

Oracle® Database Appliance

Release Notes



Release 19.16 for Linux x86-64

F59437-01

August 2022

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

ORACLE®

Oracle Database Appliance Release Notes, Release 19.16 for Linux x86-64

F59437-01

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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](#)
- [Documentation Accessibility](#)
- [Related Documents](#)
- [Conventions](#)

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 customers that have purchased support have access to electronic support through My Oracle Support. For information, visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

Related Documents

For more information about Oracle Database Appliance, go to <http://www.oracle.com/goto/oda/docs> and click the appropriate release. The following documents are published in the Oracle Database Appliance online documentation library:

- *Oracle Database Appliance Release Notes*
- *Oracle Database Appliance Licensing Information User Manual*
- *Oracle Database Appliance Security Guide*
- *Oracle Database Appliance Accessibility Guide*
- *Oracle Database Appliance X8-2 Deployment and User's Guide*
- *Oracle Database Appliance X7-2 Deployment and User's Guide*
- *Oracle Database Appliance X6-2-HA Deployment and User's Guide*
- *Oracle Database Appliance X6-2S/M/L Deployment and User's Guide*
- *Oracle Database Appliance X5-2 Deployment and User's Guide*
- Oracle Database Appliance Setup Posters and Booklets (a full-size printed copy ships with Oracle Database Appliance)
- *Oracle Database Appliance Owner's Guide*
- *Oracle Database Appliance Service Manual*
- *Oracle Database Appliance Series Safety and Compliance Guide*

For more information about using Oracle Database, go to <http://docs.oracle.com/en/database/> and select the database release from the menu. See the following documents in the Oracle Database online documentation library:

- *Oracle Database Security Guide*
- *Oracle Database Administrator's Guide*
- *Oracle Database SQL Language Quick Reference*
- *Oracle Database Backup and Recovery User's Guide*
- *Oracle Database Backup and Recovery Reference*
- *Oracle Database Utilities*
- *Oracle Automatic Storage Management Administrator's Guide*

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.
<i>italic</i>	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.

1

What's New in This Release

Oracle Database Appliance release 19.16 supports Oracle Database 19c functionality on Oracle Database Appliance hardware models.

New Features

This release supports Oracle Database Appliance models X9-2-HA, X9-2L, X9-2S, X8-2-HA, X8-2M, X8-2S, X7-2-HA, X7-2M, X7-2S, X6-2S, X6-2M, X6-2L, X6-2-HA, and X5-2. You can create a bare metal deployment on Oracle Database Appliance or patch your existing bare metal deployment to Oracle Database Appliance release 19.16. 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 19.16.

For Oracle Database 19c 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:

- **Provisioning and Patching of Oracle Database Appliance Bare Metal Deployments**
This release supports for provisioning of bare metal deployments, and patching of Oracle Database Appliance bare metal deployments from Oracle Database Appliance release 19.12 and later.

Oracle Database Appliance provides support for out of place patching. The patches for Oracle Grid Infrastructure and Oracle Database are available as clone files. It is mandatory to run the `odacli create-prepatchreport` command before you patch your server. You must fix the errors displayed in the report before you proceed with the patching operation. 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 the chapter *Patching Oracle Database Appliance* in the *Oracle Database Appliance Deployment and User's Guide* for your hardware model.

- **Provisioning and Patching of Oracle Database Appliance KVM and DB Systems**
This release supports for provisioning of KVM and DB Systems, and patching of DB Systems from Oracle Database Appliance release 19.11 or later.

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

- **Support for Oracle Database 21c and 19c databases on Oracle Database Appliance DB Systems**

Oracle Database Appliance release 19.16 supports creation of databases of Oracle Database releases 21.7, 21.6, 21.5, 21.4, 21.3, 19.15, 19.14, 19.13, 19.12, and 19.11 on DB systems. The Oracle Grid Infrastructure software installed is of the same version as the Oracle Database version you install. The version is specified in the database system JSON payload, with the attribute `version` for `database`.

For details on the JSON file changes for creating Oracle Database 21c databases on DB systems, see the *Oracle Database Appliance Deployment and User's Guide* for your hardware model.

- **Enabling Oracle AFD on Oracle Database Appliance**

You can enable Oracle AFD on Oracle Database Appliance DB systems by specifying the "enableAFD" : "TRUE", attribute in the JSON file when creating the DB system.

For more information, see the *Oracle Database Appliance Deployment and User's Guide* for your hardware model.

- **Browser User Interface (BUI) Enhancements**

Oracle Database Appliance release 19.16 supports the following in the BUI:

- Patching multiple database homes at a time
- Specifying reserved CPU cores when creating a DB system
- Selecting an existing database home or specifying a new database home when cloning an Oracle ACFS database

For more information, see the *Oracle Database Appliance Deployment and User's Guide* for your hardware model.

- **Support for Oracle Enterprise Manager Plug-in with Oracle Database Appliance Release 19.16**

You can install and configure Oracle Enterprise Manager plug-in for Oracle Database Appliance. Oracle Enterprise Manager plug-in releases 13.2.4 and 13.4.2 require a patch to run on Oracle Database Appliance release 19.10 and later. Oracle Enterprise Manager plug-in release 13.4.3 does not require additional patch.

See the *Oracle Enterprise Manager Plugin for Oracle Database Appliance Release Notes* for more information.

- **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 (July 2022 Oracle Database Release Update) for bare metal systems are available in this release:

- 19.16.0.0.220719
- 12.1.0.2.220719

Note: For Oracle Database 12.1.0.2, the Error Correction/Patching support date was July 31, 2022.

Additionally, the release also includes Oracle Grid Infrastructure and Oracle Database 21.7 updates (July 2022 Oracle Database Release Update 21.7.0.0.220719) for DB systems.

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

See the chapter *Oracle Database Appliance Release 19.16 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 19.16 from the drop down list.

- **Oracle Database Appliance 19.16.0.0.0 Server Patch for ODACLI/DCS stack:** Use patch 34376263 to update your bare metal deployment to Oracle Database Appliance release 19.16. You must download the Server Patch, Oracle Grid Infrastructure clone file, and the Oracle Database clone file to update your deployment to release 19.16.
- **Oracle Database Appliance 19.16.0.0.0 Grid Infrastructure Clone for ODACLI/DCS stack:** Use patch 30403673 to update your deployment to Oracle Database Appliance release 19.16. 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 19.16.0.0.0 Database Clone File for ODACLI/DCS stack:** Use the Oracle Database 19.16.0.0.220719 Software Clone file to create 19.16.0.0.220719 Oracle Database homes. Patch 30403662 provides the database clone for this update. This patch is for all Oracle Database Appliance Hardware Models (bare metal).
- **Oracle Database Appliance 12.1.0.2 Database Clone File for ODACLI/DCS stack:** Use the Oracle RDBMS 12.1.0.2.220719 Software Clone file to create 12.1.0.2.220719 database homes. Patch 23494992 provides the database clone for this update.
- **Oracle Database Appliance KVM Database System Template:** Use the KVM Database System template to deploy KVM-based virtualization for Oracle Database Appliance. Patch 32451228 provides the database clone for this update.
- **Oracle Database Appliance 21.7.0.0.220719 GI Clone for DB Systems:** Use patch 33152235 to perform an initial deployment of Oracle Database Appliance on DB Systems for creating Oracle Database 21c databases. This patch is for Oracle Database Appliance Hardware Models with DB systems only.
- **Oracle Database Appliance 21.7.0.0.220719 Database Clone File for DB Systems:** Use the Oracle Database 21.7.0.0.220719 Software Clone file to create 21.7.0.0.220719 Oracle Database homes. Patch 33152237 provides the database clone for this update. This patch is for Oracle Database Appliance Hardware Models with DB systems only.
- **Oracle Database Appliance Upgrade Utility for 12.1.2.12, 12.2.1.4, 18.3, 18.5, 18.7, 18.8 OAK/DCS Stack:** Use the Oracle Database Appliance upgrade utility to update your deployment to Oracle Database Appliance release 19.16. You must download the utility to run the first step of Data Preserving Re provisioning feature. Patch 33594115 provides the utility.

