

# Oracle® Communications

## EAGLE Application Processor Release Notes



Release 16.4  
F29902-03  
December 2023

The Oracle logo, consisting of a solid red square with the word "ORACLE" in white, uppercase, sans-serif font centered within it.

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F29902-03

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# A Firmware Components

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- For Technical issues such as creating a new Service Request (SR), select **1**.
- For Non-technical issues such as registration or assistance with My Oracle Support, select **2**.
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You are connected to a live agent who can assist you with My Oracle Support registration and opening a support ticket.

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# What's New in This Guide

## **Release 16.4.1.1.0 - F29902-03, December 2023**

Updated the following sections with the details of EPAP release 16.4.1.1.0:

- [Media Pack](#)
- [Resolved Bug Listing](#)
- [Customer Known Bug Listing](#)

# 1

## Introduction

This Release Notes includes Feature Descriptions, supported Hardware Baseline (if applicable), 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.

# 2

## Feature Descriptions

This release delivers the following features:

- [Support for Enhanced EIR Logs from EAGLE 46.9](#)
- [Ability to Have More Than 1 TIF Filter Make Use of EPAP for Blocklisting](#)

### 2.1.1 Support for Enhanced EIR Logs from EAGLE 46.9

With this release, enhanced EIR logs are introduced that include message originator to the existing logs. Eagle will generate logs for Block list, Allow list, and Grey list IMEIs for all other possible scenarios.

For more information, refer to *Provisioning Database Interface User's Guide*.

### 2.1.2 Ability to Have More Than 1 TIF Filter Make Use of EPAP for Blocklisting

With this release, EPAP supports more than 1 TIF filter for blocklisting.

The TIF Linkset Based Blocklist functionality enables a misused user to still make legitimate calls in case it is blocked on a particular linkset. The blocklisted information for each number includes the blocklisted SetID. Therefore, all the messages arriving on EAGLE are screened with the following combination:

- The blocklisted SetID referred in incoming linkset
- The blocklisted SetID configured in RTDB

### 2.1.3 Enhancement Bugs

EPAP 16.4 supports the following enhancement Bug:

**Table 2-1 EPAP 16.4 Enhancement Bug**

Bug # and Title	Description
31527155 Upgrade PDBI Command Document For lsblset Parameter	Allows a converter script to run to change the DB schema during upgrade from an older EPAP release to EPAP release 16.4.

## 2.1 16.4 Feature Descriptions



# 3

## 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.

### 3.1 Media Pack

All components available for download from the Oracle Software Delivery Cloud (<https://edelivery.oracle.com/>) are in the following tables:

**Table 3-1 Media Pack Contents for EPAP 16.4.1.1.0**

Name
Oracle Communications EAGLE Application Processor 16.4.1.1.0-164.18.0
Oracle Communications EAGLE Application Processor 16.4.1.1.0-164.18.0 MIBS
Oracle Communications Tekelec Platform Distribution 7.8.8.0.0-89.31.0

**Table 3-2 Media Pack Contents for EPAP 16.4.1.0.0**

Name
Oracle Communications EAGLE Application Processor 16.4.1.0.0-164.16.0 (includes incremental upgrade to TPD 7.8.1.0.0-89.13.0)
Oracle Communications EAGLE Application Processor 16.4.1.0.0-164.16.0 MIBS
Oracle Communications Tekelec Platform Distribution 7.6.1.0.0-88.55.0

**Table 3-3 Media Pack Contents for EPAP 16.4.0.0.0**

Name
Oracle Communications EAGLE Application Processor 16.4.0.0.0-164.7.0 (includes incremental upgrade to TPD 7.6.2.0.0-88.60.0)
Oracle Communications EAGLE Application Processor 16.4.0.0.0-164.7.0 MIBS
Oracle Communications Tekelec Platform Distribution 7.6.1.0.0-88.55.0

### 3.2 Documentation Pack

All documents available for download from the Oracle Technology Network (OTN) site (<http://docs.oracle.com>) are listed in [Table 3-4](#).

