

Oracle® Communications

EAGLE

Release Notice

Release 46.6.x

E93310 Revision 06

July 2020

ORACLE®

Oracle Communications EAGLE Release Notice, Release 46.6.x

Copyright © 1993, 2020, Oracle and/or its affiliates. All rights reserved.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.

Table of Contents

Table of Contents	iii
List of Tables	iv
List of Figures.....	v
Chapter 1: Introduction	1
EAGLE 46.6.x Introduction	2
Revision History.....	2
Chapter 2: Feature Descriptions	3
Hardware Maintenance Phase for E5-ATM Card	4
Hardware Maintenance Phase for E5-E1T1 Card	4
Hardware Maintenance Phase for E5-ENET Card.....	4
Hardware Maintenance Phase for E5-SM4G Cards	4
Hardware Maintenance Phase for E5-TSM Card.....	4
Hardware Maintenance Phase for HC-MIM Card.....	5
Increase E1T1 Link Counts [3HSL 96LSL] on SLIC	5
Hardware	5
Increase IPSG SLIC Card to 12k TPS.....	6
Commands.....	6
SCCP on SLIC TPS Increase [13.6k].....	6
Hardware	6
SS7 Firewall Enhancements	7
SS7 Firewall - Stateful Applications	7
Hardware	9
SS7 Firewall (Stateless Screening Enhancements)	9
Enhancement Bugs	9
Other Changes	10
Group Broadcast Signaling Units (GBSU) Functionality.....	10
Operational Changes	11
Unsolicited Alarm Messages	11
Unsolicited Information Messages	12
Error Messages.....	13
EAGLE Configuration Table Data Reports.....	16
Chapter 3: EAGLE Release 46.6.x Media and Documentation	17
Media Pack	18
Documentation Pack.....	18
Chapter 4: EAGLE Release 46.6.x Supported Hardware Baseline.....	21
EAGLE Card Overview	22

Hardware Baseline	25
Chapter 5: EAGLE Release 46.6.x Supported Upgrade Paths	28
Supported Upgrade Paths	29
Generic Program Loads (Release 46.6.x).....	29
Chapter 6: Product Compatibility	31
Product Compatibility	32
Chapter 7: EAGLE Release 46.6.x Resolved and Known Bugs	33
Severity Definitions.....	34
Resolved Bug List	35
Customer Known Bug List.....	49
Chapter 8: Oracle References and Services	64
My Oracle Support (MOS).....	65
Emergency Response	65
Customer Training.....	66
Locate Product Documentation on the Oracle Help Center Site	66
Locate Product Release Software on the Oracle Software Delivery Cloud Site	67

List of Tables

Table 1. Replace Legacy Function Card with SLIC	5
Table 2. EAGLE 46.6 Enhancement Bugs.....	9
Table 3. New UAMs for SS7 Firewall- Stateful Applications.....	11
Table 4. Updated UAMs for Non-Feature Related	11
Table 5. New UIMs for SS7 Firewall - Stateful Applications	12
Table 6. New UIM Format For SS7 Firewall - Stateful Applications.....	13
Table 7. Error Messages for Allow DATA=EPAP with RTDB Split Feature.....	13
Table 8. Error Messages for SS7 Firewall Enhancements	14
Table 9. Error Messages for SS7 Firewall - Stateful Applications Feature	14
Table 10. Error Messages: Non-Feature Related	16
Table 11: Media Pack Contents for 46.6.x.....	18
Table 12: Documentation Pack Contents	18
Table 13: EAGLE Card Overview Table.....	22
Table 14: EAGLE Release 46.6.x Upgrade Paths.....	29
Table 15. EAGLE 46.6.x GPLs.....	29

Table 16. EAGLE Release 46.6 Compatibility with Other Related Products.....	32
Table 17: EAGLE Release 46.6.5.0.0-73.31.1 Resolved Bugs (December 2019).....	35
Table 18: EAGLE Release 46.6.4.0.0-73.30.0 Resolved Bugs (August 2019).....	35
Table 19: EAGLE Release 46.6.3.0.0-73.28.1 Resolved Bugs (March 2019).....	36
Table 20: EAGLE Release 46.6.2.0.0-73.26.0 Resolved Bugs (October 2018)	36
Table 21: EAGLE Release 46.6.0.0.0-73.18.0 Resolved Bugs (April 2018).....	39
Table 22: EAGLE Release 46.6 Customer Known Bugs (December 2019).....	49

List of Figures

Figure 1. Call Flow for Validation.....	8
Figure 2. Call Flow for Velocity Check Using ATI.....	8

Chapter 1: Introduction

Topics:

EAGLE 46.6.x 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 46.6.x Introduction

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

Revision History

Date	Revision	Description
04/2018	01	Initial EAGLE 46.6 release
10/2018	02	Changes for EAGLE 46.6.2 release
03/01/2019	03	Changes for EAGLE 46.6.3 release
08/13/2019	04	Changes for EAGLE 46.6.4 release. Corrected SLIC information in the EAGLE Card Overview Table. Corrected E5-MASP part number in Hardware Baseline Table.
12/06/2019	05	Changes for EAGLE 46.6.5 release.
07/01/2020	06	Updated the Compatibility section with the reference to EAGLE Compatibility Matrix

Chapter 2: Feature Descriptions

Topics:

- Hardware Maintenance Phase for E5-ATM Card
- Hardware Maintenance Phase for E5-E1T1 Card
- Hardware Maintenance Phase for E5-ENET Card
- Hardware Maintenance Phase for E5-SM4G Cards
- Hardware Maintenance Phase for E5-TSM Card
- Hardware Maintenance Phase for HC-MIM Card
- Increase E1T1 Link Counts [3HSL 96LSL] on SLIC Hardware
- Increase IPSG SLIC Card to 12k TPS Commands
- SCCP on SLIC TPS Increase [13.6k] Hardware
- SS7 Firewall Enhancements
- SS7 Firewall - Stateful Applications Hardware
- SS7 Firewall (Stateless Screening Enhancements)
- Enhancement Bugs
- Other Changes
 - Group Broadcast Signaling Units (GBSU) Functionality
- Operational Changes
 - Unsolicited Alarm Messages
 - Unsolicited Information Messages
 - Error Messages
 - EAGLE Configuration Table Data Reports

This chapter provides a summary of each feature released in EAGLE 46.6.x.

Hardware Maintenance Phase for E5-ATM Card

E5-ATM cards (870-1872-xx) are not supported in Release 46.6. E5-ATM cards must be removed and replaced by the E5-ATM-B (P/N 870-2972-01) card before the upgrade will proceed. The functionality of the E5-ATM card is performed by the E5-ATM-B card.

Hardware Maintenance Phase for E5-E1T1 Card

E5-E1T1 cards (870-1873-xx) are not supported in Release 46.6. E5-E1T1 cards must be removed and replaced by the E5-E1T1-B (P/N 870-2970-xx) or SLIC (P/N 7094646) card before the upgrade will proceed. The functionality of the E5-E1T1 card is performed by the E5-E1T1-B or SLIC card.

Note: If upgrading from Release 46.3, E5-E1T1 cards must be removed and replaced by E5-E1T1-B cards. If upgrading from Release 46.5, E5-E1T1 cards must be removed and replaced by either E5-E1T1-B or SLIC cards.

Hardware Maintenance Phase for E5-ENET Card

E5-ENET cards (870-2212-xx) are not supported in Release 46.6. E5-ENET cards must be removed and replaced by the E5-ENET-B (P/N 870-2971-xx) card (or the SLIC (P/N 7094646) card for IPSG) before the upgrade will proceed. The functionality of the E5ENET card is performed by the E5-ENET-B or SLIC card.

Hardware Maintenance Phase for E5-SM4G Cards

E5-SM4G cards (870-2860-xx) are not supported in Release 46.6. E5-SM4G cards must be removed and replaced by the E5-SM8G-B (P/N 870-2990-xx) card or the SLIC (P/N 7094646) card before the upgrade will proceed. The functionality of the E5-SM4G card is performed by the E5-SM8G-B or SLIC card.

Hardware Maintenance Phase for E5-TSM Card

E5-TSM cards (870-2943-xx) are not supported in Release 46.6. E5-TSM cards must be removed and the GLS function enabled in the OAM. With this maintenance phase, the GLSHC GPL is discontinued. The functionality of the E5-TSM card is performed by the E5-MASP card if the Integrated GLS control feature is enabled.

Hardware Maintenance Phase for HC-MIM Card

HC-MIM cards (870-2671-xx) are not supported in Release 46.6. HC-MIM cards must be removed and replaced by the E5-E1T1-B (P/N 870-2970-xx) card if upgrading from Release 46.3, or the E5-E1T1-B or SLIC (P/N 7094646) card if upgrading from Release 46.5. The functionality of the HC-MIM card is performed by the E5-E1T1-B or SLIC card.

