Oracle® Database Appliance

Release Notes

Release 19.27 for Linux x86-64

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Oracle Database Appliance Release Notes, Release 19.27 for Linux x86-64

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Contents

Preface

Oracle Database Appliance is an optimized, prebuilt database system that is easy to deploy, operate, and manage. By integrating hardware and software, Oracle Database Appliance eliminates the complexities of nonintegrated, manually assembled solutions. Oracle Database Appliance reduces the installation and software deployment times from weeks or months to just a few hours while preventing configuration and setup errors that often result in suboptimal, hard-to-manage database environments.

Audience

This guide is intended for anyone who configures, maintains, or uses Oracle Database Appliance:

- System administrators
- Network administrators
- Database administrators
- Application administrators and users

This book does not include information about Oracle Database architecture, tools, management, or application development that is covered in the main body of Oracle Documentation, unless the information provided is specific to Oracle Database Appliance. Users of Oracle Database Appliance software are expected to have the same skills as users of any other Linux-based Oracle Database installations.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

Access to Oracle Support

Oracle customer access to and use of Oracle support services will be pursuant to the terms and conditions specified in their Oracle order for the applicable services.

Related Documents

For more information about Oracle Database Appliance, go to `http://www.oracle.com/goto/oda/docs` and click the appropriate release.

For more information about using Oracle Database, go to http://docs.oracle.com/database/ and select the database release from the menu.

For more information about Oracle Integrated Lights Out Manager 3.2, see https://docs.oracle.com/cd/E37444_01/.

For more details about other Oracle products that are mentioned in Oracle Database Appliance documentation, see the Oracle Documentation home page at http://docs.oracle.com.

Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action or terms defined in the text.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
`monospace`	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.
# prompt	The pound (#) prompt indicates a command that is run as the root user.

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What's New in This Release

Oracle Database Appliance release 19.27 supports Oracle Database 19*c* functionality on Oracle Database Appliance hardware models.

New Features

This release supports Oracle Database Appliance models X11-HA, X11-L, X11-S, X10-HA, X10-L, X10-S, X9-2-HA, X9-2L, X9-2S, X8-2-HA, X8-2M, X8-2S, X7-2-HA, X7-2M, and X7-2S. You can create a bare metal deployment on Oracle Database Appliance or patch or upgrade your existing bare metal deployment to Oracle Database Appliance release 19.27. You can also create and patch Oracle Database Appliance DB systems. Read the chapter *Known Issues with Oracle Database Appliance in This Release* for critical fixes before deploying Oracle Database Appliance release 19.27.

For Oracle Database 19c and Oracle Database 23ai features, see the Oracle Database Documentation Library at https://docs.oracle.com/en/database/oracle/oracle-database/index.html.

The following new features are available in this release:

- **Changes to the patching procedure for Oracle Database Appliance**
  There are changes to the patching process for Oracle Database Appliance, in terms of the ODACLI commands to be run.

  See the *Oracle Database Appliance Deployment and User's Guide* for your hardware model.
- **Support for extension of /u01 and /opt on Oracle Database Appliance**
  You can modify the size of logical volumes LOGVOLOPT and LOGVOLU01 using ODACLI commands and Browser User Interface (BUI).

  See the *Oracle Database Appliance Deployment and User's Guide* for your hardware model.
- **Oracle Key Vault keystore support on Oracle Database Appliance Enhancements**
  You can update Oracle Key Vault client when the Oracle Key Vault server is updated to the latest release or when certificates are regenerated on the Oracle Key Vault server. You can also register a TDE enabled database with keys already on Oracle Key Vault.

  See the *Oracle Database Appliance Deployment and User's Guide* for your hardware model.
- **Support for using a local kickstart configuration file to create a virtual machine in a KVM deployment**

  You can use a local kickstart configuration file to create a virtual machine in a KVM deployment.
  For more information, see the *Oracle Database Appliance Deployment and User's Guide* for your hardware model.
- **Oracle ASM Filter Driver (ASMFD) Changes During Patching**

  Starting with Oracle Database Appliance release 19.27, Oracle ASM Filter Driver (ASMFD) is not automatically configured during provisioning of the appliance. Do not specify the `enableAFD` parameter in the provisioning JSON file. During patching, ASMFD continues in

the state that it was before patching. So, if ASMFD was configured before patching, then it remains configured. And if it was not configured before patching, then it remains deconfigured.

- **Oracle Database Appliance Configuration Collection Utility Enhancements**

  Oracle Database Appliance configuration collection collects configuration information for all components in the appliance. The utility assists in debugging issues on the appliance and provides a comprehensive record of all object versions and configuration details at a specific date and time. Additionally, it serves as a valuable reference for tracking configuration changes over time.
  For more information, see the *Oracle Database Appliance Deployment and User's Guide* for your hardware model.

- **Deprecation of the `odacli update-dcsagent` command**
  The `odacli update-dcsagent` command is deprecated in this release and may be desupported in a future release. The command is not required to be run during patching of the appliance.

  See the *Oracle Database Appliance Deployment and User's Guide* for your hardware model.

- **Provisioning and patching of Oracle Database Appliance bare metal deployments, KVM, and DB systems**
  This release supports provisioning and patching of bare metal deployments, KVM, and DB systems with Oracle Database Appliance release 19.27 on X11-HA, X11-L, X11-S, X10-HA, X10-HA, X10-L, X10-S, X9-2-HA, X9-2L, X9-2S, X8-2-HA, X8-2M, X8-2S, X7-2-HA, X7-2M, and X7-2S.

  See the chapter *Provisioning Oracle Database Appliance Bare Metal System* in the *Oracle Database Appliance Deployment and User's Guide* for your hardware model.

- **Support for Oracle Database 23ai and 19c databases on Oracle Database Appliance DB systems**

  This release supports creation of databases of Oracle Database 23ai and 19c databases on DB systems. The version is specified in the DB system JSON payload, with the attribute `version` for `database`. When you provision DB system of release 23ai, then you cannot provision any other database versions, such as 19c in the DB system at the same time.
  For details on the JSON file changes for creating Oracle Database 23ai and 19c databases on DB systems, see the *Oracle Database Appliance Deployment and User's Guide* for your hardware model.

- **ODACLI Command Enhancements**
  There are changes to ODACLI command options in this release. Use the `--help` option with a command to view the supported options for the command in this release.

  For more information, see the chapter *Oracle Database Appliance Command-Line Reference* in the *Oracle Database Appliance Deployment and User's Guide* for your hardware model.

- **Access to Oracle Database Appliance documentation from the Browser User Interface**
  You can access the Oracle Database Appliance documentation set for this release from the Browser User Interface.

  There is a search box at the top right hand corner of the BUI. Search results are links to documentation pages shown as a new window in the BUI. When you click the **Help** button, links from the documentation relevant to the context of the tab are displayed. Along with the search results from the Oracle Database Appliance documentation pages, BUI also provides relevant Frequently Asked Questions (FAQs) for the search query. Additionally, you can also search on DCS error codes such as DCS-10001, DCS-10032, and so on in

the search box and get the links to documentation pages containing these error codes. When you specify the search query, relevant documentation, FAQs, and DCS error codes links are displayed in a new window in the BUI.

For the latest updates to the documentation for a release, see the online Oracle Database Appliance documentation library at https://docs.oracle.com/en/engineered-systems/oracle-database-appliance/index.html.

- **Oracle Grid Infrastructure and Oracle Database Updates**

  The following Oracle Grid Infrastructure and Oracle Database updates (January 2025 Oracle Database Release Update) for bare metal systems are available in this release:

  – 19.27.0.0.250415

  Oracle Grid Infrastructure and Oracle Database Update 23.7.0.25.01 for DB system are also available with this release.

Oracle Grid Infrastructure Clone, Oracle Database Clone, and ISO Image Patches

See the chapter *Oracle Database Appliance Release 19.27 Patches* for patch details and links.

Oracle Database Appliance patches are available in My Oracle Support. When selecting a patch, ensure that you select Oracle Database Appliance release 19.27 from the drop down list.

- **Oracle Database Appliance 19.27.0.0.0 Server Patch for Bare Metal Systems:** Use patch 37817290 to update your bare metal deployment to Oracle Database Appliance release 19.27. You must download the Server Patch, Oracle Grid Infrastructure clone file, and the Oracle Database clone file to update your deployment to release 19.27.
- **Oracle Database Appliance 19.27.0.0.0 GI Clone for ODACLI/DCS Stack:** Use patch 30403673 to update your deployment to this Oracle Database Appliance release. You also use this patch to perform an initial deployment of Oracle Database Appliance. The bundle contains the latest Oracle Grid Infrastructure components for deployment on an Oracle Database Appliance in the "shipped from factory" state, or an Oracle Database Appliance that has been re-imaged using the operating system ISO Image. This patch is for all Oracle Database Appliance Hardware Models (bare metal).
- **Oracle Database Appliance RDBMS Clone for ODACLI/DCS Stack:** Use the Oracle Database 19.27.0.0.250415 Software Clone file to create 19.27.0.0.250415 Oracle Database homes. Patch 30403662 provides the database clone for this update. This patch is for all Oracle Database Appliance Hardware Models (bare metal systems).
- **Oracle Database Appliance 19.27.0.0.0 DB System Image Download for KVM:** Use the KVM Database System template to deploy KVM-based virtualization for Oracle Database Appliance release 19.27. Patch 32451228 provides the software for this update.
- **Oracle Database Appliance 23ai DB System Image Download for KVM:** Use the KVM Database System template to deploy KVM-based virtualization for DB system of version 23ai. Patch 36524660 provides the software for this update.
- **Oracle Database Appliance 23ai GI Clone for DB Systems:** Use patch 36524627 to perform an initial deployment of Oracle Database Appliance on DB Systems for creating Oracle Database 23ai databases. This patch is for Oracle Database Appliance hardware models with DB systems only.
- **Oracle Database Appliance 23ai Database Clone File for DB Systems:** Use the Oracle Database 23ai Software Clone file to create 23ai Oracle Database homes. Patch 36524642 provides the database clone for this update. This patch is for Oracle Database Appliance hardware models with DB systems only.

- **Oracle Database Appliance 23ai DB System Server Patch:** Use the KVM DB System template to patch 23ai KVM-based virtualization for Oracle Database Appliance 19.27. Patch 37817282 provides this update. This patch is for Oracle Database Appliance hardware models with DB systems only.
- **Oracle Database Appliance 19.27.0.0.0 OS ISO Image for all Platforms:** Use this patch to reimage the operating system for Oracle Database Appliance 19.27. Patch 30403643 provides the software for this update.

Related Topics

- Patching Oracle Database Appliance
- Provisioning Oracle Database Appliance X11 Bare Metal System
- Storing Transparent Database Encryption Keys on Oracle Key Vault Server
- Managing Local Volumes
- Creating a Virtual Machine with a Kickstart Configuration File
- Oracle Database Appliance Command-Line Interface

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Component Versions for Oracle Database Appliance

Review the component versions available for Oracle Database Appliance for supported hardware models for this release.

- Component Versions for Oracle Database Appliance X11 Models
  The matrix displays the component versions available for Oracle Database Appliance for X11-S, X11-L, and X11-HA.
- Component Versions for Oracle Database Appliance X10 Models
  The matrix displays the component versions available for Oracle Database Appliance for X10-S, X10-L, and X10-HA.
- Component Versions for Oracle Database Appliance X9-2 Models
  The matrix displays the component versions available for Oracle Database Appliance for X9-2S, X9-2L, and X9-2-HA.
- Component Versions for Oracle Database Appliance X8-2 Models
  The matrix displays the component versions available for Oracle Database Appliance for X8-2S, X8-2M, and X8-2-HA.
- Component Versions for Oracle Database Appliance X7-2 Models
  The matrix displays the component versions available for Oracle Database Appliance for X7-2S, X7-2M, and X7-2-HA.

