contracting
EPROM	Erasable, Programmable, Read-Only Memory (Chip)
EPS	Engineering and Planning System
ERL	Echo Return Loss
ERMA	Engineering Records Maintenance and Administration System
ERW	Engineering Right-of-Way
ES	Errored Second(s)
ESF	Extended Superframe
ESP	Enhanced Service Provider
ESPD	Equalizer Selection Program for Data
ESSEX	ESS Centrex Service
ESSX	Electronic Switching System Exchange
ESS®	Electronic Switching System
ETN	Electronic Tandem Network
ETV	Educational Television
EU	End-User
EU-POT	End-User Point Of Termination
EWO	Engineering Work Order
EXACT™	Exchange Access Control and Tracking System
F1	Use TIRKS® - F1
FAB	1) Facility Assignment Bureau 2) Field Assistance Bureau
FACS	Facility Assignment and Control System
FACTS	Force And Cost Tracking System
FAD	Functional Accounting Distribution

FADS	Force Administration Data System (SSFS) Forecaster's Analysis and Decision Support
FAP	Facility Analysis Plan
FAX	1) Facilities 2) Facsimile
FC	Function Code
FCC	Federal Communications Commission
FCC	Federal Communications Commission
FCD	Frame Continuity Date
FCO	Foreign Central Office
FCS	Frame Check Sequence
FDDI	Fiber Distributed Data Interface
FDM	Frequency Division Multiplexing
FDP	Fiber Distribution Panel
FDX	Full Duplex
FE	Front End
FECN	Forward Explicity Congestion Notification
FEDC	Facilities Engineering Design Center
FEP	Facility Equipment Planning
FEPS	Facility and Equipment Planning System Use TIRKS®-FEPS
FEPS/PWS	TIRKS®-FEPS/Planning Work Station
FEX	Foreign Exchange
FG	Feature Group (A, B, C, D)
FG 'A'	Feature Group A
FG 'B'	Feature Group B
FG 'C'	Feature Group C
FG 'D'	Feature Group D
FGTS	Federal Government Telecommunications Services
FID	Field Identifier
FLEXCOM™	Flexible Network Control (Formerly FLEX-NET)

FM	Frequency Modulation
FMAC	Facility Management and Administration Center
FMS-F	Force Management System-Facilities
FNPA	Foreign Numbering Plan Area
FOC	Firm Order Confirmation
FOT	Fiber Optic Terminal
FR	Facility Request
FRC	Field Reporting Code
FRS	Frame Relay Service
FSI	Facility System Interface
FTAC	Fiber Technical Assistance Center
FTS	Federal Telecommunication System
FTTC/H	Fiber To The Curb/Home
FV	Flexible Video
FWG	Facility Work Group
FX	Foreign Exchange
GAB	Group Access Bridging
GAC	Group Access Code
GCR	Generic Circuit Record
GDMO	Guidelines for the Description of Managed Objects
GES	Government and Education Services
GHz	Gigahertz
GNM	Generic Network Model
GOC	Generic Order Control (Use TIRKS®-GOC)
GPS	Global Positioning System
GS	Ground Start
GSA	General Services Administration
GTT	Global Title Translations
HCCD	Hub Cross-Connect Device
HCDS	High Capacity Digital Service

HCOM	Host Communication Facility for FLEXCOM
HCTDS	High Capacity Terrestrial Digital Service
HDLC	High Data Link Control
HECIG	Human Equipment Catalog Item Group Code
HECI™	Human Equipment Catalog Item Code
HERTZ	Cycles per Second
HICAP	High Capacity Signal (or HI-CAP)
HSSDS	High Speed Switched Digital Service
Hz	1 Hertz (formerly 1 cycle per second)
I&M	Installation and Maintenance
IABS	Integrated Access Billing System
IAD	Inventory Availability Date
IAL	Immediate Action Limit
IAM	Initial Address Message
IBP	Integrated Business Plan
IC	1) Integrated Circuit 2) Interexchange Carrier (or IEC) 3) Interexchange Common Carrier
IC POP	Interexchange Carrier Point of Presence
IC POT	Interexchange Carrier Point of Termination
IC/IEC	Interexchange Carrier
ICB	Individual Case Basis
ICL	Inserted Connection Loss
ICO	Independent Company Office
ICOCS	Use TIRKS®-ICOCS
ICSC	1) Interexchange Carrier Service Center 2) Interexchange Customer Service Center
ID	Identification
IDC	Information Distribution Company
IDDD	International Direct Distance Dialing
IDLC	Integrated Digital Loop Carrier

IEC	1) Interexchange Carrier (or IC) 2) Interexchange Common Carrier
IEEE	Institute for Electrical and Electronic Engineers
IFCPC	1) Interoffice Facilities/Equipment Current Planning Center 2) Interoffice Facilities Circuit Provisioning Center
IFEC	Interoffice Facilities Engineering Center
IFPC	Interoffice Facilities/Equipment Planning Center
IGRP	Interior Gateway Routing Protocol
IM	Investment Management
IMO	1) Investment Management Operations (PICS) 2) Investment Management Organization
IMTS	Improved Mobile Telephone Service
INC	Integrated Network Corporation
INE	Intelligent Network Element or Equipment
InterLATA	interLocal Access and Transport Area
IntraLATA	intraLocal Access and Transport Area
INWATS	Inward Wide Area Telephone Service
IOC	Inter-Office Channel
IP	Internet Protocol
IPX	Internetwork Packet Exchange
ISDN	Integrated Services Digital Network
ISDNUP	Integrated Services Digital Network User Part
ISI	Industry Support Interface
ISO	International Standards Organization
ISSN	Integrated Special Services Network
ISUP	1) Integrated Services (Digital Network) User Port 2) Integrated Services Digital User Port
ITS	Integrated Test System
ITU	International Telecommunications Union (formerly CCITT)
ITU-T	ITU-Telecommunications sector
IX	Interexchange

kbit/s	kilobits per second (1,000 bit/s)
KCJO	Keep Cost Job Order
kHz	Kilohertz (1,000 Cycles Per Second)
L2_PDU	Level 2_Protocol Data Unit
L3_PDU	Level 3_Protocol Data Unit
LAC	Loop Assignment Center
LAM	Loop Assignment and Makeup
LAN	Local Area Network
LAP	Link Access Procedure
LAPB	Link Access Procedure-Balanced
LAPD	Link Access Procedure D
LASER	Light Amplification by Stimulated Emission of Radiation
LATA	Local Access and Transport Area
LATAWATS	Local Access and Transport Area WATS Provide
LBO	Line Build Out
LBS	Large Business Services
LC	Local Channel
LCAMOS (TRACKER)	Loop Cable Administration & Maintenance Operations System
LCAMOS (PRED)	Loop Cable Administration and Maintenance Operations Systems/Predictor
LCAP	Loop Carrier Analysis Program
LCIE	Lightguide Cable Interconnect Equipment
LCON	Location Contact
LDC	Local Distribution Channel
LDMC	Loop Data Maintenance Center
LDSX	Loop Digital System Cross Connect
LDV	Local Distribution Vendor
LEAD	Loop Engineering Assignment
LEC	1) Local Exchange Carrier 2) Loop Electronics Coordinator

LED	Light Emitting Diode
LEIM	Loop Electronics Inventory Module
LEIP	Loop Electronics Inventory Program
LEIS™	Loop Engineering Information System
LEN	Line Equipment Number
LEWIS	Loop Electronic Warehouse and Installation Service
LFACS	1) Loop Facilities Assignment and Control System 2) Loop Facility Administration Control System
LIDB	Line Information Data Base
LIN	Loop Inter Shelf
LL	Local Loopback
LMCS	Land Mobile Communications Satellite
LMI	Local Management Interface
LMOS	Loop Maintenance Operation System
LMOS/MLT	Loop Maintenance Operations System/Mechanized Loop Testing
LMS	Local Measured Service
LOC	Location
LONAL	Local Off Network Access Line
LPC	Loop Provisioning Center
LRAP	Long Route Analysis Program
LS	Loop Start
LSO	Local Serving Office
M23	M23 multiplexer application
M & P	Methods and Procedures
Ma	Milliamperes (one thousandth of an ampere)
MAC	Major Account Center
MAN	Metropolitan Area Network
MARC	Material Accountability Requisition Control
MAU	Medium Attachment Unit

Mbit/s	Megabit per Second
MBL	Mini-Bridge Lifter
MC	Maintenance Center
MCI	Microwave Communications Inc.
MCO	Maintenance Control Office
MCP	(TIRKS®) Mechanized Circuit Provisioning
MCTAP	Mechanized Cable Trouble Analysis Plan
MD	Manufacture Discontinued
MDF	1) Main Distributing Frame 2) Main Distribution Frame
MDI	Medium Dependent Interface
MDS	Message Design System
MEC	Maintenance Engineering Center
MF	Multifrequency
MFJ	Modification of Final Judgment
MFS	Metropolitan Fiber Systems, Inc.
MFT	Metallic Facility Terminal
MIC	Machine Interface Code
MJU	Multipoint Junction Unit
MLAC	Mechanized Loop Assignment Center
MLT	Mechanized Loop Testing
MMA	Mechanized Mapper Assigner
MODEM	Modulator/DEModulator
MPGP	Mechanized Pair Gain Planning
MPOP	1) Minimum Point Of Presence 2) Main Point of Presence
MR	Maintenance Request
MRSELS	Microwave Radio & Satellite Engineering License
MSAU	MultiStation Access Unit
MSC	Maintenance of Service Charge
MSCR	Mechanized Screen

MSG	Media Service Group
MTAS	Mechanized Trouble Analysis System
MTBF	Mean Time Between Failure
MTF	Metallic Terminal Frame
MTO	Message Trunk Order
MTP	Message Transfer Part
MTR	Material Transfer Report
MTSO	Mobile Telephone Switching Office
MTTR	Mean Time To Repair
MTU	Maintenance Terminating Unit
MU	Market Unit
MUX	Multiplexer
NA	No Access
NAC	Network Administration Center
NANP	North American Numbering Plan
NB	Narrowband
NBD	Normal Business Day
NBEC	Non-Bell Exchange Carrier
NC	Network Channel
NCEO	Non-Conforming End Office
NCI	Network Channel Interface
NCTE	Network Channel Terminating Equipment
NE	Network Element
NEAT	Network Evolution Analysis Team
NECA	National Exchange Carrier Association
NED	Network Electronic Documentation
NEXT	Near-End Crosstalk
NF	Network Facilities
NI	Network Interface
NM	Network Management