Related Topics

- Oracle Database Appliance Checklists
- Patching Oracle Database Appliance
- Oracle Database Appliance Command Line Interface Reference
- Registering Oracle Data Guard on Oracle Database Appliance
- About Enterprise Edition High Availability for Oracle Database Appliance
- Upgrading Oracle Database Appliance Using Data Preserving Reprovisioning
- Migrating from Virtualized Platform to KVM on Oracle Database Appliance
- Troubleshooting Data Preserving Reprovisioning on Oracle Database Appliance
- [Known Issues with Oracle Database Appliance in This Release](#)
The following are known issues deploying, updating, and managing Oracle Database Appliance in this release.
- Enterprise Manager Plugin for Oracle Database Appliance
- Data Preserving Reprovisioning FAQs

2

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 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 X6-2S, X6-2M, and X6-2L Models](#)
The matrix display the component versions available for Oracle Database Appliance for X6-2S, X6-2M, and X6-2L.
- [Component Versions for Oracle Database Appliance X6-2-HA Models](#)
The matrix displays the component versions available for Oracle Database Appliance for X6-2-HA.
- [Component Versions for X5-2 Models](#)
The matrix display the component versions available for Oracle Database Appliance X5-2 hardware models.

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 2-1 Component Versions for X9-2-HA, X9-2L, and X9-2S in Oracle Database Appliance Release 19.16

Component Name	X9-2-HA	X9-2S and X9-2L
Controller	16.00.08.00	Not applicable
Expander	0310	Not applicable
SSD	RXA0	Not applicable
NVMe (firmware version)	Not applicable	2CV1RC30
OS Disk (SSD firmware version)	XC311132	XC311132

Table 2-1 (Cont.) Component Versions for X9-2-HA, X9-2L, and X9-2S in Oracle Database Appliance Release 19.16

Component Name	X9-2-HA	X9-2S and X9-2L
ILOM (Oracle Integrated Lights Out Manager)	5.1.0.20.r145377	5.1.0.20.r145377
BIOS	62060500	62060500
IPMI (Intelligent Platform Management Interface)	1.8.18.0	1.8.18.0
HMP (Oracle Hardware Management Pack)	2.4.8.9.601	2.4.8.9.601
Oracle Linux	7.9	7.9
AHF (Oracle Autonomous Health Framework)	22.1	22.1
MySQL	8.0.27	8.0.27
Kernel	kernel-uek-4.14.35-2047.515.3.el7uek.x86_64	kernel-uek-4.14.35-2047.515.3.el7uek.x86_64
GI_HOME	19.16.0.0.220719	19.16.0.0.220719
DB_HOME	19.16.0.0.220719	19.16.0.0.220719
Oracle Auto Service Request (Oracle ASR)	22.1.0	22.1.0

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 2-2 Component Versions for X8-2-HA, X8-2M, and X8-2S in Oracle Database Appliance Release 19.16

Component Name	X8-2-HA	X8-2S and X8-2M
Controller	16.00.08.00	Not applicable
Expander	0310	Not applicable
SSD	A959	Not applicable
NVMe (firmware version)	Not applicable	VDV1RL04
OS Disk (SSD firmware version)	N2010121 or XC311132	N2010121
ILOM (Oracle Integrated Lights Out Manager)	5.1.0.20.r146227	5.1.0.20.r146227
BIOS	52070600	52070600
IPMI (Intelligent Platform Management Interface)	1.8.18.0	1.8.18.0

Table 2-2 (Cont.) Component Versions for X8-2-HA, X8-2M, and X8-2S in Oracle Database Appliance Release 19.16

Component Name	X8-2-HA	X8-2S and X8-2M
HMP (Oracle Hardware Management Pack)	2.4.8.0.601	2.4.8.0.601
Oracle Linux	7.9	7.9
AHF (Oracle Autonomous Health Framework)	22.1	22.1
MySQL	8.0.27	8.0.27
Kernel	kernel-uek-4.14.35-2047.515.3.el7uek.x86_64	kernel-uek-4.14.35-2047.515.3.el7uek.x86_64
GI_HOME	19.16.0.0.220719	19.16.0.0.220719
DB_HOME	19.16.0.0.220719	19.16.0.0.220719
Oracle Auto Service Request (Oracle ASR)	22.1.0	22.1.0

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 2-3 Component Versions for X7-2-HA, X7-2M, and X7-2S in Oracle Database Appliance Release 19.16

Component Name	X7-2-HA	X7-2S and X7-2M
Controller	16.00.08.00	Not applicable
Expander	0310	Not applicable
SSD	A170 For the HDD/SSD option: A374/A087	A170
NVMe (firmware version)	Not applicable	QDV1RF32
OS Disk (SSD firmware version)	N2010121	N2010121
ILOM (Oracle Integrated Lights Out Manager)	5.1.0.20.r145377	5.1.0.20.r145377
BIOS	41110100	41110100
IPMI (Intelligent Platform Management Interface)	1.8.18.0	1.8.18.0
HMP (Oracle Hardware Management Pack)	2.4.8.9.601	2.4.8.9.601
Oracle Linux	7.9	7.9
AHF (Oracle Autonomous Health Framework)	22.1	22.1

Table 2-3 (Cont.) Component Versions for X7-2-HA, X7-2M, and X7-2S in Oracle Database Appliance Release 19.16

Component Name	X7-2-HA	X7-2S and X7-2M
MySQL	8.0.27	8.0.27
Kernel	kernel-uek-4.14.35-2047.515.3.el7uek.x86_64	kernel-uek-4.14.35-2047.515.3.el7uek.x86_64
GI_HOME	19.16.0.0.220719	19.16.0.0.220719
DB_HOME	19.16.0.0.220719	19.16.0.0.220719
Oracle Auto Service Request (Oracle ASR)	22.1.0	22.1.0

Component Versions for X6-2S, X6-2M, and X6-2L Models

The matrix display the component versions available for Oracle Database Appliance for X6-2S, X6-2M, and X6-2L.

Table 2-4 Component Versions for Oracle Database Appliance X6-2S, X6-2M, and X6-2L in Oracle Database Appliance Release 19.16

Component Name	Version
Controller	4.650.00-7176
NVMe (firmware version)	KPYAJR3Q
OS Disk	OR3Q
ILOM (Oracle Integrated Lights Out Manager)	5.1.0.20.r145377
BIOS	X6-2SM:38360300 X6-2L:39360300
IPMI (Intelligent Platform Management Interface)	1.8.18.0
HMP (Oracle Hardware Management Pack)	2.4.8.9.601
Oracle Linux	7.9
AHF (Oracle Autonomous Health Framework)	22.1
MySQL	8.0.27
Kernel	kernel-uek-4.14.35-2047.515.3.el7uek.x86_64
GI_HOME	19.16.0.0.220719
DB_HOME	19.16.0.0.220719
Oracle Auto Service Request (Oracle ASR)	22.1.0

Component Versions for Oracle Database Appliance X6-2-HA Models

The matrix displays the component versions available for Oracle Database Appliance for X6-2-HA.

Table 2-5 Component Versions for Oracle Database Appliance X6-2-HA in Oracle Database Appliance Release 19.16

Component Name	Version
Controller_INT	4.650.00-7176
Controller_Ext	16.00.08.00
Expander	0310
SSD_LOCAL	OR3Q
SSD_SHARED	A29A
ILOM (Oracle Integrated Lights Out Manager)	5.1.0.20.r145377
BIOS	38360300
IPMI (Intelligent Platform Management Interface)	1.8.18.0
HMP (Oracle Hardware Management Pack)	2.4.8.9.601
Oracle Linux	7.9
AHF (Oracle Autonomous Health Framework)	22.1
MySQL	8.0.27
Kernel	kernel-uek-4.14.35-2047.515.3.el7uek.x86_64
GI_HOME	19.16.0.0.220719
DB_HOME	19.16.0.0.220719
Oracle Auto Service Request (Oracle ASR)	22.1.0

Component Versions for X5-2 Models

The matrix display the component versions available for Oracle Database Appliance X5-2 hardware models.

Table 2-6 Component Versions for Oracle Database Appliance X5-2 for Oracle Database Appliance Release 19.16

Component Name	Version
Controller_INT	4.650.00-7176
Controller_Ext	16.00.08.00
Expander	001E
SSD_LOCAL	n/a
SSD_SHARED	A29A
HDD_LOCAL	A7E0
HDD_SHARED	A3A0, PAG1, PD51
ILOM (Oracle Integrated Lights Out Manager)	5.1.0.20.r145377
BIOS	30360200
IPMI (Intelligent Platform Management Interface)	1.8.18.0
HMP (Oracle Hardware Management Pack)	2.4.8.9.601

Table 2-6 (Cont.) Component Versions for Oracle Database Appliance X5-2 for Oracle Database Appliance Release 19.16

Component Name	Version
Oracle Linux	7.9
Oracle Autonomous Health Framework (AHF)	22.1
MySQL	8.0.27
Kernel	kernel-uek-4.14.35-2047.515.3.el7uek.x86_64
GI_HOME	19.16.0.0.220719
DB_HOME	19.16.0.0.220719
Oracle Auto Service Request (Oracle ASR)	22.1.0

3

Oracle Database Appliance 19.16 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.