Component Versions for Oracle Database Appliance X11 Models

The matrix displays the component versions available for Oracle Database Appliance for X11-S, X11-L, and X11-HA.

Table 2-1 Component Versions for X11-HA, X11-L, and X11-S in Oracle Database Appliance Release 19.27

Component Name	X11-HA	X11-S and X11-L
External HBA Silverthorn EXT-B	23.00.01.00	23.00.01.00
OS Disk Micron 7450 NVME M.2 SSD 480GB (Max)	E2MU200	E2MU200
Disks (SSD/HDD)	Samsung 7.5T SDD: RXG0/RXA0 WDC 22T HDD: A7B0	Not applicable
NVMe (firmware version)	Intel NVMe: 9CV1R490 Samsung NVMe: GDB7302Q	Samsung NVMe: MPPA6R5Q and GDB7302Q
Expander	DE3-24C: IOMv2- 2501	Not applicable
ILOM (Oracle Integrated Lights Out Manager)	5.1.5.20.r162776	5.1.5.20.r162776
BIOS	90030200	90030200

Table 2-1 (Cont.) Component Versions for X11-HA, X11-L, and X11-S in Oracle Database Appliance Release 19.27

Component Name	X11-HA	X11-S and X11-L
IPMI (Intelligent Platform Management Interface)	1.8.18.0	1.8.18.0
HMP (Oracle Hardware Management Pack)	2.4.10.1.600-4	2.4.10.1.600-4
Oracle Linux	8.10	8.10
AHF (Oracle Autonomous Health Framework)	25.3.0	25.3.0
MySQL	8.0.42	8.0.42
Kernel	kernel-uek-core-5.15.0-307.178.5.el8uek.x86_64	kernel-uek-core-5.15.0-307.178.5.el8uek.x86_64
GI_HOME	19.27.0.0.250415	19.27.0.0.250415
DB_HOME	19.27.0.0.250415	19.27.0.0.250415
Oracle Auto Service Request (Oracle ASR)	25.1.0	25.1.0

Component Versions for Oracle Database Appliance X10 Models

The matrix displays the component versions available for Oracle Database Appliance for X10-S, X10-L, and X10-HA.

Table 2-2 Component Versions for X10-HA, X10-L, and X10-S in Oracle Database Appliance Release 19.27

Component Name	X10-HA	X10-S and X10-L
External HBA Silverthorn EXT-B	23.00.01.00	23.00.01.00
OS Disk Micron 7450 NVME M.2 SSD 480GB (Max)	E2MU200	E2MU200
Disks (SSD/HDD)	Samsung 7.5T SDD: RXG0/RXA0 WDC 22T HDD: A7B0	Not applicable
NVMe (firmware version)	Intel NVMe: 9CV1R490 Samsung NVMe: MPPA6R5Q	Intel NVMe: 9CV1R490 Samsung NVMe: MPPA6R5Q
Expander	DE3-24C: IOMv2- 2501	Not applicable
ILOM (Oracle Integrated Lights Out Manager)	5.1.5.20.r162776	5.1.5.20.r162776
BIOS	84080600	84080600
IPMI (Intelligent Platform Management Interface)	1.8.18.0	1.8.18.0
HMP (Oracle Hardware Management Pack)	2.4.10.1.600-4	2.4.10.1.600-4
Oracle Linux	8.10	8.10
AHF (Oracle Autonomous Health Framework)	25.3.0	25.3.0

Table 2-2 (Cont.) Component Versions for X10-HA, X10-L, and X10-S in Oracle Database Appliance Release 19.27

Component Name	X10-HA	X10-S and X10-L
MySQL	8.0.42	8.0.42
Kernel	kernel-uek-core-5.15.0-307.178.5.el8uek.x86_64	kernel-uek-core-5.15.0-307.178.5.el8uek.x86_64
GI_HOME	19.27.0.0.250415	19.27.0.0.250415
DB_HOME	19.27.0.0.250415	19.27.0.0.250415
Oracle Auto Service Request (Oracle ASR)	25.1.0	25.1.0

Component Versions for Oracle Database Appliance X9-2 Models

The matrix displays the component versions available for Oracle Database Appliance for X9-2S, X9-2L, and X9-2-HA.

Table 2-3 Component Versions for X9-2-HA, X9-2L, and X9-2S in Oracle Database Appliance Release 19.27

Component Name	X9-2-HA	X9-2S and X9-2L
Controller	16.00.08.00	Not applicable
Expander	DE3-24C: IOMv2- 2501	Not applicable
SSD	RXG0	Not applicable
NVMe (firmware version)	Not applicable	2CV1RC55
OS Disk (SSD firmware version)	XC311132 or XC311151	XC311132 or XC311151
ILOM (Oracle Integrated Lights Out Manager)	5.1.5.20.r162439	X9-2S: 5.1.5.20.r162439 X9-2L: 5.1.5.20.r162439
BIOS	62130200	X9-2S: 62130200 X9-2L: 62130200
IPMI (Intelligent Platform Management Interface)	1.8.18.0	1.8.18.0
HMP (Oracle Hardware Management Pack)	2.4.10.1.600-4	2.4.10.1.600-4
Oracle Linux	8.10	8.10
AHF (Oracle Autonomous Health Framework)	25.3.0	25.3.0
MySQL	8.0.42	8.0.42
Kernel	kernel-uek-core-5.15.0-307.178.5.el8uek.x86_64	kernel-uek-core-5.15.0-307.178.5.el8uek.x86_64
GI_HOME	19.27.0.0.250415	19.27.0.0.250415
DB_HOME	19.27.0.0.250415	19.27.0.0.250415

Table 2-3 (Cont.) Component Versions for X9-2-HA, X9-2L, and X9-2S in Oracle Database Appliance Release 19.27

Component Name	X9-2-HA	X9-2S and X9-2L
Oracle Auto Service Request (Oracle ASR)	25.1.0	25.1.0

Component Versions for Oracle Database Appliance X8-2 Models

The matrix displays the component versions available for Oracle Database Appliance for X8-2S, X8-2M, and X8-2-HA.

Table 2-4 Component Versions for X8-2-HA, X8-2M, and X8-2S in Oracle Database Appliance Release 19.27

Component Name	X8-2-HA	X8-2S and X8-2M
Controller	16.00.08.00	Not applicable
Expander	DE3-24C: IOMv2- 2501	Not applicable
SSD	A967	Not applicable
NVMe (firmware version)	Not applicable	VDV1RL06
OS Disk (SSD firmware version)	N2010121 or XC311132	N2010121
ILOM (Oracle Integrated Lights Out Manager)	5.1.4.25.r160118	X8-2S: 5.1.4.25.r160118 X8-2M: 5.1.4.25.r160118
BIOS	52140100	X8-2S: 52140100 X8-2M: 52140100
IPMI (Intelligent Platform Management Interface)	1.8.18.0	1.8.18.0
HMP (Oracle Hardware Management Pack)	2.4.10.1.600-4	2.4.10.1.600-4
Oracle Linux	8.10	8.10
AHF (Oracle Autonomous Health Framework)	25.3.0	25.3.0
MySQL	8.0.42	8.0.42
Kernel	kernel-uek-core-5.15.0-307.178.5.el8uek.x86_64	kernel-uek-core-5.15.0-307.178.5.el8uek.x86_64
GI_HOME	19.27.0.0.250415	19.27.0.0.250415
DB_HOME	19.27.0.0.250415	19.27.0.0.250415
Oracle Auto Service Request (Oracle ASR)	25.1.0	25.1.0

Component Versions for Oracle Database Appliance X7-2 Models

The matrix displays the component versions available for Oracle Database Appliance for X7-2S, X7-2M, and X7-2-HA.

Table 2-5 Component Versions for X7-2-HA, X7-2M, and X7-2S in Oracle Database Appliance Release 19.27

Component Name	X7-2-HA	X7-2S and X7-2M
Controller	16.00.08.00	Not applicable
Expander	DE3-24C: IOMv2- 2501	Not applicable
SSD	A17D For the HDD/SSD option: A374/A087	A17D
NVMe (firmware version)	Not applicable	X7-2M: QDV1RF32 X7-2S: QDV1RF35
OS Disk (SSD firmware version)	N2010121	N2010121
ILOM (Oracle Integrated Lights Out Manager)	5.1.4.25.r160118	5.1.4.25.r160118
BIOS	41170100	41170100
IPMI (Intelligent Platform Management Interface)	1.8.18.0	1.8.18.0
HMP (Oracle Hardware Management Pack)	2.4.10.1.600-4	2.4.10.1.600-4
Oracle Linux	8.10	8.10
AHF (Oracle Autonomous Health Framework)	25.3.0	25.3.0
MySQL	8.0.42	8.0.42
Kernel	kernel-uek-core-5.15.0-307.178.5.el8uek.x86_64	kernel-uek-core-5.15.0-307.178.5.el8uek.x86_64
GI_HOME	19.27.0.0.250415	19.27.0.0.250415
DB_HOME	19.27.0.0.250415	19.27.0.0.250415
Oracle Auto Service Request (Oracle ASR)	25.1.0	25.1.0

3

Oracle Database Appliance 19.27 Patches

Get information about Oracle Database Appliance patches for this release, the download locations, and how to apply the patches.

- Patching from Previous Releases
  Understand the minimum versions for patching Oracle Database Appliance to later releases.
- Minimum Software Version Requirements
  Review the minimum software version requirements for installing this release of Oracle Database Appliance.
- Oracle Database Appliance Bare Metal System and KVM Patches
  Download the patches available for Oracle Database Appliance in My Oracle Support, get information on the prerequisites, and how to apply the patches.

Patching from Previous Releases

Understand the minimum versions for patching Oracle Database Appliance to later releases.

Oracle recommends that you patch your Oracle Database Appliance deployment to within the previous four releases. There may be a minimum patch-level requirement for upgrades to certain releases. With this release of Oracle Database Appliance, there are a few changes to the patching procedure. Ensure that you follow the sequence of steps for patching your appliance as described in the *Oracle Database Appliance Deployment and User's Guide* for your hardware model.

> **See Also:**
>
> For supported Oracle Database releases on Oracle Database Appliance, see *My Oracle Support Note* 2757884.1 at https://support.oracle.com/rs?type=doc&id=2757884.1.

Use the following table as an indicator for minimum requirements for patching to a release.

