# Tekelec EAGLE® 5 Integrated Signaling System

# **Master Glossary**

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5,008,929, 5,953,404, 6,167,129, 6,324,183, 6,327,350, 6,456,845, 6,606,379, 6,639,981, 6,647,113, 6,662,017, 6,735,441, 6,745,041, 6,765,990, 6,795,546, 6,819,932, 6,836,477, 6,839,423, 6,885,872, 6,901,262, 6,914,973, 6,940,866, 6,944,184, 6,954,526, 6,954,794, 6,959,076, 6,965,592, 6,967,956, 6,968,048, 6,970,542

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#

10 Digit Telephone Number Subscription

The telephone number requiring LNP service and the related LNP service information, the location routing number, and message relay global title translation information.

# Α

A Ampere

AAL ATM Adaptation Layer

AAL5 ATM Adaptation Layer 5

AAL5CP ATM Adaptation Layer 5 Common Port

AATM ATM Appliqué

ACE C++ Network Programming API/library

ACG Automatic Call Gapping

ACL Application Processor Code Loader

ACM Application Communications Module

ACMENET Application Communications Module Ethernet

The Application Communications Module (ACM) Ethernet appliqué is attached to the ACM main assembly and provides a communication interface between the ACM and an external host system across an Ethernet LAN.

ACM-ENET The label on the card identifying the card as a ACM.

Adjacent Point Code (APC)

The point code that identifies a node adjacent to the EAGLE 5 ISS. This term is used in link sets and routes.

Advanced Intelligent Network (AIN)

A dynamic database used in Signaling System 7. It supports advanced features by dynamically processing the call based upon trigger points throughout the call handling process and feature components defined for the originating or terminating number.

Affected Point Code (AFTPC)

The point code in subsystem-prohibited (SSP), subsystem-status-test (SST), and subsystem-allowed (SSA) SCCP management messages used by gateway screening to determine if the messages containing these point codes are

allowed in to the network. This point code is in the SCMG Data (SCCP Management) portion of the signaling information field in the MSU.

#### AFTPC Affected Point Code

# Aggregator

A dedicated server where ECAP XML data files are sent; responsible for aggregating data from multiple ECAPs into billable form. An Aggregator MUST have the following characteristics:

- SSH capable
- Parse and accumulate XML output from multiple ECAP servers
- 1 virtual IP address
- Format and generate billing reports that are useful to the customer

# AIN Advanced Intelligent Network

#### **AINF**

Application Interface Appliqué

The AINF is an integrated appliqué which supports the DS0A, DSCS and V.35 interfaces on the same appliqué. The AINF appliqué can be configured as either a DS0A, OCU, or V.35 interface from the user terminal.

#### Alarm (ALM)

An indicator in the rept-stat-gpl and rtrv-gpl command outputs to show that the entry in these command outputs is in an alarm condition and further action may be necessary to relieve the alarm condition.

#### Alias Point Code

A point code that provides an alternate point code for a particular destination.

#### Allowed Affected Destination Field

The gateway screening entity that identifies the point code in the affected destination field (the concerned signaling point code) of incoming MTP network management messages from another network that are allowed into the EAGLE 5 ISS. Messages containing the specified point code are allowed into the network.

#### Allowed AFTPC

The gateway screening entity that identifies the messages containing a specific affected point code. Messages containing the specified affected point code are allowed into the network.

#### Allowed CDPA

The gateway screening entity that identifies the SCCP messages that contain a specific DPC in the routing label and a specific subsystem number in the called party address. SCCP messages containing the specified DPC and subsystem number go on to the next step in the gateway screening process, or are allowed into the network if the gateway screening process stops with this entity.

#### Allowed CGPA

The gateway screening entity that identifies the SCCP messages from another network that contain a specific point code in the CGPA field and a specific routing indicator in the CDPA field. SCCP messages containing the specified point code and routing indicator go on to the next step in the gateway screening process, or are allowed into the network if the gateway screening process stops with this entity.

#### Allowed DPC

The gateway screening entity that identifies the destination point codes that are allowed to receive SS7 messages from the EAGLE 5 ISS. Messages containing the specified destination point codes go on to the next step in the gateway screening process, or are allowed into the network if the gateway screening process stops with this entity.

#### Allowed ISUP

The gateway screening entity that identifies the ISUP or TUP message types that are allowed into the network.

#### Allowed OPC

The gateway screening entity that identifies the originating point codes that are allowed to send SS7 messages into the network. Messages containing the specified originating point codes go on to the next step in the gateway screening process, or are allowed into the network if the gateway screening process stops with this entity.

#### Allowed SIO

The gateway screening entity that identifies the type of MSUs (ISUP, TUP, TCAP, and so forth) that are allowed into the network. The message type is determined by the network indicator code (NIC), priority (PRI), and service indicator (SI) fields of the signaling information octet (SIO) field in the MSU, and the H0 and H1 heading codes of the signaling information field of the MSU. Messages containing the specified message type go on to the next step in the gateway screening process, or are allowed into the network if the gateway screening process stops with this entity.

#### Allowed TT

The gateway screening entity that identifies the SCCP messages that have a specified translation type value in the called party address. SCCP messages containing specified translation type in the called party address go on to the next step in the gateway screening process, or are allowed into the network if the gateway screening process stops with this entity.

#### American National Standards Institute (ANSI)

An organization that administers and coordinates the U.S. voluntary standardization and conformity assessment system.

#### **ANSI Link Set**

A link set with an ANSI adjacent point code.

#### **ANSI Point Code**

A point code whose format meets the ANSI standard. An ANSI point code is made up of three groups of digits called network indicator, network cluster, and network member.

# Any Time Interrogation (ATI)

An ATI message allows an external server to interrogate an HLR and obtain information about the location and/or state of a GSM subscriber.

AP Application Processor

APC Adjacent Point Code

APD Application Processor DCM bootstrap code

API Application Interface

# **Application Communications Module (ACM)**

A card in the EAGLE 5 ISS that provides a communications interface to a remote host across an Ethernet LAN.

# Application Interface Appliqué (AINF)

The AINF is an integrated appliqué which supports the DS0A, DSCS and V.35 interfaces on the same appliqué. The AINF appliqué can be configured as either a DS0A, OCU, or V.35 interface from the user terminal.

# Application Server (AS)

A logical entity serving a specific Routing Key. An example of an Application Server is a virtual switch element handling all call processing for a unique range of PSTN trunks, identified by an SS7 DPC/OPC/CIC\_range. Another example is a virtual database element, handling all HLR transactions for a particular SS7 DPC/OPC/SCCP\_SSN combination. The AS contains a set of one or more unique Application Server Processes, of which one or more normally is actively processing traffic.

# **Application Server Process (ASP)**

A process instance of an Application Server. An Application Server Process serves as an active or standby process of an Application Server (e.g., part of a distributed virtual switch or database). Examples of ASPs are processes (or process instances of) MGCs, IP SCPs or IP HLRs. An ASP contains an SCTP end-point, and may be configured to process signaling traffic within more than one Application Server.

#### Application Service Module (ASM)

A card in the EAGLE 5 ISS that provides additional memory to store global translation tables and screening data used for applications such as Global Title Translation (GTT) and Gateway Screening (GWS).

This card is obsolete as of Release 31.6. The TSM card is used.

# Approved GPL

The generic program load (application software) indicating that the system should be running.

ARP Address Resolution Protocol

A network layer protocol used to convert an IP address into a physical device

address such as an Ethernet address.

AS Application Server

ASM Application Services Module

ASP Application Server Process

Association

An association refers to an SCTP association. The association provides the transport for protocol data units and adaptation layer peer messages.

AST Associated State

The associated state of an entity.

Asynchronous Transfer Mode (ATM)

A packet-oriented transfer mode that uses an asynchronous time division multiplexing technique to multiplex information flow in fixed blocks, called cells.

A high-bandwidth, low-delay switching, and multiplexing technology to support applications that include high-speed data, local area network interconnection, multimedia application and imaging, and residential applications such as video telephony and other information-based services.

ATI Any Time Interrogation

ATM Layer Management (ATMM)

The ATMM provides a supporting role for system management functions which include fault, performance, configuration, security and resource management functions.

The ATMM entity uses two types of interactions with the ATM entity to perform its functions. The first type of interaction is for the exchange of information between the ATM and ATMM entity. The second type of interaction is for peer to peer communication between ATMM entities (between the two nodes on both ends of the high-speed signaling link).

ATM Asynchronous Transfer Mode

ATM HSL ATM High Speed Link, a DS1 or E1 link

ATMM ATM Layer Management

ATM Appliqué (AATM)

An Asynchronous Transfer Mode card in the EAGLE 5 ISS that provides high-bandwidth, low-delay switching and multiplexing technology to support applications that include high-speed data, local area network interconnection, multimedia application and imaging, and residential applications such as video telephony and other information-based services.

**ATMANSI** 

The application software used for high-speed ANSI ATM signaling links.

ATM HSL Asynchronous Transfer Mode High Speed Link

**ATMITU** 

The application software used for high-speed E1 ATM signaling links.

Auto-inhibit

A process where the OAM inhibits loading of a card if the card does not meet various requirements.

Automatic Call Gapping (ACG)

An element of the EAGLE 5 ISS LNP that controls the rate that location routing number (LRN) queries for a particular telephone number, or a portion of a telephone number, are received by the EAGLE 5 ISS LNP when a particular threshold is reached.

Automatic Switched Virtual Circuit (SVCA)

A connection to an X.25 node established by the EAGLE 5 ISS as soon as the X.25 LIM (a LIM that has the ss7gx25 application assigned to it) initializes.

# В

**BAUD** 

The transmission rate of the devices connected to the I/O ports expressed in bits per second.

BIOS Basic Input Output System

BIP Board Identification PROM

BITS Building Integrated Timing System

Bits per Second (BPS)

The transmission rate of the signaling links on the EAGLE 5 ISS expressed in bits per second.

Blacklist See Provisioning Blacklist.

BLKDPC Blocked Destination Point Code

BLKOPC Blocked Originating Point Code

Blocked Destination Point Code (BLKDPC)

The point code that the gateway screening uses to keep MSUs bound for a specific point code out of the network where the EAGLE 5 ISS is located. This point code is in the routing label portion of the signaling information field in the MSU. Messages that do not contain the specified destination point code go on to the next step in the gateway screening process, or are allowed into the network if the gateway screening process stops with this entity.

**Blocked Originating Point Code (BLKOPC)** 

The point code that gateway screening uses to keep MSUs coming from a specific point code out of the network where the EAGLE 5 ISS is located. This

point code is in the routing label portion of the signaling information field in the MSU. Messages that do not contain the specified originating point code go on to the next step in the gateway screening process, or are allowed into the network if the gateway screening process stops with this entity.

BM Buss Master (Cognitronics)

Board Identification PROM (BIP)

The serial number used to identify a board in the EAGLE 5 ISS. The serial number is contained in the board ID PROM on each board in the EAGLE 5 ISS.

BOM Bill of Materials

BP Board Prom

BPS Bits Per Second

**BPDCM** 

The communication software used in place of the IMT GPL on the Database Communications Module (DCM), Database Services Module (DSM), and General Purpose Services Module (GPSM-II).

**BPHCAP** 

The communication software used in place of the IMT GPL on the LIMATM and E1 ATM.

**BPHCAPT** 

The communication software used in place of the IMT GPL on the newer versions of the LIMATM and E1 ATM.

**BPHMUX** 

The communication software used on the High Speed Multiplexer (HMUX) card.

**BPMPL** 

The communication software used in place of the IMT GPL on the Multi-Port LIM (MPL).

**BPMPLT** 

The communication software used in place of the IMT GPL on the Multi-Port LIM-T (MPLT) and the E1/T1 MIM.

BPS Bits per Second

**Bridging** master

Used in conjunction of Channel Bridging. This refers to an odd-numbered port that contains time slots that shall be terminated in the EAGLE 5 ISS and other time slots that shall be dropped to another port in a 1-1 mapping fashion (timeslot 1 on the Parent port maps to timeslot 1 on the other port). All time slots that are dropped to the paired port will be bidirectional.

