Dialogic

Dialogic® Converged Services Platform

Glossary

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c) product integration testing;

d) on-site assistance; or

e) product documentation updates.

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Glossary

µ-Law
PCM and companding standard used in North America and Japan to compress and expand the amplitude range of a signal before and after transmission. See A-Law

64 CCC
64 Kbps Clear Channel Capability

A

A-Law
PCM and companding standard used in Europe to compress and expand the amplitude range of a signal before and after transmission. See µ-Law.

AAA
Authentication, Authorization, and Accounting. A suite of network security services providing the framework to set up access control.

Access Link
A link that connects a SP or SCP to its serving STP or STP pair. Provides ACCESS into the signaling network.

ACK
Positive acknowledgment to a message

Address Element
The information in an AIB that follows the header, down to the data field. An AIB can have one or more Address Elements. AEs correspond to Span, Channel, and SS7 Link.

Address Information Block
AIB. A standardized block that allows address data to be inserted in a standard way into API messages.

Adjacent Point Code
The point code of the node adjacent to “own node” (SS7)

Advanced Intelligent Network
AIN. Also referred to as IN. Network that can affect the routing of the call and the originator or receiver of the call can inject intelligence and affect the flow of their call. Generally implemented using SS7 protocol. See SS7.

AF
See Atomic Function.

AIB
See Address Information Block.

AIN
See Advanced Intelligent Network.

ANI
See Automatic Number Identification.

ANSI
American National Standards Institute. ANSI administers and coordinates the U.S. voluntary standardization and conformity assessment system for the telecommunications industry. More details on these standards may be viewed at www.ansi.org.

Application Programming Interface
API. Software application that carries out low level services performed by the CSP. It is comprised of standard software interrupts, calls, and data formats used by the application programs.

ARQ
Admission Request

AS
See Application Server.

ASCII
American Standard Code for Information Interchange

ATM
Asynchronous Transfer Mode

Atomic Function

AF. A predefined PPL software routine that performs a single, simple task, such as "Transmit Line Signaling" or "Allocate Digit Buffer." It is composed of standard software interrupts, calls, and data formats used by applications. Each AF has two values named "Arguments." AFs 1-50 are generic, and apply to all PPL components. AFs 51 and above apply to specific components. An AF is called "Atomic" because it is the smallest useful unit in PPL.

Automatic Call Distributor

Automatically distributes the incoming or outgoing calls for a business.

Automatic Number Identification

ANI. This feature allows a host to request the call originating number (calling party number) from networks that support Automatic Number Identification such as AT&T MultiQuest.

B

B Channel

Bearer channel, 64Kbps (ISDN) The channel that carries the actual payload (as opposed to D-channels, which carry signaling data that helps route the payload).

B8ZS

Bipolar with 8-Zero Substitution. Coding method used with Clear Channel signaling to allow true 64Kbps channel data transmission speeds. See also ZBTSI.

Base Station

Radio and control equipment located at a cell site within a cellular network. It may include receivers, transmitters, transceivers, antennas (transmit/receive), and any required support equipment.

Basic Rate Interface

BRI. 2B+1D, 144 Kbps Available for customer use, interface for personal/small business use (ISDN), (2x64Kbps)+(1x16Kbps).

Binary 8 zero substitution

A line coding method.

B-ISDN

Broadband ISDN

Bit 7 zero suppression

A line coding method that provides for the elimination of non-significant zeros from a numeral.

BLA
Blocking Acknowldgment message

BOC
Bell Operating Company

Bong Tone
Tone commonly used to indicate additional action is required by the caller, such as dialing more digits (for example, entry of personal ID number).

BOOTP
Boot protocol for TCP/IP

bps
Bits Per Second

BRA
Basic Rate Access - 2B, 1D (ISDN)

BRI
See Basic Rate Interface.

C

CSA
See Converged Services Administrator.

Cadence
Pattern of tones and silence, such as a busy signal.

Call
Point-to-point multimedia communication between two H.323 endpoints.

Call Control
Setting up, monitoring, and tearing down calls.

Call Control Instructions
Specific use of data bytes in an EXS API message to specify instructions used to control Inseize and Outseize for a channel. See *Application Programming Interface*.

Call Detail Record
CDR. An electronic record of a call containing all data used for billing.

Call Progress Tone
A tone sent to the caller indicating the progress of the call. Examples include dial tone, busy tone, ringback tone, and comfort noise (digital cellular).

Call Signaling Channel
Reliable channel used to convey call setup messages following Q.931.

CAS
See Channel Associated Signaling.

CCITT
Comité Consultatif Internationale de Telephonique et Telegraphique (now ITU)

CCR
Continuity Check Request message (ISUP)

CCS
See Common Channel Signaling.

CDMA
Code Division Multiple Access

CDR
See Call Detail Record.

Centralized Multipoint Conference
A call in which all participating terminals communicate in a point-to-point fashion with an MCU.