Table 3-1 Minimum Patch Requirements for Oracle Database Appliance Releases

Oracle Database Appliance Release (To patch to this release...)	Earliest Supported Release To Patch From (Oracle recommends this release...)
19.27.0.0	For bare metal systems: • 19.26.0.0 • 19.25.0.0 • 19.24.0.0 • 19.23.0.0

Table 3-1 (Cont.) Minimum Patch Requirements for Oracle Database Appliance Releases

Oracle Database Appliance Release (To patch to this release...)	Earliest Supported Release To Patch From (Oracle recommends this release...)
19.26.0.0	For bare metal systems: • 19.25.0.0 • 19.24.0.0 • 19.23.0.0 • 19.22.0.0
19.25.0.0	For bare metal systems: • 19.24.0.0 • 19.23.0.0 • 19.22.0.0 • 19.21.0.0
19.24.0.0	For bare metal systems: • 19.23.0.0 • 19.22.0.0 • 19.21.0.0 • 19.20.0.0 **Note:** If your deployment is on Oracle Database Appliance release 19.20, then use Data Provisioning Reprovisioning to upgrade your appliance. If your deployment is on Oracle Database Appliance release 19.22 or 19.21, then patch your appliance.
19.23.0.0	For bare metal systems: • 19.22.0.0 • 19.21.0.0 • 19.20.0.0 • 19.19.0.0 **Note:** If your deployment is on Oracle Database Appliance release 19.19 or 19.20, then use Data Provisioning Reprovisioning to upgrade your appliance. If your deployment is on Oracle Database Appliance release 19.22 or 19.21, then patch your appliance.
19.22.0.0	For bare metal systems: • 19.21.0.0 • 19.20.0.0 • 19.19.0.0 • 19.18.0.0 **Note:** If your deployment is on Oracle Database Appliance release 19.18, 19.19, or 19.20, then use Data Provisioning Reprovisioning to upgrade your appliance. If your deployment is on Oracle Database Appliance release 19.21, then patch your appliance.
19.21.0.0	For bare metal systems: • 19.20.0.0 • 19.19.0.0 • 19.18.0.0 • 19.17.0.0 Only for Oracle Database Appliance X10, patch from 19.20.0.1 on bare metal systems.

Table 3-1 (Cont.) Minimum Patch Requirements for Oracle Database Appliance Releases

Oracle Database Appliance Release (To patch to this release...)	Earliest Supported Release To Patch From (Oracle recommends this release...)
19.20.0.0	For bare metal systems: • 19.19.0.0 • 19.18.0.0 • 19.17.0.0 • 19.16.0.0
19.19.0.0	For bare metal systems: • 19.18.0.0 • 19.17.0.0 • 19.16.0.0 • 19.15.0.0
19.18.0.0	For bare metal systems: • 19.17.0.0 • 19.16.0.0 • 19.15.0.0 • 19.14.0.0
19.17.0.0	For bare metal systems: • 19.16.0.0 • 19.15.0.0 • 19.14.0.0 • 19.13.0.0
19.16.0.0	For bare metal systems: • 19.15.0.0 • 19.14.0.0 • 19.13.0.0 • 19.12.0.0
19.15.0.0	For bare metal systems: • 19.14.0.0 • 19.13.0.0 • 19.12.0.0 • 19.11.0.0
19.14.0.0	For bare metal systems: • 19.13.0.0 • 19.12.0.0 • 19.11.0.0 • 19.10.0.0
19.13.0.0	For bare metal systems: • 19.12.0.0 • 19.11.0.0 • 19.10.0.0 • 19.9.0.0 For virtualized platform deployments: • 19.9.0.0 • 19.8.0.0

Table 3-1 (Cont.) Minimum Patch Requirements for Oracle Database Appliance Releases

Oracle Database Appliance Release (To patch to this release...)	Earliest Supported Release To Patch From (Oracle recommends this release...)
19.12.0.0	For bare metal systems: • 19.11.0.0 • 19.10.0.0 • 19.9.0.0 • 19.8.0.0
19.11.0.0	For bare metal systems: • 19.10.0.0 • 19.9.0.0 • 19.8.0.0 • 19.7.0.0
19.10.0.0	For bare metal systems: • 19.9.0.0 • 19.8.0.0 • 19.7.0.0 • 19.6.0.0
19.9.0.0	For bare metal systems: • 19.8.0.0 • 19.7.0.0 • 19.6.0.0 • 19.5.0.0 For virtualized platform deployments: • 19.8.0.0
19.8.0.0	For bare metal systems: • 19.7.0.0 • 19.6.0.0 • 19.5.0.0 For virtualized platform deployments: • 18.8.0.0
19.7.0.0	• 19.6.0.0 • 19.5.0.0
19.6.0.0	• 18.8.0.0
18.8.0.0	• 18.7.0.0 • 18.5.0.0 • 18.3.0.0
18.7.0.0	• 18.5.0.0 • 18.3.0.0
18.5.0.0	• 18.3.0.0
18.3.0.0	• 12.2.1.4.0 • 12.2.1.3.0 • 12.2.1.2.0 • 12.1.2.12
12.2.1.4.0	• 12.2.1.3.0 • 12.2.1.2.0 • 12.1.2.12

Table 3-1 (Cont.) Minimum Patch Requirements for Oracle Database Appliance Releases

Oracle Database Appliance Release (To patch to this release...)	Earliest Supported Release To Patch From (Oracle recommends this release...)
12.2.1.3.0	• 12.2.1.2.0 • 12.1.2.12
12.2.1.2.0	• 12.1.2.12 **Note:** 12.2.1.2.0 is not supported on virtualized platform.
12.1.2.12	• 12.1.2.11 • 12.1.2.10 • 12.1.2.9 • 12.1.2.8
12.1.2.11	• 12.1.2.10 • 12.1.2.9 • 12.1.2.8 • 12.1.2.7
12.1.2.10	• 12.1.2.9 • 12.1.2.8 • 12.1.2.7 • 12.1.2.6
12.1.2.9	• 12.1.2.8 • 12.1.2.7 • 12.1.2.6
12.1.2.5	12.1.2.0 to 12.1.2.4
12.1.2.0.0	2.2.0.0.0 to 2.10.0.0.0
2.2.0.0.0	2.1.0.3.1 or earlier

Release 12.2.1.1.0 is only supported on X7–2 models and hence is not listed in the table.

Related Topics

- Patching Oracle Database Appliance

Minimum Software Version Requirements

Review the minimum software version requirements for installing this release of Oracle Database Appliance.

You can patch to Oracle Database Appliance release 19.27 on Oracle Database Appliance bare metal systems and DB systems from Oracle Database Appliance release 19.23, 19.24, 19.25, and 19.26. You can also provision and patch Oracle Database Appliance bare metal systems and DB systems on KVM to release 19.27.

Oracle Database Appliance Bare Metal System and KVM Patches

Download the patches available for Oracle Database Appliance in My Oracle Support, get information on the prerequisites, and how to apply the patches.

When downloading a patch from My Oracle Support, select Oracle Database Appliance release 19.27 from the release list.

Table 3-2 Oracle Database Appliance Patches for Oracle Database Appliance Release 19.27

Patch Type	Patch Number	Description	Resources
Oracle Database Appliance 19.27.0.0.0 Server Patch for Bare Metal Systems	37817290	Use the server patch to update your deployment to Oracle Database Appliance release 19.27. You must download the Server Patch, Oracle Grid Infrastructure clone file, and the Oracle Database clone file to update your deployment to release 19.27.	For patching to Oracle Database Appliance release 19.27: Patching Oracle Database Appliance
Oracle Database Appliance 19.27.0.0.0 GI Clone for ODACLI/DCS Stack	30403673	Use patch 30403673 to update your deployment to this Oracle Database Appliance release. You also use this patch to perform an initial deployment of Oracle Database Appliance. The bundle contains the latest Oracle Grid Infrastructure and database components for deployment on an Oracle Database Appliance after re-imaging Oracle Database Appliance with the Oracle Database Appliance ISO Image for release 19.27.	Provisioning Oracle Database Appliance Software
Oracle Database Appliance 19.27.0.0.0 RDBMS Clone for ODACLI/DCS Stack	30403662	Use Oracle Database Appliance Database Clone 19.27.0.0.250415 for ODACLI/DCS stack to create 19.27.0.0.0 database homes for the ODACLI/DCS stack.	Provisioning Oracle Database Appliance Software

Table 3-2 (Cont.) Oracle Database Appliance Patches for Oracle Database Appliance Release 19.27

Patch Type	Patch Number	Description	Resources
Oracle Database Appliance 19.27.0.0.0 OS ISO Image for all Platform	30403643	Use the ISO image to re-image the operating system for Oracle Database Appliance 19.27. Re-imaging a server installs the new operating system on the local disks on that server.	Re-imaging Oracle Database Appliance
Oracle Database Appliance 23ai DB System Image Download for KVM	36524660	Use the 23ai DB System template to deploy KVM-based virtualization for Oracle Database Appliance 23ai DB system.	Managing DB Systems in KVM Deployment
Oracle Database Appliance 23ai GI Clone for DB Systems	36524627	Use the Oracle Grid Infrastructure 23ai clone file to deploy Oracle Grid Infrastucture 23ai on DB system.	Managing DB Systems in KVM Deployment
Oracle Database Appliance 23ai Database Clone for DB Systems	36524642	Use the Oracle Database Appliance 23ai clone file to deploy Oracle Database 23ai database on DB system.	Managing DB Systems in KVM Deployment
Oracle Database Appliance 19.27.0.0.0 DB System Image Download for KVM	32451228	Use the KVM DB System template to deploy 19c KVM-based virtualization for Oracle Database Appliance 19.27.	Managing DB Systems in KVM Deployment
Oracle Database Appliance 23ai DB System Server Patch	37817282	Use the KVM DB System template to patch 23ai KVM-based virtualization for Oracle Database Appliance 19.27.	Managing DB Systems in KVM Deployment

4

Known Issues with Oracle Database Appliance in This Release

The following are known issues deploying, updating, and managing Oracle Database Appliance in this release.

- Known Issues When Patching Oracle Database Appliance
  Understand the known issues when patching Oracle Database Appliance to this release.
- Known Issues When Deploying Oracle Database Appliance
  Understand the known issues when provisioning or deploying Oracle Database Appliance.
- Known Issues When Managing Oracle Database Appliance
  Understand the known issues when managing or administering Oracle Database Appliance.

Known Issues When Patching Oracle Database Appliance

Understand the known issues when patching Oracle Database Appliance to this release.

- Error in server patching
  When patching the server on Oracle Database Appliance, an error may be encountered.
- Error in attaching a vdisk after DB system patching
  After upgrading a DB system on Oracle Database Appliance, the vdisks attached to the DB system may not continue to be attached.
- Free space issue during database patching
  When patching the database on Oracle Database Appliance, an error may be encountered.
- Error in running patching prechecks
  When running patching prechecks on Oracle Database Appliance, an error may be encountered.
- Error in DB system after server patching
  After patching the server on Oracle Database Appliance, an error may be encountered on the DB system.
- Error in server patching
  When patching the server on Oracle Database Appliance, an error may be encountered.
- Error in server patching
  When patching the server on Oracle Database Appliance, an error may be encountered.
- Error in upgrading a database
  When upgrading a database, an error may be encountered.
- Error in database patching
  When patching a database on Oracle Database Appliance, an error may be encountered.

Error in server patching

When patching the server on Oracle Database Appliance, an error may be encountered.

Failure Message

The following error message is displayed:

```
DCS-10001:Internal error encountered: Failed to install/update rpms
```

Command Details

```
# odacli update-server
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

On bare metal systems, do the following:

1. Rebuild the RPM database:

```
mkdir /var/lib/rpm_backup
cp -a /var/lib/rpm/__db* /var/lib/rpm_backup/
rm -f /var/lib/rpm/__db*
rpm -qa
```

```
rpm --rebuilddb
rpm -qa
```

2. Verify that the ipmitool is present on the system. If the following command returns no output, then it means that the ipmitool RPM is not installed.

