

**Oracle Communications**  
**EAGLE**

Feature Notice

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# Chapter 1

## EAGLE Release 46.0

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## Feature Content

### Introduction

Feature notices are distributed to customers with each new release of software.

This Feature Notice includes a brief description of each feature, lists new hardware required, provides the hardware baseline for this release, and explains how to find the Release Notice and other customer documentation on the Oracle Technology Network (OTN). For comprehensive information about all EAGLE commands, refer to *Commands User's Guide*.

### New and Enhanced Features

- *120 SE-HSL Support*
- *AIN LNP Message Support*
- *Configurable SCTP Heartbeat Timer*
- *E5-E1T1-B Increased Throughput*
- *Eagle Eyes OAM Friendly Commands*
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- *RTDB Download Enhancement*
- *SIP Application - FAX and MODEM URI Support and Configurable Thresholds*
- *SIP Stack Improvements*
- *TOS Field Marked in Outgoing Packets*

### Other Changes

- *Base Upgrade for Eagle Release 46.0*
- *Card Reset when TSU Self-detect Errors Occur*
- *Consistent Abnormal alarms for SCCP Service Subsystem Cards*
- *E5-NET Card Boots on Module `pmtc_mgr.c` at 100% of System Total SCCP Capacity*



- *HIPR2 - MFC Byte Counts Corrupted by Extended BERT Test*
- *IMTPCI Level 1 Statistics - Count Increment*
- *Missing User Interface Messages for E5-OAM*
- *MMI Terminal - Hourly Reports*
- *Severity of XXXX capacity normal, card(s) abnormal Alarms*
- *SLAN Server Card Booted with Obbit Module when Overloaded*
- *UAM 329 Severity and Cause*

#### **Operational Changes**

- *Unsolicited Alarm Messages*
- *Unsolicited Information Messages*
- *Error Messages*

## **120 SE-HSL Support**

The 120 SE-HSL Support feature increases the maximum SE-High Speed Link support from 80 to 120 per EAGLE node. The following Feature Access Keys (FAKs) are used to support the increased number. Refer to *Commands User's Guide* for a detailed description.

- 893013012 :SE-HSL SLK Capacity :QTY=88
- 893013013 :SE-HSL SLK Capacity :QTY=96
- 893013014 :SE-HSL SLK Capacity :QTY=104
- 893013015 :SE-HSL SLK Capacity :QTY=112
- 893013016 :SE-HSL SLK Capacity :QTY=120

## **AIN LNP Message Support**

The AIN LNP Message Support feature extends support of a Local Number Portability feature to allow processing AIN messages using a Mobile Number Portability database. The AIN message types are managed using a Query/Response architecture.

### **Commands**

The following commands are updated for AIN LNP Message Support feature:

- `chg-map` - The maximum number of entries for ITU-I point codes increases from 3 to 4 with the addition of AIN INP message support. For the INP subsystem, the True Point code cannot be an ITU-I point code.
- `chg-srvsel` - The `gtia` and `gti` parameters can be specified when the `nserv` parameter has a value of `inpq`.

- `ent-map` – The maximum number of entries for ITU-I point codes increases from 3 to 4 with the addition of AIN INP message support. For the INP subsystem, the True Point code cannot be an ITU-I point code.
- `ent-srvsel` – The `gtia` and `gti` parameters can be specified when the `nserv` parameter has a value of `inpq`.
- `ent-ss-appl` – For the INP subsystem, the True Point code cannot be an ITU-I point code.

## Configurable SCTP Heartbeat Timer

The SCTP HeartBeat Timer is configurable on a per association basis. The timer value is configurable from 500 milliseconds to 3000 milliseconds.

### Commands

The `chg-assoc` command is enhanced to provision the `hbtimer` (Heartbeat timer) parameter. The `hbtimer` parameter value range is 500 to 10000 milliseconds. The default value is 500 milliseconds. The `rtrv-assoc` command output is updated to display the `hbtimer` parameter value in milliseconds.

## E5-E1T1-B Increased Throughput

The E5-E1T1-B Increased Throughput increases the number of supported low speed links per E5-E1T1-B card from 34 to 64.

### Commands

The `ent-slk` command is enhanced to include the E5-E1T1-B card.

## Eagle Eyes OAM Friendly Commands

The Eagle Eyes OAM Friendly Commands feature allows users to configure and perform Eagle Eyes traffic captures using OAM commands.

### Commands

The following commands are enhanced to configure and perform Eagle Eyes traffic captures:

- `act-gedti` – The `loc` parameter error changed from *Invalid card location* to *Card location is unequipped*.
- `chg-ee-card` – The `thr` parameter minimum range value is increased from 0 to 1000.
- `dact-ee` – Cards running the ERTHC GPL are valid for the `loc` parameter.

- `dact-gedti` - The `loc` parameter error changed from *Invalid card location* to *Card location is unequipped*.
- `ent-ee-flt` - A new parameter `mtp3si` (Filter MTP3 user) is added.
- `rept-stat-ee` - The command outputs are updated with *Active* and *Inactive* states.
- `rtrv-ee-card` - The command output for EAGLE Eyes configured Network Cards is updated to display *Active/Inactive* instead of *ACT/DACT*.
- `rtrv-ee-flt` - The change `apptype` parameter value `IP7` is replaced by `IP`. The command output is updated.

## ENT-CARD Enhancement

ENT-CARD Enhancement feature enhances the `ent-card` command to provision new applications for EAGLE cards.

## EPAP DN Block Capacity Increase

The EPAP DN Block table capacity is increased from 100,000 DN Blocks to 200,000 DN Blocks. This table capacity increase is necessary to support large network requirements and the additional DN Blocks created by the Self Healing DN Block feature.

## FTRA Dependencies on EAGLE

The FTRA Dependencies on EAGLE feature removes all the FTRA dependencies on EAGLE, such as validation of `rtrv-gpl` in FTRA and generation of `stp.csv` by FTRA.

## Gateway Screening Stop Action - De-encapsulate

The Gateway Screening Stop Action - De-encapsulate feature adds the capability to de-encapsulate a re-directed message from a remote EAGLE and provide all of the features and functionality to the encapsulated MSU as if the MSU were received without any SCCP encapsulation.

## Gateway Screening Stop Action - Duplicate and Route

The Gateway Screening Stop Action - Duplicate and Route feature allows users to duplicate and forward ISUP messages selectively to another monitoring system where analysis can be performed

to identify potential spam or robo-call scenarios. The Gateway Screening Stop Action - Duplicate and Route feature provides this capability of selective forwarding of MSU's to another network element.

## Commands

The following commands are updated for the Gateway Screening Stop Action - Duplicate and Route feature.