CEPT
Conference of European Postal and Telecommunications administrations

Channel Associated Signaling
CAS. Signaling in which the signals necessary to switch a given circuit are transmitted via the circuit itself or via a signaling channel permanently associated with it.

Channel Bank
A device typically used in T1 applications. It converts analog voice into digital code, such as PCM, and combines 24 such signals into a single DS-1 signal (such as TDM, and vise versa.

CI
See Controlled Introduction.

CIC
See Circuit Identification Codes.

Circuit Identification Codes
CICs. Identify the voice circuits controlled by SS7 Signaling Links.

Clear Channel
Signaling technique where the full channel bandwidth is used for data transmission, while the framing and control bits (signaling) use a separate channel. No control or signaling is performed on this path. See *B8ZS* and *ZBTSI*.

CLEC
Competitive Local Exchange Carrier. A telecommunications carrier that typically competes with larger, more established carriers.

Client
In SIP, an application program that sends SIP requests (See also Session Initiation Protocol). Clients may or may not interact directly with a person. Users agents and proxies contain clients (and servers).

Cluster
A grouping of nodes in a network (as defined by point code), usually grouped by geographical region.

CODEC
Coder/Decoder. A CODEC converts voice signals from their analog form to digital signal acceptable to modern digital transmission systems.

Combined Link Set
A "soft" grouping of link sets, defined as being part of the same route to a destination, limited to 32 actual links.

Common Channel Signaling
CCS. Network architecture using SS7 protocol for the exchange of information between telecommunications nodes and networks on an out-of-band basis.

Controlled Introduction
CI. A software and/or hardware release to a limited amount of customers.

Converged Services Administrator
CSA. GUI-based tool used to configure, provision and monitor a CSP related to, for example, SIP, H.323, and VDAC Resouce Attributes.

Converged Services Platform
An Internet Protocol enhanced service node that supports the deployment of voice and data services in circuit, packet, and converged networks. The Converged Services Platform (CSP) features an open and multi-functional platform design that enables developers to quickly create and deliver new revenue-generating services for both legacy and next-generation networks.

CPE

Customer Premises Equipment. Terminating equipment, such as fax machines, telephones, and modems connected to the telephone company network.

D

D4

A bit framing standard for traditional time-division multiplexing, which standard describes user channels multiplexed onto a trunk that has been segmented (framed) into 24 bytes of 8 bits each. *Note:* The multiplexing function is performed in the D-4 framing structure by interleaving bits of consecutive bytes as they are presented from individual circuits into each D-4 frame.

DCE

Data Communications Equipment. According to the RS-232-C standard, DCE devices are typically modems or printers. See DTE.

D Channel

Data channel. One of two fundamental components of an ISDN interface, it provides a path (16Kbps for BRI, 64Kbps for PRI) for carrying control signals and call data in a packet-switched mode.

Demultiplex

A process that recovers distinct individual channels from a multiplexed signal.

Decentralized Multipoint Conference

A conference in which the participating terminals multicast to all other participating terminals without an MCU.

DHCP

Dynamic Host Controlled Protocol

Dial Peer

An addressable call endpoint. In Voice over IP (VoIP), there are two types of dial peers: Plain Old Telephone Service (POTS) and VoIP.

DNIS

Directory Number Information Service

DNS

Domain Name Server (or Service). Used to convert H.323 IDs, URLs, and e-mail IDs to IP addresses. DNS is also used to help find remote gatekeepers and to reverse-map raw IP addresses to host names of administrative domains.

DPC
Destination Point Code

DS-0
Digital Signal level 0. DS-0 is a 64 Kbps channel

DS-3
Digital Signal level 3. DS-3 is 44.378 Mbps (672 - 64 Kbps VF channels)

DSP
Digital Signal Processor

DTE
Data Terminal Equipment. According to the RS-232-C standard, DTE devices are typically personal computers or data terminals. See DCE.

DSX
Digital Signal cross(X) - connect patch panel - manual patch panel that primarily serves as a test access point for DS-1 signals

Dual-Tone Multi-Frequency
DTMF. Method by which the digits (0-9) and symbols (* and #) are generated from a handset, represented by two tones, one high and one low frequency (touchtone dialing).

E

E1
A digital communications link - voice, data, and video at a 2.048 Mbps rate; 30B/2D or 31B/1D (ISDN); non-North American version of T1.

E.164
Address format for ISDN networks. The international public telecommunications numbering plan. A standard set by ITU-T for addressing telephone numbers. See ITU Recommendation E.164 (1991).

Ear & Mouth
Interface signaling commonly used to interconnect switching signaling systems with transmission signaling systems.

End Office
The switch that connects end users to the network. Also known as a “Central Office."

Endpoint
An H.323 terminal or gateway, or MCU. An endpoint can call and be called. It generates and/or terminates the information stream.

ESF
Extended Super Frame

Ethernet
The protocol used in most local area PC networks. Typically, most Ethernet networks support data transmission speeds up to 10 Mbps, but 100 Mbps is also possible.