**Note:**

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

**Table 3-4 Documentation Pack Contents**

<b>Core EPAP Documentation</b>
<i>Release Notes</i>
<i>Administration Guide</i>
<i>Provisioning Database Interface User's Guide</i>
<i>Security Guide</i>
<i>Upgrade/Installation Guide</i>
<i>System Health Check Guide</i>
<b>Hardware, Installation, and Maintenance Documentation</b>
<i>Alarms and Maintenance Guide</i>
<i>Application B Card Hardware and Installation Guide</i>
<b>Reference Documentation</b>
<i>EAGLE Compatibility Matrix</i>
<i>Licensing Information User Manual</i>

# 4

## 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.

### 4.1 Upgrade Paths

The possible upgrade paths to EPAP 16.4 are listed in the following table:

**Table 4-1 EPAP 16.4 Upgrade Paths**

From	To
EPAP Release 16.2	EPAP Release 16.4
EPAP Release 16.3	EPAP Release 16.4

# 5

## Product Compatibility

Refer to *EAGLE Compatibility Matrix* for the product compatibility between this product release and the releases of other products.

# 6

## 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.

### 6.1 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

## 6.2 Resolved Bug Listing

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

- EPAP 16.4.1.1.0-164.18.0
- EPAP 16.4.1.0.0-164.16.0
- EPAP 16.4.0.0.0-164.7.0.

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 a SR.



### Note:

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

**Table 6-1 EPAP Release 16.4.1.1.0-164.18.0 Resolved Bugs (December 2023)**

Bug #	SR	Sev	Title	Customer Impact
35913387	N	4	Remove JSch, JZlib, JCTerm in EPAP 16.4.1.1.0	
35927543	N	4	Update Mysql to latest available version	
35927553	N	4	Update TPD to latest version of 7.8	
35927664	N	4	Update perl-PAR and perl-PAR-Packer packages in EPAP 16.4.1	
35927679	N	4	Update perl-Module-Scandeps in EPAP 16.4	
35927712	N	4	Update jquery to 3.7.0	

**Table 6-2 EPAP Release 16.4.1.0.0-164.16.0 Resolved Bugs (December 2021)**

Bug #	SR	Sev	Title	Customer Impact
32942808	Y	2	SR: PDBA gets hung and also there is no alarm for the PDBA hung condition	Customer loses the functionality to provision new updates to the Eagle and may not be aware since there is no alarm.

**Table 6-2 (Cont.) EPAP Release 16.4.1.0.0-164.16.0 Resolved Bugs (December 2021)**

Bug #	SR	Sev	Title	Customer Impact
30882808	N	4	Update package rinetd to latest version	
33039713	N	4	Update jquery to latest available version	
33367044	N	4	Update third party perl packages	
33429222	N	4	Update Mysql to latest available version	
33429240	N	4	Update TPD to latest available version	
33614532	N	4	Update Perl-PAR package to 1.017	

**Table 6-3 EPAP Release 16.4.0.0.0-164.7.0 Resolved Bugs (August 2020)**

Bug #	SR	Sev	Title	Customer Impact
29741883	Y	3	SR: PDB export has a problem when the schedule modified from Schedule EPAP Tasks in GUI	If anyone other than the original owner of the PDB Export Script changes the schedule via the GUI, the export fails.
30411889	Y	3	Division By 0 Error in listPDBConns.pl	An incorrect value of the number of PDBI connections or errors will be displayed, but traffic is not impacted.
30976632	Y	3	The pruneBinaryLogs script runs on the EPAPs (both A and B) every 10 minutes.	If the pruneBinaryLogs cron job is inhibited, an incorrect error message is posted in /var/log/cron. There is no traffic impact.
29878513	N	4	Remove MD5 & MAC algorithms	
30331691	N	4	EIR Logging enhancements	
30368634	N	4	EPAP 16.4: Upgrade TPD to 7.6.2.0.0_88.59.0	
30370396	N	4	Ability to have more than 1 TIF filter make use of EPAP for blocklisting	
30762167	N	4	Upgrade third party packages to latest	
30786748	N	4	Increment major release version for 16.4	
30806344	N	4	Update Mysql to latest version	
31158277	Y	4	SR: Both EPAP servers showing same status in GUI's banner after upgrading to rel 16.2	

