Oracle® Communications

EAGLE

Release Notice

Release 46.7

E97327-10

August 2022

ORACLE

Oracle Communications, EAGLE Release Notice, Release 46.7

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Chapter 1: Introduction

Topics:

EAGLE 46.7 Introduction
Revision History

This Release Notice includes feature descriptions, supported hardware, and media and documentation pack contents; and identifies the supported upgrade paths. This document includes listings for both the resolved and known bugs for this release. Directions for accessing key Oracles sites and services are also identified in the Oracle References and Services chapter.

Release Notices are included in the documentation pack made available with every software release.

EAGLE 46.7 Introduction

Oracle Communications EAGLE is a platform that delivers signaling solutions to telecommunication networks worldwide.

Chapter 2: Feature Descriptions

Topics:

- EAGLE Database Increase to 480M DN + 600M Flexible IMSI/IMEI Allocation
- SFAPP Use Case 3 — VLR Validation using IMEI
  - Limitations
- SFAPP Use Case 4 — Intelligent VLR Whitelist
  - Limitations
- Enhancement Bugs
- Other Changes — Group Broadcast Signaling Units (GBSU) Functionality
- Operational Changes
  - Unsolicited Alarm Messages
  - Unsolicited Information Messages
  - New UIM Formats
  - Error Messages
  - EAGLE Configuration Table Data Reports

This chapter provides a summary of each feature released in EAGLE 46.7.

EAGLE Database Increase to 480M DN + 600M Flexible IMSI/IMEI Allocation

In cooperation with the EPAP eXtreme (EPAPX) DB Expansion feature, the EPAP is able to support 480M individual DN entries, 600M individual IMSI entries or 600M individual IMEI entries. The EPAPX feature is supported only for 64-bit flash running on an EAGLE system for SLIC cards. The EPAPX feature cannot be turned on if the system is equipped with SM8G-B cards to run EPAP-based features.

When the EPAP is running on Release 16.3 with its full capacity, DN-based SLIC-SCCP cards are able to load 480M individual DN entries. IMSI-based SLIC-SCCP cards are able to load 480M individual IMSI entries or 600M individual IMEI entries. This is applicable when the EPAP Split DB feature is ON. DB allocation to EAGLE EPAP-based cards is flexible, as per the configurations done on the EPAP side.

If the EPAP Split DB feature is OFF, then the DN & IMSI tables are loaded onto a single EPAP card. In this case the DN + IMSI entries must be less than 480M. The exact allowed combinations are listed in the following table.

Table 1. EAGLE Feature and EPAPX DB Capacity Combinations

EPAP Split DB Feature	STPOPTS: EPAX	Max Ind. DNs	Max Ind. IMSIs	Max Ind. DNs = Ind. IMSIs	Max Ind. IMEIs	Max RTDB Size (DN=IMSI=IMEI) supported on Ind. SLIC
OFF	OFF, EPAP240M OFF	120M	120M	120M	48M	120M (DN) 135M (IMSI)
ON	OFF, EPAP240M OFF	120M	120M	240M	48M	120M (DN) 135M (IMSI)
ON	OFF, EPAP240M ON	240M	240M	480M	48M	240M (DN) 288M (IMSI) 528M (EPAP)
OFF	ON	480M	480M	480M	480M	480M (DN + IMSI + IMEI)
ON	ON	480M	600M	1080M	600M	480M DN 600M IMSI

To enable the 480M DN & 480M IMSI/600M IMEI capacity expansion on EAGLE, the `epapx` parameter is introduced in the STPOPTS table. The SLIC-SCCP cards on EAGLE are able to load 480M DN entries only when the `stpopts:epapx` parameter is ON. Similarly, SLIC-SCCP cards on EAGLE are able to load 480M IMSI or 600M IMEI entries only when the STPOPTS: EPAPX parameter is ON.

See "Activating the EPAPX DB Expansion Feature" in *Database Administration - GTT User's Guide* for more information.

SFAPP Use Case 3 — VLR Validation using IMEI

This use case is for Outbound roaming MAP messages: Time, Location Check messages, as defined by GSMA PRD FS.11, SS7 Interconnect Security Monitoring and Firewall Guidelines. This use case challenges the VLR after the Update Location procedure is complete by asking for the IMEI information in the Provide Subscriber Information message.

The four main Time, Location Check messages include:

- Send Authentication Info — VLR or the SGSN initiates the MAP Send authentication info procedure to retrieve authentication information from the HLR.
- Provide Subscriber Info — This message is sent by EAGLE to the VLR or SGSN to retrieve the subscriber state, location information, in this case IMEI.
- Provide Subscriber Info ACK — This message is sent as an acknowledgment to the PSI from EAGLE to the VLR or SGSN.
- Purge MS — If a roaming subscriber is suspected to be a malicious or fake user, EAGLE generates this message to HLR. On receiving this message, HLR marks the subscriber unreachable

This use case challenges the visited VLR after the update location procedure has been completed by asking for the subscriber's IMEI information in a PSI message. One of these actions can then be taken:

1. The IMEI information can then be compared against an external database to validate the IMEI and consequently the VLR by either allowing the original procedure to complete or fail it by initiating in a Purge MS operation, or
2. The IMEI information can be added to/updated in the external database if the VLR is trusted and the IMEI is validated.

The call flow is seen in Figure 1. Graylisted VLR Challenge.

Limitations

- This use case is only supported on SLIC cards.
- The stateful screening of messages may add up to 300 ms latency on average.
- The stateful security solution is only applied on Gateway STP nodes.
- SFAPP UC3 and SS7 firewall SFLOG features cannot coexist on same node.
- The following features are not compatible with SFAPP:
    - GSM MAP screening — SFAPP card does not support EGMS.
    - HLR Routing feature (GFLEX) on the same node. GFLEX interaction may be required for the ATI messages that need to be routed to the correct HLR for messages that do not have HLR address in the CdPA. This can be done by routing the message using the EAGLE mate using the C-Links.

For complete Use Case information, see the *Stateful Applications User's Guide*.

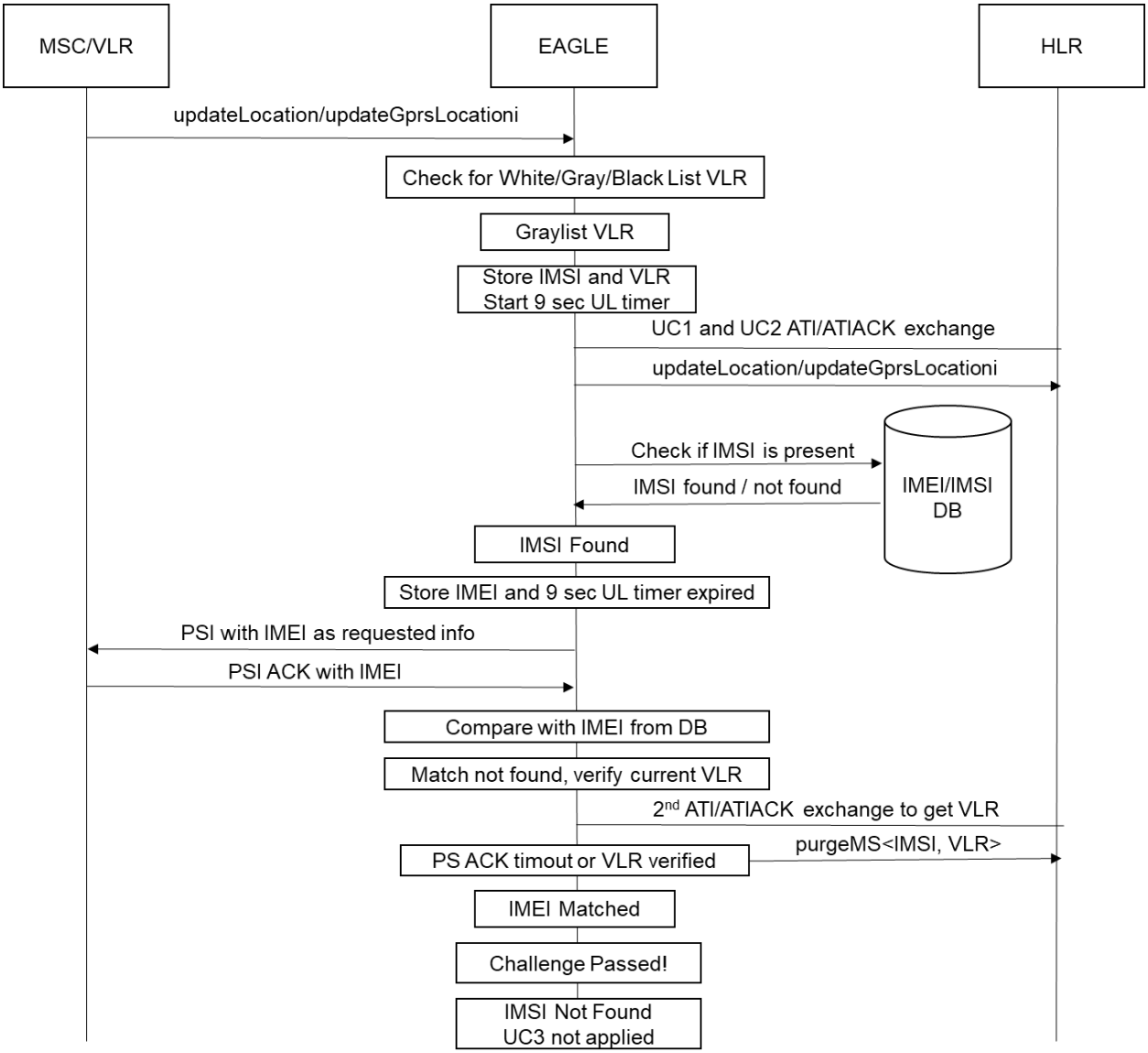

Figure 1. Graylisted VLR Challenge

SFAPP Use Case 4 — Intelligent VLR Whitelist

This use case is for Outbound roaming MAP messages, as defined by GSMA PRD FS.11, SS7 Interconnect Security Monitoring and Firewall Guidelines. This use case uses a whitelist that is created as part of learning from the validation attempts defined in Use Cases 1 through 3.

To implement a whitelist 'learning' based validation for the VLR, where the VLR addresses are validated from tables configured/stored on a disk in the STP, the tables are differentiated into two classes: Static and Dynamic VLR tables. Both classes contain VLR Tables.

The two static VLR tables are:

- Static VLR profile table
- Static VLR roaming table

The two dynamic VLR tables are:

- Dynamic VLR profile table
- Dynamic VLR roaming table

A diagram of the VLR challenge flow is seen in Figure 2 Dynamic VLR Learning (VLR Whitelisting).

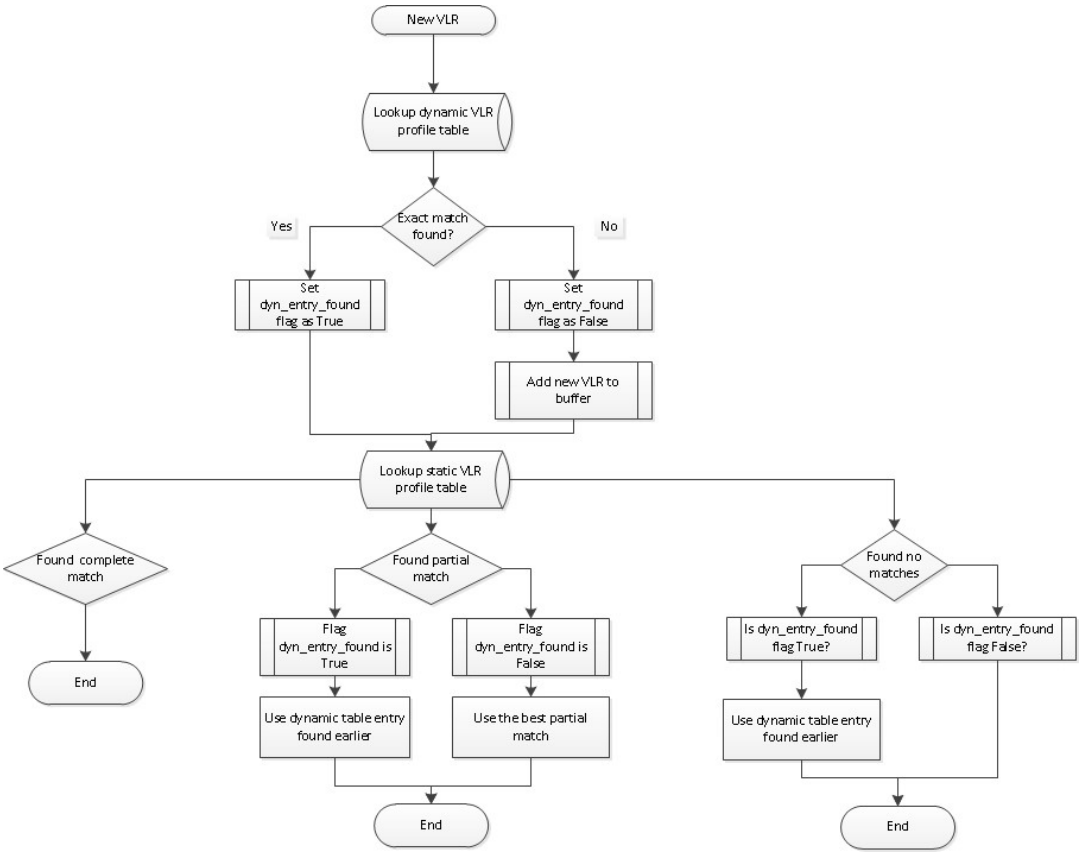

Figure 2 Dynamic VLR Learning (VLR Whitelisting)

Limitations

- This use case is only supported on SLIC cards.
- The stateful screening of messages may add up to 300 ms latency on average.
- The stateful security solution is only applied on Gateway STP nodes.
- SFAPP UC3 and SS7 firewall SFLOG features cannot coexist on same node.
- The following features are not compatible with SFAPP:
    - GSM MAP screening — SFAPP card does not support EGMS.

