Oracle® Communications EAGLE

Related Publications Reference

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Oracle® Communications Related Publications Reference, Release 46.0

Table of Contents

Chapter 1

EAGLE 5 Publications

Topics:

Oracle Communications EAGLE Documentation Set

The Oracle Communications EAGLE customer documentation set is a comprehensive group of electronic files available on the Customer Support site (see *Locate Product Documentation on the Customer Support Site*).

Depending on the content and availability of an EAGLE release, some manuals might not be included in the documentation for a release (for example, EAGLE Application Processor (EPAP) manuals would not be included in a release that is available only to LNP customers).

A complete documentation set of the EAGLE provides information about the EAGLE and the following supporting systems:

- EAGLE Collector Application Processor (ECAP)
- EAGLE LNP Application Processor (ELAP)
- EAGLE Application Processor (EPAP)
- EAGLE FTP Table Base Retrieval (FTRA)

For releases that exclude any of the supporting systems, the documentation set will be adjusted accordingly. The manuals are listed per application; hardware manuals are listed separately.

EAGLE Core Documentation

- *Commands User's Guide* contains procedures for logging in to or out of the EAGLE, a general description of the terminals, printers, the disk drive used, and a description of all the commands used in the system.
- *Commands Error Recovery Reference* contains the procedures to resolve error message conditions generated by the commands in the *Commands User's Guide*. These error messages are presented in numerical order.
- *Database Administration – Features User's Guide* contains procedural information required to configure the EAGLE to implement the STP LAN, Database Transport Access, GSM MAP Screening, and EAGLE Support for Integrated Sentinel features.
- *Database Administration - GWS User's Guide* contains a description of the Gateway Screening (GWS) feature and the procedures necessary to configure the EAGLE to implement this feature.
- *Database Administration – GTT User's Guide* contains procedural information required to configure an EAGLE to implement Global Title Translation features, including Enhanced Global Title Translation, Variable Length Global Title Translation, Interim Global Title Modification, Intermediate GTT Loadsharing, Flexible Intermediate GTT Loadsharing, Flexible Final GTT Loadsharing, ANSI/ITU SCCP Conversion, and Origin-Based SCCP Routing.
- *Database Administration - IP7 User's Guide* contains procedural information required to configure the EAGLE to implement the SS7-IP Gateway.
- *Database Administration – SEAS User's Guide* contains the EAGLE configuration procedures that can be performed from the Signaling Engineering and Administration Center (SEAC) or a Signaling Network Control Center (SNCC). Each procedure includes a brief description of the procedure, a flowchart showing the steps required, a list of any EAGLE commands that may be required for the procedure but that are not supported by SEAS, and a reference to optional procedure-related

information, which can be found in the Database Administration Manuals for either Gateway Screening, Global Title Translation, or SS7.