ETSI
European Telecommunications Standards Institute

Event
In PPL, a condition that, when met, drives a state machine (PPL Component) from one state to another, by invoking an associated Primitive. In PPL files, an Event is marked by an arrow and text.

EXNET
CSP's open architecture, proprietary, 1.3 Gbps fiber optic network using a packet-based protocol.

CSP Matrix Series 3 Card
The Matrix Series 3 Card is based on Motorola's 750 PowerPC processor (68750).

Extended Super Frame
A T-carrier bit framing technique in which framing requiring less frequent synchronization than the original T-carrier superframe format is provided for D-4 formatting and for on-line, real-time testing of circuit capability and operating condition. *Note:* Less-frequent synchronization frees overhead bits for use in testing and monitoring.

F

FDMA
Frequency Division Multiple Access

FG
Feature Group

Flag
Message delimiter (SS7 bit pattern - 01111110)

Flash
Quick depress and release of the phone plunger of a handset to signal the PBX or

Centrex of instructions to follow (e.g., Call Transfer).

frame
A group of data bits in a specific format, with a flag at each end to indicate the beginning and the end of the frame.

Framing
Error control procedure for digital communication channels providing definable bit patterns to allow the receiver to identify the start of each frame of data and the signaling data.

FRMR
Frame Reject Response

FSK
Frequency Shift Keying

FSN
Forward Sequence Number

FSNC
Forward Sequence Number of last message signal unit accepted by remote Level 2

FTP
File Transfer Protocol

G

GA
See General Availability.

Gatekeeper
An H.323 entity on the network that provides address translation and controls access to the network for H.323 terminals and other end points. The gatekeeper may also provide other services to the endpoints such as bandwidth management and locating gateways.

Gateway
A device that translates calls between an IP network and another network, typically the PSTN.

General Availability
GA. A software and/or hardware release available to all customers.

Graphical User Interface
GUI. Any user interface that uses primarily graphics rather than characters.

H

H.323

ITU-T standard defines a set of call control, channel setup, and codec specifications for transmitting real-time voice and video over networks that do not offer guaranteed service or quality of service.

H.323 Entity

Any H.323 component, including terminals, Gateways, Gatekeepers, MCs, MPs, and MCUs.

H.323 RAS

Registration, admission, and status. The RAS signaling function performs registration, admissions, bandwidth changes, status and disengage procedures between the VoIP gateway and the gatekeeper.

H.245 Logical Channel

A channel carrying information streams between two H.323 endpoints. An unreliable channel is used for audio, audio control, video, and video control. A reliable channel is used for data and H.245.

Handshaking

The initial exchange between two data communications systems prior to and during data transmission to ensure proper data transmission.

High-Level Data Link Control

HDLC. A bit oriented communication protocol where control codes differ according to their bit positions and pattern.

host

A computer, attached to the CSP through an RS-232 or Ethernet link, from which you run the telecommunications application that controls the CSP.

Hot Swappable

Equipment that can be removed or inserted while the system is running and has little or no effect on normal operations.

HTML

HyperText Markup Language

HTTP

Hypertext Transfer Protocol. The protocol used by web servers and client browsers to communication.

Hz

Hertz

I

ICB
See Information Control Block.

IEEE
Institute of Electrical and Electronics Engineers

IEFT
Internet Engineering Task Force. Group that sets the technical standards that help maintain the Internet.

IMG
See Integrated Media Gateway.

IMSI
International Mobile Subscriber Identification

In-Band Signaling
Signaling that uses tones within the voice frequency band that are carried along the same circuit as the voice path.

Information Control Blocks
ICB. A standardized block that allows control data to be inserted in a standard way into API messages.

Information Elements
Name for the data fields within an ISDN Layer 3 message. See *Integrated Services Digital Network.*

Inseize
Incoming call setup during real time call processing on a specific channel.

Integrated Media Gateway
The IMG product family provides a flexible platform designed to provide a gateway environment for voice, signaling, and media. The IMG integrates media server and signaling server capabilities with a scalable gateway platform.

Integrated Services Digital Network
ISDN. Network architecture based on digital transmission, switching, and common channel signaling. Basic configurations include 2B+D called a Basic Rate Interface, and 23+D called a Primary Rate Interface. Outside North America, PRI is 30B+D.

Integrated Services Digital Network User Part
ISUP. The call control part of the SS7 signaling protocol.

Interworking
Interworking is a software feature within the CSP call control layer that enables protocol conversion by analyzing and converting Network Signaling (NS) Layer 3 information. Interworking software is also referred to as Network Protocol Data Intelligence (NPDI).

IP
Internet Protocol. Part of the TCP/IP family of protocols used to route messages and tracks the addresses of nodes.

IP Address
A 32-bit address, used in IP routing, which includes a Network address identifier assigned by a central authority and a Host ID (an end station identifier assigned by a LAN administrator).