- HLR Routing feature (GFLEX) on the same node. GFLEX interaction may be required for the ATI messages that need to be routed to the correct HLR for messages that do not have HLR address in the CdPA. This can be done by routing the message using the EAGLE mate using the C-Links.

For complete Use Case information, see the *Stateful Applications User's Guide*.

Enhancement Bugs

This section shows EAGLE 46.7 enhancement bugs:

Bug Number and Title	Description
24926767* GPL Reduction EAGLE 46.7	Removes the following GPLs: • SCCPHC • SIPHC • DEIRHC • ENUMHC
27772024 Expanding ENUM Tables	Expands ENUM Configuration Table capacity from 1024 to 2048
28083343 IMSI/MSISDN in SFAPP UIMs	Allows for the display of IMSI/MSISDNs received in query messages in all the UIMs generated by SFAPP cards. Exceptions occur in the following cases: • SCCP/TCAP Decoding failure • Unsupported parameters (unsupported map version/package type/Invalid CAN) • Blacklisted messages • OTID of ATI is not matched with DTID of ATI_ACK
28083349 FTRA support for VLR-PROF and VLR-DB tables and commands	Adds a file type for SFAPP VLR tables and adds support for FTRA VLR-PROF, VLR-ROAM, and VLR-Db tables at the EAGLE side.
28083354 Class 1 seq support for messages with Whitelisted VLR on SFAPP	Class 1 sequencing is not supported for messages that are sent to 3.1/3.2 validation.
28083359 SFAPP ATI CgPA RT-on-GT option	Provides flexibility in order to generate Signaling Connection Control Port (SCCP) Calling Party Address (CgPA) of Any Time Interrogation (ATI) messages. Users are given the option to choose whether the SCCP CgPA portion of an ATI message generated on an SFAPP card will be RTon-Global Title (GT) or RT-on-Sub System Number (SSN).

* Customers must migrate the listed GPLs (BLIXP is not applicable) from 32-bit to 64-bit before upgrading to release 46.7. See *Database Administration - System Management User's Guide*, "Conversion of SM8G-B Cards" and "Conversion of SLIC Cards" for migration instructions.

Other Changes — Group Broadcast Signaling Units (GBSU) Functionality

The current functionality is as follows:

- The default value of the gbsusnminm is OFF. It is recommended to set `gbsusnminm=ON` as a preferred setting.
- If gbsusnminm is ON before upgrading to release 46.6, the parameter remains on after the upgrade

See the *Commands User's Guide* for more information.

Operational Changes

EAGLE release 46.7 contains new unsolicited alarm and information messages, and new and updated error messages.

Unsolicited Alarm Messages

The Unsolicited Alarm Messages (UAMs) in this section are introduced or updated in EAGLE release 46.7

Stateful Applications Use Cases 3 and 4

Table 2. New UAMs for SFAPP Use Cases 3 and 4

UAM ID	Severity	Message Text	Output Group	Notes
0543	Critical	VLR Dynamic Learning is suspended	SFAPP	If only one SFAPP card is present in the system.
0544	Normal	VLR Dynamic Learning Started	SFAPP	If more than one SFAPP card is present in the system and Dynamic learning is turned ON.
0646	Normal	SFAPP Dynamic Learning Alarm cleared	SFAPP	Occurs when alarm 0543 (VLR Dynamic Learning is suspended) is raised and changed the value of the mode parameter of the SFAPPOPTS table to OFF.
0647	Major	EEDB Connectivity Down	SYS_MAINT	
0648	Normal	EEDB Connectivity Up	SYS_MAINT	

Unsolicited Information Messages

The Unsolicited Information Messages (UIMs) in this section are introduced or updated in EAGLE release 46.7.

SS7 Firewall — Stateful Applications Use Cases 3 and 4

Table 3. Modified and New UIMs for SFAPP Use Cases 3 and 4

UIM	**1241**	**Format**	**Output Group**
Action	Added for 46.7		
Old data	SCCP Card logging capacity exceeded		
New data	SCCP/SFAPP Card logging capacity exceeded		SFAPP
UIM	**1312**	**Format**	**Output Group**
Action	Added for 46.7		
Old data			
New data	Dynamic VLR profile table full	I-1	SFAPP
UIM	**1313**	**Format**	**Output Group**
Action	Added for 46.7		
Old data			
New data	Dynamic VLR roaming table full	I-1	SFAPP
UIM	**1314**	**Format**	**Output Group**
Action	Added for 46.7		
Old data			
New data	IPS TCP connection established	I-86	LINK
UIM	**1315**	**Format**	**Output Group**
Action	Added for 46.7		
Old data			
New data	IPS TCP connection terminated	I-86	LINK
UIM	**1316**	**Format**	**Output Group**
Action	Added for 46.7		
Old data			
New data	SFAPP(P) to OAM Sync started	I-1	SFAPP
UIM	**1317**	**Format**	**Output Group**
Action	Added for 46.7		
Old data			

New data	SFAPP(P) to OAM Sync Completed	I-1	SFAPP
UIM	**1327**	**Format**	**Output Group**
Action	Added for 46.7		
Old data			
New data	Mate PC not found in table	I-8	SYSM
UIM	**1328**	**Format**	**Output Group**
Action	Added for 46.7		
Old data			
New data	Incorrect network domain	I-8	SYSM
UIM	**1483**	**Format**	**Output Group**
Action	Added for 46.7		
Old data			
New data	SFAPP VLR Status Changed	I-100	SFAPP
UIM	**1484**	**Format**	**Output Group**
Action	Added for 46.7		
Old data			
New data	SFAPP New VLR Created	I-99	SFAPP
UIM	**1485**	**Format**	**Output Group**
Action	Added for 46.7		
Old data			
New data	SFAPP New Roaming Entry Created	I-97	SYSM
UIM	**1486**	**Format**	**Output Group**
Action	Added for 46.7		
Old data			
New data	SFAPP New Primary Card Chosen	I-98	SFAPP
UIM	**1487**	**Format**	**Output Group**
Action	Added for 46.7		
Old data			
New data	SFAPP Dyn VLR ROAM Entry Deleted	I-97	SFAPP
UIM	**1488**	**Format**	**Output Group**
Action	Added for 46.7		
Old data			
New data	SFAPP Velocity Threshold Crossed	I-97	SFAPP

UIM	1489	Format	Output Group
Action	Added for 46.7		
Old data			
New data	SFAPP Dyn VLR Prof Entry Deleted	I-99	SYSM
UIM	**1495**	**Format**	**Output Group**
Action	Added for 46.7		
Old data			
New data	TCP IPS Message Failure	I-102	SFAPP
UIM	**1496**	**Format**	**Output Group**
Action	Added for 46.7		
Old data			
New data	EAGLE EEDB Message Failure	I-101	SFAPP

Non-Feature Related UIMs

Table 4. New Non-Feature Related UIMs

UIM	1281	Format	Output Group
Action	Added for 46.7		
Old data			
New data	SNMP: Invalid SNMP agent access attempt	I-96	SYSM

New UIM Formats

I-96 (Non-Feature Related)	
Literal	I-96
Format	1 2 3 4 5 6 7 8 12345678901234567890123456789012345678901234567890123456789012345678 90 xxxx.xxxx CARD cccc INFO 'text' SNMP Server IP:###.###.###.###
Output Examples	daveseagle 18-04-19 08:12:28 MST EAGLE 46.7.0.0.0-75.27.0 5367.1281 CARD 1115 INFO SNMP: Invalid SNMP agent access attempt SNMP Server IP: 10.250.33.202 Report Date:18-04-19 Time:08:12:28
Note	This UIM is generated when an NMS has incorrect community strings or the SNMP host is not entered in the SNMP_HOST table.

I-97 (SFAPP Use Case 4)

Literal	RPT_SFAPP_NEW_VLR_ROAM_ENTRY
Format	1 2 3 4 5 6 7 8 12345678901234567890123456789012345678901234567890123456789012345678901234567890 XXXX.XXXX CARD #### INFO 'text' OLD_VLR=###### : NEW_VLR=###### THRESHOLD=### Report Date:##### Time:#####
Output Examples	1 2 3 4 5 6 7 8 12345678901234567890123456789012345678901234567890123456789012345678901234567890 5039.1485 CARD 1101 INFO SFAPP New Roaming Entry Created OLD_VLR=727272 : NEW_VLR=999999 THRESHOLD=999 Report Date:18-05-21 Time:15:32:00 1 2 3 4 5 6 7 8 12345678901234567890123456789012345678901234567890123456789012345678901234567890 5039.1487 CARD 1101 INFO SFAPP Dyn VLR ROAM Entry Deleted OLD_VLR=727272 : NEW_VLR=999999 THRESHOLD=999 Report Date:18-05-21 Time:15:32:00 1 2 3 4 5 6 7 8 12345678901234567890123456789012345678901234567890123456789012345678901234567890 5039.1488 CARD 1101 INFO SFAPP Velocity Threshold Crossed OLD_VLR=727272 : NEW_VLR=999999 THRESHOLD=999 Report Date:18-05-21 Time:15:32:00

I-98 (SFAPP Use Case 4)	
Literal	RPT_SFAPP_PRIMARY_CARD
Format	1 2 3 4 5 6 7 8 12345678901234567890123456789012345678901234567890123456789012345678901234567890 XXXX.XXXX CARD #### INFO 'text' PRIMARY_SFAPP: LOC=#### Report Date:#### Time:####
Output Examples	1 2 3 4 5 6 7 8 12345678901234567890123456789012345678901234567890123456789012345678901234567890 5016.1486 CARD 1101 INFO SFAPP New Primary Card Chosen PRIMARY_SFAPP: LOC=1101 Report Date:18-05-21 Time:15:24:13

I-99 (SFAPP Use Case 4)

Literal	RPT_SFAPP_VLR_INFO
Format	1 2 3 4 5 6 7 8 123456789012345678901234567890123456789012345678901234567890123456789 XXXX.XXXX CARD #### INFO 'text' VLR=###### : STATUS=#### Report Date:##### Time:#####;
Output Examples	1 2 3 4 5 6 7 8 123456789012345678901234567890123456789012345678901234567890123456789 5039.1484 CARD 1101 INFO SFAPP New VLR Created VLR=727272 : STATUS=Graylist Report Date:18-05-21 Time:15:32:00; 1 2 3 4 5 6 7 8 123456789012345678901234567890123456789012345678901234567890123456789 5039.1489 CARD 1101 INFO SFAPP Dyn VLR Prof Entry deleted VLR=727272 : STATUS=Graylist Report Date:18-05-21 Time:15:32:00;

I-100 (SFAPP Use Case 4)	
Literal	RPT_SFAPP_VLR_STATUS_CHANGED
Format	1 2 3 4 5 6 7 8 1234567890123456789012345678901234567890123456789012345678901234567890 5105.1483 CARD #### INFO 'text' VLR=###### : PREV STATUS=####### CURR STATUS=#### : Updated DB=## Report Date:##### Time:#####
Output Examples	1 2 3 4 5 6 7 8 1234567890123456789012345678901234567890123456789012345678901234567890 5105.1483 CARD 1101 INFO SFAPP VLR Status Changed VLR=727272 : PREV STATUS=GrayList CURR STATUS=Whitelist : Updated DB=No Report Date:18-05-21 Time:15:37:1

I-101 (SFAPP Use Case 3)	
Literal	RPT_SFAPP_EEDB_MSG
Format	1 2 3 4 5 6 7 8 123456789012345678901234567890123456789012345678901234567890123456789 XXXX.XXXX CARD #### INFO 'text' Reason: 'text' VLR=###### : STATUS=#### IMSI=###### Report Date:##### Time:#####;

Output Examples	1 2 3 4 5 6 7 8 12345678901234567890123456789012345678901234567890123456789012345678901234567890 7643.1496 CARD 1101 INFO EAGLE EEDB Message Failure Reason: EEDB RESPONSE TIMEOUT VLR=7171 : STATUS=Whitelist IMSI=69980645 Report Date:18-09-21 Time:17:45:33

I-102 (SFAPP Use Case 3)	
Literal	RPT_IPS_EEDB_MSG
Format	1 2 3 4 5 6 7 8 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789 XXXX.XXXX CARD #### INFO 'text' Reason: 'text' Connection Name : 'text' Report Date:##### Time:#####;
Output Examples	1 2 3 4 5 6 7 8 12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678 6729.1495 CARD 1112 INFO TCP IPS Message Failure Reason: INCORRECT CHECKSUM Connection Name : ipstcp Report Date:18-09-21 Time:16:38:33

Error Messages

New or updated error messages for release 46.7.