Increase E1T1 Link Counts [3HSL 96LSL] on SLIC

This feature increases the link capacity of the E1T1 functionality on the SLIC (P/N 7094646) card to 3 High Speed Links (HSL) or 96 Low Speed Links (LSL). This allows for more links per card and fewer cards per node.

Note: The GLSHC (Gateway Screening with TSM card) GPL, IPGHC GPL, and IPLHC (IPGWY and IPLIM) GPLs are no longer supported in Release 46.6 and later.

Hardware

The following table provides card replacement suggestions:

Table 1. Replace Legacy Function Card with SLIC

Function	SLIC Replaces These Card Types	Additional Hardware Action
IPSG (IP SIGTRAN Signaling)	ENET-B ENET-A	None
GTT EPAP ELAP	SM8G-B SM4G-A	None
ENUM EIR SIP NP	SM8G-B	Ethernet adapter required -DB26/ Dual-RJ45 adapter for GbE as ENET-B (P/N 830-1102-03)
E1T1 (LSL/ HSL)	E1T1-B E1T1-A HCMIM	None
Measurements Platform (E5MCPM-B)	MCPM-B	None
IP User Interface (E5-IPSM)	E5-IPSM ENET-B	None
Integrated Monitoring (E5STC)	ENET-B ENET-A	None

Note: There are currently two (2) different ENET adapters used in connecting to EAGLE ENET ports. The first is used for SM cards, while the second is used for ENET link cards. With the SLIC card, the EAGLE has standardized on the 4-port EPMB ENET adapter for all

ENET interfaces. This requires that a new adapter be installed between the backplane and the customer cable for all SM slots converted to SLIC cards.

Note: For SMxG cards, the ELAP and EPAP function replacement with SLIC cards requires the 830-1102-03 adapter.

Increase IPSG SLIC Card to 12k TPS

This feature increases TPS of IPSG SLIC cards to 12k with IPSG High Throughput turned OFF.

Note: If IPSG High Throughput is turned ON, the hardware will not support rates exceeding 12K.

Commands

The following existing commands are modified to support the Increase IPSG SLIC card to 12k TPS feature:

- chg-card
- chg-ls
- ent-ls

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

SCCP on SLIC TPS Increase [13.6k]

With this feature, the max SCCP throughput supported on a SLIC card is increased to 13.6K TPS under certain conditions, and the nodal max SCCP throughput increases to 544K TPS.

An SCCP64 card will support 13,600 TPS if all of the following conditions are true:

- The card is a SLIC card
- If the card is provisioned as data=EPAP, the EPAP240MB option in STPOPTS must be OFF
- GSM Map Screening is not enabled for any linkset in the EAGLE

Hardware

The new 13,600 TPS rate is applicable only to cards running the SCCP64 application on SLIC cards.

SS7 Firewall Enhancements

The SS7 Firewall Enhancements feature is a combination of several enhancements for the SS7 Firewall feature. These enhancements include the following:

- Display GTTSETIDX in RTRV-GTTSET command - Adds GTT set index (setidx) column to the rtrv-gttset command output. This allows GTT set information to be retrieved based on the GTT index number. Up to 7 setidx can be specified in the list.
- GTT Per Path Measurement feature enhancement
- RTRV-GTA should allow any combination of PKGTYPE, ACN, and OPCODE The rtrv-gta command allows any combination of the pkgtype, acn, and opcode parameters.
- Segmented XUDT first segment support in TOBR and MAP Based Routing - The TOBR feature is able to decode a partial TCAP segment in the first segment of a segmented XUDT message. It will try to decode the TCAP package Type with the ACN or Opcode, or both, and apply the TOBR feature on that MSU.
- Traffic volume measurements on individual rules/GTTSets - Introduces two (2) measurement registers per GTTSet. One register shows MSUs that don't have any matching rule. The second shows all MSUs for which a matching rule was found and the rule has the option to count MSUs.
- Treat differently by SCCP message type - Provides the ability to apply separate routing or security rules based on the SCCP message type.

SS7 Firewall - Stateful Applications

SS7 Firewall - Stateful Applications allows the Signaling Transfer Point (STP) to validate the messages coming in for a subscriber roaming out by validating them against the Visitor Location Register (VLR) the subscriber was last seen by the Home Location Register (HLR). Once the HLR provides a validity of the new VLR, the EAGLE then lets the message into the network. If the message is not validated, it is handled per configuration (silent discard, fallback, or respond with error).

The interaction of the Stateful Applications card in EAGLE is depicted in the following figure. The message forwarding from LIM to SFAPP cards will only work with IPSP +GTT SLIC cards. For IPSP-only SLIC cards, messages will be forwarded to the SCCP cards, which will then forward the message to the SFAPP SLIC cards:

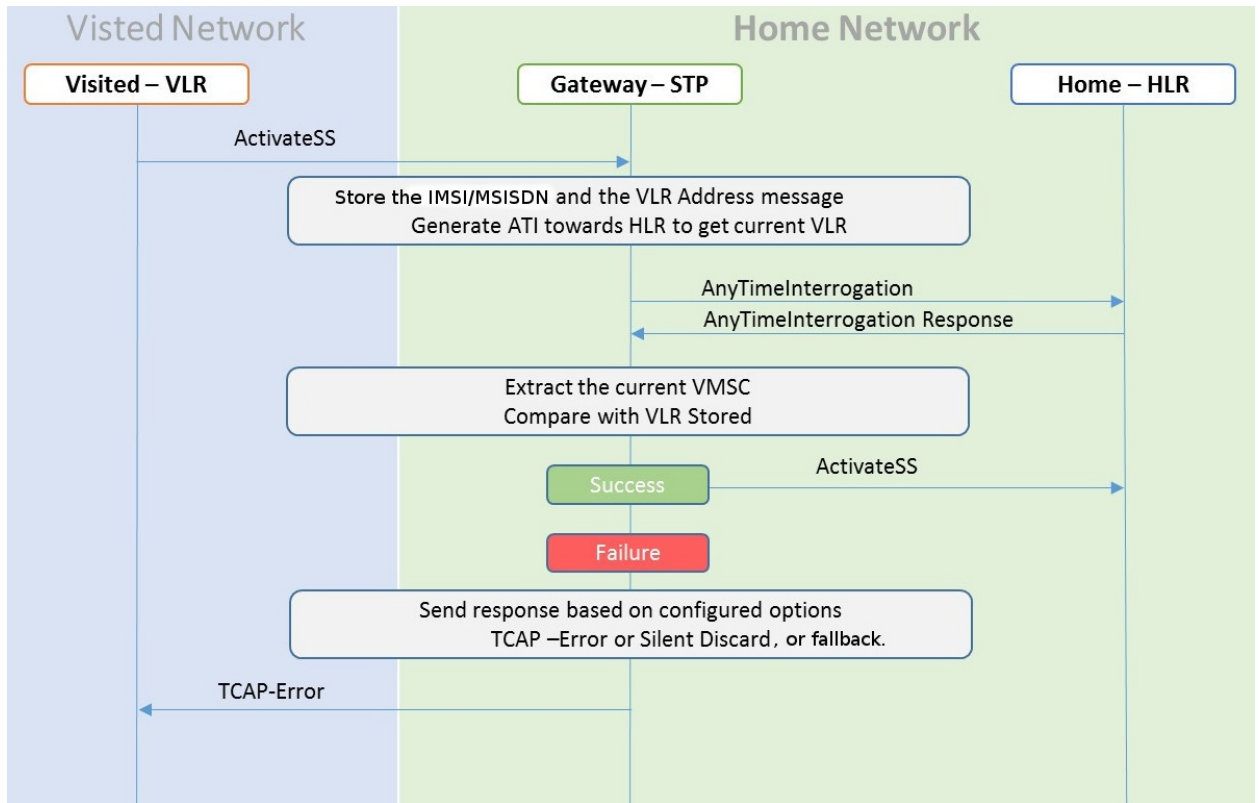


Figure 1. Call Flow for Validation

As seen in the previous figure, VLR Validation uses the information stored in the HLR about the current VLR to validate the VLR from which the message is received.