## 6.3 Customer Known Bug Listing

The following table lists known bugs in this release:

**Table 6-4 EPAP Release 16.4 Customer Known Bugs (December 2023)**

Bug #	SR	Sev	Title	Customer Impact
23074327	N	3	EPAP16.1_ST:Port Forwarding must continue to ABP PDBA when other PDBA in replerr	When port forwarding (PDBA Proxy feature) is used and the system is in REPLERR state, the port forwarding may point to the system that is in the REPLERR state. Please correct the REPLERR on systems in this state.
24940813	N	3	EPAP16.1_MR:Unable to open GUI via hostname on PDBonly Segmented setup.	The GUI on a PDB only server cannot be accessed by hostname. The server must be accessed by IP address.
25966121	N	3	EPAP16.2_ST:Export of DN in Ascii mode taking more time than expected.	The export shall take longer to complete as compared to the previous release.
26173039	N	3	EPAP16.2_ST: GUI is not getting opened for Backup Prov IP.	The Backup Provisioning feature does not work with HTTPS during disaster recovery.
26352218	N	3	CDS: USB stick in port during backout will cause lockup and failure messages	Execution of the backout procedure with a USB device inserted into the server will prevent the backout procedure from completing until the USB device is removed from the server and the system is rebooted.
27684300	N	3	EPAP16.2_FOA:Incorrect information displayed to user in queryserver.log	Confusing messages regarding the purging of binary logs are displayed during cleanup script execution.
27714185	N	3	EPAP16.2_FOA:Connection to MMI Port not terminating properly.	The MMI connection option does not properly disconnect from the MMI and will require the process to be manually stopped after disconnecting.
27722102	N	3	EPAP16.2_FOA:Disaster Recovery not working on a Sync Redundant setup.	No impact to customer operations



Table 6-4 (Cont.) EPAP Release 16.4 Customer Known Bugs (December 2023)

Bug #	SR	Sev	Title	Customer Impact
28477985	Y	3	EPAP16.3_ST:Unable to run disaster recovery on a VIP configured setup	The Disaster Recovery option in the menu will not function on a system configured with the PDBA Proxy feature (VIP) enabled.
28478004	N	3	EPAP16.3_ST:Replication issue observed when backup prov configured as PDB.	No impact if homing is set
28494442	N	3	EPAP16.3_ST:Pdbb entry missing from known_hosts file.	SSH key acceptance prompt is being displayed after a key exchange.
28515537	N	3	EPAP16.3_ST:After performing DR syscheck retains error for backup prov.	Erroneous message related to backup prov is reported by syscheck.
28541347	N	3	EPAP16.3_ST:Unable to start PDB services when Prov IP is down.	In a Segmented PDBA only setup, if the Backup Prov IP is down and EPAP setup is rebooted, the PDB services do not automatically start on reboot.
28989203	N	3	EPAP16.3_CompactDB ST: BinOS permissions incorrectly set for switch configuration.	The switch programming may fail when the switch is at an older firmware release. This is due to incorrect permission settings for the firmware file.
30080794	N	3	Disk space shortage in /var. Space usage error growing quickly	No impact to EPAP functionality. /var is used to store cron logs and some operating system files.
30958689	Y	3	SR: Accept script not always removing accept message	The false error message may mislead customer and may lead to unnecessary actions to resolve a condition that does not exist.