Table 5. Error Message for EAGLE Analytics

Response ID Code	Error Message	Used by Command
E3625	UDP connection not supported on EMAP card	ent-ip-conn

Table 6. Error Message for EPAP Database Increase to 480M DN + 600M Flexible IMSI/IMEI Allocation

Response ID Code	Error Message	Used by Command
E3536	32 BIT APPL NOT SUPPORTED	chg-stpopts
E3617	EPAP240M feature can't be turned ON once EPAPX feature is ON	chg-stpopts

Table 7. Error Message for Document Updates Corresponding to SFAPP Use Cases 1 and 2 Enhancements

Response ID Code	Error Message	Used by Command
E3621	Invalid parameter values for specified ATI/PSI gtmodid	N/A
E3622	Invalid SFAPP GTMOD param value	chg/ent-gttact

New error codes to support the SS7 Firewall - Stateful Applications feature are listed in the Table 8.

Table 8. Error Message for SFAPP Use Case 3 — Validation Using IMEI

Response ID Code	Error Message	Used by Command
E3611	STP table is full	ent-mate-stp
E3613	DPC must exist for the STP entry	ent-mate-stp
E3614	STP point code already in use	ent-mate-stp
E3620	Mate STP table read failed	dlt/ent-mate-stp

Table 9. Error Message for Update CMT for CHG-SFAPPOPTS Command

Response ID Code	Error Message	Used by Command
E3628	SFAPP(P) to OAM SYNC in progress	chg-sfappopts
E3636	No SFAPP Card available	chg-sfappopts
E4820	Failure accessing EGLEOPTS table	chg-sfappopts

EAGLE Configuration Table Data Reports

New headers were added for the output of the following commands:

- rtrv-gttact

EAGLE Registers in Measurement Reports

The following new registers are added for COMP-LINK and COMP-LNKSET reports:

- AVTPSXMT
- AVTPSRCV
- PKTPSRCV
- PKTPSXMT

Chapter 3: EAGLE Release 46.7 Media and Documentation

Topics:

Media Pack
Documentation Pack

Oracle Communications software is available for electronic download on the Oracle Software Delivery Cloud (OSDC). Documentation is delivered electronically on the Oracle Help Center (OHC). Both the software Media Pack and Documentation Pack are listed in this chapter.

Media Pack

All components available for download from the Oracle Software Delivery Cloud (https://edelivery.oracle.com/) are in Table 10: Media Pack Contents.

Note: This list is accurate at the time of release, but is subject to change. See the Oracle Software Delivery Cloud website for the latest information.

Table 10: Media Pack Contents for 46.7

Description
Oracle Communications EAGLE (46.7.0.0.0-75.27.0), Tekelec
Oracle Communications EAGLE (46.7.1.0.0-75.29.0), Tekelec
Oracle Communications EAGLE (46.7.2.0.0-75.30.0), Tekelec
Oracle Communications EAGLE (46.7.3.0.0-75.31.0), Tekelec
Oracle Communications EAGLE (46.7.4.0.0-75.32.1), Tekelec
Oracle Communications EAGLE (46.7.5.0.0-75.36.0), Tekelec
Oracle Communications EAGLE (46.7.6.0.0-75.37.0), Tekelec
Oracle Communications EAGLE (46.7.7.0.0-75.38.0), Tekelec

Documentation Pack

All documents available for download from the Oracle Help Center (OHC) site (http://docs.oracle.com/en/industries/communications/) are listed in Table 11: Documentation Pack Contents.

Note: This list is accurate at the time of release, but it is subject to change. See the Oracle Help Center for the latest information.

Table 11: Documentation Pack Contents

EAGLE Core Manuals
Release Notice
Commands User's Guide
Commands Error Recovery Reference
Database Administration – Features user's Guide
Database Administration – GWS User's Guide
Database Administration – GTT User's Guide
Database Administration – IP7 Secure Gateway User's Guide
Database Administration – SEAS User's Guide

Database Administration – SS7 User's Guide
Database Administration – System Management User's Guide
Measurements Reference
Unsolicited Alarms and Information Messages Reference
Security Guide
System Health Check Guide
Software Upgrade Guide
EAGLE Feature Manuals
A-Port User's Guide
Analyzed Information Features User's Guide
ATINP User's Guide
EIR User's Guide
ENUM User's Guide
G-Flex C7 Relay User's Guide
G-Port User's Guide
IDP-Related Features User's Guide
INP/AINPQ User's Guide
IS41 GSM Migration User's Guide
MO SMS User's Guide
Numbering Plan Processor (NPP) User's Guide
SIGTRAN User's Guide
Stateful Applications User's Guide
TIF User's Guide
V-Flex User's Guide
EAGLE Hardware, Installation, and Maintenance
Hardware Reference
Installation Guide
Maintenance Guide
Application B Card Hardware and Installation Guide
Reference
Master Glossary
Previously Released Features
Related Publications Reference

Licensing Information User Manual
Table Data Report CSV File Format Reference

Chapter 4: EAGLE Release 46.7 Supported Hardware Baseline

Topics:

EAGLE Card Overview
Hardware Baseline

The hardware identified in this chapter comprises the hardware and server versions that have been verified with this release.

EAGLE Card Overview

The EAGLE Card Overview table is a resource table that provides an overview of information for cards that can be provisioned in EAGLE. For a detailed description of supported hardware, see Table 12.

This table lists the following card information:

- Name of the card on the card label
- Card part number
- Provisioned card type
- Number of shelf slots that the card occupies (1 or 2)
- Number of physical ports on the card
- Maximum number of links that can be assigned to the card
- GPLs and applications that can run on the card

Table 12: EAGLE Card Overview Table

Card Name as shown on the card label	Part Number	Provisioned Card Type	Per Card Slots/Ports		Links per Card	Card GPLs	Card Applications
E5-APP-B	870-3096-xx	e5appb	2	4	N/A	N/A	elap epap lsms nas imf
E5-ATM-B	870-2972-01	limatm lime1atm	1	4 (3 used)	2	atmhc blmcap	atmansi atmitu
E5-E1T1-B[1]	870-2970-01	lime1 limt1	1	8	64	ss7hc blmcap	ss7ansi ccs7itu
		lime1 (for SE-HSL)	1	8	2		ccs7itu
		limt1 (for ST-HSL-A)	1	8	2		ss7ansi

[1] For the E1 or T1 interface, an SS7 application (SS7ANSI or CCS7ITU) can be assigned to these cards.

Card Name as shown on the card label	Part Number	Provisioned Card Type	Per Card Slots/Ports		Links per Card	Card GPLs	Card Applications
E5-ENET-B	870-2971-01	stc	1	2	2 Ethernet	erthc blmcap	eroute
		enet enetb	1	4	32	ipsg blmcap	ipsg
		ipsm	1	2 (use only A)	1 ipshc service	ipshc69 bldc32	ips
E5-MASP	7346924 870-2903-01[2] 870-2903-02[2] 870-2903-03[2]	N/A	2	2	N/A	oamhc69 bldc32	oam
E5-MCPM-B	870-3089-01	mcpm	1	2 (use only A)	1 Ethernet	mcphc69 bldc32	mcp
E5-MDAL	7346923 870-2900-01[2]	N/A	2	N/A	N/A	N/A	N/A
E5-SM8GB[3]	870-2990-01	dsm	2	2 Ethernet	1 Ethernet for MPS link 1 Ethernet for Signaling (16 SCTP)	deir64 (64 bit)/ bldc64 (64 bit)	deirhc
			2	2 Ethernet	1 Ethernet for MPS link 1 Ethernet for Signaling (16 TCP; 1 UDP)	enum64 (64 bit)/ bldc64 (64 bit)	enumhc
			2	2 Ethernet	2 Ethernet for MPS links	sccp64 (64 bit)/ bldc64 (64 bit)	vsccp
			2	2 Ethernet	1 Ethernet for MPS link 1 Ethernet for Signaling (16 TCP; 1 UDP)	sip64 (64 bit)/ bldc64 (64 bit)	siphc
HIPR2	7333484 870-2872-01[2] 870-2872-02[2]	N/A	1	N/A	N/A	hipr2	hipr2
SLIC	7094646 7352578	dsm	1	4 Ethernet	2 Ethernet for MPS links 2 Ethernet for Signaling links (16 SCTP)	deir64 blslc64[4]	deirhc

[2] This part number is the ROHS equivalent of the immediately preceding part number.
[3] E5-SM8G-B cards are required for the LNP, 50,000 GTT, or EPAP-related features. For more information about turning these features on, refer to the appropriate manual.
[4] If the card is not running the 64-bit flash GPL (blslc64), see "Conversion of SLIC Cards" in *Database Administration - System Management* to convert from the 32-bit to 64-bit flash GPL.

Card Name as shown on the card label	Part Number	Provisioned Card Type	Per Card Slots/Ports		Links per Card	Card GPLs	Card Applications
			1	4 Ethernet	2 Ethernet for MPS links 2 Ethernet for Signaling links (1 UDP)	enum64 blslc64[4]	enumhc
			1	2 Ethernet	2 Ethernet for MPS links	sccp64 blslc64[4]	vsccp
			1	4 Ethernet	2 Ethernet for MPS links 2 Ethernet for Signaling links (16 TCP; 1 UDP)	sip64 blslc64[4]	siphc
		slic	1	2 Ethernet	2 Ethernet for MPS links	sccp64 blslc64[4]	vsccp
		enetb	1	4 Ethernet	2 Ethernet for Signaling links (32 SCTP) 2 Ethernet for Fast Copy	ipsg blslc32	ipsg
		slic	1	4 Ethernet	2 Ethernet for Signaling link (128 SCTP) 2 Ethernet for Fast Copy	ipsg blslc32	ipsg
		slic	1	4 Ethernet	2 Ethernet for Signaling link (32 SCTP) 2 Ethernet for Fast Copy	ipsg blslc32	Ipsg + GTT
		ipsm	1	1	1 Ethernet	ipshc69 blsl932	ips
		stc	1	2	2 Ethernet	erthc blslc32	eroute
		mcpm	1	1	1 Ethernet	mcphc69 blsl932	mcp
		lime1 limt1	1	4	96	ss7hc blslc32	ss7ansi ccs7itu
		lime1 (for SE-HSL)	1	2	3		ccs7itu
		lime1 (for ST-HSL-A)	1	2	3		ss7ansi

