Oracle® Communications EAGLE Application Processor
Release Notes

Release 16.3

E93954-01

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ORACLE®

Oracle Communications EAGLE Application Processor Release Notes, Release 16.3

E93954-01

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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:

- EPAP Database Increase to 480M DN + 600M Flexible IMSI/IMEI Allocation
- EPAP DN Block Capacity Extensions (from 200K to 400K)
- EPAP Flexible Allocation of EPAP IMSI and IMEI Database Capacity
- Increase of the Number of IMSI Associations to a Single IMEI

16.3 Feature Descriptions

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

The EPAP with 480 GB hard disk supports the following in PDB-only configuration:

1. Maximum 480Mn MSISDN without any IMSI or IMEI
2. Maximum 600M IMSI without any IMEI or DN
3. Maximum 600Mn IMEI without any IMSI or DN
4. A combination of DN, IMSI, and IMEI supported by PDB memory. The maximum limit of entries supported in PDB is a maximum of 480 million entries.

EPAP DN Block Capacity Extensions (from 200K to 400K)

The EPAP supports an additional 400,000 DN blocks.

EPAP Flexible Allocation of EPAP IMSI and IMEI Database Capacity

This feature allows the flexible provisioning for DN/IMSI/IMEI based on the capacity available in the PDB/RTDB.

Increase of the Number of IMSI Associations to a Single IMEI

This feature expands IMSI association from 8 to 400 per IMEI. Once IMSIs are added as part of the add IMEI option, the user will be allowed to add up to 400 IMSIs per IMEI using PDBI commands or import scripts, with no more than 8 IMSIs to be added per command.

See "Individual IMEI" in *Administion Guide* and "Update IMEI Data" in *Provisioning Database Interface User's Guide* for more information.

Hardware

This feature works on the EPAP application installed on E5-APP-B-02 hardware with a 480G disk.

Enhancement Bugs

EPAP 16.3 supports the following enhancement Bugs:

Table 2-1   EPAP 16.3 Enhancement Bugs

Bug # and Title	Description
21784603 EPAP CAPACITY GROWTH FOR EIR APP	Increases database capacity for the EIR Application
21924331 Public Key Authentication for files exports on EPAP	Enables the use of Public Key Authentication with SFTP file transfers
22071307 EPAP16.1:- ADD NTP server details in epapconfig display	Displays NTP Server details in the epapconfig display
27193130 EAGLE Back Release Compatibility Support	Supports backward compatibility with EAGLE 46.3, 46.4, and 46.5

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.

Media Pack

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

Table 3-1   Media Pack Contents

Name
Oracle Communications EAGLE Application Processor (16.3.0.0.0), Tekelec
Oracle Communications EAGLE Application Processor (16.3.1.0.0), Tekelec

Documentation Pack

All documents available for download from the Oracle Technology Network (OTN) site (http://docs.oracle.com) are listed in Table 3-2.

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

Table 3-2   Documentation Pack Contents

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

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.

Upgrade Paths

The possible upgrade paths to EPAP 16.3 are listed in the following table:

Table 4-1   EPAP 16.3 Upgrade Paths

From	To
EPAP Release 16.1	EPAP Release 16.3
EPAP Release 16.2	EPAP Release 16.3

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Product Compatibility

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

Product Compatibility

The following table shows EPAP 16.3 compatibility with EAGLE-related products.

Table 5-1   EPAP 16.3 Compatibility with EAGLE-Related Products

Product	Release	Compatibility
EAGLE Query Server	1.0	PC*
EAGLE	46.5	PC
	46.6	PC
	46.7	FC
OCEEMS	46.3	NC
	46.5	PC
	46.6	FC

> **✎ Note:**
>
> EAGLE should be upgraded to Release 46.7 before EPAP is upgraded to Release 16.3. Partial compatibility with EAGLE 46.5 and 46.6 is provided only in order to support the short period of time while the customer upgrades to a large network, or with EPAP 16.3 in Compact Architecture.

Legend:

- FC - Fully Compatible
- PC - Partially Compatible
- NC - Not compatible
- * - EAGLE Query Server 1.0 does not support the larger database of EPAP 16.3.

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.

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 builds:

- EPAP 16.3.0.0.0-163.14.0.
- EPAP 16.3.1.0.0-163.18.0.

