

**Oracle® Communications EAGLE**

Release Notes

Release 46.3

**E72169 Revision 8**

September 2018

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# Introduction

This Release Notes includes Feature Descriptions, supported Hardware Baseline, Media and Documentation pack contents and identifies the Supported Upgrade Paths. This document also includes listings of both the Resolved and Known Bugs for this Release. Directions for accessing key Oracle sites and Services are also identified in the [Oracle References and Services](#) chapter.

Release Notes are included in the Documentation Pack made available with every Software Release.



## Feature Descriptions

This Release delivers the following features:

- [EAGLE MNP Data Base support for 240M DN \(Release 46.3\)](#)
- [EAGLE - Obsolete OAM Measurements \(Release 46.3\)](#)
- [Increase LNP DB Capacity \(504M\) \(Release 46.3\)](#)
- [Sigtran IPSG application on SLIC card \(Release 46.3\)](#)
- [SMS-MO Blocking SCCP Spoofing \(Release 46.3\)](#)
- [SS7 Firewall on EAGLE \(Release 46.3\)](#)

### EAGLE MNP Data Base support for 240M DN (Release 46.3)

This feature expands the capacity of the EPAP and EAGLE Data Base to support 240M individual DN entries, 240M individual IMSI entries and 48 million individual IMEI entries.

If the EPAP Split DB feature is OFF, then the DN & IMSI tables are loaded onto a single EPAP card. In this case, the DN + IMSI entries must be less than 240 million. The following table shows capacity combinations:

**Table 2-1 EAGLE Feature and EPAP DB Capacity Combinations**

EPAP Split DB Feature	STPOPTS: EPAP240M	Max Individual DNs	Max Individual IMSIs	Max Individual DNs + Individual IMSIs	Max Individual IMEIs	E5-SM4G Allowed
OFF	OFF	120M	120M	120M	32M	Yes
ON	OFF	120M	120M	240M	32M	Yes
OFF	ON	240M	240M	240M	48M	No
ON	ON	240M	240M	480M	48M	No

To enable the 240M DN & 240M IMSI + 48M IMEI capacity expansion on EAGLE, a new parameter `EPAP240M` is introduced in the STPOPTS table. The E5-SM8G-B cards on EAGLE are able to load more than 120M DN entries only when the STPOPTS : `EPAP240M` parameter is ON.

### Hardware

The EAGLE MNP Data Base support for 240M DN feature is supported on E5-SM8G-B cards.

This feature has a dependency on 64-bit GPLs. The E5-SM8G-B cards must be running 64-bit GPLs in order to support the larger RTDB data from the EPAP. If the E5-SM8G-B cards are not already running 64-bit GPLs, then the flash GPLs on the E5-SM8G-B cards need to be manually converted to 64-bit. Refer to the Notes section for the init-flash command in *Commands User's Guide* for detailed instructions for converting to 64-bit GPLs.

E5-SM4G cards are unable to load more than 120M DN or 120M IMSI entries. If E5-SM4G cards in the EAGLE system are in IS-NR/ACTIVE state, the STPOPTS : EPAP240M option will not be turned ON. If STPOPTS : EPAP240M is ON, the E5-SM4G cards will be auto-inhibited if present or hot-swapped with E5-SM8G-B cards.

## EAGLE - Obsolete OAM Measurements (Release 46.3)

This enhancement removes the support of OAM Measurements and FTA Zone. From EAGLE 46.3 and later, basic OAM measurements are not supported. For measurement collection to happen, either the Integrated Measurements Feature (ctrl-feat) or MCPM Based Collection Feature (measplat=on) should be enabled.

## Increase LNP DB Capacity (504M) (Release 46.3)

The 504M LNP Entries feature increases the LNP capacity from 384 million to 504 million Telephone Number (TN) or Number Pool Block (NPB) records, where NPBs represent a block of 1,000 pooled numbers. The overall LNP Solution architecture remains the same.

Maximum data types per LNP Solution are as follows:

**Table 2-2 Max Data**

Data Type	LNP 384M Solution	LNP 504M Solution
TN	384,000,000	504,000,000
NpaNxx	350,000	350,000
Lrn	200,000	200,000
Mr	2,000,000	2,000,000
LrnMr	2,000,000	2,000,000
OGTT	200,000	200,000

## Sigtran IPSP application on SLIC card (Release 46.3)

This feature allows for porting of the current IPSP application onto the Oracle Communications EAGLE Service and Link Interface Card (SLIC) (P/N 7094646). The SLIC operates with the same functionality as the E5-ENET-B (870-2971-01) card running the IPSP application.

See *Hardware Reference* for more information on the SLIC.

## SMS-MO Blocking SCCP Spoofing (Release 46.3)

The SMS-MO Blocking SCCP Spoofing feature allows a consistency check between VLRNb and CgPA and original linkset in order to manage and prevent SMS fraud. These validations are provisioned using MAP parameter based routing above the existing TCAP based Routing and FLOBR.



## SS7 Firewall on EAGLE (Release 46.3)

The SS7 Firewall feature provides a set of capabilities to monitor, throttle or validate messages. This feature enhances the existing FLOBR/TOBR/GTT Actions framework to support more parameters in the selection criteria (DN, IMSI, VLR Nb, etc.). This feature also creates a new logging engine to feed a "Network Security" log and adds Throttling to a destination feature.

See *Database Administration - GTT User's Guide* for more information.

### Hardware

The SS7 Firewall Logging functionality is supported on the E5-ENET-B card. A maximum of 5 IPS cards can be configured per EAGLE. A maximum of 2 IPS cards are allowed to be provisioned as SFLOG type.

Logging IPS cards will use Ethernet Interface Port A for IP connectivity.

### Commands

The following commands are added to support the SS7 Firewall feature:

- `rept-stat-sflog` – This command displays the overall status of the logging framework on the EAGLE.
- `rept-stat-sfthrot` – This command displays the overall status of the throttling framework on the EAGLE.

The following existing commands are modified to support the SS7 Firewall feature:

- `alw-card`
- `chg-ftp-serv`
- `chg-gta`
- `chg-gttact`
- `chg-gttaset`
- `chg-gttset`
- `chg-measopts`
- `chg-mtc-measopts`
- `chg-th-alm`
- `dlt-card`
- `dlt-ftp-serv`
- `dlt-gttaset`
- `ent-card`
- `ent-ftp-serv`
- `ent-gta`

- ent-gttact
- ent-gttaset
- ent-gttset
- inh-card
- rept-ftp-meas
- rept-stat-alm
- rept-stat-card
- rept-stat-mfc
- rept-stat-sys
- rept-stat-trbl
- rmv-card
- rst-card
- rtrv-card
- rtrv-ftp-serv
- rtrv-gta
- rtrv-gttact
- rtrv-gttaset
- rtrv-gttset
- rtrv-measopts
- rtrv-mtc-measopts
- rtrv-th-alm

## Measurements

Two new reports are added for the SFTHROT GTT Action. These two reports include a daily ("MTCDF-SFTHROT") and a 30-minute ("SYSTOT-SFTHROT") report. There are also two new GTT Throttling Action measurement registers added to the MTCDF-SFTHROT and SYSTOT-SFTHROT reports for the SS7 Firewall feature. The pegs for these measurement registers are collected on a per-system basis for 30-minute and daily intervals.

Subsystem Level:

- GTTATHTO - total number of messages that hit a particular Throttling GTT action
- GTTATHDI - total number of messages discarded because the Throttling GTT action was in "BLOCKED" state

One new GTT Logging Action measurement register is added for the SS7 Firewall feature. The pegs for this measurement register is collected on a per-system basis for 30-minute and daily intervals.

System Level:

- GTTASFLOG - total number of messages that hit SFLOG GTT action

Three new GTT Action MAP-SCCP Validation measurement registers are added for the SS7 Firewall feature. The pegs for these measurement registers are collected on a per-system basis for 30-minute and daily intervals.

- GTTAMSVTO - total number of messages that hit this GTT action
- GTTAMSVDI - total number of messages discarded by this GTT action
- GTTAMSVNA - total number of messages where validation was not applied by this GTT action

## Limitations

- During switchover between the Primary and Secondary IPS Logging cards, the log files that were not transferred by the earlier Primary card, for any reason and for that specific period, will be lost.
- A Logging SFLOG IPS card cannot be configured as an EagleEyes Hub.
- If the Active OAM boots, all throttling counters will be lost for that 30-second window.
- SCCP segmentation is not supported with MAP based Routing.
- MAP segmentation is not supported with MAP Based Routing. For MBR to process the message correctly, the message should contain the OPCODE and the parameter that the user wants to decode.
- MBR only supports decoding a supported MAP version in the format in MAP version 2+. The only exception is `sendParameter`, where MAP version 1 is supported.
- MBR will decode the application-context-name but it will not validate it.
- If the MAP parameter could not be decoded for some reason, it will be treated as a validation failure and the message will be discarded.
- If a message contains multiple parameters with the same tag, the identification and decoding of parameter will be based on the sequence of tags, as per the ASN decoding for that opcode. This retains existing TCAP decoding functionality in EAGLE.

## Enhancement Bugs

EAGLE 46.3 supports these enhancement Bugs:

**Table 2-3 EAGLE 46.3 Enhancement Bugs**

Bug # and Title	Description
20325001 Remove EAGLE FAK control	Removes Feature Access Key control from the EAGLE product suite.

**Table 2-3 (Cont.) EAGLE 46.3 Enhancement Bugs**

Bug # and Title	Description
21129705 AIN LNP feature enhancements to support additional conditioning actions	Allows the processing of AIN messages using an EPAP database and adds the following fields and parameters to the AINPOPTS table: <ul style="list-style-type: none"> <li>• LNPSNAI</li> <li>• LNPOGLRNNAI</li> <li>• LNPOGDNNAI</li> <li>• LNPSUBDIGLEN</li> <li>• LNPATLDIGLEN</li> <li>• LNPENTPREF</li> </ul>

## Operational Changes

EAGLE Release 46.3 contains new and updated alarms, error messages and EAGLE Configuration Table Data reports.

## Unsolicited Alarm Messages

The Unsolicited Alarm Messages (UAMs) in this section are introduced or updated in EAGLE Release 46.3.

### SS7 Firewall feature

**Table 2-4 New UAMs for SS7 Firewall**

UAM ID	Severity	Message Text	Output Group	Notes
627	Critical	SFLOG SYSTEM is not available	SYS_MAINT	The System has no SFLOG card that is Active/IS_NR.
628	Normal	SFLOG SYSTEM is available	SYS_MAINT	The System has at least one SFLOG card that is Active/IS_NR.
629	Normal	SFLOG SYSTEM is removed	SYS_MAINT	All SFLOG cards are deleted from the system.
630	Major	Throttle Threshold - exceeded	GTT	The Throttle threshold for a particular Throttling GTT Action has exceeded and any new messages hitting this Throttling Action are discarded for the remaining time of the current 30-second window. This alarm will be issued for each Throttling action for which the threshold has exceeded.