```
rpm -qa | grep ipmitool
```

3. If ipmitool is not present, then install the RPM as follows:

```
rpm -ivh /opt/oracle/oak/pkgrepos/os/19.27/osrpms/
hmpipmitool-1.8.18.0-29.el8.x86_64.rpm
```

4. Start Oracle Clusterware on all nodes. For high-availability systems, run the following command on both nodes:

```
grid_home/crsctl start crs
```

5. Run the `odacli update-server` command again:

```
odacli update-server -v 19.27.0.0.0
```

On DB systems, do the following:

1. Rebuild the RPM database:

```
mkdir /var/lib/rpm_backup
cp -a /var/lib/rpm/__db* /var/lib/rpm_backup/
rm -f /var/lib/rpm/__db*
rpm -qa
rpm --rebuilddb
rpm -qa
```

2. Start Oracle Clusterware on all nodes. For high-availability systems, run the following command on both nodes:

```
grid_home/crsctl start crs
```

3. Run the `odacli update-server` command again:

```
odacli update-server -v 19.27.0.0.0
```

Bug Number

This issue is tracked with Oracle bug 37967861.

Error in attaching a vdisk after DB system patching

After upgrading a DB system on Oracle Database Appliance, the vdisks attached to the DB system may not continue to be attached.

Problem Description

After DB system upgrade, the existing vdisks are not attached. Only the vdisk metadata associated with the DB system is preserved. The virtual device name may be different from the name before you run the `odacli upgrade-dbsystem` command.

Command Details

```
# odacli upgrade-dbsystem
```

Hardware Models

All Oracle Database Appliance hardware models X9-2, X8-2, and X7-2

Workaround

Detach the vdisk manually with the `--force` option from the VM to reconcile the metadata. Then, attach the vdisk to the respective VM. Then, manually mount the file system on the device in the DB system.

Bug Number

This issue is tracked with Oracle bug 36885595.

Free space issue during database patching

When patching the database on Oracle Database Appliance, an error may be encountered.

Problem Description

When patching the database or dbhome on Oracle Database Appliance, the datapatch sanity check or the datapatch application may fail because of insufficient free space for TEMP tablespace.

Failure Message

The following error message may be displayed in the `sqlpatch_debug.log`:

```
ORA-01652: unable to extend temp segment by 128 in tablespace TEMP_ENC
```

Or, in the `sanity_checks.log`:

```
Check: Tablespace Status - ERROR
```

Command Details

```
# odacli update-dbhome
# odacli update-database
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Extend tablespace `TEMP_ENC` and then resume the patching operation using the command `odacli update-database`.

```
alter database tempfile 4 resize 400M;
alter session set container=CHSTPDB;
alter database tempfile 5 resize 400M;
```

Bug Number

This issue is tracked with Oracle bug 37616088.

Error in running patching prechecks

When running patching prechecks on Oracle Database Appliance, an error may be encountered.

Problem Description

On Oracle Database Appliance DB system running Oracle Database 23.8, patching prechecks report for DB home failed at creating destination DB home. Error DCS-10267 is observed in the patching prechecks report. An error message may be displayed.

Failure Message

The following error message is displayed:

```
ProvDbHome by using RHP                  Failure

When describe the generated prepatch report, failed precheck item can be seen
as below,

Evaluate DBHome patching with   Failed    DCS-10267 - failed to run the
patch
RHP                                       precheck with Oracle FPP for
Oracle
                                          home
ID
                                          <UUID>
                                          For input string: "<dbhome_name>"
```

Command Details

```
# odacli create-prepatchreport -d
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

1. Create a destination DB home with corresponding version and DB edition:

   ```
   odacli create-dbhome -v version -de dbEdition
   ```

2. Generate the patching prechecks report for the database to be patched, one database at a time:

   ```
   odacli create-prepatchreport -db -dbid database_ID -to dest_dbhome_ID
   ```

3. If there are no critical failures in the patching prechecks report, then proceed with the patching operation:

   ```
   odacli update-database -i database_ID -to dest_dbhome_ID
   ```

Bug Number

This issue is tracked with Oracle bug 38013437.

Error in DB system after server patching

After patching the server on Oracle Database Appliance, an error may be encountered on the DB system.

Failure Message

The following error message is displayed:

```
DCS-10172:DCS infrastructure is not ready: The infrastructure is still
initializing
```

Command Details

Any command requiring the DCS infrastructure, such as:

```
# odacli update-server
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Follow these steps:

1. On the DB system, stop the DCS agent service:

   ```
   # systemctl stop initdcsagent
   ```

2. Delete the entry `HWADDR=null` from the `/etc/sysconfig/network-scripts/ifcfg-ib*` configuration files:

   ```
   # sed -i '/HWADDR=null/d' /etc/sysconfig/network-scripts/ifcfg-ib*
   ```

3. Restart the network service:

```
# systemctl restart network
```

4. Start the DCS agent service:

```
# systemctl start initdcsagent
```

5. Wait for about 5 minutes and then verify that the DCS agent infrastructure is initialized, and both Oracle HAMI members are ONLINE.

```
# /opt/oracle/dcs/hami/bin/hamictl.sh status
```

6. Verify that Oracle Clusterware service is online:

```
# CRS_HOME/bin/crsctl check cluster -all
**************************************************************
Node0:
CRS-4537: Cluster Ready Services is online
CRS-4529: Cluster Synchronization Services is online
CRS-4533: Event Manager is online
**************************************************************
Node1:
CRS-4537: Cluster Ready Services is online
CRS-4529: Cluster Synchronization Services is online
CRS-4533: Event Manager is online
**************************************************************
```

7. If Oracle Clusterware is not online on any DB system, then restart Oracle Clusterware on that DB system:

```
# CRS_HOME/bin/crsctl stop crs -f
# CRS_HOME/bin/crsctl start crs
```

Bug Number

This issue is tracked with Oracle bug 38064361.

Error in server patching

When patching the server on Oracle Database Appliance, an error may be encountered.

Problem Description

When patching the server on Oracle Database Appliance, the kdump may fail to start during node restart, and an error message may be displayed.

Failure Message

There may be an error locating the `modules.dep` for the newly installed kernel, and the following error message is displayed:

```
# systemctl status kdump -l
 kdump.service - Crash recovery kernel arming
   Loaded: loaded (/usr/lib/systemd/system/kdump.service; enabled; vendor
```

```
preset: enabled)
   Active: failed (Result: exit-code) since Tue 2024-10-15 11:51:15 IST; 8min
ago
  Process: 6280 ExecStart=/usr/bin/kdumpctl start (code=exited, status=1/
FAILURE)
 Main PID: 6280 (code=exited, status=1/FAILURE)

Oct 15 11:51:12 systemd[1]: Starting Crash recovery kernel arming...
Oct 15 11:51:12 kdumpctl[6471]: kdump: No kdump initial ramdisk found.
Oct 15 11:51:12 kdumpctl[6471]: kdump: Rebuilding /boot/
initramfs-5.4.17-2136.335.4.el8uek.x86_64kdump.img
Oct 15 11:51:13 kdumpctl[6566]: kdump: Warning: There might not be enough
space to save a vmcore.
Oct 15 11:51:13 kdumpctl[6566]: kdump:          The size of /dev/mapper/
VolGroupSys-LogVolRoot should be greater than 393610208 kilo bytes.
Oct 15 11:51:15 dracut[8055]: Executing: /usr/bin/dracut --add kdumpbase --
quiet --hostonly --hostonly-cmdline --hostonly-i18n --hostonly-mode strict --
hostonly-nics  -o "plymouth dash resume ifcfg earlykdump" --compress=xz --
mount "/dev/mapper/VolGroupSys-LogVolRoot /sysroot ext4 rw,relatime,nofail,x-
systemd.before=initrd-fs.target" --no-hostonly-default-device --add-
device /dev/md0 -f /boot/initramfs-5.4.17-2136.335.4.el8uek.x86_64kdump.img
5.4.17-2136.335.4.el8uek.x86_64
Oct 15 11:51:15 kdumpctl[7997]: dracut: /lib/modules/
5.4.17-2136.335.4.el8uek.x86_64//modules.dep is missing. Did you run depmod?
Oct 15 11:51:15 dracut[8055]: /lib/modules/5.4.17-2136.335.4.el8uek.x86_64//
modules.dep is missing. Did you run depmod?
Oct 15 11:51:15 kdumpctl[6471]: kdump: mkdumprd: failed to make kdump initrd
Oct 15 11:51:15 kdumpctl[6471]: kdump: Starting kdump: [FAILED]
Oct 15 11:51:15 systemd[1]: kdump.service: Main process exited, code=exited,
status=1/FAILURE
Oct 15 11:51:15 systemd[1]: kdump.service: Failed with result 'exit-code'.
Oct 15 11:51:15 systemd[1]: Failed to start Crash recovery kernel arming.
```

Command Details

```
# odacli update-server
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Restart the kdump service:

```
# systemctl restart kdump

# systemctl status kdump -l
kdump.service - Crash recovery kernel arming
   Loaded: loaded (/usr/lib/systemd/system/kdump.service; enabled; vendor
preset: enabled)
   Active: active (exited) since Sat 2024-10-19 09:34:23 IST; 8s ago
  Process: 2028 ExecStart=/usr/bin/kdumpctl start (code=exited, status=0/
SUCCESS)
 Main PID: 2028 (code=exited, status=0/SUCCESS)
```

```
Oct 19 09:34:21 dracut[2762]:  rd.lvm.lv=VolGroupSys/LogVolRoot
Oct 19 09:34:21 dracut[2762]:  rd.md.uuid=1e7140f4:2f5386a9:3093dd8d:ee3b9b29
Oct 19 09:34:22 dracut[2762]: *** Install squash loader ***
Oct 19 09:34:22 dracut[2762]: *** Squashing the files inside the initramfs ***
Oct 19 09:34:23 dracut[2762]: *** Squashing the files inside the initramfs
done ***
Oct 19 09:34:23 dracut[2762]: *** Creating image file '/boot/
initramfs-5.4.17-2136.335.4.el8uek.x86_64kdump.img' ***
Oct 19 09:34:23 dracut[2762]: *** Creating initramfs image file '/boot/
initramfs-5.4.17-2136.335.4.el8uek.x86_64kdump.img' done ***
Oct 19 09:34:23 kdumpctl[2104]: kdump: kexec: loaded kdump kernel
Oct 19 09:34:23 kdumpctl[2104]: kdump: Starting kdump: [OK]
Oct 19 09:34:23 systemd[1]: Started Crash recovery kernel arming.
```

Bug Number

This issue is tracked with Oracle bug 36998253.

Error in server patching

When patching the server on Oracle Database Appliance, an error may be encountered.

Problem Description

When patching the server on Oracle Database Appliance, and the DCS agent loads, the scheduler service may fail to start and an error message may be displayed.

Failure Message

The `dcs-agent.log` file displays the following error message:

```
-----------------------
2024-07-29 14:24:30,351 WARN [backgroundjob-zookeeper-pool-7-thread-2] []
o.j.s.JobZooKeeper: JobRunr encountered a problematic exception. Please
create a bug report (if possible, provide the code to reproduce this and the
stacktrace) - Processing will continue.
java.lang.NullPointerException: null
        at
org.jobrunr.server.zookeeper.tasks.ZooKeeperTask.pollIntervalInSecondsTimeBoxI
sAboutToPass(ZooKeeperTask.java:93)
        at
org.jobrunr.server.zookeeper.tasks.ZooKeeperTask.getJobsToProcess(ZooKeeperTas
k.java:84)
        at
org.jobrunr.server.zookeeper.tasks.ZooKeeperTask.processJobList(ZooKeeperTask.
java:57)
        at
org.jobrunr.server.zookeeper.tasks.ProcessOrphanedJobsTask.runTask(ProcessOrph
anedJobsTask.java:29)
        at
org.jobrunr.server.zookeeper.tasks.ZooKeeperTask.run(ZooKeeperTask.java:47)
        at
org.jobrunr.server.JobZooKeeper.lambda$runMasterTasksIfCurrentServerIsMaster$
0(JobZooKeeper.java:76)
        at java.util.Arrays$ArrayList.forEach(Arrays.java:3880)
```

```
        at
org.jobrunr.server.JobZooKeeper.runMasterTasksIfCurrentServerIsMaster(JobZooKe
eper.java:76)
        at org.jobrunr.server.JobZooKeeper.run(JobZooKeeper.java:56)
----------------------
```

Command Details

```
# odacli update-server
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

1. Restart the DCS agent:

   ```
   systemctl restart initdcsagent
   ```

2. Verify that the DCS agent is running:

   ```
   odacli ping-agent
   odacli list-jobs
   odacli describe-component
   ```

Bug Number

This issue is tracked with Oracle bug 36896020.