- *Database Administration – SS7 User's Guide* contains procedural information required to configure an EAGLE to implement the SS7 protocol.
- *Database Administration – System Management User's Guide* contains procedural information required to manage the EAGLE database and GPLs, and to configure basic system requirements such as user names and passwords, system-wide security requirements, and terminal configurations.
- *Measurements Reference* contains descriptions of the Maintenance and Administration Subsystem (basic OAM), Measurement Platform, and E5-OAM Integrated Measurements collection methods; the measurements that can be collected; and the reports that can be generated for the EAGLE.
- *Previously Released Features* summarizes the features of previous EAGLE releases, and it identifies the release number of their introduction.
- *SIGTRAN User's Guide* describes SS7-over-IP networks that use the Signaling Transport (SIGTRAN) protocol suite as an enabler to access IP networks. This document also examines reasons for transitioning, planning and dimensioning, and helpful information for implementing the network.
- *Software Upgrade Guide* describes methods utilized and procedures executed to perform a software upgrade on an in-service EAGLE STP.
- *System Healthcheck Guide* describes the recommended methods and procedures to be used to evaluate Site and STP data retrieved from in-service EAGLE STPs. The scope of this document is specifically to collect data to determine the health of an in-service EAGLE prior to a software upgrade or an extension shelf installation. In general, this document may be used for an instance where the health determination of the EAGLE is required (i.e., troubleshooting).
- *Unsolicited Alarm and Information Messages Reference* describes the EAGLE system unsolicited alarm and information messages sent to the system terminal whenever there is a system fault, whenever a previous fault condition is corrected, or when a subsystem, equipment, and/or service is placed in or taken out-of-service. Each message has a trouble code and text associated with the trouble condition.
- *Release Documentation* includes the following documents:
  - *EAGLE Feature Notice* describes the features contained in the specified release. The Feature Notice also provides the hardware baseline for the specified release, describes the customer documentation set, provides information about customer training, and explains how to access the Customer Support website. Additional Feature Notices may be provided per subsystem.
  - *Master Glossary* contains an alphabetical listing of terms, acronyms, and abbreviations relevant to the system.
  - *Related Publications* (this document) lists all EAGLE-related documents.
  - *Release Notes* contains Generic Program Loads (GPL)s, a list of PRs resolved in a build, the Product Compatibility Matrix, the EAGLE-PIC Compatibility Matrix, and the latest known PRs per system and subsystem.
  - *Security Guide* describes how to ensure a secure installation of EAGLE and explains EAGLE security features.
  - *Systems Overview* provides high-level information on SS7, the IP7 Secure Gateway, system architecture, and LNP.

ECAP Documentation

- *ECAP Feature Notice* describes the features contained in the specified release.

- *Feature Manual - ECAP* provides instructions and information on how to install, use, and maintain the Integrated Accounting Feature Application feature on the EAGLE Collector Application Processor (ECAP). This feature collects raw MSU data from the EAGLE, categorizes the data into groups, and feeds those groups to another system for accounting activities.

ELAP Documentation

- *Administration and LNP Feature Activation Guide* describes the ELAP and the LNP feature.

  The ELAP part of the manual defines the user interface to the EAGLE LNP Application Processor (ELAP) on the Multi-Purpose Server (MPS)/ELAP platform. The manual defines the methods for accessing the user interface, menus, screens available to the user and describes their impact. The manual also provides the syntax and semantics of user input and defines the output the user receives, including information and error messages, alarms, and status.

  The LNP part of the manual contains instructions and information to configure, use, and maintain ELAP-related features and functions on the EAGLE, including the LNP quantity feature, LNP services, LNP options, LNP subsystem application, Automatic Call Gapping, the Triggerless LNP (TLNP) feature, the LNP Short Message Service (LNP SMS) feature, and increasing the maximum allowed LRN and NPANXX quantities.

- *Alarms and Maintenance Guide* includes ELAP alarms and maintenance information.
- *ELAP 10.0 Upgrade/Installation Procedure* includes upgrade and installation procedures for ELAP 10.0.
- *ELAP Feature Notice* describes the features contained in the specified release.
- *LNP Database Synchronization User's Guide* describes how to keep the LNP databases at the Oracle Communications LSMS and at the network element (the EAGLE is a network element) synchronized through the use of re-synchronization, audits and reconciles, and bulk loads. This manual is contained in both the LSMS documentation set and in the EAGLE documentation set.

EPAP Documentation

- *Administration Guide* describes how to administer the EPAP on the MPS/EPAP platform. The manual defines the methods for accessing the user interface, menus, and screens available to the user and describes their impact. It provides the syntax and semantics of user input and defines the output the user receives, including messages, alarms, and status.
- *Dimensioning Guide for EPAP Advanced DB Features* is used to provide EPAP planning and dimensioning information. This manual is used by personnel and EAGLE customers to aid in the sale, planning, implementation, deployment, and upgrade of EAGLE systems equipped with one of the EPAP Advanced Database (EADB) Features.
- *EPAP Feature Notice* describes the features contained in the specified release.
- *EPAP Release Notes* contains Generic Program Loads (GPL)s, a list of PRs resolved in a build, the Product Compatibility Matrix, and the latest known PRs per system and subsystem.
- *Provisioning Database Interface User's Guide* defines the programming interface that populates the Provisioning Database (PDB) for the EAGLE features supported on the MPS/EPAP platform. The manual defines the provisioning messages, usage rules, and informational and error messages of the interface. The customer uses the PDBI interface information to write his own client application to communicate with the MPS/EPAP platform.
- *Security Guide* describes how to ensure a secure installation of EPAP and explains EPAP security features.
- *Upgrade/Installation Guide* describes methods utilized and procedures executed to perform a software upgrade on an in-service EAGLE STP running on EPAP.