Table 6-4 (Cont.) EPAP Release 16.4 Customer Known Bugs (December 2023)

Bug #	SR	Sev	Title	Customer Impact
31399051	N	3	EPAP_16.4_FT>Error observed when user clicks on logout option on PDBonly Segmented GUI opened in IPv6 mode.	When a user selects the Logout option on the EPAP GUI using an IPv6 IP address on a Firefox browser, a "Premature end of script headers: handleClientSession.cgi" error message is displayed. The user may think that they did not logout of the EPAP session properly, when in fact the logout was successful.
31613958	N	3	EPAP_16.4_FT:RTDB Reload from PDBA failing on a High Capacity DB.	With a database of atleast 300M IMSI + atleast 300M DNs, the reloadRtdbFromPdb fails. This command is not normally used. <b>Workaround:</b> Use the faster alternative reloadRtdbFromMate/ Remote instead.
31624936	Y	3	After upgrade to 16.3, alarms are not reflected in GUI & STP	After upgrade but before accept, there should be the following two alarms: <ol style="list-style-type: none"><li>1. pending upgrade accept</li><li>2. internal disk error</li></ol> The impact is minimal as the customer is still made aware of the alarm with syscheck.
32036407	Y	3	Non PROV EPAP-A 16.3 upgrade failed and started rolling back automatically to 16.1.	Customer will have to verify that there are no lingering issues and attempt the upgrade again.
32231234	N	3	Problem in PROV to NonPROV conversion using epapconfig menu	Customer will have to manually remove the pdb folder.
32319917	Y	3	SR- Frequent switchover in EPAP state observed in EPAP	Customers lose functionality to update Eagle which may impact the calls.
32971671	Y	3	eirSftp.pl script fails to pass the password when executing.	User has to FTP the files from command line.

Table 6-4 (Cont.) EPAP Release 16.4 Customer Known Bugs (December 2023)

Bug #	SR	Sev	Title	Customer Impact
33197824	Y	3	SR 3-26288421201:TKSPLAT MI 39 – Platform Data Collection Error (5000004000000000)	There is no impact as the customer does not lose functionality and only sees alarm on Eagle.
33410957	N	3	EPAP_16.4.1_MR:Access forbidden is getting observed when EPAP GUI is left idle for a long time on Chromium based Edge browser in HTTP mode.	Customer must refresh GUI.
33417840	N	3	EPAP_16.4.1_MR:Core for GS is getting observed on EPAP running on release 16.4.1.0.0_164.11.0.	This does not impact the functionality of the GUI. Message will be observed that core file gets generated. Customer must remove core file to clear alarm.
33507358	Y	3	Backup fails to transfer to remote server	Customer must use a credential that does not use \$.
23181941	N	4	EPAP16.1_ST:Incorrect alarm being sent to NMS.	License Capacity alarm will be sent via SNMP until the capacity is configured in the system.
23605698	N	4	EPAP16.1_ST:Accept/ Reject message is printing twice after incremental upgrade.	No impact to customer operations
24910416	N	4	EPAP16.1_MR:Errors observed in cgi.dbg on configuring PDB.	Messages are displayed in the cgi.dbg file during PDB configuration that appear to be error messages. These messages have no impact on customer operations.
25644469	N	4	Dangling asd in pdb.asd table	When multiple DNs are added at the same time from the "Add DN" screen in the GUI and the main DN is then deleted, the remaining DNs from the prior add command will have an invalid ASD value.
25678336	N	4	EPAP16.1.1_MR:Maint watcher on standby displaying incorrect DSM count.	The DSM count from the Maint watcher on the standby system intermittently reports an inaccurate DSM count.