Error in upgrading a database

When upgrading a database, an error may be encountered.

Problem Description

When you create Oracle ASM databases, the RECO directory may not have been created on systems provisioned with the OAK stack. This directory is created when the first RECO record is written. After successfully upgrading these systems using Data Preserving Reprovisioning to Oracle Database Appliance release 19.15 or later, if you attempt to upgrade the database, an error message may be displayed.

Failure Message

When the `odacli upgrade-database` command is run, the following error message is displayed:

```
# odacli upgrade-database -i 16288932-61c6-4a9b-beb0-4eb19d95b2bd -to
b969dd9b-f9cb-4e49-8e0d-575a0940d288
DCS-10001:Internal error encountered: dbStorage metadata not in place:
DCS-12013:Metadata validation error encountered: dbStorage metadata missing
Location info for database database_unique_name..
```

Command Details

```
# odacli upgrade-database
```

Hardware Models

All Oracle Database Appliance X6-2HA and X5-2 hardware models

Workaround

1. Verify that the `odacli list-dbstorages` command displays `null` for the redo location for the database that reported the error. For example, the following output displays a null or empty value for the database unique name `F`.

   ```
   # odacli list-dbstorages

   ID                                       Type    DBUnique Name  Status
   Destination Location  Total      Used       Available
   ---------------------------------------- ------ --------------------
   ...
   ...
   ...
   198678d9-c7c7-4e74-9bd6-004485b07c14     ASM    F              CONFIGURED
   DATA    +DATA/F  4.89 TB    1.67 GB    4.89
   TB
   REDO    +REDO/F  183.09 GB  3.05 GB    180.04
   GB

   RECO             8.51 TB
   ...
   ...
   ...
   ```

   In the above output, the RECO record has a null value.

2. Manually create the RECO directory for this database. If the database unique name is `dbuniq`, then run the `asmcmd` command as the `grid` user.

   ```
   asmcmd
   ```

3. Run the `mkdir` command.

   ```
   asmcmd> mkdir +RECO/dbuniq
   ```

4. Verify that the `odacli list-dbstorages` command output does not display a null or empty value for the database.
5. Rerun the `odacli upgrade-database` command.

Bug Number

This issue is tracked with Oracle bug 34923078.

Error in database patching

When patching a database on Oracle Database Appliance, an error may be encountered.

Problem Description

When applying the datapatch during patching of database on Oracle Database Appliance, an error message may be displayed.

Failure Message

When the `odacli update-database` command is run, the following error message is displayed:

```
Failed to execute sqlpatch for database …
```

Command Details

```
# odacli update-database
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

1. Run the following SQL*Plus command:

   ```
   alter system set nls_sort='BINARY' SCOPE=SPFILE;
   ```

2. Restart the database using srvctl command.
3. Retry applying the datapatch with *dbhome*`/OPatch/datapatch -verbose -db` *dbUniqueName*.

Bug Number

This issue is tracked with Oracle bug 35060742.

Component version not updated after patching

After patching the Oracle Database Appliance server, the `odacli describe-component` command does not display the correct Intel Model 0x1528 Ethernet Controller version, if the current version is 8000047B or 8000047C.

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Manually update the Ethernet controllers to 00005DD or 800005DE using the `fwupdate` command.

This issue is tracked with Oracle bug 34402352.

Error in server patching

When patching Oracle Database Appliance which already has STIG V1R2 deployed, an error may be encountered.

On an Oracle Database Appliance deployment with release earlier than 19.27, if the Security Technical Implementation Guidelines (STIG) V1R2 is already deployed, then when you patch to 19.27 or earlier, and run the command `odacli update-server -f version`, an error may be displayed.

Hardware Models

All Oracle Database Appliance hardware models

Workaround

The STIG V1R2 rule OL7-00-040420 tries to change the permission of the file `/etc/ssh/ssh_host_rsa_key` from '640' to '600' which causes the error. During patching, run the command `chmod 600 /etc/ssh/ssh_host_rsa_key` command on both nodes.

This issue is tracked with Oracle bug 33168598.

AHF error in prepatch report for the update-dbhome command

When you patch server to Oracle Database Appliance release 19.27, the `odacli update-dbhome` command may fail.

The following error message is displayed in the pre-patch report:

```
Verify the Alternate Archive    Failed    AHF-4940: One or more log archive
Destination is Configured to              destination and alternate log
archive
Prevent Database Hangs                    destination settings are not as
recommended
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Follow these steps:

1. Run the `odacli update-dbhome` command with the `-f` option.

   ```
   /opt/oracle/dcs/bin/odacli update-dbhome --dbhomeid 7c67c5b4-
   f585-4ba9-865f-c719c63c0a6e -v 19.27.0.0.0 -f
   ```

This issue is tracked with Oracle bug 33144170.

Errors when running ORAchk or the odacli create-prepatchreport command

When you run ORAchk or the `odacli create-prepatchreport` command, an error is encountered.

The following error messages may be seen:

```
One or more log archive destination and alternate log archive destination
settings are not as recommended
Software home check failed
```

Hardware Models

Oracle Database Appliance hardware models bare metal deployments

Workaround

Run the `odacli update-dbhome`, `odacli create-prepatchreport`, `odacli update-server` commands with the `-sko` option. For example:

```
odacli update-dbhome -j -v 19.27.0.0.0 -i dbhome_id -sko
```

This issue is tracked with Oracle bugs 30931017, 31631618, and 31921112.

Error in patching prechecks report

The patchung prechecks report may display an error.

The following error message may be displayed:

```
Failure in the pre-patch report caused by "AHF-5190: operating system boot
device order is not configured as recommended"
```

Hardware Models

Oracle Database Appliance X-7 hardware models

Workaround

Run the `odacli update-server` or `odacli update-dbhome` command with the `-f` option.

This issue is tracked with Oracle bug 33631256.

Error message displayed even when patching Oracle Database Appliance is successful

Although patching of Oracle Database Appliance was successful, an error message may be displayed.

The following error is seen when running the `odacli update-dcscomponents` command:

```
# time odacli update-dcscomponents -v 19.27.0.0.0
^[[ADCS-10008:Failed to update DCScomponents: 19.27.0.0.0
```

```
Internal error while patching the DCS components :
DCS-10231:Cannot proceed. Pre-checks for update-dcscomponents failed. Refer
to /opt/oracle/dcs/log/-dcscomponentsPreCheckReport.log on node 1 for
details.
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

This is a timing issue with setting up the SSH equivalence.

Run the `odacli update-dcscomponents` command again and the operation completes successfully.

This issue is tracked with Oracle bug 32553519.

Server status not set to Normal when patching

When patching Oracle Database Appliance, an error is encountered.

When patching the appliance, the `odacli update-server` command fails with the following error:

```
DCS-10001:Internal error encountered: Server upgrade state is not NORMAL
node_name
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

1. Run the command:

   ```
   Grid_home/bin/cluvfy stage -post crsinst -collect cluster -gi_upgrade -n
   all
   ```

2. Ignore the following two warnings:

   ```
   Verifying OCR Integrity ...WARNING
   PRVG-6017 : OCR backup is located in the same disk group "+DATA" as OCR.

   Verifying Single Client Access Name (SCAN) ...WARNING
   RVG-11368 : A SCAN is recommended to resolve to "3" or more IP
   ```

3. Run the command again till the output displays only the two warnings above. The status of Oracle Custerware status should be `Normal` again.
4. You can verify the status with the command:

   ```
   Grid_home/bin/crsctl query crs activeversion -f
   ```

This issue is tracked with Oracle bug 30099090.

Patching of M.2 drives not supported

Patching of M.2 drives (local disks SSDSCKJB48 and SSDSCKJB480G7) is not supported.

These drives are displayed when you run the `odacli describe-component` command. Patching of neither of the two known versions 0112 and 0121 of the M.2 disk is supported.

Hardware Models

Oracle Database Appliance bare metal deployments

Workaround

None

This issue is tracked with Oracle bug 30249232.

Known Issues When Deploying Oracle Database Appliance

Understand the known issues when provisioning or deploying Oracle Database Appliance.

- Error in enabling high-availability on a TDE-enabled database
  When enabling high-availability on a TDE-enabled database on Oracle Database Appliance, an error may be encountered.
- Error in provisioning bare metal and DB system
  If the NTP servers used to provision the bare metal system or DB system are provided with the FQDN, then an error is encountered during the provisioning job.
- Error in provisioning job due to NTP server inavailability
  If the NTP servers used to provision the bare metal system or DB system are unavailable, then an error is encountered during the provisioning job.
- Error in creating DB system
  When creating a DB system, an error may be encountered.
- Error in Oracle Data Guard operation after modifying the Oracle ASM port
  When running the `odacli modify-asmport` command on Oracle Database Appliance configured with Oracle Data Guard, an error may be encountered.
- Error in database creation on multi-user access enabled system
  When creating a database on multi-user access enabled system on Oracle Database Appliance, an error may be encountered.
- Error in configuring Oracle ASR
  When configuring Oracle ASR, an error may be encountered when registering Oracle ASR Manager due to an issue while contacting the transport server.
- Error in creating database
  When creating a database on Oracle Database Appliance, an error may be encountered.
- Error in creating two DB systems
  When creating two DB systems concurrently in two different Oracle ASM disk groups, an error is encountered.
- Error in adding JBOD
  When you add a second JBOD to your Oracle Database Appliance deployment on which a DB system is running, an error is encountered.

Error in enabling high-availability on a TDE-enabled database

When enabling high-availability on a TDE-enabled database on Oracle Database Appliance, an error may be encountered.

Problem Description

When you enable high-availability on a TDE-enabled database that uses Oracle Key Vault to store TDE keys, an error message may be displayed.

Failure Message

```
DCS-12721:OKV command "okv admin endpoint create" failed to run: Failed to
create endpoint endpoint_name
```

Command Details

```
# odacli modify-database -n dbname -ha
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Instead of enabling high-availability after creating the database, enable high-availability during database creation itself.

Bug Number

This issue is tracked with Oracle bug 37182129.

Error in provisioning bare metal and DB system

If the NTP servers used to provision the bare metal system or DB system are provided with the FQDN, then an error is encountered during the provisioning job.

Problem Description

In the bare metal system provisioning job, no error message is displayed. The provisioning job hangs in a RUNNING state at the "`Install oracle-ahf`" task. In the DB system creation job, the following error message is displayed:

```
DCS-10001:Internal error encountered: Job 'Provision DB System
'db_system_name'' failed.
DCS-10001:Internal error encountered: Chronyd failed to sync the clock. :
```

Failure Message

```
DCS-10001:Internal error encountered: Job 'Provision DB System
'db_system_name'' failed.
DCS-10001:Internal error encountered: Chronyd failed to sync the clock. :
```

Command Details

```
odacli create-appliance -r path_to_json_payload
odacli create-dbsystem -p path_to_json_payload
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Provide the NTP servers in the JSON payload for the bare metal system and DB systems in the IP form, instead of the FQDN.