**Bridging slave** 

Used in conjunction of Channel Bridging. This refers to an even-numbered port that shall contain time slots that were dropped from a Parent port in a 1-1

mapping fashion (timeslot 1 on the Parent port maps to timeslot 1 on the Paired port). All time slots that are dropped to the parent port will be bidirectional.

# BSD Berkeley Software Distribution

# **Building Integrated Timing System (BITS)**

The Building Integrated Timing System (BITS) clocks come directly from the central office BITS clock source or indirectly from an optional holdover clock installed in the system.

#### **Bulk Load Module (BLM)**

A card that is provisioned with the EBDABLM GPL to support the bulk download feature. During LNP bulk download operations, the LNP database is downloaded to the card's RAM.

# $\mathbf{C}$

# **Calling Card Prefix**

The dialed digits to use the Calling Card for the call. The Called Party Number may contain the Calling Card Prefix with or without the Regular Number in it.

# Calling Name Conversion Facility (CNCF)

CNCF provides a conversion of ISUP IAM messages using calling name identification presentation (CNIP) for calling name information delivery. CNIP uses either non-standard proprietary ISUP party information (PIP) parameter or ANSI standard ISUP generic name (GN) parameter.

# Called Party Address (CDPA)

The portion of the MSU that contains the additional addressing information of the destination of the MSU. Gateway screening uses this additional information to determine if MSUs that contain the DPC in the routing label and the subsystem number in the called party address portion of the MSU are allowed in the network where the EAGLE 5 ISS is located.

# Calling Party Address (CGPA)

The point code and subsystem number that originated the MSU. This point code and subsystem number are contained in the calling party address portion of the signaling information field of the MSU. Gateway screening uses this information to determine if MSUs that contain this point code and subsystem number area allowed in the network where the EAGLE 5 ISS is located.

#### CAP

**Communication & Application Processor** 

# Capability Point Code (CPC)

A capability point code used by the SS7 protocol to identify a group of functionally related STPs in the signaling network.

# CAR Corrective Action Report

Carrier Identification Code (CIC)

A 4-digit code that controls the routing applied to a message.

CAS Channel Associated Signaling

CCGT Cancel Called Global Title

CCS Common Channel Signaling

CCS7 Common Channel Signaling System #7

See also SS7.

CCS7ITU

The generic program load and application software for the ITU SS7 signaling links that is used with card types limds0, limch, limocu, limv35,

lime1, and limt1.

CCSN Common Channel Signaling Node

CDPA Called Party Address

The portion of the MSU that contains the additional addressing information of the destination of the MSU. Gateway screening uses this additional information to determine if MSUs that contain the DPC in the routing label and the subsystem number in the called party address portion of the MSU are

allowed in the network where the EAGLE 5 ISS is located.

CDU CAP Downloadable Utility

CF Control Frame

CGPA Calling Party Address

The point code and subsystem number that originated the MSU. This point code and subsystem number are contained in the calling party address portion of the signaling information field of the MSU. Gateway screening uses this information to determine if MSUs that contain this point code and subsystem number area allowed in the network where the EAGLE 5 ISS is

located.

CE CISPR A Compliance European, Comite Internationale Special des Perturbations

Radioelectrique (European Compliance, International Special Committee on

Radio Interference, Class A)

Changeback

A network management event that takes the traffic that was rerouted because of a changeover when a signaling link has failed and places that traffic back on that signaling link when that signaling link comes back into service.

Changeover

A network management event that routes traffic from a failed signaling link to another signaling link that can carry the traffic.

Channel

A single Time-Division-Multiplexed (TDM) timeslot within a channelized E1/T1 port. Generically, channels can be used for transporting signaling,

digitized voice, or data information. Unused channels typically are filled with defined idle codes designed to maintain sufficient ones density to ensure frame-level synchronization.

# Channel Associated Signaling (CAS)

An E1 framing option. On any given E1 card, Common Channel Signaling (CCS) and CAS are mutually exclusive and cannot be used together. However, CRC4 may be added to either CCS or CAS.

#### **Channel Bonding**

The software bonding of two physical IP links to provide automatic failover and redundancy.

# **Channel Bridging**

Non-signaling channels are bridged to an adjacent E1/T1 port for transport to other network devices. Likewise, signaling channels are merged to non-signaling data for transmission back to the mixed network. Channel Bridging is implemented by pairing E1/T1 ports limiting provisioning to odd E1/T1 ports only (1, 3, 5, 7) when enabled. The adjacent even numbered E1/T1 ports (2, 4, 6, 8) are used to allow the original non-signaling data received on the bridging master (odd) E1/T1 port to reach downstream network elements.

#### Channelized E1

E1 trunks are normally divided into 32 channels; up to 31 channels can carry SS7 traffic. Each such channel is a separate SS7 link, offering 64 Kbits/second of full duplex message traffic.

# Checksum

Check sums provide protection against data corruption in the network. The sender of a packet computes a checksum according to an algorithm. The receiver then re-computes the checksum, using the same algorithm. The packet is accepted if the checksum is valid; otherwise, the packet is discarded.

#### CI Clock Interface Card

#### CIC Carrier Identification Code

A 4-digit code that controls the routing applied to a message.

#### Circular Route Prevention (CRP)

A G-Port MNP feature that detects instances of circular routing caused by incorrect information in one or more of the network number portability databases. If a circular route has been detected, a message will be generated by the EAGLE 5 ISS and returned to the originator.

#### **Circular Routing**

A condition that could occur in the EAGLE 5 ISS if the routing data were configured incorrectly or were corrupted. If this should occur, the MSUs routed by the EAGLE 5 ISS could be routed in an endless circular route back to the EAGLE 5 ISS and never get to their proper destination.

CLDR SUA Connectionless Data Response

A message used for carrying SS7 UDTS/XUDTS messages.

CLDT SUA Connectionless Data Transfer

A message used for carrying SS7 UDT/XUDT messages.

CLLI Common Language Location Identifier

The CLLI uniquely identifies the STP in terms of its physical location. It is usually comprised of a combination of identifiers for the STP's city (or locality), state (or province), building, and traffic unit identity. The format of the CLLI is:

- The first four characters identify the city, town, or locality.
   The first character of the CLLI must be an alphabetical character.
- The fifth and sixth characters identify state or province.
- The seventh and eighth characters identify the building.

The last three characters identify the traffic unit.

#### Cluster

A group of signaling points whose point codes have identical values for the network and cluster fields of the point codes. A cluster entry in the routing table is shown as an asterisk (\*) in the member field of the point code, for example, 111-011-\*. Cluster entries can be provisioned only as ANSI destination point codes.

# **Cluster Destination Point Code**

A partial point code representing a cluster of point codes.

A destination point code (DPC) in the form *nnn-ccc-\**, where *nnn* is the network identifier, *ccc* is the network cluster identifier, and "\*" is a wildcard entry for the network cluster member identifier.

#### Cluster Routing and Management Diversity (CRMD)

A feature in the EAGLE 5 ISS that allows MSUs to be routed to a cluster of point codes and enhances the management of the SS7 traffic to the cluster of point codes.

CME Common Managed Element

CMOS Complementary Metal Oxide Semiconductor

CMOS semiconductors use both NMOS (negative polarity) and PMOS (positive polarity) circuits. Since only one of the circuit types is on at any given time, CMOS chips require less power than chips using just one type of transistor.

CNAM Calling Name Delivery Service

CNCF Calling Name Conversion Facility

#### Coherency

The operational status of the database. Coherency is an indication of whether the update to the database was successful. Each database has a coherency indicator. When an update is attempted, the coherency indicator is set to "incoherent" before the actual update is executed. When the update has been successfully completed, the coherency indicator is changed to coherent. If the update is not successful, the coherency indicator is not changed. If the coherency indicator is incoherent, this could be an indication of possible internal coherency problems when a restart is executed (for example, an index table was updated, but the corresponding data storage table was not modified).

# Common Channel Signaling (CCS)

Allows operation over a permanent virtual circuit network via modem-derived data links, used to exchange call setup and routing information for interoffice trunks and to allow for queries to centralized databases and other calling services.

# Common Channel Signaling System #7 (CCS7)

CCS7 offers all of the call setup advantages of CCS and also enables network elements to share more than just basic SS7 call-control information. It provides the services of the Integrated Services Digital Network-User Part (ISUP), the Transaction Capabilities Application Part (TCAP), and the Operation Maintenance and Administration Part (OMAP).

#### **Command Class**

A set of commands that are assigned to a user or to a terminal port. Command classes are assigned to a user with the <code>chg-user</code> or <code>ent-user</code> commands to control the commands that user can execute. Command classes are assigned to a terminal port whithe <code>chg-secu-trm</code> command to control the commands that can be executed on a particular terminal.

# Common Language Location Identifier (CLLI)

The CLLI uniquely identifies the STP in terms of its physical location. It is usually comprised of a combination of identifiers for the STP's city (or locality), state (or province), building, and traffic unit identity. The format of the CLLI is:

The first four characters identify the city, town, or locality.

The first character of the CLLI must be an alphabetical character.

The fifth and sixth characters identify state or province.

The seventh and eighth characters identify the building.

The last three characters identify the traffic unit.

#### Common Part Convergence Sublayer (CPCS)

The AATM hardware and ATM driver together make up the common part of the SAAL layer, also known as the Common Part Convergence Sublayer (CPCS) or AAL5CP, when the AAL type in question is AAL5.

# Common Screening List (CSL)

Each entry is identified by a feature name or part number which specifies the particular feature associated with the list, a List name which identifies a

screening list used by the feature, and a Digit String (DS) or Point Code (PC) which identifies the unique screening number.

A command used to enter list of numbers or point code which are used for screening messages in various features

Concerned Signaling Point Code (CSPC)

The point code that receives subsystem allowed and subsystem prohibited status messages about a particular global title translation node. These messages are broadcast from SCCP management.

#### Control Shelf

The shelf in the EAGLE 5 ISS that contains the Maintenance and Administration Subsystem. The Maintenance and Administration Subsystem contains 5 cards: 2 CAM cards, 2 TDMs (Terminal Disk Modules), and 1 MDAL (Maintenance Disk and Alarm) card. This shelf is designated as Shelf 1100 and cannot be added or removed from the database.

COTS Commercial Off-the-Shelf

CP Communications Processor

CPC Capability Point Code

CPCS Common Part Convergence Sublayer

The AATM hardware and ATM driver together make up the common part of the SAAL layer, also known as the Common Part Convergence Sublayer (CPCS) or AAL5CP, when the AAL type in question is AAL5.

CRC Cyclic Redundancy Check

A number derived from, and stored or transmitted with, a block of data in order to detect corruption. By recalculating the CRC and comparing it to the value originally transmitted, the receiver can detect some types of transmission errors.

CRMD Cluster Routing and Management Diversity

A feature in the EAGLE 5 ISS that allows MSUs to be routed to a cluster of point codes and enhances the management of the SS7 traffic to the cluster of point codes.

CRP Circular Route Prevention

A G-Port MNP feature that detects instances of circular routing caused by incorrect information in one or more of the network number portability databases. If a circular route has been detected, a message will be generated by the EAGLE 5 ISS and returned to the originator.

CSL Common Screening List

Each entry is identified by a feature name or part number which specifies the particular feature associated with the list, a List name which identifies a screening list used by the feature, and a Digit String (DS) or Point Code (PC) which identifies the unique screening number.

A command used to enter list of numbers or point code which are used for screening messages in various features.

# CSPC Concerned Signaling Point Code

# **CSPC Group Name**

The name of the concerned signaling point code group that contains the point codes that should be notified of the subsystem status.

# CSR Customer Service Request

#### Cyclic Redundancy Check (CRC)

A number derived from, and stored or transmitted with, a block of data in order to detect corruption. By recalculating the CRC and comparing it to the value originally transmitted, the receiver can detect some types of transmission errors.