NMA	Network Monitoring and Analysis
NMS	Network Management System
NNI	Network-to-Network Interface
NOC	Network Operations Center
NOCC	National Operations Control Center
NOF	Network Operations Forum
NPA	Numbering Plan Area
NPC	Network Produced Causes
NPIAC	Network Plug-In Administration Center
NRC	1) Network Report Center 2) National Release Center
NSEP	National Security/Emergency Preparedness
NSM	Network Service Manager
NST	Nonscheduled Testing
NTAC	National Technical Assistance Center
NTE	Network Transport Element
NTEC	Network Terminal Equipment Center
NTF	No Trouble Found
NUI	Network Unit Inventory
NXX	Numeric Numbering Plan
OAM&P	Operations, Administration, Maintenance and Provisioning
OC	Optical Carrier
OCO/CCO	Overall Control Office/Circuit Control Office
OCS	1) Official Company Services 2) Operations Communications System
OCU	Office Channel Unit
ODAP	Order Design Assign and Provision
OEC	Other Exchange Carrier
OLTE	Optical Light Terminating Equipment
OLTM	Optical Light Terminating Multiplexer
OLTS	Optical Loss Test Set

ONA	Open Network Architecture
ONAL	Off Network Access Line
ONI	Operator Number Identification
OPS	Operations Processing System
OPS/INE	Operations Processing System/Intelligent Network Element
OR	Office Repeater
OSI	Open System Interconnection
OSP/CPR	Outside Plant/Continuing Property Record
OSPDBS	Outside Plant Demand and Facility Data Base System
OSPE	Outside Plant Engineer
OSS	Operations Support System
OSSGR	Operator Services Systems Generic Requirements
OTC	Operating Telephone Company
OTDR	Optical Time Domain Reflectometer
P&E	Planning and Engineering
PAD	Packet Assembler/Disassembler
PAM	Pulse Amplitude Modulation
PBX	Private Branch Exchange
PC	Phone Call
PCL	Product Classification Listing
PCM	Pulse Code Modulation
PDD	Post Dial Delay
PDN	Packet Data Network
PDU	Protocol Data Unit
PEDITE	Use TIRKS®-PEDITE
PF	Program Function
PG	Pair Gain
PIA	Pair Gain Administrator
PIC	Primary Interexchange Carrier
PICS	Plug-In Inventory Control System

PID	Product Identification
PIR	1) Plug-In Request 2) Plug-In Requirement 3) Plug-In Requisition
PL	Private Line
PLAR	Private Line Automatic Ringdown
PLAT	Private Line Access Tariff
PLCP	Physical Layer Convergence Procedure
PLDS	Private Line Digital Services
PLNSC	Private Line Network Service Center
PLS	Private Line Service
PLTS	Private Line Transport Service (Special Access)
PM	Phase Modulation
PM-TA	Performance Monitoring and Test Access
PMOC	Project Management Operations Center
POI	Point Of Interface
POP	Point Of Presence
POS	Point Of Sale
POT	Point Of Termination
POTS	Plain Old Telephone Service
PPSN	Public Packet Switched Network
PREMIS	Premises Information System Premis Information/Loop Assignment Center
PRI	Primary Rate Interface
PRM	Performance Report Message
PROCDS	Programmable Circuit Design System (TIRKS®)
PROMDS	Programmable Message Design System (TIRKS®)
PRS	Primary Reference Signal
PSC	Protection Switching Count
PSD	Protection Switching Duration
PSDS	Public Switched Digital Services
PSI	Packet Switching Interface

PSN	Public Switched Network
PSTN	Public Switched Telephone Network
PTD	Plant Test Date
PVC	Permanent Virtual Connection
PVN	Private Virtual Network
PWS	Planning Work Station
QRSS	Quasi Random Signal Source
RAND	Rural Area Network Design
RASIR	RAdio Systems Information Resource
RBOC	Regional Bell Operating Company
RCC	1) Radio Common Carrier 2) Regional Control Center
RCF	Remote Call Forwarding
RCMAC	Recent Change Memory Administration Center
RDN	Relative Distinguished Names
RDT	Radio Digital Terminal
RDVM	Remote Data/Voice Multiplexer
REC	Radio Engineering Center
REG	Range Extension with Gain
REGIS	Requisition Entry and Generalized Inventory System
RF	Radio Frequency
RFC	Request For Comments
RFS	Request for Service
RID	Record Issue Date
RIP	Routing Information Protocol
RMA	Request for Manual Assistance
RMN	Return Material Notice
RMS	Root-Mean-Square
RMS–D	AT&T Remote Measurement System Digital
RMS–M	AT&T Remote Measurement System Metallic
ROSE	Remote Operations Service Element

RNMC	Regional Network Management Center
RP	Restoration Priority
RPC	Remote Procedure Call
RPL	Restructure Private Line
RPMS	1) Radio Performance Monitoring System 2) Radio Protection Monitoring System
RR	Relay Rack
RRO	Responsible Reporting Office
RSA	Repair Service Attendant
RSC	1) Remote Switching Center 2) Residence Service Center
RSS	Remote Switching System
RSU	Remote Switch Unit
RT	Remote Terminal
RTA	Remote Trunk Arrangement
RTS	Request To Send
S&E	Service and Equipment
S/N	Signal to Noise
SAL	Service Acceptance Limit
SAP	Service Access Point
SARTS	Switched Access Remote Testing System
SARTS/RTS	Switched Access Remote Testing System/Remote Test System
SAS	Switched Access Service
SBS	Satellite Business Systems
SC	Secondary Channel
SCA	Secondary Request-To-Send (Received Channel)
SCB	Secondary Clear-To-Send (Transmitted Channel)
SCC	Switching Control Center
SCCP	Signaling Connection Control Part
SCP	Service Control Point
SCS	Scheduling and Coordination Systems

SDC	System Design Center
SDH	Synchronous Digital Hierarchy
SDDS	Switched Digital Data System
SDLC	Synchronous Data Link Control
SEFS	Severely Errored Frame Seconds
SES	Severely Errored Second
SF	1) Single Frequency (Signaling) 2) Superframe
SHARP	Self-Healing Alternate Route Protection
SHNS	Self-Healing Network Services
SHS	Self-Healing Services
SID	Scheduled Issue Date
SIE	Short Interruption Event
SIEC	Short Interruption Event Count
SLC	Subscriber Loop Carrier
SLM	Subscriber Loop Multiplexer
SMAS	Switched Maintenance Access System
SMASE	System Management Application Service Elements
SMDS	Switched Multi-megabit Data Service
SME	Subject Matter Expert
SMETDS	Standard Message Trunk Design System
SMI	Structure of Management Information
SMS	Service Management Systems
SN56	SwitchNet 56
SNA	System Network Architecture
SNI	Subscriber Network Interface
SNMP	Simple Network Management Protocol
SOAC	Service Order Analysis and Control
SOEC	Service Order Entry Center
SOEC-SS	Service Order Entry Center-Special Services
SOEC/SS	Service Order Entry/Special Services

SOG	Service Ordering Guide
SOLAR	Service Order Logistics and Reference System
SONET	Synchronous Optical Network
SOP	Service Order Processing
SOPAD	Service Order Processing and Distribution
SPOC	Single Point of Contact
SR	Service Request
SRDM	Subrate Data Multiplexing
SRL	Singing Return Loss
SRM	Selective Ringing Module
SRMX	Subrate Multiplexer
SS	Special Services
SS7	Signaling System 7
SSC	Special Service Center
SSDAC	Special Service Dispatch Administration Center
SSF	Special Services Forecast
SSN	Switched Service Network
SSO	Special Service Order
SSP	Service Switching Points
SSSD	Segmented Special Services Design
STARS	Satellite Terrestrial Automated Radio System
STM	Synchronous Transfer Mode
STN	Station
STP	Signal Transfer Points
SUN	Simplified Uniform Network
SVB	Serving Bureau
SVC	Switched Virtual Circuit
SVDS	Simultaneous Voice Data Service
SWC	Serving Wire Center
SWD	Single Word
SYNTRAN	Synchronous Transmission

TAG	Technical Advisory Group
Tc	Measurement Interval
TC	Transport Channel
TCAP	Transaction Capabilities Application Part
TCC	Trunk Control Center
TCIC	Trunk Circuit Identification Code
TCM	Time Compression Multiplexing
TCP	Terminal Control Protocol
TCP/IP	Transmission Control Procedures/Internet Protocol
TCU	Trunk Coupling Unit
TDM	Time Division Multiplexing
TD-n	e.g., TD-2. Long Distance Microwave Relay Transmission System
TEC	Transmission Engineering Center
TEM	Transmission Engineering Module
TEO	Telephone Equipment Order
TES	Terminal End-Section
TEWS	Telecommunications Engineering Work-Bench System (TIRKS®)
TFP	Transfer Prohibited
TGAC	Trunk Group Access Code
TGN	Trunk Group Number
TGSN	Trunk Group Serial Number
TIA	Telecommunications Industry Association
TIC	Tandem Inter-LATA Connection
TIRKS®	Trunks Integrated Record Keeping System
TL	1) Transmission Level 2) Tie Line
TLP	Transmission Level Point
TLS	Transparent LAN Service
TMN	Telecommunications Management Network
TMNA	Telecommunications Management Network Applications
TOC	Table of Contents

TOK	Test OK
TOPS	Traffic Operator Positions System
TRK	Trunk
TSEC	Transmission Staff Engineering Center
TSI	Time Slot Interchange
TT	Translation Type
UAS	Unavailable Second
UDP	User Datagram Protocol
UG	Under Ground
UNI	User-Network Interface
UPDCALC	Update Calculations in CIMAP
USDC	Universal Switched Digital Capability
USO	Universal Service Order
USOC	Universal Service Order Code
VF	Voice Frequency
VLSI	Very Large Scale Integration
VPN	Virtual Private Networks
WA	Work Authorization
WAL	WATS Access Line
WAN	Wide Area Network
WATS	Wide Area Telecommunications Service
WORD	Work Order Record and Details
WOT	Wire and Office Tested
ZBTSI	Zero Byte Time Slot Interchange
ZIP	Zero Interval Provisioning

CONTENTS

Chapter and Section **Page**

3. Glossary

Abstract Syntax Notation One (ASN.1)

The OSI language for describing abstract syntax.

Acceptance (Cooperative) Tests

Those tests performed by QWEST in cooperation with the customer at a pre-negotiated time to establish new or additional services.

Acceptance Limit (AL)

The maximum deviation from a design parameter that is allowed at service turnup or customer acceptance.

Access Code

See carrier access code.

Access Distributed Queue Dual Bus (DQDB)

The process of operating of the DQDB protocol across the SNI.

Access Tandem (AT)

A QWEST switching system that provides a concentration and distribution function for originating or terminating traffic between the QWEST end-offices and an access customer's premises.

Acronym

A word formed from the first (or first few) letters of a series of words.

Actual Measured Loss (AML)

The actual measured insertion loss of a circuit at a given frequency (see Insertion Loss).

Address Signals

Signals used to convey call destination information, such as telephone station code, central office code, and area code. Some forms of address signals are called pulses, e.g., Dial Pulses (DP) and Multifrequency (MF) pulses.