**Table 2-4 (Cont.) New UAMs for SS7 Firewall**

UAM ID	Severity	Message Text	Output Group	Notes
631	Normal	Throttle Threshold - cleared	GTT	The Throttle threshold for a particular Throttling GTT Action has cleared. This will be issued after the completion of the 30-second interval during which that action was in a BLOCKED state. This alarm will be issued for each Throttling action for which the threshold has cleared.
632	Minor	Alarm Threshold - exceeded	SCCP System	The system wide alarm threshold has exceeded.
633	Normal	Alarm Threshold condition cleared	SCCP System	The system wide alarm threshold has cleared.

**Non-Feature Related****Table 2-5 Updated UAMs for Non-Feature Related**

UAM ID	Severity	Message Text	Output Group	Notes
174	Minor	%-Full level reached-upload required	SADM	Updated alarm string.

**Unsolicited Information Messages**

The Unsolicited Information Messages (UIMs) in this section are introduced or updated in EAGLE Release 46.3.

**SS7 Firewall****Table 2-6 New UIMs for SS7 Firewall**

UIM	1143	Format	Output Group
Action	Added for 46.3		
Old data			
New data	GTT(FLOBR) failure: duplicate settype	I-43	GTT
UIM	1144	Format	Output Group
Action	Added for 46.3		
Old data			

**Table 2-6 (Cont.) New UIMs for SS7 Firewall**

New data	GTT(FLOBR) warning: duplicate settype	I-43	GTT
UIM	1145	Format	Output Group
Action	Added for 46.3		
Old data			
New data	MBR decoding failed	I-92	GTT
UIM	1235	Format	Output Group
Action	Added for 46.3		
Old data			
New data	Unable to connect Primary SFLOG Server	I-49	SFTP
UIM	1236	Format	Output Group
Action	Added for 46.3		
Old data			
New data	Unable to connect both SFLOG Servers	I-49	SFTP
UIM	1240	Format	Output Group
Action	Added for 46.3		
Old data			
New data	MAP SCCP Validation Fail	I-91	GTT
UIM	1241	Format	Output Group
Action	Added for 46.3		
Old data			
New data	SCCP Card logging capacity exceeded	I-1	CARD

**Table 2-7 New UIM Format For Logging****Release 46.3**

Liter I-1  
al

**Table 2-7 (Cont.) New UIM Format For Logging**

```

Form
at
      1      2      3      4      5      6
7      8
12345678901234567890123456789012345678901234567890123456789012
34567890
      stationxxxx xx-xx-xx xx:xx:xx EST Rel 46.3
      XXXX.XXXX   CARD XXXX   INFO   SCCP Card logging capacity
exceeded

      Report Date: xx-xx-xx   Time: xx:xx:xx
  
```

```

Output
Exam
ple
      1      2      3      4      5      6      7      8
12345678901234567890123456789012345678901234567890123456789012
34567890
      XXXX.1241   CARD XXXX   INFO   SCCP Card logging capacity
exceeded
  
```

**Table 2-8 New UIM Format For MAP SCCP Validation**

```

Release 46.3

Liter
al
I-91

Form
at
      1      2      3      4      5      6
7      8
12345678901234567890123456789012345678901234567890123456789012
34567890
      xxxx.xxxx   CARD cccc   INFO   'text'
      Cause: 'text'
      OPC=&&-###-###-###   DPC=&&-###-###-###
      CDPA: NI=# RI=@ GTI=## SSNI=@ PCI=@
      TT=### NP=## NAI=###
ADDR=#####
      PC=&&-###-###-###   SSN=###
      CGPA: NI=# RI=@ GTI=## SSNI=@ PCI=@
      TT=### NP=## NAI=###
ADDR=#####
      PC=&&-###-###-###   SSN=###
<TCAP Parm>: NP=## NoN=### ADDR=#####
LSN=[lnkset] Op-Code=### GTT Action Set=[#####]
  
```

**Table 2-8 (Cont.) New UIM Format For MAP SCCP Validation**

Output Example	5072.1240	CARD 1105	INFO	GTT Action MAP-SCCP validation
	FAILED			
		Cause: SMRPDA-CDPA Digits Mismatch		
		OPC= 7-101-0	DPC= 1-001-0	
		CDPA: NI=0 RI=0 GTI=04 SSNI=0 PCI=1		
		TT=010 NP=01 NAI=004 ADDR=9192051234		
		PC= 1-001-0	SSN=---	
		CGPA: NI=0 RI=1 GTI=00 SSNI=1 PCI=1		
		PC= 7-101-0	SSN=008	
		SMRPDA: NP=1 NON=1 ADDR=9192056000		
		LSN=ls710100 Op-Code= 46 GTT Action Set=scpvall		
		Report Date:15-08-01 Time:15:50:30		

**GTT Actions****Table 2-9 Updated UIMs for GTT Actions**

UIM	1077	Format	Output Group
Action	New format		
Old data		I-48	
New data		I-91	
UIM	1078	Format	Output Group
Action	New format		
Old data		I-48	
New data		I-91	
UIM	1079	Format	Output Group
Action	New format		
Old data		I-48	
New data		I-91	
UIM	1192	Format	Output Group
Action	New format		
Old data		I-48	
New data		I-91	
UIM	1193	Format	Output Group
Action	New format		
Old data		I-48	
New data		I-91	
UIM	1443	Format	Output Group



**Table 2-9 (Cont.) Updated UIMs for GTT Actions**

Action	New format
Old data	I-48
New data	I-91

**New UIM Format - Release 46.3**

Liter RPT\_MBR\_MSG\_ERRS (I-92)  
al

For  
mat

```

1          2          3          4          5          6          7          8
1234567890123456789012345678901234567890123456789012345678901234567890123
4567890
      XXXX.1145    CARD cccc    INFO    'text'
                  Cause= 'text'
                  OPC=&&-###-###-###    DPC=&&-###-###-###
                  CDPA: NI=# RI=@ GTI=## SSNI=@ PCI=@
                  TT=### NP=## NAI=###
ADDR=#####
                  PC=&&-###-###-###    SSN=###
                  CGPA: NI=# RI=@ GTI=## SSNI=@ PCI=@
                  TT=### NP=## NAI=###
ADDR=#####
                  PC=&&-###-###-###    SSN=###
                  Op-Code=###    PKG-Type= #####
                  Comp-Type= #####
                  MAP PARAM: NP=# NON=# Ext-Bit=#
                  MAP Digits=#####

```

Out  
put  
Exa  
mpl  
e

```

1          2          3          4          5          6          7          8
1234567890123456789012345678901234567890123456789012345678901234567890123
4567890
      0018.1145    CARD 1103    INFO    MBR decoding failed
                  Cause= MSISDN decoding failed (Extension bit is zero)
                  OPC=4-123-5    DPC=6-018-7
                  CDPA: NI=1 RI=0 GTI=04 SSNI=0 PCI=1
                  TT=25 NP=04 NAI=010
ADDR=123456789012345678901
                  PC=3-026-5    SSN=005
                  CGPA: NI=1 RI=0 GTI=04 SSNI=0 PCI=1
                  TT=100 NP=07 NAI=012
ADDR=012345678901234567890
                  PC=-----    SSN=004
                  Op-Code=2    PKG-Type= TC BEGIN(0x62)
                  Comp-Type= Invoke(0xA1)
                  MAP PARAM: NP=1 NON=1 Ext-Bit=0
                  MAP Digits=12345678912

                  Report Date:15-07-21 Time:16:20:19

```

---

**Prepaid IDP Query Relay**

UIM	1450	Format	Output Group
Action	Added for 46.3		
Old data			
New data	IDPR CDPN encoding failed	I-13	APSS
UIM	1451	Format	Output Group
Action	Added for 46.3		
Old data			
New data	IDPR CGPN encoding failed	I-13	APSS

---

**Non-Feature Related****Table 2-10 New and Updated UIMs for Non-Feature Related**

UIM	1119	Format	Output Group
Action	Added for 46.3		
Old data			
New data	Cards out of phase with flash procedure	I-90	CARD
UIM	1239	Format	Output Group
Action			
Old data			
New data	Ntwrk Card Reload Failed during Upg	I-31	SYSTEM
UIM	1246	Format	Output Group
Action	New format		
Old data			I-43
New data			I-93

---

**New UIM Format - Release 46.3**

Liter RPT\_SCCP\_INV\_TCAP\_CDPA  
al

For mat	1	2	3	4	5	6	7	8
	12345678901234567890123456789012345678901234567890123456789012345678901234567890							
	4567890							
		xxxx.xxxx	CARD	cccc,pppp	INFO	'text'		
			SIO=xx	OPC=&&-###-###-###	DPC=&&-###-###-###			
			SCCP MSG TYPE=##					
			SCCP MSG TYPE=##	INV DMA	LEN=###			
	(alternative)		SCCP MSG TYPE=##	UNSUP Clg	GTI=#			
	(alternative)		SCCP MSG TYPE=##	INV Clg	GTI=#			
	(alternative)		SCCP MSG TYPE=##	UNSUP Cld	GTI=#			
	(alternative)		SCCP MSG TYPE=##	INV Cld	GTI=#			
	(alternative)		SCCP MSG TYPE=##	GTCNV:Clg	ITU->ANSI fail			
	(alternative)		SCCP MSG TYPE=##	GTCNV:Cld	ITU->ANSI fail			
	(alternative)		SCCP MSG TYPE=##	GTCNV :Clg	ANSI->ITU fail			
	(alternative)		SCCP MSG TYPE=##	GTCNV:Cld	ANSI->ITU fail			
			CDPA: NI=#	RI=@	GTI=##	SSNI=@	PCI=@	
				TT=###	NP=##	NAI=###		
		ADDR=#####						
				PC=&&-###-###-###	SSN=###			
			CGPA: NI=#	RI=@	GTI=##	SSNI=@	PCI=@	
				TT=###	NP=##	NAI=###		
		ADDR=#####						
				PC=&&-###-###-###	SSN=###			
		INCM DN: xxxxxxxxxxxxxxxxxxxxxxxxx						
		COND DN: xxxxxxxxxxxxxxxxxxxxxxxxx						
			LSN=[lnkset]					
			LSN=[lnkset]	GTTSETIDX=#	#	#		
	(alternative)							

```

Out      1      2      3      4      5      6      7
put      1      2      3      4      5      6      7
8
Exa      12345678901234567890123456789012345678901234567890123456789012345678901234567890123
mple     4567890
          0018.1120    CARD 1103,A    INFO    Invalid length of
          conditioned digits
          SIO=03    OPC=001-001-001    DPC=002-002-002
          SCCP MSG TYPE=04
          CDPA : NI=1  RI=0  GTI=04  SSNI=0  PCI=1
          TT=250  NP=04  NAI=010
ADDR=123456789012345678901
          PC=003-003-003    SSN=005
          CGPA : NI=1  RI=0  GTI=04  SSNI=0  PCI=1
          TT=100  NP=07  NAI=012
ADDR=012345678901234567890
          PC=001-001-001    SSN=004
INCM DN: 4605523
COND DN: 19194605523
          LSN=ABCD123  GTTSETIDX=3  203  46
          Report Date:15-07-10  Time:11:20:19