# $\mathbf{D}$

#### daemon

A process that runs in the background and performs a specified operation at predefined times or in response to certain events.

# Database Service Module (DSM)

The DSM provides large capacity SCCP/database functionality. The DSM is an application card that supports network specific functions such as Eagle Provisioning Application Processor (EPAP), Global System for Mobile Communications (GSM), Eagle Local Number Portability (ELAP), and interface to Local Service Management System (LSMS).

#### **Data Collection Interface**

Incoming MSU data network interface from the Eagle SLAN card.

# Data Terminal Equipment (DTE)

The equipment associated with the entering and retrieving data from a computer system or a data communications system. A video display terminal is an example of data terminal equipment.

#### Database

All data that can be administered by the user, including cards, destination point codes, gateway screening tables, global title translation tables, links, LNP services, LNP service providers, location routing numbers, routes, shelves, subsystem applications, and 10 digit telephone numbers.

# Database Service Module (DSM)

The DSM provides large capacity SCCP/database functionality. The DSM is an application card that supports network specific functions such as Eagle Provisioning Application Processor (EPAP), Global System for Mobile Communications (GSM), Eagle Local Number Portability (ELAP), and interface to Local Service Management System (LSMS).

#### Database Transport Access (DTA)

A feature in the EAGLE 5 ISS that encapsulates specific MSUs into the data portion of SCCP within a new SS7 MSU and sends the new MSU to the

destination using global title translation. The EAGLE 5 ISS uses gateway screening to determine the MSUs that are used by the DTA feature.

DCE Data Communication Equipment

The data communication equipment associated with the transmission of data from one device to another. Examples of data communication equipment are modems, remote terminals, and communications processors.

DCM Database Communication Module

The DCM provides IP connectivity for applications. Connection to a host is achieved through an ethernet LAN using the TCP/IP protocol.

DEFCC Default Country Code

**DESTFLD** 

The point code in the affected destination field (the concerned signaling point code) of incoming MTP network management messages from another network that are allowed into the EAGLE 5 ISS.

Destination

The node to which the signaling link traffic is routed. This destination is identified by a point code, either a full point code or a cluster point code.

**Destination Point Code (DPC)** 

The point code of the signaling point to which the MSU is routed. This point code can be adjacent to the EAGLE 5 ISS, but does not have to be.

DHCP Dynamic Host Configuration Protocol

**Dialed Prefix** 

Digits present at the beginning of the Called Party that are entered by an end-user.

Digital Signal Level - 0 (DS0A)

The interface used with the LIMDS0 card.

DIP Dual In-Line Package

Used more to refer to a type of switch. A DIP switch is a series of tiny switches whose housing has the same shape as a chip.

DIX Digital/Intel/Xerox

Digital/Intel/Xerox de facto standard for Ethernet Media Access Control

Type.

DLK Data Link

TCP/IP Data Link

DMS Disk Management System

DN Directory number

A DN can refer to any mobile or wireline subscriber number, and can include

MSISDN, MDN, MIN, or the wireline Dialed Number.

Domain

A group of computers and devices on a network that are administered as a unit with common rules and procedures. The network in which the destination entity or node exists, X.25 or SS7.

DPC Destination Point Code

The point code of the signaling point to which the MSU is routed. This point code can be adjacent to the EAGLE 5 ISS, but does not have to be.

DRAM Dynamic Random Access Memory

A type of memory chip that has to be refreshed periodically.

DS0 Digital Signal Level-0 (64 Kbits/sec or 56 Kbits/sec)

A basic digital signaling rate of 64 Kbits/sec, corresponding to the capacity of one voice-frequency-equivalent channel.

one voice frequency equivalent ca

DS0A Digital Signal Level - 0

DS1 Digital Signal Level-1 (1.544Mbits/sec)

A widely used standard in telecommunications in North America and Japan to transmit voice and data between devices. The data transmitted over a physical T1 line.

DSM Database Service Module

The DSM provides large capacity SCCP/database functionality. The DSM is an application card that supports network specific functions such as Eagle Provisioning Application Processor (EPAP), Global System for Mobile Communications (GSM), Eagle Local Number Portability (ELAP), and interface to Local System (LSMS)

interface to Local Service Management System (LSMS).

**DSO** 

Fault sectionalization tests, a series of far-end loopback tests to identify faulty segments of an SS7 transmission path up to and including the remote network element.

**DSTN4000** 

The 4000 route set feature.

**DSTN5000** 

The 5000 route set feature; replaces the 4000 route feature. With this feature, the EAGLE 5 ISS supports, as a system-wide option, the administration and protocol changes required to support 5000 routes. The default for the routing option remains 2000 routes, and 500 x-list entries. No change in x-list capacity is required. Total routes table capacity is 5500 entries.

DTA Database Transport Access

A feature in the EAGLE 5 ISS that encapsulates specific MSUs into the data portion of SCCP within a new SS7 MSU and sends the new MSU to the destination using global title translation. The EAGLE 5 ISS uses gateway screening to determine which MSUs are used by the DTA feature.

DTE Data Terminal Equipment

The equipment associated with the entering and retrieving data from a computer system or a data communications system. A video display terminal is an example of data terminal equipment.

DYNRTK Dynamic Routing Key

The Dynamic Routing Key enhancement allows a socket to automatically direct traffic towards, or away from, itself by sending a message to the IP7 Secure Gateway. This enhancement allows customers to add IP7 routing key intelligence to their IP applications rather than requiring user entry of static routing keys.

E

E1

The European equivalent of T1 that transmits digital data over a telephone network at 2.048 Mbps.

E1/T1 Port

Generic reference to the trunk level ports on the E5-E1T1 used to stress the fact that the requirement using that term applies to both the E1 and T1 modes of operation.

E5-E1T1

A card that provides E1 and T1 connectivity on the EPM. The E5 indicates the card is for existing EAGLE 5 control and extension shelves. E1T1 is an abbreviation for the ITU E1 and ANSI T1 interfaces. Thus the nomenclature defines the shelves where the card can be used and the physical interface that it provides.

E5-ENET Eagle 5 Ethernet

A high capacity single-slot IP signaling card (EPM card plus Gig Ethernet PMC cards).

E5IS EAGLE 5 Support for Integrated Sentinel

The Eagle Support for Integrated Sentinel feature allows the network traffic on the EAGLE 5 ISS's signaling links to be monitored by an ESP (extended services platform) without additional intrusive cabling. Message Signaling Units (MSUs), alarms, and events are copied to the Sentinel to provide the network traffic monitoring. The monitored traffic is delivered to the Sentinel using the Eagle's STCs (Sentinel Transport Cards) which are connected to the ESP subsystem by Ethernet links. The ESP subsystem delivers the monitored traffic to the Sentinel.

EBDA Enhanced Bulk Download and Audit

**EBDABLM** 

The application software used by the TSM or DSM to store the LNP database downloaded from the LSMS for the Enhanced Bulk Download feature. This GPL does not support 24-bit ITU-N point codes.

**EBDADCM** 

The application software used by the DCM to transmit the LSMS LNP database at high speed over an Ethernet connection for the Enhanced Bulk Download feature. This GPL does not support 24-bit ITU-N point codes.

EBI See Extended Bus Interface

ECAP Eagle Collector Application Processor

A dedicated standalone platform for the collection of EAGLE 5 ISS traffic

statistical data.

EDCM Enhanced-performance DCM

EEPROM Electrically Erasable Programmable Read-Only Memory.

**EF** Extension Frame

EGTT Enhanced Global Title Translation

The Enhanced Global Title Translation (EGTT) feature is designed for the signaling connection control part (SCCP) of the SS7 protocol. The EAGLE 5 ISS uses this feature to determine to which service database to send the query

message when a Message Signaling Unit (MSU) enters the system.

EILA Enhanced Integrated LIM Appliqué

EIR Equipment Identity Register

ELAP Eagle LNP Application Processor

ELEI Exception List Exclusion Indicator

Electrically Erasable Programmable Read-Only Memory (EEPROM)

A special type of PROM that can be erased and reprogrammed individually during system operation. EEPROM retains its contents even when the power is turned off. Also like other types of ROM, EEPROM is not as fast as RAM.

EMDC Element Measurement and Data Collection Application

This application is used by the DCM card for CMIP/OSI measurement

collection interface as defined by Telcordia GR-376.

EMM Extended Memory Management

EMP Eagle Monitoring Protocol

EMS Element Management System

A system used to provide a top level management view of the network

elements.

**EMSALM** Element Management System Alarm Monitor

ENUM TElephone NUmber Mapping

A suite of protocols to unify the telephone system with the Internet. ENUM allows for an end user to be reached on multiple devices via one phone number and allows the end user to determine which device to contact first or

multiple devices simultaneously.

EOAM Enhanced Operation, Administration, and Maintenance

The application software used by the GPSM-II card for enhanced OAM

functions.

ENET Ethernet. Can refer to a generic hardware type that supports one or more

Ethernet interfaces.

EOAP Embedded Operation Support System Applications Processor

Also, Enhanced OSS Application Process.

EPAP Eagle Provisioning Application Processor

EPM Embedded Platform Module

A single-slot card that is similar to the high-capacity blade except that it uses a lower-power CPU and thus does not require external fan trays or extra power.

**Embedded Processor Module** 

A card that contains an Intel Celeron 1GHz processor, 256MB RAM, and other

enhancements, intended as replacement for K6 DCM-class cards.

EPROM See Erasable Programmable Read Only Memory

**Equipment Identity Register (EIR)** 

A network entity used in GSM networks, as defined in the 3GPP Specifications for mobile networks. The entity stores lists of International Mobile Equipment Identity (IMEI) numbers, which correspond to physical handsets (not subscribers). Use of the EIR can prevent the use of stolen handsets because the network operator can enter the IMEI of these handsets into a 'blacklist' and prevent them from being registered on the network, thus making them useless.

Erasable Programmable Read Only Memory (EPROM)

A type of storage device in which the data is determined by an electrical charge stored in an isolated transistor. The isolation is good enough to retain the charge almost indefinitely (more than ten years) without an external power source. The EPROM is programmed by charging the isolated transistor. The EPROM can be erased by applying ultraviolet light to the chip's surface through a quartz window in the package, allowing the chip to be reprogrammed.

**EROUTE** 

The application software used on the Sentinel Transport Card (STC) for the EAGLE 5 ISS with Integrated Sentinel feature. The Sentinel product does not support 24-bit ITU-N point codes.

ESF Extended Super Frame

ESP See Expanded Services Platform

ETSI European Technical Standards Institute

ETT See Existing Translation Type

# **Exception List**

An exception list for a cluster is a list of point codes in a cluster whose routes are more restricted than other routes to that cluster. This list contains point codes that are not assigned to any individual route set and the only route sets to that node is through a cluster route set. The exception list is a dynamic list that changes when the status of the cluster route sets changes.

# **Exception List Exclusion Indicator (ELEI)**

Indicates whether entries made to the exception list for each cluster point code are added to or changed in the destination point code table.

# **Existing Translation Type (ETT)**

The translation type value included in the called party address of a unitdata (UDT) or extended unitdata (XUDT) message on an incoming or outgoing gateway link set, which will be used for the translation type mapping function.

# **Expanded Services Platform (ESP)**

The ESP is the Sentinel system with the hardware and software platform that provides the interface to the Integrated Eagle and Sentinel monitoring system. The ESP hardware and software platform runs on the model 120 server.

#### **Extended Bus Interface (EBI)**

A local bus and not connected to the IMT bus. This allows every two card locations to communicate with each other without going over the IMT bus.

#### **Extension Shelf**

The shelves in the EAGLE 5 ISS that contain the LIM, ASM, and ACM cards. This shelf cannot contain the CAM, TDM, or the MDAL card. This shelf can be added to and removed from the database. These shelves are numbered from 1200 to 6100.

#### F

FAK See Feature Access Key.