Alarm Indication Signal (AIS)

A signal transmitted in lieu of the normal signal to maintain transmission continuity, and to indicate to the receiving terminal that there is a transmission fault which is located at, or upstream of, the transmitting terminal.

Alternate Billing Service (ABS)

ABS is the validation of calling card, collect, and third number billing services.

Alternate Mark Inversion (AMI)

A one (mark) pulse which is the opposite polarity as its predecessor.

American National Standard Institute (ANSI)

An organization supported by the telecommunications industry to establish performance and interface standards.

Amplitude Response Versus Frequency

The amplitude response of a channel over the bandwidth provided. It is often called frequency response, and commonly is referred to as a single frequency within the pass band.

Amplitude Stability

The amount of change in (pilot) signal levels with time. For pilot signals, a short-term variation occurs in 5 minutes or less; a long-term variation occurs in a period in excess of 5 minutes. Typical examples are radio fading (short-term) or change in cable attenuation with temperature (long-term).

Answer Supervision

An off-hook signal transmitted towards the calling end of a connection when the called party answers.

Appletalk

A suite of communication protocols introduced and maintained by Apple Computer.

ASCII

American Standard Code for Information Interchange. A standard 8-bit information code used with most computers and data terminals.

Asynchronous Transfer Mode (ATM)

An information transfer method in which the information is organized into fixed length (53 octet) cells.

Asynchronous Transmission

Not synchronous: Data transmission in which the time of occurrence of specified significant instant of a data bit (usually the leading edge) is arbitrary, and occurs without necessarily having a fixed time relationship to preceding comparable instants.

Attachment Unit Interface Cable (AUI)

The cable, connectors, and transmission circuitry used to interconnect the Physical Signaling (PLS) and Medium Attachment Unit (MAU).

Attachment Unit Interface Cable (AIC)

The cable/connector assembly which attaches the Medium Attachment Unit (MAU) to the Digital Terminating Equipment (DTE) as shown in IEEE Std. 802.3-1985 Fig. 7-20.

Attenuation Distortion

The change in attenuation with frequency relative to the attenuation at a reference frequency; the reference frequency is 1004 Hz unless otherwise specified.

Audio Transmission

Denotes the transmission of speech or music within the audible spectrum.

Automatic Gain Control (AGC)

The process by which gain is automatically adjusted in a specified manner as a function of input or other specified parameters.

Automatic Number Identification (ANI)

The process of identifying the number of the calling station during a call sequence. Depending on the application, these digits may represent a directory number or billing number.

Automatic Protection Switch (APS)

A device which monitors a channel and automatically switches the channel to another facility whenever the channel fails or when specified parameters go beyond a specified threshold.

Availability

The relative amount of time that a service is "usable" by a customer, represented as a percentage over a consecutive 12 month period.

Balance (Longitudinal Balance)

See Longitudinal Balance

Balance (100 -Type) Test Line

Equipment in a Central Office that provides a reference impedance termination on a line for balance and noise tests on the line.

Bandwidth

The range of frequencies that contain most of the energy or power of a signal; also, the range of frequencies over which a circuit or system is designed to operate.

Basic Encoding Rules (BER)

The OSI language for describing transfer syntax.

BAUD

A unit of signaling speed. It is the reciprocal of the time duration in seconds of the shortest signal element (binary 1 or 0) within a code signal. The rates specified are the number of signal elements per second.

Bc - Committed Burst Size (bits)

The maximum amount of subscriber data that the network agrees to transfer, under normal conditions, during a time interval Tc.

Be - Excess Burst Size (bits)

The maximum amount of uncommitted data in excess of Bc that the network will attempt to transfer during a time interval Tc.

Binary *n*- Zero Substitution (B*n*ZS)

Binary *n*- Zero Substitution is an application of BPRZ, and is an exception to the Alternate Mark Inversion (AMI) line-code rule. It is one method for providing bit independence for digital transmission, by providing a minimum 1s density of 1 in *n*-bits. For DS3, *n*=3; for DS1, *n*=8; for 56 kbit/s service, *n*=7, and for subrates, *n*=6. The rule of B*n*ZS is:

- Successional binary 1s (Marks) will be of opposite polarity (AMI) unless they are separated by *n* consecutive binary zeros, in which case the *n* 0s will be replaced by an *n*-bit byte containing 1s, having or causing, an intentional bipolar violation (bpv).
- For example in B6ZS, if the preceding binary 1 was +, then binary 100000011 is transmitted as signal voltage values: -000+0+-+ (the B6ZS byte is underlined). Assume the leftmost bit is transmitted first.
- In the decoding process, the B*n*ZS signature is recognized and replaced by an all zero *n*-bit byte.

Bipolar Violation (BPV)

An unexpected violation (not a predetermined signature) of the Bipolar Alternate Mark Inversion (AMI) line-code rule. A violation is declared for AMI if two successive pulses have the same polarity if the bipolar violation is not part of an intentional byte used for special control, e.g. BnZS.

Bipolar With 8 Zero Substitution (B8ZS)

Bipolar 8 Zero Substitution is an application of BPRZ and is an exception to the Alternate Mark Inversion (AMI) line-code rule. It is one method for providing bit independence for digital transmission by providing a minimum 1's density of 1 in 8 bits.

Bit (Binary Digit)

A binary unit of information. It is represented by one of two possible conditions, such as the value 0 or 1, on or off, high potential or low potential, conducting or not conducting, magnetized or demagnetized. A Bit is the smallest unit of information, by definition.

Bits/second (bit/s)

Bits per second, e.g., 1200 bps. In data transmission, it is the number of binary zero and one bits transmitted in 1 second. Modern terminology uses "bit/s" e.g., 1200 bit/s.

Bit Error Rate (BER)

The ratio of the number of bit errors to the total number of bits transmitted in a given time interval.

Bridging (Multipoint Service)

Denotes the process of connecting three or more customer locations.

Buffer Threshold Value (BTV)

This value represents the buffer capacity allocated, at any given instant in time, for each congested Frame Relay Port.

Byte

A consecutive number of bits usually constituting a complete character or symbol. If the length of the byte is not specified, it is conventionally assumed to have a length of 8-bits. In the Digital Data System, a byte refers to an arbitrary group of 8 consecutive bits; it does not correspond to a byte of customer data.

C-Message

A frequency-weighting characteristic used for measuring noise in voice frequency communications circuits and designed to weight noise frequencies in proportion to their perceived effect in telephone service.

C-Message Noise

Denotes frequency weighted average noise which takes into consideration the electrical/acoustical properties of the 500-type telephone set and the human ear.

C-Notched Noise

Denotes the C-message frequency-weighted noise on a voice channel with a holding tone, which is removed at the measuring end through a notch (very narrow band) filter.

Call

The sequence of events begun when an end-user makes a request for service and provides an address code, and concluded when communication between the end-users has terminated.

Call Attempt

Denotes the act of an end-user or customer provided equipment (CPE) providing the complete number (e.g. 0, 911, or 10 digits) using accepted network supervisory and address signaling protocols to the serving dial-tone central office.

Called Number

The called number is the telephone number originally dialed by the calling party.

Carrier (CXR)

An organization whose function is to provide telecommunications services. Examples are: Local Exchange Carriers, Interexchange Carriers, Cellular Carriers, etc.

Carrier Access Code (CAC)

The sequence an end-user dials to obtain access to the switched services of a carrier.

Carrier Detect

An E1A-232 interface control signal that indicates to an attached Data Terminal Equipment (DTE) device that the modem is receiving a signal from a remote modem.

Carrier Sense Multiple Access with Collision Detection (CSMA/CD)

Carrier Sense Multiple Access with Collision Detection is a method of controlling access to a shared transmission path, particularly in local area networks.

Category I

Special Access Services that are equivalent to the services that are defined in Part 68.2(a)(2) of the FCC Rules and Regulations.

Category II

Special Access Services not covered by Part 68 of the FCC Rules and Regulations. These services include those access services where protection is incidentally supplied in the normal provision of the service.

Category III

Special Access Services that are equivalent to the services that are defined in Part 68.2(a)(3) of the FCC Rules and Regulations.

Consultative Committee on International Telephone and Telegraph (CCITT)

An abbreviation for Consultative Committee on International Telephone and Telegraph; an international standards group now known as the International Telecommunications Union (ITU).

CCS

A hundred call seconds. This is a standard unit of traffic load that is equal to 100 seconds of usage.

CDVM

An abbreviation for the data/voice multiplexer located in the central office.

Central Office (CO)

A local switching system (or a portion thereof) and its associated equipment located at a wire center.

Central Office Connecting Channel (COCC)

A tariff rate category which provides for connections, within the same Hub wire center, between the Private Line Transport Channel and other services provided by QWEST. See FCC #1 for more information.

Centralized Automatic Message Accounting

Centralized Automatic Message Accounting is an arrangement that provides for the recording of detailed billing information at a centralized location other than an end office, usually a tandem office. CAMA equipment also may be associated with position systems, desks, etc.

Centralized Automatic Reporting On Trunks (CAROT) Testing

A type of testing that includes the capacity for measuring operational and transmission parameters.

Channel

An electrical or photonic, in the case of fiber optic based transmission systems, communications path between two or more points of termination.

Channel, Program

A one-way electrical or photonic, in the case of fiber optic based transmission systems, communications path between one point and one or more other points.

Channel Service Unit (CSU)

This unit provides regeneration of the signal received from the network, controls the pulse shape and amplitude for transmission of the signal into the network, and possibly provides loop-back. The CSU function is frequently found within a Data Service Unit (DSU).

Channel Transmission Parameter

Denotes an objective, which expresses the performance of a one-way or two-way path.

Channelize

The process of multiplexing-demultiplexing channels using analog or digital techniques.

Character

Letter, numeral, punctuation, control figure or any other symbol contained in a message.

Clear Channel Capability (CCC)

A characteristic of a transmission path in which the bit positions allocated for customer data may represent any combination of zeroes and ones.

Clear to Send

An EIA or CCITT defined interface control signal that indicates to the Data Terminal Equipment (DTE) whether or not the Data Communications Equipment (DCE) is ready to accept data from the DTE.

Closed End

The end of a switched service which transmits address signals.

CODEC

Equipment that converts an analog signal into a digital signal (binary format) and which may compress the information content so that less bandwidth is required for transmission compared to the original signal format. Conversely, the decoder part converts the digital signal back into an analog signal and may provide for expansion of the signal.

Committed Information Rate (CIR) bit/s

The rate at which the network agrees to transfer information, under normal conditions, during a time interval Tc.