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...)
19.16.0.0	For bare metal systems: <ul style="list-style-type: none">• 19.15.0.0• 19.14.0.0• 19.13.0.0• 19.12.0.0
19.15.0.0	For bare metal systems: <ul style="list-style-type: none">• 19.14.0.0• 19.13.0.0• 19.12.0.0• 19.11.0.0

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...)
19.14.0.0	For bare metal systems: <ul style="list-style-type: none"> • 19.13.0.0 • 19.12.0.0 • 19.11.0.0 • 19.10.0.0
19.13.0.0	For bare metal systems: <ul style="list-style-type: none"> • 19.12.0.0 • 19.11.0.0 • 19.10.0.0 • 19.9.0.0 For virtualized platform deployments: <ul style="list-style-type: none"> • 19.9.0.0 • 19.8.0.0
19.12.0.0	For bare metal systems: <ul style="list-style-type: none"> • 19.11.0.0 • 19.10.0.0 • 19.9.0.0 • 19.8.0.0
19.11.0.0	For bare metal systems: <ul style="list-style-type: none"> • 19.10.0.0 • 19.9.0.0 • 19.8.0.0 • 19.7.0.0
19.10.0.0	For bare metal systems: <ul style="list-style-type: none"> • 19.9.0.0 • 19.8.0.0 • 19.7.0.0 • 19.6.0.0
19.9.0.0	For bare metal systems: <ul style="list-style-type: none"> • 19.8.0.0 • 19.7.0.0 • 19.6.0.0 • 19.5.0.0 For virtualized platform deployments: <ul style="list-style-type: none"> • 19.8.0.0
19.8.0.0	For bare metal systems: <ul style="list-style-type: none"> • 19.7.0.0 • 19.6.0.0 • 19.5.0.0 For virtualized platform deployments: <ul style="list-style-type: none"> • 18.8.0.0
19.7.0.0	<ul style="list-style-type: none"> • 19.6.0.0 • 19.5.0.0

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...)
19.6.0.0	<ul style="list-style-type: none"> • 18.8.0.0
18.8.0.0	<ul style="list-style-type: none"> • 18.7.0.0 • 18.5.0.0 • 18.3.0.0
18.7.0.0	<ul style="list-style-type: none"> • 18.5.0.0 • 18.3.0.0
18.5.0.0	<ul style="list-style-type: none"> • 18.3.0.0
18.3.0.0	<ul style="list-style-type: none"> • 12.2.1.4.0 • 12.2.1.3.0 • 12.2.1.2.0 • 12.1.2.12
12.2.1.4.0	<ul style="list-style-type: none"> • 12.2.1.3.0 • 12.2.1.2.0 • 12.1.2.12
12.2.1.3.0	<ul style="list-style-type: none"> • 12.2.1.2.0 • 12.1.2.12
12.2.1.2.0	<ul style="list-style-type: none"> • 12.1.2.12 <p>Note: 12.2.1.2.0 is not supported on virtualized platform.</p>
12.1.2.12	<ul style="list-style-type: none"> • 12.1.2.11 • 12.1.2.10 • 12.1.2.9 • 12.1.2.8
12.1.2.11	<ul style="list-style-type: none"> • 12.1.2.10 • 12.1.2.9 • 12.1.2.8 • 12.1.2.7
12.1.2.10	<ul style="list-style-type: none"> • 12.1.2.9 • 12.1.2.8 • 12.1.2.7 • 12.1.2.6
12.1.2.9	<ul style="list-style-type: none"> • 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 provision Oracle Database Appliance release 19.16 on Oracle Database Appliance bare metal systems. You can patch your bare metal systems to Oracle Database Appliance release 19.16 from Oracle Database Appliance release 19.12 or later. You can also provision and patch Oracle Database Appliance DB systems on KVM to release 19.16.

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 19.16 from the release list.

Table 3-2 Oracle Database Appliance Patches for Oracle Database Appliance Release 19.16

Patch Type	Patch Number	Description	Resources
Oracle Database Appliance Server Patch for ODACLI/DCS Stack	34376263	Use the server patch to update your deployment to Oracle Database Appliance release 19.16. You must download the Server Patch, Oracle Grid Infrastructure clone file, and the Oracle Database clone file to update your deployment to release 19.16.	Patching Oracle Database Appliance

Table 3-2 (Cont.) Oracle Database Appliance Patches for Oracle Database Appliance Release 19.16

Patch Type	Patch Number	Description	Resources
Oracle Database Appliance Grid Infrastructure Clone for ODACLI/DCS stack	30403673	Use patch 30403673 to update your deployment to Oracle Database Appliance release 19.16. 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 19.16.	Provisioning Oracle Database Appliance Software
Oracle Database Appliance Database Clone 19.16.0.0.220719 for ODACLI/DCS stack	30403662	Use Oracle Database Appliance Database Clone 19.16.0.0.220719 for ODACLI/DCS stack to create 19.16 database homes for the ODACLI/DCS stack.	Updating Oracle Database Appliance Repository with Database Clone Files
Oracle Database Appliance Database Clone 12.1.0.2.220719 for ODACLI/DCS stack	23494992	Use Oracle Database Appliance Database Clone 12.1.0.2.220719 for ODACLI/DCS stack to create 12.1.0.2 database homes for the 19.16 ODACLI/DCS stack. Note: For Oracle Database 12.1.0.2, the Error Correction/Patching support date was July 31, 2022.	Updating Oracle Database Appliance Repository with Database Clone Files
Oracle Database Appliance ISO Image	30403643	Use the ISO image to re-image the operating system for Oracle Database Appliance 19.16. Re-imaging a server installs the new operating system on the local disks on that server.	Re-imaging Oracle Database Appliance

Table 3-2 (Cont.) Oracle Database Appliance Patches for Oracle Database Appliance Release 19.16

Patch Type	Patch Number	Description	Resources
Oracle Database Appliance KVM Database System Template	32451228	Use the KVM Database System template to deploy KVM-based virtualization for Oracle Database Appliance 19.16.	Managing DB Systems in KVM Deployment
Oracle Database Appliance 21.7.0.0.220719 GI Clone for DB Systems	33152235	Use the Oracle Grid Infrastructure 21c clone file to deploy Oracle Database 21c database on DB system.	Managing DB Systems in KVM Deployment
Oracle Database Appliance 21.7.0.0.220719 Database Clone for DB Systems	33152237	Use the Oracle Database Appliance 21.7.0.0.220719 clone file to deploy Oracle Database 21c database on DB system.	Managing DB Systems in KVM Deployment
Oracle Database Appliance Upgrade Utility for 12.1.2.12, 12.2.1.4, 18.3, 18.5, 18.7, 18.8 OAK/DCS Stack	33594115	Use the Oracle Database Appliance upgrade utility to update your deployment to Oracle Database Appliance release 19.15. You must download the utility to run the first step of Data Preserving Reprovisioning feature.	Upgrading Oracle Database Appliance Using Data Preserving Reprovisioning

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 updating the operating system when patching the server](#)
When patching the server to Oracle Database Appliance release 19.15, the operating system may not be updated.
- [Error in server patching during DB system patching](#)
When patching the server during DB system patching to Oracle Database Appliance release 19.15, an error may be encountered.
- [Component version not updated after patching](#)
After patching the server to Oracle Database Appliance release 19.16, the `odacli describe-component` command does not display the correct Intel Model 0x1528 Ethernet Controller version, if the current version is 8000047B or 8000047C.
- [Detaching of databases with additionally configured services not supported by `odaupgradeutil`](#)
When running `odaupgradeutil` in the Data Preserving Re provisioning process, if there are additionally configured services, then databases cannot be detached.
- [Error in restore node process in Data Preserving Re provisioning](#)
In the Data Preserving Re provisioning process, during node restore, an error may be encountered.
- [Error in restore node process in Data Preserving Re provisioning with NFS backup](#)
In the Data Preserving Re provisioning process, during node restore if an NFS backup configuration is present, then an error may be encountered.
- [Error in restore node process in Data Preserving Re provisioning](#)
In the Data Preserving Re provisioning process, during node restore, an error may be encountered.