IPDC
Internet Protocol Device Control. Controls connections and signaling information in environments where the service control logic is separated from the network access device. This protocol suite was defined by a consortium of companies and has been proposed as a standard to the ITU.

ISA
Industry Standard Architecture

ISDN
See Integrated Services Digital Network.

ISO
International Standards Organization

ISP
Internet Service Provider

ISUP
See Integrated Services Digital Network User Part.

ITU
International Telecommunications Union (UN)

ITU-T
International Telephone Union – Telecommunications sector (UN)

IVR
See Integrated Voice Response.

J JATE
Japan Approvals Institute for Telecommunications Equipment

L LAN
Local Area Network

LAP
Link Access Procedure

LAPB
Link Access Protocol (Procedure) – B channel (ISDN)

LAPD
Link Access Protocol (Procedure) – D channel (ISDN)

LATA
See Local Access Transport Area.

Layer 3
Protocol layer of the CSP.

Layer 4
Call processing layer of the CSP.

Layer 5
Application layer of the CSP.

Line Coding Method

- Bit 7 zero suppression - The elimination of non-significant zeros from a numeral.
- Binary 8 zero substitution

Line Length

Options for line length when configuring a T-1 span on a CSP are as follows.
0 - 133 Feet
134 - 166 Feet
167 - 299 Feet
300 - 533 Feet
534 - 655 Feet
G.703 ITU-T

LINK
Connection between nodes, physical connectivity

Link Set
Link that connects to the same node

Local Access Transport Area
LATA. Geographic area serviced by a Local Exchange Carrier. See *LEC.*

Local Exchange Carrier
LEC. A Central Office that provides telephone service within one Local Access Transport Area. See Local Access Transport Area.

Long Distance Tandem Switching
Using a switch to connect one trunk to another.

Loop Start
Supervisory signaling commonly used to seize a line, for example by taking your phone off hook, forming a –48 VDC loop with the local central office.

Loopback
A type of diagnostic test in which the transmitted signal is returned to the sending device after passing through a data communications link or network.

LS
See Loop Start.

LSB
Least Significant Bit

M

M
Mega - 1000000

m
milli - 1/1000

MCU
See Multipoint Control Unit.

Megaco/H.248
Part of the IETF standards (RFC 2705). The IETF and the ITU have decided to endorse and jointly mandate a single standard, known in the IETF as Megaco and known in the ITU as H.248. Megaco/H.248 is a master-slave protocol, where external call controllers execute commands that the media gateways must follow. Megaco/H.248 represents an enhancement of MGCP because it supports multiple gateways, thousands of ports on a gateway, and connection-oriented media such as TDM and ATM.

Message Transfer Part
MTP. Message Transfer Part of the SS7 signaling protocol.

MF
Multi-Frequency

MGCP
Media Gateway Control Protocol. The IETF combined IPDC and SGCP to form the Media Gateway Control Protocol (MGCP). The Media Gateway Control (Megaco) working group is responsible for MGCP. As of late 2001, MGCP was still a working document and not yet a standard.

Mobile Telephone Switching Office
MTSO. A switch in a mobile telephone network that contains the monitoring and relay functions for switching calls between the cellular and landline networks.

MODEM
MOdulator/DEModulator

MPU
MicroProcessor Unit

MSB
Most Significant Bit

MTP
See Message Transfer Part.

MTP1
Message Transfer Part level 1 - physical level

MTP2
Message Transfer Part level 2 - data link level

MTP3
Message Transfer Part level 3 - network level

MTSO
See Mobile Telephone Switching Office.

Multicast
A process of transmitting Protocol Data Units from one source to many destinations. The actual mechanism (that is, IP multicast, multi-unicast, and so forth) for this process might be different for LAN technologies.

Multipoint Conference

A conference between three or more terminals, which may be on a LAN or Circuit Switched Network.

Multiple Control Units

In H.323 terminology, an MCU consists of a required Multipoint Controller (MC) and an optional Multipoint Processor or Processors (MP). The MC is a conference controller. The MC handles the negotiation between all terminals to determine the common capabilities and conference resources, such as multicasting. The MP is typically a DSP and is responsible for performing the actual conferencing algorithm.

Multipoint-unicast

A process of transferring Protocol Data Units (PDUs) where an endpoint sends more than one copy of a media stream to different endpoints. This might be necessary in networks which do not support multicast.

Multi-Vendor Integration Protocol

A family of standards designed to let telephony products from different vendors inter-operate within a single computer or group of computers.

N

NACK

Negative acknowledgement to a message.

N+1

Notation that describes line card redundancy, where N is the number of installed line cards of a single card type and 1 is an additional line card of that type designated as a standby card. For example, if you have three T-ONE cards and one additional standby T-ONE card installed, the system provides redundancy by activating the standby card if any of the three active T-ONE cards fail.

NFAS

See Non Facility Associated Signaling.