```

## Error Messages

### Error Messages for AIN LNP Feature Enhancements

New and modified error codes to support the AIN LNP Feature Enhancements feature are listed in [Table 2-11](#):

**Table 2-11 Error Messages for AIN LNP Feature Enhancements**

Response ID Code	Error Message	Used by Command
E3509	LNPSUBDIGLEN should be less than or equal to LNPATLDIGLEN	chg/rtrv-ainpopts

### Error Messages for EAGLE MNP Database Support for 240M DN

New and modified error codes to support the EAGLE MNP Database Support for 240M DN feature are listed in [Table 2-12](#):

**Table 2-12 Error Messages for EAGLE MNP Database Support for 240M DN**

Response ID Code	Error Message	Used by Command
E3242	EPAP based SM4G card present in system.	chg/rtrv-stpopts

### Error Messages for Obsolete OAM Measurements

New and modified error codes to support the Obsolete OAM Measurements feature are listed in [Table 2-13](#):

**Table 2-13 Error Messages for Obsolete OAM Measurements**

Response ID Code	Error Message	Used by Command
E3265	Either MCPM or integrated meas is reqrd to turn on COLLECT	chg-meas
E3267	Failed reading MEAS Control table	healthcheck
E3268	Failed reading MEAS Options table	healthcheck

**Error Messages for SS7 Firewall on EAGLE**

New and modified error codes to support the SS7 Firewall on EAGLE feature are listed in [Table 2-14](#):

**Table 2-14 Error Messages for SS7 Firewall on EAGLE**

Response ID Code	Error Message	Used by Command
E2144	Location invalid for hardware configuration	rept-stat-sflog
E2155	Invalid parameter combination specified	chg/ent/rtrv-gttact ent-card rept-stat-sflog
E2374	SCCP not Configured	rept-stat-sfthrot
E2401	GTA/SADDR range overlaps a current range	chg/dlt/ent-gta
E2403	Length of EGTA/EADDR must be equal to length of GTA/SADDR.	chg/dlt/ent/rtrv-gta
E2405	GTA/SADDR does not exist in any range	rtrv-gta
E2420	EGTA/EADDR must be greater than or equal to GTA/SADDR	chg/ent-gta
E3274	GTTSET and NPSN set domain mismatch	chg/ent-gttset
E3275	SFLOG action is being referred by GTTACT Table	dlt-card

**Table 2-14 (Cont.) Error Messages for SS7 Firewall on EAGLE**

<b>Response ID Code</b>	<b>Error Message</b>	<b>Used by Command</b>
E3277	Maximum number of SFTHROT Action already provisioned	ent-gttact
E3283	At least one SCCP and one SFLOG card must be configured	rept-stat-sflog
E3284	NPSN Param only supports MBR SETTYPES	chg/ent-gttset
E3332	GTA/CGPC/OPC/CG-CDSSN /OPCODE/DPC/ADDR are mutually xclusve	chg/dlt/ent/rtrv-gta
E3400	NPSN not configured under GTTSET	chg/ent/rtrv-gttset
E3401	NPSN SETTYPE should be different from GTT SETTYPE	chg/ent-gttset
E3402	GTTSN and NPSN must not form Circular Entries	chg-gttset
E3430	At least one SFTHROT GTT action must be configured	chg-measopts chg-mtc-measopts rept-ftp-meas
E3449	SADDR must be specified for MBR GTT settypes	chg/dlt/ent-gta
E3458	DEFMAPVR can be specified with OPCODE SETTYPES only	dlt/rtrv-gta
E3459	GTTSET MBR Settypes Support ITU BGN/CNT/END Pkgtype	chg/ent-gta
E3460	DEFMAPVR is supported by MBR GTT settypes	chg/ent-gta
E3461	EADDR cannot be specified without SADDR	rtrv-gta
E3465	USEICMSG only valid for FWD/DUP/SCPVAL	chg/ent/rtrv-gttact
E3496	Card location specified must be an SCCP or SFLOG card	rept-stat-sflog

**Table 2-14 (Cont.) Error Messages for SS7 Firewall on EAGLE**

Response ID Code	Error Message	Used by Command
E3498	SPRM & TPRM combination must be unique in a GTTAct Set	chg/ent-gttaset
E3499	Security parameter must be ON	chg/ent-ftp-serv
E3508	MBR settypes cannot be referenced by GTT selectors	chg/ent-gttset
E3557	EGTT must be ON	ent-gttact
E3571	GTA/SADDR Length does not match GTT Set number of digits	chg/dlt/ent-gta
E4008	Exceeding max GTA/SADDR Lengths supported per GTTSET	ent-gta
E4400	GTA/CGPC/OPC/CGSSN/CDSSN/OPCODE/DPC/SADDR must be specified	chg/dlt/ent-gta
E4402	SETTYPE must be CDGTA/MBR Type when NETDOM=CROSS	chg/ent/rtrv-gttset
E5068	Uimreqd only valid for DISC/UDTS/TCAPERR/SCPVAL.	chg/ent/rtrv-gttact
E5110	OPCSN is valid with cdgta/cdssn/opcode GTTSN type	chg/ent-gta

**Error Messages: Non-Feature Related**

New and modified error codes not related to features are listed in [Table 2-15](#):

**Table 2-15 Error Messages: Non-Feature Related**

Response ID Code	Error Message	Used by Command
E3237	Cannot change the screenset	chg-scrset
E3405	Link must be A	ent/rtrv-slk
E3455	SCTP Association or SLK provisioned: Card supports 16 links	ent-slk

**Table 2-15 (Cont.) Error Messages: Non-Feature Related**

<b>Response ID Code</b>	<b>Error Message</b>	<b>Used by Command</b>
E3503	Card Configuration is inconsistent with Card Set List	act-upgrade
E3753	Command not supported for IPLIM SS7IPGW	act/canc-lpo blk/ublk-slk

## **EAGLE Configuration Table Data Reports**

New parameters were added for the following commands:

- rtrv-gta
- rtrv-gttact
- rtrv-gttset
- rtrv-ls



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## Media and Documentation

Oracle Communications software is available for electronic download on the Oracle Software Delivery Cloud (OSDC). Documentation is delivered electronically on the Oracle Technology Network (OTN). Both the software Media Pack and the 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 the following table:

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

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**Table 3-1 Media Pack Contents**

Name
Oracle Communications EAGLE (46.3.2.0.0), Tekelec
Oracle Communications EAGLE (46.3.1.0.0), Tekelec
Oracle Communications EAGLE (46.3.0.0.2), Tekelec
Oracle Communications EAGLE (46.3.0.0.1), Tekelec
Oracle Communications EAGLE (46.3.0.0.0), Tekelec

### Documentation Pack

All documents available for download from the Oracle Technology Network (OTN) site (<http://docs.oracle.com>) are listed in the following table:

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**Note:** This list is accurate at the time of release but is subject to change. See [Oracle Help Center](#) for all available documents.

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**Table 3-2 Documentation Pack Contents**

Name
EAGLE Release 46.3 Documentation



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## Supported 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 the EAGLE. For a detailed description of supported hardware, see [Hardware Baseline](#).

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 4-1 EAGLE Card Overview Table**

Card Name as shown on 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	1	4	N/A	N/A	elap epap lsms nas imf
E5-ATM	870-1872-01 ^ 870-1872-02 ^	limatm lime1atm	1	4 (3 used)	3	atmhc blixp	atmansi atmitu
E5-ATM-B	870-2972-01	limatm lime1atm	1	4 (3 used)	3	atmhc blmcap	atmansi atmitu

Table 4-1 (Cont.) EAGLE Card Overview Table

Card Name as shown on card label	Part Number	Provisioned Card Type	Per Card Slots/Ports		Links per Card	Card GPLs	Card Applications
E5-E1T1++	870-1873-02	lime1 limt1	1	8	32	ss7hc blixp	ss7ansi ccs7itu
	870-1873-03 ^	lime1 (for SE-HSL)	1	8	1		ccs7itu
	870-1873-04 ^	limt1 (for ST-HSL- A)	1	8	1		ss7ansi
E5-E1T1- B++	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
E5-ENET	870-2212-02 870-2212-03 ^ 870-2212-04 ^ 870-2212-05 ^	dcm	1	2	16	iplhc blixp	iplim iplimi
			1	2	1	ipghc blixp	ss7ipgw ipgwi
			1	2	2 IP Service	slanhc blixp	stplan
		stc	1	2	2 IP Service	erthc blixp	eroute
		enet	1	2	32	ipsg blixp	ipsg
E5-ENET-B	870-2971-01	dcm	1	2	16	iplhc blmcap	iplim iplimi
			1	2	1	ipghc blmcap	ss7ipgw ipgwi
			1	2	2 IP Service	slanhc blmcap	stplan
		stc	1	2	2 IP Service	erthc blmcap	eroute
		enet enetb	1	2	32	ipsg blmcap	ipsg

Table 4-1 (Cont.) EAGLE Card Overview Table

Card Name as shown on card label	Part Number	Provisioned Card Type	Per Card Slots/Ports		Links per Card	Card GPLs	Card Applications
		ipsm	1	2 (use only A)	1 ipshc service	ipshc blmcap	ips
E5-IPSM	870-2877-01 ^ 870-2877-02 ^	ipsm	1	2 (use only A)	1 ipshc service	ipshc blixp	ips
E5-MASP	870-2903-01 ^ 870-2903-02 ^ 870-2903-03 ^	N/A	2	2	N/A	oamhc blmcap	oam
E5-MCPM-B	870-3089-01	mcpm	1	2 (use only A)	1 IP service	mcp hc blmcap	mcp
E5-MDAL	870-2900-01 ^	N/A	2	N/A	N/A	N/A	N/A
E5-SM4G+	870-2860-01 ^ 870-2860-02 ^	dsm	2	2	2 IP Service	sccphc blixp	vsccp
E5-SM8G-B+	870-2990-01	dsm	2	1	2 IP Service 16 TCP 1 UDP	deirhc sip hc sccphc blmcap	deirhc sip hc vsccp
E5-TSM	870-2943-03 ^	tsm	1	1	N/A	glshc blixp	gls
HC-MIM++	870-2671-01 870-2671-02	lime1 limt1	2	8	64	ss7hc blixp	ss7ansi ccs7itu
	870-2671-03 ^	lime1 (for SE-HSL)	2	8	2		ccs7itu
HIPR2	870-2872-01 ^ 870-2872-02 ^	N/A	1	N/A	N/A	hipr2	hipr2

**Table 4-1 (Cont.) EAGLE Card Overview Table**

Card Name as shown on card label	Part Number	Provisioned Card Type	Per Card Slots/Ports		Links per Card	Card GPLs	Card Applications
SLIC	7094646 7352578	enetb	1	4 Ethernet	2 Ethernet for Signaling links (32 SCTP) 2 Ethernet for Fast Copy	ipsg blmcap	ipsg
<p>†E5-SM4G or 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.</p> <p>††For the E1 or T1 interface, an SS7 application (SS7ANSI or CCS7ITU) can be assigned to these cards.</p> <p>For more information on the E1 or T1 interface go to Chapter 3 “System Administration Procedures” in <i>Database Administration - SS7 User’s Guide</i>.</p> <p>^This part number is the ROHS equivalent of the immediately preceding part number.</p>							

## Hardware Baseline

The Hardware Baseline is shown in the following table.