- [Error in restore node process in Data Preserving Re provisioning](#)
In the Data Preserving Re provisioning process, during node restore, an error may be encountered.
- [Error messages in log entries in Data Preserving Re provisioning](#)
In the Data Preserving Re provisioning process, during node restore, the log entries may display error messages though the overall status of the job is displayed as SUCCESS.
- [Error in server patching](#)
When patching Oracle Database Appliance which already has STIG V1R2 deployed, an error may be encountered.
- [AHF error in prepatch report for the update-dbhome command](#)
When you patch server to Oracle Database Appliance release 19.16, the `odacli update-dbhome` command may fail.
- [Error in patching prechecks report](#)
The patching prechecks report may display an error.
- [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.
- [Server status not set to Normal when patching](#)
When patching Oracle Database Appliance, an error is encountered.
- [Error when patching to 12.1.0.2.190716 Bundle Patch](#)
When patching Oracle Database release 12.1.0.2 to Oracle Database 12.1.0.2.190716 Bundle Patch, an error is encountered.
- [Patching of M.2 drives not supported](#)
Patching of M.2 drives (local disks SSDSCKJB48 and SSDSCKJB480G7) is not supported.

Error in updating the operating system when patching the server

When patching the server to Oracle Database Appliance release 19.15, the operating system may not be updated.

The following error message is displayed:

```
DCS-10001:Internal error encountered: Failed to patch OS.
```

Run the following command:

```
rpm -q kernel-uek
```

If the output of this command displays multiple RPM names, then perform the workaround.

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Remove the following RPMs:

```
# yum remove kernel-uek-4.14.35-1902.11.3.1.el7uek.x86_64
# yum remove kernel-uek-4.14.35-1902.301.1.el7uek.x86_64
```

This issue is tracked with Oracle bug 34154435.

Error in server patching during DB system patching

When patching the server during DB system patching to Oracle Database Appliance release 19.15, an error may be encountered.

The following error message is displayed:

```
ORA-12559: Message 12559 not found; product=RDBMS; facility=ORA
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Retry server patching on the DB system.

This issue is tracked with Oracle bug 34153158.

Component version not updated after patching

After patching the server to Oracle Database Appliance release 19.16, 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.

Detaching of databases with additionally configured services not supported by `odaupgradeutil`

When running `odaupgradeutil` in the Data Preserving Re provisioning process, if there are additionally configured services, then databases cannot be detached.

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Additional services must be deleted to complete the detach operation by running the command `srvctl remove service`. If these services are required, then before removing the service, the metadata must be captured manually and then the services must be recreated on the system running Oracle Database Appliance release 19.15 using the `srvctl` command from the appropriate database home.

This issue is tracked with Oracle bug 33593287.

Error in restore node process in Data Preserving Re provisioning

In the Data Preserving Re provisioning process, during node restore, an error may be encountered.

If incorrect VIP names or VIP IP addresses are configured, then the detach completes successfully but the command `odacli restore-node -g` displays a validation error. This is because the earlier releases did not validate VIP names or VIP IP addresses before provisioning.

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Follow these steps:

Manually edit the file `/opt/oracle/oak/restore/metadata/provisionInstance.json` with the correct VIP names or VIP IP addresses. Retry the command `odacli restore-node -g`. For fixing VIP names or VIP IP addresses, `nslookup` can be used to query hostnames and IP addresses.

This issue is tracked with Oracle bug 34140344.

Error in restore node process in Data Preserving Re provisioning with NFS backup

In the Data Preserving Re provisioning process, during node restore if an NFS backup configuration is present, then an error may be encountered.

Hardware Models

All Oracle Database Appliance hardware models that have been upgraded using the Data Preserving Re provisioning process with NFS backup configuration

Workaround

Follow these steps. On high-availability systems, run the steps on both nodes.

1. Identify the DB user from the `/opt/oracle/oak/restore/metadata/provisionInstance.json` file.

```
[root@n1 ~]# grep -A2 -B2 'oracleUser'
/opt/oracle/oak/restore/metadata/provisionInstance.json
    "userName": "oracle",
    "userId": 1001,
    "userRole": "oracleUser"
  },
  {
```

2. Find the backup location for all NFS based backup configuration:

```
[root@n1 ~]# grep -i -A3 'backupDestination.*NFS'
/opt/oracle/oak/restore/metadata/dbBkpConfs.json
  "backupDestination" : "NFS",
  "backupLocation" : "/repo",    <<=====
  "objectStoreId" : null,
  "createTime" : "August 11, 2022 20:39:23 PM CST",
```

3. For each of the NFS backup locations, create the directory using root and change ownership to the DB user.

```
mkdir /repo
chown oracle:oinstall /repo
```

Note: Replace `oinstall` in the command with the `oinstall` group name in the `/opt/oracle/oak/restore/metadata/provisionInstance.json` file.

4. Retry the command `odacli restore-node -d`.

This issue is tracked with Oracle bug 34503968.

Error in restore node process in Data Preserving Re provisioning

In the Data Preserving Re provisioning process, during node restore, an error may be encountered.

The following error message may be displayed:

```
# /opt/oracle/dcs/bin/odacli restore-node -d
DCS-10001:Internal error encountered: Failed to process dbStorage
metadata.
```

This error occurs because `flashCacheDestination` is null in the `/opt/oracle/oak/restore/metadata/dbStorages.json` file.

Hardware Models

All Oracle Database Appliance hardware models being upgraded using the Data Preserving Re provisioning process where additional database storage is configured. An additional database storage is storage created when you run the command `oakcli create dbstorage` or `odacli create-dbstorage` but the storage is not associated with any database.

Workaround

Follow these steps:

In the `/opt/oracle/oak/restore/metadata/dbStorages.json` file, change all occurrences of `"flashCacheDestination": null` to `"flashCacheDestination": ""`, that is, an empty string.

Retry the command `odacli restore-node -d`.

This issue is tracked with Oracle bug 34526874.

Error in restore node process in Data Preserving Re provisioning

In the Data Preserving Re provisioning process, during node restore, an error may be encountered.

The following error message may be displayed:

```
DCS-10045: groupNames are not unique.
```

This error occurs if the source Oracle Database Appliance is an OAK version. This is because on the DCS stack, the same operating system group is not allowed to be assigned two or more roles.

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Follow these steps:

Manually edit the file `/opt/oracle/oak/restore/metadata/provisionInstance.json` with unique group names for each role. Retry the command `odacli restore-node -g`.

This issue is tracked with Oracle bug 34042493.

Error messages in log entries in Data Preserving Re provisioning

In the Data Preserving Re provisioning process, during node restore, the log entries may display error messages though the overall status of the job is displayed as `SUCCESS`.

For Oracle Database Appliance running the DCS stack starting with Oracle Database Appliance release 12.2.1.4.0, the command `odacli restore-node -d` performs a set of ignorable tasks. Failure of these tasks does not affect the status of the overall job. The output of the command `odacli describe-job` may report such failures. These tasks are:

```
Restore of user created networks
Restore of object stores
Restore of NFS backup locations
Restore of backupconfigs
Relinking of backupconfigs to databases
Restore of backup reports
```

In the sample output above, even if these tasks fail, the overall status of the job is marked as `SUCCESS`.

Hardware Models

All Oracle Database Appliance hardware models being upgraded using the Data Preserving Re provisioning process

Workaround

Investigate the failure using the `dc-agent.log`, fix the errors, and then retry the command `odacli restore-node -d`.

This issue is tracked with Oracle bug 34512193.

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 19.16, if the Security Technical Implementation Guidelines (STIG) V1R2 is already deployed, then when you patch to 19.16 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 19.16, 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 19.16.0.0.0 -f
```

This issue is tracked with Oracle bug 33144170.

Error in patching prechecks report

The patching 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 19.16.0.0.0
^[[ADCS-10008:Failed to update DCScomponents: 19.16.0.0.0
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.

Error when patching to 12.1.0.2.190716 Bundle Patch

When patching Oracle Database release 12.1.0.2 to Oracle Database 12.1.0.2.190716 Bundle Patch, an error is encountered.