- `chg-gws-actset` – New parameter values `dup` and `strip` are added for parameters `act1` through `act10`.
- `chg-stpopts` – The `gdpc` parameter is added to specify the destination point code used by GWS-DUP action to route the duplicated MSU. The `gdpc` parameter is added to specify the value used to set the ANSI destination point code field in the routing label of the MSU that is being duplicated. The `gdpci` parameter is added to specify the value used to set the ITU international destination point code field in the routing label of the MSU that is being duplicated. The `gdpcn` parameter is added to specify the value used to set the ITU national destination point code field in the routing label of the MSU that is being duplicated. The `gdpcn24` parameter is added to specify the value used to set the 24-bit ITU national destination point code field in the routing label of the MSU that is being duplicated. The `gdpcn16` parameter is added to specify the value used to set the 16-bit ITU national destination point code field in the routing label of the MSU that is being duplicated. Parameter values for the new parameters `gdpc`, `gdpc`, `gdpci`, and `gdpcn24` are none or a numeric range of 000-255. Parameter values for `gdpcn` are none, alphabetic range of aa-zz, or numeric range of 0-16383. Parameter values for `gdpcn16` are none or numeric range of 0-127. The `off` and `on` parameters have a new value: `gdpc` (MSU duplicated by GWS DUP Stop Action is routed to the point code configured in GDPC).
- `rtrv-gws-actset` – The output display format is updated.
- `rtrv-stpopts` - The output is updated to display GDPCA.

## GTT Actions to Trigger Services

The GTT Actions to Trigger Services feature provides new GTT Actions to allow triggering EAGLE services, such as G-Flex or G-Port. Prior to this feature, EAGLE servers were primarily accessible or triggered by the table SRVSEL entries. The GTT Actions to Trigger Services feature allows a service to be triggered as a GTT Action based on either the usual GTT rules or after FLOBR/TOBR execution. The GTT Actions to Trigger Services feature is useful when combining advanced routing features with Number Portability lookup or with HLR Router lookups.

## Commands

The `chg-gttact` / `ent-gttact` / `rtrv-gttact` commands are enhanced with:

- new value `svrc`, defined as apply service (GPORT/GFLEX/SMSMR) on the message, for the `act` parameter
- new parameters `snai`, `snp`, `svccerr`, and `svcname`

## GTTSET Table Increase

Table GTTSET Increase increases the GTTSET table capacity from 2,000 to 10,000 entries.

## Hardware Maintenance Phase for EAGLE ATM Cards

EAGLE ATM cards (870-1293-xx and 870-2455-xx) are not supported in Release 46.0. The system cannot be upgraded to Release 46.0 if ATM cards are installed. The functionality performed by the ATM cards is performed by E5-ATM (Part Number 870-1872-xx) and E5-ATM-B (Part Number 870-2972-xx) cards.

As part of this Maintenance phase, the BPHCAP, BPHCAPT, ATMANSI and/or ATMITU GPLs are not supported in Release 46.0.

## Hardware Maintenance Phase for EAGLE DCM cards

EAGLE DCM cards (870-1945-xx) are not supported in Release 46.0. The system cannot be upgraded to Release 46.0 if DCM cards are installed. The functionality performed by the DCM cards is performed by E5-ENET (Part Number 870-2212-xx) and E5-ENET-B (Part Number 870-2971-xx) cards.

As part of this Maintenance phase, the BPDCM, BPDCM2, IPLIM, IPLIMI, IPGWY, IPS, VXWSLAN and EROUTE GPLs are not supported in Release 46.0.

## Hardware Maintenance Phase for EAGLE DSM cards

EAGLE DSM cards (870-1984-xx) are not supported in Release 46.0. The system cannot be upgraded to Release 46.0 if DSM cards are installed. The functionality performed by the DSM cards is performed by E5-SM4G (Part Number 870-2860-xx) and E5-SM8G-B (Part Number 870-2990-xx) cards.

As part of this Maintenance phase, the BPDCM, BPDCM2 and VSCCP GPLs are not supported in Release 46.0.

## Hardware Maintenance Phase for EAGLE E1/T1 MIM cards

EAGLE E1/T1 MIM cards (Part Number 870-2198-xx) are not supported in Release 46.0. The system cannot be upgraded to Release 46.0 if E1/T1 MIM cards are installed. The functionality performed by the E1/T1 MIM cards is performed by E5-E1T1 (Part Number 870-1873-xx) and E5-E1T1-B (Part Number 870-2970-xx) cards.

As part of this Maintenance phase, the BPMPLT and SS7ML GPLs are not supported in Release 46.0.

## Hardware Maintenance Phase for EAGLE EDCM cards

EAGLE EDCM cards (870-2372-01/870-2372-08/870-2372-13) are not supported for any applications in Release 46.0. SIGTRAN support on these cards was removed in Release 45.0. The system cannot be upgraded to Release 46.0 if EDCM cards are installed. The functionality performed by the EDCM cards is performed by E5-ENET (Part Number 870-2212-xx) and E5-ENET-B (Part Number 870-2971-xx) cards.

As part of this Maintenance phase, the BPDCM, BPDCM2, IPLIM, IPLIMI, IPGWY, IPS, VXWSLAN and EROUTE GPLs are not supported in Release 46.0.

## Hardware Maintenance Phase for EAGLE EDCM-A cards

EAGLE EDCM-A cards (870-2508-xx) are not supported in Release 46.0. The system cannot be upgraded to Release 46.0 if EDCM-A cards are installed. The functionality performed by the EDCM-A cards is performed by E5-ENET (Part Number 870-2212-xx) and E5-ENET-B (Part Number 870-2971-xx) cards.

As part of this Maintenance phase, the BPDCM, BPDCM2, IPLIM, IPLIMI, IPGWY, IPS, VXWSLAN and EROUTE GPLs are not supported in Release 46.0.

## Hardware Maintenance Phase for EAGLE HMUX cards

EAGLE HMUX cards (870-1965-xx) are not supported in Release 46.0. The system cannot be upgraded to Release 46.0 if HMUX cards are installed. The functionality performed by the HMUX cards is performed by HIPR (Part Number 870-2574-xx) and HIPR2 (Part Number 870-2872-xx) cards.

As part of this Maintenance phase, the BPHMUX GPL is not supported in Release 46.0.

## Hardware Maintenance Phase for EAGLE MCPM cards

EAGLE MCPM cards (870-2372-03/870-2372-07/870-2372-09/870-2372-14/870-2372-15) are not supported in Release 46.0. The system cannot be upgraded to Release 46.0 if MCPM cards are installed. The functionality performed by the MCPM cards is performed by the E5-MCPM-B (Part Number 870-3089-xx) card.

As part of this Maintenance phase, the BPDCM, BPDCM2 and MCP GPLs are not supported in Release 46.0.

## Hardware Maintenance Phase for EAGLE MPL cards

EAGLE MPL cards (870-2061-xx) are not supported in Release 46.0. The system cannot be upgraded to Release 46.0 if MPL cards are installed. The functionality performed by the MPL cards is performed by E5-E1T1 (Part Number 870-1873-xx) and E5-E1T1-B (Part Number 870-2970-xx) cards.