NIC

Network Interface Card

NIU

Network Interface Unit - point where customer equipment ends and network equipment begins. Test address facility for network technicians. a.k.a. – smart jack

NOC

Network Operation Center

Node
In Dialogic® terminology, a node is any CSP that is linked to another by our fiber optic EXNET ring into a single logical CSP. Thus, the collection of CSPs become a single CSP, and the individual CSPs become nodes of the larger CSP. In SP/SSP, or STP - a node that supports SS7 signaling.

Non Facility Associated Signaling
NFAS. Signaling which allows a D-Channel to carry call information for the 23 B-Channels on that span plus 9 more spans.

NPDI
Network Protocol Data Intelligence. Also called "Interworking," it is a software product that operates within the CSP's Call Control (Layer 4) and Services (Layer 5) call processing layers. NPDI is meant to enhance CSP's call processing product offering by allowing call processing layers (specifically Layers 4 and 5) to perform advanced analysis, generation, and conversion of Network Signaling (NS) Layer 3 information.

O

OA&M
Operations, Administration, and Maintenance

OCTET
A sequence of eight bits.

OCR
Optical Character Recognition

OOS
Out of Service

OSI
Open System Interconnection model

Out-of-Band Signaling
Signaling that is separate from the channel carrying the information (voice, data, etc.). Also signaling within the same channel as the intelligence, but out of the specific bandwidth used to carry the intelligence.

Outseize
Outgoing call setup during real-time call processing on a specific channel.

P

p
pico - 1/1000000000000

PABX
Private Automatic Branch Exchange

PAD
Packet Assembler/Disassembler

PBX
See Private Branch Exchange.

PCI
Peripheral Component Interconnect

PCM
See Pulse Code Modulation.

PCM Expansion Bus
PEB. A digital voice bus from Dialogic, Inc. for sending voice across different voice processing cards and components within the same PC.

Personal Communication Services
Wide range of individualized communication services that allow people or devices to communicate regardless of where they are. 3 variants
PCS - CDMA, PCS - TDMA (GSM based), PCS Up-banded DAMPS

PHS
Personal Handyphone System

PIM
Personal Information Manager

Plain Old Telephone Service
POTS. Basic telephone service supplying standard single line telephones, telephone lines, and access to the PSTN.

Point Code
A number that addresses a node in a SS7 network.

Poll Messages
Status messages sent from the CSP to the host indicating the state of the matrices.

Port
The point in the CSP where a DS0 connects to a network. Also known as a "socket."

POTS
See Plain Old Telephone Service.

PPL
See Programmable Protocol Language.

PPL Component
A programmable software component that uses PPL state machines that can be modified with the PPL Tool.

PPL Event
A condition that, when met, drives a state machine from one state to another. A condition that drives a Component out of its current state by invoking an associated primitive.

PPL Object
A system object that is controlled by a PPL state machine such as a channel, an ISDN D channel, or an SS7 link. Allows externally programmed custom protocols in CSP's switching software, via GUI.

PPP
Point-to-Point Protocol

PRA
Primary Rate Access – 23B, 1D (ISDN)

Predictive Dialing
Automated method of making many outgoing calls without people, and then quickly passing answered calls to an operator, along with relevant database information.

Primary Rate Interface
PRI. One of two basic ISDN interface configurations providing 23 (30 outside of North America) Bearer channels (64 Kbps data) and 1 Data signaling channel (16 Kbps control and signaling data). Commonly refered to as ISDN PRI or 23B+D interface (30B+D outside of North America).

Primitive Table
Group of one or more Atomic Functions that allow multiple actions (tests) to be initiated in response to a PPL event for a channel. See *Programmable Protocol Language.*

Private Branch Exchange
PBX. Small version of the central office switch, but privately owned and controlled, typically providing voice processing, automated attendant, and direct inward dialing (DID).

Programmable Protocol Language
PPL. CSP feature allowing support of custom protocols, designed through a

graphical interface tool. Protocol is defined by associating a State Event Table with a Primitive Table. See State Machine.

Protocol Data Units
PDU. Used by bridges to transfer connectivity information.

Proxy Server
For the purposes of a CSP, a proxy server is a SIP device which receives invitations and other requests, and forwards them to other SIP devices. It then receives the responses to the requests it forwarded and forwards them back to the sender of the initial request.

PSTN
Public Switched Telephone Network

Pulse Code Modulation
PCM. Common technique of encoding analog voice into a digital bit stream where samples are taken 8000 times per second.