**FAN** 

Command for cooling fan feature. The EAGLE 5 ISS will report on the alarm conditions of the fan assemblies. Once you have turned on the feature, you cannot turn it off. The feature applies to any and all fans installed within the system. When replacing a fan assembly, the feature should already be turned on.

#### FAP Fuse and Alarm Panel

#### Feature Access Key (FAK)

The feature access key allows the user to enable and activate a controlled feature in the system by entering either a permanent feature access key or a temporary feature access key. The feature access key is supplied by Tekelec.

#### File Transfer Area (FTA)

A special area that exists on each OAM hard disk, used as a staging area to copy files to and from the EAGLE 5 ISS using the Kermit file-transfer protocol.

# File Transfer Protocol (FTP)

A client-server protocol which allows a user on one computer to transfer files to and from another computer over a TCP/IP network.

# Fill In Signal Unit (FISU)

A signal unit transmitted on a signaling link that contains no signaling information or link status information. This signaling unit fills in any gaps between message signal units (MSUs) and link status signaling units (LSSUs) so that there is always be traffic on the signaling link. This ensures that both ends of the signaling link know that the signaling link is operational.

FISU See Fill In Signal Unit.

# Flow Through Messages

Messages that are transmitted both to and from SEAS and that contain supplier-specific requests for data, including nonstandard commands, STP responses to those commands, and undefined STP on-occurrence autonomous messages. They are called flow through messages because they are transferred across the SEAS-to-STP interface without any validation, interpretation, or processing by SEAS. Also known as Transparent Flow Messages.

FPC See Full Point Code.

FRU Field Replaceable Unit

FTA See File Transfer Area.

FTP See File Transfer Protocol.

FTRA FTP-based Table Retrieve Application

A feature designed in conjunction with the FTP Retrieve and Replace feature that allows for the transfer via a FTP session, of EAGLE 5 ISS database tables to a remote server for offline processing.

#### Full Point Code (FPC)

A point code that is specified with numerical values for all three segments of the point code. A cluster point code uses an asterisk (\*) as the member value for the point code entry.

#### G

#### G-Flex GSM Flexible numbering

A feature that allows the operator to flexibly assign individual subscribers to HLRs and route signaling messages, based on subscriber numbering, accordingly.

# G-Port GSM Mobile Number Portability

A feature that provides mobile subscribers the ability to change the GSM subscription network within a portability cluster, while retaining their original MSISDN(s).

# Gateway Link Set

A link set created on the SEAS interface that combines the functions of a gateway screening screen set. Like an EAGLE 5 ISS gateway screening screen set, a gateway link set defines the screening references that screen the messages on the link set. It also defines the link set whose messages are to be screened. A gateway link set can be configured only from a SEAS terminal and not from an EAGLE 5 ISS terminal.

# Gateway Screening (GWS)

Gateway Screening (GWS) is used at gateway STPs to limit access into the network to authorized users. A gateway STP performs inter-network routing and gateway screening functions. GWS controls access to nonhome SS7 networks. Only an MSU that matches predefined criteria in the EAGLE 5 ISS's database is allowed to enter the EAGLE 5 ISS.

# **Gateway Screening Redirect Function**

A function in the EAGLE 5 ISS that redirects specified MSUs to a customized database. The EAGLE 5 ISS uses gateway screening to qualify incoming MSUs for redirection. Once gateway screening is passed, the original MSU is encapsulated into a new MSU and routed to its new destination.

# GB Gigabyte — 1,073,741,824 bytes

GDB GSM Real-time Database

#### Generic Program Load (GPL)

The software that allows the various features in the system to work. GPLs and applications are not the same software.

#### General Purpose Service Module (GPSM-II)

The GPSM-II card contains the communications processor and applications processor and provides connections to the Interprocessor Message Transport (IMT) bus. The GPSM-II card can run on the OAM, IPS, or MCP applications.

# Global Title Translation (GTT)

A feature of the signaling connection control part (SCCP) of the SS7 protocol that the EAGLE 5 ISS uses to determine which service database to send the query message when an MSU enters the EAGLE 5 ISS and more information is needed to route the MSU. These service databases also verify calling card numbers and credit card numbers. The service databases are identified in the SS7 network by a point code and a subsystem number.

# GLS Generic Loading Services

An application that is used by the TSM cards for downloading gateway screening to LIM cards.

# GPL Generic Program Load

GPLM GPL Management

GPSM-II General Purpose Service Module

GR-OAP The EOAP that provides support for GR-495.

GSM Global System for Mobile Communications

GSMSCRN GSM MAP Screening.

A feature that allows the user to provision which MAP subsystem numbers are affected, which MAP operations codes to screen, which origination points

are allowed, and which error messages to use.

GTA See Global Title Address.

GTT See Global Title Translation.

GWS See Gateway Screening.

GX25 X25 Gateway

A software feature that allows the system to send and receive traffic to and from an X.25 network, and convert the packet to a Signaling System #7

Message Signaling Unit (SS7 MSU).

Н

HC-MIM High Capacity Multi-Channel Interface Module

HCAP High-Speed Communications & Applications Processor

HCB High-Capacity Blade

A DCM-like card with a Pentium 4 CPU running at 2.4 GHz, 256 MB-4,096 MB

DDRAM, ATA storage, etc.

HC-MIM High Capacity Multi-Channel Interface Module

A card that provides access to eight E1/T1 ports residing on backplane connectors A and B. Each data stream consists of 24 T1 or 31 E1 DS0 signaling links assigned in a time-division multiplex (TDM) manner. Each channel occupies a unique timeslot in the data stream and can be selected as a local signaling link on the interface card. Each card has 8 E1 or 8 T1 port interfaces with a maximum of 64 signaling links provisioned among the 8 E1/T1 ports.

HDB3 High Density Bipolar 3 Encoding

HECI Human Equipment Communication Interface

HDLC High Level Data Link Control

HIPR High-Speed IMT Packet Router

A card that provides increased system throughput and traffic capacity. HIPR moves EAGLE from an intra-shelf ring topology to an intra-shelf switch topology. HIPR acts as a gateway between the intra-shelf IMT BUS, running

at 125Mbps, and the inter-shelf operating at 1.0625Gbps. The HIPR card will seat in the same slot as an HMUX card (slots xx09 & xx10 of each shelf).

HLR Home Location Register

HMUX High-Speed Multiplexer

A card that supports the requirements for up to 1500 links, allowing communication on IMT buses between cards, shelves and frames. HMUX cards interface to 16 serial links, creating a ring from a series of point to point links. Each HMUX card provides a bypass multiplexer to maintain the ring's integrity as cards are removed and inserted into an operational shelf.

High-Speed IMT Multiplexer, a replacement card for the IPMX.

**HOMERN** Home Network Routing Number Prefix

HS High Speed

HSL High-Speed Links

Ι

IAD Integrated Access Device

IAM Initial Address Message

ICM IMT configuration manager task

ICNP IntraCarrier Number Portability

ID Identity, identifier

IDCA ISUP Digit Collection Application

An application running on an adjunct Tekserver to complete the Called Party Number Address digits from the IAM and the related SAM messages. IDCA assembles and concatenates the Called Party Number Address digits from

IAM/SAM message(s) to complete it

IDP Initial detection point

IDPR Prepaid IDP Query Relay Feature

**IDP Query** 

IDP is the INAP "Initial Detection Point" message. When the message comes

in a TCAP Begin package, it is referred to as an IDP Query message

IEC International escape code

IETF Internet Engineering Task Force

IGTT Intermediate GTT

An EAGLE 5 ISS feature that routes a Global Title message based on the

Global Title Translation.

IGTTLS Intermediate Global Title Translation Load Sharing

ILA Integrated LIM Appliqué

ILDR IMT loader task

IMEI International Mobile Equipment Identifier

IMF Integrated Message Feeder

A data acquisition system similar to Sentinel.

IMSI International Mobile Station Identifier

IMT Inter-Module-Transport

The communication software that operates the inter-module-transport bus on

all cards except the LIMATM, DCM, DSM, and HMUX.

IMT Bus Interprocessor Message Transport Bus

The main communications artery between all subsystems in the EAGLE 5 ISS. This high-speed communications system is comprised of two 125 Mbps counter-rotating serial buses. The IMT bus uses load sharing, so messages from the various subsystems are divided evenly across both busses. In the event one bus should fail, the other immediately assumes control of all messages. The IMT buses can function as a private IAN assigning internal IP.

messages. The IMT buses can function as a private LAN assigning internal IP address to LIM cards allowing monitoring of SS7 links without external

connections.

IMTC IMT Control task

INAP Intelligent Network Application Protocol

**Incoming Gateway Link Set** 

A link set designated as one in which messages are being received from

another signaling network.

INP INAP-based Number Portability

The INP feature supports ported variable-length numbers up to 15 digits, without requiring the padding of numbers in the provisioning interfaces. The INP feature can be turned on, but not off, via a feature bit. Note that INP and North American Local Number Portability (LNP) are mutually exclusive on an EAGLE 5 ISS node. The global title translations (GTT) feature is required

for operation of the INP feature.

INPQ INAP Number Portability Query Processing Subsystem

IN Prefix Intelligent Network Prefix

A prefix pre pended to 'Regular' E164 number in the IAM message to route

the IAM to the SSP.

**INPrefix Priority** 

A priority number (0 to 255) is assigned to each Originating or Terminating INPrefix. 0 is the given the highest priority during processing, and 255 is

given the lowest priority.

The entity is in service and handling all its normal service functions.

**Integrated Sentinel** 

The Integrated Sentinel product provides monitoring capabilities for Signaling System 7 (SS7) links. Integrated Sentinel includes network surveillance capabilities and fault-management functions.

Integrated Serial Communications Controller (ISCC) loopback test.

A test that determines if the hardware and software up to the ISCC chip is the cause for a link failure.

IP Internet Protocol

IP specifies the format of packets, also called datagrams, and the addressing scheme. The network layer for the TCP/IP protocol suite widely used on Ethernet networks, defined in STD 5, RFC 791. IP is a connectionless, best-effort packet switching protocol. It provides packet routing, fragmentation and re-assembly through the data link layer.

IP7 Tekelec's Internet Protocol to SS7 Interface

**IP Address** 

The location of a device on a TCP/IP network. The IP Address is a number in dotted decimal notation which looks something like [192.168.1.1].

IPD IMT Processor DCM operational code

IPGHC GPL name for IPGWx on the High-Capacity Blade platform.

**IPGWI** 

An application that is used by the DCM/SSEDCM card for IP point-to-multipoint connectivity within an ITU-I or ITU-N network. The system allows a maximum of 64 cards to be assigned the IPGWI application.

**IPGWx** 

Point-to-multipoint MTP-User signaling (e.g. ISUP, TCAP) over IP capability. Typically used for A link connectivity which require routing keys. Far End not required to support MTP3. The IPGWx GPL (IPGWI, SS7IPGW) run on the DCM/SSEDCM hardware.

**IPGWx IP TPS** 

In addition to the IPGWx system IP TPS, there is a configurable per-linkset IP TPS, which must sum across all linksets to no more than the IPGWx system IP TPS.

IPISUP ISUP Routing Over IP feature

This functionality allows SS7 nodes to exchange ISUP protocol messages with one or more signaling end points (class 4 switches, class 5 switches, VoIP gateways, Media Gateway Controllers (MGCs), or remote access servers) residing on an IP network.

IPLHC GPL name for IPLIMx on the High-Capacity Blade platform.

**IPLIM** 

The application software used by the DCM/SSEDCM card for IP point-to-point connectivity for ANSI point codes.

**IPLIMI** 

The application software used by the DCM/SSEDCM card for IP

point-to-point connectivity for ITU point codes.

**IPLIMx** 

Point-to-point MTP3 and MTP3-User signaling over IP capability. Typically used for B-C-D links but can be used for A links but does not have routing key functionality. Far End required to support MTP3. The IPLIMx GPL (IPLIMI, IPLIAN) and IRLAND CALL (SOURCE) and IRLAND C

IPLIM) run on the DCM/SSEDCM hardware.