EPAP-Related EAGLE Feature Documentation

- *Numbering Plan Processor (NPP) User's Guide* describes a generic software process to provision complex numbering plans and to modify parameters for digit string filtering, conditioning, and encoding. NPP is used by EAGLE features; other manuals in this documentation set describe the specific use of NPP for a feature. The manual defines the components of NPP and their interactions, and describes a test tool that can be used to verify NPP provisioning before it is used with live traffic.
- *Analyzed Information Features User's Guide* provides information and instructions on how to configure, use, and maintain Analyzed Information features on the EAGLE. The Analyzed Information features are Info Analyzed Relay (IAR) Base, IAR Number Portability (IAR NP), IAR Additional Subscriber Data (IAR ASD), and IAR Generic Routing Number (IAR GRN). Service Portability and S-Port Subscriber Differentiation support for IAR NP are also described in the manual.
- *A-Port User's Guide* describes a feature that provides the capability for IS41 mobile subscribers to change service provider while retaining their original Mobile Directory Number (MDN). This manual gives the instructions and information on how to configure, use, and maintain the A-Port feature on the EAGLE.
- *ATINP User's Guide* describes a feature that provides the capability for IS41 subscribers to migrate to a GSM network and GSM mobile subscribers to migrate to an IS41 network. This manual provides instructions and information on how to configure, use, and maintain the IS41 GSM Migration (IGM) feature on the EAGLE. Service Portability support for ATINP is also described in the manual.
- *EIR User's Guide* provides instructions and information on how to configure, use, and maintain the Equipment Identity Register (EIR) feature on the EAGLE. The feature provides network operators with the capability to prevent stolen or disallowed GSM mobile handsets from accessing the network.
- *G-Flex C7 Relay User's Guide* describes features that support the efficient management of Home Location Registers in various networks. This manual provides instructions and information on how to configure, use, and maintain G-Flex,*G-Flex MAP Layer EAGLE Routing*, and*EPAP Provisioning Blacklist* features and the*G-Flex Relay* function on the EAGLE.
- *G-Port User's Guide* describes features that provide the capability for mobile subscribers to change the GSM subscription network within a portability cluster while retaining their original MSISDNs. This manual provides instructions and information on how to configure, use, and maintain the G-Port, MT-based GSM SMS NP, MT-based GSM MMS NP, and GSM MAP SRI Redirect to Serving HLR, G-Port SRI Query for Prepaid, G-Port SCCP Service Re-Route Capability, and MNP Circular Route Prevention features on the EAGLE. Service Portability support for G-Port SRI Query for Prepaid is also described in the manual.
- *IDP-Related Features User's Guide* provides information and instructions on how to configure, use, and maintain IDP-related features on the EAGLE. The IDP-related features are Prepaid IDP Query Relay (IDP Relay), IDP Screening for Prepaid, IDP A-Party Blacklist, and IDP A-Party Routing. Service Portability and S-Port Subscriber Differentiation support for IDP Relay are also described in the manual.
- *INP/AINPQ User's Guide* describes the INP feature that provides INAP-based Number Portability functions and the AINPQ feature that provides ANSI-41 INP Query functions. This manual provides information and instructions on how to configure, use, and maintain the INP, AINPQ, and INP Circular Route Prevention features on the EAGLE. Service Portability support for INPQ and INPMR services and S-Port Subscriber Differentiation for the INPMR service are also described in the manual.
- *IS41 GSM Migration User's Guide* describes a feature that provides the capability for IS41 subscribers to migrate to a GSM network and GSM mobile subscribers to migrate to an IS41 network and keep their original telephone number. This manual provides instructions and information on how to configure, use, and maintain the IS41 GSM Migration (IGM) feature on the EAGLE.