Common Channel Signaling (CCS)

A signaling method in which a single channel conveys, by means of labeled messages, signaling information relating to a multiplicity of circuits or calls and other information, such as that used for network management. CCS is defined as a dedicated network for transporting signaling messages. The primary components of the network are STPs, signaling end points (including service control points and service switching points) and data links. The two basic types of CCS signaling are: 1) circuit-associated signaling, to support trunk signaling for call control; 2) and non-circuit associated signaling, to handle the exchange of queries and responses between CCS Switching Offices and data bases (SCPs) or between two CCS Switching Offices. This is also known as TCAP message routing.

Common Line

A line, trunk, pay telephone line, or other facility provided under the general and/or local exchange service tariffs of QWEST Communications, Inc., terminated on a local switching system and which may be used to make and/or receive exchange service calls, intra-LATA message service calls, inter-LATA message service calls or international calls.

Conditioning

Denotes an enhancement to the transmission performance of a voice band channel. Parameter(s) affected are attenuation distortion, envelope delay distortion and noise.

Customer Premises Equipment (CPE)

Equipment owned and maintained by the customer and located on their side of the End-User Point of Termination (EU-POT) network interface.

Customers

Denotes any individual, partnership or corporation who subscribes to the services provided by QWEST Customers are divided into two distinct and separate categories: (1) carriers, who provide interexchange services for hire for others, and (2) end-users, who request services only for their own use.

Customer Installation (CI)

Equipment and wiring at the customer's location on the customer side of the Network Interface.

Customer Interface

The interface with a customer at a point of termination.

Customer Premises

Denotes a building or portion(s) of a building occupied by a single customer or end-user either as a place of business or residence. Adjacent buildings and the buildings on the same continuous property occupied by the customer and not separated by a public thoroughfare, are also considered the customer's premises.

Customer Premises Equipment (CPE)

All telecommunication equipment located at a customer's location.

Customer Provided Equipment (CPE)

Equipment owned and maintained by the customer and located on their side of the End-User Point Of Termination (EU-POT) network interface. In the QWEST Digital Data Service application, CPE typically includes the DSU (CSU/DSU) and data terminal equipment which are connected to the channel.

Customer Specified Premises Levels

The customer may specify both transmit and/or receive levels within ranges as delineated in various technical publications.

Cyclic Redundancy Check (CRC)

A method of checking the integrity of received data, where the check uses a polynomial algorithm based on the content of the data.

Data Communications Equipment (DCE)

The equipment that provides the functions required to establish, maintain and terminate data transmission connections; e.g., a modem, as well as the signal conversion and coding required for communications between data terminal equipment and data circuit.

Data Enhancement (End-Link, Mid-Link Applications)

This option provides improved attenuation distortion requirements and establishes limits for envelope delay distortion, phase jitter, and intermodulation distortion.

Data Link

The Data Link provides the electrical connection between a customer's terminal equipment, from the Network Interface and the fiber transmission facilities to a QWEST Serving Wire Center.

Data Link (DL) - ESF

The overhead portion of a DS1 Clear Channel that may be used for carrying performance and control information across the network. This portion requires 4 kbit. In addition, framing requires 2 kbit, and Cyclic Redundancy Check requires 2 kbit.

Data Link Connection Identifier (DLCI)

The DLCI is located within the address field of a frame relay packet, and is used to identify each PVC.

Data Service Unit (DSU)

Digital, customer premises equipment used to recover timing from a baseband BPRZ signal, and which converts from BPRZ line signals to a business machine interface signal such as V.35. At 64 kbit/s and below, DSU and Channel Service Unit (CSU) functions are, in modern equipment, combined in a single unit sometimes called a General Service Unit (GSU), Basic Service Unit (BSU) or Data Service Unit-A (DSU-A) so that it is part of the Data Communications Equipment (DCE). Above 64 kbit/s, DSU functions are frequently contained in the Data Terminal Equipment (DTE). The DSU usually contains circuitry to recognize, and respond to, loop-back commands from the serving test center.

Data Set Ready (DSR)

An EIA or CCITT defined interface control signal that indicates to the Data Terminal Equipment (DTE) whether the Data Communications Equipment (DCE) is ready to transmit or receive data.

Data Terminal Equipment (DTE)

A generic term for customer terminal equipment that connects to the network through a modem or through digital Network Channel Terminating Equipment (NCTE), e.g., a computer or a PBX.

Data Terminal Ready (DTR)

An EIA or ITU (formerly CCITT) defined control signal that indicates to the Data Terminal Equipment (DTE) that the Data Communications Equipment (DCE) is ready to transmit or receive data.

Data Transmission (107-Type) Test Line

An arrangement that provides for a connection to a signal source providing test signals for one-way testing of data and voice transmission parameters.

DATAPHONE® Select-A-Station (DSAS)

Denotes a switched voice band private line data system designed to allow a single master station to communicate with a number of remote stations one at a time. The system enables point-to-point voice band connection between the master station at the customer premises and each remote station. Direct transmission between remote stations is not possible, nor is simultaneous communication from the master station to more than one station.

The following terms are used for the DATAPHONE® Select-A-Station:

Access Line

Denotes the communications path between component stations of the DATAPHONE® Select-A-Station system, obtained through private line access channels.

Automatic Step Sequential

Denotes a version of the Select-A-Station service which is designed to automatically poll remote stations in fixed sequence at fixed time intervals.

Controlled Step Sequential

Denotes a version of the Select-A-Station which is designed for continuous in-service control of connection time to each remote station by means of a signal sent from the master station.

Data Station Selector (DSS)

Denotes a switching device located in QWEST Central Office (CO) having the capability of making connections between a 4-Wire outward transmission port and up to 128 output ports, either 2-Wire or 4-Wire, one at a time, either automatically or under the control of the customer's master station.

dBm

A decibel in which the reference power is one milliwatt.

dBrn

A unit used to express noise power relative to one picowatt (-90 dBm).

dBrn (f_1,f_2)

Noise power in dBrn measured over the frequency band from f_1 to f_2 without weighting (flat).

dBrn 15 kHz

Noise power is dBrn weighted according to a 15 kHz flat weighting network defined in ANSI/IEEE Standard 743-1984.

dBrnC

Weighted noise power in dBrn measured by a noise measuring set with C-Message weighting.

dBrnC0

Weighted noise power in dBrnC referred to or measured at a zero transmission level point (0 TLP).

DC Channel

A Direct Current (DC) Channel is an unconditioned 2-Wire channel with DC continuity capable of transmitting low speed varying signals at rates up to 30 baud. It is also capable of providing a two-point circuit for control of a transfer arrangement, control of a relay, or a similar contact closure.

DDS End Office

A central office which provides all DDS Hub functions except for subrate multiplexing and bridging functions.

DDS Hub

A Hub, identified in the FCC #4 (NECA) tariff, used to provide multiplexing, test access, cross-connecting and bridging functions for QWEST Digital Data Service (DDS) or DDS like services.

Decibel (dB)

A unit measurement of transmission loss, gain, or relative level. It is the logarithmic unit of signal power ratio most commonly used in telephony. It is used to express the relationship between two signal powers, usually between two acoustic, electrical, or optical signals; it is equal to ten times the common logarithm of the ratio of the two signal powers.

Demarcation Point

See Network Interface

Demultiplexing

The opposite of multiplexing. That is, the multiplexer combines signals and the demultiplexer takes them apart again. Also see Multiplexing.

Destination Address

An 8-octet field contained within the Level 3 Protocol Data Unit, which identifies a specific end point of the destination SNI.

Dial Pulse (DP)

A means of signaling consisting of regular momentary interruptions of a direct or alternating current path at the sending end in which the number of interruptions corresponds to the value of a digit or a character. The interruptions are usually produced by a rotary telephone dial, but may be produced by a sender switching system.

Dialed Number Identification Service (DNIS)

An optional feature offered for WALs that enables trunk-side termination of the WAL and includes 4-digit outpulsing of an identification number to the end-user. This 4-digit outpulsing allows an end-user having a single service group, with multiple 800 numbers, to identify which 800 number was dialed.

Digital Connectivity

Denotes central offices or customer premises that are connected with digital transport facilities.

Digital Cross-connect System (DCS)

An intelligent (processor controlled) digital terminal that provides the capability to perform electronic cross-connects on digital channels operating at or below the bit rate of the transport systems terminated on the unit. The unit may also provide other features, e.g., bridging.

Digital Data Hub

A QWEST designated serving wire center at which bridging, multiplexing, test access, cross-connecting functions are performed.

Digital Data Service (DDS)

Generically describes digital data service offering at 64 kbit/s and below.

Digital Hierarchy Level

The level in the digital hierarchy. The levels and the respective bit rates are:

Level	Bit Rate	
DS0	64.	kbit/s
DS1	1.544	Mbit/s
DS1C	3.152	Mbit/s
DS2	6.312	Mbit/s
DS3	44.736	Mbit/s
DS4NA	139.264	Mbit/s
DS4	274.176	Mbit/s

Digital Island

Two or more central offices connected with digital interoffice transport facilities that have no digital connectivity beyond these offices.

Digital Loop Carrier (DLC)

A digital transport facility used to carry circuits or channels on part of all of the loop between the serving wire center and the customer's location. Copper or fiber is normally used as the transport medium.

Digital Reference Signal (DRS)

The digital representation of a 1004 Hz tone at 0 dBm0.

Digital Test Access Unit+ (DTAU)

Equipment interposed in the DS1 bit stream providing access to the DS0 and DS1 bit stream for testing and performance monitoring capabilities.

Digital Transmission Facilities

May include both loop and interoffice facilities which perform multiplexing, demultiplexing, and transport of digital signals between the SS Exchange Termination and the Subscriber Access Termination.

Discard Eligibility (DE) Indicator bit

A single bit located within the address field of a frame relay packet, which is used to indicate that a frame should be discarded in preference to other frames during a frame discarding process.

Disconnect Supervision

A change of state on a circuit from off-hook (busy) to on-hook (idle). This change may be initiated by the originating or the terminating end-user.

DS0A

A DS0 signal that carries data for only one signal.

DS0B

A DS0 signal that carries data multiplexed from several subrate signals.

DS1 Clear Channel

Denotes that 1.535 Mbit/s of a 1.544 Mbit/s DS1 facility are available for customer information. The remaining 8 kilobits, or overhead, are for error correction, framing, and network performance/status/information.

Dual Tone Multifrequency Signaling (DTMF)

A signaling method that employs signals consisting of two sinusoidal voice frequency components, one from a group of four low frequencies and the other from a group of four high frequencies.

E & M Signaling Arrangements

Denotes a method of transmitting supervisory information between a switching machine or an end-user and a signaling system.

Echo Control

The control of reflected signals in a telephone channel.

Echo Path Loss (EPL)

The echo path loss, in decibels, is the difference between the incident and reflected signal powers.

Echo Return Loss (ERL)

The weighted average of the return losses of all frequencies between 560 and 1965 Hz.

Effective 2-Wire

A channel consisting of a single electrical path capable of voice grade transmission in both directions, but not simultaneously, and which is 2-Wire at the points of termination.