**Table 6-4 (Cont.) EPAP Release 16.4 Customer Known Bugs (December 2023)**

Bug #	SR	Sev	Title	Customer Impact
25851378	N	4	Auto backup schedule not replicating to non-prov configured with dual stack	The auto-backup schedule is not replicated to the non-prov when the non-prov system is configured in dual stack mode and the PDBonly server is configured in IPv4 mode.
25883585	N	4	EPAP 16.2_ST: Alarm "Upgrade Accept/Reject Pending" is not observed on EPAP GUI.	The "Upgrade Accept/Reject Pending" alarm is not always visible on the GUI.
25979029	N	4	EPAP16.2_ST:Logging to be updated in cgi.dbg	The cgi.dbg file does not log the IMSI range that is being deleted in the log file.
26005209	N	4	EPAP16.2_ST:Logging of IP to which SSH to MPS is done must be added	The SSH to MPS does not record the IP address in the cgi.dbg file.
26005230	N	4	EPAP16.2_ST:Logs must be maintained for restore done via CLI.	The log file for the RTDB restore is not created when restoring an RTDB backup from a prior release. The command execution output must be captured from the command line during an upgrade.
26149567	N	4	EPAP16.2_ST: Need space in between IMEIBlock in view PDBA area.	The GUI label in View PDBA Status displays some labels in a condensed format.
26335498	N	4	EPAP16.2_ST:Error observed for mate during resetReplication needs to be updated.	Customer may be confused by the wrong error message. The message should be "Could not connect to mysql from mate to localhost!"
26337529	N	4	EPAP16.2_ST: SNMP read & write community can be updated without stopping EPAP	The user is able to configure SNMP Agent Community when the EPAP software is running.
27620985	N	4	EPAP16.2_FOA: Newly created user has incorrect permission to switch other PDBA.	Permission to switch to other PDBA is granted by default to newly created users.
27722166	N	4	EPAP16.2_FOA: Error message observed during traffic is running from 128 clients	No impact on customer operations
28025481	N	4	EPAP16.3_DB_FT: Values of certain variables not updating for dbstattool.	No impact on customer operations

**Table 6-4 (Cont.) EPAP Release 16.4 Customer Known Bugs (December 2023)**

Bug #	SR	Sev	Title	Customer Impact
28165170	N	4	EPAP16.3_IMEI_FT:Export banner being removed as stale.	No impact on customer operations
28486363	N	4	EPAP16.3_ST:Data replicated to standby PDB when ROP is run with noStandby.	ROP data is always replicated to the standby node if the gmt command is ever executed without the --noStandby option.
28486392	N	4	EPAP16.3_ST:MySQL Lock Wait Timeout Exceeded alarm clearance issue.	The MySQL Lock Wait Timeout Exceeded alarm does not get cleared. <b>Workaround:</b> To clear the alarm, restart the PDB software.
28595734	N	4	Provide Read Access to OTHER users also for certain log files	Certain log files are only viewable by the epapdev and root users. Other users will not be able to read these files.
28975379	N	4	EPAP16.3_CompactDB ST: Excessive logging in rtdb.log	In COMPACT architecture mode, the Reload RTDB from PDBA function writes excessive information in the rtdb log files.
29459329	N	4	EPAP16.3.1: core.gs and core.httptd observed after upgrade from 16.3 to 16.3.1.	No impact on functionality. Customer will delete the core files.
30214531	N	4	EPAP16.3.1MR:Time on EPAP banner not updated when day light saving ends	No impact on functionality. Customer inconvenienced by having to verify the correct time.
31399012	N	4	EPAP_16.4_FT:Inconsistent values observed for Islblset in case of DN & DN Block.	The Islblset parameter in the dn_bl table can be displayed as either -1 or 0 when the parameter is Not Configured. Both are valid values representing the Islblset as Not Configured.
32573502	Y	4	SR: Not able to configure remote PDB from epapconfig menu, mysql.user column count mismatch error observed	Customer will need to run mysql_upgrade on every occurrence of the issue to fix it.
32661664	N	4	Provide additional option to configure maximum DB capacity in eXtreme mode	Customer may not know or understand how max capacity works.

**Table 6-4 (Cont.) EPAP Release 16.4 Customer Known Bugs (December 2023)**

<b>Bug #</b>	<b>SR</b>	<b>Sev</b>	<b>Title</b>	<b>Customer Impact</b>
33321671	N	4	EPAP16.4.1: Logging EDLM_DEBUG_LOG_PERCENT_FULL and GS_DEBUG_LOG_FULL_SIZE values not present observed	This does not impact the customer.
33410994	N	4	EPAP_16.4.1_MR:Completion message for some scheduled/manual export is not getting observed at EPAP.	Customer will have to manually verify whether export gets completed or not.

# 7

## Oracle References and Services

### 7.1 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.

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

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

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

# A

## Firmware Components

This appendix is not applicable to EAGLE, ExAP or LSMS releases. The firmware components are software that is installed on the hardware. These components are listed in this chapter, and are also listed in the Firmware Release Notice. Please refer to the latest Firmware Release Notice for any updates to this list.