The ODACLI job displays the following error:

```
DCS-10001:Internal error encountered: Failed to run SQL script:  
datapatch script.
```

The data patch log contains the entry "Prereq check failed, exiting without installing any patches."

Hardware Models

All Oracle Database Appliance hardware models bare metal deployments

Workaround

Install the same patch again.

This issue is tracked with Oracle bugs 30026438 and 30155710.

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. Patching the LSI controller version 13.00.00.00 to version 16.00.01.00 is also not supported. However, on some Oracle Database Appliance X8-2 models, the installed LSI controller version may be 16.00.01.00.

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.

- [ODACLI command output not included in system report](#)
On Oracle Database Appliance which has multi-user access enabled, ODACLI command output is not included in the system report.
- [Error in creating an Oracle ASM Database after patching](#)
After patching a multi-user access enabled appliance to Oracle Database Appliance release, an error may be encountered when creating an Oracle Database on Oracle ASM storage.
- [Error in modifying the database](#)
The modify operation is unable to reset database parameter.
- [Error in increasing memory on DB system](#)
When increasing the memory on a DB system using the `odacli modify-dbsystem` command, an error may be encountered.
- [Error in reducing DB system shape](#)
When creating two DB systems concurrently in two different Oracle ASM disk groups, an error is 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 creating DB system](#)
When creating a DB system on Oracle Database Appliance, an error may be encountered.
- [Error in recovering a TDE-enabled database](#)
When recovering a TDE-enabled Oracle RAC One Node database from the remote node, after the database was shut down, an error may be 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 provisioning appliance after running cleanup.pl](#)
Errors encountered in provisioning appliance after running `cleanup.pl`.
- [Error in updating a database](#)
When updating a database on Oracle Database Appliance, an error is encountered.
- [Error in running tfactl diagcollect command on remote node](#)
When running the `tfactl diagcollect` command on Oracle Database Appliance, an error is encountered.
- [Error when upgrading database from 11.2.0.4 to 12.1 or 12.2](#)
When upgrading databases from 11.2.0.4 to 12.1 or 12.2, an error is encountered.
- [Error when upgrading 12.1 single-instance database](#)
When upgrading 12.1 single-instance database, a job failure error is encountered.
- [Error encountered after running cleanup.pl](#)
Errors encountered in running `odacli` commands after running `cleanup.pl`.
- [Errors in clone database operation](#)
Clone database operation fails due to errors.

- [Clone database operation fails](#)
For Oracle Database release 12.1 databases, the database clone creation may fail because the default compatible version from Oracle binaries was set to 12.0.0.0.0

ODACLI command output not included in system report

On Oracle Database Appliance which has multi-user access enabled, ODACLI command output is not included in the system report.

The system report generated by Oracle Trace File Analyzer Collector does not have the output for ODACLI commands as the ODACLI commands do not run in the absence of required authentication.

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Generate the output of the ODACLI commands separately and then provide the output to Oracle Support, if needed.

This issue is tracked with Oracle bug 33786157.

Error in creating an Oracle ASM Database after patching

After patching a multi-user access enabled appliance to Oracle Database Appliance release, an error may be encountered when creating an Oracle Database on Oracle ASM storage.

An attempt to create an Oracle Database on Oracle ASM storage as the user `odaadmin` after patching a multi-user access enabled appliance, that was initially provisioned in Oracle Database Appliance release 19.13 with `isRoleSeparated=false` and two operating system groups, fails. The following error message may be displayed:

```
[FATAL] [DBT-05801] THERE ARE NO ASM DISK GROUPS DETECTED.
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Follow these steps:

The user `odaadmin` must be added to the operating system group corresponding to the `groupRole=dba`. This is a one-time activity that must be performed manually before re-attempting to create an Oracle ASM database.

This issue is tracked with Oracle bug 34126894.

Error in modifying the database

The modify operation is unable to reset database parameter.

This is because the database running on the node displayed in the `srvctl` and the metadata are not the same.

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Follow these steps:

1. Stop the database:

```
srvctl stop database -d dbuniquename
```

2. Start the database:

```
srvctl start database -d dbuniquename -node targetNodeNumber
```

This issue is tracked with Oracle bug 34292498.

Error in increasing memory on DB system

When increasing the memory on a DB system using the `odacli modify-dbsystem` command, an error may be encountered.

When running the `odacli modify-dbsystem` command to increase the memory, if the memory specified is greater than the memory currently free, then an error message may be displayed.

Hardware Models

All Oracle Database Appliance hardware models

Workaround

None.

This issue is tracked with Oracle bug 34430617.

Error in reducing DB system shape

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

The `odacli modify-dbsystem` command to scale down the shape may fail at the `wait DB System VM DCS Agent bootstrap` step. The `virsh` console `VM_name` displays `kernel panic with out of memory in the stack message`.

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Follow these steps:

1. Stop and start the DB system. It may take upto 20 min to stop the DB system.
2. Login to the VM and do the following. For a high-availability system, run the steps on both nodes.
 - a. Comment out `vm.nr_hugepages` in the `/etc/sysctl.conf` file.
 - b. Back up `/boot/initramfs-`uname -r`.img`.
 - c. Run `dracut -f as root` to recreate `initramfs`.
 - d. Uncomment `vm.nr_hugepages` in the `/etc/sysctl.conf` file.
 - e. Perform the scaledown.

This issue is tracked with Oracle bug 34362565.

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 creating DB system

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

When running the `odacli create-dbsystem` command, the following error message may be displayed:

```
DCS-10001:Internal error encountered: ASM network is not online in all nodes
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Follow these steps:

1. Manually bring the offline resources online:

```
crsctl start res -all
```

2. Run the `odacli create-dbsystem` command.

This issue is tracked with Oracle bug 33784937.

Error in recovering a TDE-enabled database

When recovering a TDE-enabled Oracle RAC One Node database from the remote node, after the database was shut down, an error may be encountered.

When attempting to start the TDE-enabled Oracle RAC One Node database from the remote node, that is, the node other than node mentioned in the `dbTargetNodeNumber` in the database object, then the following error message may be displayed:

```
DCS-10001:Internal error encountered: DCS-10001:Internal error encountered:  
Missing arguments : required sqlplus connection information is not provided..
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Run the `odacli recover-database` command from the node mentioned in the `dbTargetNodeNumber` in the database object.

This issue is tracked with Oracle bug 33851593.

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 dbssystem

Workaround

Shut down dbssystem 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 appliance 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 in updating a database

When updating a database on Oracle Database Appliance, an error is encountered.

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

```
PRGO-1069 :Internal error [# rhpmovedb.pl-isPatchUpg-1 #]..
```


To confirm that the MMON process occupies the lock, connect to the target database which failed to patch, and run the command:

```
SELECT s.sid, p.spid, s.machine, s.program FROM v$session s, v$process p
WHERE s.paddr = p.addr and s.sid = (
SELECT sid from v$lock WHERE id1= (
SELECT lockid FROM dbms_lock_allocated WHERE name = 'ORA$QP_CONTROL_LOCK'
));
```

If in the displayed result, `s.program` in the output is similar to the format `oracle_user@host_box_name (MMON)`, then the error is caused by the MMON process. Run the workaround to address this issue.

Hardware Models

All Oracle Database Appliance high-availability hardware models

Workaround

Run the following commands:

1. Stop the MMON process:

```
# ps -ef | grep MMON
root      71220 70691  0 21:25 pts/0    00:00:00 grep --color=auto MMON
```

Locate the process ID from step (1) and stop it:

```
# kill -9 71220
```

2. Manually run datapatch on target database:

- a. Locate the database home where the target database is running:

```
odacli describe-database -in db_name
```

- b. Locate the database home location:

```
odacli describe-dbhome -i DbHomeID_found_in_step_a
```

- c. On the running node of the target database:

```
[root@node1 ~]# sudo su - oracle
Last login: Thu Jun  3 21:24:45 UTC 2021
[oracle@node1 ~]$ . oraenv
ORACLE_SID = [oracle] ? db_instance_name
ORACLE_HOME = [/home/oracle] ? dbHome_location
```

- d. If the target database is a non-CDB database, then run the following:

```
$ORACLE_HOME/OPatch/datapatch
```

- e. If the target database is a CDB database, then run the following to find the PDB list:

```
select name from v$containers where open_mode="READ WRITE";
```

- f. Exit SQL*Plus and run the following:

```
$ORACLE_HOME/OPatch/datapatch -pdb  
pdb_names_gathered_by_the_SQL_statement_in_step_e_separated_by_co  
mma
```

This issue is tracked with Oracle bug 32827353.

Error in running tfactl diagcollect command on remote node

When running the `tfactl diagcollect` command on Oracle Database Appliance, an error is encountered.

Hardware Models

All Oracle Database Appliance hardware models KVM and bare metal systems

Workaround

Prior to Oracle Autonomous Health Framework 21.2, if the certificates are generated on each node separately, then you must perform either of the following manual steps to fix this.

- Run the following command on each node so that Oracle Trace File Analyzer generates new certificates and distributes to the other node:

```
tfactl syncnodes -remove -local
```

- Connect using SSH with `root` credentials on one node and run the following.