Hardware Baseline

Component	Part Number	ROHS Number (if applicable)	Required for:
Control Shelf	870-2321-02 Rev A	7335031	Standard Frame
	870-2321-04 Rev A		
	870-2377-01 Rev A	870-2377-02 Rev A	Heavy Duty Frame
Control Shelf Backplane	850-0330-06 Rev A	7333412	
Extension Shelf	870-2378-01 Rev A	7335033	Heavy Duty Frame
	870-0776-02 Rev C		Standard Frame
	870-0776-03 Rev D		
	870-0776-06 Rev A		
	870-0776-07 Rev A		
	870-0776-08 Rev A or 870-0776-11 Rev A		
Air Management Card	870-1824-01 Rev A	870-1824-02 Rev A	Shelves with Fan Assembly
E5-APP-B	870-3096-xx		
E5-ATM-B		870-2972-01 Rev A	
E5-ATM Adapter		830-1342-05	
E5-E1T1-B		870-2970-01 Rev A	
E5-ENET-B		870-2971-01 Rev A	
E5-MASP		7346924	
		870-2903-01 Rev C	
		870-2903-02 Rev A	
		870-2903-03 Rev A	
E5-MCPM-B		870-3089-01 Rev A	
E5-MDAL		7346923	
		870-2900-01 Rev A	
E5-SM8G-B		870-2990-01 Rev A	
FAP	870-1606-01 Rev A or		Standard Frame or Standard Frame with HCMIMs
	870-1606-02 Rev A	870-1606-05 Rev A	
	870-2320-01 Rev A	870-2320-03 Rev A	Heavy Duty Frame or Heavy Duty Frame with HC-MIMs
	870-1823-01 Rev B	870-2804-01 Rev B	
FAP-CF/EF	870-0243-08 Rev C		
FAP-MISC	870-0243-09 Rev C		

Component	Part Number	ROHS Number (if applicable)	Required for:
FAP Fuse and Alarm Panel	870-2804-01 Rev A		
Fast Copy Adapter Upper		830-1343-01 Rev A	
Fast Copy Adapter Lower		830-1343-02 Rev A	
HIPR2		7333484	
		870-2872-01 Rev A	
		870-2872-02 Rev C	
SLIC		7094646 7352578	
High-speed Fiber Channel Cable		830-1344-xx	
DC Frame Assembly	890-1843-01 Rev C	890-1843-02 Rev A	
In Heavy Duty Frame	890-1801-01 Rev E	890-1801-02 Rev A	
Kit E1	890-1037-01 Rev A	890-1037-06 Rev A	
Kit, Holdover Clock Assy	890-1013-01 Rev A		
Fan Assy (Standard Frame)	890-1038-01 Rev D		
Fan Assy (Shelves with EPM-B cards)	890-0001-01 Rev A or	7315823	
	890-0001-02 Rev A		

Note: On EAGLEs getting upgraded to R46.7, EPAP MPS ports on Service Module cards must be configured to support 1Gbps EPAP-to-EAGLE RTDB download speed. SM cards must also be connected to EPAP with CAT5 straight-through cables (P/N 830-0724-xx or 830-1174-xx; see *Installation Guide*).

Chapter 5: EAGLE Release 46.7 Supported Upgrade Paths

Topics:

Supported Upgrade Paths
Generic Program Loads (Release 46.7)

This release has been tested for upgrade from specific prior releases. This chapter contains the exact paths for upgrade. Please verify your current installed release is listed on a valid upgrade path.

Supported Upgrade Paths

The possible upgrade paths to EAGLE 46.7 are listed Table 13.

Table 13: EAGLE Release 46.7 Upgrade Paths

From	To
EAGLE release 46.5	EAGLE release 46.7
EAGLE release 46.6	EAGLE release 46.7

Note: The upgrade path to release 46.7 from 46.5 is supported only if the customer does not have any "A cards" (except for the E5-IPSM card) in their system.

Note: An upgrade from release 46.5.0 to 46.7 is not supported if EAGLE is equipped with ELAP cards. EAGLE should be upgraded to release 46.5.1 (or release 46.6.2) first for converting the ELAP cards to run 64-bit GPLs before upgrading to release 46.7.

Generic Program Loads (Release 46.7)

GPL System Name	Version Build 46.7.7.0.0-75.38.0	Version Build 46.7.6.0.0-75.37.0	Version Build 46.7.5.0.0-75.36.0	Version Build 46.7.4.0.0-75.32.1	Version Build 46.7.3.0.0-75.31.0	Version Build 46.7.2.0.0-75.30.0	Version Build 46.7.1.0.0-75.29.0	Version Build 46.7.0.0.0-75.27.0
Date Available	August 2022	December 2020	September 2020	December 2019	November 2019	September 2019	May 2019	December 2018
ATMHC	**145.38.0**	145.37.0	145.36.0	145.31.0	145.31.0	145.30.0	145.29.0	145.27.0
ATMHC69	**145.38.0**	145.37.0	145.36.0	145.31.0	145.31.0	145.30.0	145.29.0	145.27.0
BLDC32	**145.38.0**	145.32.0	145.32.0	145.32.0	145.30.0	145.30.0	145.29.0	145.27.0
BLDC64	**145.38.0**	145.32.0	145.32.0	145.32.0	145.30.0	145.30.0	145.27.0	145.27.0

GPL System Name	Version Build 46.7.7.0.0-75.38.0	Version Build 46.7.6.0.0-75.37.0	Version Build 46.7.5.0.0-75.36.0	Version Build 46.7.4.0.0-75.32.1	Version Build 46.7.3.0.0-75.31.0	Version Build 46.7.2.0.0-75.30.0	Version Build 46.7.1.0.0-75.29.0	Version Build 46.7.0.0.0-75.27.0
BLIXP	**145.38.0**	145.30.0	145.30.0	145.30.0	145.30.0	145.30.0	145.21.0	145.21.0
BLMCAP	**145.38.0**	145.32.0	145.32.0	145.32.0	145.30.0	145.30.0	145.27.0	145.27.0
BLSL932	**145.38.0**	145.32.0	145.32.0	145.32.0	145.30.0	145.30.0	145.29.0	145.27.0
BLSLC32	**145.38.0**	145.32.0	145.32.0	145.32.0	145.30.0	145.30.0	145.28.0	145.27.0
BLSLC64	**145.38.0**	145.32.0	145.32.0	145.32.0	145.30.0	145.30.0	145.28.0	145.27.0
DEIR64	**145.38.0**	145.37.0	145.36.0	145.31.0	145.31.0	145.30.0	145.29.0	145.27.0
ENUM64	**145.38.0**	145.37.0	145.36.0	145.31.0	145.31.0	145.30.0	145.29.0	145.27.0
ERTHC	**145.38.0**	145.37.0	145.36.0	145.31.0	145.31.0	145.30.0	145.29.0	145.27.0
ERTHC69	**145.38.0**	145.37.0	145.36.0	145.31.0	145.31.0	145.30.0	145.29.0	145.27.0

GPL System Name	Version Build 46.7.7.0.0-75.38.0	Version Build 46.7.6.0.0-75.37.0	Version Build 46.7.5.0.0-75.36.0	Version Build 46.7.4.0.0-75.32.1	Version Build 46.7.3.0.0-75.31.0	Version Build 46.7.2.0.0-75.30.0	Version Build 46.7.1.0.0-75.29.0	Version Build 46.7.0.0.0-75.27.0
HIPR2	145.2.0	145.2.0	145.2.0	145.2.0	145.2.0	145.2.0	145.2.0	145.2.0
IPSG	**145.38.0**	145.37.0	145.36.0	145.31.0	145.31.0	145.30.0	145.29.0	145.27.0
IPSG32	**145.38.0**	145.37.0	145.36.0	145.31.0	145.31.0	145.30.0	145.29.0	145.27.0
IPSG69	**145.38.0**	145.37.0	145.36.0	145.31.0	145.31.0	145.30.0	145.29.0	145.27.0
IPSG932	**145.38.0**	145.37.0	145.36.0	145.31.0	145.31.0	145.30.0	145.29.0	145.27.0
IPSHC	**145.38.0**	145.37.0	145.36.0	145.31.0	145.31.0	145.30.0	145.29.0	145.27.0
IPSHC69	**145.38.0**	145.37.0	145.36.0	145.31.0	145.31.0	145.30.0	145.29.0	145.27.0
MCPHC	**145.38.0**	145.37.0	145.36.0	145.31.0	145.31.0	145.30.0	145.29.0	145.27.0
MCPHC69	**145.38.0**	145.37.0	145.36.0	145.31.0	145.31.0	145.30.0	145.29.0	145.27.0

GPL System Name	Version Build 46.7.7.0.0-75.38.0	Version Build 46.7.6.0.0-75.37.0	Version Build 46.7.5.0.0-75.36.0	Version Build 46.7.4.0.0-75.32.1	Version Build 46.7.3.0.0-75.31.0	Version Build 46.7.2.0.0-75.30.0	Version Build 46.7.1.0.0-75.29.0	Version Build 46.7.0.0.0-75.27.0
OAMHC	**145.38.0**	145.37.0	145.36.0	145.32.0	145.31.0	145.30.0	145.29.0	145.27.0
OAMHC69	**145.38.0**	145.37.0	145.36.0	145.32.0	145.31.0	145.30.0	145.29.0	145.27.0
SCCP64	**145.38.0**	145.37.0	145.36.0	145.31.0	145.31.0	145.30.0	145.29.0	145.27.0
SFAPP	**145.38.0**	145.37.0	145.36.0	145.31.0	145.31.0	145.30.0	145.29.0	145.27.0
SIP64	**145.38.0**	145.37.0	145.36.0	145.31.0	145.31.0	145.30.0	145.29.0	145.27.0
SS7HC	**145.38.0**	145.37.0	145.36.0	145.31.0	145.31.0	145.30.0	145.29.0	145.27.0
SS7HC69	**145.38.0**	145.37.0	145.36.0	145.31.0	145.31.0	145.30.0	145.29.0	145.27.0

Chapter 6: Product Compatibility

Topics:

Product Compatibility
Load Line Up

This section shows release-specific compatibility with other related products.

Product Compatibility

Refer to *EAGLE Compatibility Matrix* for the product compatibility between this product release and the releases of other products. The compatibility table shown below is retained only for historical purposes.

Table 14 shows EAGLE 46.7 compatibility with other products.

Table 14: EAGLE Release 46.7 Compatibility with Other Related Products

Product	Release	Compatibility
ELAP	10.1	FC
EPAP	16.1	PC
	16.2	PC
	16.3	FC
OCEEMS	46.5	PC
	46.6[5]	FC
FTRA	<4.5	NC
	4.5	FC[6]
PIC	10.0	NC
	10.1	PC[7]
	10.2	PC[7]

Note: Customers should upgrade to the fully compatible release identified in Table 14.

Legend:

- FC – Fully Compatible
- PC – Partially Compatible. Product combinations are functional but have not undergone complete regression testing. Some feature capabilities may not be fully functional or supported.
- NC – Not Compatible

[5] Only release 46.6.2 is compatible with EAGLE release 46.7.
[6] FTRA 4.5 was tested with JAVA version 8 update 121.
[7] J7 Point Code format is NOT supported on PIC.

Load Line Up

This section lists subsystem products and versions affected by features delivered in this release. The following table contains the order in which the upgrade should take place, where 1 is first, 2 is next, and so on. The most current release should be used for all products in Table 15.

Warning: Failure to upgrade in the correct order may cause a service outage/discontinuity between products.

Table 15. Load Line Up

Product Element	Upgrade Order (if applicable)
EMS	1[8]
EAGLE	2 or 3[9]
EPAP	3 or 2[9]
ELAP	4
LSMS	5
EAGLE Query Server	6
FTRA	N/A
PIC	N/A

[8] EAGLE EMS must be upgraded to the latest EAGLE EMS 46.6 MR before upgrading EAGLE to 46.7 due to a timing issue on the SSH connection between EAGLE EMS and EAGLE. In addition, EAGLE EMS 46.6 includes a backwards compatibility feature.

[9] Since EPAP 16.3 supports the older RTDB schema as well as the new schema for larger capacities, the customer may prefer to upgrade EPAP before upgrading EAGLE to 46.7. For example, the customer may want to use EPAP 16.3 to get the latest security updates while still using EAGLE 46.6. The default order is to upgrade EAGLE first.

Chapter 7: EAGLE Release 46.7 Resolved and Known Bugs

Topics:

Severity Definitions
Resolved Bug List
Customer Known Bug List

This chapter lists the resolved and known bugs for EAGLE release 46.7.

These lists are distributed to customers with a new software release at the time of General Availability (GA) and are updated for each maintenance release.

Severity Definitions

The problem report sections in this document refer to bug severity levels. Definitions of these levels can be found in the publication, *TL 9000 Quality Management System Measurement Handbook*.

Problem Report: A report from a customer or on behalf of the customer concerning a product or process defect requesting an investigation of the issue and a resolution to remove the cause. The report may be issued via any medium.

Problem reports are systemic deficiencies with hardware, software, documentation, delivery, billing, invoicing, servicing, or any other process involved with the acquisition, operation, or performance of a product. An incident reported simply to request help to bring back the service or functionality to normal without the intent to investigate and provide a resolution to the cause of the incident is not a problem report.