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 16.3.1.0.0 Build 163.18.0 Resolved Bugs (October 2019)

Bug #	SR	Sev	Title	Customer Impact
28998578	Y	3	SR: RTDB reload from PDB needed in disaster scenario	Reloading from the PDB takes an excessive period of time and provisioning must be stopped during this time.
29337908		4	EPAP 3rd Party package updates	
29669870		4	Update perl-File-which package in EPAP 16.3.1	

Table 6-2   EPAP Release 16.3.0.0.0 Build 163.14.0 Resolved Bugs (December 2018)

Bug #	SR	Sev	Title	Customer Impact
24788956		3	EPAP16.1_MR:Invalid IPv6 address getting accepted for NTP in text UI.	
24910397	Y	3	SR: EPAP16.1_MR: Maint core observed.	No impact to customer operations.
26049069	Y	3	SR:Make default speed in switch configuration to 1000 Mbps from the current 100.	The default file for switch configuration will provision the switch for 100 Mbps links.

Table 6-2   (Cont.) EPAP Release 16.3.0.0.0 Build 163.14.0 Resolved Bugs (December 2018)

Bug #	SR	Sev	Title	Customer Impact
26246608		3	CDS: Errors reported regarding missing tables reported in upgrade log.	
26416543		3	CDS: Single Server DR failed.	
26648439		3	EPAP16.2: Support to new DSM_MIN_MEM_SIZE must be added.	
28443504		3	Disable Proxy/VIP during incremental upgrade.	
28455984		3	CS:CDS: Blank PDB, IMSI import did not work.	
28610982		3	CDS: PDBA proxy status not shown in B server.	
28611045		3	CDS: Add Appendix to download software and put in upgrade directory.	
28666538	Y	3	SR: MySQL ports missing from the Firewall Requirements in Table 5-5.	Customer may not know which firewall ports to open to allow functions between mated provisioning sites.
24490871		4	EPAP Database Increase to 480M DN + 600M Flexible IMSI / IMEI Allocation.	
24490890		4	EPAP DN Block capacity extensions (from 200K to 400K).	
24490930		4	Optimize disk usage to provide larger DB.	
25328336		4	Log files should have more restrctive permissions.	
27500650		4	EPAP Flexible Allocation of EPAP IMSI and IMEI Database Capacity.	
27500692		4	EAGLE Back Release Compatibility Support.	
27502619		4	EPAP CAPACITY GROWTH FOR EIR APP.	
27551674		4	Upgrade MySQL to 5.7.x latest.	
27551803		4	Public Key Authentication for file exports on EPAP.	
27551835		4	Increase of the number of IMSI associations to a single IMEI.	
27551859		4	EPAP16.1:- ADD NTP server details in epapconfig display.	
27759256		4	EPAP DB Admin Guide need to clarify the max of 9digs for DN/IMSI.	
27866876		4	TPD upgrade to 7.6.	

Table 6-2   (Cont.) EPAP Release 16.3.0.0.0 Build 163.14.0 Resolved Bugs (December 2018)

Bug #	SR	Sev	Title	Customer Impact
2796198 3		4	Update third party packages.	
2802928 6		4	Reload from PDBA need in-order insertion for IMSI.	
2829947 8		4	Reload from PDBA need in-order insertion for IMEI.	
2890120 9		4	Performance enhancement of "Reload RTDB from PDB".	

Customer Known Bug Listing

The following table lists known bugs in this release:

Table 6-3   EPAP Release 16.3 Customer Known Bugs (October 2019)

Bug #	SR	Sev	Title	Customer Impact
2898434 8		2	EPAP RTDB Reload from PDB for the rescue of a disaster scenario takes excessive time.	Reload from PDB can take an excessive amount of time in large database configurations. Reload from PDB should only be performed when advised by Oracle Support.
2902394 6		2	EPAP16.3_CompactDB ST: Reload from PDBA failed due to response timeout.	Reload from PDB can fail with a timeout on systems with a large quantity of provisioned NSDNs.
1908684 0		3	[213048]EPAP_14.0.2: Low system CPS when IMSI delete with DNB Self Heal ON.	The CPS is low for IMSI delete so it will take relatively longer time to complete the delete operations.
1908890 6		3	[217328]EPAP15.0 CPS for rtrv DN end values is less.	When doing a rtrv at the beginning of a range the CPS is higher, when doing a rtrv at the end of a range the CPS is lower.
1908929 5		3	[217661]CPS for rtrv DN Block and IMEI Block from the end is less than expected.	DN Block and IMEI Block provisioning may be below the expected performance rates.
1908929 7		3	[217662]CPS for ADD DN Block and IMEI Block at the end is less than expected.	DN Block and IMEI Block provisioning may be below the expected performance rates.
1909138 1		3	[219444]EPAP15.0_ST: GUI via HTTPS is not working correctly.	No real detrimental system impact. The user has to login again.