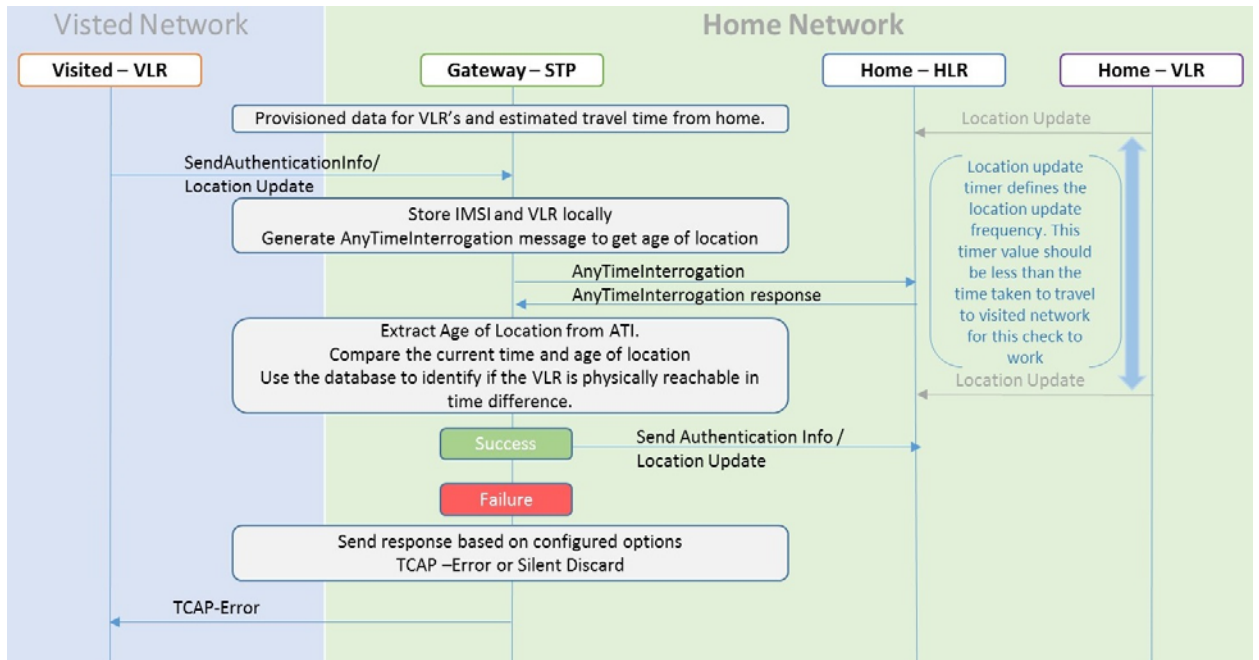


Figure 2. Call Flow for Velocity Check Using ATI

As seen in the previous figure, Velocity Check using ATI uses the information stored in the HLR about the current VLR and the age of location parameter to identify if the new VLR is reachable from the current VLR, stored in HLR.

This use case is dependent on the validity of the information stored in the VLR and the T3212 timer (periodic update location timer). In case the time distance between two networks is less than the value of T3212 timer configured for the network, this use case test would provide false positives.

See *Stateful Applications User's Guide* for more information.

Hardware

SS7 Firewall - Stateful Applications is only compatible with SLIC hardware.

SS7 Firewall - Stateful Applications is only supported on the 64-bit flash GPL.

SS7 Firewall (Stateless Screening Enhancements)

The SS7 Firewall (Stateless Screening Enhancements) feature adds support for the following operations in MAP Based Routing:

- PurgeMS
- RestoreData
- Reset
- RegisterSS
- USSD-Request
- USDD-Notify
- SAI
- CheckIMEI
- PSL
- SubscriberLocationReport
- UpdateGPRSLocation

This feature also adds support for IMEI as a parameter. See *Database Administration GTT User's Guide* for more information.

Enhancement Bugs

This section shows EAGLE 46.6 enhancement bugs:

Table 2. EAGLE 46.6 Enhancement Bugs

Bug Number and Title	Description
22573835 Port the IPSHC GPL as a 32 Bit Application to VxWorks 6.9	Migrates the IPSHC GPL from VxWorks 6.4 to VxWorks 6.9.

Bug Number and Title	Description
22573849 Port MCPHC GPL as a 32 Bit Application to VxWorks 6.9	Migrates the MCPHC GPL from VxWorks 6.4 to VxWorks 6.9.
22582113 Port OAMHC GPL as a 32 Bit Application to VxWorks 6.9	Migrates the OAMHC GPL from VxWorks 6.4 to VxWorks 6.9.
24978226 Support IMSI with MO-FSM in MAP Based Routing	Allows MAP Based Routing to support IMSI with MO-FSM.
24978282 Allow DATA=EPAP with RTDB Split feature	Allows customers to combine the functionality of two E5-SM4G with DATA=DN and DATA=IMSI cards into one SLIC card.
25033240 Support MAPv1 in MAP Based Routing or SCPVAL	MAPv1 is supported for certain opcodes, along with versions 2 and 3.
25918339 Remove GLSHC GPL	Removes GLSHC GPL.
25424087 Discontinue support of the STPLAN/SLAN Application in EAGLE	Removes SLANHC GPL.

Other Changes

The following core enhancement is updated in EAGLE Release 46.6:

Group Broadcast Signaling Units (GBSU) Functionality

Group Broadcast Signaling Units (GBSU) is a method to make the changes in the Dynamic Database more robust and reduce the occurrence of DDB inconsistencies. With the gbsusnminm STP Option turned on, it enables applications to send SNM/INM Group Broadcast messages. This functionality is for a system with EPM-B and SLIC cards only. With the obsolescence of A-class cards in Release 46.6, the gbsusnminm STP Option should be enabled once all A-class card have been removed.

The current functionality is as follows:

- The default value of the gbsusnminm is OFF.
- If the gbsusnminm parameter is ON prior to upgrading to Release 46.6, the parameter will remain on after the upgrade.

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

Operational Changes

EAGLE Release 46.6 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 46.6.

Table 3. New UAMs for SS7 Firewall- Stateful Applications

UAM ID	Severity	Message Text	Output Group	Notes
634	Normal	SFAPP is available	SFAPP	All SFAPP cards are IS-NR
635	Critical	SFAPP is not available	SFAPP	All SFAPP cards are isolated
636	Normal	SFAPP is removed	SFAPP	Last SFAPP card is deleted from the system
637	Minor	SFAPP Threshold Level1 Exceeded	CARD	SFAPP Threshold Level1 Exceeded
638	Major	SFAPP Threshold Level2 Exceeded	CARD	SFAPP Threshold Level2 Exceeded
639	Critical	SFAPP Threshold Level Critical	CARD	SFAPP traffic is above the system supported traffic limit
640	Normal	SFAPP Threshold Condition Cleared	CARD	SFAPP Threshold Condition Cleared
641	Minor	SFAPP Capacity normal, card(s) abnormal	SFAPP	SFAPP Capacity normal, card(s) abnormal
642	Normal	System SFAPP TPS normal	SFAPP	Isolated SFAPP card comes in service
643	Major	System SFAPP Threshold Exceeded	SFAPP	System SFAPP Threshold Exceeded
644	Critical	System SFAPP capacity Exceeded	SFAPP	System SFAPP capacity Exceeded
645	Major	LIM/SCCP card(s) denied SFAPP service	SFAPP	LIM/SCCP card(s) have been denied SFAPP service

Table 4. Updated UAMs for Non-Feature Related

UAM ID	Severity	Message Text	Output Group	Notes
0225	Major	CARD running outdated	CARD	An OAM/MCP/IPS card is

		Flash GPL		running a GPL with VxWorks6.4 version.
--	--	-----------	--	--

Unsolicited Information Messages

The Unsolicited Information Messages (UIMs) in this section are introduced or updated in EAGLE Release 46.6.

Table 5. New UIMs for SS7 Firewall - Stateful Applications

UIM	1477	Format	Output Group
Action	Added for 46.6		
Old data			
New data	SFAPP Validation Response Timeout Error	I-94	SFAPP
UIM	1478	Format	Output Group
Action	Added for 46.6		
Old data			
New data	SFAPP Validation Encoding Error	I-94	SFAPP
UIM	1479	Format	Output Group
Action	Added for 46.6		
Old data			
New data	SFAPP Validation Matching State not fnd	I-94	SFAPP
UIM	1480	Format	Output Group
Action	Added for 46.6		
Old data			
New data	SFAPP Validation Error	I-94	SFAPP
UIM	1481	Format	Output Group
Action	Added for 46.6		
Old data			
New data	SFAPP Validation Velocity Chk Failed	I-94	SFAPP
UIM	1482	Format	Output Group
Action	Added for 46.6		
Old data			
New data	SFAPP Validation Failed	I-94	SFAPP

Table 6. New UIM Format For SS7 Firewall - Stateful Applications

Release 46.6

Literal I-94

Output 7604.1479 CARD 1107 INFO SFAPP Validation Matching State

Example not fnd

```
Reason: TID NOT FOUND
OPC= 3-003-1 DPC= 1-001-1
CDPA: NI=0 RI=1 GTI=00 SSNI=1 PCI=1
      PC= 1-001-1 SSN=005
CGPA: NI=0 RI=1 GTI=00 SSNI=1 PCI=1
      PC= 3-003-1 SSN=005
ACN=--- PKG-Type=TC END(0x64)
IMSI : NP=--- NON=--- ADDR=-----
LSN=1s331 Op-Code=--- GTT Action Set=-----
Report Date:17-12-18 Time:15:59:17
```