IPMX IMT Power and Multiplexer card

IPS Internet Protocol Services

An application that is used by the IPSM card for the IP User Interface and FTP

Retrieve and Replace features.

IPSM IP Services Module

A card that provides an IP connection for Telnet and FTP-based Table Retrieve applications. The IPSM is a GPSM-II card with a one Gigabyte (UD1G) expansion memory board in a single-slot assembly running the IPS

application.

IPSP IP Server Process

A process instance of an IP-based application. An IPSP is essentially the same as an ASP, except that it uses MU3A in a peer-to-peer fashion. Conceptually,

an IPSP does not use the services of a signaling gateway.

IS-41 Interim Standard 41, same as and interchangeable with ANSI-41.

IS-ANR In Service - Abnormal

The entity is in service but only able to perform a limited subset of its normal

service functions.

IS-NR In Service - Normal

ISCC Integrated Serial Communications Controller

ISDN Integrated Services Digital Network

The network services that provides end to end digital connections to which users have access to a wide range of services through a limited set of standard

user to network interfaces.

ISR Interrupt Service Routine

ISUP ISDN User Part

ITU International Telecommunications Union

ITU DTA ITU Database Transport Access (DTA)

ITU International Point Code (ITU-I)

A point code that is in the ITU international format, three groups of digits separated by hyphens. These groups of digits are called zone, area, and id.

ITU National Point Code (ITU-N)

A point code that is in the ITU national format, a number up to 5 digits.

ITU-N 24-bit Point Code

In the People's Republic of China (PRC), the national signalling network uses ITU-national procedures with 24-bit ITU national point codes (14-bit point codes are traditionally used in ITU national networks).

ITUDUPP ITU National Duplicate Point Code

This feature applies only to 14-bit ITU national point codes. This feature allows an EAGLE 5 ISS mated pair to route traffic for two or more countries that may have overlapping point code values.

ITUMTPRS ITU MTP Restart

A feature that delays the alignment of all ANSI signaling links until all the LIMs containing ANSI signaling links are in service. This allows the system to be restored to network service in an orderly fashion and allows all the LIMs containing ANSI signaling links to participate in the MTP restart process.

IXP

An Intel network processor used on the HIPR card.

K

Key

For the ICNP feature, a unique DS value used to access a table entry,

consisting of a number length and number type.

KHz Kilo Hertz (1000 Hertz)

L

LAN Local Area Network

See also STP LAN.

LBP Loopback Point

The point on the signaling link at which each loopback test ends is called the far-end loopback point. A far-end loopback point (LBP) is achieved when the remote link element (RLE) sends the received data back to the transmitter,

allowing the transmitter to verify the received data.

LC Logical Channel

LC2NM Logical Channel to Network Management

LCA Logic Cell Array

**Leading Digits** 

The first one or more digits of the CdPN of an IAM message, used as the digit string (DS) key to access the IAM filter list.

LED Light Emitting Diode

Level 2 Timers

The MTP level 2 timers that control the operation of signaling links.

Level 3 Timers

The MTP level 3 timers that control the operation of link sets.

LFS Link Fault Sectionalization

Light Emitting Diode (LED)

An electrical device that glows a particular color when a specified voltage is

applied to it.

LIM Link Interface Module

LIM-AINF

A link interface module (LIM) with the AINF interface.

LIM-ATM

A link interface module (LIM) with the ATM interface.

LIM-DS0

A link interface module (LIM) with the DS0A Appliqué.

LIM-E1

A link interface module (LIM) with the E1 Appliqué.

LIM-OCU

A link interface module (LIM) with the OCU Appliqué.

LIM-T1

A link interface module (LIM) with the T1 Appliqué.

LIM-V.35

A link interface module (LIM) with the V.35 interface.

Link Signaling Link

Link Fault Sectionalization (LFS)

A feature in the EAGLE 5 ISS that allows the maintenance personnel to perform a series of far end loopback tests, from the EAGLE 5 ISS and identify faulty segments of an SS7 transmission path up to and including the remote network element.

Link Interface Module (LIM)

The Link Interface Module (LIM) provides access to remote SS7, X.25, IP and other network elements, such as a Signaling Control Point (SCP) through a variety of signaling interfaces (V.35, OCU, DS0, MPL, E1/T1 MIM, LIM-ATM, E1-ATM, IPLIMx, IPGWx). The LIMs consist of a main assembly and possibly, an interface appliqué board. These appliqués provide level one and some level two functionality on SS7 signaling links.

# Link Set (LS)

A group of signaling links carrying traffic to the same signaling point.

# Link Set Name (LSN)

The name of the link set.

LNP Local Number Portability

LNPMR LNP Message Relay

LNPQS LNP Query Service

LNP SMS LNP Short Message Service

#### LNP Subsystem Application

The subsystem of the EAGLE 5 ISS assigned to the LNP feature.

# **LNP Translation Type**

The translation type used by the global title translation table that determines the routing to an LNP database.

#### **Load Sharing**

A type of routing used by global title translation to route MSUs This type of routing is used when a second point code and subsystem is defined for the primary point code and subsystem. Traffic is shared equally between the replicated point codes and subsystems.

#### Local Area Network (LAN)

A private data network in which serial transmission is used for direct data communication among data stations located in the same proximate location. LAN uses coax cable, twisted pair, or multimode fiber.

# Local Number Portability (LNP)

A feature that allows a user served by one switch to move their telephone service to a different switch without changing their telephone number.

# Local Service Management System (LSMS)

An interface between the Number Portability Administration Center (NPAC) and the LNP service databases. The LSMS receives LNP data from the NPAC and downloads that data to the service databases. LNP data can be entered into the LSMS database. The data can then be downloaded to the LNP service databases and to the NPAC.

# Location Routing Number (LRN)

A 10 digit number identifying the new location of the ported 10 digit telephone number.

# Logical Channel (LC)

A virtual circuit or a connection used by the X.25 network. There are two types of logical channels used in the X.25 network, PVCs (permanent virtual circuits) and SVCs (switched virtual circuits). A PVC is a direct connection to an X.25 node. The EAGLE 5 ISS uses two types of SVCs, an automatic switched virtual circuit (SVCA) and a remote switched virtual circuit (SVCR).

An SVCA is a connection to an X.25 node established by the EAGLE 5 ISS as soon as the X.25 LIM (a LIM that is running the ss7gx25 application assigned to it) initializes. An SVCR is a connection to an X.25 node established by the far end X.25 user.

# Logical Channel to Network Management (LC2NM)

A function of the SS7/X.25 gateway feature that allows SS7 network management to reroute traffic destined for failed X.25 logical channels to an alternate route, and reroutes traffic back to the original X.25 logical channels when the X.25 logical channels are back in service.

# Logical Channel to Network Mapping (LC2NMX)

A feature of the SS7/X.25 gateway feature that allows SS7 network management to reroute traffic destined for failed X.25 logical channels to an alternate route, and reroutes traffic back to the original X.25 logical channels when the X.25 logical channels are back in service.

LRN Location Routing Number

A 10 digit number identifying the new location of the ported 10 digit

telephone number.

LS Link Set

LSMS Local Service Management System

LSN Link Set Name

LUDT Long User Data

LUDTS Long User Data Services

#### M

M256 256 Megabyte Memory Expansion Card

M2PA SS7 MTP2-User Peer-to-Peer Adaptation Layer

M3UA SS7 MTP3-User Adaptation Layer

MAAL Management ATM Application Layer

MAP Mobile Application Part

#### Maintenance and Administration Subsystem (MAS)

The Maintenance and Administration Subsystem (MAS) provides services to other subsystems, and consists of the following cards: General Purpose Service Module (GPSM-II), Terminal Disk Module (TDM), and Maintenance Disk and Alarm (MDAL).

Maintenance and Administration Subsystem Processor (MASP)

The Maintenance and Administration Subsystem Processor (MASP) function is a logical pairing of the GPSM-II card and the TDM card. The GPSM-II card

is connected to the TDM card by means of an Extended Bus Interface (EBI) local bus.

The MDAL card contains the removable cartridge drive and alarm logic. There is only one MDAL card in the Maintenance and Administration Subsystem (MAS) and it is shared between the two MASPs.

# Maintenance Disk and Alarm (MDAL) Card

Provides Alarming and cartridge-based loading of software. It contains a 2.3 Gbyte removable cartridge drive and alarm logic. There is only one MDAL card in the maintenance and administration subsystem and it is shared between the two MASPs.

# **Management Information Database**

The SNMP agent maintains data variables that represent aspects of the IP card. These variables are called managed objects and are stored in a management information base (MIB). The SNMP protocol arranges managed objects into groups.

MAS Maintenance and Administration Subsystem

> A set of cards located in the Control Shelf, used to provide a central management point for the Eagle 5 ISS. The MAS provides user interface, maintenance communication, peripheral services, alarm processing, system disk interface, and measurements using the following three subassemblies: GPSM-II, TDM, and MDAL.

**MASP** Maintenance and Administration Subsystem Processor

#### Mate Point Code

The point code of the backup signaling point that receives the message routed by global title translation.

#### Mated Application

The point codes and subsystem numbers of the service databases that messages are routed to for global title translation.

#### Mated Relay Node (MRN)

A mated relay node (MRN) group is provisioned in the database to identify the nodes that the traffic is load shared with, and the type of routing, either dominant, load sharing, or combined dominant/load sharing.

MAU Media Access Unit

#### **MAXSTAT**

A parameter of the chg-atm-lps command and a field in the rtrv-atm-lps command output identifying the maximum number of list elements in a STAT PDU.

Maintenance Bus **MBUS** 

MB Megabyte — A unit of computer information storage capacity equal to 1,048,

576 bytes.

**MCA** Matrix Controller Assembly

MCAP Maintenance Communications & Applications Processor

MCP Measurement Collection Processor

This application is used by the MCPM card for the Measurements Platform

feature.

MCPM Measurement Collection and Polling Module

MDAL Maintenance Disk and Alarm Card

MEASPLAT Measurements Platform

The Measurements Platform feature supports the EAGLE 5 ISS beyond 700 links by providing a dedicated processor for collecting and reporting STP, LNP, INP, G-Flex, and G-Port Measurements data. The Measurement Platform collection function cannot be disabled once it is enabled in the system.

Measurement Collection and Polling Module (MCPM)

The Measurement Collection and Polling Module (MCPM) provides comma delimited core STP measurement data to a remote server for processing. The MCPM is an EDSM with 2 GB of memory running the MCP application.

Media Access Unit (MAU)

An industry standard single port Ethernet transceiver that connects the ACM to the Ethernet.

Message Reference Number (MRN)

An unsolicited numbered message (alarm or information) that is displayed in response to an alarm condition detected by the system or in response to an event that has occurred in the system.

# Message Signaling Unit (MSU)

The SS7 message that is sent between signaling points in the SS7 network with the necessary information to get the message to its destination and allow the signaling points in the network to set up either a voice or data connection between themselves. The message contains the following information:

- The forward and backward sequence numbers assigned to the message which indicate the position of the message in the traffic stream in relation to the other messages.
- The length indicator which indicates the number of bytes the message contains.
- The type of message and the priority of the message in the signaling information octet of the message.
- The routing information for the message, shown in the routing label of the message, with the identification of the node that sent message (originating point code), the identification of the node receiving the message (destination point code), and the signaling link selector which the EAGLE 5 ISS uses to pick which link set and signaling link to use to route the message.

Message Transfer Part (MTP)

The levels 1, 2, and 3 of the SS7 protocol that control all the functions

necessary to route an SS7 MSU through the network.

MF Miscellaneous Frame

MG Media Gateway

**MGC** Media Gateway Controller

**MGCP** Media Gateway Controller Protocol

**MGTT Modified Global Title Translation** 

> The Modified Global Title Translation (MGTT) feature allows customizing of the GTT information in the MSU (in addition to the Translation Type) to ensure correct routing. The Global Title information can be modified on outbound MSUs for some networks in order to be compatible with the network the MSU is going to. The MGTT feature replaces the Prefix Deletion

of Global Title (PRFXDLGT) feature.