Q

Q.701
ITU-TSS Publication on Functional Description of the Message Transfer Part

Q.702
ITU-TSS Publication on Signaling Data Link (MTP)

Q.703
ITU-TSS Publication on Signaling Link (MTP)

Q.704
ITU-TSS Publication on Signaling Network Functions and Messages (MTP)

Q.705
ITU-TSS Publication on Signaling Network Structure (MTP)

Q.706
ITU-TSS Publication on MTP Signaling Performance

Q.707
ITU-TSS Publication on Testing and Maintenance (MTP)

Q.708
ITU-TSS Publication on Numbering of International Signaling Point Codes (MTP)

Q.709
ITU-TSS Publication on Hypothetical Signaling Reference Connection (MTP)

Q.710
ITU-TSS Publication on Simplified MTP Version for Small Systems

Q.711
ITU-TSS Publication on Functional Description of SCCP

Q.712
ITU-TSS Publication on Definitions and Functions of SCCP Messages

Q.713
ITU-TSS Publication on SCCP Formats and Codes

Q.714
ITU-TSS Publication on SCCP Procedures

Q.715
ITU-TSS Publication on SCCP Performance

Q.721
ITU-TSS Publication on Functional Description of TUP

Q.722
ITU-TSS Publication on General Function of Telephone Messages and Signals (TUP)

Q.723
ITU-TSS Publication on Formats and Codes (TUP)

Q.724
ITU-TSS Publication on Signaling Procedures (TUP)

Q.725
ITU-TSS Publication on Signaling Performance in the Telephone Applications (TUP)

Q.730
ITU-TSS Publication on ISDN Supplementary Services

Q.731
ITU-TSS Publication on Stage 3 Description for Number ID Supplementary Services using SS7

Q.733
ITU-TSS Publication on Stage 3 Description for Call Completion Supplementary Services

Q.741
ITU-TSS Publication on SS7 Data User Part

Q.761
ITU-TSS Publication on Functional Description of ISUP

Q.762
ITU-TSS Publication on General Function of Messages and Signals (ISUP)

Q.763
ITU-TSS Publication on Formats and Codes (ISUP)

Q.764
ITU-TSS Publication on Signaling Procedures (ISUP)

Q.766
ITU-TSS Publication on Performance Objectives in the ISDN Application (ISUP)

Q.767
ITU-TSS Publication on Applications of the ISUP for International ISDN Interconnections (ISUP)

Q.771
Functional Description of TCAP

Q.772
ITU-TSS Publication on Transaction Capabilities Information Element Definitions (TCAP)

Q.773
ITU-TSS Publication on TCAP Formats and Encoding

Q.774
ITU-TSS Publication on TCAP Procedures

Q.775
ITU-TSS Publication on SS7 Test Specification General Description (TCAP)

Q.780
ITU-TSS Publication on SS7 Test Specification - General Description

Q.781
ITU-TSS Publication on MTP Level 2 Test Specification

Q.782
ITU-TSS Publication on MTP Level 3 Test Specification

Q.783
ITU-TSS Publication on TUP Test Specification

Q.784
ITU-TSS Publication on ISUP Basic Call Test Specification

Q.785
IITU-TSS Publication on SUP Protocol Test Specification for Supplementary Services

Q.791
IITU-TSS Publication on Monitoring and Measurements for SS7 Networks

Q.795
ITU-TSS Publication on Operations, Maintenance, and Administration Part

Q.931
Call signaling protocol for setup and termination of calls.

QoS
Quality of Service, which refers to the measure of service quality provided to the user. Guarantees network bandwidth and availability for applications.

QAM
Quadrature Amplitude Modulation

QCELP
Qualcomm Code Excited Linear Prediction

QPSK
Quaternary Phase Shift Keying

R

Radius
Remote Access Dial-In User Service

RAM
Random Access Memory

RAN
See Recorded Announcements.

RARP
See Reverse Address Resolution Protocol.

RAS

The Registration, Admission, and Status messages communicated between two H.323 entities for example between an Endpoint and a Gatekeeper.

RAS Channel

An unreliable channel used to convey the Registration, Admissions and Status messages and bandwidth changes between two H.323 entities. A set of messages used between a gateway and a gatekeeper. Defined in the ITU-T Recommendation H.225.0 [3].

RBOC

Regional Bell Operating Company

Recorded Announcements

RAN. Recorded messages provided to callers for various reasons.

Redundant I/O Card

An I/O card that supports redundancy and has external connections. It sits behind whichever line card is originally designated as "active." Compare to "Standard I/O card" and "Standby I/O card."

RED ALARM

In T-1, a red alarm is generated for a locally detected failure when synchronization is lost for more than 2.5 seconds

Redirect Server

A SIP device that responds to invitations and other requests by informing the request originator of an alternate address to which the request should be sent.

Reliable Transmission

Connection-oriented data transmission that guarantees sequenced, error-free, flow-controlled transmission of messages to the receiver.

Request For Service

RFS. A Status Message indicating that some entity is requesting service from the CSP.

Reverse Address Resolution Protocol

TCP/IP protocol controls the translation of the Data Link Control (DLC) address to the Internet Protocol (IP) address.

RFS

See Request For Service.

Robbed Bit Signaling

Signaling method used with T1 connections where bits are “robbed” from voice

data. Increases possibility of transmission and detection errors, and reduces voice quality.