Error Messages

Error Messages for Allow DATA=EPAP with RTDB Split Feature

New and modified error codes to support the Allow DATA=EPAP with RTDB Split Feature are listed in the following table:

Table 7. Error Messages for Allow DATA=EPAP with RTDB Split Feature

Response ID Code	Error Message	Used by Command
E2434	Dual ExAP Config or EPAP Data Split must be ON	chg/ent-card chg-sccpopts chg/ent-ss-appl ent-srvsel rept-stat-mfc rept-stat-sccp
E2553	Only Dual ExAP Config feature should be Enabled	chg-scr-blkdpc/blkopc/cdpa/cgpa/dpc/opc/sio/tt chg/ent/rtrv-scrset ent-scr-blkdpc/blkopc/cdpa/cgpa/dpc/opc/sio/tt
E5425	DN, IMSI are valid for DATA param	

Error Messages for SS7 Firewall Enhancements

New and modified error codes to support SS7 Firewall Enhancements are listed in the following table:

Table 8. Error Messages for SS7 Firewall Enhancements

Response ID Code	Error Message	Used by Command
E3458	DEFMAPVR/SXUDT can be specified with OPCODE SETTYPES only	rtrv-gta chg/ent/rtrv-gttset
E3556	MTT_ATLEAST_ONE_SFAPP_GTT_ACT_MUST_CONFIG	chg-measopts
E3557	EGTT must be ON	chg-gsmsmsopts chg/ent/rtrv-gta chg/dlt/ent/rtrv-gttaset chg/dlt/ent/rtrv-gttset chg/dlt/ent/rtrv-gttset chg/ent-lnp-serv chg/ent/rtrv-servsel enable-ctrl-feat rept-ftp-meas
E5061	Cannot use msgtype/ltn/selid/gttsn/cg* field if eaglegen=yes	chg/dlt/ent/rtrv-gttset
E5106	OPCODE, PKGTYPE, ACN/FAMILY must be specified together	chg/dlt/ent-gta chg/ent/rtrv-gttapath

Error Messages for SS7 Firewall - Stateful Applications

New error codes to support the SS7 Firewall - Stateful Applications feature are listed in the following table:

Table 9. Error Messages for SS7 Firewall - Stateful Applications Feature

Response ID Code	Error Message	Used by Command
E2155	Invalid parameter combination specified	ent/rtrv-gttact
E3277	Maximum number of SFTHROT/SFAPP Action already provisioned	ent-gttact
E3547	SFAPP not Configured	rept-stat-sfapp
E3548	Card location specified must be an SFAPP card	rept-stat-sfapp
E3549	Offline state is not allowed for sfapp	chg/ent-ss-appl

Response ID Code	Error Message	Used by Command
E3558	SFAPP SSN can not be used	alw/inh-map-ss chg/ent-gta chg/ent-gtmod chg/ent-gtt chg/ent-gttset chg/ent-map chg/ent-mrn
E3559	OLD and NEW VLR both are required	rtrv-vlr-roaming
E3568	Either NUM parm or OLD/NEW parm must be specified	rtrv-vlr-roaming
E3569	OLD and NEW VLR combination already exists	ent-vlr-roaming
E3574	BLACKLIST VLR number is not allowed	ent-vlr-roaming
E3600	OLD and NEW VLR should be different	ent-vlr-roaming
E3601	OLD and NEW VLR combination not exists	chg-scr- blkdpc/blkopc/cdpa/cgpa/dpc/opc/sio/tt chg/ent/rtrv-scrset ent-scr- blkdpc/blkopc/cdpa/cgpa/dpc/opc/sio/tt
E3602	Failure reading VLR Roaming Table	chg/dlt/ent/rtrv-vlr-roaming
E3603	VLR length is out of range . Range: 1....5	chg/dlt/ent/rtrv-vlr-prof chg/dlt/ent/rtrv-vlr-roaming
E3604	Failure reading VLR Profile Table	chg/dlt/ent/rtrv-vlr-prof chg/dlt/ent-vlr-roaming
E3605	An entry with entered VLR already exists in VLR profile tbl	ent-vlr-prof
E3606	VLR Profile Table is full	ent-vlr-prof
E3607	No entry found for entered VLR in VLR profile tbl	chg/dlt-vlr-prof chg/dlt/ent/rtrv-vlr-roaming
E3608	Max no of VLR entries provisioned with same leading digits	ent-vlr-prof
E3609	A reference of this entry exists in VLR roaming tbl	chg/dlt-vlr-prof
E3610	Failure reading VLR DBMM Table	chg/dlt/ent-vlr-prof chg/dlt/ent-vlr-roaming
E5068	Uimreqd only valid for DISC/UDTS/TCAPERR/SCPVAL/SFAPP	ent/rtrv-gttact

Response ID Code	Error Message	Used by Command
E5298	Default/Fail ACTID must not be specified as NONE	ent/rtrv-gttact

Error Messages: Non-Feature Related

New and modified error codes not related to features are listed in the following table:

Table 10. Error Messages: Non-Feature Related

Response ID Code	Error Message	Used by Command
E3540	DATA parm can be entered for IPSP application running on SLIC only	chg/ent-card

EAGLE Configuration Table Data Reports

New parameters were added for the following command:

- rtrv-mtc-measopts

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

- rtrv-gta
- rtrv-gttact
- rtrv-gttset
- rtrv-gttset
- rtrv-measopts

Chapter 3: EAGLE Release 46.6.x 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 11: 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 11: Media Pack Contents for 46.6.x

Description
Oracle Communications EAGLE (46.6.5.0.0), Tekelec
Oracle Communications EAGLE (46.6.4.0.0), Tekelec
Oracle Communications EAGLE (46.6.3.0.0), Tekelec
Oracle Communications EAGLE (46.6.2.0.0), Tekelec
Oracle Communications EAGLE (46.6.0.0.0), Tekelec

Note: Release 46.6.1.0.0 was never released to customers.

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 12: 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 12: 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 46.6.x 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 13.

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 13: 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)	3	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. For more information on the E1 or T1 interface go to Chapter 3, System Administration Procedures, of the *Database Administration - SS7 User's Guide*.

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	mcp69 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)	deirhc (32 bit)/ blmcap (32 bit) OR deir64 (64 bit)/ bldc64 (64 bit)	deirhc
			2	2 Ethernet	1 Ethernet for MPS link 1 Ethernet for Signaling (16 TCP; 1 UDP)	enumhc (32 bit)/ blmcap (32 bit) OR enum64 (64 bit)/ bldc64 (64 bit)	enumhc
			2	2 Ethernet	2 Ethernet for MPS links	sccphc (32 bit)/ blmcap (32 bit) OR sccp64 (64 bit)/ bldc64 (64 bit)	vsccp
			2	2 Ethernet	1 Ethernet for MPS link 1 Ethernet for Signaling (16 TCP; 1 UDP)	siphc (32 bit)/ blmcap (32 bit) OR sip64 (64 bit)/ bldc64 (64 bit)	siphc

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.

Card Name as shown on the card label	Part Number	Provisioned Card Type	Per Card Slots/Ports		Links per Card	Card GPLs	Card Applications
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
			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	ipsg32 blslc32	ipsg + GTT
		ipsm	1	1	1 Ethernet	ipshc69 blsl932	ips
		stc	1	2	2 Ethernet	erthc blslc32	eroute
mcpm	1	1	1 Ethernet	mcp69 blsl932	mcp		

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
		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	

Component	Part Number	ROHS Number (if applicable)	Required for:
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 HC-MIMs
	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		
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		

Component	Part Number	ROHS Number (if applicable)	Required for:
Fan Assy (Standard Frame)	890-1038-01 Rev D		
Fan Assy (Shelves with EPM-B cards)	890-0001-01 Rev A or 890-0001-02 Rev A	7315823	

Note: On EAGLEs getting upgraded to R46.6, 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 46.6.x Supported Upgrade Paths

Topics:

Supported Upgrade Paths
Generic Program Loads (Release 46.6.x)

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 46.6.x are listed Table 14.

Table 14: EAGLE Release 46.6.x Upgrade Paths

From	To
EAGLE release 46.3	EAGLE release 46.6.x
EAGLE release 46.5	EAGLE release 46.6.x

Note: The upgrade path to R46.6 from R46.3 or 46.5 is supported only if the customer does not have any "A cards" (except for the E5-IPSM card) in their system.

Note: EAGLE release 46.5.1.10 cannot be upgraded to EAGLE release 46.6, EAGLE release 46.7, or any of their associated maintenance releases. EAGLE release 46.5.1.10 will only be upgradable to EAGLE release 46.8.

Generic Program Loads (Release 46.6.x)

This section lists the latest Generic Program Loads (GPLs). When multiple builds are listed, GPL versions that changed from the previous build are indicated.