**MIB Management Information Database** 

MIM Multi-Channel Interface Module

**MINLEN** 

A parameter of the chg-secu-dflt command and a field in the

rtrv-secu-dflt command output showing the minimum length of the

password.

**MNP** Mobile Number Portability

**MNP SMS** 

Portability Check for Mobile Originated SMS

MODE

A parameter of the chg-slt command and a field in the rtrv-slt command output showing the mode used when sending signaling link test messages, regular or special.

special - All SLTMs generated by the links in the link set associated with this

SLTM record are designated "special" maintenance messages.

regular - All SLTMs generated by the links in the link set associated with this

SLTM record are designated "regular" maintenance messages.

**MNP SNS** Portability Check for Mobile Originated SMS

**MPC** Mate Point Code

Multiple Point Code

**MPL** Multi-port LIM

**MPS** Multi-Purpose Server

MR Message Relay

MRG Message Relay Group

MRN Mated Relay Node

MSAR Memory Space Accounting Report

MSC Mobile Switching Center

MSISDN Mobile Station International ISDN Number

The MSISDN is the number dialed by someone trying to reach the subscriber.

MSRN Mobile Station Roaming Number

MSU See Message Signaling Unit

MTOS Multi-Tasking Operating System

MTP Message Transfer Part

MTP2 Message Transfer Part, Level 2

MTPP MTP Primitives

Messages that the IPGWx application generates to communicate SS7 network

management events (SNMs) to IP-attached network elements.

**MTPRS** 

ANSI MTP Restart (MTPRS) provides an orderly process for bringing signaling links back into service after the system has been isolated and restarted. A greater preference is given to restoring the STP to network service

in an orderly fashion than to the speed of recovery.

Multiple Point Code

The MPC (Multiple Point Code) feature enables the user to use SPCs (Secondary Point Codes) in addition to the true point codes that the EAGLE 5 ISS uses. The SPCs are used for provisioning and routing as if they were the true point code of the EAGLE 5 ISS. SPCs can be provisioned in any of the three domains (ANSI, ITU-N, and ITU-I). SPCs are supported for any type of link.

Multi-Purpose Server (MPS)

The Multi-Purpose Server provides database/reload functionality and a variety of high capacity/high speed offboard database functions for applications. The MPS resides in the General Purpose Frame.

## N

NAT address

A static IP address used outside of the firewall for remote access to the MPS. Static address mapping makes systems that are behind the firewall appear to have public addresses on the external network. A one-to-one mapping exists between internal and external addresses. An external address must be assigned to the NAT firewall for each MPS side. The external addresses must be entered into the MPS database in order for the Web user interface to be fully functional.

NCR Nested Cluster Routing

A feature that allows the system to support full point code entries on different

routes within a cluster.

NDC Network destination code

NE Network Element

NEAS Non-Frame Alignment Signal

NEBS Network Equipment Building Systems

#### **NETWORK**

A field in the rtrv-cspc command output showing the type of point codes contained in the concerned signaling point code group.

## Network Element (NE)

An independent and identifiable piece of equipment closely associated with at least one processor, and within a single location.

## Network Equipment-Building System (NEBS)

The EAGLE 5 ISS complies with the requirements of Bellcore's TR-NWT-000063, Network Equipment-Building System (NEBS) Generic Equipment Requirements. This document lists the generic requirements for all new telecommunications equipment systems used in central offices and other telephone buildings.

### Network Services Part (NSP)

The lower layers of the SS7 protocol, comprised of the three levels of the Message Transfer Part (MTP) plus the signaling Connection Control Part (SCCP), are known collectively as the Network Services Part (NSP).

NFAS Non-Frame Alignment Signal

NI Network Indicator

### Non-ANSI Domestic Point Code

A point code format used in the United States that does not meet the ANSI standard, but does not use the ITU international or ITU national point code formats. The non-ANSI domestic point code is made up of three groups of digits called network, cluster, and member, just like the ANSI point code. The values for each of these groups are from 0 to 255.

#### Northbound Interface

An interface to an entity that resides higher in the management hierarchy. For example there is a northbound interface from an Eagle OAM to an EMS.

NP Number Plan

NPA See Number Plan Area.

NPAC Number Portability Administration Center

NPANXX The area code and office prefix of a telephone number. For example, with the

telephone number 919-555-1212, the digits 919 are the area code (NPA) and

the digits 555 are the office prefix (NXX).

NRT The Network Routing (NRT) feature allows provisioning of a single routeset

to be used for all MSUs destined to members of that network.

NSG Tekelec's Network Signaling Group

NSP Network Services Part

Number Conditioning

Conversion of incoming digits into subscriber format prior to RTDB lookup and conversion of outgoing RTDB digits into a format matching the original

incoming digits.

Number Plan Area (NPA)

The North American "Area Codes." (3 digits: 2- to-9, 0-or1, 0-to-9. Middle

digit to expand soon).

NXX Exchanges

O

OAM Operations, Administration, and Maintenance

OAMP Operations, Administration and Maintenance Part

OAM switchover

When the Active OAM gives up control (e.g. Init, Isolated, Obit) and either the Standby OAM becomes the Active or the old Active becomes a newly re initialized Active. This is a time when existing maintenance and status

information is lost and must be relearned.

OAP

The application software running on the OAP used for the SEAS and LNP features. The LNP feature can be enabled only for a quantity of 2 to 12 million

numbers. This GPL does not support 24-bit ITU-N point codes. See also Operations Support System Application Processor.

OAPF Operations System Support / Applications Processor Frame

OCU Office Channel Unit

OEM Original Equipment Manufacturer

Office Channel Unit (OCU)

The interface used with the LIMOCU card.

OOS-MA Out of Service - Memory Administration

OOS-MT Out of Service - Maintenance

### OOS-MT-DSBLD

Out of Service - Maintenance Disabled

OPC Originating Point Code

## Open System Interconnection (OSI)

The International Standards Organization (ISO) seven layer model showing how data communications systems can be interconnected. The seven layers, from lowest to highest are:

- 1. Physical layer
- 2. Datalink layer
- 3. Network layer
- 4. Transport layer
- 5. Session layer
- **6.** Presentation layer
- 7. Application layer

### Operations, Administration, and Maintenance (OAM)

The generic load program (application software) that operates the Maintenance and Administration Subsystem which controls the operation of the EAGLE 5 ISS.

## Operations Support System Application Processor (OAP)

A stand-alone processor that acts as an interface between:

- The EAGLE 5 ISS and OSS (operation support system) devices using standard interfaces and converting the communications to the EAGLE 5 ISS proprietary serial interface.
- The EAGLE 5 ISS LNP and the SEAC (Signaling Engineering and Administration Center), for the SEAS feature, converting SEAS commands into EAGLE 5 ISS LNP commands and EAGLE 5 ISS LNP commands into SEAS commands.
- The EAGLE 5 ISS LNP and the SMS (Service Management System), for the LNP feature, receiving LNP data and commands from the SMS and converting the SMS commands into EAGLE 5 ISS LNP commands and loading the LNP data onto the EAGLE 5 ISS LNP.

## Originating Point Code (OPC)

The point code of the signaling point that is sending MSUs to the EAGLE 5 ISS

OS Operations Systems

OSI Open System Interconnection

### Out Of Service - Maintenance (OOS-MT)

The entity is out of service and is not available to perform its normal service function. The maintenance system is actively working to restore the entity to service.

Out Of Service - Maintenance Disabled (OOS-MT-DSBLD)

The entity is out of service and the maintenance system is preventing the entity from performing its normal service function.

Out Of Service - Memory Administration (OOS-MA)

The entity is out of service because it has not been equipped.

### P

### **Pacing Rate**

The rate that the EAGLE 5 ISS sends the TFR and TFA messages in an effort to prevent congestion due to controlled rerouting. Controlled rerouting is performed when the status of the route is changed to allowed (when the route was restricted) or restricted (when the route was prohibited). A burst of rerouted traffic can occur on that route, thus congesting the route. To help keep this from happening, the EAGLE 5 ISS can control the rate that it broadcasts TFR and TFA messages to adjacent signaling points. This can regulate the amount of traffic the adjacent signaling points can send to the EAGLE 5 ISS when the route becomes allowed or restricted.

PC See Point Code.

PCS Personal Communications Service (North American GSM)

PDBA Provisioning Database Application

PDBI Provisioning Database Interface

PDN Public Data Network

PDS Persistent Device States

Permanent Virtual Circuit (PVC)

A direct connection to an X.25 node that is configured in the EAGLE 5 ISS's database and can only be changed through database administration.

**PLNP** 

The Personal Communications Service (PCS) 1900 LNP Query (PLNP) feature provides for LNP query/response in a PCS wireless environment using the LRN method to support Service Provider Number Portability.

PLNPQS LNPQS support provided for PLNP.

PMTC Peripheral Maintenance

PPSMS Prepaid Short Message Service Intercept

### Point Code (PC)

The identifier of a signaling point or service control point in a network. The format of the point code can be one of the following types:

- ANSI point codes in the format network indicator-network cluster-network cluster member (ni-nc-ncm).
- Non-ANSI domestic point codes in the format network indicator-network cluster-network cluster member (ni-nc-ncm).
- Cluster point codes in the format network indicator-network cluster-\* or network indicator-\*-\*.
- ITU international point codes in the format zone-area-id.
- ITU national point codes in the format of a 5-digit number (nnnnn), or 2, 3, or 4 numbers (members) separated by dashes (m1-m2-m3-m4) as defined by the Flexible Point Code system option. A group code is required (m1-m2-m3-m4-gc) when the ITUDUPPC feature is turned on.
- 24-bit ITU national point codes in the format main signaling area-subsignaling area-service point (msa-ssa-sp).

The EAGLE 5 ISS LNP uses only the ANSI point codes and Non-ANSI domestic point codes.

## PPC See Private Point Code.

## Prepaid IDP Query Relay

A feature (IDP Relay) that provides a mechanism to insure correct charging for calls from prepaid subscribers in a portability environment.

## Preventive Cyclic Retransmission (PCR)

A method of error correction used for the SS7 protocol. PCR is an error correction method that keeps a copy of each message signal unit transmitted on a signaling link in a retransmission buffer. If the receiving end of the signaling link receives the MSU with no errors, positive acknowledgment message is sent to the transmitting end of the signaling link. The MSU is then discarded from the retransmission buffer. If the transmitting end of the signaling link does not receive positive acknowledgment from the receiving end of the signaling link, the MSU is retransmitted until positive acknowledgment is received. The PCR error correction method is assigned to SS7 signaling links using the ent-slk command. The PCR method of error correction cannot be assigned to X.25 signaling links.

### Primary State (PST)

A field in the rept-stat command outputs showing the primary state of the specified entity.

#### Private Point Code

Also known as Internal Point Codes, used for internal routing within the EAGLE or for routing to co-resident IP connected nodes sharing the EAGLE's external Point Code.

## Private Virtual Network (PVN)

Private Virtual Network represents the internal IP addressing scheme for every card within the EAGLE 5 ISS switch. Each card has an auto-assigned, default, Class B private IP address.

## Programmable Read Only Memory (PROM)

A kind of ROM which is written using a programmer. The contents of each bit is determined by a fuse or antifuse. The memory can be programmed once after manufacturing by "blowing" the fuses, which is an irreversible process. Blowing a fuse opens a connection while blowing an antifuse closes a connection.

PROM Programmable Read Only Memory

Prototype

A software build derived from code that has not yet completed the full development cycle. The software is built and numbered according to Tekelec's standard process (an "official" build), with the media physically labeled as prototype. The product may or may not contain all intended features and has completed preliminary design Unit Test. This product has not completed Feature Test or System Test.

### **Provisioning Blacklist**

A list of ranges that are prohibited from being used as DNs, DN Blocks, and IMSI address strings.