- *MO-SMS User's Guide* addresses the number portability requirements of wireless network operators for delivery of Mobile Originated SMS messages in a number portability environment for GSM and IS41 and in the IS41-to-GSM Migration environment . The EAGLE MO SMS features apply number portability database lookup to SMS messages for IS41 and GSM networks. This manual provides instructions and information on how to configure, use, and maintain the MO-based GSM SMS NP, MO-based IS41 SMS NP, MO SMS IS41-to-GSM Migration, Portability Check for Mobile Originated SMS (MNP SMS), and Prepaid Short Message Service Intercept (PPSMS) features on the EAGLE. Service Portability and S-Port Subscriber Differentiation support for the MO-based GSM SMS NP and MO-based IS41 SMS NP features are also described in the manual.
- *TIF User's Guide* describes the functions and use of the Triggerless ISUP Framework (TIF) and the TIF Number Portability (TIF NP), TIF SCS Forwarding, and TIF Simple Number Substitution (TIF SNS) features. TIF provides a method for querying entities (such as gsmSCF) to obtain number portability and routing information for subscribers directly from an EAGLE acting as MNP SRF. The TIF NP feature uses TIF and NPP for incoming ISUP IAM message decoding, number conditioning, RTDB lookup for number portability information, and outgoing message formatting. The TIF SCS Forwarding feature determines when to use DTA to send relayed IAM and SAM MSU information to the SCS. The TIF SNS feature substitutes the calling party number in the ISUP IAM message with a single configured calling party number. The manual provides instructions and information about configuring and using TIF and the TIF features on the EAGLE. Service Portability support for TIF NP is also described in the manual.
- *V-Flex User's Guide* describes the V-Flex Voice Mail Router (V-Flex) feature, which allows calls to be routed to a specific voice mail server (VMS) based on subscriber and call context data. This manual provides instructions and information on how to configure, use, and maintain the V-Flex Voice Mail Router (V-Flex) feature on the EAGLE.

EPAP-Related Maintenance

- *Alarms and Maintenance Guide* includes E5-APP-B platform alarms.

EAGLE FTRA Documentation

- *Release Notes* describes release notes for the specific FTRA release.
- *Software Installation Guide* describes the FTRA software installation and upgrade on the Windows and Unix platforms.
- *User's Guide* describes how to set up and use a PC to serve as the offline application for the EAGLE FTP Retrieve and Replace feature.
- *Security Guide* describes how to ensure a secure installation of FTRA and explains FTRA security features.

Hardware, Installation, and Maintenance Documentation

- *Application B Card Hardware and Installation Guide* provides specifications and a description of the E5-APP-B card, as well as procedures for installation. Refer to this manual to obtain a basic understanding of the card, its hardware and installation requirements.
- *Hardware Reference* provides an overview of each system and its subsystems, details of standard and optional hardware components in each system, and basic site engineering. Refer to this manual to obtain a basic understanding of each type of system and its related hardware, to locate detailed information about hardware components used in a particular release, and to help configure a site for use with the system hardware.

- *Installation Guide* contains cabling requirements, schematics, and procedures for installing the EAGLE along with LEDs, connectors, cables, and power cords to peripherals. Refer to this manual to install components or the complete systems.
- *Maintenance Guide* contains procedural information required for maintaining the EAGLE system. *Maintenance Guide* provides preventive maintenance procedures used in maintaining the different systems, including card removal and replacement procedures.

Locate Product Documentation on the Customer Support Site

Oracle customer documentation is available on the web at the Oracle Technology Network (OTN) site, *http://docs.oracle.com*. You do not have to register to access these documents. Viewing these files requires Adobe Acrobat Reader, which can be downloaded at *www.adobe.com*.