Effective 4-Wire

An effective 4-Wire channel is comprised entirely of 4-Wire facilities. The channel may be terminated as 2-Wire or 4-Wire at the end-user. The termination at the Interexchange Carrier Point Of Termination (IC POT) must be 4-Wire. When terminated as 2-Wire it is not possible to ensure independent information transmission simultaneously in both directions.

Embedded Operations Channel (EOC)

Use of some bits in the bit stream of a transport system for maintenance purposes.

Encryption

A process of encoding and decoding information so that it is not easily decipherable by unintended recipients.

End Office

A designation of a QWEST switching system that occupies the lowest level of the public switched network hierarchy. It is the designation of a switching system that connects lines to lines, and lines to trunks (a local switching system).

End Office Switch

The term "End Office Switch" denotes a QWEST switching system where local exchange Services are terminated for purposes of interconnection to trunks. Included are Remote Switching Modules and Remote Switching Systems served by a host office in a different wire center.

End-User (EU)

The term "End-User" denotes any customer of telecommunications service that is not a carrier, except that a carrier shall be deemed to be an "end-user" to the extent that such carrier uses a telecommunications service for administrative purposes without making such service available to others, directly or indirectly. The term is frequently used to denote the difference between a Carrier interface and an interface subject to unique regulatory requirements at non-Carrier customer premises (FCC Part 68, etc.).

End-User POT (EU-POT)

The Network Interface at the end-user's premises at which QWEST's responsibility for the provision of service ends.

Enhanced Services

As defined by the FCC, enhanced services are any services offered over common carrier transmission facilities that employ computer processing applications that act on the format, content, code, protocol or similar aspects of the subscriber's transmitted information; that provide the subscriber with additional, different or restructured information; or involve customer interaction with stored information. Examples of enhanced services include videotex, voice storage and retrieval, on-line business information, on-line travel information, electronic mail and protocol conversion in connection with packet switching service.

Enhanced Services Provider (ESP)

A business that provides enhanced services by using the ONA services made available by regulated telecommunications providers; also refers to interexchange carriers and resellers that act as ESPs.

Entry Switch

See first point of switching.

Envelope Delay Distortion (EDD)

A measure of the linearity of the phase-verses-frequency characteristic of a channel.

Equal Level Echo Path Loss (ELEPL)

The measure of echo path loss at a 4-Wire interface which is corrected by the difference between the transmit and receive Transmission Level Points (TLPs).

$$ELEPL = EPL - TLP_{transmit} + TLP_{receive}$$

Equalization

The process of correcting frequency and/or phase distortion of a circuit by the introduction of networks to compensate for the difference in attenuation and/or time delay at the various frequencies in the transmission band.

Error Correction - DDS

Error correction is a technique used with "dataport" provisioning methods to improve transmission quality. The subrate DS0A dataport signal contains multiple copies which are used to employ a "voting" scheme to minimize errors. The use of error correction above the 19.2 kbit/s rate requires a second DS0 channel.

Error Free Second (EFS)

A one-second interval which does not contain any bit-errors. Usually expressed as a percent over a consecutive 24-hour period.

Errored Second (ES)

A one second interval with one or more bit errors.

Note: A period of no signal shall be considered a period of errored bits.

Ethernet

A packet-switched local network design (by Xerox Corp.) employing CSMA/CD as access control mechanism.

Exchange

A unit established by QWEST for the administration of communications service in a specified geographic area that usually embraces a city, town, or village and its environs.

Exchange Access SMDS (XA-SMDS)

XA-SMDS is an access service provided by a LEC to an IC to support the IC's interexchange SMDS when the sending or receiving End-User (EU) is served directly by the LEC network.

Exchange SMDS

Exchange SMDS refers to End-Users (EU) service directly by LEC(s) communicating using SMDS in the exchange serving area, or Local Access and Transport Area (LATA). The LEC offers the service to the End-User. The SNI is used.

The calculated value of loss at a given reference frequency that one would expect to measure between two specified test points with the proper terminating impedance.

Extended Superframe (ESF) Format

An Extended Superframe consists of twenty-four consecutive DS1 frames. Bit one of each frame (the F-bit) is time shared during the 24 frames to describe a 6 bit frame pattern, a 6 bit Cyclic Redundancy Check (CRC) remainder, and a 12 bit data link. The transfer rate of each is 2 kbit/s, 2 kbit/s, and 4 kbit/s respectively.

Facilities

Facilities are the transmission paths between the demarcation points serving customer locations, a demarcation point serving a customer location and a QWEST Central Office, or two QWEST offices.

Feature Group (FG)

A Feature Group defines for Switched Access Service the type of connection to a QWEST switching system (i. e., line side or trunk side) and the access-calling pattern (e.g., 950-0XXX, 950-1XXX, 10XXX, NXX-XXXX).

Fiber Optic Terminal (FOT)

The terminating or originating portion of a fiber optic system that performs both an electrical to optical conversion and a multiplexing function.

First Point of Switching (FPOS)

The first QWEST location at which switching occurs on the terminating path of a call proceeding from the Point Of Termination (POT) to the terminating end-user; or the last QWEST location at which switching occurs on the originating path of a call proceeding from the originating end-user to the Interexchange Carrier Point Of Termination (IC POT).

Flow Control

The function of managing the rate at which data is received/transmitted by a receiver/transmitter.

Frame Relay Access Link

A Frame Relay access channel used to access the designated geographical QWEST Frame Relay Service Serving Area.

Frame Relay Module

A plug-in of a Frame Relay Node/Concentration Node which contains multiple Frame Relay Ports.

Frame Relay Port

A termination point on the Frame Relay Module for the FRS Access Link(s).

Frame Relay Fractional Port

A termination point for a fractional channel comprised of contiguous 56/64 kbit/s channels that are provisioned within a FRS 1.544 Mbit/s Access Link.

Free (Unframed) Format

A non-standard use of the first bit in each DS1 frame, such that a synchronization pattern is either not transmitted or is held private by the user. Performance monitoring by a Carrier is not possible when framing is not evident. Free framing is not offered except to the Department of Defense.

Frequency Shift

The change in frequency of a tone as it is transmitted over a channel.

Frequency-Shift Keying (FSK)

A form of frequency modulation in which the modulating wave (often a binary signal) shifts the output frequency between predetermined values and the output wave has no phase discontinuity.

Full Duplex (FDX)

Simultaneous transmission in both directions between two points.

Gain/Frequency Characteristic

The change, plus or minus, in insertion loss or gain of a channel at specified frequencies.

Global Title

An address such as customer dialed digits which does not explicitly contain information that would allow routing in the signaling network, i.e., the SCCP translation function (Global Title Translation), is required.

Grandfathered

Denotes certain services offered to existing customers only.

Group Address Screen

Group Address Screen is used for screening destination addresses of protocol data units originating by the CPE.

Half-Duplex

Transmission in either direction between two points, but not simultaneously.

Half-Duplex Operation

Capability of transmitting and receiving signals, but only in one direction at a time.

Headroom

The difference, in dB, between the operating level and the overload level.

Hub

A QWEST designated serving wire center at which bridging and multiplexing functions are performed. See also Digital Data Service (DDS) Hub.

Immediate Action Limit (IAL)

The bound of acceptable performance and the threshold beyond which QWEST will accept a customer's trouble report and take immediate corrective action.

Impedance Balance

A measure of the degree of equality of the two impedances that are connected to the two conjugate ports of a hybrid set (or equivalent circuit).

Improved Echo Control at the 2-Wire POT Option

The Improved Echo Control 2-Wire option provides an upgraded return loss limit at the 2-Wire Point Of Termination (POT). This option is applicable for effective 2-Wire configurations.

Improved Echo Control at the 4-Wire POT Option

The improved echo control 4-Wire option provides an upgraded Equal Level Echo Path Loss (ELEPL) limit at the 4-Wire Point Of Termination (POT). This option is applicable for effective 4-Wire configurations.

Improved Termination Option

Provides the ordered impedance (nominally 600 ohms at 1kHz), a wide range of transmission level points (-16 to +7.0) and simplex reversal (when applicable) at the Point Of Termination (POT).

Impulse Noise

Any momentary occurrence of the noise on a channel significantly exceeding the normal noise peaks. It is evaluated by counting the number of occurrences that exceed a threshold.

Individual Address Screen

Individual Address Screens is used for screening destination addresses of Protocol Data Units (PDUs) originating by the CPE, and source addresses of PDUs delivered to the CPE.

Individual Case Basis (ICB)

Denotes a condition in which rates and charges for an offering are developed based on the circumstances in each case.

Inserted Connection Loss (ICL)

This term denotes the 1004 Hz power difference (in dB) between the maximum power available at the originating end, and the actual power reaching the terminating end through the inserted connection.

Insertion Loss

Insertion loss is the ratio (expressed in dB) of the power delivered to a specified load at the receiving interface by a specified source at the transmitting interface to the power delivered by the same source directly to an identical load.

Intelligent Network Element (INE)

A software programmable network component.

Integrated Services Digital Network (ISDN)

A network providing or supporting a range of telecommunications services that provides digital connections between end-users.

InterConnecting Networks (ICN)

Two independent networks which connect to each other.

Interexchange Carrier (IC)/(IEC) or Interexchange Common Carrier

Any individual, partnership, association, joint-stock company, trust, governmental entity or corporation engaged for hire in interstate or foreign communication by wire or radio, between two LATAs.

Interface Code

See Network Channel Interface

Integrated Services Digital Network (ISDN)

A network providing or supporting a range of telecommunications services that provides digital connections between end-users.

Interior Gateway Routing Protocol (IGRP)

An interior gateway protocol developed by Cisco Systems to exchange routing information within an autonomous system.

Intermodulation Distortion

A measure of the nonlinearity of a channel.

International Telecommunications Union (ITU)

An international standards group formerly know as the Consultative Committee on International Telephone and Telegraph.

Internetwork Packet Exchange (IPX)

Novell's Layer 3 protocol that is similar to IP, and is used in NetWare networks.

Inter-Ring Link

The Inter-Ring Link (formerly called the Transport Channel) provides for the fiber transmission facilities between QWEST Serving Wire Centers.

IRE Unit

A unit equal to 1/140 of the peak-to-peak amplitude of the video signal, which is typically one volt. IRE is an acronym for Institute of Radio Engineers, the organization which defined the unit.

Isochronous Transmission

A transmission process in which there is always an integral number of unit intervals between any two significant instants. The transmission is characterized by a constant pulse rate, a constant time interval, or multiples thereof between voltage or electromagnetic field intensity transitions, and a gating by a controlled clock.

Jitter

Random timing distortions of a digital signal, whereby the appearance of a pulse differs from where the pulse should occur relative to time.

Key Activated Transfer Arrangement

An arrangement that allows the customer to transfer a leg of a Private Line Transport Service to either a spare or working channel that terminates in either the same or a different customer premises. A key activated control service is required to operate the transfer arrangement.