Table 6-3 (Cont.) EPAP Release 16.3 Customer Known Bugs (October 2019)

Bug #	SR	Sev	Title	Customer Impact
19102800		3	[228600]Problems/Failures while adding net/static routes in EPAP 15.0 release.	Networks having static/net rules/routes do not work as expected. Like in EPAP 15, application GUI does not open properly on backup prov IP. Syscheck may show faliures/error messages for correct routes also. PR 228583 created an application work around so the affects of this TPD bug are not seen. TPD still needs to be fixed to ensure there are no additional impacts.
19103189		3	[228900]Circular number substitution gets created instead of issuing error 1049.	Incorrect NSDN might be returned for a particular DN.
19103720		3	[229320]hastatus of Server B is stuck when upgrade is performed after backout.	hastatus of server is not correct.
19104482		3	[229939]EPAP 15.0.2: DN boundary is getting failed at PDB.	This issue will be observed only when the DN capacity is full (120M) and IMSI is added with force=yes. The workaround is to manually alter the transLog entries.
21113097		3	DSM network subnet 10.196.10/20 failed to connect EPAP to EAGLE SM.	Manual configuration of the desired DSM network is required for the 10.196.10/20 networks.
23074327		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.
23266906		3	EPAP16.1_ST: CFT not working properly when configured with admusr.	CFT will allow configured file transfers to directories without proper permissions.
24940813		3	EPAP16.1_MR:Unable to open GUI via hostname on PDBonly Segmented setup.	The GUI on a PDBonly server cannot be accessed by hostname. The server must be accessed by IP address.
25368048		3	Firewall ports are missing for MySQL.	The firewall port specifications is the Customer Documentation do not mention that ports 3306 and 3307 need to be opened in the firewall.
25608936		3	EPAP16.1.1_MR: Clearance issue of alarm "QS Falling behind" when PSR is on.	he PSR feature can cause alarms to be displayed indicating that the Query Server is lagging behind. The provisioning replication is OK, only the statistics data is lagging behind.
25725083		3	EPAP16.1.1_MR:Issue related to alarm, EPAP_QS_REPLICATION_ISSUE.	Query Server replication alarms will remain present in the EPAP until restart, if the Query server is deleted while in this alarm state.
25755081		3	EPAP16.1.1_MR:On IPv4only EPAP, IPv6 QS is getting added.	No Impact to Customer operation.

Table 6-3   (Cont.) EPAP Release 16.3 Customer Known Bugs (October 2019)

Bug #	SR	Sev	Title	Customer Impact
25755094		3	EPAP16.1.1_MR:Simultaneous occurrence of alarms related to QS is misleading.	Alarms related to replication will be displayed if the Query server is lagging behind the EPAP.
25966121		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 previous release.
26173039		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		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		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		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		3	EPAP16.2_FOA:Disaster Recovery not working on a Sync Redundant setup.	No Impact to customer operations.
27968930	Y	3	SR: Upgrade accepts fails initially resulting in false alarm later.	Occasionally, the accept script does not remove the message that the accept needs to be performed and this message must be manually removed.
28039568	Y	3	SR: RMTP Channels down for 3.5 hours, SM cards not getting new data from EPAP.	Cards stuck in the RMTP channels down status need to be rebooted to reload the MNP data.
28165170		3	EPAP16.3_IMEI_FT:Export banner being removed as stale.	No impact to customer operations.
28319663	Y	3	SR:CDS: Restore the PROV-NonPROV conversion functionality.	Conversion from Prov to Non-Prov and vice versa is not functional in EPAP 16.3.
28477985		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		3	EPAP16.3_ST:Replication issue observed when backup prov configured as PDB.	No impact if homing is set.
28494442		3	EPAP16.3_ST:Pdbb entry missing from known_hosts file.	SSH key acceptance prompt is being displayed after a key exchange.
28515537		3	EPAP16.3_ST:After performing DR syscheck retains error for backup prov.	Erroneous message related to backup prov is reported by syscheck.