**Table 4-2 Hardware Baseline Table**

Component	Part Number	ROHS Number (if applicable)	Required for
Control Shelf	870-2321-02 Rev A	870-2321-08 Rev A	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	850-0330-07 Rev A	
Extension Shelf	870-2378-01 Rev A	870-2378-02 Rev A	Heavy Duty Frame
	870-0776-02 Rev C		Standard Frame
	870-0776-03 Rev D		

**Table 4-2 (Cont.) Hardware Baseline Table**

Component	Part Number	ROHS Number (if applicable)	Required for
	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		870-1872-01 Rev A	
		870-1872-02 Rev A	
E5-ATM-B		870-2972-01 Rev A	
E5-ATM Adapter		830-1342-05	
E5-E1T1	870-1873-02 Rev A	870-1873-03 Rev A	
		870-1873-04 Rev A	
E5-E1T1-B		870-2970-01 Rev A	
E5-ENET	870-2212-02 Rev A	870-2212-03 Rev A	
		870-2212-04 Rev A	
		870-2212-05 Rev A	
E5-ENET-B		870-2971-01 Rev A	
E5-IPSM		870-2877-01 Rev A	
		870-2877-02 Rev A	
E5-MASP		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		870-2900-01 Rev A	
E5-SM4G		870-2860-01 Rev F	
		870-2860-02 Rev A	
E5-SM8G-B		870-2990-01 Rev A	
E5-TSM		870-2943-03 Rev A	

**Table 4-2 (Cont.) Hardware Baseline Table**

Component	Part Number	ROHS Number (if applicable)	Required for
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	
	870-2360-05 Rev A		
	870-2360-06 Rev A	870-2360-08 Rev A	
		870-2360-09 Rev A	
HC-MIM	870-2671-01 Rev P or		
	870-2671-02 Rev B	870-2671-03 Rev A	
HIPR2		870-2872-01 Rev A	
		870-2872-02 Rev C	
SLIC		7094646 7352578	
High-speed Fiber Channel Cable		830-1344-xx	
DC Frame Assembly	890-1843-01 Rev C	890-1843-02 Rev A	
In Heavy Duty Frame	890-1801-01 Rev E	890-1801-02 Rev A	
Kit E1	890-1037-01 Rev A	890-1037-06 Rev A	
Kit, Holdover Clock Assy	890-1013-01 Rev A		
Fan Assy (Standard Frame)	890-1038-01 Rev D		



**Table 4-2 (Cont.) Hardware Baseline Table**

<b>Component</b>	<b>Part Number</b>	<b>ROHS Number (if applicable)</b>	<b>Required for</b>
Fan Assy (Shelves with HC-MIM or EPM-B cards)	890-0001-01 Rev A or		
	890-0001-02 Rev A	890-0001-04 Rev A	



## Upgrade Paths

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

### Upgrade Paths

The possible upgrade paths to EAGLE 46.3 is listed in the following table:

**Table 5-1 EAGLE 46.3 Upgrade Paths**

From	To
EAGLE Release 46.0	EAGLE Release 46.3
EAGLE Release 46.2	EAGLE Release 46.3

### Generic Program Loads (Release 46.3)

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 5-2 GPLs**

GPL SYSTEM NAME	VERSION Build 46.3.0.0.0-68.24.1	VERSION Build 46.3.0.0.1-68.8.27.0	VERSION Build 46.3.0.0.2-68.28.0	VERSION Build 46.3.1.0.0-68.30.1	VERSION Build 46.3.2.0.0-68.32.0
Date Available	June 2016	July 2016	October 2016	March 2017	April 2018
ATMHC	138.22.0	138.27.0	138.28.0	138.29.0	138.32.0
BLDC64	138.23.0	138.27.0	138.28.0	138.30.0	138.31.0
BLIXP	138.22.0	138.22.0	138.28.0	138.29.0	138.31.0
BLMCAP	138.23.0	138.27.0	138.28.0	138.29.0	138.31.0
BLSLC32	138.23.0	138.27.0	138.28.0	138.29.0	138.31.0
DEIR64	138.22.0	138.27.0	138.28.0	138.29.0	138.32.0
DEIRHC	138.22.0	138.27.0	138.28.0	138.29.0	138.32.0
ENUM64	138.22.0	138.27.0	138.28.0	138.29.0	138.32.0
ENUMHC	138.22.0	138.27.0	138.28.0	138.29.0	138.32.0
ERTHC	138.22.0	138.27.0	138.28.0	138.29.0	138.32.0

**Table 5-2 (Cont.) GPLs**

<b>GPL SYSTEM NAME</b>	<b>VERSION Build 46.3.0.0.0-68.24.1</b>	<b>VERSION Build 46.3.0.0.1-68.27.0</b>	<b>VERSION Build 46.3.0.0.2-68.28.0</b>	<b>VERSION Build 46.3.1.0.0-68.30.1</b>	<b>VERSION Build 46.3.2.0.0-68.32.0</b>
<b>Date Available</b>	<b>June 2016</b>	<b>July 2016</b>	<b>October 2016</b>	<b>March 2017</b>	<b>April 2018</b>
GLSHC	138.22.0	138.27.0	138.28.0	138.29.0	<b>138.32.0</b>
HIPR2	138.21.0	138.21.0	138.28.0	138.28.0	138.28.0
IPGHC	138.24.0	138.27.0	138.28.0	138.29.0	<b>138.32.0</b>
IPLHC	138.24.0	138.27.0	138.28.0	138.29.0	<b>138.32.0</b>
IPSG	138.24.0	138.27.0	138.28.0	138.29.0	<b>138.32.0</b>
IPSHC	138.22.0	138.27.0	138.28.0	138.29.0	<b>138.32.0</b>
MCPHC	138.22.0	138.27.0	138.28.0	138.29.0	<b>138.32.0</b>
OAMHC	138.22.0	138.27.0	138.28.0	138.29.0	<b>138.32.0</b>
SCCP64	138.22.0	138.27.0	138.28.0	138.29.0	<b>138.32.0</b>
SCCPHC	138.22.0	138.27.0	138.28.0	138.29.0	<b>138.32.0</b>
SIP64	138.22.0	138.27.0	138.28.0	138.29.0	<b>138.32.0</b>
SIPHC	138.22.0	138.27.0	138.28.0	138.29.0	<b>138.32.0</b>
SLANHC	138.22.0	138.27.0	138.28.0	138.29.0	<b>138.32.0</b>
SS7HC	138.22.0	138.27.0	138.28.0	138.29.0	<b>138.32.0</b>

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## Product Compatibility

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

### Product Compatibility

The following table shows EAGLE 46.3 compatibility with other products.

**Table 6-1 EAGLE 46.3 Compatibility with Other Related Products**

Product	Release	Compatibility
ELAP	<9.0	NC
	9.0	
	10.0	PC
	10.1	FC
EPAP	<15.0	NC
	15.0	PC
	16.0	PC
	16.1	FC
LSMS	<12.0	NC
	12.0	
	13.0	PC
	13.1	
	13.2	FC
OCEEMS	45.0	NC
	46.0	PC
	46.2	
	46.3	FC
FTRA	<4.5	NC
	4.5	FC**
PIC	<9.0	NC
	9.0	PC
	10.0	PC*
	10.1	

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**Note:** Customers should upgrade to the fully compatible release identified in the previous table.

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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
- \* J7 Point Code format is NOT supported on PIC.
- \*\* FTRA 4.5 was tested with JAVA version 1.8.0\_73-b02 installed on Windows 7 & 8, and 1.8.0\_73-b02 installed on UNIX machine.

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## Resolved and Known Bugs

This chapter lists the Resolved and Known Bugs for this release.

These bug 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.

- **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
  1. product inoperability (total or partial outage),
  2. a reduction in the capacity capability, that is, traffic/data handling capability, such that expected loads cannot be handled,
  3. any loss of emergency capability (for example, emergency 911 calls), or
  4. safety hazard or risk of security breach
- **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 lesser immediate or impending effect on product performance, customers and the customer's operation and revenue such as
  1. reduction in product's capacity (but still able to handle the expected load),
  2. any loss of administrative or maintenance visibility of the product and/or diagnostic capability,
  3. repeated degradation of an essential component or function, or

- 4. degradation of the product's ability to provide any required notification of malfunction
- 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
- 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:

- 1 - Critical
- 2 - Major
- 3 - Minor
- 4 - Minor, No Loss of Service

## Resolved Bug Listing

This section lists bugs that are resolved in the following build:

EAGLE 46.3.2.0.0-68.32.0.

EAGLE 46.3.1.0.0-68.30.1.

EAGLE 46.3.0.0.2-68.28.0.

EAGLE 46.3.0.0.1-68.27.0.

EAGLE 46.3.0.0.0-68.24.1.

The Resolved Bugs tables show an impact statement for Severity 1 and 2 Bugs as well as for Severity 3 Bugs that are associated with an SR.

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

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**Table 7-1 EAGLE Release 46.3 Build 46.3.2.0.0-68.32.0 Resolved Bugs (April 2018)**

Bug #	SR	Sev	Title	Customer Impact
25836458		2	Init-flash command not working for BLSLC64	An operator may experience problems when attempting to upgrade BLSLC64 from one release to another. The problem may keep a SLIC card from allowing itself to be flashed and may need to be returned to Oracle for refurbishment.
26662178		2	E5-ATM-B cards cannot connect to IMT bus during loading	Class-B cards installed into an EAGLE frame may fail to get on the IMT bus, even after re-seating the card multiple times.