Table 15. EAGLE 46.6.x GPLs

GPL System Name	Version Build 46.6.0.0.0-73.18.0	Version Build 46.6.2.0.0-73.26.0	Version Build 46.6.3.0.0-73.28.1	Version Build 46.6.4.0.0-73.30.0	Version Build 46.6.5.0.0-73.31.1
Date Available	April 2018	October 2018	March 2019	August 2019	December 2019
ATMHC	143.18.0	143.26.0	143.26.0	143.30.0	143.30.0
BLDC32	143.13.0	143.22.0	143.28.0	143.29.0	143.29.0
BLDC64	143.13.0	143.22.0	143.22.0	143.22.0	143.22.0
BLIXP	143.8.0	143.22.0	143.22.0	143.22.0	143.22.0
BLMCAP	143.13.0	143.22.0	143.22.0	143.22.0	143.22.0
BLSL932	143.16.0	143.22.0	143.28.0	143.29.0	143.29.0
BLSLC32	143.16.0	143.22.0	143.27.0	143.27.0	143.27.0
BLSLC64	143.16.0	143.22.0	143.27.0	143.27.0	143.27.0
DEIR64	143.18.0	143.26.0	143.26.0	143.30.0	143.30.0

GPL System Name	Version Build 46.6.0.0.0- 73.18.0	Version Build 46.6.2.0.0- 73.26.0	Version Build 46.6.3.0.0- 73.28.1	Version Build 46.6.4.0.0- 73.30.0	Version Build 46.6.5.0.0- 73.31.1
DEIRHC	143.18.0	143.26.0	143.26.0	143.30.0	143.30.0
ENUM64	143.18.0	143.26.0	143.26.0	143.30.0	143.30.0
ENUMHC	143.18.0	143.26.0	143.26.0	143.30.0	143.30.0
ERTHC	143.18.0	143.26.0	143.26.0	143.30.0	143.30.0
HIPR2	143.5.0	143.5.0	143.5.0	143.5.0	143.5.0
IPSG	143.18.0	143.26.0	143.26.0	143.30.0	143.30.0
IPSG32	143.18.0	143.26.0	143.26.0	143.30.0	143.30.0
IPSHC	143.18.0	143.26.0	143.26.0	143.30.0	143.30.0
IPSHC69	143.18.0	143.26.0	143.28.0	143.30.0	143.30.0
MCPHC	143.18.0	143.26.0	143.26.0	143.30.0	143.30.0
MCPHC69	143.18.0	143.26.0	143.26.0	143.30.0	143.30.0
OAMHC	143.18.0	143.26.0	143.26.0	143.30.0	143.31.0
OAMHC69	143.18.0	143.26.0	143.26.0	143.30.0	143.31.0
SCCP64	143.18.0	143.26.0	143.26.0	143.30.0	143.30.0
SCCPHC	143.18.0	143.26.0	143.26.0	143.30.0	143.30.0
SFAPP	143.18.0	143.26.0	143.26.0	143.30.0	143.30.0
SIP64	143.18.0	143.26.0	143.26.0	143.30.0	143.30.0
SIPHC	143.18.0	143.26.0	143.26.0	143.30.0	143.30.0
SS7HC	143.18.0	143.26.0	143.26.0	143.30.0	143.30.0

Note: Release 46.6.1.0.0 was never released to customers.

Chapter 6: Product Compatibility

Topics:

Product Compatibility

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 16 shows EAGLE 46.6 compatibility with other products.

Table 16. EAGLE Release 46.6 Compatibility with Other Related Products

Product	Release	Compatibility
ELAP	10.1	FC
EPAP	16.1	PC
	16.2	FC
OCEEMS	46.3	PC
	46.5	PC
FTRA	<4.5	NC
	4.5	FC ⁵
PIC	10.0	NC
	10.1	PC ⁶
	10.2	PC ⁶

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 FTRA 4.5 was tested with JAVA version 8 update 121.

⁶ J7 Point Code format is NOT supported on PIC.

Chapter 7: EAGLE Release 46.6.x 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 46.5.1.10.

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.

1. **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.
2. **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.
3. **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.
 4. **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 46.6.5.0.0-73.31.1
- EAGLE 46.6.4.0.0-73.30.0
- EAGLE 46.6.3.0.0-73.28.1
- EAGLE 46.6.2.0.0-73.26.0
- EAGLE 46.6.0.0.0-73.18.0

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 17: EAGLE Release 46.6.5.0.0-73.31.1 Resolved Bugs (December 2019)

Bug Number	SR	Severity	Title	Customer Impact
30574943	Y	2	SR: Upgrading EAGLE to Release 46.6, 46.7 or 46.8 May Cause Database to Get Corrupted (btreeapp.c obit)	Upgrading from 46.5 (or earlier) to 46.6 may corrupt database on EAGLE. This corruption could lead to traffic loss. See KM 2613172.1 for additional details.

Table 18: EAGLE Release 46.6.4.0.0-73.30.0 Resolved Bugs (August 2019)

Bug Number	SR	Severity	Title	Customer Impact
29889984	Y	2	SR: Rel. 46.6.2_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".
29897024		2	R46.6 - 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.
30018567		2	R46.6.3 - 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.

Bug Number	SR	Severity	Title	Customer Impact
28661723		3	R46.6.2_MR: Incorrect "SETIDX" reported in GTA csv in unix FTRA	
30065004		3	46.6 RTRV-GTA CSV file format: missing delimiters for DEFMAPVR/PRIO when SETYPE!=OPCODE	

Table 19: EAGLE Release 46.6.3.0.0-73.28.1 Resolved Bugs (March 2019)

Bug Number	SR	Severity	Title	Customer Impact
29389990	Y	2	SH failure with EAGLE VxWorks 6.9 GPL on release 46.6.3 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.
29042895		3	SLIC V2 (part # 7352578) LEDs not working correctly	

Table 20: EAGLE Release 46.6.2.0.0-73.26.0 Resolved Bugs (October 2018)

Bug Number	SR	Severity	Title	Customer Impact
27483955		2	R46.6_ST: T1ANSI HSL on SLIC card goes unavailable when traffic is initiated	If a constant stream of same-size large packets is received by the E1/T1 SLIC link may fail due to error rate or FIB or BSN.
27628965		2	SLIC FPGA to fix packet concatenation issue	For packet sizes that are multiples of 128 bytes received on a SLIC E1T1 card, the packet could be discarded and a retransmission is forced. Thus, the E1/T1 link could congest earlier than its theoretical limit.

Bug Number	SR	Severity	Title	Customer Impact
27757234		2	R46.6_ST: E5-IPSM card not coming up after being flashed in UpgPh3 on VxWorks6.4	E5-IPSM card in the node may fail to flash and stay inhibited during upgrade to release 46.6. As a workaround, operator needs to manually replace the E5-IPSM with an E5ENET-B, or if upgrading from Rel 46.5, E5-IPSM can also be replaced with a SLIC card. Alternatively, operator may choose to replace the failed E5-IPSM with E5-ENET-B or SLIC as soon as the upgrade to R46.6 is complete.
27946768		2	R46.6:Severity 1 "tk_pool_buff" on active OAM of e1180601	The tk_pool_buff trouble indicates the code (OAMHC) has a buffer leak and this can eventually cause the active OAM to boot.
28008133	Y	2	E1/T1 link (SLK) on SLIC fails with T7 timeout after reconfiguring the same	Re-configuring existing E1/T1 links (SLK) on SLIC cards causes the link to fail with T7 timeout. Card needs to be initialized to bring the link back in service.
28049147	Y	2	Specific sequence of ENT-PCT & DLT-PCT commands corrupting PCT table	Particular Sequence of the ent-pct and dlt-pct commands corrupts the PCT (PC & CIC Translation) Table. Refer to KM Doc ID 2402031.1 for more details.
28128340		2	SLIC E1/T1 links getting stuck out of service	A congestion/traffic burst event can cause SLIC-E1T1 link to get stuck in out of service status. WORKAROUND: Reload the card experiencing the problem OR dact/act the problem link.
28241926	Y	2	Specific sequence of ENT/CHG-GTA command corrupts Hex Tree table on IPSG32	Particular sequences of ent-gta and chg-gta commands can result in GTT DB corruption on GTT enabled IPSG cards (in R46.5) and SCCP cards (in R46.5 and R46.6.0).Work-Around: Boot the IPSG/SCCP cards to clear the DB corruption.
28537877	Y	2	(R46.6.2) E1 PCR (ECM=PCR) links go unstable on SLIC	E1T1 low speed Links on SLIC cards are not stable (bounce/fluctuate) when link's error correction method is set to PCR.
27635343		3	Incorrect IMSI tag being used for UpdateLoc Ph1 msg while processing MBR/SFAPP	