Table 6-3   (Cont.) EPAP Release 16.3 Customer Known Bugs (October 2019)

Bug #	SR	Sev	Title	Customer Impact
2854134 7		3	EPAP16.3_ST:Unable to start PDB services when Prov IP is down.	In a Segmented PDBAonly setup, if the Backup Prov IP is down and EPAP setup is rebooted, the PDB services do not automatically start on reboot.
2898920 3		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.
1909030 8		4	[218547]In some scenarios, E1032 is not observed when command is aborted.	The impact is very low, as the user wants to abort the operation anyway. The E1032 error is not displayed but the previous menu is displayed.
1909250 4		4	[220308]In Epap 15.0_ST core.context.23785 is Observed.	There could be an alarm for a core file when there is no actual impact on the system running.
1909536 4		4	[222593]The mail queue is not being delivered to the mailboxes of the users.	We have not seen mail use being configured in EPAP for any customer.
1909538 9		4	[221507]Syscheck fs module and Linux df command calculate space used differently.	May be some confusion as the two different ways to show size show two different values. However there is no operational impact.
1910345 7		4	[229107]Eagle 45: IMEIBlk Version is being displayed at eagle side.	This is a cosmetic issue. The IMEI block version number from GUI or PDBI is neither provisionable nor affects message processing. It takes 0 as a default value. The output of the rtrv-data-rtdb command shows this default value when it should not.
1910371 5		4	[229316]EPAP 15.0.2: Error was observed after backout.	The content of the my.cnf file mentioned in the error message is good. No system impact.
1910388 4		4	[229446]Error logged in Pdba.err while retrieving DN range from EPAP server GUI.	Unwanted entry in the log file. No other system impact.
1911768 7		4	[240181]RMTP Enhancement Leftover issues.	No impact to customer operations.
1911771 0		4	[240198]PDBonly: Error varies for various scripts of rtdb in bin directory.	No impact if the customer follows procedures.
1911851 2		4	[240839]Query & EMS server info missing from epapconfig menu display info option.	No impact on functioning and provisioning of EPAP.
1911866 2		4	[240968]GUI message history taking time from local machine.	There might be a problem when investigating alarms in different time zones.
1925981 6		4	EPAP16.0_ST: Banner Msg related to autobackup configuration is not getting clear.	An erroneous banner message is displayed occasionally regarding the Automatic RTDB Configuration success for non-provisionable servers.

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Table 6-3   (Cont.) EPAP Release 16.3 Customer Known Bugs (October 2019)

Bug #	SR	Sev	Title	Customer Impact
1926559 3		4	EPAP_16.0 : Maint core is observed on PDBonly segmented server.	The Maint process core dumped on one occasion after the installation of a PDB only segmented server.
1933346 4		4	EPAP_16.0: Subscriber type is displaying when DN has retrieved in PDB db.	The Subscriber type value of "0" is returned when a DN is retrieved from the PDB database. This return value differs from previously documented return values from the PDB DN retrieval command.
1997487 3		4	EPAP_16.0_ST: Imsi range is getting provisioned from Standby PDB.	The IMSI range can be updated from a Standby PDB. This does not have a negative impact on customer operations.
2217269 1		4	EPAP16.1:- PDBI reports are getting pegged in cgi.dbg log.	No impact to customer operations.
2223184 1		4	EPAP16.1:On starting PDB 1st, status of maint process is being printed twice.	No impact to customer operations.
2229741 1		4	EPAP16.1_IPv6: Sync network address is getting displayed in authorized IP list.	No impact to customer operations.
2237910 3		4	Stop EPAP software on mate while configuring provisioning network.	No impact to customer operations.
2246219 0		4	EPAP16.1: IP of remote EPAP is accepted when using SSH to MPS.	The SSH to MPS will allow the manual selection of another system by allowing the IP address to be entered.
2251620 6		4	EPAP16.1:Data count being displayed in PSR.	The accurate count can be obtained by expanding the window by one second on a PSR query.
2253263 7		4	EPAP16.1:PDBA DSM Report not being fetched correctly.	The DSM report will return all results for cards that satisfy the report conditions. This includes all cards that are below the level that is being requested.
2288632 6		4	Concurrent logins of EPAP GUI is allowed for same user.	No impact to customer operations.
2297967 1		4	EPAP16.1_ST: Unwanted characters being printed in cron logs .	No impact to customer operations.
2306128 0		4	EPAP16.1_ST:Incomplete banner raised on configuring Automatic PDB/RTDB Backup.	Incomplete banner message can be displayed during backup for dual stack configured systems.
2306886 0		4	EPAP16.1_ST:Script failing while reconfiguring the interfaces.	Re-configuring the IP interfaces may fail.
2307407 9		4	EPAP16.1_ST:Update required in epapconfig related to time zone and spellings.	No impact to customer operations.