**Table 7-1 (Cont.) EAGLE Release 46.3 Build 46.3.2.0.0-68.32.0 Resolved Bugs (April 2018)**

Bug #	SR	Sev	Title	Customer Impact
27003338		2	IMT faulttest while HIPR2 card is booting causes EPM-B cards to boot	Issuing the <code>tst-imt</code> command on a system with a HIPR2 card that is not IS-NR can/will cause B-class and SLIC cards to boot. All the cards that boot reside in shelves other than the one containing the HIPR2 that is not IS-NR. It can take up to 90 seconds for the HIPR2 card to become IS-NR.
27257623	Y	2	SR: 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.
27402153		3	Upgrade sets not getting updated for deleted cards	
27509426		3	The zlib library use with EAGLE is dated	
27759420		3	Obits t4b_bm.c Line 445, tk_fpga_imt_Line 1775 & tk_geiTxRxTa Line 1021 observed	
26941119		4	Enable programming of new Flash for SLIC FPGA	
27254088		4	R46.3: SLICv2 BIOS Update	
27509405		4	Module tk_fpga_imt_Line 1939 Class 01b5 out of SLIC cards	

**Table 7-2 EAGLE Release 46.3 Build 46.3.1.0.0-68.30.1 Resolved Bugs (March 2017)**

Bug #	SR	Sev	Title	Customer Impact
24834411	Y	2	SR: R46.3 - "ntp_utl.c Line 1471" sev-1s with 1st 16 bytes (ETS) set to 0	PIC/EMP monitoring on EAGLEs which are not connected to a valid BITS clock are impacted by this bug. The EAGLE is prevented from deriving TSC synchronization from HS clocks. The EAGLE will not alarm this condition when there is a valid HS clock source present.
25470579	Y	2	R46.4_ST:Incorrect ANSI->ITU SCCP Conversion	During GTT domain crossing scenario, data in GTMOD entry provisioned in GTA record is never applied to the MSU. Hence, when crossing between ANSI and ITU domains, SCCP CDPA part is getting converted according to the GTCNV table, even though the GTMOD entry has the NGTI parameter.
25470594		2	The "CGPCACTION" parameter value does not carry through during Upgrade	The "CGPCACTION" parameter values in GTA entries will get reset to default value "dflt" after upgrade. Hence it may cause traffic impact on EAGLEs containing GTA entries with non-default "CGPCACTION" parameter values (if the particular GTA entry is handling specific traffic which requires a non-default "CGPCACTION" value to handle the specific traffic correctly) during upgrade phase 3 and until the GTA entries are set back with appropriate "CGPCACTION" parameter value.
25477833		2	R46.4_ST: Local MPS DB is not consistent, causing card to cold boot	Warm reboot of E5-SM8G-B cards running an old 64-bit bootloader may cause corruption of local MPS DB on card resulting in cold reboot of card. Cards currently running on BLMCAP and converted to using BLDC64 will install this new bootloader and the problem will be resolved. However, cards already running on BLDC64 will not install the new bootloader automatically. After the Upgrade, the operator will have to explicitly perform the bootloader upgrade procedure on the E5-SM8G-B cards of interest.

**Table 7-2 (Cont.) EAGLE Release 46.3 Build 46.3.1.0.0-68.30.1 Resolved Bugs (March 2017)**

Bug #	SR	Sev	Title	Customer Impact
25477733		3	SR: EPMA SM4GB SCCP card IMT Bus=B disconnected with overdrive GTT traffic	

**Table 7-3 EAGLE Release 46.3 Build 46.3.0.0.2-68.28.0 Resolved Bugs (October 2016)**

Bug #	SR	Sev	Title	Customer Impact
24334123		2	HIPR2 - booting when a "A" class LIM holds Flow Control too long	Very high levels of traffic being received by A-Class cards (HC-MIM, E5-SM4G, E5-XXX, that is, all card types running on the BLIXP flash GPL) may cause a lock out condition in the cards that propagates to the HIPR2 cards. The congestion in the HIPR2 ultimately causes both IMT busses to fail, isolating the node. The machine can take 15-20 minutes to recover when such an event occurs.
24425434	Y	3	SR: R46.3 - "TSC CLOCK is Unavail" & Clock failed alarms (UAM 21, 22 or 23)	Customer may need to connect a BITS clock source to the EAGLE as this bug prevents the EAGLE OAM from selecting external HS clock sources as a valid clock source for deriving low speed clocks.
24432174		3	R46.3_ST: false UAM 0437 when Split DB and/or Dual ExAP feature is enabled	
24432233		3	FTRA incorrect header format for RTRV-ASSOC csv file - missing HBTIMER	
24432295	Y	3	SR: FTRA CSV output of rtrv-gta is missing delimiters for CDSSN/CGSSN records	The FTRA CSV output of rtrv-gta is missing delimiters for CDSSN/CGSSN records (rows where SETTYPE = CDSSN or CGSSN), resulting in columns starting with XLAT to appear in the SADDR column. This may cause confusion for the operator as the data is misaligned.

**Table 7-3 (Cont.) EAGLE Release 46.3 Build 46.3.0.0.2-68.28.0 Resolved Bugs (October 2016)**

Bug #	SR	Sev	Title	Customer Impact
24558477	Y	3	SR: R46.3 Copy-disk failures - error writing to table 459/415 on standby TDM	The failure of the copy-disk operation would prevent an operator from creating and/or bringing up-to-date a spare E5-MCAP as the copy-disk operation is the tool to create/update spare E5-MCAPs.
24588264		3	Incorrect HBTIMER parm value displayed in the FTRA CSV generated for rtrv-assoc	
24660236		3	TST-IMT:type=faulttest is unreliable	
24476316		4	R46.2_ST: "tst-imt" command with "type=faulttest" is not working properly	
24676345		4	EAGLE cards with ORACLE part number do not display in rtrv-stp CSV output file	

**Table 7-4 EAGLE Release 46.3 Build 46.3.0.0.1-68.27.0 Resolved Bugs (July 2016)**

Bug #	SR	Sev	Title	Customer Impact
23220750		2	R_46.3_ST:Obsrvd Sev1 mdb_sip.c and SIP cards went into DB-DIFF state	Removing a SIP phone context provisioning from the sip-npp table may cause the database on cards running the SIP64 GPL to go inconsistent. SIP64 cards need to be rebooted to recover. This issue does not impact SIP cards running the SIPHC GPL. The SIP64 GPL is required only for loading MPS data greater than 120 million.
23238221		2	act-upgrade:action=convertstp:force=yes not forcing upgrade to start	The ACT-UPGRADE : ACTION=CONVERT STP : FORCE=YES command may not work in certain conditions. The command ACT-UPGRADE : ACTION=CONVERT STP : FORCE=YES : SRC=FIXED must be used instead.

**Table 7-4 (Cont.) EAGLE Release 46.3 Build 46.3.0.0.1-68.27.0 Resolved Bugs (July 2016)**

Bug #	SR	Sev	Title	Customer Impact
23293718		2	R46.3_SLIC : When Fast Copy is turned ON the SLIC IPSP cards booted	If ENETB/SLIC cards are carrying traffic and links on those cards are being monitored, and if the monitoring mode is switched from STC to FC, a card may boot. Turning on/switching the monitoring mode to FC should be done during maintenance window to avoid any possible service impact.
20158218		3	R46.2: NM reports generated at random intervals	
22518772		3	COMP-LINK measurements may intermittently report incorrect "DURLKOTG"	
22519183		3	Eagle may fail to generate half hourly measurement reports for a meas interval	
23209104		3	R46.3_ST: Sev1 "Module mc5_link.c Line 381 Class 0001" observed every 5 min	
23238256		3	sets upgrade failing to start due to EIR/ENUM/DEIR capacity mismatch	
21931781		4	Upgrade SYSTEM Configuration is not saved across upgrades	

**Table 7-5 EAGLE Release 46.3 Build 46.3.0.0.0-68.24.1 Resolved Bugs (June 2016)**

Bug #	SR	Sev	Title	Customer Impact
22453260		2	CHG-SCR-OPC command takes extended processing time with IGLS feat	The time the command takes to run and complete can exceed an hour and possibly extend to multiple hours before completing, depending on the size of the database.

**Table 7-5 (Cont.) EAGLE Release 46.3 Build 46.3.0.0-68.24.1 Resolved Bugs (June 2016)**

Bug #	SR	Sev	Title	Customer Impact
23287139	Y	2	SR: Incorrect CgPC processing during SCCP conversion when CgPA RI is Route on GT	SCCP conversion feature encodes same CgPA PC value from incoming message to the outgoing message when a SCCP MSU with CgPA RI set to Route-on-GT gets translated to a different network domain than from which it arrived. It may impact some call flows based on how the particular network is treating the CgPC value in such MSUs with CgPA RI set to Route-on-GT.
19085815		3	[205113]Alarm "333 DPC Subsystem Normal" is not occurring when ssn is configured and route comes to allowed from prohibited state	
19092369		3	[220206]Eagle MNP Data Base support for 240M DN	
19098111		3	[224893]The OAM determined that a card failed to load and produces a trouble	
19100830		3	[227063]in phase 3, act-upgrade command attempts to reflash MUX cards if the command is re-entered after failure	
19113193		3	[236684]Point code displayed in CSV file by "csv_rtrv_print_pc" function contains leading blank spaces	
19118387		3	[240733]EPMB class cards (includes E5-OAM and SM8GB) get stuck off IMT bus	
19388261		3	Upgrade cmd terminates with DB Maint. Required error due to DB levels unequal	
19975798		3	*Base Upgrade Support for Eagle s/w release 46.3	
20144008		3	R46.2: Invalid MTT error code <E4606 Cmd Rej: Point code type mismatch>	

**Table 7-5 (Cont.) EAGLE Release 46.3 Build 46.3.0.0-68.24.1 Resolved Bugs (June 2016)**

Bug #	SR	Sev	Title	Customer Impact
20440186		3	MTT 3455 text is out-of-date. E5-ENET/E5-ENET-B cards support 16 links/card	
20463133		3	ent-slk command's ipliml2 parameter should be eliminated	
20535502		3	R46.2_ST: Severity 1 "Module mfctmutl.c Line 1307" on SIP/ENUM/DEIR cards	
20556471		3	R46.2_ST :Obs sev1 Module meau.c Line 3530 Class 0001 Severity 1 on MCPM	
20571270		3	R46.2_ST : Provisioned isolated card do not gets assigned to any sets group	
20640003		3	R46.2_ST:SRVR RESLCTD is not getting pegged in rept-stat-mfc cmd with mode=stats	
20644122		3	R46.2_ST: Incorrect status for inhibited SCCP cards in rept-stat-mfc:mode=act	
20644449		3	R46.2_ST: Severity 1 mfcfctmr.c Line 1891 Class 01c3 on SCCP cards	
20733304	Y	3	SR: R46.2_ST:Part #, Rev, Serial # and Type missing for HIPR2 in rtrv-stp	Will have to manually check cards for this information.
20736513		3	R46.2_ST: remove restriction specified by MTT error code # E4326	
20802492	Y	3	SR: SACK with incorrect chunk length when a SHUTDOWN chunk is appended to it	EAGLE may send a SACK with incorrect chunk length when a SHUTDOWN chunk is appended to it. It is allowed to bundle a SHUTDOWN chunk with a SACK chunk as per RFC 4960, section 9.2. However in such cases, it is observed that Eagle is incorrectly populating the chunk length field of SACK chunk with actual chunk length of SACK chunk + chunk length of SHUTDOWN chunk.