3. **Critical**: Conditions that severely affect the primary functionality of the product and because of the business impact to the customer requires non-stop immediate corrective action regardless of time of day, or day of the week as viewed by a customer on discussion with the organization such as:

   - Product inoperability (total or partial outage),
   - A reduction in the capacity capability, that is, traffic/data handling capability, such that expected loads cannot be handled,
   - Any loss of emergency capability (for example, emergency 911 calls), or
   - Safety hazard or risk of security breach.

4. **Major**: Product is usable, but a condition exists that seriously degrades the product operation, maintenance, or administration, etc., and requires attention during pre-defined standard hours to resolve the situation.

The urgency is less than in critical situations because of a less immediate or impending effect on product performance, customers, and the customer's operation and revenue such as:

   - Reduction in product's capacity (but still able to handle the expected load),
   - Any loss of administrative or maintenance visibility of the product and/or diagnostic capability,
   - Repeated degradation of an essential component or function, or
   - Degradation of the product's ability to provide any required notification of malfunction.

5. **Minor**: Other problems of a lesser severity than “critical” or “major” such as conditions that have little or no impairment on the function of the system.

6. **Minor, No Loss of Service**: Oracle severity beyond what is defined by TL 9000.

The numbered severity levels in the tables below correspond to these definitions of 1–Critical, 2–Major, 3–Minor, 4–Minor, No Loss of Service.

Resolved Bug List

The tables in this section list bugs resolved in the following build:

- EAGLE 46.7.0.0.0-75.27.0
- EAGLE 46.7.1.0.0-75.29.0
- EAGLE 46.7.2.0.0-75.30.0
- EAGLE 46.7.3.0.0-75.31.0
- EAGLE 46.7.4.0.0-75.32.1
- EAGLE 46.7.5.0.0-75.36.0
- EAGLE 46.7.6.0.0-75.37.0
- EAGLE 46.7.7.0.0-75.38.0

The resolved bug table shows an impact statement for the severity 1 and 2 bugs as well as severity 3 bugs associated with an SR.

Note: Resolved bugs are sorted in ascending order by severity and then by bug number.

Table 16: EAGLE Release 46.7.7.0.0-75.38.0 Resolved Bugs (August 2022)

Bug Number	SR	Severity	Title	Customer Impact
34178864	Y	4	BIP errors on cards not Alarming UAM 102 in Eagle	

Table 17: EAGLE Release 46.7.6.0.0-75.37.0 Resolved Bugs (December 2020)

Bug Number	SR	Severity	Title	Customer Impact
31973477	Y	3	Active MASP (1115/1116) went INCOHERENT after it was initialized with the USB in the latched USB port	There is no traffic impact. User should clear the DB inconsistency alarm on the OAM before making any DB changes (ent/chg/dlt).

Bug Number	SR	Severity	Title	Customer Impact
32100758	Y	3	MOFSM MAP V2 message is not processing MBR	MO-FSM fails MBR processing in these two cases: 1. For MAP version 1 & 2, the IMSI should not be decoded, but MBR is discarding the message with UIM 1145 with error cause as "IMSI decoding failed" even when the IMSI set is not applied. The correct behavior is that MBR should not decode the IMSI. 2. For MAP version 3, IMSI is an optional parameter. Again, MBR is discarding the message with UIM 1145 with error cause as "IMSI decoding failed" if no IMSI is present in the message or even when the IMSI is present but could not be decoded and the IMSI set is not applied.
32028635		4	Enhance ASN.1 decoding to restrict additional octets in TCAP layer	

Table 18: EAGLE Release 46.7.5.0.0-75.36.0 Resolved Bugs (September 2020)

Bug Number	SR	Severity	Title	Customer Impact
30928083	Y	2	SR: Upgrade/Card reload causes IP-RTE entries to disappear on 64-bit SLIC cards	A reboot of SLIC cards running any of the application GPLs ENUM64, DEIR64, or SIP64 will cause IP-RTE entries to disappear from the card memory and causes failures to the SIP/ENUM/DEIR traffic.
31472219		2	Memory leak issue on ENUM and SIP card in case of socket write error	ENUM or SIP capacity is reduced temporarily during card reboots to clear abnormal condition.
31721013		2	Diff contents on standby OAM and DDB inconsistent on SFAPP card is being observed	The command "rept-stat-db" shows "DATABASE STATUS: >> NOT OK (DMS) <<" with standby DB level showing "DIFF CONTENTS". The command "aud-data:type=ddb:display=all" shows System Status "INCONSISTENT". Customer will be unable to take a DB backup as DB status is "NOT OK". There could be other impacts as well.

Bug Number	SR	Severity	Title	Customer Impact
31744029		2	Learning not working correctly in Test and Learn mode occasionally	For the first two entries in the SFAPP UC4 Dynamic VLR profile table, the learning does not get completed (i.e., the VLR status does not move from GRAYLIST to WHITELIST/BLACKLIST based on VLR validation results). Workaround: Retrieve the dynamic VLR profile table after the first SFAPP(P)->OAM sync, using the rtrv-vlr-prof command. The first two entries (say, 123 and 456) in the Dynamic VLR profile table must be duplicated in Static VLR profile table using the ent-vlr-prof command. The filter for these VLRs is the operator's prerogative. If the filter is whitelist/blacklist, a corresponding entry in the Static VLR roaming table is NOT required. If the filter is graylist, operator has to create two static VLR roaming entries using the ent-vlr-roaming command: One entry with newvlr=123 and oldvlr=456 and, Other entry with newvlr=456 and oldvlr=123
31076731	Y	3	SR: Unable to locate target release on USB drive: "Unable to locate 46.8.2.0.0-75.18.19.tar.gz on drive"	Target Release Software cannot be downloaded into inactive partitions using USB Upgrade Media.
31217079	Y	3	IPSM rejecting SSH connections (Module iptscmgr.c & sshd_v69.c troubles)	User is unable to access the EAGLE STP through the IP connections on the IPSM cards. Alternate access through MMI terminal is needed.
31217129	Y	3	Memory leak issue observed on IPSM card using SSH connection with EAGLE	User is unable to access the EAGLE STP through the IP connections on the IPSM cards. "Telnet server is busy" trouble message showing for IPSM card. Alternate access through MMI terminal is needed.
31225105	Y	3	SR: FTRA incorrect output for RTRV-LS csv data	Column Header does not align with system output due to an extra 'blank value' currently reported.

Bug Number	SR	Severity	Title	Customer Impact
31386881	Y	3	Provisioned links falsely report OOS after reboot of OAM	OAM displays incorrect link state for E1T1 card after the OAM is re-initialized.
31451818		3	GTTASET is not getting pegged correctly when scpval gets failed and defactid is set to fallback	
31479201	Y	3	SR: aud_oam.c sev-1 on OAMHC69 results in DB Audit failure & DB corruption UAM 35/UIM 1188	Initializing a MASP card with a removable USB media inserted in the MASP drive results in DB audit failure on the MASP card. This may result in DB UIMs and DB corruption alarms. However, this particular issue will not cause any real data corruption/impact.
31649200		3	Observing Establishing Maintenance Baseline - timed out waiting for subprocesses (SFApp)	
31678409		3	ACT-UPGRADE:ACTION=GETREL command failed during validation of release 46.8.2.0.0-75.18.19	
31685716		3	Wrong path is getting pegged for gttaction DUP and scpval in MTCHGTTAPATH report	
31744007		3	Observing DB-DIFF on all 5 secondary SFAPP cards	
31744037		3	Entries in VLR roaming table getting missed during Primary to Secondary SFAPP Sync	
31778125		3	R46.7.5_ST_SFAPP: Obit "ath_vxw_mgr" is observed on SFAPP card when chg-gttapath command is entered	

Bug Number	SR	Severity	Title	Customer Impact
31803256	Y	3	Severity 1 hcl_l2.c on E1T1 B cards	Cards provisioned as type LIME1 or LIMT1 may generate "Module hcl_l2.c Line 1423 Class 3036" sev-1 (line number may differ between releases; please check with Oracle support team) due to mismatch between the length indicator embedded in the signal unit and the actual size of the received signal unit for certain lengths. There is no impact to call processing.

Table 19: EAGLE Release 46.7.4.0.0-75.32.1 Resolved Bugs (December 2019)

Bug Number	SR	Severity	Title	Customer Impact
30588543	Y	2	46.7 Upgrading EAGLE to Release 46.6, 46.7 or 46.8 May Cause Database to Get Corrupted (btreeapp.c obit)	Customer impact: Upgrading to 46.7 may corrupt database on EAGLE. This corruption could lead to traffic loss. See KM 2613172.1 for additional details.
30590342		3	46.7 Card may boot with restart.c obit while being flashed and activated	

Table 20: EAGLE Release 46.7.3.0.0-75.31.0 Resolved Bugs (November 2019)

Bug Number	SR	Severity	Title	Customer Impact
30392274	Y	2	EAGLE sending 0.0.0.0 IP in INIT-ACK on IPSG	The Eagle STP sends an IPV4 address 0.0.0.0 in an INIT-ACK message along with configured LHOST and ALHOST addresses when responding to an INIT message. Depending on how the far end device responds, the customer impact can range from no impact all the way to the connection not coming into service at all.
30406371	Y	4	R46.7.1.0.0 - TRACEROUTE command failed: Traceroute Error Code = 2	The traceroute function is unreliable with GPLs running on VxWorks 6.9.
30406447	Y	4	Ping command is not working consistently from IPSM and OAM card on R46.7.1.0.0	The operation of the Ping command is not reliable on GPLs that have been converted to VxWorks 6.9.

Table 21: EAGLE Release 46.7.2.0.0-75.30.0 Resolved Bugs (September 2019)

Bug Number	SR	Severity	Title	Customer Impact
29246031	Y	2	SR: ALHOST IP address missing in INIT_ACK on a Multi-homed DEIR SCTP association	Multi-homed DEIR SCTP associations do not send the ALHOST IP address in their INIT_ACK message to the DSR. The lack of ALHOST IP address in the response causes the association to be created for a single path instead of two paths. Due to this, the customer is unable to implement a diameter connection over multi-homed SCTP associations between DEIR on EAGLE and DSR.
29896891	Y	2	btree rebalancing failed with obit btreeapp.c Line 1472 during upgrade in phase 0	An error in a database table may cause the MASP to reset. When this error occurs during upgrade, the upgrade process cannot proceed. Upgrade logs may report "System Tree Rebalance on Standby TDM has timed out or processor failed".
29931674	Y	2	SR: FC enabled IPSG (E5-ENETB) card booted with "Module ath_vxw_mgr. Line 2033 Class 01c3" obit	A sudden and extended period of congestion at the fast copy Ethernet port(s) may cause the FC enabled IPSG card to boot.
30018571		2	R46.7.1 - Upgrade failed due to failed rebalancing "gtt_tt2.tbl" in phase 0 with sev upg_drms.c	An error in the DB may cause the MASP to boot. Since the error is typically encountered during Upgrades, the MASP booting may cause the upgrade process to halt.
29856010		3	UIM output overwhelming Terminals and logging capabilities	
29969001	Y	3	IPSG card reload causes IP Connection Unavailable alarm (UAM 84) on wrong card	IPSG card reload may cause EAGLE to report IP Connection Unavailable alarm (UAM 84) for associations on wrong IPSG card location. This is a false alarm and may cause confusion.
30065117		3	Incorrect CSV file for GTA is generated in FTRA	
29897141		4	Throttle UIM creation at originating card	

Table 22: EAGLE Release 46.7.1.0.0-75.29.0 Resolved Bugs (May 2019)

Bug Number	SR	Severity	Title	Customer Impact
28949602		2	Rel.46.7_ST:OAM DB went into Inconsistent state while executing format-disk command just before SFAPP->OAM sync ...	Reloading the standby MASP during SFAPP Intelligent VLR Whitelist DB sync on OAM may result in DB-DIFF between both of the OAMs. Workaround: SYNC Between OAM and SFAPP(P) happens every hour when SFAPP Intelligent VLR Whitelist is configured. Run REPT-STAT-SFAPP, look at the "Last SYNC Between OAM and SFAPP(P)", and avoid a reload of the standby MASP which can conflict with the next SYNC between the OAM and the SFAPP. If the system has already encountered this problem and resulted in DB-DIFF between both the OAMs, then run the "chg-db:action=repair" command to correct the DB on the standby MASP.
29670783		2	Unstable SSH connection IPSM cards obit mcc_queue.c Line 1188 ...	This problem could cause access issues via the IPSM card and terminals hosted on it.
28984294		3	R46.7: SLIC V2 (part # 73522578) LEDs not working correctly ...	
29224783		3	R46.7_ST: IPSM card booted multiple times with Obit cnmgrudptcp. Line 3544 ...	
29234957		3	Service Module card loading time exceeding 45 min. in case of 1080M DB ...	