```
tfactl syncnodes
```

This issue is tracked with Oracle bug 32921859.

Error when upgrading database from 11.2.0.4 to 12.1 or 12.2

When upgrading databases from 11.2.0.4 to 12.1 or 12.2, an error is encountered.

Database upgrade can cause the following warning in the `UpgradeResults.html` file, when upgrading database from 11.2.0.4 to 12.1 or 12.2:

```
Database is using a newer time zone file version than the Oracle home
```

Hardware Models

All Oracle Database Appliance bare metal deployments

Workaround

1. Refer to the *Database Upgrade Guide* for manual steps for fixing the time zone.

2. After manually completing the database upgrade, run the following command to update DCS metadata:

```
/opt/oracle/dcs/bin/odacli update-registry update-registry -n db -f
```

This issue is tracked with Oracle bug 31125985.

Error when upgrading 12.1 single-instance database

When upgrading 12.1 single-instance database, a job failure error is encountered.

Hardware Models

All Oracle Database Appliance hardware models bare metal deployments

Workaround

Use the following workaround:

1. Before upgrading the 12.1 single-instance database, run the following PL/SQL command to change the `local_listener` to an empty string:

```
ALTER SYSTEM SET LOCAL_LISTENER='';
```

2. After upgrading the 12.1 single-instance database successfully, run the following PL/SQL command to change the `local_listener` to the desired value:

```
ALTER SYSTEM SET LOCAL_LISTENER='-oracle-none-';
```

This issue is tracked with Oracle bugs 31202775 and 31214657.

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.

Clone database operation fails

For Oracle Database release 12.1 databases, the database clone creation may fail because the default compatible version from Oracle binaries was set to 12.0.0.0.0

Hardware Models

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

Workaround

Set the compatible value to that of the source database. Follow these steps:

1. Change the parameter value.

```
SQL> ALTER SYSTEM SET COMPATIBLE = '12.1.0.2.0' SCOPE=SPFILE;
```

2. Shut down the database.

```
SQL> SHUTDOWN IMMEDIATE
```

3. Start the database.

```
SQL> Startup
```

4. Verify the parameter for the new value.

```
SQL> SELECT name, value, description FROM v$parameter WHERE name
='compatible';
```

This issue is tracked with Oracle bug 30309914.

Known Issues When Managing Oracle Database Appliance

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

- [Error in configuring Oracle Data Guard](#)
When running the command `odacli configure-dataguard` on Oracle Database Appliance, an error may be encountered at the `upload password file to standby database` step.
- [Error in backup of database](#)
When backing up a database on Oracle Database Appliance, an error is encountered.
- [Error when running two irestore jobs](#)
When running two `irestore` jobs on an ObjectStoreSwift object on Oracle Database Appliance, then an error may be encountered.
- [Error in database backup](#)
When backing up a database on Oracle Database Appliance, an error may be encountered.
- [Error in restoring a database on a multi-user access enabled system](#)
On Oracle Database Appliance which has multi-user access enabled, if a non-default user with the role of `ODA-DB` attempts to `irestore` a database from a NFS backup location, without specifying the DB home ID, then an error may be encountered.
- [Error in configuring Oracle Data Guard](#)
When running the command `odacli configure-dataguard` on Oracle Database Appliance, an error may be encountered.
- [Error in automatic back up of database](#)
When patching Oracle Database Appliance, there may be an error in automatic backup of database.
- [OpenSSH command vulnerability](#)
OpenSSH command vulnerability issue detected in Qualys and Nessus scans.
- [Error in cleaning up a deployment](#)
When cleaning up a Oracle Database Appliance, an error is encountered.
- [Error in TDE wallet management](#)
When changing the TDE wallet password or rekeying the TDE wallet of a database which has `TDE Wallet Management` set to the value `EXTERNAL`, 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 configuring Oracle Data Guard](#)
When running the command `odacli configure-dataguard` on Oracle Database Appliance, an error may be encountered.

- [Error in reinstating on Oracle Data Guard](#)
When running the command `odacli reinstate-dataguard` on Oracle Database Appliance, an error is encountered.
- [Error in configuring Oracle Data Guard](#)
- [Error in viewing Oracle Data Guard status](#)
When viewing Oracle Data Guard status on Oracle Database Appliance, an error is encountered.
- [Error in reinstate operation on Oracle Data Guard](#)
When running the command `odacli reinstate-dataguard` on Oracle Data Guard an error is encountered.
- [Error in running concurrent database or database home creation jobs](#)
When running concurrent database or database home creation jobs, an error is encountered.
- [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 creating Oracle Data Guard status](#)
When configuring Oracle Active Data Guard on Oracle Database Appliance, an error is encountered.
- [Error in restoring a database](#)
When restoring a database on Oracle Database Appliance, if the DB Home ID is provided in the command `odacli irestore-database`, then an error may be encountered.
- [Error in registering a database](#)
When restoring a database on Oracle Database Appliance, if the NLS setting on the standby database is not America/American, then an error may be encountered.
- [Error in Reinstating Oracle Data Guard](#)
When reinstating Oracle Data Guard on Oracle Database Appliance, an error is encountered.
- [Failure in Reinstating Oracle Data Guard](#)
When reinstating Oracle Data Guard on Oracle Database Appliance, 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.
- [Error when recovering a single-instance database](#)
When recovering a single-instance database, an error is encountered.
- [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.
- [Missing DATA, RECO, and REDO entries when dbstorage is rediscovered](#)
Running the `odacli update-registry` command with `-n all --force` or `-n dbstorage --force` option can result in metadata corruption.
- [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.

- [Unrecognized Token Messages Appear in /var/log/messages](#)
After updating Oracle Database Appliance, unrecognized token messages appear in /var/log/messages.

Error in configuring Oracle Data Guard

When running the command `odacli configure-dataguard` on Oracle Database Appliance, an error may be encountered at the `upload password file to standby database` step.

When running the command `odacli configure-dataguard` on Oracle Database Appliance, the following error message may be displayed at `CONFIGUREDG - DCS-10001: UNABLE TO CONFIGURE BROKER DGMGRL> SHOW CONFIGURATION;`:

```
ORA-16783: cannot resolve gap for database tgtkpodpghtb
```

Hardware Models

Oracle Database Appliance hardware models with DB system and database version earlier than Oracle Database Appliance release 19.15

Workaround

Manually copy the password file from primary to standby system and retry the command `odacli configure-dataguard` with the `--skip-password-copy` option.

1. On the primary system, locate the password file:

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

If the output is the Oracle ASM directory, then copy the password from the Oracle ASM directory to the local directory.

```
su - grid
asmcmd
ASMCMD> pwcopy +DATA/tiger2/PASSWORD/orapwtiger /tmp/orapwtiger
```

If the output is empty, then check the directory at `/dbHome/dbs/orapwdbName`. For example, the `orapwd` file can be at `/u01/app/oracle/product/19.0.0.0/dbhome_1/dbs/orapwtiger`

2. Copy the password file to the standby system. Back up the original password file.

```
/u01/app/oracle/product/19.0.0.0/dbhome_1/dbs/orapwtiger
/u01/app/oracle/product/19.0.0.0/dbhome_1/dbs/orapwtiger.ori
scp
root@primaryHost:/u01/app/oracle/product/19.0.0.0/dbhome_1/dbs/orapwtiger
/u01/app/oracle/product/19.0.0.0/dbhome_1/dbs/orapwtiger
```

3. Change the standby `orapwd` file permission.

```
chown -R oracle /u01/app/oracle/product/19.0.0.0/dbhome_1/dbs/orapwtiger
chgrp oinstall /u01/app/oracle/product/19.0.0.0/dbhome_1/dbs/orapwtiger
```

4. Check the password file location on the standby system and copy to the Oracle ASM directory, if necessary.