**Table 7-5 (Cont.) EAGLE Release 46.3 Build 46.3.0.0-68.24.1 Resolved Bugs (June 2016)**

Bug #	SR	Sev	Title	Customer Impact
20814163		3	R46.2_ST: Assigned card again becomes unassigned card in upgrade type as set	
20814251		3	R46.2_ST: Deleted card which was part of sets upgrade fails the set upgrade	
21025905		3	Assoc on card goes OOS & Card not responding to PASS cmd for HB_ACK & ABORT MSG	
21038737		3	R46.2_ST:Sev1 Module "mfc_snif.c Line 549 Class 01d0" on E5OAM and SCCP card	
21055845		3	MTT E3237 text should be updated	
21073477		3	IPSG card booted with restart.c while executing pass:cmd="sctp -r-l xxx":loc=xxx	
21177864		3	R46.2_ST:Severity 1 mrs_mgr.cpp on OAM card , when e1180801 connected to E5-MS	
21297486		3	R46.2_ST:IPGW ENET-B card shows type=E5ENETB in rept-stat-card output	
21343768		3	R46.2_ST:Obvd Obit <Module ath_vxw_mgr. Line 1860 Class 01c3> on IPSG LIM	
21555524		3	Table Conversion for IPDCMPS converts entries when upgrade from invalid release	
21783050		3	Non MBR settypes will be referred by MBR settypes via optsn, cgselid and cdselid	



**Table 7-5 (Cont.) EAGLE Release 46.3 Build 46.3.0.0-68.24.1 Resolved Bugs (June 2016)**

Bug #	SR	Sev	Title	Customer Impact
21937204	Y	3	SR: S13/S13' Interface responds with incorrect error	According to the 3GPP spec TS 29.272, if a matching entry for the IMEI in the check request is not found, the response/answer should contain the Experimental Result AVP with unknown equipment error (see table 6.2.1.1). The EAGLE's implementation contains a Result Code AVP, and thus does not match the protocol's requirement.
22457167		3	Random Incomplete intervals(status = I) reported in measurement reports.	
22482887		3	Post upgrade PVALUE for PARAM other than 1 is getting reset to 0 in RTRV-UAPS.	
22519380		3	EAGLE fails to peg "MTCEUSG" for a OOS-MT-DSBLD link after a card reset	
22782625		3	Sigtran IPSP application on SLIC card	
22916222		3	Doc Bug: UAM 631 description and UAM 632 balancing matrix need to be updated	
19083516		4	[165035]Expand the TRBLTX table UIMs to have a range of 1000-1999	
19089505		4	[217853]UIM 1246 needs to be enhanced to display DN from TCAP layer	
19090467		4	[218690]R45.UpgEnhance.004: implement Flashing Enhancements into Network Conversion Phase 3	
19095134		4	[222397]Service and Link Interface Card (SLIC)	
19096216		4	[223309]MTP routed SCCP processing - Don't replace OPC with SecondaryPC for MTP-routed MSUs	

**Table 7-5 (Cont.) EAGLE Release 46.3 Build 46.3.0.0-68.24.1 Resolved Bugs (June 2016)**

Bug #	SR	Sev	Title	Customer Impact
19100388		4	[226715]Upgrade Enhancement: Add check that prevents copying Target GPLs to Source GPLs when versions are equal	
19116044		4	[238889]INH/ALW card enhancement	
19116133		4	[238946]Remove dact-cmd	
19120271		4	[242248]R46.0: Cards unassigned to any card set should be flagged to the operator when upgrading with threshold type=SET	
19529870		4	Trouble Text is misaligned/incorrect in output of REPT-STAT-TRBL	
19715492		4	Increase LNP DB Capacity (504M)	
19828586		4	R46.1_ST:Module iplk_utl.c Line 1435 Class 01c3 Severity 1 during upgrade	
19831597		4	Miscellaneous error messages observed on sanity station	
20001516	Y	4	Eagle R46.0: gpla_oamhc.c Line 201 sev-1s from E5-OAM	When code is starting up after reset of OAM, the audit process may start before the OAM is ready. The audit process will reset and continue when the OAM is ready.
20216769		4	Update VxWorks 6.9 32 bit environment to version 6.9.4.1	
20227368	Y	4	Doc bug-UAMs for which "informational(2)" sev to be expected in E5OAM SNMP traps	The product documentation currently lacks an explanation of what is an "informational" message or the effect that one of those messages may have on the total alarm count.
20325001		4	Remove EAGLE FAK control	

**Table 7-5 (Cont.) EAGLE Release 46.3 Build 46.3.0.0-68.24.1 Resolved Bugs (June 2016)**

Bug #	SR	Sev	Title	Customer Impact
20353279		4	IMT LVL1 Stats - Missing the count in the MUX column for rx hw flow control	
20422727		4	[238801]EAGLE - Obsolete OAM Measurements	
20524954		4	rept-stat-mfc:mode=act STATUS column is incomplete, misleading	
20553830		4	R46.2_ST:Rept-stat-iptps displays wrong Peak TPS for linkset associated with J7 PC	
20591141		4	R46.2_ST: Sev 1 "imte_lvl.c Line 1446 Class 01b4" on IMT stats verification	
20644136		4	R46.2_ST: TVG should not be displayed in rept-stat-card:mode=full:loc=<> output	
20669905		4	R46.2_ST:sum of major and critical alarm displayed wrong in REPT-STAT-ALM cmd	
20710766		4	rept-stat-card:appl=oam during upgrade phase 0 is not displaying the GPL name	
20883755	Y	4	SR: Rtrv-stp displays wrong part number for E5-APP-B cards	This card is not on the IMT bus, so the OAM does not have a way to verify the exact part number. The power consumption for the different E5-APP-B configurations is the same. The only impact is the exact part number (and SSD capacity) has to be verified either manually or by directly accessing the E5-APP-B card.
21056314		4	BTREE rebalancing during upgrade occurs in Phase 0 and Phase 2	
21235707		4	rtrv-vendid text displayed in the end incorrect	
21279510		4	SIP FD007616 version 7.1 updates need to be incorporated into Feature Manual	

**Table 7-5 (Cont.) EAGLE Release 46.3 Build 46.3.0.0-68.24.1 Resolved Bugs (June 2016)**

Bug #	SR	Sev	Title	Customer Impact
21351377		4	SIP response message from Eagle is malformed in response to INVITE msg	
21837886		4	SS7 Firewall on EAGLE	
21837905		4	SMS-MO Blocking SCCP Spoofing	
21840312	Y	4	SR: rept-stat-iptps:history=yes prints incorrect AVG RTT values for links	Customer may think RTT is higher than it really is because the RTT average is a cumulative of the lower ports.
21921032		4	AIN LNP feature enhancements to support additional conditioning actions	
21931781		4	Upgrade Configuration is not saved across upgrades	
21931822		4	LNP Ported LRNs approaching Feat. Cap. alarm is toggling every 30 seconds	
21984987		4	Valid set list check stops upgrade in phase 2.	
22027563		4	Update the EAGLE Hardware manual with Telco LAN switch part number	
22128374	Y	4	SR: LIME1 on E5-E1T1-B card return invalid BIP data after a warm reboot	The <code>rtrv-bip</code> command on an E5-E1T1-B card configured as LIME1 will display invalid BIP data ("Board ID Prom retrieve failure: prom data undefined") after a warm reboot ( <code>init-card</code> or <code>inh-card/alw-card</code> ). However the card will again display valid BIP data after a physical re-seat of the card.
22254028		4	Update EAGLE Cust Doc to capture the flow control setting of terminal port.	
22370985		4	Document specifications for third party Ohm Converters used with EAGLE	
22387273		4	Commands User's Guide updates for <code>init-card</code> command	

**Table 7-5 (Cont.) EAGLE Release 46.3 Build 46.3.0.0-68.24.1 Resolved Bugs (June 2016)**

Bug #	SR	Sev	Title	Customer Impact
22387345		4	Commands User's Guide updates for rtrv-srvsel command	
22456016	Y	4	SR: Invalid linkset Peak TPS values after EAGLE R46.2 upgrade	The <code>rept-stat-iptps</code> command may display incorrect values for "Peak TPS count" and "Peak TPS Timestamp" after Upgrade and must be reset. Run the command <code>rept-stat-iptps:peakreset=yes</code> to clear the registers once after upgrade and after that the values displayed will be correct.
22589122		4	HW Manual states wrong frame part number in 40amp/60amp section	
22606509		4	Update EAGLE cust docs with T32 timer explanation	
22628063		4	Link oscillation timer handling options for ITU linksets	
22673917		4	GTT User's Guide correction for Unique GTT Selector feature description	
22852407		4	IMT Lvl1 Stats for MSU ROE/Mux Cong BSU Disc output wraps on screen	
22932486		4	Update EAGLE cust doc with manual change of date and time after power reset	
22960187		4	Installation Manual-Cable/Adapter Table Errors for E1/T1 cables	
23048198		4	HW Reference: Hardware Baseline EAGLE Release 43.0 Through 46.2 Table updates	
23144305		4	Update EAGLE Cust Doc to capture the flow control setting of terminal port.	
23237201		4	Disallow user from turning on GBSUs	

## Customer Known Bug Listing

The following table lists known bugs in this release:

**Table 7-6 EAGLE Release 46.3 Customer Known Bugs (April 2018)**

Bug #	SR	Sev	Title	Customer Impact
19100102		2	[226479]MSU loss during changeover due to Inter-EAGLE Links' remote link failure	If there are multiple link failures in a link set at the same time, it may be possible to lose some traffic.
21856737		2	R46.2_ST2:Both IMTs up, we keep getting HIPR2 boots in an oversubscribed EROUTE.	In extreme cases of oversubscription of EROUTE cards it is possible for the HIPR2 cards to boot. If a HIPR2 card fails on both buses the system will be isolated.Mitigation: Distribute EROUTE cards widely within the system to ensure there is enough capacity for all cards being monitored. Work around: In the unexpected event of oversubscription to EROUTE, disable the SCOPY function from LIM cards.
21953431		2	SLIC and EPMB - card boots when killing the B imt bus	In extreme traffic conditions when one IMT fails the cards may boot.
22604437		2	R_46.3: SM8G-B stay isolated & not get back on IMT (BIOS NMI)	An E5-SM8G-B card running the BLDC64 flash GPL may get stuck off the IMT bus. Both IMT LEDs on the card remain off with the APPL Proc status LED red. The card needs to be power cycled to recover.
22610714		2	System capacity issue - when running 400K tps IMT VC drop	While system is running under heavy load (400K GTT TPS), loss/drop of the VC and/or discards in the HIPR2 can result in message loss between the client LIM card and the server SCCP card.
19081572		3	[56325]SCTP association allows connection from network != RHOST	SCTP clients can attach to Eagle SCTP servers as long as one of the IP addresses in the SCTP INIT message matches the provisioned RHOST.
19081970		3	[108435]Multihomed M3UA assoc is dropped due to cable pull in low traffic	At very low uni-directional traffic rates, multi-homed associations may be dropped if the RTIMES/RMIN parameters are not tuned properly.