Table 23: EAGLE Release 46.7.0.0.0-75.27.0 Resolved Bugs (December 2018)

Bug Number	SR	Severity	Title	Customer Impact
27379338		2	R46.6_SFAPP:SFAPP card going into DDB-incn state after db-restore/init-sys.	If an SFAPP, IPSG32 or SCCP card boots up when all below conditions are met, then the remote PC SSN status on the card booting up can be different from the already up card. 1. Point code with direct routes and entry in MAP or MRN entry. 2. Exception routes on that point code. 3. Status of direct route is prohibited and exception route is not prohibited. 4. At least one more IPSG32, SCCP or SFAPP card should already be up.
28707297		2	R46.6.2_MR:Obit sentry_vxw.c on IPSM ENETB card when trm is SEAS.	IPSM card with an active SEAS terminal will continuously obit upon failure to read data from the SEAS application. WORKAROUND: Inhibiting the SEAS terminal will prevent the obits from occurring.
28889770	Y	2	SR: FTP failure with EAGLE VxWorks 6.9 GPL on release 46.6 and OpenSSH 7.4.	File Transfer Protocol transfers may fail with servers running certain OpenSSH versions due to the OpenSSH library's inability to properly handshake with the client during the File Transfer Protocol session.
26042596		3	R46.5_ST: Severity 1 trp_tbl.c Line 1218 observed on SCCP/SIP ELAP card.	
26330298		3	R46.5_ST: IMSI cards got booted with DN cards.	
27278676		3	Error in generating TCAP ERROR message when DEFACTID=TCAPERR.	
27297416		3	SFAPP ATI Response not using MFC.	
27361425		3	SFAPP:MSU Retran/MUX LVL1 Cong observed with No traffic running.	
27932637		3	healthcheck command enables the DMSAUD STPOPT.	

Bug Number	SR	Severity	Title	Customer Impact
27934269		3	scm_epap.c Line 829 throw sev1 ATH.	
27962955		3	Document updates corresponding to SFAPP UC#1 UC#2 Enhancemnents.	
27963002		3	Document updates corresponding to chg-th-alm.	
27977268		3	R46.6:Missing gtwy-lnkset and mtcd-stp from rtrv-meas-sched table.	
28275260		3	Error2 is not getting pegged for ATI_ACK messages when sfapp is not available.	
28460106	Y	3	SR: PCT E5393 criteria to match description in Commands Error Recovery Manual.	Entries with unique emulated CIC ranges or unique real CIC ranges can be rejected even though they should be valid, preventing collapse of emulated CIC ranges into a single real point code or unique real CIC ranges into a single emulated point code.
28470911		3	Enhance best match lookup for VLR profile and Roaming table.	
28515310	Y	3	SR: 46.5 rept-stat-sccp reports incorrect failure count.	Total fail ratio is calculated using an incorrect formula. The values displayed cannot be relied upon.
28520441		3	R46.6.2_MR:Network Cards not loaded with target GPLs during incremental upgrade.	
28786400	Y	3	SR: UAM 84 DLK xxxx,A1/B1 IPSG IP Connection Unavailable on IPSG32 cards.	UAM 0084 (IP Connection Unavailable) is generated by IPSG32 cards for DLK A1/B1 even though there is no configuration to operate with PIC or no DLKs are configured.
28919570		3	CDS: R46.7: UAM guide to be updated to capture reasons for UAM 441 HW verification code 180.	
29006417		3	SR: EAGLE UAM manual update for 0225 regarding SM cards.	

Bug Number	SR	Severity	Title	Customer Impact
29021172		3	CDS: R46.7: Command window to be opened as Administrator to run UUSB procedure on Windows 10 OS.	
22115210		4	rept-stat-card command should display the bootloader version.	
25679586		4	EAGLE Database Increase to 480M DN + 600M Flexible IMSI / IMEI Allocation.	
27510035		4	EAGLE DN Block capacity extensions (from 200K to 400K).	
27538959		4	SFAPP Use Case 3 - VLR Validation using IMEI.	
27655954		4	BLSLC64 image activation failed alarm showing BLMCAP GPL during UPG.	
27792513		4	Class 1 seq support for messages with Whitelisted VLR on SFAPP.	
27792558		4	SFAPP ATI CgPA RT-on-GT option.	
27792631		4	IMSI/MSISDN in SFAPP UIMs	
27792805		4	FTRA support for VLR-PROF and VLR-DB tables and commands.	
27801543		4	GPL Reduction EAGLE 46.7.	
28036354		4	CDS: vlr-roaming and vlr-prof table command rejection messages incorrect.	
28036421		4	CDS: VLR-PROF & VLR-ROAMING table maximum number of entries incorrectly displayed.	
28036464		4	CDS: VLR-PROF table change requires deleting entry from VLR-ROAMING table first.	
28352489		4	Increase ENUM Profile/DN Table size from 1024 to 2048.	
28422700		4	SFAPP - Use Case 4 - Intelligent VLR Whitelisting.	

Bug Number	SR	Severity	Title	Customer Impact
28458647		4	R46.7: mfc_comn.c Line 419 Class 0001 Sev1 observed when SFLOG action is applied.	
28518939		4	External EAGLE Database support for IMEI Challenge.	
28584823	Y	4	Copy-GPL output incorrect while copying from Active MASP removable to STBY TDM.	The EAGLE erroneously reports that a copy operation to the ACTIVE OAM's disk has completed, when in fact the message should have reported that the operation to the STANDBY completed. The message can confuse the operator but there is otherwise no impact to operational software.
28720124	Y	4	SR: Correction required in SMS-MO Blocking SCCP Spoofing feature documentation.	VLRNb and CgPA are no longer checked. Instead, the SCA (service center address) in the SCCP part and the SMRPDA/SMRPOA in the MAP part are checked.
28858622		4	Display maximum number of entries in VLR-PROF (25k) & VLR-ROAMING (500k).	
28862992		4	SR: EAGLE SIGTRAN User's Guide update regarding associations T7 value.	
28899661		4	Stateful Applications UG: Redundant information in HW Requirements.	

Customer Known Bug List

Please find below the known bugs and associated Customer Impact Statements in Table 23: EAGLE Release 46.7 Customer Known Bugs. This information is provided for information purposes only.

Table 24: EAGLE Release 46.7 Customer Known Bugs (August 2022)

Bug Number	SR	Severity	Title	Customer Impact
24704356		2	R46.4: DACT-IP-LNK on SLIC card running SIP64 causes card to reboot.	This command is a debug command intended to assist troubleshooting when severe problems in external IP network affect card's normal operation. If executed during normal card operation, it may cause the card to boot.
28798453		2	EEDB46.7:FT_Geographically apart EEDB setup is not working.	IP must be on the same subnet for GEO Diversity to work.
19086142		3	[208550]During upgrade, DN or IMSI subsystems may deny services.	The upgrade process does not differentiate between DN and IMSI data types while grouping cards in service sets, and it instead considers them to be the same service. This may cause a particular service subsystem to be down during phase 3 of the upgrade. Workaround: Operator can assign DN and IMSI SM cards appropriately to different service sets so that not all DN or IMSI type cards are in the same set to avoid disabling either service.
19295079		3	Database Admin - IP7 User's Guide Needs Updated Flowcharts.	The Database Administration - IP7 User's Guide, Chapter 6, has IPSG M2PA and IPSG M3UA flowcharts that do not address the Max TPS values supported by card types.

Bug Number	SR	Severity	Title	Customer Impact
21235242		3	R46.2_ST: Oversubscription of SCCP service causes congestion & discards at HIPR2.	This can occur during overloading of the SCCP subsystem. The MUX congestion discards can lead to VC OS, which will lead to loss of packets between cards. When packets are lost between cards, this can lead to two kinds of DB mismatch: a) DDB inconsistency - For the route table, these generally self-recover but for the link and linkset tables they only self-recover if the link state changes. b) OAM DB inconsistency - This will be caught by the DB audit process and the card will have to be booted to correct this.
21645956		3	SIP application card able to download data from ELAP server with data=dn.	Mismatch between the format of the expected RTDB data to be downloaded (specified by the data parameter during the card provisioning) and the format of the actual data downloaded by the SIP card may result in RTDB lookup failures for the DN entries which are present in the RTDB.
21962592		3	R46.2_ST2:Obvd <Module ss7_mgr.c Line 1226 Class 01c3 Severity 1>.	This trouble message which indicates message discard appears only when the SCCP subsystem is oversubscribed. Hence there is no real impact due to this bug.
22125637		3	REPT-STAT-SCCP shows SCCP Capacity as per Engg rate for 5K SCCP throughput feat.	Minor display issue. Rept-stat-sccp displays actual (higher) rate instead of marketing (minimum) rate when 5K SCCP throughput feature in use.
22754653		3	R46.3_504M:Port remains unavailable when enabled after warm start of SMXG card.	If an SCCP card's port is disabled at the switch between the card and the MPS, link will be disabled. After re-enabling the port at the switch, the link does not re-enable itself. To correct the condition, the card must be cold-restarted.
23332396		3	ath_vxw.c Line 3384 watchdog timeout OBIT observed upgrade from 69.1.0 to 69.3.1.	Once in a while a card may double boot during a reload attempt.

Bug Number	SR	Severity	Title	Customer Impact
23566456		3	R46.4_SIP:Inhibited SIP (SLIC) card showing TPS rate in the o/p of rept-stat-sip.	The total TPS displayed for an inhibited SIP card is not zero. The rept-stat-sip instead displays the last known value for the card when it was still in service. TPS displayed for an inhibited SIP card needs be ignored.
23755609		3	R46.3_DDLunstbl state observed during the congestion scenario.	There is little impact because of the DDL unstable issues. Normally cards going into the DDLunstb state will recover on their own. Using the STP option GBSUSNMINM should help cards avoid going into the DDLunstb state.
23856466		3	Observed Module gedti_mgr.c Line 2478 Class 01c3 Severity1.	None, as Eagle Eyes is a debug utility for use by or under the direction of Oracle field personnel.
24011882		3	Investigate and Analyze Card Restart.	Once in a while cards can double-boot or, in the worst case, hang and must be re-seated. In the majority of cases cards recover on their own (double-boot).
24666572		3	XXXX-IP-LNK on SLIC cards running DEIR64 causes some Multi homed assocs to fail.	No customer impact as act-ip-lnk & dact-ip-lnk are debug commands meant for Oracle support personnel use.
25324529		3	Issues after execution of commands dact-ip-lnk/act-ip-lnk with SIP/ENUM.	This command is a debug command intended to assist troubleshooting when severe problems in external IP network affect card's normal operation. If executed during normal card operation, it may cause the card to boot.
25665463		3	Rel46.5_128con:IPSG SLIC128 M2PA may boot silently (without obit).	In the rare case when the card may boot due to a workQPanic event (Bug 25764195) the card will not produce an obit, and will boot silently. No customer impact as obit data is for Oracle personnel use.
25962463		3	Standby MASP double boots with obit (Module mcc_queue.c Line 867 Class 01c3).	There is a rare chance that standby MASP may double boot during flash maintenance operations. Card recovers on its own with no adverse effect on the system.
25998716		3	R46.5_ST: Incorrect comp-link report generated for meas transition (OAM->MCP).	EAGLE may generate incorrect comp-link measurement report for the period of OAM to MCP transition. The correct report can be fetched from hourly or daily reports.

Bug Number	SR	Severity	Title	Customer Impact
26023475		3	Links (128) on IPSG-SLIC card are going OOS while initializing the EROUTE Cards.	If (a) all EROUTE cards in the EAGLE are initialized/removed or the complete network between the EROUTE cards and the IMF is interrupted, (b) STC-style copy is used, and (c) the traffic rate is greater than 5K TPS, then signaling links will be dropped and restored.
26052249		3	Sev 1 tvg_mgr.c, tvg_hw.c, and tvgerout.c observed while giving init-sys.	No impact other than the display of the severity 1 troubles during init-sys.
26092513		3	R46.5_ST:Severity 1"meau.c" Line 2504 observed on MCPM card in upgrade phase3.	No known impact other than the severity 1 trouble during the upgrade phase 3.
26180724		3	R46.5_ST: Observed mc30_stp.c and mc60_lnp.c ,mc30_tt Severity1s during upgrade.	The troubles indicate that some measurement data may be lost, but the loss would be the result of the cards booting during upgrade.
26181491		3	Rel46.5_ST:Obit restart.c observed during incremental upgrade.	The SM card may take a little longer to become IS-NR as it rarely boots during loading. The card recovers.
26197742		3	Obit hipr2op_isr. Line 357 obsd while initializing the IMT Bus A multiple times.	No known impact. This obit is observed only during the initialization of IMT (init-mux command) and HIPR2 card returns to be IS-NR without any delay.
26421059		3	Rel46.6_CardObs-Support of SLAN measurements need to be removed.	Some measurement command parameters and measurement registers related to the obsolete STP LAN feature are still present in the system. This may cause some minor confusion for operators. No operational impact.
26648554		3	Rel46.6_FT LAN feat is still being displayed in the rtrv-feat command.	The obsolete LAN parameter (STP LAN feature) in the optional feature table (RTRV-FEAT) may cause some minor confusion for operators. No operational impact.