As part of this Maintenance phase, the BPMPL, BPMPLT and SS7ML GPLs are not supported in Release 46.0.

## IMSI Range Logic Support

The IMSI Range Logic Support feature includes an IMSI range check logic prior to an IMEI lookup in the EIR Database. This check prevents low ARPU users from using certain devices, in addition to the traditional EIR stolen handset check.

### Commands

The following commands are updated for EIR IMSI Range Logic Support feature:

- `chg-cs1` - The `ds` (Digit string) parameter adds 1-15 digits for the EIR `imsipfx` list. The `p1` (Parameter Value 1) parameter adds parameter values which are valid for the EIR feature. The `p2` (Parameter Value 2) parameter adds parameter values which are valid for the Response Type for EIR feature that is associated with an `imsipfx` list DS Entry. The `pn` (Part number) parameter adds the parameter value 893012301 for the EIR feature.
- `chg-deiropts` - Two new parameters are added to this command: `deirdfltimesilkup` (Diameter Equipment Identity Register IMSI lookup status), `deirdfltimesiresp` (Diameter Equipment Identity Register default IMSI response). New `off` and `on` parameters are added with parameter values of `deirimsiscrn`, `deirlogwl`, `deirdfltimesiscrn`, `deirimsichk`.
- `chg-gsmopts` - Two new parameters are added to this command: `eirdfltimesilkup` (Equipment Identity Register IMSI lookup status), `eirdfltimesiresp` (Equipment Identity Register default IMSI response). Three new values are available for the `off` and `on` parameters: `eirimsiscrn`, `eirlogwl`, `eirdfltimesiscrn`.
- `dlt-cs1` - The `ds` (Digit string) parameter adds 1-15 digits for the EIR `imsipfx` list. The `feature` (Feature name) parameter adds parameter value EIR. The `list` (Common Screening List associated with the feature) parameter adds parameter value `imsipfx` (IMSI Screening Prefix List). The `pn` (Part number) parameter adds the parameter value 893012301 for the EIR feature.
- `ent-cs1` - The `ds` (Digit string) parameter adds 1-15 digits for the EIR `imsipfx` list. The `feature` (Feature name) parameter adds parameter value EIR. The `list` (Common Screening List associated with the feature) parameter adds parameter value `imsipfx` (IMSI Screening Prefix List). The `pn` (Part number) parameter adds the parameter value 893012301 for the EIR feature.
- `rtv-cs1` - The `ds` (Digit string) parameter adds 1-15 digits for the EIR `imsipfx` list. The `feature` (Feature name) parameter adds parameter value EIR. The `pn` (Part number) parameter adds the parameter value 893012301 for the EIR feature.

- `rtrv-deiropts` – Four new parameters are added to the command output display: DEIRIMSISCRN, DEIRLOGWL, DEIRDFLTIMSISCRN, and DEIRDFLTIMSILKUP.
- `rtrv-gsmopts` – Five new parameters are added to the command output display: EIRIMSISCRN, EIRLOGWL, EIRDFLTIMSISCRN, EIRDFLTIMSILKUP, and EIRDFLTIMSIRESP.

## J7/TTC for J1-LSL Low Speed Link Support

The J7/TTC for J1-LSL Low Speed Link Support feature provides Japanese TTC MTP1/MTP2 variant support for Low Speed Links E1/T1 56kb/s and 64kb/s.

### Commands

The following commands are updated to support J7/TTC for J1-LSL Low Speed Links Support feature:

- `chg-l2t` – The `l2tset` (Level 2 timer set) parameter range maximum is increased from 35 to 40. New parameter values 36 through 40 are added for Japan ITU low speed links. The Japan timer sets 36 through 40 can have 10 time values. These command parameters are updated for Japan ITU low speed links: `t1` with parameter value of 15000; `t2` with parameter value range of 5000 – 480000, with a default value of 5000; `t3` with parameter value of 3000; `t4epp` with parameter value of 3000; `t4npp` parameter does not apply; `t5` with parameter value of 200; `t6` with parameter value of 5000; `t7` with parameter value range of 2000 – 3000, with a default value of 2000. All parameter values are in milliseconds.
- `ent-j1` – The E5-E1T1-B card and HCMIM card are added.
- `ent-slk` – The J1 interface is added for E1/T1 MIM, HC-MIM, Channel or E5-E1T1 cards. For the `bps` (Transmission rate for the link in bits per second) parameter, 64000 is added as the default value for CCS/ITU (J1 links). The range values for `l2tset` (Level 2 timer set) parameter are extended from 35 to 40 to allow a value range of 36 - 40 for ITUN16 Japan low speed links; the default value is 36. The `ts` (E1 or T1 timeslot for the assigned signaling link) parameter is extended with the J1 range 1 – 24. The new `j1port` (Port for the J1 interface on the J1 card where a signaling link and timeslot is being assigned) parameter is added with a parameter value range of 1 – 8; the default value is 1. Ports 1 through 8 can be specified for HC-MIM, E5-E1T1, or E5-E1T1B cards.
- `rept-stat-j1` – The command output is updated for J1 interfaces.
- `rtrv-j1` – The command is updated for J1 interfaces.
- `rtrv-l2t` – The `l2tset` (Level 2 timer set) parameter range is extended with a maximum value of 40. The new values 36 through 40 are for Japan ITU low speed links. The command output displays an additional data column *TE* for Error rate monitoring.
- `rtrv-ls` – The command output is enhanced with *APCN16*, *SPCN16*, and *PPCN16* for Adjacent DPC, Secondary PC, and Proxy Point Code, respectively, of the linkset. The command output displays an additional data column *J1PORT* for J1 port with the J1 interface that services the link.
- `rtrv-slk` – The type parameter adds parameter value *j1* to display signaling links for J1 card, including low speed J1 links.
- `tst-j1` – The `tst-t1` command is replaced by the `tst-j1` command to test J1 ports. The command can be entered for HC-MIM, E5-E1T1, or E5-E1T1-B cards. The `t1port` parameter is replaced by the `j1port` parameter. The default value for the loopback parameter is *line*.



## Network Conversion Grouping Time Enhancement

Grouping link-based cards by Application GPL creates multiple groupings. The Network Conversion Grouping Time Enhancement feature allows grouping based on the Flash GPLs of the link-based cards.

## RTDB Download Enhancement

With EAGLE 46.0 and EPAP 16.0, the RTDB download time from EPAP to EAGLE is improved, which results in a reduced delay for the EAGLE Service Module cards to achieve In-Service status.

## SIP Application - FAX and MODEM URI Support and Configurable Thresholds

The SIP Application - FAX and MODEM URI Support and Configurable Thresholds feature adds support of FAX and MODEM as allowed schemes in SIP URI to perform Number Portability lookup on SIP INVITE message in the SIP application. The user can configure thresholds for the throughput limits. Alarms are raised based on the limits specified by the user.