1. Log into the Oracle Customer Support site at *http://docs.oracle.com*.
2. Under **Applications**, click the link for **Communications**.
   The **Oracle Communications Documentation** window opens with Tekelec shown near the top.
3. Click **Oracle Communications Documentation for Tekelec Products**.
4. Navigate to your Product and then the Release Number, and click the **View** link (the **Download** link will retrieve the entire documentation set).
5. To download a file to your location, right-click the PDF link and select **Save Target As**.

Glossary

A

ANSI	American National Standards Institute An organization that administers and coordinates the U.S. voluntary standardization and conformity assessment system. ANSI develops and publishes standards. ANSI is a non-commercial, non-government organization which is funded by more than 1000 corporations, professional bodies, and enterprises.
ATINP	ATI Number Portability Query feature

E

E5-APP-B	The E5-APP-B card is a complete application server platform designed to operate within a heavy duty EAGLE shelf. An E5-APP-B card consists of the card, a microprocessor, 8 GB RAM, and two removable drive modules with an operating system and an application, such as EPAP, loaded.
ECAP	EAGLE Collector Application Processor A dedicated standalone platform for the collection of EAGLE traffic statistical data. ECAP provides the information and data needed to apply the charging rules to an external billing and charging application, called the Aggregator. ECAP depends on

E

	the Eagle SLAN card for this information.
EIR	Equipment Identity Register 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.
ELAP	EAGLE Local Number Portability Application Processor The EAGLE LNP Application Processor (ELAP) platform provides capacity and performance required to support the ported number database.

F

FTRA	FTP-based Table Retrieve Application An application that runs in a PC outside of the EAGLE and communicates with the EAGLE through the IPUI feature and the FTP Retrieve and Replace feature.

G

G-Flex	GSM Flexible numbering A feature that allows the operator to flexibly assign individual

G

	subscribers across multiple HLRs and route signaling messages, based on subscriber numbering, accordingly.
GPL	Generic Program Load Software that allows the various features in the system to work. GPLs and applications are not the same software.
GSM	Global System for Mobile Communications A second generation digital PCS mobile phone standard used in many parts of the world.
GWS	Gateway Screening 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 database is allowed to enter the EAGLE.

I

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.
IP	Intelligent Peripheral Internet Protocol

I

	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.
ITU	International Telecommunications Union An organization that operates worldwide to allow governments and the private telecommunications sector to coordinate the deployment and operating of telecommunications networks and services. The ITU is responsible for regulating, coordinating and developing international telecommunications, and for harmonizing national political interests.

L

LSMS	Local Service Management System 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.

M

MAP	Mated Application Part

M

	Mobile Application Part An application part in SS7 signaling for mobile communications systems.
MPS	Multi-Purpose Server 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. Messages Per Second A measure of a message processor's performance capacity. A message is any Diameter message (Request or Answer) which is received and processed by a message processor.
MSU	Message Signal Unit 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

M

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 uses to pick which link set and signaling link to use to route the message.

N

NPP — Numbering Plan Processor

Provides the flexible service application behavior that satisfies the needs of customers resident in complex signaling networks. It is used for number conditioning, RTDB lookup, and outgoing number formatting.

P

PDB — Provisioning Database

PDBI — Provisioning Database Interface

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.

PR — Problem Report

S

SCCP — Signaling Connection Control Part

S

	The signaling connection control part with additional functions for the Message Transfer Part (MTP) in SS7 signaling. Messages can be transmitted between arbitrary nodes in the signaling network using a connection-oriented or connectionless approach.
SEAC	Signaling Engineering and Administration Center
SS7	Signaling System #7 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 is an STP, which is a device that routes these messages through the network.
STP LAN	Signaling Transfer Point Local Area Network. A feature in the EAGLE that copies MSUs selected through the gateway screening process and sends these MSUs over the Ethernet to an external host computer for further processing.