Bug Number	SR	Severity	Title	Customer Impact
26739329		3	HIPR2 - ALIGN LED does not turn AMBER when IMT BUS is inhibited.	The Alignment LED of a HIPR2 should change to and remain AMBER while the bus is inhibited as an effective aid for the operator to identify which bus is inhibited. However occasionally, when the IMT bus is inhibited, a HIPR2 card may keep its Alignment LED colored GREEN. As a workaround, the bus can be allowed (ALW-IMT) and inhibited (INH-IMT) again to change the Alignment LED to AMBER.
26763948		3	R46.6_12k:sev1 Card 1113 Module scm_tps.c Line 3895 Class 01d0 Obs on OAM.	rept-stat-iptps:history=yes command may not print the output if uithrottle (stpopts parameter) is set to 9. System Default value of uithrottle is 0. Workaround: If uithrottle (stpopts parameter) is currently set to 9, then set it to a value less than 9.
26782558		3	After DACT/ACT-IP-LNK command UAMs 539 and 540 is not displayed correctly.	UAMs 539 and 540 may appear as expected during dact-ip-lnk/act-ip-lnk operations. This command is a debug command intended to assist troubleshooting when severe problems in external IP network affect card's normal operation.
26960848		3	R46_6_FT:Congestion observed on activating port via canc-lpo command.	Forcing (act-lpo) and cancelling (canc-lpo) a local process outage on a link carrying traffic may cause some traffic loss/momentary link congestion.
27001431		3	Sev 1 at meas_scp.c Line 4125.	This trouble indicates one or more existing corrupted LNP LRN entries on the LNP card is getting omitted from the LNP LRN measurement report. The rest of the good entries shall be reported in the LNP LRN measurement report.
27001441		3	Sev 1 at ath_vxw_mgr. Line 1541.	No impact if this trouble was observed only during the card reload. Should these troubles be observed while the card is IS-NR, they could indicate a problem with the card's hardware.

Bug Number	SR	Severity	Title	Customer Impact
27065051		3	R46.6_ST:GTT traffic is getting dropped on IPSG32 card in congestion scenario.	If MAXSLKTPS is reduced so that congestion is induced with current traffic on the link, the amount of traffic that will be passed will not be maxslktps but something significantly less or no traffic at all. Workaround: Change SLKTPS rate back to original value or reduce traffic to under maxslktps.
27138979		3	Obit ath_vxw.c Line 3307 for EMP-B card during upgrade.	Occasionally a BLMCAP-based card may double boot when reloading. If the card was being flashed, the double boot can cause the flash to be lost and the flashing operation will have to be repeated. The card otherwise recovers normally.
27347732		3	R46.5.1_ST:SCCP cards not displaying TPS in SERVICESETS.	The Service Sets data is displaying the wrong data. Executing the displaysets command a second time will display the correct data.
27703349		3	R46.6_ST:E1T1 link test failed in upg ph 2 during Upgrade to 46.6.0.0.0-73.18.0.	One or more E1T1 TDM signaling links may momentarily drop out (5 to 30 seconds) during Phase 2 of Upgrade. The event occurs only once per link, links recover and normal operations continue. Mate STP should be able to handle traffic if this issue causes a linkset to go down for a brief period during the upgrade maintenance window.
27989885		3	R46.5_E1T1 Patch:Errored SUs and retransmissions with DACT-SLK.	During DACT-SLK operation, operator may see some errors and/or retransmits as already queued/inflight traffic is successfully processed by both ends. No loss of traffic observed.
28076044		3	R46.5.1_MR :- Traffic drop observed at 98% capacity with 32byte msu on E1T1.	Discarded traffic under extreme link congestion scenarios (i.e., traffic nearly 1.0 erlang) is not properly accounted for.
28161765		3	R46.5.1_MR:Traffic not same on ANSI T1 LSL post initialization in congestion.	Discarded traffic under extreme link congestion scenarios (i.e., traffic nearly 1.0 erlang) is not properly accounted for.
28185911		3	LIM/SCCP card(s) denied SFAPP alm with new SFR MFC servc needs clarification.	Operator needs to run the rept-stat-mfc commands for SFAPP and SFR services or look at the measurements to determine the service that is causing the alarm.

Bug Number	SR	Severity	Title	Customer Impact
28253971		3	Rel.46.7_DB_Exp:Sev1 rmtp_utl.c with lines 349 and 384 obsrvd during upgrade.	These severity 1 troubles may appear at end of the full DB download after a cold restart of a SCCP64 card. There is no known impact.
28258077		3	Sev1s tc_mgr.c line 601 & mprm_sr.cpp line 1662 observed during upgrade.	The troubles indicate the primary and secondary MCP cards are out of sync. User may lose historical measurement report (within allowed retention period) if primary MCP fails. Workaround: Reload the secondary MCP card to force the resync.
28407569		3	Large Burst of inbound traffic causes IPSG M2PA to initiate Link Busy msgs early.	IPSG M2PA links may generate Link Status Busy message earlier than expected when the inbound traffic burst is more than 4 times the average traffic.
28518265		3	R46.7_UC1enh:UIM not getting generated for invalid ACN scenario in ATI ACK msg.	No UIM will be generated for invalid ACN in ATI ACK for Rt-on-GT scenario. No other impact on any operation.
28553522		3	R46.7_UC3_FT: Incorrect information is being displayed in ent-trace output.	This is a display issue only for a debug command that is used primarily by development and customer support.
28559690		3	R46.7_UC3_FT: TCAP Message Length is not getting validated for PSI-ACK.	No known impact. The decoder still validates all necessary TCAP components for the message to be processed.
28654864		3	R46.6.2_MR:Severeity 1"mc_mgr.c" on MCPM B cards during upgrade.	The code attempted to start a new MEAS collection before the previous collection was completed. It may be best to disable measurements during upgrade to avoid timing issues prevalent when cards have to boot and recover.
28671013		3	R46.7_ST:AST status displays 0% in rept-stat-sfapp while initializing SFAP card.	Card loading progress cannot be monitored using AST status. However, this is not significant as SFAPP cards normally load quickly (approximately 3 minutes).

Bug Number	SR	Severity	Title	Customer Impact
28793401		3	R46.7_ST:rept-stat-slk is making eagle terminal busy.	Running rept-stat-slk on EAGLE with terminal baud rate set to 115200 and stpopts:uithrottle=9 or 8 causes the terminal to hang. Terminal can be freed using 'canc-cmd'. Workaround: Set stpopts:uithrottle to a value lower than 8.
28866661		3	R46.7_ST:Sev1 uplu_sec.c & dbcdgcmd.c observed while running gtwy-scrn command on seas.	A rtrv command issued to the EAGLE through SEAS fails to find a requested entry may cause these 2 severity 1 troubles though the command terminates gracefully with no other impact.
28870549		3	Rel.46.7_ST: restart.c Line 1606 obit observed during LIM card initialization	The card double boots and displays the obit, but it recovers normally. If the obit occurs during an Upgrade, the Upgrade process might stop and require the operator to manually correct the problem with the failed card, and restart the Upgrade.
28876125		3	R46.7_ST:Sev 1 " Card 1203 Module icmm_mtp.c Line 1028 Class 01cf Severity 1" on SFAPP card.	Overrunning SFAPP card beyond the card's TPS throughput capacity causes this severity 1 trouble. No other impact.
28876794		3	R46.7_ST:UAM Card database is inconsistent is getting observed for SFAPP card while allowing an inhibited card.	SFAPP card on EAGLE configured for Intelligent VLR Whitelist reports UAM 34 while the card loads and is a transient situation. No other operational impact.
28885292		3	CDS: R46.7: REPT-STAT-SFAPP command is not reporting the Peak TPS.	REPT-STAT-SFAPP command reports peak of average TPS of 30 seconds intervals, instead of true peak TPS.
28947743		3	R46.7_ST: IPSM card booted multiple times with Obit cnmgrudptcp. Line 3544 during upgrade.	Incomplete SFAPP VLR Validation using IMEI configuration (if IP address of SFLOG IPSM card is not configured in EEDB) can cause the SFLOG IPSM card on the EAGLE to reboot after every 1.5-2 hours. Workaround: Complete the SFAPP VLR Validation using IMEI configuration by adding the IP address of the SFLOG IPSM card on EEDB.
28964892		3	R46.7_ST:DEIR and ENUM reports are coming blank on Integrated Meas Platform.	An EAGLE with no SCCP cards configured may generate blank measurement reports related to the ENUM and DEIR features.

Bug Number	SR	Severity	Title	Customer Impact
28989433		3	R46.7_ST:Service Module card loading time exceeding 45 min. in case of 1080M DB.	When the EAGLE contains a maximum size RTDB, i.e., 480M DN + 600M IMSI/IMEI, the RTDB reload time from the EPAP exceeds 45 minutes (what upgrade allows) and the upgrade stops due to the timeout. Work-around: Allow upgrade to timeout, and then wait until the SMs have loaded the RTDB before re-starting the Upgrade. When Upgrade is using the UPGRADE by SETS mode, the process will timeout at least twice.
28995862		3	Rel.46.7_ST:Unexpected Sev1's uias_cnl.c Line 243 and vlr_mgr.c Line 1460 observed on OAM card.	No known impact other than the display of the severity 1 trouble.
19108981		4	[233384]rept-imt-lvl1 summary of peak values sums results from all shelves.	The stat is showing the sum of peaks of all ten 100 msec periods for which peak values are collected, instead of the highest value of the 10 buckets. This makes it look like the IMT was busier than it really was.
19115839		4	[238740]IMT LVL1 stats report - High speed Errors only avail on summary report.	The output of rept-imt-lvl1 does not separate the data between shelves when there is more than one shelf. The cumulative data shown does not allow the operator to identify the correct shelf with the error.
20255043		4	R46.2_ENUM:UDP connection stays UP on breaking ethernet connectivity with port B.	UDP state is artificial as there is no concept of a session on UDP. There may be minor confusion as the Ethernet is down. The UDP stays up until it hits a fault.
20267869		4	R46.2_ENUM:Severity1 jtag_com.c observed on enum cards.	No impact on operation. Trouble should not be displayed.
20345145		4	Incorrect mtt for S/N string format for EAGLE.	It may not be immediately obvious from the error message what the user entered incorrectly.

Bug Number	SR	Severity	Title	Customer Impact
20630398		4	R46.2_ST :Obs Module scm_oamhc.c Line 624 Class 01e3 Severity 1 on OAM card.	The OAM discards responses from application cards that the OAM itself requested while the OAM is still initializing from an init-sys command. The system self-recovers and there is no impact.
20757300		4	OAM reporting cards ISOLATED/RELOADED when they did not reset.	In periods of very high traffic it is possible for the OAM to report cards as isolated when they were not.
20973079		4	R46.2_ST:Eagle CLLI changes to dflt after init-sys:data=persist with two sev-1s.	Occasionally when the OAM is booted it could fail to read the CLLI from its drive. Rebooting will resolve the issue.
20973465		4	R46.2_ST: Incorrect TPS for GTT in o/p of rept-stat-sccp:mode=perf.	It is possible for rept-stat-sccp to report processing slight more traffic than is actually being processed.
21092771		4	Password Requirements are output after password is updated successfully.	No operational impact.
22387101		4	Command updates needed related to ATM cards.	Command parameters and/or comments are no longer applicable to the E5-ATM and might confuse the operator.
22519396		4	Show GWS update status or a message during extended processing time.	The GWS DB update command may take longer time to process depending of the current size of the GWS database. With a large GWS DB (say more than 90% full) the command may process a long, long time -- 10, 20 minutes, without giving the operator feedback on status or command progress.
22575564		4	SLIC - received TSU packets are placed on the High Priority Q.	No known impact.
22649495		4	Upgrade: conversion function for generic entry-size function need DB ver index.	No customer impact.
23184333		4	Product name conflict, EAGLE 5 branding remains present in the code.	Product name display issue. EAGLE may display product name as "EAGLE5" or "EAGLE 5" whereas the current brand name for the STP is "EAGLE".
23267812		4	SLIC Module pmtc_mgr.c Line 620 Class 0241.	No impact as this bogus obit is observed rarely and only during the manual reseat of SLIC/EPMB class cards.