## SIP Stack Improvements

The SIP Stack Improvements feature replaces the existing SIP stack with a faster and more stable SIP Stack into EAGLE.

## TOS Field Marked in Outgoing Packets

The TOS Field Marked in Outgoing Packets feature allows setting the TOS (DSCP) field in outgoing packets from EAGLE. With this feature, Table IPOPTS entries are in Table EGLEOPTS.

## Commands

The following commands are updated to support the TOS Field Marked in Outgoing Packets feature:

- `chg-ip-card` – The new `dscp` parameter specifies the `dscp` value set for outbound messages for the SIGTRAN card. The `dscp` parameter value range is 0-63 with default value of 0.
- `chg-sg-opts` - The new `dscp` parameter specifies the `dscp` value set for outbound messages for the SIGTRAN card. The `dscp` parameter value range is 0-63 with default value of 0.

- `rtrv-ip-card` - The new DSCP parameter is added to the output display for this command.
- `rtrv-sg-opts` - The new DSCP parameter is added to the output display for this command.

## Other Changes

The following core enhancements are introduced in EAGLE Release 46.0:

### Base Upgrade for Eagle Release 46.0

Upgrade paths from EAGLE Releases 44.0, 45.0, and 45.1 to EAGLE Release 46.0 are supported.

### Card Reset when TSU Self-detect Errors Occur

When multiple TSU Self-detect IX Bus Errors are reported, the detection logic reports the error and resets the card.

### Consistent Abnormal alarms for SCCP Service Subsystem Cards

The multiple SCCP Service subsystems are now consistent with the method by which the `XXXXX Subsystem normal,card(s) abnormal` alarm is set. The `XXXXX Subsystem normal,card(s) abnormal` alarm is now a Minor alarm issued whenever the (N+1) redundant card is not present. A Major alarm `XXXXX Subsystem degraded, cards abnrml` for each SCCP Service Subsystem is now generated when one SCCP Service Module card in an (N) configuration fails or when two SCCP Service Module cards in (N+1) configuration fail to provide service.

These alarm changes apply to the following SCCP Service Subsystems:

- A-Port
- ATINPQ
- EIR
- G-Flex
- G-Port
- INP
- LNP
- V-Flex
- Generic Subsystem (AIQ only)

### E5-NET Card Boots on Module `pmtc_mgr.c` at 100% of System Total SCCP Capacity

The deprecated field `IMT Receive FIFO Full` now displays as `RX HW flow control event`, which indicates the number of hardware flow control events experienced by the IMT Receive interface to the MUX. The RX HW flow control event is an indication only and does not require any corrective action.

## HIPR2 - MFC Byte Counts Corrupted by Extended BERT Test

The HIPR2 MFC Byte Count is no longer corrupted when Extended BERT Tests are run.

## IMTPCI Level 1 Statistics - Count Increment

The following IMT Level 1 statistics in the IMTPCI GPL are correctly incrementing counts:

- Rx Inv Len
- Large Pkt Error
- CPU Rx MSU FIFO Full
- CPU Rx LSSU FIFO Full
- CPU Rx XSU FIFO Full
- CPU Rx ASU FIFO Full

## Missing User Interface Messages for E5-OAM

E5-OAM is improved to unthrottle User Interface output by centralizing to a core, higher terminal speed. For this feature to operate correctly, the MMI serial ports must be set to their maximum speed of 115,200 baud.

## MMI Terminal - Hourly Reports

Hourly reports are no longer being truncated when connected to an MMI terminal with all the output groups (except TRAF) turned on and multiple alarms in the system. To operate correctly, unthrottle the User Interface and set the MMI serial ports to their maximum speed of 115,200 baud.

## Severity of *XXXX capacity normal, card(s) abnormal* Alarms

The following UAMs are changed from NRML to MINOR alarms:

- 329 - *SCCP capacity normal, card(s) abnormal*
- 151 - *STPLAN capacity normal, card(s) abnormal*
- 474 - *EROUTE capacity normal, card(s) abnormal*

## SLAN Server Card Booted with Obit Module when Overloaded

SLAN Server cards with monitored traffic that is more than the provisioned capacity cards no longer boot with Obit Module *pmtc\_mgr.c Line 521 Class 0240*. This problem was observed for IPSG Cards configured as SLAN clients.

## UAM 329 Severity and Cause

The severity of UAM 329 is changed to minor and the alarm message generated only if at least one IS-ANR SCCP card is in the system.

## Operational Changes

EAGLE Release 46.0 contains new and updated alarms and error messages.

### Unsolicited Alarm Messages

The Unsolicited Alarm Message (UAM) in this section is introduced in EAGLE Release 46.0.

#### EIR S13/S13' Interface Support

**Table 1: New UAMs for EIR S13/S13' Interface Support**

UAM ID	Severity	Message Text	Output Group	Notes
0483	Critical	DEIR System is not available	SYSTEM	S13 feature is not ON OR System has no S13 card which is Active/IS_NR
0484	Major	DEIR System normal, card(s) abnormal	SYSTEM	Number of active S13 cards ( i.e. in IS-NR state) are less than half the configured S13 cards.
0485	None	DEIR System is available	SYSTEM	Number of active S13 cards (i.e. in IS-NR state) are equal to or more than half the configured S13 cards.
0486	Minor	DEIR Threshold - Level1 exceeded	CARD	DEIRCONGLVL1 of S13 card capacity exceeded.
0487	Major	DEIR Threshold - Level2 Exceeded	CARD	DEIRCONGLVL2 of S13 card capacity exceeded.
0488	None	DEIR System Threshold Condition Cleared	CARD	Congestion cleared on S13 card.
0489	Critical	DEIR capacity exceeded	CARD	S13 card's capacity has been exceeded and S13 card is in congestion (overflow counts are pegged in rept-stat-deir command).
0490	None	DEIR normal	CARD	S13 card capacity is normal.
0491	Major	Connection TPS exceeded	LINK	Connection TPS is exceeded and Message(s) has been discarded on the connection.

UAM ID	Severity	Message Text	Output Group	Notes
0492	None	Connection TPS normal	LINK	Connection TPS is normal.
0493	Major	Diameter Connection Down	LINK	SCTP association is Open (open=yes) and diameter connection status is down.  Diameter connection name will get displayed with UAM.
0494	None	Diameter Connection UP	LINK	SCTP association is Open (open=yes) and diameter connection status changes to UP (or connection state changes to Active).  Diameter connection name will get displayed with UAM.
0495	None	Diameter Connection Closed	LINK	Diameter connection is closed with (open=no).  Diameter connection name will get displayed with UAM.
0496	None	DEIR System is removed	SYSTEM	The last S13 card has been deleted from the system.