## **Provisioning Blacklist Range**

A range of protected address strings of network elements, such as the E.164 address of HLRs.

### Provisioning Database Application (PDBA)

There are two Provisioning Database Applications (PDBAs), one in EPAP A on each EAGLE 5 ISS. They follow an Active/Standby model. These processes are responsible for updating and maintaining the Provisioning Database (PDB).

### Provisioning Database Interface (PDBI)

The interface consists of the definition of provisioning messages only. The customer must write a client application that uses the PDBI request/response messages to communicate with the PDBA.

PST Primary State

PSTN Public Switched Telephone Network.

Public Data Network (PDN)

A data network that uses the X.25 protocol to provide the connectivity.

PVC Permanent Virtual Circuit

PVN Private Virtual Network

# $\mathbf{Q}$

## Q3 Q3 Protocol

### **Query Processing**

The steps required to produce a response to a single MSU request message, which may be an IAM (with optional SAM) or an SRI.

## R

RAM Random Access Memory

A type of computer memory that can be accessed randomly; that is, any byte of memory can be accessed without touching the preceding bytes.

**RCx** 

A Signaling-Route-Set-Test for either a prohibited or restricted cluster network management message.

## Recovered Timing Mode

This timing mode on the HC-MIM applies to Channel Bridging. The port with this mode selected uses the other member of the bridged-pair as a clock source, ensuring that both ports are using the same clock for line stability.

## RFC Request for Comment

#### REDIRECT

A function of the gateway screening commands that specifies whether messages that pass gateway screening are diverted, by the gateway screening redirect function, from its original destination to another destination for further processing.

#### Remote Link Element (RLE)

The hardware elements of the signaling link (for example, data ports in channel banks, link interfaces in STPs that are assigned to remote loopback points for the link fault sectionalization feature.

### Remote Loopback Point

A segment of a signaling link that is tested with the link fault sectionalization feature.

### Remote Switched Virtual Circuit (SVCR)

A connection to an X.25 node established by the far end X.25 user.

## Restricted

The network management state of a route, link set, or signaling link that is not operating properly and cannot carry all of its traffic. This condition only allows the highest priority messages to sent to the database entity first, and if space allows, followed by the other traffic. Traffic that cannot be sent on the restricted database entity must be rerouted or the traffic is discarded.

#### RLE See Remote Link Element.

RMA Return Material Authorization

RMTP Reliable Multicast Transport Protocol

RN Routing Number

Route

A path to another signaling point.

Route set

A group of routes, no more than six, carrying traffic to the same destination.

**Routing Key** 

A Routing Key describes a set of SS7 parameter and parameter values that uniquely define the range of signaling traffic to be handled by a particular Application Server. For example, where all traffic directed to an SS7 DPC, OPC and ISUP CIC\_range(s) or SCCP SSN is to be sent to a particular Application Server, that SS7 data defines the associated Routing Key.

RTDB DSM Real-time database

RTT Round Trip Time

# S

SAAL Signaling ATM Adaptation Layer

SAM Subsequent Address Message

SAPC Secondary Adjacent Point Code

SCCP Signaling Connection Control Part

An application that is used by the TSM cards for the global title translation and LNP features. The LNP feature can be enabled only for a quantity of 2 to 228 million numbers.

SCCP Management (SCMG)

The portion of the SCCP subsystem that performs network management functions for the SCCP subsystem such as, rerouting signaling traffic when network failures or congestion conditions occur. MTP network management informs SCCP of any changes in point code routing status. Changes in subsystem status are updated by using the subsystem allowed and subsystem prohibited procedures of SCCP management. SCCP management updates the status of point codes and subsystems. Also SCCP management broadcasts subsystem allowed and prohibited messages to concerned nodes.

## **SCCP Routing Control**

The portion of the SCCP subsystem that determines where SCCP messages are routed.

**SCCPCNV** 

The SCCP conversion features allow the system to convert MTP-routed SCCP messages from ANSI to ITU format and to convert ITU formatted messages to

ANSI.

SCM System Configuration Manager

System Configuration Matrix.

SCN Switched Circuit Network

SCP See Service Control Point.

Screen Set

A screen set is a gateway screening table containing a list of rules, or screening references. The screening references indicate the screening action that is to be performed on a message in a specific linkset.

**Screening Reference** 

The name of each entry in the gateway screening tables. Combined with the next screening function identifier (NSFI), it uniquely defines a screening table. This field is used with all screening functions except the screen set screening function.

SCSI Small Computer System Interface

SCSI bus Small Computer System Interface bus

There are two independent Small Computer System Interface (SCSI) buses,

one to the fixed disks on TDM cards and the other to the shared

administration SCSI bus that runs on the backplane between TDMs and the MDAL card. Each SCSI bus has a block of memory that allows transfers from

memory to occur without delaying the application processor.

SCTP Stream Control Transmission Protocol

SDRAM Synchronous Dynamic Random Access Memory

SDS System Debug Services

SE-HSL Synchronous E1 High Speed Link

SEAC Signaling Engineering and Administration Center

SEAS Signaling Engineering and Administration System

An interface defined by Bellcore and used by the Regional Bell Operating Companies (RBOCs), as well as other Bellcore Client Companies (BCCs), to remotely administer and monitor the signaling points in their network from a

central location.

Secondary Point Code (SPC)

The SPC enables the EAGLE 5 ISS to assume more than one point code for SS7 routing. The EAGLE 5 ISS uses the SPC for routing and provisioning as if the SPC were an actual point code of the EAGLE 5 ISS. The EAGLE 5 ISS supports one ANSI true point code and up to seven secondary point codes.

## Secondary State (SST)

The secondary state of the specified entity.

#### Secure Shell (SSH)

Secure Shell (SSH) is a protocol for secure remote login and other network services over an insecure network. SSH encrypts and authenticates all EAGLE 5 ISS IPUI and MCP traffic, incoming and outgoing (including passwords) to effectively eliminate eavesdropping, connection hijacking, and other network-level attacks.

### Security Log

The security log is a circular file, located on each MASP, containing a record of each command entered on a EAGLE 5 ISS terminal, the name (user ID) of the person entering the command, the date and time the command was entered, and the terminal port that the command was entered on. This record can investigate unauthorized activities that may take place on the EAGLE 5 ISS, or when problems occur, this record can examine the commands that were entered before the problem occurred to check if one or more of those commands caused the problem.

#### Self Identification of the EAGLE 5 ISS

The point code that identifies the EAGLE 5 ISS to the other signaling points in the network.

#### Self Point Code

The True, Secondary, or Capability Point Code of the EAGLE.

## Sentinel Transport Card (STC)

The Sentinel Transport Card (STC) is a member of the DCM card family with an "eroute" generic program load (GPL) installed. The STCs provide the IP interface between the LIM cards on the IMT bus and the Sentinel Extended Services Platform (ESP) subassembly. The STC is used for sending MSU data to the ESP.

### Service Control Point (SCP)

Service Control Points (SCP) are network intelligence centers where databases or call processing information is stored. The primary function of SCPs is to respond to queries from other SPs by retrieving the requested information from the appropriate database, and sending it back to the originator of the request.

#### Service Information Octet (SIO)

The network indicator code (NIC), priority (PRI), and service indicator (SI) in the SIO field in the message signaling unit (MSU). This information identifies the type of MSU (ISUP, TCAP, and so forth) that is allowed in the network where the EAGLE 5 ISS is located.

#### Service Specific Connection Oriented Protocol (SSCOP)

The primary task of the SSCOP (Service Specific Connection Oriented Protocol) is to provide assured data delivery between AAL connection endpoints. Breaking the SSCS into 2 sublayers allows a common connection

oriented protocol with error recovery (the SSCOP) to provide a generic reliable data transfer service for different AAL interfaces defined by different SSCF layers.

## Service Specific Coordination Function (SSCF)

The primary task of the SSCF (Service Specific Coordination Function) is to map the services provided by the lower layers of the SAAL to the needs of a specific higher layer user. For the ATM high-speed signaling link, the higher layer user is the MTP-3 protocol.

## Service Specific Convergence Sublayer (SSCS)

The SSCOP is 1 of 2 parts (the other being the SSCF) of the Service Specific part of the SAAL layer (also known as the SSCS, the Service Specific Convergence Sublayer of the SAAL). The other part of the SAAL Layer is the CPCS.

SF Super Frame

SG Secure Gateway

#### Shadow timeslot

Applies to Channel Bridging. The time slots located on the Paired port that correspond to time slots on the Parent port that were terminated on the EAGLE 5 ISS, e.g. timeslot 1 on the Parent port was assigned to a signaling link, thus timeslot 1 on the Paired port will be a shadow timeslot. These time slots do not contain any signaling.

#### Shelf (SHLF)

A modular unit that contains the cards that make up the EAGLE 5 ISS. The EAGLE 5 ISS uses two types of shelves, the control shelf, and the extension shelf. The control shelf contains the components of the Maintenance and Administration Subsystem (MAS), and up to eight additional Link Interface Modules (LIMs), Translation Service Modules (TSMs), or Application Communication Modules (ACMs). The extension shelf provides locations for two High Speed Multiplexer (HMUX) cards and also 16 card locations for any combination of Link Interface Modules (LIMs), Application Communication Modules (ACMs), and Translation Service Modules (TSMs).

SHLF See Shelf.

SI Service Indicator

SIFB Switched IMT Fabric Board

## Signal Transfer Point (STP)

STPs are ultra-reliable, high speed packet switches at the heart of SS7 networks, which terminate all link types except F-links. STPs are nearly always deployed in mated pairs for reliability reasons. Their primary functions are to provide access to SS7 networks and to provide routing of signaling messages within and among signaling networks.

## Signaling Connection Control Part (SCCP)

This generic program load and application allows the Translation Service Module (TSM) to be used as a memory board for Global Title Translation (GTT). Inbound SCCP messages from Link Interface Modules (LIMs) are sent to the TSM assigned to the LIM by system software. SCCP software on the TSM performs the translation, and sends messages through the IMT back to the appropriate LIM, which routes messages to the destination. The SCCP application can run on the TSM and DSM cards.

## Signaling Engineering and Administration System (SEAS)

An interface defined by Bellcore and used by the Regional Bell Operating Companies (RBOCs), as well as other Bellcore Client Companies (BCCs), to remotely administer and monitor the signaling points in their network from a central location.

### Signaling Link

The transmission path connecting the EAGLE 5 ISS to other signaling points in the network and providing access to ANSI SS7, ITU SS7, and X.25 network elements. The signaling link is connected to the EAGLE 5 ISS at the link interface module (LIM).

A generic program load application that is loaded on the LIM to allow the LIM to access a particular network element.

## Signaling Network Management (SNM)

The set of networking cards and the shared database of dynamic network status information that they collectively maintain.

The messages that maintain MTP status level 3 of SS7.

## Signaling System #7 (SS7)

A communications protocol that allows signaling points in a network to send messages to each other so that voice and data connections can be set up between these signaling points. These messages are sent over its own network and not over the revenue producing voice and data paths. The EAGLE 5 ISS is an STP, which is a device that routes these messages through the network.

#### Signaling Transfer Point Local Area Network (SLAN)

This software allows the system to support a TCP/IP interface to any external host with ACMs and DCMs.

#### **SIGTRAN**

The name given to an IETF working group that produced specifications for a family of protocols that provide reliable datagram service and user layer adaptations for SS7 and ISDN communications protocols. The most significant protocol defined by the SIGTRAN group was the Stream Control Transmission Protocol (SCTP), which is used to carry PSTN signalling over IP. The SIGTRAN group was significantly influenced by telecommunications engineers intent on using the new protocols for adapting VoIP networks to the PSTN with special regard to signaling applications. Recently, SCTP is finding applications beyond its original purpose wherever reliable datagram service is desired.

Simple Network Management Protocol (SNMP)

An industry-wide standard protocol used for network management. The SNMP agent maintains data variables that represent aspects of the network. These variables are called managed objects and are stored in a management information base (MIB). The SNMP protocol arranges managed objects into groups.