Bug Number

This issue is tracked with Oracle bug 37837999.

Error in provisioning job due to NTP server inavailability

If the NTP servers used to provision the bare metal system or DB system are unavailable, then an error is encountered during the provisioning job.

Problem Description

In the bare metal system provisioning job, no error message is displayed. The provisioning job hangs in a RUNNING state at the "`Install oracle-ahf`" task. In the DB system creation job, the following error message is displayed:

```
DCS-10001:Internal error encountered: Job 'Provision DB System
'db_system_name'' failed.
DCS-10001:Internal error encountered: Chronyd failed to sync the clock. :
```

Failure Message

```
DCS-10001:Internal error encountered: Job 'Provision DB System
'db_system_name'' failed.
DCS-10001:Internal error encountered: Chronyd failed to sync the clock. :
```

Command Details

```
odacli create-appliance -r path_to_json_payload
odacli create-dbsystem -p path_to_json_payload
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Workaround 1: Do not provide any NTP server details in the JOSN file when you provision the bare metal system or the DB system.

Workaround 2:

1. Run the provisioning job using the IP address of one NTP server.

```
# /sbin/chronyd -Q "server 1.1.1.1 iburst"
```

2. If the server is reachable and valid, the chronyd example output will show the difference between the system clock and the NTP clock:

```
2025-04-03T20:50:11Z System clock wrong by -0.000065 seconds (ignored)
```

3. Check the validity of the agent certificates.

```
# openssl x509 -noout -in /opt/oracle/dcs/odamysqlcert/client/dcsagent-
client-cert.pem -startdate -enddate
notBefore=May 15 02:11:13 2025 GMT
notAfter=Mar 24 02:11:13 2035 GMT
```

4. If the correct time falls out of the valid dates from the certificates, follow these steps if you are provisioning a bare metal system:
   a. Stop the agent and MySQL services.

```
# systemctl stop initdcsagent.service
# systemctl stop oda-mysql.service
```

   b. Manually set the clock on both nodes:

```
# date --set="correct_date"
```

   c. Make a backup of the existing MySQL certificates on both nodes.

```
# mv /opt/oracle/dcs/odamysqlcert /opt/oracle/dcs/odamysqlcert_old
```

   d. Run the command `/opt/oracle/dcs/mysql/cert/gencerts.sh`.
   e. Confirm that the new certificates have the correct dates on both nodes.

```
# openssl x509 -noout -in /opt/oracle/dcs/odamysqlcert/client/dcsagent-
client-cert.pem -startdate -enddate
notBefore=May 15 02:11:13 2025 GMT
notAfter=Mar 24 02:11:13 2035 GMT
```

   f. Start the MySQL and agent services on both nodes.

```
# systemctl stop initdcsagent.service
# systemctl stop oda-mysql.service
```

g. Confirm that the agent is working.

```
# odacli describe-component
```

h. Proceed with the provisioning.

5. Follow these steps if you are provisioning a DB system:

a. Make sure the bare metal system has the correct date on both nodes. If not, verify the bare metal system certificates will not become invalid after adjusting the clock. If the certificates areinvalid, follow step 4 to generate new bare metal system certificates. If the certificates are valid, fix the date on both bare metal system nodes, then restart the services:

```
# date --set="correct date"
# systemctl restart oda-mysql.service
# systemctl restart initdcsagent.service
```

b. Proceed with the DB system creation.

Bug Number

This issue is tracked with Oracle bug 37763394.

Error in creating DB system

When creating a DB system, an error may be encountered.

Problem Description

When you create a DB system on Oracle Database Appliance, the following error may be encountered:

```
DCS-10001:THE CONNECTION IS CLOSED
```

This error may occur when the bare metal system is provisioned with NTP configured, or there is a time difference between bare metal system and the standard NTP server, or the DB system is created after NTP is configured.

Failure Message

```
[DB System n1 creation] -  DCS-10001:Internal error encountered: Job
'Provision DB System 'n1'' (f91fd1db-78ec-452d-bcdb-975947849370) failed.
```

Command Details

```
odacli create-dbsystem
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Provision the bare metal system without configuring NTP.

If there is a time difference between the bare metal system and the standard NTP server, then add several minutes to the current date.

Enable chrony.

1. Before enabling chrony, add or update the chrony configuration as follows:

```
--------
# cat /etc/chrony.conf
server 10.246.6.36 iburst
driftfile /var/lib/chrony/drift
makestep 1.0 -1
rtcsync
logdir /var/log/chrony
---------
```

2. Run the systemctl command to enable and start chronyd service:

```
date;
systemctl enable chronyd
systemctl start chronyd
systemctl status chronyd
sleep 10;
date;
```

3. Create DB system with NTP configured.

Bug Number

This issue is tracked with Oracle bug 37166091.

Error in Oracle Data Guard operation after modifying the Oracle ASM port

When running the `odacli modify-asmport` command on Oracle Database Appliance configured with Oracle Data Guard, an error may be encountered.

Problem Description

If you run the `odacli modify-asmport` command on an appliance configured with Oracle Data Guard that uses `MAX PROTECTION` mode, then this could cause a disruption in primary site due to the standby Oracle Clusterware being restarted as part of the Oracle ASM port change.

Failure Message

The following error message may be displayed in the alert logs for the database on the primary host:

```
ORA-16072: a minimum of one standby database destination is required
```

Followed by the message:

```
terminating the instance due to ORA error 16072
```

Task Level Failure Message

The job may fail at the `Stop CRS on DB System(s)` step. The complete details of the error are displayed in the Message section of the command output.

Command Details

```
# odacli modify-asmport
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Start the database instance on the primary host.

Bug Number

This issue is tracked with Oracle bug 36931905.

Error in database creation on multi-user access enabled system

When creating a database on multi-user access enabled system on Oracle Database Appliance, an error may be encountered.

Problem Description

When you create a database on a multi-user access enabled system, an error message may be displayed.

Failure Message

When the user name of database owner contains both lowercase and uppercase letters, the error message may be as follows:

```
[jobid-74f31148-ebe0-4507-9296-b9ad4ca7e03b] - [FATAL] Error in
Process: /u01/app/KvEl6/product/19.0.0.0/dbhome_2/bin/orapwd
    [jobid-74f31148-ebe0-4507-9296-b9ad4ca7e03b] - Enter password for SYS:
    [jobid-74f31148-ebe0-4507-9296-b9ad4ca7e03b] - OPW-00010: Could not
create the password file.
    [jobid-74f31148-ebe0-4507-9296-b9ad4ca7e03b] - ORA-00600: internal error
code, arguments: [kfzpCreate02], [0], [], [], [], [], [], [], [], [], []
    [jobid-74f31148-ebe0-4507-9296-b9ad4ca7e03b] - ORA-15260: permission
denied on ASM disk group
    [jobid-74f31148-ebe0-4507-9296-b9ad4ca7e03b] - ORA-06512: at
"SYS.X$DBMS_DISKGROUP", line 679
    [jobid-74f31148-ebe0-4507-9296-b9ad4ca7e03b] - ORA-06512: at line 2
```

When the user name of database owner begins with number digit, the error message may be as follows:

```
PRCZ-4001 : failed to execute command "/u01/app/6RXNI/product/19.0.0.0/
dbhome_15//bin/dbca" using the privileged execution plugin "odaexec" on nodes
"scaoda901c7n1" within 5,000 seconds
```

```
PRCZ-2103 : Failed to execute command "/u01/app/6RXNI/product/19.0.0.0/
dbhome_15//bin/dbca" on node "scaoda901c7n1" as user "6RXNI". Detailed error:
[FATAL] [DBT-05801] There are no ASM disk groups detected.
  CAUSE: ASM may not be configured, or ASM disk groups are not created yet.
  ACTION: Create ASM disk groups, or change the storage location to File
System.
[FATAL] [DBT-05801] There are no ASM disk groups detected.
  CAUSE: ASM may not be configured, or ASM disk groups are not created yet.
  ACTION: Create ASM disk groups, or change the storage location to File
System.
```

Command Details

```
# odacli create-database
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Do not start custom user name with number digit or have mixed-case letters in the custom user name.

Bug Number

This issue is tracked with Oracle bug 36878796.

Error in configuring Oracle ASR

When configuring Oracle ASR, an error may be encountered when registering Oracle ASR Manager due to an issue while contacting the transport server.

Failure Message

The following error message is displayed:

```
DCS-10045:Validation error encountered: Registration failed : Please check
the agent logs for details.
```

Command Details

```
# odacli configure-asr
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Retry configuring Oracle ASR using the `odacli configure-asr` command.

Bug Number

This issue is tracked with Oracle bug 36363437.

Error in creating database

When creating a database on Oracle Database Appliance, an error may be encountered.

Problem Description

When creating a database on Oracle Database Appliance, the operation may fail after the `createDatabaseByRHP` task. However, the `odacli list-databases` command displays the status as CONFIGURED for the failed database in the job results.

Failure Message

When you run the `odacli create-database` command, the following error message is displayed:

```
DCS-10001:Internal error encountered: Failed to clear all listeners from
database
```

Command Details

```
# odacli create-database
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Check the job description of the `odacli create-database` command using the `odacli describe-job` command. Fix the issue for the task failure in the `odacli create-database` command. Delete the database with the command `odacli delete-database -n` *`db_name`* and retry the `odacli create-database` command.

Bug Number

This issue is tracked with Oracle bug 34709091.

Error in creating two DB systems

When creating two DB systems concurrently in two different Oracle ASM disk groups, an error is encountered.

When attempting to start the DB systems, the following error message is displayed:

```
CRS-2672: Attempting to start 'vm_name.kvm' on 'oda_server'
CRS-5017: The resource action "vm_name.kvm start" encountered the following
error:
CRS-29200: The libvirt virtualization library encountered the following
error:
Timed out during operation: cannot acquire state change lock (held by
monitor=remoteDispatchDomainCreate)
. For details refer to "(:CLSN00107:)" in
"/u01/app/grid/diag/crs/<oda_server>/crs/trace/crsd_orarootagent_root.trc".
CRS-2674: Start of 'vm_name.kvm' on 'oda_server' failed
```

```
CRS-2679: Attempting to clean 'vm_name.kvm' on 'oda_server'
CRS-2681: Clean of 'vm_name.kvm' on 'oda_server' succeeded
CRS-4000: Command Start failed, or completed with errors.
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Do not create two DB systems concurrently. Instead, complete the creation of one DB system and then create the other.

This issue is tracked with Oracle bug 33275630.

Error in adding JBOD

When you add a second JBOD to your Oracle Database Appliance deployment on which a DB system is running, an error is encountered.

The following error message is displayed:

```
ORA-15333: disk is not visible on client instance
```

Hardware Models

All Oracle Database Appliance hardware models bare metal and dbsystem

Workaround

Shut down dbsystem before adding the second JBOD.