Bug Number	SR	Severity	Title	Customer Impact
27635357		3	Incorrect IMSI tag being used for SRI RR Ph1 msg while processing MBR	
27638833		3	PSI and ATI with invoke should not support MBR IMEI translation	
27650950		3	ATI is not getting generated for PS domain while sending sendparameters message	
27655665		3	MBR IMEI translation is supported by UpdateLocation Ph1\Ph2 messages	
27664501		3	R46.6_ST:Random silent boot observed on E5-SM8G B cards.	
27706455		3	MAPV1 msgs with IMSI/MSISDN in Dialogue portion should not be supported by SFAPP	
27707180		3	ENUM response has extra bytes which are being misinterpreted	
27865658		3	SFAPP related Parameters in THALM table is getting set to 0 after upgrade(46.6)	
27969056	Y	3	Rept-stat-iptps:peakreset=yes does not reset peak and peak timestamp value	The rept-statiptps:peakreset=yes command does not reset peak TPS value and peak timestamp. Workaround: Location ("loc") parameter needs to be provided at least once and thereafter the command by itself works fine unless the MASP is initialized for any reason.
28316727		3	Cards not back on bus; dropped from upgrade group	
28589237		3	R46.6.2_MR:Testmode turns ON post upg in some GTA entries	Upgrading EAGLE from a pre-46.6 release to release 46.6.0 may incorrectly modify the TESTMODE and/or PPMEASREQD parameters of GTA entries. Modification to TESTMODE parameter impacts the GT routing handled by the particular GTA entry
28616233		3	scm_epap.c Line 829 throw sev1 ATH	

Bug Number	SR	Severity	Title	Customer Impact
27266676		4	New SLIC FPGA w/ FISU/LSSU filtering, FISU generation, and 8 byte register	
27292668		4	MBR- Wrong MAP version supported with processUnstructuredSS-Request message	
27607476		4	Command DISP-DISK-DIR only displays the DMS config file.	
27665149		4	MBR- Wrong MAP version supported with SendUnstructuredSSRequest/Notify message	
27763397		4	Incorrect UIM being used for SRI RR Ph1 msg while processing MBR	
2778635		4	Card Restart State incorrectly reported by BSP	
27846019		4	Spelling of exceeded is incorrect in UAM643 System SFAPP TPS Threshold Exceeded	

Table 21: EAGLE Release 46.6.0.0-73.18.0 Resolved Bugs (April 2018)

Bug Number	SR	Severity	Title	Customer Impact
24291987	Y	2	E5-ENET-B booted with "Module t4b_bm.c Line 443 Class 01c4" obit	If the Fast Copy port is overrun with traffic, it can/will boot due to being out of buffers.

Bug Number	SR	Severity	Title	Customer Impact
25519205		2	SMs running 64-bit GPLs incorrectly sets speed/duplex of signaling Ethernet port	<p>With the recommended Ethernet port settings of 100 Mbps/Full duplex for signaling Ethernet ports, SM cards running the SIP64, ENUM64, or DEIR64 GPL (64 bit GPL is required only for EPAP DB greater than 120 Million) incorrectly set the speed & duplex of signaling Ethernet port which can cause packet drops on signaling ports. This can cause excess re-transmits & premature congestion on signaling connection.</p> <p>Workaround: Ethernet ports on such SM cards and the corresponding ports on the LAN switch can be set to auto negotiate to avoid the problem.</p>
25742383		2	SLIC - Booting when a HIPR2 is pulled (typically if pulled slowly)	HIPR2 Card Replacement Procedure in Customer Documentation instructs the user to inhibit the IMT bus associated with the HIPR2 being removed. If this is not followed, i.e., when a HIPR2 card is pulled out of its shelf without inhibiting the IMT bus associated with the HIPR2 being removed, it may cause multiple SLIC cards in the system to boot.
25742391		2	EPMB - Booting when a HIPR2 is pulled (typically if pulled slowly)	HIPR2 Card Replacement Procedure in Customer Documentation instructs the user to inhibit the IMT bus associated with the HIPR2 being removed. If this is not followed, i.e., when a HIPR2 card is pulled out of its shelf without inhibiting the IMT bus associated with the HIPR2 being removed, it may cause multiple B-class cards in the system to boot.
25742436		2	All cards in a SHELF boot should one of the cards be booting on a single IMT bus	In certain rare conditions, as LIM(s) (either SLIC or EPMB) that booted recover, all the other LIMs (SLIC or EPMB) in that shelf may also boot. This affects only a single shelf.

Bug Number	SR	Severity	Title	Customer Impact
26234613	Y	2	UAM 0336 LIMs have been denied SCCP service before reaching system capacity	If all SCCP cards on any shelf are running at 100% capacity, some message discards are possible while the extra traffic from the same shelf gets diverted to SCCP cards in another shelf. Workaround: Distribute the SCCP cards in the systems in such a way that not all SCCP cards (of the same data type) in a single shelf are getting loaded at 100% capacity.
26614027	Y	2	MASP boot- ath_vxw_mgr.c obit with scm_mtp.c, scm_uam.c & ath_vxw.c troubles	The INH-ALM command used with the "dur=timed" parameter to inhibit the reporting of alarms for the given device may cause both OAM cards to boot simultaneously in certain situations. The OAM cards recover normally after they boot.
20565766		3	R46.2_ST: Severity 1 "xsvf_ports.c Line 519 Class 0001" after incr upgrade	
21817142		3	Correct the implementation for status report of cmd rept-stat-sys for LIM cards	
22576116		3	Unable to change password at login if standby MASP is in reboot loop	
23651048		3	R46.4_SIP:SIP cards not showing congestion alarms, when ACTIVE OAM gets booted.	
23854973		3	R46.4_SIP:Alm # 626 clears, when running 5000 Invites/sec for a SIP card.	
24915874		3	R46.4_ST:Incorrect caution msg displayed with entcard:type=dsm:data=elap/gtt	
25043320		3	CHG-STPOPTS command allowed while Eagle is in Upgrade PHASE3 State...	

Bug Number	SR	Severity	Title	Customer Impact
25072124	Y	3	SR: EAGLE raises "Exceeded Service Error Threshold" alarm for incorrect level	For the IDR Service, the EAGLE may not correctly raise the "Exceeded Service Error Threshold Lvx" alarms at the configured error threshold levels. It may require the actual error ratio to far exceed the threshold level before the EAGLE OAM will raise the expected alarm. The command rept-stat-sccp can be executed to display the actual error/fail ratio for the IDPR Service.
25393083		3	Propagate BUG 22827156 from VxWorks 6.4 Gei/EEPROM driver to VxWorks 6.9 Driver	
25636845		3	GEI interface flags (speed and duplex) not set correctl	
25730463		3	SFLOG and SCPVAL GTT action parameters are not seen in the TSTMSG output	
25749542		3	Rel46.5_GTTonIPSG:TST-MSG not working for SMRPDA GTTSet	
26042185		3	Rel46.5_ST-Module vxws_msgq.c Severity 1 observed on SIP cards	
26045263		3	46.5 - SLIC does not auto inhibit when inserted as E1T1 with channel bridging...	
26079925		3	REPT-STAT-DB always prints Active OAM's GTT DB level for standby OAM too	
26098828		3	R46.5_ST:Upgrade does not fail when card getting flashed is removed from eagle	
26159826		3	R46.5 CDS: rept-statiptps:tpscost=yes is not supported on SLIC-IPSG	
26198220		3	Incorrect Subsystem getting displayed in UAM 336 "LIM(s) have been denied SCCP"	
26278373		3	R46.5_ST: Observed OBIT Module adl_mgr.c Line 1117 Class 0280 on SCCP cards	

Bug Number	SR	Severity	Title	Customer Impact
26353916	Y	3	E2939 Cmd Rej: Unable to read the selected log	The error, E2939, prevents an operator from retrieving selected UIM/UAM logs. The chance of occurrence is very low. Workaround: Event logs file can be replaced to resolve the issue. All prior log entries will be lost but newer log entries will be captured.
26360552	Y	3	ENUM PSTNSIP service escape encodes @ sign following userinfo part in URI	The ENUM PSTNSIP (E2U +pstn:sip) service escape encodes the @ delimiter in the SIP URI while generating NAPTR Responses.
26382109		3	RTRV-GTA command with REFGTTSN parameter not working correctl	
26485660		3	During upgrade: running BLDC32 on both MASPs are comparied to trial BLMCAP	
26518287		3	chg-ctrl-feat and ent-dlk commands Dependency & MTT are out-of-date	
26661198		3	Obits t4b_bm.c Line 445, tk_fpga_imt_Line 1775 & tk_geiTxRxTa Line 1021 observe	
27017131		3	Card Error: Card xxxx is not back on bus; dropped from group during UPG phase3.	
27322770		3	R46.5.1_ST:Upgrade sets not getting updated for deleted cards	
27407471	Y	3	Card reset may cause LIM cards to incorrectly peg "MTCEUSG" for ax/bx links	Card reset causes LIM cards to incorrectly peg "MTCEUSG" for all a<x> (a1, a2,.. a31) links based on status of link "a" and peg "MTCEUSG" for all b<x> (b1, b2,.. b31) links based on status of link "b".
21219386		4	E5-OAM produces trouble Module tpm_prx.c Line 1021 Class 0001	
23048425		4	Remove the IPLHC and IPGHC GPLs from the EAGLE System Release	