ROM
Read Only Memory

Routing Table
For incoming calls, a routing table is a user-definable list of steps that are treatment instructions for an incoming call. Ideally, these steps should be addressed and the call treatment begun before the call is answered. A routing table should consist of a minimum of steps that include agent groups, voice response devices, announcements (delay and information) music on hold, intraflow and interflow steps, route dialing (machine-based call forwarding). A significant issue in the structure of routing tables is "look-back" capability, where no single, previously-interrogated resource is abandoned by the system. For outgoing calls, for a specific site, this table lists the long-distance routing choices for each location to be dialed. There may be only one choice (route) listed for some or all destinations or there may be several choices for some destinations.

RST
Route Set Test (SS7)

RSVP
Resource Reservation Protocol IETF specification. Allows applications to request dedicated bandwidth.

RTP
Real-Time Transport Protocol. Supports transport of real-time data like interactive voice and video over packet-switched networks.

RTCP
Real-Time Transport Control Protocol.

RTS
Route Test Signal

S

s
Second

SCN
See Switched Circuit Network.

SCSA
See Signal Computing System Architecture.

SCSI
Small Computer System Interface

SDC
Synchronous Directive Channel

Service Switching Point
SSP. Also called a Signal Switching Point. A switch that can recognize, route, and connect Intelligent Network calls as directed by a Service Control Point (centralized database). SSP can also be a Subscriber Service Point. In this case it is the switch portion of a "Combined Node" (STP/SSP combination node).This node is unique in the network as it has 2 valid point codes.

Service Resource
An CSP component that is not directly involved in switching calls. For example, the DSP-ONE card.

Signal Computing System Architecture
SCSA. Architecture developed by Dialogic, Inc. that defines hardware and software standards allowing signal computing devices from different vendors to inter-operate.

Signal Transfer Point
STP. A node in the telephony network that normally does not handle voice. It acts as a message router, transferring signaling messages between switches.

Signaling Connection Control Part
SCCP. The signaling connection and control part of the SS7 signaling protocol. For example, performs Global Title Translations (GTT), Subsystem Management.

Signaling System 7
SS7. A common channel signaling protocol providing supervision, alerting, and addressing services.

Signaling Method
Signaling methods used in CSP are: Clear Channel and Channel Associated Signaling.

SIP
Session-Initiation Protocol. A signaling protocol used for establishing sessions in an IP network. A session could be a simple, two-way telephone call, or it could be a collaborative multi-media conference session.

SMTP
Simple Mail Transfer Protocol. The TCP/IP protocol governing electronic mail transmissions and receptions.

SONET
Synchronous Optical NETwork

Socket
See Port.

SP
Signaling Point

Span
Range of channels provided by T1 or E1 transmission service. A physical span is a group of channels taking up a single physical wire. A logical span is a group of channels taking up less than a single logical wire, or carried over more than one physical wire.

SS7
See Signaling System Number Seven.

SSP
SubSystem Prohibited. See also Service Switching Point.

SSSN
Secondary SubSystem Number

Standard I/O Card
An I/O card that does not support redundancy but has external connections. It sits behind its corresponding line card. Compare to "Redundant I/O card" and "Standby I/O card."

Standby I/O Card
An I/O card that supports redundancy but has no external connections. A Standby I/O card sits behind whichever line card is originally designated as "standby." Compare to "Redundant I/O card" and "Standard I/O card."

State Event Table
Group of events (functions that pertain to a given state of a channel. See Programmable Protocol Language.

State
The condition of a component at a given instant. The current "context" of a PPL object, such as Idle, Seizing, Answered. In PPL files, a State is represented by a circle.

State Machine
A State Machine defines the events (functions) required to drive a channel from one state to another through a graphical interface tool. A State Machine is

configured and managed using API Messages or the PPL Tool. Based on the occurrence of an Event, a State Machine drives each channel through its Protocol Tables. It creates one state from another, invoked by an event. Processing is complete when a "normal" state is reached. "Wait" and "Stable" are normal states. A State Machine is analogous to a PPL Component.

Subnet Mask
The bits of an Internet Protocol (IP) address used for a subnetwork.

Switched Circuit Network
SCN. A public or private switched telecommunications network such as GSTN or ISDN. TCP: transmission control protocol, reliable networking layer on top of IP.

SwitchSite Administrator
SSA. Precurser to the Converged Services Administrator (CSA).

T T

T(X)
Timer (x) (that is, T10 = timer 10)

T1
Digital communications link - voice, data, and video at a 1.544 Mbps rate (24 64 Kbps channels)

T1.110
ANSI Publication on SS7 General Information

T1.111
ANSI Publication on Functional Description of MTP

T1.112
ANSI Publication on SCCP

T1.113
ISDN User Part (ISUP)

T1.113a
ANSI Publication on ISDN User Part (NxDS0 Multi-Rate Connection) (Supplement)

T1.114
ANSI Publication on TCAP

T1.115
ANSI Publication on Monitoring and Measurements for SS7 Networks

T1.116
ANSI Publication on OMAP

T1.118
ANSI Publication on Intermediate Signaling Network Identification (ISNI)

T1.226
ANSI Publication on Operation, Maintenance, and Provisioning (OAMP) - Management of Functions for SS7 Network Interconnections

T1.609
ANSI Publication on Interworking between the ISDN User-to-Network Interwork Interface Protocol and the SS7 ISUP

T1.611
ANSI Publication on SS7 Supplementary Services for non-ISDN Subscribers

T1.631
ANSI Publication on High Probability of Completion (HPC) Network Capbility

T3
Digital communications link - 44.378 Mbps rate

Tandem Call Switching
Call processed by two or more switches.