```
srvctl config database -d tiger2 | grep -i password
Password file: +DATA/tiger2/PASSWORD/orapwtiger
```

In this example, copy the password from the local directory to the Oracle ASM directory.

```
su - grid
asmcmd
ASMCMD> pwcopy /u01/app/oracle/product/19.0.0.0/dbhome_1/dbs/
orapwtiger
+DATA/tiger2/PASSWORD/orapwtiger
```

This issue is tracked with Oracle bug 34484209.

Error in backup of database

When backing up a database on Oracle Database Appliance, an error is encountered.

After successful failover, running the command `odacli create-backup` on new primary database fails with the following message:

```
DCS-10001:Internal error encountered: Unable to get the
rman command status commandid:xxx
output:STATUS
-----
[COMPLETED WITH WARNINGS] error:.
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Follow these steps:

1. On the new primary database, connect to RMAN as `oracle` and edit the archive log deletion policy.

```
rman target /
RMAN> CONFIGURE ARCHIVELOG DELETION POLICY TO BACKED UP 1 TIMES TO
'SBT_TAPE';
```

2. On the new primary database, as the `root` user, take a backup:

```
odacli create-backup -in db_name -bt backup_type
```

This issue is tracked with Oracle bug 33181168.

Error when running two irestore jobs

When running two irestore jobs on an ObjectStoreSwift object on Oracle Database Appliance, then an error may be encountered.

The first irestore job may fail with the following error message:

```
DCS-10001:Internal error encountered: Failed to
run RMAN command. Please refer log at location : hostname1:
/u01/app/odaorabase/odaadmin/diag/rdbms/idb0001/idb0001_1/nodename1/rman/b
kup/rman/2022-06-20/rman_2022-06-20_18-23-58.0337.log.
```

The RMAN log displays the following:

```
ORA-19511: non RMAN, but media manager or vendor specific failure, error
text: KBHS-01013: specified OPC_WALLET alias alias_opc not found in wallet
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

If you want to use the same ObjectStoreSwift object for both irestore database jobs, then start the second irestore job after the completion of the first irestore job.

This issue is tracked with Oracle bug 34300624.

Error in database backup

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

Consider a Regular-L0 backup of a database to Disk, followed by Regular-L1 backup to either Objectstore or NFS location. If the backup report corresponding to that Regular-L1 backup is used to irestore the database, then the irestore job may fail with the following error:

```
DCS-10001:Internal error encountered: Failed to run RMAN command. Please
refer log at location : log_location. RMAN failed to restore DB for
Migration.
```

The log_location may display the following error:

```
RMAN LOG file
RMAN-00571: =====
RMAN-00569: ===== ERROR MESSAGE STACK FOLLOWS =====
RMAN-00571: =====
RMAN-03002: failure of recover command at 08/03/2022 09:16:10
RMAN-06053: unable to perform media recovery because of missing log
RMAN-06102: no channel to restore a backup or copy of archived log for thread
1 with sequence 2 and starting SCN of 3765572
RMAN-06102: no channel to restore a backup or copy of archived log for thread
1 with sequence 1 and starting SCN of 3763021
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Take a Regular-L0 backup to either Objectstore or NFS location again. Then, use the corresponding backup report to restore the database.

This issue is tracked with Oracle bug 34463380.

Error in restoring a database on a multi-user access enabled system

On Oracle Database Appliance which has multi-user access enabled, if a non-default user with the role of ODA-DB attempts to restore a database from a NFS backup location, without specifying the DB home ID, then an error may be encountered.

The following error message is displayed:

```
DCS-10001:Internal error encountered: Unable to fetch database status  
info  
from v$instance.
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Before running the restore job, create the same DB home and user as the one performing the restore operation. Then specify the DB home ID as created above, when you run the restore operation.

This issue is tracked with Oracle bug 34477115.

Error in configuring Oracle Data Guard

When running the command `odacli configure-dataguard` on Oracle Database Appliance, an error may be encountered.

When running the command `odacli configure-dataguard` on Oracle Database Appliance, the following error message may be displayed at CONFIGUREDG -
DCS-10001: UNABLE TO CONFIGURE BROKER DGMGRL> SHOW CONFIGURATION;:

```
ORA-16783: cannot resolve gap for database tgtpodpgtb
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Follow these steps on the machine with the new primary database:

1. Disable the scheduled auto backup of primary database with the command:

```
odacli update-schedule
```

2. Restore archive log of the primary database.

```
odacli restore-archivelog
```

3. Configure Oracle Data Guard with the command `odacli configure-dataguard`.

This issue is tracked with Oracle bug 34008520.

Error in automatic back up of database

When patching Oracle Database Appliance, there may be an error in automatic backup of database.

The following message is displayed:

```
DCS-10001:Internal error encountered: 1.
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

After the appliance is successfully patched, the automatic database backup processes complete successfully.

This issue is tracked with Oracle bug 33699091.

OpenSSH command vulnerability

OpenSSH command vulnerability issue detected in Qualys and Nessus scans.

Qualys and Nessus both report a medium severity issue `OPENSSSH COMMAND INJECTION VULNERABILITY`. Refer to CVE-2020-15778 for details.

Hardware Models

All Oracle Database Appliance hardware models

Workaround

None.

This issue is tracked with Oracle bug 33217970.

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 TDE wallet management

When changing the TDE wallet password or rekeying the TDE wallet of a database which has `TDE Wallet Management` set to the value `EXTERNAL`, an error is encountered.

The following message is displayed:

```
DCS-10089:Database DB_NAME is in an invalid state  
'NOT_RUNNING'.Database DB_NAME must be running
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

NONE. The operations such as changing the TDE wallet password or rekeying the TDE wallet is not supported on a database which has `TDE Wallet Management` set to the value `EXTERNAL`.

This issue is tracked with Oracle bug 33278653.

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 configuring Oracle Data Guard

When running the command `odacli configure-dataguard` on Oracle Database Appliance, an error may be encountered.

When running the command `odacli configure-dataguard` on Oracle Database Appliance, the following error message may be displayed at step `Restore missing archive log` (Primary site):

```
DCS-10114:Failed to acquire exclusive access
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Follow these steps:

1. Before running the command `odacli configure-dataguard`, disable auto-backup schedules for the primary database and verify that the existing backup jobs are completed.

- a. Check the database backup schedule for the primary database:

```
odacli list-schedules
```

- b. Disable the backup schedules for database and archive logs of the primary database:

```
odacli update-schedule -i schedule_id -d
```

2. Run the command `odacli configure-dataguard`.
3. After the command `odacli configure-dataguard` completes successfully, reenable auto backup for the primary database, if desired.

```
odacli update-schedule -i schedule_id -e
```

This issue is tracked with Oracle bug 33724368.

Error in reinstating on Oracle Data Guard

When running the command `odacli reinstate-dataguard` on Oracle Database Appliance, an error is encountered.

The following error message is displayed:

```
DCS-10001:Internal error encountered: Unable to reinstate Dg.
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Manually flashback old primary database.
Run the following commands:

1. On the new primary machine, get the `standby_became_primary_scn`:

```
SQL> select standby_became_primary_scn from v$database;
STANDBY_BECAME_PRIMARY_SCN
-----
4370820
```

2. On the old primary database, as `oracle` user, run the following.

```
rman target /
RMAN> set decryption identified by 'password'
RMAN> FLASHBACK DATABASE TO SCN STANDBY_BECAME_PRIMARY_SCN;
```

3. On the new primary database, run the `odacli reinstate-dataguard` command.

This issue is tracked with Oracle bug 33190261.

Error in configuring Oracle Data Guard

After upgrading the standby database from release 12.1 to 19.14, the following error message may be displayed at step `Enable redo transport and apply`:

```
Warning: ORA-16629: database reports a different protection level from
the protection mode standbydb - Physical standby database (disabled)
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Enable the standby database again by running the following DGMGRL command:

```
DGMGRL> Enable database tgtptdcnvo
Enabled.
```

This issue is tracked with Oracle bug 33749492.

Error in viewing Oracle Data Guard status

When viewing Oracle Data Guard status on Oracle Database Appliance, an error is encountered.

Oracle Data Guard status is not shown on the remote node of Oracle Database Appliance high-availability systems causing Oracle Data Guard switchover, failover, and reinstate jobs to fail at the task `Check if DataGuard config is updated`. Oracle Data Guard operations, though, are successful.

Hardware Models

All Oracle Database Appliance high-availability systems

Workaround

Use `DGMGRL` to verify Oracle Data Guard status.

This issue is tracked with Oracle bug 33411769.

Error in reinstate operation on Oracle Data Guard

When running the command `odacli reinstate-dataguard` on Oracle Data Guard an error is encountered.

Following are the errors reported in `dcs-agent.log`:

```
DCS-10001:Internal error encountered: Unable to reinstate Dg." and can  
further find this error "ORA-12514: TNS:listener does not currently know of  
service requested
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Ensure that the database you are reinstating is started in MOUNT mode.