Bug Number	SR	Severity	Title	Customer Impact
23226609		4	GWS: Misleading warning Message When Bind takes a Long Time	
23332037		4	Remove the GLSHC from the EAGLE System Release	
23484462		4	Commands User's Guide: updates needed for dlt/ent/rtrv-gta 2155 dependencies	
23594625		4	MTP2 NODATA timer related information to be corrected in EAGLE customer docs	
24339333	Y	4	Update EAGLE Cust Doc to capture ent-map cmd's grp default value description	Commands User's Guide for the ent-map command's grp parameter's default value is misleading and may cause confusion.
24691801		4	DBLM read of DB Status table on standby fails after COPY-DISK reserved disk	
24718372		4	CMT: ent-dlk command Dependency & MTT is out-of-date	
24742664		4	CMT: various commands need updates related to legacy OAM vs. E5-OAM cards	
25328817	Y	4	tprc_adj.c Line 4617 Severity 1 troubles (with data = 28) from IPSG cards...	Display of these severity 1 troubles can be annoying. No other impact on system functionality.
25513382		4	chgcard:appl=ipsg:type=enetb: data=gt t innacurate error message (E5414)	
25633412		4	Allow DATA=EPAP with RTDB Split feature	
25652632		4	HIPR2 - The "ALIGN" led does not go red when the FC bus goes down (pull a HIPR2)	
25718741		4	E5-SM4G (870-2860-xx) noncompatible with EAGLE Release 46.6 or greater	
25718994		4	E5-E1/T1 (870-1873-xx) noncompatible with EAGLE Release 46.6 or greater...	

Bug Number	SR	Severity	Title	Customer Impact
25719035		4	E5-ATM (870-1872-xx) noncompatible with EAGLE Release 46.6 or greater...	
25720102		4	E5-ENET (870-2212-xx) noncompatible with EAGLE Release 46.6 or greater	
25721447		4	E5_TSM (870-2943-xx) noncompatible with EAGLE Release 46.6 or greater...	
25721457		4	End Support for HC-MIM card (870-2671-xx)	
25725855		4	Discontinue support of the STPLAN / SLAN Application in EAGLE	
25756305		4	Increase IPSG SLIC card to 12k TPS	
25775949		4	Support IMSI with MO-FSM in MAP Based Routing feature	
25794040		4	Rel46.5_GTTonIPSG:MTT E2374 text is not same in CMT and EAGLE for rept-stat-sccp	
25821846		4	Rel46.5_ST:Not able to peg MSSCCPDISC register in SYSTOT report	
25851477		4	HIPR2 - ALGN LED does not remain AMBER (INH) when the HIPR2 is reseated	
25875003		4	Code Bug For BUG 22333724 - SS7 Firewall (Stateless Screening Enhancements)	
25877305		4	SCCP on SLIC TPS Increase [13.6k	
26035906		4	R46.5_ST: Copy Disk copying incorrect GPLs for IPSG32, IPSG64 and BLMCAP GPLs	
26036303		4	R46.5 CDS: RTRVCARD:LINKS=IPSG display is missing DATA parameter in the header	

Bug Number	SR	Severity	Title	Customer Impact
26042922		4	R46.5_ST: UIM1187 "Table Checksum Mismatch" observed while restoring the system	
26167548		4	S/N of an un provisioned Card is not getting displayed in RTRV-STP cmd output	
26175287		4	Alarm required as OAM/IPS/MCP running VxWorks 6.4 can't coexist with VxWorks 6.9	
26194900		4	Enhance Corruption Correction functionality (STPOPTS: DSMAUD=CCC) on EPAP cards.	
26263558		4	Rel46.5_ST-MTCH parameter needs to be removed from "reptmeas" command	
26390986		4	Commands User's Guide: Update init-flash command for mode=cnvrtbit changes for SLIC	
26530244		4	Remove support of 'avlstplan' and 'systotstplan' parameters	
26530269		4	Remove ipgwpc parameter from ent-ls and ent-dstn command.	
26587476		4	Remove the support of obsolete GPLs from rept-stat-sys command	
26622332		4	Commands User's Guide needs to be updated for e1t1 & vsccp on SLIC	
26665542		4	Counters GTTONSM, GTTONLIM should be moved to SYSTOT-STP from SYSTOT-TT	
26678079		4	Support Segmented XUDT with MBR	
26712041		4	Commands User's Guide: various commands need updates related to legacy OAM vs. E5-OAM cards	

Bug Number	SR	Severity	Title	Customer Impact
26713480		4	Add P/N of Updated SLIC cards on the Frame Power Table	
26714613		4	LNPTBLNOP counter missing in customer documentation for SYSTOT-STP	
26727954		4	Remove the support of "COPY" paramter from chg-gws-actset command.	
26802028		4	SMs GPLs still running on VxWorks 6.4 to be alarmed	
26919256		4	Counter TMULTCOMP should be moved to SYSTOT-STP from SYSTOT-T	
26941089		4	Enable programming of new Flash for SLIC FPGA	
26992487		4	SIGTRAN User's Guide Chapter 5 to be Scrubbed for SLIC Behavior	
27097806		4	Change E1T1 Link counts [3HSL 96LSL] on SLIC	
27254026		4	R46.6: SLICv2 BIOS Update	
27288749		4	Support IDP (and similar messages) with MBR	
27349680	Y	4	Tst-msg default value of msgtype is not working until manually entered	Using TST-MSG without manually setting test SCCP msgtype results in failure. Workaround: Set message type manually first: chgscppmsg:msgn=<1..10>:msgtype=<{u, us, x, xs}> Then use TST-MSG command with the set message: tstmsg:msgn=<1..10>
27369278		4	R46.6: SEAS Forwarder Script to support SEAS over SSH	
27509375		4	Module tk_fpga_imt_ Line 1939 Class 01b5 out of SLIC cards	
27608759		4	CS: EAGLE R46.5 Commands manual: ENT-CARD/CHG-CARD TYPE requires updates	

Bug Number	SR	Severity	Title	Customer Impact
27702556	Y	4	Database Administration - IP7 User's Guide, E84116 Revision 1, document update needed	The section "Adding an IPGS card" does not include an example to show the required card configuration for SLIC. Customer may be unclear on how to add an IPGS SLIC card to the system.
27702571	Y	4	EAGLE Maintenance Guide, E86997 Revision 1, document update for SLIC cards	Instructions for replacing existing cards with SLIC are insufficient regarding which GPLs, card type, and commands to use.

Customer Known Bug List

Please find below the known bugs and associated Customer Impact Statements in Table 22. This information is provided for information purposes only.

Table 22: EAGLE Release 46.6 Customer Known Bugs (December 2019)

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.
26280132		2	R46.5_ST: RTDB Corruption observed on 64-bit EPAP SM cards after cold boot	An RTDB lookup can fail if the lookup is routed to an SM card with a corrupted RTDB. The same lookup can succeed if it is routed to another SM card with a sane DB. Rare occurrence of RTDB corruption was observed on a few 64-bit SM cards loaded with 90% or greater RTDB size on a large system, when SM cards were initialized in large group. Workaround: Setting the DSMAUD parameter in chg-stpopts as CCC auto corrects the corrupted entries on the card. The command for this is ""chg-stpopts:dsmaud=ccc"". This option is required to be configured only on EAGLEs with EPAP features enabled. Please contact customer support for assistance if both EPAP and ELAP features are enabled on the EAGLE.
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.

Bug Number	SR	Severity	Title	Customer Impact
27592590	Y	2	SR: E1/T1 link (SLK) on SLIC fails with T7 timeout after reconfiguring the same	Re-configuring existing E1/T1 links (SLK) on SLIC cards causes the link to fail with T7 timeout. Card needs to be initialized to bring the link back in service.
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.
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.
19120067		3	[242097]Traffic loss when running 4650 TU IPSG traffic on ENET-A with Fast Copy	There is no impact to routed traffic. Fast copy traffic may be disabled in certain heavy load conditions.
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.
20520928		3	Copy GPL fails during incremental upgrade without details as to what failed	If a failure were to occur then it is more difficult to troubleshoot as it is not obvious what caused the failure.
21105952		3	R46.2_ST: Individual link downtime due to upgrade is more than 7 minutes.	Using options like card set and threshold may increase individual link downtimes while decreasing overall system upgrade time.
21106241		3	R46.2_ST:Service-affecting portion is more than 4 hours during upgrade.	A very large EAGLE can take longer to upgrade than 4 hours. This is an internal target duration for Oracle. While reduced from previous releases, we are still not at target.