```
systemctl restart initdcsagent
```

This issue is tracked with Oracle bug 32586762.

Error in provisioning appliance after running cleanup.pl

Errors encountered in provisioning applince after running `cleanup.pl`.

After running `cleanup.pl`, provisioning the appliance fails because of missing Oracle Grid Infrastructure image (IMGGI191100). The following error message is displayed:

```
DCS-10042:User oda-cliadmin cannot be authorized.
```

Hardware Models

All Oracle Database Appliance hardware models for bare metal deployments

Workaround

After running cleanup.pl, and before provisioning the appliance, update the repository as follows:

```
# odacli update-repository -f /**gi**
```

This issue is tracked with Oracle bug 32707387.

Error encountered after running cleanup.pl

Errors encountered in running `odacli` commands after running `cleanup.pl`.

After running `cleanup.pl`, when you try to use `odacli` commands, the following error is encountered:

```
DCS-10042:User oda-cliadmin cannot be authorized.
```

Hardware Models

All Oracle Database Appliance hardware models for bare metal deployments

Workaround

Run the following commands to set up the credentials for the user `oda-cliadmin` on the agent wallet:

```
# rm -rf /opt/oracle/dcs/conf/.authconfig
# /opt/oracle/dcs/bin/setupAgentAuth.sh
```

This issue is tracked with Oracle bug 29038717.

Errors in clone database operation

Clone database operation fails due to errors.

If the source database is single-instance or Oracle RAC One Node, or running on the remote node, the clone database operation fails, because the paths are not created correctly in the control file.

Clone database operation may also fail with errors if the source database creation time stamp is too close to the clone operation (at least within 60 minutes).

Hardware Models

All Oracle Database Appliance high-availability hardware models for bare metal deployments

Workaround

Create the clone database from the source database instance that is running on the same node from which the clone database creation is triggered.

For Oracle Database 12c and later, synchronize the source database before the clone operation, by running the command:

```
SQL> alter system checkpoint;
```

This issue is tracked with Oracle bugs 29002563, 29002004, 29001906, 29001855, 29001631, 28995153, 28986643, 30309971, and 30228362.

Known Issues When Managing Oracle Database Appliance

Understand the known issues when managing or administering Oracle Database Appliance.

- Error in interconnect network
  DCS agent may not be able to run jobs because of an interconnect network issue.
- Error in configuring multiple standby databases on Oracle Data Guard
  When configuring multiple standby databases for Oracle Data Guard on Oracle Database Appliance, an error may be encountered.
- Error in upgrading Oracle Data Guard
  When upgrading Oracle Data Guard, an error may be encountered.
- Error in configuring two standby databases on Oracle Data Guard
  When configuring two standby databases for Oracle Data Guard on Oracle RAC One Node databases or single-instance high-availability databases on Oracle Database Appliance, an error may be encountered.
- Error in deconfiguring Oracle Data Guard
  When deconfiguring multiple standby databases for Oracle Data Guard on Oracle Database Appliance, an error may be encountered.
- Error in relocating and re-keying a TDE-enabled database
  When relocating and re-keying a TDE-enabled database on Oracle Database Appliance, an error may be encountered.
- Error in deleting a TDE-enabled database
  When deleting a TDE-enabled database on Oracle Database Appliance, an error may be encountered.
- Error in deleting database home
  When deleting a database home on Oracle Database Appliance, an error may be encountered.
- Error in configuring Oracle Data Guard
  When configuring Oracle Data Guard on Oracle Database Appliance, an error may be encountered.
- Error in configuring Oracle Data Guard
  When configuring Oracle Data Guard on Oracle Database Appliance, an error may be encountered.
- Error in cleaning up a deployment
  When cleaning up a Oracle Database Appliance, an error is encountered.
- Error in display of file log path
  File log paths are not displayed correctly on the console but all the logs that were generated for a job have actually logged the correct paths.
- Error in the enable apply process after upgrading databases
  When running the enable apply process after upgrading databases in an Oracle Data Guard deployment, an error is encountered.
- Error in updating Role after Oracle Data Guard operations
  When performing operations with Oracle Data Guard on Oracle Database Appliance, an error is encountered in updating the Role.
- Inconsistency in ORAchk summary and details report page
  ORAChk report summary on the Browser User Interface may show different counts of Critical, Failed, and Warning issues than the report detail page.

- The odaeraser tool does not work if oakd is running in non-cluster mode
  After cleaning up the deployment, the Secure Eraser tool does not work if oakd is running in non-cluster mode.

Error in interconnect network

DCS agent may not be able to run jobs because of an interconnect network issue.

Problem Description

When you run the `odacli ping-agent` command, an error may be encountered.

Failure message

```
DCS-10033:Service DCS agent is down.
```

Command Details

```
# odacli ping-agent
```

Hardware Models

All Oracle Database Appliance hardware models with high-availability

Workaround

Do the following:

1. Validate that the issue is due to interconnect not working. From the first node, run the command:

   ```
   # arping -I icbond0 192.168.16.25 -c 10
   ```

   The output is similar to the following:

   ```
   ARPING 192.168.16.25 from 192.168.16.24 icbond0
   Sent 10 probes (10 broadcast(s))
   Received 0 response(s)
   ```

2. On both nodes, modify the `/etc/sysconfig/network-scripts/ifcfg-icbond0` file to add `arp_interval=100 to BONDING_OPTS`. The update is as follows:

   ```
   BONDING_OPTS="mode=active-backup miimon=100 primary=p1p1 arp_interval=100"
   ```

3. On both nodes, restart the network:

   ```
   # systemctl restart network
   ```

4. On both nodes, restart the agent and wait for a few minutes:

   ```
   # systemctl restart initdcsagent
   ```

Bug Number

This issue is tracked with Oracle bug 37611921.

Error in configuring multiple standby databases on Oracle Data Guard

When configuring multiple standby databases for Oracle Data Guard on Oracle Database Appliance, an error may be encountered.

Problem Description

When you configure Oracle Data Guard for multiple standby databases, that is, two standby, the operation fails at the step `Update Data Guard status (Existing standby site)` but Oracle Data Guard is configured successfully with no issue. The command `DGMGRL> SHOW CONFIGURATION;` shows success status for all standby databases. The command `odacli list-dataguardstatus` on all sites shows correct Oracle Data Guard information.

Failure Message

The following error message is displayed:

```
DCS-10001:Internal error encountered: Unable to update dg config
```

The `dcs-agent.log` shows the temporary error:

```
"Error: ORA-16532: Oracle Data Guard broker configuration does not exist."
```

Hardware Models

All Oracle Database Appliance hardware models high-availability deployments

Workaround

Ignore the error. Oracle Data Guard was actually configured successfully.

Bug Number

This issue is tracked with Oracle bug 37780488.

Error in upgrading Oracle Data Guard

When upgrading Oracle Data Guard, an error may be encountered.

Problem Description

If you configured Oracle Data Guard on a multi-user access enabled Oracle Database Appliance release 19.19 system, as odaadmin user, then this Oracle Data Guard configuration may not display when you run the odacli list-dataguardstatus command. If you upgrade this system to Oracle Database Appliance release 19.23 using Data Preserving Reprovisioning, then the Validate Database Service presence step in the the create-preupgradereport precheck may fail for the Oracle Data Guard database.

The following error message is displayed:

```
One or more pre-checks failed for [DB]
```

Command Details

```
# odacli create-preupgradereport


# odacli describe-preupgradereport
```

Task Level Failure message

```
"The following services [TDG1yn_ro, TDG1yn_rw, Y6Z_ro, Y6Z_rw] created on
database
'TDG1yn' can result in a failure in 'detach-node'
```

Hardware Models

All Oracle Database Appliance hardware models X9-2, X8-2, and X7-2

Workaround

For each service listed, do the following:

1. Stop the service reported:

   ```
   srvctl stop service -d db_unique_name -service service_name
   ```

2. Remove the service:

   ```
   srvctl remove service -d db_unique_name -service service_name
   ```

Bug Number

This issue is tracked with Oracle bug 36610040.

Error in configuring two standby databases on Oracle Data Guard

When configuring two standby databases for Oracle Data Guard on Oracle RAC One Node databases or single-instance high-availability databases on Oracle Database Appliance, an error may be encountered.

Problem Description

When you configure Oracle Data Guard for multiple standby databases, that is, two standby, the operation fails on Oracle RAC One Node databases or single-instance high-availability databases on Oracle Database Appliance.

Failure Message

The following error message is displayed:

```
"DCS-10001:Internal error encountered: Job 'Update Data Guard status (Primary
site)' failed with error:
DCS-10001:Internal error encountered: Unable to update dg config"
```

Command Details

```
odacli configure-dataguard
```

Hardware Models

All Oracle Database Appliance hardware models high-availability deployments

Workaround

Follow these steps:

1. Check that Oracle Data Guard was successfully configured for two standby databases:

   ```
   check DGMGRL>SHOW CONFIGURATION;
   ```

2. Check Oracle Data Guard status on primary and all standby sites:

   ```
   odacli list-dataguardstatus -j
   ```

3. Delete Oracle Data Guard status if it does not have information about all standby sites:

   ```
   DEVMODE=true odacli delete-dataguardstatus -i dataguardstatus_id
   ```

4. Check that Oracle Data Guard status is correct:

   ```
   odacli list-dataguardstatus -j
   ```

5. Run the `odacli create-dataguardstatus` command on both standby sites from the active node of the database.

   ```
   DEVMODE=true odacli create-dataguardstatus -i database_id -r
   config_dg.json -n dataguardstatus_id_of_primary
   ```

   Example of `config_dg.json` file:

   ```
   {
     "name": "dgname",
     "protectionMode": "MAX_PERFORMANCE",
     "enableFlashback": true,
     "enableActiveDg": false,
     "replicationGroups": [
       {
         "sourceEndPoints": [
           {
             "endpointType": "PRIMARY",
             "hostName": "xxx.com",
             "listenerPort": 1521,
             "databaseUniqueName": "primary",
             "serviceName": "primary.com",
             "sysPassword": "***",
             "ipAddress": "x.x.x.x"
           },
       {
   ```

```
  "endpointType": "PRIMARY",
  "hostName": "xxx.com",
  "listenerPort": 1521,
  "databaseUniqueName": "primary",
  "serviceName": "primary.com",
  "sysPassword": "***",
  "ipAddress": "x.x.x.x"
}
  ],
  "targetEndPoints": [
    {
      "endpointType": "STANDBY",
      "hostName": "xxx.com",
      "listenerPort": 1521,
      "databaseUniqueName": "standby1",
      "serviceName": "standby1.com",
      "sysPassword": "***",
      "ipAddress": "x.x.x.x"
    },
    {
      "endpointType": "STANDBY",
      "hostName": "xxx.com",
      "listenerPort": 1521,
      "databaseUniqueName": "standby1",
      "serviceName": "standby1.com",
      "sysPassword": "***",
      "ipAddress": "x.x.x.x"
    }
  ],
  "transportType": "ASYNC"
},
    {
  "sourceEndPoints": [
    {
      "endpointType": "PRIMARY",
      "hostName": "xxx.com",
      "listenerPort": 1521,
      "databaseUniqueName": "primary",
      "serviceName": "primary.com",
      "sysPassword": "***",
      "ipAddress": "x.x.x.x"
    },
{
  "endpointType": "PRIMARY",
  "hostName": "xxx.com",
  "listenerPort": 1521,
  "databaseUniqueName": "primary",
  "serviceName": "primary.com",
  "sysPassword": "***",
  "ipAddress": "x.x.x.x"
}
  ],
  "targetEndPoints": [
    {
      "endpointType": "STANDBY",
      "hostName": "xxx.com",
```