**Table 7-6 (Cont.) EAGLE Release 46.3 Customer Known Bugs (April 2018)**

<b>Bug #</b>	<b>SR</b>	<b>Sev</b>	<b>Title</b>	<b>Customer Impact</b>
19082 243	Y	3	[120158]listing order of a combined linkset cannot be manipulated	Customer will have to delete all provisioning in the system and then re-add the data back in the order that they would like it listed in the route table. The current behavior may not allow the customer to groom their network for load sharing without a great deal of re-provisioning.
19108 981		3	[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.
19111 738		3	[230876]SLAN card boots when overloaded; Module pmtc_mgr.c Line 521 Class 0240	In extreme overload conditions it is possible for the SLAN card to boot. This is due to a traffic burst in the range of milliseconds.
19115 839		3	[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.
19119 477		3	[241658]HIPR2 - fibre channel bottle neck with large packets	This condition has only been observed with lab tool testing. However it may be possible in extreme load conditions when using features like BICC or STC copy to cause an IMT bus to fail.
19120 067		3	[242097]Traffic loss when running 4650 TU IPSP 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.
19120 373		3	[242319]Observed trouble: Module mfctmutl.c Line 1239 Class 01c3 Severity 1	This is an indication that the timer to ensure the card is not stuck in MFC flow control has expired. No action is required by the customer as the system has self-corrected.
19295 079		3	Database Admin - IP7 User's Guide Needs Updated Flowcharts	The Database Administration - IP7 User's Guide, Chapter 6, has IPSP M2PA and IPSP M3UA flowcharts that do not address the Max TPS values supported by card types.
20520 928		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.

**Table 7-6 (Cont.) EAGLE Release 46.3 Customer Known Bugs (April 2018)**

<b>Bug #</b>	<b>SR</b>	<b>Se v</b>	<b>Title</b>	<b>Customer Impact</b>
20565 766		3	R46.2_ST: Severity 1 "xsvf_ports.c Line 519 Class 0001" after incr upgrade	As part of the card starting up, OAM detected a failure programming the MASP's terminal processor. However there is not actually an issue and the terminal process is working correctly.
20695 351		3	Update "REMOVABLE CARTRIDGE" text in output text for several commands	No operational impact.
20735 493		3	R46.2_ST:E5-OAM boots with obit restart.c Line 1305 during pre-upgrade flash	Infrequently the OAM may boot twice after attempting to update the flash on the card. This will cause the flash to not be updated and it will have to be done again.
20765 541		3	HIPR2 severity errors not displaying correct data output	In some cases the HIPR2 data displayed with trouble is incorrect. No impact to customer as it is not readable by the customer.
20905 738		3	R46.2_ST: Obit <Module ath_vxw_mgr. Line 1860 Class 01c3> on active OAM.	The OAM card double boots and recovers automatically. Note: If the problem was observed just after the flash image is updated, the flash image would be lost and the card would need to be re-flashed.
20921 994		3	COPY-MEAS command is not rejected on when MEAS removable is not present.	If COPY-MEAS command is executed without inserting a removable, Command silently gets rejected by EAGLE. EAGLE does not report the command execution status to the user.
21105 952		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.
21106 241		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.



**Table 7-6 (Cont.) EAGLE Release 46.3 Customer Known Bugs (April 2018)**

<b>Bug #</b>	<b>SR</b>	<b>Se v</b>	<b>Title</b>	<b>Customer Impact</b>
21154 415		3	R46.2_ST:Copy disk command completes with DMS errors.	The command completes correctly with no impact. The rare occurrence of these false error messages during the copy-disk execution may confuse the operator. The operator needs to ignore the error message if the command completes with the "Copy-disk (fixed): from active (111x) to standby (111x) complete" message and the rept-stat-db command reports DATABASE STATUS "OK" with DB status coherent/consistent on the disk just repaired.
21225 658		3	Oracle Licensing tool doesn't allow for temporarily enabled FAKs	The use of temporary FAKs is no longer possible in the EAGLE. However operator messages which still refer to temporary FAKs may confuse operator. Otherwise there is no other impact.
21235 242		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.
21318 756		3	R46.3_OAM:SYSTOT-STP UI report displays MASYSAL register value as incorrect.	The number of Major Alarms existing in the machine will be incorrectly reported in the MASYSAL register of the SYSTOT-STP measurements reports. The output of commands rept-stat-alm and rept-stat-trbl may also be wrong, and/or differ in the counts they display.
21494 813		3	R46.2_ST:CARDS DENIED SCCP SERVICE, MFC say no service request denied for client	Some confusion as cards are not really denied service.

**Table 7-6 (Cont.) EAGLE Release 46.3 Customer Known Bugs (April 2018)**

Bug #	SR	Sev	Title	Customer Impact
21645 956		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.
21780 264		3	R46.2_ST2:MUX congestion discards getting reported as zero in summary, incorrect	MUX congestion discards are not being correctly pegged in rept-imt-lvl1.
21837 435		3	R46.2_ST2:UAM 0152 LIM(s) have been denied STPLAN service before card capacity.	This is a result of an overload condition. The card may not be able to handle the capacity until the TCP socket catches up due to the previous overload.
21856 705		3	R46.2_ST2:System boots, when SCCP capacity oversubscribed with one IMT up.	If the SCCP subsystem is oversubscribed and one IMT is down, the system may boot.
21962 592		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.
22119 878		3	SCM function makes blocking function call to a DBCD read function.	It is possible in some cases in upgrade a command could be blocked for operating when it should not be.
22125 637		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.
22145 555		3	Healthcheck command changes the output groups for the command terminal	The Debug output group on the commands terminal needs to be turned back on (chg-trm:trm=xx:dbg=yes), if desired, after the healthcheck command has been issued.
22341 968		3	ent/rtrv-slk command: MTT 3405 is out of date	No customer impact. Commands Error Recovery Manual already has a note under E3405 which indicates the current behavior.
22511 972		3	Sev 1 <Module tk_fpga_imt_Line 1751 Class 01b5>	No customer impact.
22537 597		3	The csv file generated for rtrv-card command showing GPSM as card type for OAM	The GPSM designation is obsolete and the operator may not realize that it refers to the OAM card.

**Table 7-6 (Cont.) EAGLE Release 46.3 Customer Known Bugs (April 2018)**

<b>Bug #</b>	<b>SR</b>	<b>Sev</b>	<b>Title</b>	<b>Customer Impact</b>
22565 429		3	Module gtt_obsr.c Line 2448 Class 01b4 Severity 1 raised.	EAGLE may generate a severity 1 message during successful execution of dlt-gttssel command. No service impact.
22566 705		3	R_46.3_SLC:Obs Module tks_md.c Line 2923 Class 01d4 Severity 2 on SCCP cards	When SCCP cards running at 13.6K throughput are loaded 100%, and if there is link congestion, the SCCP cards may discard traffic silently (only the severity 2 is printed).
22576 116		3	Unable to change password at login if standby MASP is in reboot loop	If a password expires and the standby MASP is not stable (for example, the standby MASP is booting over and over), then the user needs to unseat the standby MASP and allow the EAGLE OAM to enter simplex mode to change the password.
22604 474		3	VxWorks6.9: JTAG programming of tp_top1.xsvf fails on E5-MASP cards	When this problem occurs, as the OAM has booted and is recovering, the OAM's terminal processor does not start. The OAM may reboot to recover.
22630 321		3	IPSG card boots without OBIT when last ERTHC card removed	IPSG cards with E5IS Active in EAGLE may boot if all EROUTE cards in the EAGLE are removed.
22638 625		3	enable-ctrl-feat 893-0191-04 needs to enforce that only B series cards supported	E5 B series cards in EAGLE is a minimum requirement for turning on 13.6K SCCP Throughput Feature. It is not recommended to turn on the feature when older cards like E5 A series cards are present in EAGLE. Customer needs to manually verify this prerequisite before turning on the feature.
22658 288		3	LIM cards hang when reset (they recover in time with watchdog)	This may rarely occur when an EPMB or SLIC boots (no impact during normal operation). Card self-recovers with the hardware watchdog. However if this occurs on a card during upgrade (flashing cycle), then the card will have to be updated/flashed manually.
22754 653		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.

**Table 7-6 (Cont.) EAGLE Release 46.3 Customer Known Bugs (April 2018)**

Bug #	SR	Sev	Title	Customer Impact
22844 195		3	R46.3_SLIC : Non-Configured LEDs are turned ON on SLIC IPSPG card	The LEDs for Fast Copy Ethernet ports will light red instead of remaining off when FC Mode is not configured for the card.
22894 981	Y	3	SR: Users can use the SEAS terminal and execute Security Admin class commands	It is possible to issue administrative commands through the SEAS terminals, which according to the SEAS specification should not be allowed. However SEAS terminal operates within a secured customer environment.
22901 429		3	HIPR2 - IMT lv11 FC CRC errors are not being reported	The rept-imt-lv11 report does not display some error counts. These error counts however can be found in the rept-imt-info report.
22901 479		3	HIPR2 - When running 12 hour runs we are getting inv lv12 len counts	The IMT may register invalid length packets that normally the machine will discard. When the invalid length packets include MSUs, these messages are re-transmitted. However, many packets are only best-effort delivery only and the invalid length may indicate that the IMT has lost some packets.
22987 727		3	R46.3_ST:Incorrect SCCP status displayed in rept-stat-sccp:data=elap:mode=perf	Rept-stat-sccp:mode=perf:data=elap command output on an EAGLE running ELAP feature may display bogus UAM 0437 ("System SCCP TPS Capacity Exceeded"), when traffic running is below the system SCCP TPS capacity. However the rept-stat-sccp:mode=perf command will not report the bogus UAM. Similarly the node under the same scenario may report bogus UAM 0336 ("0336 LIM(s) have been denied SCCP service") in rept-stat-sccp:mode=perf:data=elap command output, whereas the UAM will not be displayed under rept-stat-sccp:mode=perf and rept-stat-sccp output. These bogus alarms are observed only when system is running above 50% of total system SCCP ELAP TPS capacity, which is not expected.