Key Pulse

Key Pulse signal indicates the start of a field of information.

Kilobit/Second (kbit/s)

One thousand (1000) bits/second

Layer 1

Physical Layer. Provides the transparent transmission of bit streams between systems including relaying through different media.

Layer 2

Data Link Layer. Provides the transfer of software between directly connected systems and detects any errors in the transfer. Establishes, maintains and releases software data links; handles error and flow control.

Layer 3

Network Layer. Provides routing and relaying through intermediate systems. Also handles segmenting, blocking, error recovery, and flow control.

Layer 4

Transport Layer. Provides the transparent transfer of software between end systems. Handles end-to-end control, multiplexing, and mapping.

Layer 5

Session Layer. Provides administration and control sessions between application processes and manages their data.

Layer 6

Presentation Layer. Provides representation, interpretation, format and code transformation of information communicated between or referred to by application processes. MEDIACC uses standard ASN.1 representations for all messages and data communicated remotely. It uses standard presentation encoding, decoding, and transfer syntaxes.

Layer 7

Application Layer. Provides a window between application processes in order to exchange meaningful information. Performs management functions.

Line

The transport facility (cable pair or carrier channel) between the Central Office and Network Channel Interface.

Line Information Data Base (LIDB)

The LIDB contains originating line, billing number and terminating line call treatment status. The LIDB is used for Alternate Billing Service calls and, in U S WEST, the LIDB provides the listed directory name used in Calling Name Delivery (CNAM).

Line-Side Connection

Denotes a connection of a transmission path to the dial tone side of a switching system.

Line-Type Connection

Denotes a connection between a station at a customers premise and a Central Office (CO). These are connected on the dial tone side of the CO.

Link Access Procedure for Modems (LAP-M)

An error correction procedure defined in CCITT Recommendation V.42-1988.

Loaded Cable

Inductance, in the form of "Load Coils," is placed on longer metallic cables to improve the cable's voice transmission performance.

Local Access and Transport Area (LATA)

A geographic area for the provision and administration of communications service. It encompasses designated exchanges that are grouped to serve common social, economic and other purposes.

Local Area Network (LAN)

Network permitting the interconnection and intercommunication of a group of computers, primarily for the sharing of resources such as data storage devices and printers.

Local Exchange Carrier (LEC)

The regulated entity providing Access and IntraLATA services.

Local Switching System

A switching system that connects lines to lines, and lines to trunks. It may be located entirely at one wire center, or may be geographically dispersed as in some host-remote configurations.

Local Tandem Switch

A QWEST switching system that connects trunks to trunks.

Longitudinal Balance (Longitudinal-to-Metallic)

The Longitudinal balance of any circuit is an expression, in dB, of the ratio of the longitudinal voltage (E_1) to the metallic voltage (E_m): Balance (dB) =20 $_{log}$ (E_1/E_m) where E_1 is the voltage measured "tip and ring to ground", and E_m is the voltage measured across the tip and ring.

Loop Signaling

Loop signaling uses a DC path, or loop, to convey address and supervisory signaling information.

Loopback

An out-of-service test procedure applied to a full duplex channel that causes a received signal to be returned to the source.

Loss Deviation

The variation of the actual loss from the designed value.

McCulloh Loop Signaling

Denotes a three state signaling format which provides a contact closure to the tip and ring of the Point Of Termination (POT) during the normal state. During an alarm state a momentary open is provided. During the signaling state a series of grounded pulses are applied to the POT for the termination for identification purposes.

Master Station

Denotes the equipment located on the customer's premises which controls communications between the master station and remote stations.

Mastergroup

A bandwidth allocation in frequency-division multiplexed systems that provides for 600 (or 10 supergroup) voice bandwidth channels. This allocation generally occupies several MHz of bandwidth.

Medium Attachment Unit (MAU)

The portion of the physical layer between the Medium Dependent Interface (MDI) and Attachment Unit Interface (AUI) that interconnects the trunk coaxial cable to the branch cable and contains the electronics which send, receive, and manage the encoded signals impressed on, and recovered from, the trunk coaxial cable. Shown in IEEE Std. 802.3, 1992 Edition, Figure 8-1.

Medium Dependent Interface (MDI)

The mechanical and electrical interface between the trunk cable medium and the Medium Attachment Unit (MAU).

Medium Interface Connector

A connector at which all transmitted and received signal specifications shall be met.

Megabit per Second (Mbit/s)

One million (1,000,000) bits per second

Metallic Facilities

A facility that consists of continuous metallic conductors, i.e., devoid of electronic enhancements that would corrupt Direct Current continuity.

Milliwatt (102-Type) Test Line

Denotes an arrangement in a QWEST office which provides a 1004 Hz tone at 0 dBm for one way transmission measurements toward the customer.

Modulator/DEModulator (Modem)

A contraction formed from the words modulator and demodulator to describe electronic equipment having both of these capabilities. A modem is a Data Communications Equipment (DCE) device to convert a business machine interface, e.g. RS232, to voice band signals suitable for transmission over a telecommunications channel.

Multicast

When applied to the QWEST Frame Relay Service, the functionality which supports the transport of multiple duplicate frames from a single location to multiple end-user locations within the QWEST Serving Area.

Multifrequency Pulsing

Multifrequency pulsing is information communicated over telephone trunks by various combinations of two of five frequencies in the voiceband. Signals for control functions are provided by combinations using a sixth frequency.

Multifrequency (MF) Signaling

An interoffice signaling method in which a combination of two out of six voice band frequencies are used to represent a digit or a control signal.

Multiplex

See multiplexer

Multiplexer (MUX)

An equipment unit to multiplex, or do multiplexing: Multiplexing is a technique of modulating (analog) or interleaving (digital) multiple, relatively narrow bandwidth channels into a single channel having a wider bandwidth (analog) or higher bit-rate (digital). The term Multiplexer implies the demultiplexing function is present to reverse the process so it is not usually stated.

MultiStation Access Unit (MSAU)

The Wiring Concentrator used to star-wire the physical ring in a Token Ring LAN. Provides the capability of isolating a faulty station from the ring.

NTSC (National Television Systems Committee) Signal

The standard North American television transmission signal format intended for the transmission of 525 line/60 field color or monochrome video and associated audio signals.

Network Channel (NC) Code

The Network Channel (NC) code is an encoded representation used to identify both switched and non-switched channel services. Included in this code set are customer options associated with individual channel services, or feature groups and other switched services.

Network Channel Interface (NCI) Code

The Network Channel Interface (NCI) code is an encoded representation used to identify five (5) interface elements located at a Point of Termination (POT) at a central office or at the Network Interface at a customer location. The Interface code elements are: Total Conductors, Protocol, Impedances, Protocol Options, and Transmission Level Points (TLPs). (At a digital interface, the TLP element of the NCI code is not used).

Network Control Signaling

The transmission of signals in the telecommunications system that perform functions such as supervision (control, status, and charge signals), address signaling (e.g. dialing), calling and called number identifications, rate of flow, service selection, error control, and audible tone signals (call-progress signals indicating reorder or busy conditions, alerting, coin denominations, coin-collect and coin-return tones) to control the operation of the telecommunications system.

Network Interface (NI)

The point of demarcation on the customer's premises at which QWEST's responsibility for the provision of service ends.

Network Operations Forum (NOF)

A national committee of users, suppliers, and regulators, with the purpose of developing procedures and processes to enhance the communications arena.

North American Numbering Plan (NANP)

Denotes a numbering scheme which includes a three-digit (Numbering Plan Area) code and a seven digit telephone number which consists of a three-digit Central Office (CO) code plus a four digit station number.

National Television Systems Committee (NTSC) Signal

The standard North American television transmission signal format intended for the transmission of 525-line/60 field color or monochrome video and associated audio signals.

Octet

An eight (8) bit byte

Ohm

The unit of electric resistance.

Off-Hook

The supervisory state indicative of the active (in use) condition.

On-Hook

The supervisory state indicative of the idle condition.

Open End

The end of a switched service from which dial tone is drawn.

Open Systems Interconnection (OSI)

A seven-layer network architecture being used for the definition of network protocol standards to enable any OSI-compliant computer or device to communicate with any other OSI-compliant computer or device for a meaningful exchange of information.

Operator Services Systems Generic Requirements (OSSGR)

Is a comprehensive compilation of requirements and objectives, that, in the view of Bell Communications Research, Inc. (Bellcore), meet typical Bell Operating Company (BOC) operator services call handling needs. The requirements may be used by suppliers as a resource for their development of operator services systems. The OSSGR may also be used as a basis for analyzing operator systems developed by suppliers.

Optical Carrier (OC)

Optical carrier, the nomenclature for the line rate of the optical transmission signal described in this document.

Optical Interface (OI)

The OI is the transmit point wherein light waves move away from the interface toward an optical receiver.

Out-of-Frame Occurrence

Terminal equipment transition when failures are detected in four successive framing tests.

Packet

A unit of data, consisting of binary digits including data and call-control signals, that is switched and transmitted as a composite whole.

Packet Switched Network

A switched network which provides connection for forwarding standard data packets between user parties.

Parity

A coding scheme that adds a bit so that the total of all "one" or "mark" bits in an array will always be either even (even parity) or odd (odd parity). This permits detection of bit groups that contain single errors. It may be applied to characters or blocks.

Parity Check

The process of checking received data to determine if the correct parity has been received. If the total of "one" or "mark" bits is not odd or even, depending on the system being used, an error has occurred.

Phase Difference, Stereo

The phase difference at a given frequency between one channel of a stereo pair, used as a reference, and the other.

Phase Jitter

Intermittent, random displacements in time of digital bits, from their ideal placement in time.

Physical Signaling (PLS)

That portion of the physical layer, contained within the Data Terminal Equipment (DTE) that provides the logical and functional coupling between Medium Attachment Unit (MAU) and Data Link Layers. Shown in IEEE Std. 802.3-1985 Figure 8-1.

Plain Old Telephone Service (POTS)

An abbreviation for Plain Old Telephone Service such as single line residential and business service.

Point of Presence (POP)

A physical location within a LATA at which an Interexchange Carrier (IC) establishes itself for the purpose of obtaining LATA access and to which QWEST provides access service.

Point of Termination (POT)

The physical telecommunications interface that establishes the technical interface, the test point(s), and the point(s) of operational responsibility. (See Network Interface.)

Point-To-Point

A circuit connecting two (and only two) points.

Port

A place at which energy or signals enter or leave a device, circuit, etc.

Premises

Denotes a building or portion(s) of a building occupied by a single customer or end-user either as place of business or residence.

Presubscription

The process that permits each end-user (EU) served from an equal-access end-office switching system to route automatically, without the use of access codes, all the EU's inter-LATA calls to one Interexchange Carrier (IC) of the EU's choice. The EU may also gain access to other ICs by using appropriate access codes (e.g., 10XXX).