Bug Number	SR	Severity	Title	Customer Impact
24523524		4	Remove all instances of card location 1117 in parser.txt.	This may result in minor confusion for the user since the command's help screen (F10 key) shows slot 1117 as a valid value even though it is no longer a valid slot location.
24718616		4	CMT: Various commands need to have DSM/DSM4G terminology updated.	Various references in the documentation to obsolete DSM/DSM4G terminology may cause some confusion for customers.
24718636		4	CMT: chg-ctrl-feat has an obsolete dependency check.	The use of temporary FAKs is no longer possible in the EAGLE. However various references to temporary FAKs in the documentation may confuse operator.
24718783		4	CMT: init-flash has out-of-date dependency checks.	Various references to obsolete flash GPLs in the documentation may cause some confusion for customers.
24737683		4	CMT: various commands reference HMUX and/or HIPR.	Various references in the documentation to obsolete HMUX and/or HIPR cards may cause some confusion for customers.
24737966		4	CMT: ent-slk needs to have MPL validation check removed.	Various references in the documentation to obsolete MPL card may cause some confusion for customers.
24737995		4	CMT: ent-bp has obsolete parameter values and validation checks.	No customer impact as ent-bp command is a debug command meant for Oracle support personnel use.
24757013		4	CMT: various commands need TVG/MFC updates.	The information regarding obsolete TVG functionality may cause confusion for operator. Operator needs to ignore information regarding TVG.
25114868		4	SCCP serial boot command does not show command completed.	The init-card:appl=vsccp:serial=yes command does not show a completion message even though it completes successfully.
25348405		4	ent-trace command mode=brief does not show an output.	ent-trace command with mode=brief does not show an output. All other modes give an output. No customer impact as ENT-TRACE is a debug command for Oracle personnel use.

Bug Number	SR	Severity	Title	Customer Impact
25374869		4	rtrv-obit command output got stuck in loop for a single instance.	During rare occasion rtrv-obit command may cause the OAM to continuously report the same obit. Operator will need to boot the Active OAM using init-card:loc=<Active> command and reverse roles to terminate the command.
25723016		4	Severity 1 Module dbcd_ut2.c.	A severity 1 trouble will be generated if operator is trying to set UIM threshold for UIM above 1499. No other impact as currently no UIM exists in the 1500 to 1999 range.
25779758		4	Flush dynamic routes not called for SIPHC and ENUMHC.	No known impact.
25912518		4	Rel46.5_ST:Assoc status is reported as IS-NR even when the card & links are OOS.	When an IPSG card is booted, the association state will show incorrect status for about 40 seconds. This may cause some minor confusion for operator.
25921396		4	Rel46.5_ST_observed severity Card 1113 Module os_utl.c Line 1154 Class 01c3.	EAGLE may display this severity 1 trouble while turning on the OAMHCMEAS parameter. No known impact.
25992378		4	R46.5_ST:dmshc_lock.c messages observed on OAM card with VxWorks6.9.	If transitioning measurements from MCPM to Integrated OAM Measurements and the transition coincides with a 30 minute measurements period ending, a lockout could occur such that the measurements for the period could be lost.
26048788		4	TCAPFAMILY param accepted with TCAPOPCODE val as "NOTPRESENT" in "chg-sccp-msg".	No impact though the command should be ideally rejected.
26302999		4	Rel46.5_ST Sev 1 idle_tsk.c Line 1040 observed while giving init-network.	idle_tsk.c Line 1040 severity 1 trouble, which is rarely observed after an init-network operation, indicates that the CPU idle time reference on the card remains incorrect until the card again boots. No known operational impact. Work-Around: Reboot the card that generated the severity 1 trouble so that the CPU idle reference is corrected.

Bug Number	SR	Severity	Title	Customer Impact
26373052		4	Sev1 scm_fcs.c Line 1489 obsd in Phase2 while doing the upg frm 46.3.1 to 46.5.0.	No impact other than the possible display of this severity 1 trouble just once during transition from upgrade phase 0 to phase 2.
26376847		4	Rel46.6_CardObs-Support of commands to be removed for SLANHC, GLSHC, IPLHC,IPGHC.	Commands getting accepted for obsolete GPLs/APPLs may cause some confusion for operator. There is no operational impact.
26635708		4	Overlapd parameter is not working with rtrv-gttsel command.	The overlapped GTT selector definition listed in the Commands User's Guide under the RTRV-GTTSEL command may cause some minor confusion for the user. The correct explanation is in the GTT User's Guide under the Unique GTT Selectors section.
26659823		4	SIP cards are getting provisioned and coming UP even if SIP NP FAK is OFF.	The SIP Number Portability Feature Configuration Procedure needs to be followed as documented to ensure the reliable operation of the SIP NP feature.
26679610		4	R46.6_FT systotstplan parameter is still being displayed in rtrv-meas-sched.	Measurement parameters related to the obsolete STP LAN feature are displayed by the rtrv-meas-sched command. This may cause some minor confusion for operators. No operational impact.
26680147		4	ent/rtrv-dlk cmd support needs to be removed in 46.6 as SLAN is marked obsolete.	Some commands related to the obsolete STP LAN feature are still present in the system. This may cause some minor confusion for operators. No operational impact.
26723585		4	Remove the support of STPLAN from all measurement commands.	Some measurement command parameters and measurement registers related to the obsolete STP LAN feature are still present in the system. This may cause some minor confusion for operators. No operational impact.
26815493		4	Sev 1 at imtc_mgr.c Line 6124.	No operational impact.
26831504		4	Rel46.6_SS7FireEnh:wrong TLV in updatelocation IMEI.	No known impact.
26938777		4	R46.6_E1T1_SLIC_Enh:Unable to provision 3rd HSL on empty card location.	A SLIC card needs be inserted in the slot before more than 2 HSLs can be provisioned for the E1T1 location.

Bug Number	SR	Severity	Title	Customer Impact
27059694		4	R46.6_ST:Module iptscmgr.c Line 2366 Class 0001 Severity 1.	Some of the telnet connection errors may be displayed using severity 1 troubles instead of UIMs; otherwise no functional impact.
27100220		4	Rel46.6_ST:RTRV-TPS cmd output needs to be updated for removal of IPLIM/IPGW.	The information printed for discontinued applications, e.g., IPGW and IPLIM, by the RTRV-TPS command may cause some minor confusion for operators. No operational impact.
27428180		4	R46.6_ST: Module dbcd_utl.c Line 1716 Class 0001 Severity1 observed on E5OAM.	Issuing ACT-UPGRADE command while Standby MASP is coming up may cause this severity 1 trouble. No operational impact.
27584981		4	TPC getting provisioned in GT entry with RI=GT and XLAT=DPC.	CHG-GTA command does not restrict converting a final GTT to EAGLE's own true point code to an intermediate GTT to EAGLE's own true point code. Operator must avoid such GT modifications.
27734297		4	Limit the number of MCPs provisionable on EAGLE to 2.	Operator is allowed to provision more than the supported number of two (2) MCP cards.
27751786		4	Sev1s from t4v_msg.c & mfc_tkit_mc_ observed on SLIC SCCP64 during ExAP download.	The troubles may indicate system mis-configuration.
27756888		4	R46.6_ST: Wrong Alarm Status 0570 displayed for obsoleted EPM A cards.	Type-A cards (obsoleted in R46.6) left in the system may display wrong UIM message which can be confusing.
27992966		4	R46.7: Severity 1 from dbcd_dc.c Line 989.	Running RTRV-CARD command when MASP is in the Simple Mode generates this severity 1 trouble. No other impact.
28040015		4	wrong display message while formating USB in standby MASP.	The removable media to be upgraded needs to be formatted in the RMD drive slot on the active MASP as instructed in the upgrade document. Otherwise the wrong error message regarding the format status may confuse the operator.
28453446		4	R46.7_UC3_FT: Text note display while doing ent\dlt-mate-stp.	Ent\dlt-mate-stp command will not display the cautionary note asking user to make sure mate-stp table is in sync with the mate STPs to avoid incorrect routing.

Bug Number	SR	Severity	Title	Customer Impact
28554517		4	EEDB46.7:FT_Escape functionality for backup/Restore not working.	Operator needs to abort process by entering "N" response to the 'Do you want to continue?' instead of Escape functionality.
28862280		4	EEDB: Logging tar on Standby Setup.	A log file is created on the standby EEDB. No other impact.

Chapter 8: Oracle References and Services

Topics:

- My Oracle Support (MOS)
- Emergency Response
- Customer Training
- Locate Product Documentation on the Oracle Help Center Site
- Locate Product Release Software on the Oracle Software Delivery Cloud Site

This chapter describes how to obtain help, where to find related documentation, and provides other general information.

My Oracle Support (MOS)

MOS (https://support.oracle.com) is your initial point of contact for all product support and training needs. A representative at Customer Access Support (CAS) can assist you with MOS registration.

Call the CAS main number at 1-800-223-1711 (toll-free in the US), or call the Oracle Support hotline for your local country from the list at http://www.oracle.com/us/support/contact/index.html. When calling, make the selections in the sequence shown below on the Support telephone menu:

1. Select 2 for new service request.
2. Select 3 for hardware, networking, and Solaris operating system support.
3. Select one of the following options:
    - For technical issues such as creating a new Service Request (SR), select 1.
    - For non-technical issues such as registration or assistance with MOS, select 2.

You are connected to a live agent who can assist you with MOS registration and opening a support ticket.

MOS is available 24 hours a day, 7 days a week, and 365 days a year.

Emergency Response

In the event of a critical service situation, emergency response is offered by the Customer Access Support (CAS) main number at 1-800-223-1711 (toll-free in the US) or by calling the Oracle Support hotline for your local country from the list at http://www.oracle.com/us/support/contact/index.html. The emergency response provides immediate coverage, automatic escalation, and other features to ensure the critical situation is resolved as rapidly as possible.

A critical situation is defined as a problem with the installed equipment that severely affects service, traffic, or maintenance capabilities, and requires immediate corrective action. Critical situations affect service and/or system operation resulting in one or several of these situations:

- A total system failure that results in loss of all transaction processing capability
- Significant reduction in system capacity or traffic handling capability
- Loss of the system's ability to perform automatic system reconfiguration
- Inability to restart a processor or the system
- Corruption of system databases that requires service affecting corrective actions
- Loss of access for maintenance or recovery operations
- Loss of the system ability to provide any required critical or major trouble notification

Any other problem severely affecting service, capacity/traffic, billing, and maintenance capabilities may be defined as critical by prior discussion and agreement with Oracle.

Customer Training

Oracle University offers expert training on Oracle Communications solutions for service providers and enterprises. Make sure your staff has the skills to configure, customize, administer, and operate your communications solutions so your business can realize all of the benefits these rich solutions offer. Visit the Oracle University web site to view and register for Oracle Communications training: http://www.oracle.com/education.oracle.com/communication. To reach Oracle University:

- In the US, please dial 800-529-0165.
- In Canada, please dial 866-825-9790.
- In Germany, please dial 0180 2000 526 (toll free) or +49 8914301200 (International).
- In Spain, please dial +34 91 6267 792.
- In the United Kingdom, please dial 0845 777 7 711 (toll free) or +44 11 89 726 500 (International).

For the appropriate country or region contact phone number for the rest of the world, please visit Oracle University's web site at http://www.oracle.com/education/contacts.

Locate Product Documentation on the Oracle Help Center Site

Oracle Communications customer documentation is available on the web at the Oracle Help Center (OHC) 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 http://www.adobe.com.

1. Access the Oracle Help Center site at http://docs.oracle.com.
2. Click **Industries** and then select **Communications**. The Communications Documentation page displays.
3. Select **Signaling and Policy** and then select **EAGLE**.
4. Click on your product and then the release number.

   A list of the entire documentation set for the selected product and release appears.

5. To download a file to your location, click on the hyperlink named as **PDF.** The PDF version of the file opens in your browser.
6. Click the Download icon on the top right of the file to save it to a local folder.

Locate Product Release Software on the Oracle Software Delivery Cloud Site

Oracle Communications software is available for electronic download at the Oracle Software Delivery Cloud (OSDC) site, https://edelivery.oracle.com. Only authorized customers with a valid password may download software from the site.

For directions on downloading the software and other information about using this site, click FAQ on the top right corner.