**J7/TTC for J1-LSL low speed Links Support**

**Table 2: New UAM format**

New UAM format - Release 46.0	
Literal	

New UAM format - Release 46.0	
Format	<pre>           1         2         3         4         5         6           7         8 1234567890123456789012345678901234567890123456789012345678901234567890           xxxx.yyyy zz J1PORT cccc,p          text         </pre>
Output Examples	<pre>           1         2         3         4         5         6           7         8 1234567890123456789012345678901234567890123456789012345678901234567890           ** 0124.0498 ** J1PORT 1103,2          REPT-J1F:FAC-J1 LOF failure         </pre>

**Table 3: New UAMs for J7/TTC for J1-LSL low speed Links Support**

UAM	0497	Format	Output Group
Action	Added for 46.0		
Old Data			
New Data	REPT-J1F:FAC-J1 LOS failure	J1PORT	LINK
UAM	0498	Format	Output Group
Action	Added for 46.0		
Old Data			
New Data	REPT-J1F:FAC-J1 LOF failure	J1PORT	LINK
UAM	0499	Format	Output Group
Action	Added for 46.0		
Old Data			
New Data	REPT-J1F:FAC-J1 Remote Alarm	J1PORT	LINK
UAM	0504	Format	Output Group
Action	Added for 46.0		
Old Data			
New Data	REPT-J1F:FAC-J1 Alarm	J1PORT	LINK
UAM	0505	Format	Output Group
Action	Added for 46.0		
Old Data			

New Data	RCVRY-J1F:FAC-J1 available	J1PORT	LINK
UAM	0506	Format	Output Group
Action	Added for 46.0		
Old Data			
New Data	REPT-J1F:FAC-J1 unavailable	J1PORT	LINK

**SIP Number Portability**

**Table 4: New UAM for SIP Number Portability**

UAM	0626	Format	Output Group
Action	Added for 46.0		
Old Data			
New Data	SIP Threshold Level Critical	CARD	SIP

**Non-Feature Related**

**Table 5: New UAMs for Non-Feature Related**

UAM	0427	Format	Output Group
Action	Added for 46.0		
Old data			
New data	LNP Subsystem degraded, card(s) abnormal	LNP SS	APSS
UAM	0428	Format	Output Group
Action	Added for 46.0		
Old data			
New data	INP Subsystem degraded, cards abnormal	INP SS	APSS
UAM	0429	Format	Output Group
Action	Added for 46.0		
Old data			

New data	ATINPQ Subsystem degraded, cards abnormal	ATINPQ SS	APSS
UAM	0460	Format	Output Group
Action	Added for 46.0		
Old data			
New data	EIR Subsystem degraded, cards abnormal	EIR SS	APSS
UAM	0547	Format	Output Group
Action	Added for 46.0		
Old data			
New data	Service degraded	APSS	APSS
UAM	0556	Format	Output Group
Action	Added for 46.0		
Old data			
New data	VFLX Subsystem degraded, cards abnormal	VFLEX SS	APSS
UAM	0598	Format	Output Group
Action	Added for 46.0		
Old data			
New data	Subsystem degraded, card(s) abnormal	SS	APSS

**Unsolicited Information Messages**

The Unsolicited Information Messages (UIMs) in this section are introduced in EAGLE Release 46.0.

**AIN LNP message support in Global Number Portability**

**Table 6: New UIMs for AIN LNP message support in Global Number Portability**

UIM	1141	Format	Output Group
Action	Added for 46.0		
Old Data			
New Data	AIN INP Qry rejected: AINPQ is off	I13	APSS



**EAGLE Eyes**

The new UIM format for EAGLE Eyes feature is shown in the following table:

**Table 7: New UIM Format**

New UIM format - Release 46.0	
Literal	RPT_GEDTI_ERR
Format	<pre> 1       2       3       4       5       6   7       8 1234567890123456789012345678901234567890123456789012345678901234567890        xxxx.xxxx      CARD cccc      INFO      'text'                       SESSION ID = xxxx          1       2       3       4       5   6       7       8 1234567890123456789012345678901234567890123456789012345678901234567890        xxxx.xxxx      CARD cccc      INFO      'text'                       PORT = xxxx                     </pre>
Output Example	<pre> 1       2       3       4       5       6   7       8 1234567890123456789012345678901234567890123456789012345678901234567890        0023.1459 CARD 1105      INFO      TCP Connection lost b/w IPSM and EEPD      SESSION ID = 1       Report Date:02-07-21 Time:16:20:19    1       2       3       4       5       6   7       8 1234567890123456789012345678901234567890123456789012345678901234567890        0023.1457 CARD 1105      INFO      GEDTI port enable on IPSM card      PORT = 1027       Report Date:02-07-21 Time:16:20:19                     </pre>

**Table 8: New UIMs for EAGLE Eyes**

UIM	1453	Format	Output Group
Action	Added for 46.0		
Old Data			
New Data	EE Collection started	I21	CARD
UIM	1454	Format	Output Group
Action	Added for 46.0		
Old Data			

New Data	EE Collection end	I21	CARD
UIM	1455	Format	Output Group
Action	Added for 46.0		
Old Data			
New Data	EE Queue Full, Packets Dropped	I21	CARD
UIM	1456	Format	Output Group
Action	Added for 46.0		
Old Data			
New Data	Hub Congested, Packets Dropped	I21	CARD
UIM	1457	Format	Output Group
Action	Added for 46.0		
Old Data			
New Data	GEDTI port enabled	I21	CARD
UIM	1458	Format	Output Group
Action	Added for 46.0		
Old Data			
New Data	GEDTI port disabled	I21	CARD
UIM	1459	Format	Output Group
Action	Added for 46.0		
Old Data			
New Data	TCP Connection lost b/w IPSM and EEPC	I21	CARD

**EIR S13/S13' Interface Support**

**Table 9: New UIMs for EIR S13/S13' Interface Support**

UAM ID	Message Text	Output Group	Notes
1133	Diameter msg decode failed	LINK	Diameter message parsing FAILS. Examples of decoding fail: <ul style="list-style-type: none"> <li>• ECR Message does not have IMEI AVP or value in IMEI AVP.</li> <li>• ER Message does not have mandatory AVP present.</li> </ul>

UAM ID	Message Text	Output Group	Notes
			<ul style="list-style-type: none"> <li>DPR message received does not have disconnect cause AVP present.</li> </ul>
1134	Diameter msg encode failed	LINK	Diameter message Encoding FAILS.
1135	Invalid Diameter Msg received	LINK	Diameter message received which is not supported in the Eagle or there is some error in diameter message header.
1136	Invalid Diameter Msg length	LINIK	Total Diameter message length specified in diameter header does not match with the actual diameter message length.
1137	DEIR AVP Decode Fail	LINK	AVP decoding failed.
1138	Connection Refused	LINK	<ul style="list-style-type: none"> <li>Origin host and Origin Realm AVPs in CER message does not match with the host and realm values provisioned in the IPAPSOCK table.</li> <li>Source IP Address of the CER message does not match with the IP Address present in the Host-IP-Address AVP.</li> <li>Error Cause: Origin Host Mismatch Origin Realm Mismatch IP Address Mismatch No common application</li> </ul>
1139	DEIR Global Response is ON	APSS	DEIR Global Response is set to whitelist/graylist/blacklist/unknown from 'OFF' in DEIROPTS table.
1140	DEIR Golbal Response is OFF	APSS	DEIR Global Response is set to 'OFF' from whitelist/graylist/blacklist/unknown in DEIROPTS table.