Primary DSAS

Denotes the data station selector located in QWEST Central Office (CO) connected directly by an access line to the elector Control Unit (SCU) at the master station.

Private Branch Exchange (PBX)

A switching system that provides internal telephone communications between stations located on a customer's premises as well as between these stations and exterior networks.

Private Line Automatic Ringdown (PLAR)

Denotes a two-point or multipoint channel with QWEST Communications International Inc. provided signaling at a serving wire center. Either end of the channel can originate a seizure which will cause a 20 Hz ringing signal to be applied to the remote end until answered. The customer must identify primary and remote stations.

Protocol

The rules for communication system operation which must be followed if communication is to be effected; the complete interaction of all possible series of messages across an interface. Protocols may govern portions of a network, types of service, or administrative procedures.

Protocol Code

The Protocol (character positions 3 and 4 of the Network Channel Interface [NCI] Code) is a two-character alpha code that defines requirements for the interface regarding signaling and transmission.

Protocol Data Unit (PDU)

An International Standards Organization (ISO) term referring to a packet of information exchange between two entities via a protocol.

or

A unit that is exchanged between peer entities within a particular layer.

or

A data object exchanged by protocol machines, usually containing both protocol control information and user data.

Public Safety Answering Point

Public Safety Answering Point (PSAP) is an agency or facility designated by a municipality to receive and handle emergency 911 calls.

Pulse Amplitude Modulation (PAM)

Modulation in which the modulating wave is caused to amplitude modulate a pulse carrier.

Pulse Code Modulation (PCM)

A type of modulation wherein the waveform of each channel is sampled many times per second in sequence. The amplitude of each sample is then encoded into a binary code and transmitted to the distant end where the pulse train is decoded and distributed to each channel in the exact time sequence to reproduce the original waveform of the channel.

Received Line Signal Detector

An EIA or CCITT defined interface control signal that indicates to the Data Terminal Equipment (DTE) that the attached Data Communications Equipment (DCE) is receiving a signal from a remote DCE.

Registered Equipment

Denotes customer premises equipment which complies with and has been approved within the Registration Provisions of Part 68 of the FCC's Rules and Regulations.

Request to Send (RTS)

An EIA or ITU (formerly CCITT) defined interface control signal that indicates the Data Terminal Equipment (DTE) has data to transmit, and conditions the Data Communications Equipment (DCE) to transmit data to the network.

Return Loss

Denotes a measure of the similarity between the two impedances at the junction of two transmission paths. The higher the return loss, the higher the similarity.

Reverse Battery

The switch, during setup and ringing, places -48v on ring, ground on tip. When the called party goes off-hook, the condition is reversed (i.e., -48v on tip, ground on ring).

Ring Indicator

An EIA or ITU (formerly CCITT) defined interface control signal which indicates to the Data Terminal Equipment (DTE) that a ringing signal is being received on the communications channel.

Ringer Equivalence

A numeric indicator which is an inverse function of on-hook impedance and resistance, called the Ringer Equivalence Number (REN). All registered terminal equipment which can affect on-hook impedance and resistance are assigned a REN. The sum of all such REN's on a given telephone line shall not exceed 5, but may be fewer depending on the ringing voltage source and the facility serving the line. (FCC Part 68.312)

Routing Information Protocol (RIP)

An interior gateway protocol used to exchange routing information within an autonomous system.

Secondary DSS

Denotes the Data Station Selector in a QWEST Central Office (CO) connected in tandem to a primary DSS. A secondary DSS is advantageous in serving geographic clusters of remote stations.

Selector Control Unit (SCU)

Denotes equipment located at the customer's premise which serves as the interface between a customer's master station and the telephone facilities for the purposes of facility cut-through, exchanging digital control signals with the customer and converting them to appropriate format for transmission to Data Station Selector.

Service Acceptance Limit (SAL)

The maximum deviation from a design parameter that is allowed at service turnup or customer acceptance.

Service Code (A COMMON LANGUAGE® code set)

A coded designation by which a particular Special Service Circuit may be identified. This designation must be unique, in a form that is readable and understandable, and be acceptable for both manual and mechanized procedures. (Special Service, as used by COMMON LANGUAGE®, may be called "Private Line", "Private Line Transport", "Switched Specials", "Dedicated Access", "Special Access", etc. in various tariffs and technical publications. Special Service is actually: COMMON LANGUAGE® Circuit Identification - Special Service, [abbreviated CLCI™ - S/S]).

Service Control Point (SCP)

Serves as signaling nodes for access to data base information. Signaling messages usually consist of a query from any switch (End Office, Access Tandem, or Operator Services System, all of which can be SSPs) to a data base. The message is routed first to the STP which then forwards it to the SCP for access to the data base. The reply is passed from the SCP back to the STP which routes it back to the originating switching office.

Service Switching Point (SSP)

Can be End Offices, Tandems, or Operator Services Switches that have CCS and SS7 capability. SSPs serve as "control points" for data base query services by suspending call processing while accessing SCP data bases to obtain information required to complete the call. 800 and Calling Card calls must be routed to an SSP office for access to the appropriate data base.

Service Terminating Arrangement

Equipment furnished by QWEST that is utilized for the termination of USWC provided Access Service. This equipment provides a clearly delineated interface that facilitates the design, isolation and testing of the Access Service where the service is connected with customer provided communications systems.

Serving Wire Center (SWC)

The term "Serving Wire Center" denotes a QWEST Central Office from which dial tone for the Local Exchange Service would normally be provided to the demarcation point on the property at which the customer is served.

Seven-Digit Manual Test Line

An arrangement that enables the customer to select balance, milliwatt and synchronous test lines by manually dialing a seven-digit number over the associated access connection.

Severely Errored Second (SES)

A one second interval having a Bit Error Ratio of 10^{-3} or worse

Short-Circuit Test Line

An arrangement in a central office that provides for an AC short-circuit termination of a trunk or line by means of a capacitor of a least four microfarads.

Short Interruption Event (SIE)

An event beginning with the occurrence of a BER of 10^{-2} or worse continuously for three or more consecutive seconds, which can last up to 120 seconds. A SIE clears when 10 consecutive seconds with BER better than 10 occur.

Note - The "10^{-2} BER continuously" over each second implies that all sub-intervals, where the second is divided into at least 10 equal sub-intervals, have a BER of 10^{-2} or worse.

Short Interruption Event Count (SIEC)

A count of the Short Interruption Events in a given time frame (e.g, one month).

Signal-To-C-Notched Noise Ratio

The ratio, in decibels, of a test signal to the corresponding C-notched noise.

Signal-To-Noise Ratio (S/N Ratio)

The ratio of the signal power to the noise power at a given point in a given system (usually expressed in decibels).

Signaling

The transmission of information to establish, monitor, or release connections and/or provide Network Control.

Signaling Link Codes (SLC)

A field of information in certain signaling network management messages, which indicates the identity of the affected signaling link to which the message refers.

Signaling Point (SP)

A node in a signaling network which either originates and receives signaling messages, or transfers signaling messages from one signaling link to another, or both.

Signaling Point of Interface (SPOI)

An interface in a signaling network which either originates and receives signaling messages, or transfers signaling messages from one signaling link to another, or both.

Signaling Transfer Point (STP)

A signaling point with the function of transferring signaling messages from one signaling link to another and considered exclusively from the viewpoint of the transfer. STPs are stored program control packet switches, which are inter-connected with other nodes in the signaling network by digital datalinks. The STPs perform a switching function to route signaling traffic within the signaling network.

Simplex Reversal Option

The Simplex Reversal Option physically turns over the simplexed DC path presented at the 4-Wire Point Of Termination (POT).

Simplex Signaling

Signaling in which two conductors are used for a single channel using a center-tapped coil, or its equivalent, at both ends.

Singing Return Loss (SRL)

The frequency-weighted measure of return loss at the edges of the voice band (260 to 500 Hz and 2200 to 3400 Hz), where singing (instability) problems are most likely to occur. (See IEEE Std. 743-1984, Table 10, for SRL low and Table 11 for SRL high).

Single Frequency Signaling (SF)

The use of a voice frequency tone (between 300 and 3300 Hz), keyed on and off, to transport dial pulse signaling, on-hook and off-hook supervision, or a combination of signaling and supervision over a carrier channel or 4-Wire metallic facility.

Slope (Also Three-Tone Slope or Gain Slope)

The loss at 404 and 2804 Hz relative to that at 1004 Hz.

SONET

See Synchronous Optical Network.

SONET Optical Terminal (SOT)

A terminal which uses SONET multiplexing to interleave the lower rate payloads, thereby creating a high rate synchronous signal.

Source Address

An 8-octet field contained within the Level 3_ Protocol Data Unit (L3_PDU) which identifies a specific end point of the originating SNI.

Special Access Service

A service that provides a transmission path within a LATA to directly connect a Point Of Termination (POT) to an end-user premises or to another POT.

Stand Alone Access Link

An access link which is used to provide access to other service provider(s) frame relay network.

Start Bit

In asynchronous transmission, the first bit in a character, normally a space, which prepares the receiving equipment for the reception and registration of the character.

Start Pulse

Start Pulse signal indicates the end of a field of information.

Stop Bit

In asynchronous transmission, the last bit of a character, normally a mark condition, which serves to return the line to its idle or rest state.

Stored Program Control (SPC)

A switching system comprised of a set of instructions within computer memory specifying operations to be performed which expands the capability of the system to selectively route traffic.

Subscriber Network Interface (SNI)

The point at which CPE interfaces to the network supporting SMDS.

Subsystem Number (SSN)

A number to identify a user of the Signaling Connection Control Part (SCCP). The SSN is used in SCCP addressing to route an SS7 message to the appropriate subsystem at the destination node, such as 800 service at an SCP or CLASS^{SM} services application at an end office SP.

Superframe Format (SF)

A superframe consists of 12 consecutive DS1 frames. Bit one of each frame (the F-bit) is used to describe a 12-bit framing pattern during the 12 frames.

Supergroup

A bandwidth allocation in frequency-division multiplexed systems that provides for 60 (5 groups) voice bandwidth channels.

Supervision

The function of initiating a call request, holding a connection, or releasing a connection.

Sustained Information Rate (SIR)

The SIR refers to the rate of transfer of user information that CPE could sustain over long periods using that particular Access Class. The limits on the rate of information transfer are each defined by a set of parameters that is the basis for enforcement by the SS.

Switched Access Service (SAS)

A service that provides a 2-point electrical communication path within a LATA between a customer's Point Of Termination (POT) and a QWEST end office and/or access tandem switch. Paths are capable of the transmission of voice and associated telephone signals within the frequency bandwidth of approximately 300 to 3000 Hz.

Switched Multi-megabit Data Service (SMDS) Access Class Data Rate

The SIR (Mbit/s) associated with a particular SMDS Access Class.