SINAP Stratus Intelligent Network Applications Platform

SIO See Service Information Octet.

SIP Session Initiation Protocol

SLAN Signaling Transfer Point Local Area Network.

SLAN Card Eagle SSEDCM card that runs the VXWSLAN application.

SLS Signaling Link Selector

**SLSOCB** 

The Other CIC (Circuit Identification Code) Bit Used feature is one of two methods provided as ITU SLS enhancements for distributing the load across links in a combined and single linkset. The Other CIC Bit Used feature lets the system derive the LSB (Least Significant Bit) from bits 2 through 4 of the CIC to serve as the three lower bits of the SLS (Signaling Link Selection) and one other bit of the CIC to serve as the MSB (Most Significant Bit) of the SLS. The SLSOCB feature applies only to ITU-ISUP messages. The other method of distributing the load is rotation of the four bits of the SLS to change the LSB of the SLS.

SMSC Short Message Service Center

SMSMR Prepaid Short Message Service.

SNM See Signaling Network Management.

SNMP See Simple Network Management Protocol.

SNR Subsystem Normal Routing

#### Southbound Interface

An interface to an entity that resides lower in the management hierarchy. For example there is a southbound interface from an Eagle OAM to the application on a particular blade.

Split NPA Split Number Planning Area

A process that forces two different NPANXXs to reference the same last 4 digits of a 10 digit ported telephone number in the database. When either NPANXX is updated, the 10 digit ported telephone numbers in each NPANXX with the same last 4 digits are updated. When the NPANXX is split, all existing NPANXX data for the NPANXX being split is copied to the new NPANXX.

**Spare Point Code** 

The EAGLE ITU International/National Spare Point Code feature allows a network operator to use the same Point Codes across two networks (either ITU-I or ITU-N). The feature also enables National and National Spare traffic to be routed over the same linkset. The EAGLE uses the MSU Network Indicator (NI) to differentiate the same point code of one network from the other. In accordance with the SS7 standard, unique Network Indicator values are defined for Point Code types ITU-I, ITU-N, ITU-I Spare, and ITU-N Spare.

SPC Secondary Point Code

**Spare Point Code** 

SR Screening Reference

The name of the screening reference used by gateway screening entities. Combined with the next screening function identifier (NSFI), it uniquely defines a screening table. This field is used with all screening functions except

the screen set screening function.

SRAM Static Random Access Memory

SRI Send\_Route\_Information Message

SS7 Signaling System #7

SS7ANSI SS7 ANSI

An application software used by the LIM cards and the E1/T1 MIM card for

the MTP functionality.

SS7GX25 X.25/SS7 Gateway

An application software used by the LIM cards for the X.25/SS7 gateway

feature. This GPL does not support 24-bit ITU-N point codes.

SS7IPGW SS7 IP Gateway

An application software used by the DCM/SSEDCM card for IP

point-to-multipoint capability within an ANSI network.

SS7ML

An application software used on the Multi-Port LIM (MPL or MPLT) for SS7

signaling links and on the E1/T1 MIM for E1 and T1 signaling links.

SSCF See Service Specific Coordination Function.

SSCOP See Service Specific Connection Oriented Protocol.

SSCS See Service Specific Convergence Sublayer.

SSEDCM Single Slot Enhanced Data Communications Module

SSH Secure Shell

SSN Subsystem Number

The subsystem number of a given point code. The subsystem number identifies the SCP application that should receive the message or the

subsystem number of the destination point code to be assigned to an X.25 address or the LNP subsystem of the EAGLE 5 ISS.

A value of the routing indicator portion of the global title translation data commands indicating that no further global title translation is required for the specified entry.

SSP Subsystem Prohibited network management message.

Subsystem Prohibited SCCP (SCMG) management message. (CER)

Service Switching Point (SS7 Network)

SST Secondary State

Subsystem Status Test network management message.

Subsystem Status Test SCCP (SCMG) management message. (CER)

SSSTC Single Slot Sentinel Transport Card

STC See Sentinel Transport Card.

STP See Signal Transfer Point.

STP LAN

A feature in the EAGLE 5 ISS that copies MSUs selected through the gateway screening process and sends these MSUs over the Ethernet to an external host computer for further processing.

STPLAN Signaling Transfer Point Local Area Network

The generic program load and application software used by the ACM card to support the STP LAN application. This GPL does not support 24-bit ITU-N point codes.

Stream Control Transmission Protocol (SCTP)

The transport layer for all standard IETF-Sigtran protocols. SCTP is a reliable transport protocol designed to operate on top of IP.

SUA SS7 SCCP-User Adaptation Layer

**Subsystem Application** 

The name of the feature assigned to a particular subsystem of the EAGLE 5

SVC Switched Virtual Circuit

A temporary virtual circuit that is set up and used only as long as data is being transmitted. Once the communication between the two hosts is complete, the SVC disappears. In contrast, a permanent virtual circuit (PVC) remains available at all times.

SVCA Automatic Switched Virtual Circuit

SVCR Remote Switched Virtual Circuit

Switched Virtual Circuit (SVC)

A temporary virtual circuit that is set up and used only as long as data is being transmitted. Once the communication between the two hosts is

complete, the SVC disappears. In contrast, a permanent virtual circuit (PVC) remains available at all times.

## Synchronous E1 High Speed Link (SE-HSL)

Format for E1 high-speed signaling links where time-slot 0 is used for framing and error control. The remainder of bandwidth, equivalent to 31 channels of 64Kbps data, is used as a single data link yielding a total capacity of 1.984 Mbps. Also known as Unchannelized E1.

## T

T1 Transmission Level 1

A T1 interface terminates or distributes T1 facility signals for the purpose of

processing the SS7 signaling links carried by the E1 carrier.

A leased-line connection capable of carrying data at 1,544,000 bits-per-second.

TALI Transport Adapter Layer Interface (RFC 3094)

TAS Tone and Announcement Server

TASH Triggerless Application Subsequent Address Message Handling

**Triggerless Application SAM Handling** 

TCAP Transaction Capabilities Application Part

TCAPCNV TCAP Conversion Feature

A feature that allows the system to convert MTP-routed TCAP messages from

ANSI to ITU format and to convert ITU formatted messages to ANSI.

TCP Transfer Control Protocol

TCP/IP Transmission Control Protocol/Internet Protocol

TCP/IP Data Link (DLK)

The transmission path over the Ethernet from the ACM in the EAGLE 5 ISS to the remote host computer or the port on the ACM.

TCP/IP Node

The remote host computer receiving traffic from the ACM in the EAGLE 5 ISS over a TCP/IP data link. The TCP/IP node is in the EAGLE 5 ISS database as  $\frac{1}{2}$ 

an IP address.

TCU Table Creation Utility

TDM See Terminal Disk Module.

TDM-GTI TDM Global Timing Interface

TEKOS Tekelec Operating System

Terminal Disk Module (TDM)

The MAS card that contains the fixed disk drive (hard disk storage), the terminal processor for the 16 serial I/O ports, and an interface to the MDAL

(maintenance disk and alarm) card, which contains the removable cartridge drive and alarm logic.

TFR Transfer Restricted

TLNP Triggerless LNP

The Triggerless LNP feature gives service providers a method to route calls to ported numbers without having to upgrade their signaling switch (end office or mobile switching center) software. This feature uses the gateway screening stop action TLNP to intercept through-switched ISUP messages on the LIM.

TN Telephone Number

A 10 digit ported telephone number.

TOCA Timing Output Composite Automatic

TOS486 TEKOS for the 486

TOS4M TEKOS for the 486 implemented via MTOS

TOS4V TEKOS for VxWorks

TPD Tekelec Platform Development

TPS Transactions Per Second

#### Translation Service Module (TSM)

The Translation Service Module (TSM) provides SCCP functionality or GLS functionality for Local Number Portability (LNP)/SCCP (GTT). The SCCP software allows the TSM to be used as a memory board for Global Title Translation (GTT).

### Translation Type (TT)

The translation type is in the Called Party Address (CdPA) field of the MSU and determines which service database is to receive query messages. The translation type indicates which Global Title Translation table determines the routing to a particular service database.

## **Translation Type Mapping**

A feature in the EAGLE 5 ISS that maps standardized internetwork translation type values to intranetwork translation type values used within any particular network.

The process of examining the existing translation type value and replacing it with an associated translation type value. This process occurs only if the existing value is included in the provisioned data set.

#### Trial GPL

A generic program load that is downloaded to a card from the removable cartridge.

## True Point Code

The point code defining a destination in the Destination Point Code table.

TSC Time Slot Counter

TSCSYNC Time Slot Counter Synchronization

The Time Slot Counter (TSC) Synchronization feature allows the system's A (Active) and B (Standby) internal clocks to be synchronized by the standby

OAM GPSM-II card.

TSM Translation Service Module

The Translation Service Module (TSM) provides SCCP functionality or GLS functionality for Local Number Portability (LNP)/SCCP (GTT). The SCCP software allows the TSM to be used as a memory board for Global Title

Translation (GTT).

TT See Translation Type.

TUP Telephone User Part

TVG Group Ticket Voucher

## U

UA ETF User Adaptation Layers

UAM See Unsolicited Alarm Message.

UDT Unit Data Transfer

UI User Interface

UID User ID

UIM Unsolicited Information Message

#### **Unchannelized E1**

Synchronous E1 High Speed Link

## Universal License Key

A license key that works on any OAP. This key is not dependant on the unique host ID of the machine.

#### Universal Shelf features

The set of features that are necessary to produce the Universal Shelf. Theses features include the Switched IMT Fabric Board, OAM Support for Universal Shelf, Linux for EAGLE, High-Capacity Service Module, and LNP 192 Million.

### Unsolicited Alarm Message (UAM)

A message that is displayed in response to an alarm condition detected by the system.

#### UTILITY

The application software that is used by the factory for testing. This application software has no use in the field.

### $\mathbf{V}$

V.35 ITU Interface Recommendation, V.35

The interface used with the LIMV35 card.

VGTT Variable Length GTT

A feature that provides the ability to provision global title entries of varying lengths to a single translation type or GTT set. Users are able to assign global title entries of up to 10 different lengths to a single translation type or GTT set.

VLR Visitor Location Register

VSCCP VxWorks Signaling Connection Control Part

The application software used by the DSM card to support the G-Flex, G-Port, INP, EIR, and LNP ELAP Configuration features. If the G-Flex, G-Port, INP, or LNP ELAP Configuration feature is not turned on, and a DSM card is present,

the VSCCP GPL processes normal GTT traffic.

**VXWSLAN** 

An application used by the DCM card to support the STP LAN application.

This GPL does not support 24-bit ITU-N point codes.

## W

WAN Wide Area Network

WILD CARD

A value for various parameters, specified by an asterisk (\*) that specifies all

possible values for that parameter.

WNP Wireless Number Portability

WNPQS Wireless Number Portability Query Service.

**WUP** 

The Wireless Number Portability feature enhances the Local Number Portability feature to allow wireless service providers to query the LNP database for ported telephone numbers. The query is used to find the location

routing number associated with the ported telephone number so the

telephone call can be routed to its proper destination. The Wireless Number Portability feature can only be used for ANSI messages not for ITU messages.

### X

X252000 The 2000 X.25 Routes and Destinations feature.

X25G X.25/SS7 Gateway

A feature in the EAGLE 5 ISS that provides connectivity between SS7 and X.25 networks. This enables cellular (IS.41) applications using different transport services to connect. The gateway is physically positioned between the SS7 network and X.25 network. The gateway transports IS.41 messages from one

network to the other using the SS7 Transaction Capability Application Part

(TCAP) protocol.

X-list

A list of non-provisioned members of provisioned cluster that are either

restricted or prohibited for SS7 traffic.

XGTT See Expanded GTT (GTT Table Expansion).

XMAP Expanded MAP Table

XUDT Extended User Data

XUDTS Extended User Data Service