**Table 7-6 (Cont.) EAGLE Release 46.3 Customer Known Bugs (April 2018)**

Bug #	SR	Sev	Title	Customer Impact
23031 432		3	R_46.3_ST:RTDB DB got corrupted on SCCP/SIP/ENUM/DEIR during incrmntl upg ph3	The SM cards' DB will be marked corrupted after the incremental upgrade. The RTDB corruption reported by the MPS Audit seems to be a false alarm with no traffic impact. A work-around is to cold-boot the SM cards post-upgrade.
23061 790		3	CHKREL command output is not displaying upgrade target release information	The command does not display the target release information as it should and used to. The operator will not count on feedback from the OAM to confirm the target release version.
23142 994		3	Pass command "netstat -d 0" showing all parameters values as 0 for SCCP64	No customer impact. The information printed by the "netstat -d" pass command on SCCP64 GPL are mainly for Oracle debugging purpose only.
23153 497		3	OAM should reject "convert" command for SLIC cards	The "convert" option in the init-flash command does not apply and does not need to apply to SLIC cards. The command fails if the operation is attempted on SLIC cards, with no harm done.
23168 730		3	tklcsens.c line 5186: Sev 1 on OAM, SLAN and IPSM card init	No impact other than the severity 1 trouble message during card loading. This is due to the second IP interface not being provisioned on the card. The normal configuration is to provision both IP interfaces (to provide IP network redundancy).
23206 546	Y	3	SR: FTRA incorrect header format for RTRV-ASSOC csv file - missing HBTIMER	The rtrv-assoc FTRA report is missing the HBTIMER column header and therefore the columns of data after RHOSTVAL are misaligned with their titles.
23215 451		3	Card 5318 Module smbus.c Line 548 Class 01c3 Severity 1	May generate a severity-1 error message when the card boots and comes back up with no other service impact.

**Table 7-6 (Cont.) EAGLE Release 46.3 Customer Known Bugs (April 2018)**

Bug #	SR	Sev	Title	Customer Impact
23233727		3	DURLKOTG (link outage)counter starts only after the card became active	The customer may fail to understand the reason for MEAS reports tagging the reports as 'I -- Incomplete. The OAM tags reports as Incomplete when a card within the scope of the report has not been in service anytime of the reports' period, and therefore the card is not able to provide all the MEAS data. Thus the missing data causes the report to be Incomplete.
23267656		3	R46.3_SLIC :Card 3314 Module ath_vxw_mgr. Line 1861 Class 01c3	The card may double-boot while it is loading and will self-recover. No other impact.
19661322		4	Incorrect display of DN in Eagle trace for GPort Service	No customer impact as this is debug command.
20255043		4	R46.2_ENUM:UDP connection stays UP on breaking ethernet connectivity with port B	UDP state is artificial as there is no concept of a session on UDP. There may be minor confusion as the Ethernet is down. The UDP stays up until it hits a fault.
20267869		4	R46.2_ENUM:Severity1 jtag_com.c observed on enum cards	No impact on operation. Trouble should not be displayed.
20345145		4	Incorrect mtt for S/N string format for EAGLE	It may not be immediately obvious from the error message what the user entered incorrectly.
20518496		4	R46.2_ST: "tst-imt" command with "type=faulttest" is not working properly.	On some very specific setups tst-imt may give false errors.
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.

**Table 7-6 (Cont.) EAGLE Release 46.3 Customer Known Bugs (April 2018)**

Bug #	SR	Sev	Title	Customer Impact
20973 465		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.
21092 534		4	CHG-ENUMOPTS Error Message: CNGLVL1/2 should be CONGLVL1/2	No customer impact.
21092 771		4	Password Requirements are output after password is updated successfully	No operational impact.
21194 733		4	HIPR2 - Transmit logic does not drop/report packets when larger than supported	No known Impact.
21219 386		4	E5-OAM produces trouble Module tpm_prx.c Line 1021 Class 0001	The trouble display appears only on particular invalid key input by user. No operational impact.
21228 596		4	R46.2_ST: Severity 1 "pmtc_mgr.c Line 938" observed during incremental upgrade.	The trouble indicates the card lost messages to another card. As the upgrade is taking cards out of service this could happen.
21516 032		4	output of rept-imt-lvl1 command the "High Speed Error Summary" is always ZERO	Display problem only. The HIPR2 high speed error summary is not displayed by the rept-imt-lvl1 command. Operator may need to run the rept-imt-info command to see the HIPR2 high speed error summary.
21953 882		4	Investigate SLIC bootup time	No customer impact. Bootup time for SLIC card currently is same as EPM-B card.
22012 383		4	When Flash Download fails, output wraps for checksums mismatch error.	No operational impact. The visual appearance of the error message however is unpleasant to the operator.
22137 388		4	Pass command "sctp -a <assoc name>" prints a "UNKNOWN" peg counter	No customer impact as this is primarily a debug command.
22254 242		4	Remove HW & BOTH from FC parameter's range of values for chg-trm command	If E5-MASP hardware is used, then a value of hw or both cannot be specified for the fc parameter as documented in the commands error recovery manual.
22322 332		4	R_46.3:IPSG_SLC: Non Ipsg cards are coming up in to ipsg card slot.	E1T1 card installed into a slot provisioned for IPSG will not get auto-inhibited. No other impact.

**Table 7-6 (Cont.) EAGLE Release 46.3 Customer Known Bugs (April 2018)**

Bug #	SR	Sev	Title	Customer Impact
22365 430		4	IPSG SLK and Card level congestion thresholds not set correctly for ENET-B card	With high network latency, links hosted by ENETB cards may congest prematurely when the IPSG High Thruput feature is enabled and links are nearing full capacity.
22387 101		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.
22488 136	Y	4	SR: pass command "sctp -l aname" prints event log for all associations on card.	This is just a display issue with no other impact. User needs to ignore the additional events printed by the pass command, which are not related to the concerned association.
22519 396		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.
22567 858		4	HIPR2 - HIPR2 HW does not appear to detect all error packets	No known impact. Error packets normally get discarded by destination card.
22575 564		4	SLIC - received TSU packets are placed on the High Priority Q	No known impact.
22628 352		4	R_46.3:Error counts for <MSU ROE/ MUX Cong BSU Disc> are miss-aligned in display	Minor display issue. The REPT-IMT-LVL1 command output may display a few stat counts misaligned on the screen.
22629 228		4	R_46.3:IPSG_SLC:Rept-stat-iptps:tpscost=yes:loc=xyz is Rej with incorrect MTT	The command error E2212 produced for IPGW location might confuse the operator. However customer documentation captures that the loc parameter with rept-stat-iptps commands is valid only for IPSG card location.
22649 495		4	Upgrade: conversion function for generic entry-size function need DB ver index	No customer impact.
22743 040		4	SS7FIREWALL: tst-msg report is not changing with mode definition.	mode=debug, mode=full, and mode=brief generate the same detailed report for tst-msg:feat=gtt. Report output will not change with mode parameter value specified.



**Table 7-6 (Cont.) EAGLE Release 46.3 Customer Known Bugs (April 2018)**

Bug #	SR	Sev	Title	Customer Impact
22746 181		4	R46.3_ST:Severity1 in UPG_DRMS.C observed on OAMs during intra upgrade	No customer impact. The trouble results from an apparent race condition occurring while the OAM is still initializing after the MASP has booted.
22906 620		4	UIM number 1499 needs to be changed as 1999 in UIM guide	The extended UIM range for future use, displayed by rtrv-trbltx command may confuse operator. Commands like rtrv-log and xxxx-uim-acthresh will not work on the extended UIM range from 1500 thru 1999. However there is no service impact as currently no UIM exist in the extended range.
22915 773		4	E5-ATM Card Does Not Auto-Inhibit if Slot is Configured for SS7 GPL	No traffic impact though ATM card boots repeatedly if inserted into a slot provisioned for an E1T1 card. Customer documentation captures steps for verifying the slot configuration before adding a card.
22917 481		4	amc_update_timers in scm_amc need to updated correctly for SCCP_ISNR case	The DURINTFL counter may not correctly peg duration for which all equipped SCCP cards remained down in the system.
22993 005		4	Loss of MEAS SS if MCPM to OAM Integrated Measurement is not done correctly	If the correct procedure to migrate from the Measurements Platform to OAM Integrated Measurements in the customer documentation is not followed, the machine may end up with both PLATFORMENABLE and OAMHCMEAS being "on" in MEASOPTS table, and the conflict may result in loss of measurements.
23184 333		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".
23226 609		4	GWS: Misleading warning Message When Bind takes a Long Time	The warning message displayed by the chg-scr-xxx commands may confuse the operator. When all of the screen sets are at 90% capacity or more, the chg-scr-xxx commands may take much more time (more than 30 minutes) than actually indicated by the warning message.
23267 812		4	SLIC Module pmtc_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.

**Table 7-6 (Cont.) EAGLE Release 46.3 Customer Known Bugs (April 2018)**

<b>Bug #</b>	<b>SR</b>	<b>Se v</b>	<b>Title</b>	<b>Customer Impact</b>
23284 464		4	DEIR, SIP, & ENUM cards should report max TPS capacity in maintenance block	No known impact. System uses hard-coded values to calculate TPS capacity of DEIR, ENUM, and SIP cards during upgrade.
23302 492		4	Update Commands Manual regarding 13.6Kbps SM8GB	Customer may not realize that there are additional recommendations for the 13.6K TPS feature. These are listed here for reference:13.6K TPS/E5-SM8GB requires the following throughout a node:-HIPR2 (>400K SCCP TPS requires HIPR2 High Rate Mode)- B cards or SLIC (E5-E1T1 is compatible with the feature, but E5-E1T1-B is recommended).
23316 323		4	Card set list capacity for DEIR/ENUM/SIP should use Max TPS from Maint Block	No known impact. System uses hard-coded values to calculate TPS capacity of DEIR, ENUM, and SIP cards during upgrade.

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# Oracle References and Services

## My Oracle Support

My Oracle Support is your initial point of contact for all product support and training needs. A representative at Customer Care Center can assist you with My Oracle Support registration.

Call the My Oracle Support 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 My Oracle Support registration and opening a support ticket.

My Oracle Support is available 24 hours a day, 7 days a week, 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 that 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.

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- In Canada, dial 866-825-9790.
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## Locate Product Documentation on the Oracle Help Center Site

Oracle Communications customer documentation is available on the web at the Oracle Help Center 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 opens. Policy Management is listed in the Network Session Delivery and Control Infrastructure section.

4. Click **Policy Management** and then the release number.

A list of the documentation set for the release displays.

5. To download a document, click  (download icon) and then click **PDF**.

## Locate Product Release Software on the Oracle Software Delivery Cloud Site

software is available for download on the Oracle Software Delivery Cloud site, <https://edelivery.oracle.com>. Only authorized customers with a valid password may download software from the site.

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