Switched Multi-megabit Data Service (SMDS) Access Connection

Allows for the transfer of information between Customer-provided compatible SMDS equipment and the ACS Network.

Switched Multi-megabit Data Service (SMDS) Data Unit

A packet which contains Customer information. Each data unit contains both the source address that identifies the originating Subscriber Network Interface and the destination address that identifies the SNI of the intended recipient.

Switched Multi-megabit Data Service (SMDS) Group Address

An address type of a set of individual address associated with one or more Subscriber Network Interfaces (SNI's).

Switched Multi-megabit Data Service (SMDS) Individual Address

An address type of a specific end point of a SNI.

Switched Multi-megabit Data Service (SMDS) Trunk

Trunk side connection to the SMDS Node.

Switched Services Network (SSN)

Private switching networks, which may have switch nodes at customer premises and in Central Offices, that use Private line channels and Central Office (CO) trunks and access lines to switch calls between customer locations. Modern SSN PBX's and CO switches use stored program control.

Switching System Exchange Termination

Termination [integrated into the Central Office (CO) Switching System] which implements SMDS Interface Protocol (SIP) Level 1 to format and transport the SIP Level 2 PDUs and SIP Level 1 Control Information across the Subscriber Network Interface (SNI).

Synchronous Optical Network (SONET)

Synchronous Optical Network (SONET): A standard providing electrical and optical specifications for the physical and higher layers, the first stage of which is at 51.84 Mbit/s, the Optical Channel 1 (OC1) level. Other rates, defined as OCn where n=3 through a number not yet firm, are possible.

Synchronous Test Line

An arrangement in a central office that performs marginal operational tests of supervisory and ring-tripping functions.

Synchronous Transmission

A transmission process such that between any two significant instants in the overall bit-stream there is always an integral number of unit intervals.

System Network Architecture (SNA)

IBM reference model.

Tc - Committed Rate Measurement Interval(s)

A time interval for which the subscriber's committed information rate is measured. The formula used to calculate Tc is: Tc=Bc/CIR.

Time Compression Multiplexing (TCM)

A process of interleaving two or more bit streams. As defined for the SVDS application, the TCM is used to transfer the signaling plus data information by alternately time interleaving bursts of data in the transmit and receive directions (sometimes called Ping-Pong scheme).

Token Ring

A local network access mechanism and topology in which a token is passed from station to station in sequential order. Stations wishing to transmit must wait for the token to arrive before transmitting data. Throughout this document, the term "Token Ring" is used interchangeably with the IEEE Std. 802.5-1992 Edition.

Transfer Arrangement

An arrangement that affords the customer an additional measure of flexibility in the use of their Private Line Transport channel(s). The arrangement can be utilized to transfer a leg of a Private Line Transport Service to another channel that terminates in either the same or a different customer designated premises. A key activated control channel will be used to operate the transfer arrangement and will be rated as a Low Speed Data Channel Service. The Key will be located at the customer's premises and will be provided by the customer.

Transmission Control Protocol/Internet Protocol (TCP/IP)

Internetworking software suite originated on the Department of Defense's Arpanet network. IP corresponds to Open Systems Interconnection (OSI) network Level 3, TCP to OSI Layer 4 and 5.

Transmission Level Point (TLP)

A point in a transmission system at which the ratio, usually expressed in decibels, of the power of a test signal at that point to the power of the test signal at a reference point, is specified. For example, a zero transmission level point (0TLP) is an arbitrarily established point in a communication circuit to which all relative levels at other points in the circuit are referred.

Transmission Measuring (105-Type) Test Line/Responder

An arrangement in a central office that provides far-end access to a responder and permits two-way level, noise and return loss measurements to be made on trunks from a near-end office.

Transmission Path

Denotes a path capable of transporting signals within the range of the service offering. A transmission path is comprised of physical or derived facilities consisting of any form or configuration of plant typically used in the telecommunications industry.

Transmission Service Channel

A one-way transmission path between two designated points.

Transparent LAN Service (TLS)

A basic transport element designed to extend islands of Local Area Networks (LANs) across a limited geographic area (within a LATA and a single Wire Center).

Transparent

In communication systems, that property which allows transmission of signals without changing their electrical characteristics or coding beyond the specified limits of the system design.

Trunk

A communications path connecting two switching systems in a network, used in the establishment of an end-to-end connection.

Trunk Coupling Unit (TCU)

A physical device that enables a station to connect to a trunk cable. The TCU contains the means for inserting the station into the ring or, conversely, bypassing the station.

Trunk Group

A set of trunks that are traffic engineered as a unit for the establishment of connections between switching systems in which all of the communications paths are interchangeable.

Trunk-Side Connection

Denotes the connection of a transmission path to the non-dial tone side of a local exchange switching system.

Token Ring

A local network access mechanism and topology in which a token is passed from station to station in sequential order. Stations wishing to transmit must wait for the token to arrive before transmitting data.

Two-Wire to Four-Wire Conversion

Denotes an arrangement which converts a 4-Wire transmission path to a 2-Wire transmission path to allow a 4-Wire facility to connect to a 2-Wire entity.

Uniform Service Order Code (USOC)

The term "Uniform Service Order Code" denotes a three or five-character alphabetic, numeric, or an alphanumeric code that identifies a specific item of service or equipment. Uniform Service Order Codes are used in QWEST billing system to generate recurring rates and nonrecurring charges.

Violation Monitor Removal (VMR)

Removes all violations such that BP violations do not propagate beyond the maintenance span.

Voice Grade (VG)

A term used to describe a channel, circuit, facility or service that is suitable for the transmission of speech, digital or analog data or facsimile, generally with a frequency range of about 300 to 3000 Hz.

Voice Band

Relating to the frequency spectrum from 300 to 3000 Hz.

Volume Unit (VU)

The unit of measurement for electrical speech power and other complex waveforms as measured by a VU meter in the prescribed manner. 0 VU equals 0 dBm, that is 1 mW, in measurements of sinusoidal wave test tone power.

Wide Area Telecommunications Service (WATS)

This type of service permits an end-user to make calls to selected inter-LATA or intra-LATA regions for a fixed monthly charge. A form of WATS called inward WATS permits callers within specified geographic regions to call the inward WATS customer without incurring a charge.

Wire Center

A building in which one or more central offices, used for the provision of local exchange services, are located.

X.25

Packet level messaging protocol. Consists of five classes of optional facilities.

X.25 Protocol

ITU (formerly CCITT) protocol recommendation which specifies how user data terminal equipment should interface with data circuit-terminating equipment for packet-switched networks. Includes Open System Interconnection (OSI) layers 1-3 functionality.

Zero Byte Time Slot Interchange (ZBTSI)

A method of providing DS1 Clear Channel Capability using the Extended Superframe (ESF) format and Alternate Mark Inversion (AMI) line code. See ANSI T1.107-1988.

CONTENTS

Chapter and Section **Page**

4. Ordering Information

All documents are subject to change and their citation in this document reflects the most current information available at the time of printing. Readers are advised to check status and availability of all documents.

Those who are not QWEST employees may order;

American National Standards Institute (ANSI) documents from:

American National Standards Institute
Attn: Customer Service
11 West 42nd Street
New York, NY 10036
Phone: (212) 642-4900
Fax: (212) 302-1286

ANSI has a catalog available which describes their publications.

Bellcore documents from:

Telcordia Customer Relations
8 Corporate Place, PYA 3A-184
Piscataway, NJ 08854-4156
Fax: (908) 336-2559
Phone: (800) 521-CORE (2673) (U.S. and Canada)
Phone: (908) 699-5800 (Others)

International Telecommunications Union documents may be ordered from:

International Telecommunications Union
General Secretariat
Place des Nations, CH-1211
Geneva 20, SWITZERLAND

QWEST Technical Publications are available from:

http://www.qwest.com/techpub

Ordering information for Employees of QWEST Communications International Inc.

http://emedia.uswc.uswest.com/

Central Distribution Center
1005 17th St. S-30
Denver, CO 80202
303-896-9446
303-965-8652 Fax

CONTENTS

Chapter and Section **Page**

5. Trademarks

AccessNode	Registered Trademark of Northern Telecom, Inc.
AQCB	Registered Trademark of QWEST Communications International Inc.
AQCB	Registered Trademark of QWEST Communications International Inc.
Canvas	Trademark of Deneba Software
CENTRON	Registered Service Mark of QWEST Communications International Inc.
Claris	Registered Trademark of Claris Corporation
CLASS	Service Mark of Bell Communications Research, Inc.
CLCI	Trademark of Bell Communications Research, Inc.
CLEI	Trademark of Bell Communications Research, Inc.
CLFI	Trademark of Bell Communications Research, Inc.
CLLI	Trademark of Bell Communications Research, Inc.
COMMON LANGUAGE	Registered Trademark of Bell Communications Research, Inc.
Dataphone Digital Service	Registered Trademark of AT&T Technologies, Inc.
DID	Registered Service Mark of QWEST Communications International Inc.
DIGICOM	Registered Service Mark of Pacific Northwest Bell Telephone Company
DIGIPAC	Registered Service Mark of QWEST Communications International Inc.
DMS	Registered Trademark of Northern Telecom, Inc.
EXACT	Trademark of Bell Communications Research, Inc.
FLEXCOM	Trademark of Bellcore
IABS	Registered Service Mark of QWEST Communications International, Inc.
IABS	Registered Service Mark of QWEST Corporation
INTELLIMUX	Service Mark of Bell Atlantic
MacDraw	Registered Trademark of Claris Corporation
Macintosh	Registered Trademark of Apple Computer, Inc.

Magellan DPN	Registered Trademark of Northern Telecom, Inc.
MEDIACC	Registered Trademark of QWEST Communications International Inc.
Microsoft	Registered Trademark of Microsoft Corporation
MOUNTAIN BELL	Registered Trademark of QWEST Communications International Inc.
NMA	Trademark of Bellcore
NORTHWESTERN BELL	Registered Trademark of QWEST Communications International Inc.
Oracle	Registered Trademark of Oracle Corporation
OSCA	Trademark of Bellcore
PACIFIC NORTHWEST BELL	Registered Trademark of QWEST Communications International Inc.
QWEST®	Registered Trademark of QWEST Communications International Inc.
SEAS	Trademark of Bell Communications Research, Inc.
Shipley Associates	Registered Trademark of Shipley Associates
SWITCHNET 56	Registered Service Mark of QWEST Communications International Inc.
TIRKS	Registered Trademark of Bell Communications Research, Inc.
TRANSPARENT LAN	Service Mark of QWEST Communications International Inc.
TUXEDO/T	Registered Trademark of Novell, Inc.
UNIX	Registered Trademark of Novell, Inc.
Voice Dialing	Service Mark of QWEST Communications International Inc.
Windows	Trademark of Microsoft Corporation