**Gateway Screening**

**Table 10: New UIMs for Gateway Screening**

UIM	1142	Format	Output Group
Action	Added for 46.0		
Old Data			
New Data	GWS Strip Stop Action Failed	I1	GWS

UIM	1460	Format	Output Group
Action	Added for 46.0		
Old Data			
New Data	GWS Duplicate Stop Action Failed	I1	GWS

**SIP Number Portability**

The new UIM format for the SIP Number Portability feature is shown in the following table:

**Table 11: New UIM Format**

New UIM format - Release 46.0	
Literal	RPT_SIP_MSG
Format	<pre> 1           2           3           4           5           6  7         8 1234567890123456789012345678901234567890123456789012345678901234567890        xxxx.xxxx      CARD cccc,ppp      INFO      'text'                     CSeq No: xxxxxxxxxxxxxxxxxxxx Cname: xxxxxxxxxxxxxxxxxxxx                     Reason: xx         1           2           3           4           5  6         7         8 1234567890123456789012345678901234567890123456789012345678901234567890        xxxx.xxxx      CARD cccc      INFO      'text'                     PORT = xxxx                     </pre>
Output Example	<pre> 1           2           3           4           5           6  7         8 1234567890123456789012345678901234567890123456789012345678901234567890        0014.1298      CARD 1103,B      INFO      SIP msg decode failed                     CSeq No: 96781      Cname: tcp1107d Header              Reason: Incorrect Content-Length                     Report Date:10-10-12 Time:16:20:19                     </pre>

**Table 12: New UIMs for SIP Number Portability**

UAM ID	Message Text	Output Group	Notes
1124	Dgts truncated in response	APSS	Received digits exceeds permitted limit.
1298	SIP card exceeded threshold TPS	CARD	When SIP card TPS is equal to or more than 4000.

UAM ID	Message Text	Output Group	Notes
1439	SIP msg decode failed	APSS	SIP message parsing FAILS. Examples of decoding fail: <ol style="list-style-type: none"> <li>1. TEL-URI with a Local Number does not contain a "phone-context" parameter, OR</li> <li>2. SIP-URI does not contain "user=phone" parameter.</li> <li>3. SIP INVITE does not have E164 num.</li> </ol>

**Table 13: Updated UIMs for SIP Number Portability**

UIM	1167	Format	Output Group
Action	Updated text		
Old Data	SIP TCP connection established		
New Data	SIP connection established		LINK
UIM	1168	Format	Output Group
Action	Updated text		
Old Data	SIP TCP connection terminated		
New Data	SIP connection terminated		LINK

**Non-Feature Related**

**Table 14: New Non-Feature Related UIMs**

UIM	1086	Format	Output Group
Action	Added for 46.0		
Old Data			
New Data	LFS test aborted with OAM switch over	0	LINK

**Error Messages**

**AIN LNP Message Support**

New and modified error codes to support the AIN LNP Message Support feature are listed in [Table 15: Error Messages for AIN LNP Message Support](#)

Table 15: Error Messages for AIN LNP Message Support

Response ID Code	Error Message	Used by Command
E2986	LNP or AINPQ feature must be ON	chg/rtrv-lnpopts
E3009	LNP feature must be ON	chg/dlt/ent/rtrv-acg-mic chg/dlt/ent/rtrv-acg-noc chg-feat chg/dlt/ent/rtrv-lnp-serv chg-mtc-measopts chg/rtrv-sid chg/dlt/ent/rtrv-ss-appl enable-ctrl-feat rept-ftp-meas rept-meas rept-stat-lnp rst-card
E3133	AMASLPID must be provisioned before INCSLP=yes	chg-lnpopts
E4188	Must have LNP/EIR/VFLEX/AIQ/ATINP enabled or INP/AINPQ ON	rtrv-ss-appl
E4716	LNP/VFLEX /EIR/INP must be ON or ATINP/AIQ must be enabled	chg/ent-map

**Gateway Screening Stop Action - Duplicate and Route**

New and modified error codes to support the Gateway Screening Stop Action - Duplicate and Route feature are listed in [Table 16: Error Messages for Gateway Screening Stop Action - Duplicate and Route](#)

Table 16: Error Messages for Gateway Screening Stop Action - Duplicate and Route

Response ID Code	Error Message	Used by Command
E2642	DPC must have at least one route defined	chg-stpopts dlt/ent/rtrv-pct ent-gws-redirect

Response ID Code	Error Message	Used by Command
E2657	Point code not defined	chg/dlt-dstn chg/ent-gws-redirect chg/ent-ls chg/dlt/ent/rtrv-rte chg-stpopts dlt/ent-rmt-appl
E2859	Destination address must be a full point code	chg-stpopts
E3013	No other GWS stop actions can be specified with STRIP	chg-gws-actset
E3017	GWS DUP Point Code is required for GWS DUP stop action	chg-gws-actset chg-stpopts

#### GTT Actions to Trigger Services

New and modified error codes to support the GTT Actions to Trigger Services feature are listed in [Table 17: Error Messages for GTT Actions to Trigger Services](#)

**Table 17: Error Messages for GTT Actions to Trigger Services**

Response ID Code	Error Message	Used by Command
E3107	At least one of SMSMR services must be configured	chg/ent-gttact
E3114	For GFLEX, the SNAI must be SUB, NATL OR INTL	chg/ent-gttact
E3125	SNP, SNAI and SRVCNAME is mandatory for srvc action	ent-gttact
E3127	EPAP Data Split feature is mutually exclusive with SRVC	ent-gttact
E3451	Controlled Feature is not enabled	ent-gttact
E3500	GFLEX feature must be ON	chg-gsmopts chg/ent-gttact chg-sid chg/ent/rtrv-srvsel

Response ID Code	Error Message	Used by Command
		chg-stpopts enable-ctrl-feat
E3990	(N)SNP must be E164 when (N)SERV=GPORT /SMSMR	chg/ent-gttact chg/ent-srvsel
E3991	GPORT feature must be ON	chg/enable-ctrl-feat chg-gsmopts chg/ent-gttact chg-prefix rtrv-gserv-data
E5068	Uimreqd only valid for DISC/UDTS/TCAPERR.	chg/ent-gttact

#### J7/TTC for J1-LSL Low Speed Link Support

New and modified error codes to support the J7/TTC for J1-LSL Low Speed Link Support feature are listed in [Table 18: Error Messages for J7/TTC for J1-LSL Low Speed Link Support](#)