Bug Number	SR	Severity	Title	Customer Impact
21235242		3	R46.2_ST: Oversubscription of SCCP service cause 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	Y	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.
23542116		3	R46.4_ENUM: "RST-CARD" command is not working	ALW-CARD command needs to be used in place of RST-CARD command. The function of RST-CARD command is same as the ALW-CARD command.

Bug Number	SR	Severity	Title	Customer Impact
23564450		3	Module dbcdserv.c Line 1566 Class 01c5 Severity 1 generated occasionally	This severity 1 trouble will be seen only when displaying table capacities. No other 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	Y	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).
24523271		3	init-card:loc=<OAM>;prtngpr=inactive does not generate MTT E4851 for USB port	Minimal to no customer impact as this is not a regular OAM command the operators use. Card can be rebooted again after removing the USB drive to recover.
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.

Bug Number	SR	Severity	Title	Customer Impact
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.
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 these 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.
26330298		3	R46.5_ST: IMSI cards got booted with DN cards	Both DN and IMSI SCCP SM cards will be initialized if init-card:appl=vscpp:type=<DN or IMSI> command is executed. Use init-card:loc=<DN or IMSI card location> if only DN or IMSI SCCP SM cards need to be initialized. The init-card:type=<DN or IMSI> command can be used if all DN or IMSI SM cards in the system need to be initialized.

Bug Number	SR	Severity	Title	Customer Impact
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.
26725456		3	R46.6_SCCP_SLIC13.6K:SCCP cards booted with obit sentry_vxw.c on task RMTP_UpAmA	A small subset (one to four in a group of 30+ cards) of SM cards may reboot again before returning to IS-NR during the cards/system recovery, such as after an init-sys command, on a larger system.
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.
26779535		3	Rel46.6: fwh_at25.c Line 1415 Sev1 during upgrade	No adverse effect to operational software. The timing of operations when programming the card's BIOS can produce this trouble indicating that the operation may have failed. However, the status value at the end of the operation shows correctly as expected.

Bug Number	SR	Severity	Title	Customer Impact
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.
26861856		3	Rel46.6_SS7FireEnh: TOBR\MBR is applied even if TCAP len is less to reach opcode	TOBR\MBR feature may attempt to decode opcode and apply feature even if TCAP length is incorrectly encoded in a message received by EAGLE. No known impact.
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.
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.

Bug Number	SR	Severity	Title	Customer Impact
27278676		3	Error in generating TCAP ERROR message when DEFACTID=TCAPERR	When a GTT Action's defactid is set to TCAP ERROR, an XUDT message is sent for that action and routing fails, a TCAP ERROR message will not be sent back to the originator.
27281379		3	R46.5.1.5_SFAPP: Observing Module scm_epap.c Line 827 Class 01c3 Severity 1	This sev-1 trouble indicates corrupted O&M information is getting received by the OAM card from an EDIR card acting as an EPAP primary card. Workaround: Make another card (SIP/ENUM/SCCP) the EPAP primary card. As soon as another card is made primary, the trouble will not be observed.
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.
27361425		3	R46.5.1.5_SFAPP:MSU Retran/MUX LVL1 Cong observed with No traffic running	This may cause some minor confusion while analyzing the IMT level 1 statistics report. No operational impact.
27393336		3	R46.5.1_ST:SM cards boot with obit Sentry_Vxw.c(Line 289 ,Class 01c3,task tNet0)	During user-initiated warm restart of SCCP SM cards, an SCCP card may boot a second time before successful reload of the card.
27407602		3	Critical Alarms count not matching in REPT-STAT-TRBL & REPT-STAT-ALM command o/p	MPS-related alarms are being included in the rept-stat-trbl output but are not reported in the rept-stat-alm output. This may cause alarm count mismatch between the two command outputs printed.
27437850		3	Sev 1 at tk_blade_u line 4405	If a card generates this severity 1 trouble, the rept-stat-card:mode=full command will fail to display the BIOS version until the card is booted. No operational impact.
27503580		3	R46.3:Incorrect no.of links displayed in LIMSET for E1T1 B SS7HC cards	The act-upgrade createsets/displaysets commands are displaying an incorrect number of links on the E1T1 cards. This may cause some confusion for the operator during upgrade. No operational impact.

Bug Number	SR	Severity	Title	Customer Impact
27544138		3	R46.6_ST:SSH terminal not getting established sometimes in overnight run	When multiple simultaneous SSH sessions are initiated sporadically by clients, EAGLE may temporarily reject the requests. The SSH client may need to reinitiate the SSH session request again.
27575068		3	R46.6_ST:adl_load.c sev1 obit "adl_mgr.c" on SCCP cards & sev1 sldrmgr.c on OAM	During the reload of SCCP cards during Upgrade Phase 3, one or more SCCP cards may boot a second time before successful reload of the card.
27583988		3	R46.6_ST:Observed Severity 1 Module cnv_mgr.c and OBIT Module t4b_bm.c	There is a rare chance that an SS7HC card may reboot during the Upgrade Phase 3 window before flash activation on the card. The card would then need to be manually flashed to recover.
27707249		3	Severity 1 trp_tbl.c Line 1218 observed on SCCP/SIP ELAP card	No impact other than the severity 1 trouble display during boot up of a SIP card connected to ELAP.
27716342		3	SR: Rept-stat-iptps:peakreset=yes does not reset peak and peak timestamp value	The "rept-stat-iptps:peakreset=yes" command does not reset peak TPS value and peak timestamp. Workaround: Location ("loc") parameter needs to be provided at least once and thereafter the command by itself works fine unless the MASP is initialized for any reason.
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.

Bug Number	SR	Severity	Title	Customer Impact
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.
20585184		4	R46.2_ST:Sysstat command does not report correct memory stats.	Display issue on debug command. No impact to customer.
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 CLI changes to dflt after init-sys:data=persist with two sev-1s	Occasionally when the OAM is booted it could fail to read the CLI 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.

Bug Number	SR	Severity	Title	Customer 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 pmte_mgr.c Line 620 Class 0241	No impact as this bogus obit is observed rarely and only during the manual reset of SLIC/EPMB class cards.
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.

Bug Number	SR	Severity	Title	Customer Impact
25107988		4	R46.4_ST: RTDB DATA download through port D of DEIR card is slow.	Downloading EPAP data on DEIR cards using the backup ExAP port (Port D) takes much longer than anticipated compared with downloading the same data via the main ExAP port (Port A). EPAP data download via the backup ExAP port happens only during rare occasions when the ExAP primary network between the EAGLE and ExAP is completely down.
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.
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.

Bug Number	SR	Severity	Title	Customer 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. Workaround: Reboot the card that generated the severity 1 trouble so that the CPU idle reference is corrected.
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-gttssel 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.

Bug Number	SR	Severity	Title	Customer 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.
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.
27479397		4	IMT lvl2 status report- The "Invalid Length" field does not contain this count	The IMT LVL2 stats for the Invalid Length field are incorrect and cannot be used for debugging.
27524444		4	Subscriber State getting displayed as STATE UNKNOWN in UIM 1482 for Cat 3.1 msg	UIM printing SubscriberState as "STATE UNKNOWN" even when "Subscriber state" is not requested by EAGLE may cause some minor confusion for operator. EAGLE does not request "Subscriber state" from HLR for cat 3.1 messages as this information is not required for 3.1 category messages.

Bug Number	SR	Severity	Title	Customer 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.
27649224		4	EAGLE Health Check Guide needs to be updated for the GBSU STP option.	Starting with Rel 46.6 when A-class cards are no longer allowed in the machine, the GBSUSNMINM option should be turned ON for optimal machine performance. With the GBSUSNMINM option turned OFF, DDB updates between cards may be lost during congestion scenarios and the DDBs could show as inconsistent.
27655954		4	BLSLC64 image activation failed alarm showing BLMCAP GPL during UPG	When the OAM fails to activate the flash image for the BLSLC64, it reports that it failed to activate the BLMCAP, which can be confusing to the operator. There is no other issue associated with this problem.
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.
27760436		4	SR: Remove dependency check on "HIPR2 High Rate Mode" feature for 1M System TPS	With EAGLE release 46.4 and later, IMT buses always run at 2.5 Gbps irrespective of the "HIPR2 High Rate Mode" control feature. However, the operator needs to set the "HIPR2 High Rate Mode" control feature to ON if the "1M System TPS" control feature is to be used.
27767174		4	System Health Check Guide Release 45.0 and later, E54339 Revision 8 comments	Current text in the System Health Check document for verifying optional features is incomplete and may confuse the operator if certain commands return the "Cmd Rej" error.

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.
3. Under the Oracle Communications subheading, click the **Oracle Communications** documentation link.

The Communications Documentation page displays. Most products covered by these documentation sets appear under the headings “Network Session Delivery and Control Infrastructure” or “Platforms.”

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, right-click the PDF link, click **Save Target As** (or similar command based on your browser), and save 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.