TAPI
Telephony Application Program Interface

TCAP
See Transaction Capability Application Part.

TCP/IP
Transmission Control Protocol / Internet Protocol. A networking protocol that provides communication across interconnected networks.

Terminals
The endpoints on the LAN that provide real-time, two-way communication with another Terminal, Gateway, or MCU. A terminal must provide audio and may also provide video and/or data. Most H.323 terminals in the near future will be desktop computers running H.323 software. In the case of the CSP, an H.323 terminal will be an end user, using a standard POTS or ISDN phone.

TDM
See Time Division Multiplexing.

TDMA
Time Division Multiple Access

TETRA
Trans-European Trunked Radio system

Time Division Multiplexing
TDM. Technique for digital transmission of a number of separate voice and data channels simultaneously over one communications medium, where each channel is allotted a time slot for data transmission.

Time Slot Interchange
TSI. A way of temporarily storing data bytes so they can be sent in a different order than they were received.

TLV
Tag-Length-Value block. A standardized block that allows data to inserted in a standard way into API messages.

Transaction Capabilities Application Part
TCAP. The transaction capabilities application part of the SS7 protocol. It is the top layer of the SS7 stack, equivalent to Layer 7 of the OSI model.

TSI
Time Slot Interchange

TUP
Telephone User Part

U

u
micro - 1/1000000 (lower case u (u) may be used in place of actual symbol (μ))

UPDF
See Universal Protocol Data Format.

User Agent (UAC and UAS)
The User Agent is effectively the end system component for the call. Universal Agent Client (UAC) initiates the calls and the Universal Agent Server (UAS) answers the calls which allows peer-to-peer calls using a client/server protocol.

Unreliable Transmission
Connection-less transmission which provides best-effort delivery of data packets.

Messages transmitted by the sender may be lost, duplicated, or received out of sequence.

User Datagram Protocol

UPD. User Datagram Protocol. Unreliable networking layer that sits at the same level of networking stack as TCP. Part of the TCP/IP protocol suit, UDP is used for transferring IP datagrams between host computers, where each datagram is routed through the Internet based on the destination IP address.

Universal Protocol Data Format

Universal Protocol Data Format. A predefined data format set used by a line card to communicate to the Layer 4 and above to represent information of the network-side of the line card. This set is independent of the network-side protocol.UPDF offers a "super scale" protocol format for signaling. The Dialogic® goal is to incorporate all existing PSTN protocol formats (E1, T1, SS7, ISDN) IP protocols (SIP, H.323) and any evolving protocols into a union of all protocols.

V

V.35

Connection used for the transmission of high-speed data.

VDAC-ONE Card

Voice Data Access Concentrator Card. Performs two-way conversion between circuit-switched data and packet-switched Ethernet data required by packetized voice applications such as VoIP.

Vocoder

Voice coder.

VoIP

Voice over Internet Protocol. The delivery of voice information in digital form in discrete packets rather than in the traditional circuit-committed protocols of the public-switched telephone network (PSTN).

VOX

Voice operated transmission

VPN

Virtual Private Network

VRAS

Voice Recorded Announcement System

W **W**
Watt

WAN
Wide Area Network

Wink
Momentary interruption in a single frequency tone indicating the distant switch is ready to receive the digits just dialed.

WLL
Wireless Local Loop

WWW
World Wide Web

X **X.25**
Packet Data Protocol (CCITT)

XoIP
More than one traffic type (voice, data, fax, or modem) over Internet Protocol.

Y **YELLOW ALARM SIGNAL**
A continuous 16-bit pattern of eight consecutive 1s followed by eight consecutive 0s - sent by the receiving equipment when synchronization to a transmitting DS-1 signal cannot be achieved.

Z **Zero Byte Time Slot Interface**
Coding method used with clear channel signaling to allow true 64 Kbps channel data transmission speeds. See *B8ZS*.

Zone
A collection of newer network components, such as terminals, gateways, gatekeepers, and multipoint control units (MCU) that interoperate with other standards-compliant endpoints and networks by virtue of an H.323 gateway. The collection of all these network components, which are managed by a single Gatekeeper, is referred to as an H.323 Zone. A zone includes at least one terminal, and can include gateways or multipoint control units (MCUs), or LAN segments connected using routers. A zone has only one gatekeeper.