Table 6-3   (Cont.) EPAP Release 16.3 Customer Known Bugs (October 2019)

Bug #	SR	Sev	Title	Customer Impact
2318194 1		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.
2322622 1		4	EPAP16.1_ST:1057 error observed instead of 1049 on EPAP GUI .	If a user initiates deletion of an DN which is associated with many other DNs as NSDN then the EPAP GUI displays the error "E1017: PDBI error: 1057: PDBI_TXN_TIMEOUT". This does not have an impact to normal customer operations. The provisioning can be performed correctly using the PDBI interface.
2328179 2		4	EPAP16.1_ST:Number prefixes must be set only via Active PDB .	Number prefixes should only be configured on the active system.
2359173 4		4	EPAP16.1_ST:License capacity alarm observed on Non Prov.	The license capacity alarm will be raised on both the prov and non-prov system when the license capacity is not configured on the provisioning system.
2360569 8		4	EPAP16.1_ST:Accept/Reject message is printing twice after incremental upgrade.	No impact to customer operations.
2475537 3		4	EPAP16.1_MR:Unwanted mysql.sock ignored observed on initiating snapshot.	No Impact to customer operations.
2475549 6		4	EPAP16.1_MR:Success message printed twice on changing passwordthrough text UI.	No impact to customer operations.
2481584 4		4	EPAP16.1_MR:Incomplete error message observed in cgi.dbg on deleting QS.	The Query Server removal screen will return a message indicating that the Query Server IP address was not found when attempting to remove a Query Server that is not configured in the system.
2491041 6		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 to customer operations.
2564446 9		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.
2567833 6		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 6-3   (Cont.) EPAP Release 16.3 Customer Known Bugs (October 2019)

Bug #	SR	Sev	Title	Customer Impact
25725069		4	EPAP16.1.1_MR:maint.core observed on mixed EPAP setup.	No impact to customer operation.
25812498		4	Auto backup schedule not replicating to mate PDB on PDBonly.	In standalone PDB configuration, the PDB backup schedule is not replicated to the standalone PDB server. The backup must be manually scheduled on the standalone PDB server.
25851378		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		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.
25957930		4	EPAP16.2_ST: Incorrect login time displayed on EPAP GUI.	No impact to customer operation.
25979029		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		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		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.
26036783		4	EPAP16.2_ST:Refresh time should be update in Modify System Defaults.	The minimum system default refresh time is 5 seconds.
26149567		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.
26246860		4	CDS: Drive Capacity Expansion documentation issues.	Failure to backup the data properly, before the drive replacement, can prevent the recovery of data in the case of a failure.
26273407		4	EPAP16.2_ST: E1032 error appearing twice.	The message is displayed twice.
26335498		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		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		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.

Table 6-3   (Cont.) EPAP Release 16.3 Customer Known Bugs (October 2019)

Bug #	SR	Sev	Title	Customer Impact
27722166		4	EPAP16.2_FOA: Error message observed during traffic is running from 128 clients.	No Impact to customer operations.
27858302		4	EPAP16.2_FOA: Updates required in procedures in cgbu_021167.	Incorrect entry of data into the IP Address fields can cause the application to fail to properly operate or prevent future upgrades or backouts.
28025481		4	EPAP16.3_DB_FT: Values of certain variables not updating for dbstattool.	No Impact to Customer Operations.
28486363		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		4	EPAP16.3_ST:MySQL Lock Wait Timeout Exceeded alarm clearance issue.	"The MySQL Lock Wait Timeout Exceeded alarm does not get cleared.Workaround: To clear the alarm, restart the PDB software."
28595734		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		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.

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Oracle References and Services

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.

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: Oracle Education. 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 Oracle Education.

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.

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.

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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.