**Table 18: Error Messages for J7/TTC for J1-LSL Low Speed Link Support**

Response ID Code	Error Message	Used by Command
E2016	<parm_desc> is out of range - <parm>	ent-j1 rept-stat-j1
E2017	<parm_desc> is out of range, <min>..<max> - <parm>	chg/dlt/ent-j1 chg-l2t
E2025	Invalid card location	rept-stat-j1
E2102	Failed reading the IMT table	chg/dlt/ent-j1
E2136	At least one optional parameter is required	chg-j1
E2154	Card slot reserved by system	chg/dlt/ent-j1
E2212	Invalid card type for this command	chg/dlt/ent/tst-j1
E2366	LOC must be specified	rept-stat-j1
E2368	System busy - try again later	rept-stat-j1



Response ID Code	Error Message	Used by Command
E2376	Specified LOC is invalid	rept-stat-j1
E2387	Card is not in service	tst-j1
E2496	NI, ZONE, MSA, UN or NPC cannot be C - more than one exists	dlt-scr-blkdpc dlt-scr-blkopc
E2497	NI, ZONE, MSA, UN or NPC cannot be C for existing blocked SR	ent-scr-blkdpc ent-scr-blkopc
E2525	NI,ZONE,MSA,UN or NPC must be C when creating new blocked SR	ent-scr-blkdpc ent-scr-blkopc
E2526	All new PC parms must be null if NI,ZONE,MSA,UN or NPC = C	chg-scr-blkdpc chg-scr-blkopc
E2691	J7 Support Feature must be enabled	chg/ent-appl-rtkey chg/ent-dstn chg/ent-gta chg/ent-rtx chg-sccp-msg chg-sccpopts chg/ent-scr-aftpc chg/ent-scr-blkdpc chg/ent-scr-blkopc chg/ent-scr-cdpa chg/ent-scr-cgpa chg/ent-scr-destfld chg/ent-scr-dpc chg/ent-scr-opc chg/ent-sid chg-stpopts dbg-ddb ent-j1 ent-ls ent-na

Response ID Code	Error Message	Used by Command
		ent-spc ent-trace inh/unhb-alm
E2801	J7 Support feature can not be Enabled	chg/ent-dstn chg/gta-gta chg/ent-scr-aftpc chg/ent-scr-blkdpc chg/ent-scr-blkopc chg/ent-scr-cdpa chg/ent-scr-cgpa chg/ent-scr-destfld chg/ent-scr-dpc chg/ent-scr-opc ent-na ent-sid ent-spc
E2802	J7 Support feature must not be Enabled	chg/ent-sid
E2806	ITU-N 16bit site id not defined	ent-dstn
E2809	ITUN16 SID is not allowed for MAP commands in J7 Support	chg/ent-map
E2810	Command is not valid for ITU-N16 links	act-lpo blk/inh/ublk/unhb-slk
E2908	LOOPBACK param needed for FELINE or FEPAYLOAD exclusively	tst-j1
E2913	STOP Loopback type must match active loopback	tst-j1
E3047	Parameter combination invalid	chg/ent-ls rtrv-dconn rtrv-ip-host

Response ID Code	Error Message	Used by Command
E3128	The J1PORT at the specified location is not equipped	chg/tst-j1
E3130	The J1PORT at the specified location is already equipped	ent-j1
E3136	J1 card location is unequipped	chg/dlt/ent/tst-j1
E3138	LOC and J1PORT parameter combination must be specified	rtrv-j1
E3141	J1 Port test command not in progress	tst-j1
E3144	J1 Port test command in progress	act-slk tst-j1
E3151	All signaling links serviced by the J1 must be deactivated	chg/tst-j1
E3157	J1 is assigned to card	dlt-card
E3160	BPS must be 64000 for J1 links in ent-slk	ent-slk
E3161	Time Slot must not be greater than 24 for J1 links.	ent-slk
E3163	ECM must be basic for J1 links.	ent-slk
E3164	Failed reading the J1 table	chg/dlt/ent/tst-j1 ent-slk
E3169	No change required for this timer and L2tset	chg-l2t
E3170	All signaling links serviced by this J1 must be deleted	dlt-j1
E3171	TS value on the J1 already in use by a signaling link	ent-slk
E3276	Command not allowed while in upgrade mode	tst-j1

### Eagle Eyes OAM Friendly Commands

New and modified error codes to support the Eagle Eyes OAM Friendly Commands feature are listed in [Table 19: Error Messages for Eagle Eyes OAM Friendly Commands](#)

Table 19: Error Messages for Eagle Eyes OAM Friendly Commands

Response ID Code	Error Message	Used by Command
E2025	Invalid card location	rept-stat-gedti
E2101	Card location is unequipped	act/dact-gedti chg-ee-card dact-ee
E2102	Failed reading the IMT table	chg-ee-card
E2136	At least one optional parameter is required	chg-ee-card ent-ee-flt
E2144	Location invalid for hardware configuration	act/dact-gedti chg-ee-card chg-gedti-card rept-stat-ee
E2154	Card slot reserved by system	act-gedti chg-ee-card
E2155	Invalid parameter combination	ent-ee-flt
E2376	Specified LOC is invalid	act/dact-gedti rept-stat-ee
E2379	Missing parameter	chg-ee-card ent-ee-flt
E2811	EE Filter table is full	ent-ee-flt
E2812	EE Filter does not match card appl type	chg-ee-card
E2813	Unable to read EE Filter table	dlt/ent/rtrv-ee-flt
E2827	Filter not present	chg-ee-card dlt-ee-flt
E2858	EE Filter associated to Network Card	dlt-ee-flt
E2862	EE Card table is full	chg-ee-card
E2867	Unable to read EE Card table	chg/rtrv-ee-card

Response ID Code	Error Message	Used by Command
		chg-gedti-card
E2889	Duplicate Filter on a Network card is not allowed	chg-ee-card
E2970	Max limit of INC/EXC Filters reached on card	chg-ee-card
E2975	Specified Port is not supported	chg-gedti-card
E2984	Eagle Eyes not configured on the card	act/dact-gedti dact-ee rept-stat-ee rtrv-ee-card
E3726	Active device state does not permit database change	chg-gedti-card
E3827	No change requested	act/dact-gedti
E4916	Command invalid for hardware configuration	chg-ee-card
E5438	3 Links per E5-ATM card feature must be enabled	ent-ee-flt

#### Error Messages: Non-Feature Related

New and modified error codes not related to features are listed in [Table 20: Error Messages: Non-Feature Related](#)

**Table 20: Error Messages: Non-Feature Related**

Response ID Code	Error Message	Used by Command
E2303	Unknown LSN	dbg-ddb rept-stat-iptps
E2363	SA SELSCR SA(X)VAL values must be none or between 0-127	chg/ent-npp-srs
E2384	Link set is not equipped	dact-rstst inh/unhb-alm rept-meas rept-stat-ls

Response ID Code	Error Message	Used by Command
E2441	Dual ExAP Config must be ON and EPAP Data Split must be OFF	chg/ent/init-card
E2591	SA SELSCR SA(X)DGTS value must be none or between 1-FF	chg/ent-npp-srs
E3104	Either LOC or APPL or TYPE must be specified	init-card
E3115	Dual ExAP Config/SIPNP/DEIR Feature must be enabled	init-card
E3852	Specified APPL/LOC/TYPE not supported with DATA parameter	alw/init-card
E4069	Entry exists with specified GTIN24-TT-NP(V)-NAI(V)-SSN	ent-srvsel
E4188	Must have LNP/EIR/VFLEX/AIQ/ATINP enabled or INP/AINPQ ON	rtrv-ss-appl
E4447	At least one entity is required to turn on measurements	chg-meas chg-measopts
E5413	EPAP Data Split feature must be turned on	chg/ent/init-card

## 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 will be 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, 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.