```
            "listenerPort": 1521,
            "databaseUniqueName": "standby2",
            "serviceName": "standby2.com",
            "sysPassword": "***",
            "ipAddress": "x.x.x.x"
          },
          {
            "endpointType": "STANDBY",
            "hostName": "xxx.com",
            "listenerPort": 1521,
            "databaseUniqueName": "standby2",
            "serviceName": "standby2.com",
            "sysPassword": "***",
            "ipAddress": "x.x.x.x"
          }
        ],
        "transportType": "ASYNC"
      }
    ]
}
```

Bug Number

This issue is tracked with Oracle bug 38021930.

Error in deconfiguring Oracle Data Guard

When deconfiguring multiple standby databases for Oracle Data Guard on Oracle Database Appliance, an error may be encountered.

Problem Description

If you specify incorrect primary site address for the "Standby site address" details when deconfiguring Oracle Data Guard, then the operation fails at the step `Delete Dataguard Status(Standby site)`.

Failure Message

The following error message is displayed:

```
DCS-10001:Internal error encountered: Error creating job 'Delete Dataguard
Status(Standby site)':
com.oracle.pic.commons.client.exceptions.RestClientException:
DCS-10000:Resource dgConfig with ID xxx is not found
```

Hardware Models

All Oracle Database Appliance hardware models high-availability deployments

Workaround

One the standby site, run the command `DEVMODE=true odacli delete-dataguardstatus -i` *`dataguard_status_id`* to remove the Oracle Data Guard status metadata. Run the command `odacli list-dataguardstatus` to confirm removal.

Bug Number

This issue is tracked with Oracle bug 37782833.

Error in relocating and re-keying a TDE-enabled database

When relocating and re-keying a TDE-enabled database on Oracle Database Appliance, an error may be encountered.

Problem Description

When you relocate a TDE-enabled database that uses Oracle Key Vault to store TDE keys with the option `--target-node,-tn`, and re-key with the option `--rekey-tde,-rkt`, at the same time, an error may be encountered when setting the TDE master encryption key.

Failure Message

```
DCS-10164:Failed to configure TDE: Failed to set TDE Master Encryption key
```

Command Details

```
# odacli modify-database -n dbname -rkt -tn target_node_name
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Perform the relocation and re-key operations separately, one after another.

Bug Number

This issue is tracked with Oracle bug 37155404.

Error in deleting a TDE-enabled database

When deleting a TDE-enabled database on Oracle Database Appliance, an error may be encountered.

Problem Description

When you delete a TDE-enabled database that uses Oracle Key Vault release 21.8 to store TDE keys, then an error message may be displayed during the `OKV delete` task.

Failure Message

```
DCS-10001:Internal error encountered: Failed to delete Wallet <wallet_name> :
okv.log.0 (Permission denied)
{
"result" : "Failure",
"message" : "Insufficient privileges on wallet"
}.
```

Command Details

```
# odacli delete-database -n db_name
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Follow these steps:

1. Log into as the Oracle Key Vault administrator to the Oracle Key Vault server where the Oracle Key Vault wallet is present.
2. Navigate to the **Keys & Wallets** tab.
3. Click the edit icon for the wallet that you want to delete.
4. In the Select Endpoint/User Group section, select the Type as **Users** from the drop down list.
5. Select the user that owns the Oracle Key Vault wallet.
6. In the Select Access Level section, select **Read and Modify**, and then **Manage Wallet**.
7. Click **Save**.
8. Delete the database.

Bug Number

This issue is tracked with Oracle bug 36640379.

Error in deleting database home

When deleting a database home on Oracle Database Appliance, an error may be encountered.

Problem Description

When you delete a database home, the database home is not deleted completely. The subfolders and files exist in the corresponding database home location and the database home entry exists in the `/u01/app/oraInventory/ContentsXML/inventory.xml` file.

Failure Message

When the `odacli update-database` command is run, the following error message is displayed:

```
Failed to execute sqlpatch for database …
```

Command Details

```
# odacli delete-dbhome
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Before you run the `odacli delete-dbhome` command, confirm that the `wOraDBversion_homeidx` exists in the `/opt/oracle/rhp/RHPCheckpoints/` location on the same node where you run the command.

Bug Number

This issue is tracked with Oracle bug 36864228.

Error in configuring Oracle Data Guard

When configuring Oracle Data Guard on Oracle Database Appliance, an error may be encountered.

Problem Description

When configuring Oracle Data Guard, an error may be encountered when locking the SYS DB user for Oracle RAC and Oracle RAC One Node database.

Failure Message

The following error message is displayed:

```
SQL> ALTER USER SYS ACCOUNT LOCK;
ALTER USER SYS ACCOUNT LOCK
*
ERROR at line 1:
ORA-40365: The SYS user cannot be locked while the password file is in its
current format.
```

Hardware Models

All Oracle Database Appliance hardware models high-availability deployments

Workaround

Follow these steps:

1. Get the current password file location of the database.

   ```
   srvctl config database -d dbUniqueName | grep -i password

   +DATA/dbUniqueName/PASSWORD/pwddbnamenumbers
   ```

2. Set the password file location of the database to empty.

   ```
   srvctl modify database -d dbUniqueName -pwfile ''
   ```

3. Recreate the password file location of the database from the existing password file in step1.

   ```
   orapwd file='new_password_file_location' format=12.2
   input_file='output_in_step_1' dbuniquename=dbUniqueName
   ```

output_in_step_1 is similar to +DATA/*dbUniqueName*/PASSWORD/pwd*dbnamenumbersnew_password_file_location* can be +DATA/*dbUniqueName*/PASSWORD/orapw*dbname* , or another Oracle ASM location preferably under +DATA/*dbUniqueName*

4. Confirm the new password file is in 12.2 format.

```
orapwd describe file='step3_new_password_file_location'
Password file Description : format=12.2
```

5. Set the password file location of the database to the new location in step 3 with srvctl.

```
srvctl modify database -d dbUniqueName -pwfile
'step3_new_password_file_location'
```

6. Check to see if previous password can still be used to login to the database.

```
sqlplus sys/"password"@dbUniqueName as sysdba
```

7. Lock SYS user.

```
SQL> alter user sys account lock;
User altered.

[root@n1 ~]# odacli list-databases
333cd996-4de4-472c-a290-7907b0bd8313     ccc        RAC
19.26.0.0.250121     false   OLTP     EE       odb1     ASM
CONFIGURED   572a21bb-5912-4bad-a217-34611c821a89
...

[root@n1 ~]# odacli describe-database -n ccc -j
{
  "id" : "333cd996-4de4-472c-a290-7907b0bd8313",
  "name" : "ccc",
  "dbName" : "ccc",
  "databaseUniqueName" : "ccc1",
...

[root@n1 ~]# odacli describe-dbhome -i 572a21bb-5912-4bad-
a217-34611c821a89
DB Home details
------------------------------------------------------------
                     ID: 572a21bb-5912-4bad-a217-34611c821a89
                   Name: OraDB19000_home1
                Version: 19.26.0.0.250121
          Home Location: /u01/app/odaorahome/oracle/product/19.0.0.0/
dbhome_1


[root@n1 ~]# su - oracle
[oracle@n1 ~]$ . oraenv
ORACLE_SID = [oracle] ? ccc1
ORACLE_HOME = [/home/oracle] ? /u01/app/odaorahome/oracle/product/19.0.0.0/
dbhome_1
The Oracle base has been set to /u01/app/odaorabase/oracle
```

```
[oracle@n1 ~]$ srvctl config database -d ccc1 | grep -i password
Password file: +DATA/CCC1/PASSWORD/pwdccc1.305.1201883837
[oracle@n1 ~]$
[oracle@n1 ~]$ srvctl modify database -d ccc1 -pwfile ''
[oracle@n1 ~]$ orapwd file='+DATA/CCC1/PASSWORD/orapwccc' format=12.2
input_file='+DATA/CCC1/PASSWORD/pwdccc1.305.1201883837' dbuniquename=ccc1
[oracle@n1 ~]$ orapwd describe file='+DATA/CCC1/PASSWORD/orapwccc'
Password file Description : format=12.2
[oracle@n1 ~]$ srvctl modify database -d ccc1 -pwfile '+DATA/CCC1/PASSWORD/
orapwccc'
[oracle@n1 ~]$ sqlplus sys/"password"@ccc1 as sysdba
SQL> alter user sys account lock;

User altered.
```

Bug Number

This issue is tracked with Oracle bug 37997268.

Error in configuring Oracle Data Guard

When configuring Oracle Data Guard on Oracle Database Appliance, an error may be encountered.

Problem Description

When you configure Oracle Data Guard on the second node of the standby system on an Oracle Database Appliance high-availability deployment, the operation may fail at step `Configure Standby database (Standby site)` in the task `Reset Db sizing and hidden parameters for ODA best practice`.

Command Details

```
odacli configure-dataguard
```

Hardware Models

All Oracle Database Appliance hardware models high-availability deployments

Workaround

Run odacli configure-dataguard on the first node of the standby system in the high-availability deployment

Bug Number

This issue is tracked with Oracle bug 33401667.

Error in cleaning up a deployment

When cleaning up a Oracle Database Appliance, an error is encountered.

During cleanup, shutdown of Clusterware fails because the NFS export service uses Oracle ACFS-based clones repository.

Hardware Models

All Oracle Database Appliance hardware models with DB systems

Workaround

Follow these steps:

1. Stop the NFS service on both nodes:

```
service nfs stop
```

2. Clean up the bare metal system. See the *Oracle Database Appliance Deployment and User's Guide* for your hardware model for the steps.

This issue is tracked with Oracle bug 33289742.

Error in display of file log path

File log paths are not displayed correctly on the console but all the logs that were generated for a job have actually logged the correct paths.

Hardware Models

All Oracle Database Appliance hardware models with virtualized platform

Workaround

None.

This issue is tracked with Oracle bug 33580574.

Error in the enable apply process after upgrading databases

When running the enable apply process after upgrading databases in an Oracle Data Guard deployment, an error is encountered.

The following error message is displayed:

```
Error: ORA-16664: unable to receive the result from a member
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Follow these steps:

1. Restart standby database in upgrade mode:

```
srvctl stop database -d <db_unique_name>
Run PL/SQL command: STARTUP UPGRADE;
```

2. Continue the enable apply process and wait for log apply process to refresh.

3. After some time, check the Data Guard status with the DGMGRL command:

```
SHOW CONFIGURATION;
```

This issue is tracked with Oracle bug 32864100.

Error in updating Role after Oracle Data Guard operations

When performing operations with Oracle Data Guard on Oracle Database Appliance, an error is encountered in updating the Role.

The dbRole component described in the output of the `odacli describe-database` command is not updated after Oracle Data Guard switchover, failover, and reinstate operations on Oracle Database Appliance.

Hardware Models

All Oracle Database Appliance hardware models with Oracle Data Guard configuration

Workaround

Run `odacli update-registry -n db --force/-f` to update the database metadata. After the job completes, run the `odacli describe-database` command and verify that dbRole is updated.

This issue is tracked with Oracle bug 31378202.

Inconsistency in ORAchk summary and details report page

ORAChk report summary on the Browser User Interface may show different counts of Critical, Failed, and Warning issues than the report detail page.

Hardware Models

Oracle Database Appliance hardware models bare metal deployments

Workaround

Ignore counts of Critical, Failed, and Warning issues in the ORAchk report summary on the Browser User Interface. Check the report detail page.

This issue is tracked with Oracle bug 30676674.

The odaeraser tool does not work if oakd is running in non-cluster mode

After cleaning up the deployment, the Secure Eraser tool does not work if oakd is running in non-cluster mode.

Hardware Models

All Oracle Database Appliance Hardware bare metal systems

Workaround

After cleanup of the deployment, `oakd` is started in the non-cluster mode, and it cannot be stopped using "odaadmcli stop oak" command. In such a case, if the Secure Erase tool is run, then the odaeraser command fails.

Use the command `odaadmcli shutdown oak` to stop `oakd`.

This issue is tracked with Oracle bug 28547433.