## Related Specifications

For information about additional publications related to this document, refer to the Oracle Help Center site. See [Locate Product Documentation on the Oracle Help Center Site](#) for more information on related product publications.

### Machine to Machine Interface

The Machine to Machine Interface (MMI) for DSR is described in the Application Programming Interface (API) document. The DSR MMI is a RESTful (Representational State Transfer) interface providing access to a broad range of Operations, Administration, and Maintenance (OAM) services that clients use to configure and manage the DSR. This document is the comprehensive API reference guide to the RESTful services the DSR makes available to clients through the DSR MMI. To access the MMI API documentation through a direct URL access, without login, go to <http://<IP address of NOAM or SOAM>/raml/mmi.html>. Or the MMI API documentation can be accessed directly from the DSR GUI by clicking on the new **MMI API Guide** menu item.

## 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 that your business can realize all of the benefits that these rich solutions offer. Visit the Oracle University web site to view and register for Oracle Communications training: [education.oracle.com/communication](http://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 appears. Most products covered by these documentation sets will 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, select **Save target as** (or similar command based on your browser), and save to a local folder.

## 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 21: 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	ExAP LSMS NAS
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
E5-E1T1++	870-1873-02	lime1 limt1	1	8	32	ss7hc blixp	ss7ansi ccs7itu
	870-1873-03^ 870-1873-04^	lime1 (for SE-HSL)	1	8	1		ccs7itu
		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^	dcm	1	2	16	iplhc blixp	iplim iplimi
			1	2	1	ipghc	ss7ipgw

Card Name as shown on card label	Part Number	Provisioned Card Type	Per Card Slots/Ports		Links per Card	Card GPLs	Card Applications
	870-2212-05^					blixp	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
		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

Card Name as shown on card label	Part Number	Provisioned Card Type	Per Card		Links per Card	Card GPLs	Card Applications
			Slots/Ports				
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 siphc sccphc blmcap	deirhc siphc 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	ss7ansi ccs7itu
	870-2671-03^	lime1 (for SE-HSL)	2	8	2	blixp	ccs7itu
HIPR	870-2574-01 870-2574-02^	N/A	1	N/A	N/A	hipr	hipr
HIPR2	870-2872-01^ 870-2872-02^	N/A	1	N/A	N/A	hipr2	hipr2
<p>†DSM or E5-SM4G 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 22: 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		
	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-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	

Component	Part Number	ROHS Number (if applicable)	Required for
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	
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	
HIPR	870-2574-01 Rev D	870-2574-02 Rev A	
HIPR2		870-2872-01 Rev A	
		870-2872-02 Rev C	
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	

Component	Part Number	ROHS Number (if applicable)	Required for
Kit E1	890-1037-01 Rev A	890-1037-06 Rev A	
Kit, Holdover Clock Assy	890-1013-01 Rev A		
Fan Assy (Standard Frame)	890-1038-01 Rev D		
Fan Assy (Shelves with HC-MIM cards)	890-0001-01 Rev A or		
	890-0001-02 Rev A	890-0001-04 Rev A	

## C

CCS7ITU  
The application for the ITU SS7 signaling links that is used with card types limds0, limch, lime1, and limt1.

## E

E1  
The European equivalent of T1 that transmits digital data over a telephone network at 2.048 Mbps.

E5-APP-B  
The E5-APP-B card is a complete application server platform designed to operate within a heavy duty EAGLE shelf. An E5-APP-B card consists of the card, a microprocessor, 8 GB RAM, and two removable drive modules with an operating system and an application, such as EPAP, loaded.

E5-E1T1  
EPM-based E1/T1 Multi-Channel Interface Module  
An EPM-based card that provides E1 and T1 connectivity. E1T1 is an abbreviation for the ITU E1 and ANSI T1 interfaces. Thus the nomenclature defines the shelves where the card can be used and the physical interface that it provides.

E5-ENET  
EPM-based Ethernet card  
A high capacity single-slot IP signaling card (EPM card plus Gig Ethernet PMC cards).

## H

## H

## HC-MIM

## High Capacity Multi-Channel Interface Module

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

## HIPR

## High-Speed IMT Packet Router

A card that provides increased system throughput and traffic capacity. HIPR moves EAGLE from an intra-shelf ring topology to an intra-shelf switch topology. HIPR acts as a gateway between the intra-shelf IMT BUS, running at 125Mbps, and the inter-shelf operating at 1.0625Gbps. The HIPR card will seat in the same slot as an HMUX card (slots xx09 & xx10 of each shelf).

## HIPR2

## High-Speed IMT Packet Router 2

A card that provides increased system throughput and traffic capacity on the existing Fibre-Channel ring. A high rate Fibre-Channel option of 2.5 Gbps is available when an EAGLE is provisioned with all HIPR2 cards. In a mixed topology where a HIPR2 is used in an EAGLE along with HMUX and HIPR, the Fibre-Channel ring runs at the lower rate of 1.0625 Gbps.



**S**

SE-HSL	<p>Synchronous E1 High Speed Link</p> <p>Format for E1 high-speed signaling links where time-slot 0 is used for framing and error control. The remainder of bandwidth, equivalent to 31 channels of 64Kbps data, is used as a single data link yielding a total capacity of 1.984 Mbps. Also known as Unchannelized E1.</p>
SS7	<p>Signaling System #7</p> <p>A communications protocol that allows signaling points in a network to send messages to each other so that voice and data connections can be set up between these signaling points. These messages are sent over its own network and not over the revenue producing voice and data paths. The EAGLE is an STP, which is a device that routes these messages through the network.</p>
SS7ANSI	<p>SS7 ANSI</p> <p>An application used by the LIM cards and the E1/T1 MIM card for the MTP functionality.</p>

**T**

T1	<p>Transmission Level 1</p> <p>A T1 interface terminates or distributes T1 facility signals for the purpose of processing the SS7 signaling links carried by the E1 carrier.</p> <p>A leased-line connection capable of carrying data at 1,544,000 bits-per-second.</p>
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