To start the database in MOUNT mode, run this command:

```
srvctl start database -d db-unique-name -o mount
```

After the command completes successfully, run the command `odacli reinstate-dataguard` job. If the database is already in MOUNT mode, this can be a temporary error. Check the Data Guard status again a few minutes later with `odacli describe-dataguardstatus` or `odacli list-dataguardstatus`, or check with `DGMGRL> SHOW CONFIGURATION;` to see if the reinstatement is successful.

This issue is tracked with Oracle bug 32367676.

Error in running concurrent database or database home creation jobs

When running concurrent database or database home creation jobs, an error is encountered.

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Do not run concurrent database or database home creation job.

This issue is tracked with Oracle bug 32376885.

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 creating Oracle Data Guard status

When configuring Oracle Active Data Guard on Oracle Database Appliance, an error is encountered.

When configuring Oracle Data Guard, the `odacli configure-dataguard` command fails at step `NewDgconfig` with the following error on the standby system:

```
ORA-16665: TIME OUT WAITING FOR THE RESULT FROM A MEMBER
```

Verify the status of the job with the `odacli list-jobs` command.

Hardware Models

All Oracle Database Appliance hardware models with Oracle Data Guard configuration

Workaround

Follow these steps:

1. On the standby system, run the following:

```
export DEMODE=true;  
odacli create-dataguardstatus -i dbid -n
```



```
dataguardstatus_id_on_primary -r configdg.json
export DEMODE=false;
configdg.json example
```

Example configdg.json file for a single-node system:

```
{
  "name": "test1_test7",
  "protectionMode": "MAX_PERFORMANCE",
  "replicationGroups": [
    {
      "sourceEndpoints": [
        {
          "endpointType": "PRIMARY",
          "hostName": "test_domain1",
          "listenerPort": 1521,
          "databaseUniqueName": "test1",
          "serviceName": "test",
          "sysPassword": "***",
          "ipAddress": "test_IPaddress"
        },
      ],
      "targetEndpoints": [
        {
          "endpointType": "STANDBY",
          "hostName": "test_domain2",
          "listenerPort": 1521,
          "databaseUniqueName": "test7",
          "serviceName": "test",
          "sysPassword": "***",
          "ipAddress": "test_IPaddress3"
        },
      ],
      "transportType": "ASYNC"
    }
  ]
}
```

This issue is tracked with Oracle bug 32719173.

Error in restoring a database

When restoring a database on Oracle Database Appliance, if the DB Home ID is provided in the command `odacli irestore-database`, then an error may be encountered.

The following error message is displayed:

```
odacli irestore-database -r dbs2_check.json -n name2 -dh
3462a80c-0c6a-419b-82e1-c3944dedd892
Enter SYS user password:
Retype SYS user password:
DCS-10001:Internal error encountered: java.lang.NullPointerException.
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Follow these steps:

1. Unmount the NFS client location.

```
umount NFS_client_location
```

2. Add the `no_root_squash` option in the `/etc/export` file against the NFS server location.

```
nfs_server_locationIP_address_of_NFS_Client(rw,syn,no_root_squash)
```

3. Restart the NFS server at the NFS server machine.

```
/bin/systemctl restart nfs.service
```

4. Remount the NFS client.

```
mount -t nfs IP_address_of_NFS_server:NFS_server_location  
NFS_client_location
```

5. Perform `irestore` of database from NFS backup.
6. Unmount the NFS client location.

```
umount NFS_client_location
```

7. Remove `no_root_squash` option in the `/etc/export` file against the NFS server location.

```
nfs_server_location IP_address_of_NFS_Client(rw,sync)
```

8. Perform steps 3 and step 4 again.

This issue is tracked with Oracle bug 34149711.

Error in registering a database

When restoring a database on Oracle Database Appliance, if the NLS setting on the standby database is not `America/American`, then an error may be encountered.

An error occurs when running the RMAN duplicate task. The RMAN log described in the error message may show RMAN-06136 and ORA-00907 errors.

Hardware Models

All Oracle Database Appliance hardware models

Workaround

None.

This issue is tracked with Oracle bug 32349703.

Error in Reinstating Oracle Data Guard

When reinstating Oracle Data Guard on Oracle Database Appliance, an error is encountered.

The `odacli reinstate-dataguard` command fails with the following error:

```
Unable to reinstate Dg. Reinstatement job was executed within 24hrs after failover job.
```

The `dcs-agent.log` file has the following error entry:

```
DGMGRL> Reinstating database "xxxx",  
  please wait...  
Oracle Clusterware is restarting database "xxxx" ...  
Connected to "xxxx"  
Continuing to reinstate database "xxxx" ...  
Error: ORA-16653: failed to reinstate database
```

Hardware Models

All Oracle Database Appliance hardware models with Oracle Data Guard configuration

Workaround

Follow these steps:

1. On the primary machine, get the `standby_became_primary_scn`:

```
SQL> select standby_became_primary_scn from v$database;  
STANDBY_BECAME_PRIMARY_SCN  
-----  
3522449
```

2. On the old primary database, flashback to this SCN with RMAN with the backup encryption password:

```
RMAN> set decryption identified by 'rman_backup_password' ;  
executing command: SET decryption  
RMAN> FLASHBACK DATABASE TO SCN 3522449 ;  
...  
Finished flashback at 24-SEP-20  
RMAN> exit
```

3. On the new primary machine, run the `odacli reinstate-dataguard` command.

This issue is tracked with Oracle bug 31884506.

Failure in Reinstating Oracle Data Guard

When reinstating Oracle Data Guard on Oracle Database Appliance, an error is encountered.

The `odacli reinstate-dataguard` command fails with the following error:

```
Message:  
DCS-10001:Internal error encountered: Unable to reinstate Dg.
```

The `dcs-agent.log` file has the following error entry:

```
ORA-12514: TNS:listener does not currently know of service requested  
in connect descriptor
```

Hardware Models

All Oracle Database Appliance hardware models with Oracle Data Guard configuration

Workaround

Follow these steps:

1. Make sure the database you are reinstating is started in MOUNT mode. To start the database in MOUNT mode, run this command:

```
srvctl start database -d db-unique-name -o mount
```

2. After the above command runs successfully, run the `odacli reinstate-dataguard` command.

This issue is tracked with Oracle bug 32047967.

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 `reinstat` 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.

Error when recovering a single-instance database

When recovering a single-instance database, an error is encountered.

When a single-instance database is running on the remote node, and you run the operation for database recovery on the local node, the following error is observed:

```
DCS-10001:Internal error encountered: DCS-10001:Internal error encountered:  
Missing arguments : required sqlplus connection information is not  
provided
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Perform recovery of the single-instance database on the node where the database is running.

This issue is tracked with Oracle bug 31399400.

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.

Missing DATA, RECO, and REDO entries when dbstorage is rediscovered

Running the `odacli update-registry` command with `-n all --force` or `-n dbstorage --force` option can result in metadata corruption.

Hardware Models

All Oracle Database Appliance hardware models bare metal deployments

Workaround

Run the `-all` option when all the databases created in the system use OAKCLI in migrated systems. On other systems that run on DCS stack, update all components other than `dbstorage` individually, using the `odacli update-registry -n component_name_to_be_updated_excluding_dbstorage`.

This issue is tracked with Oracle bug 30274477.

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.

Unrecognized Token Messages Appear in /var/log/messages

After updating Oracle Database Appliance, unrecognized token messages appear in `/var/log/messages`.

Updating to Oracle Database Appliance 12.1.2.11.0 updates the Oracle VM Server version to 3.4.3. After updating, the following messages appear in `/var/log/messages`:

```
Unrecognized token: "max_seq_redisc"  
Unrecognized token: "rereg_on_guid_migr"  
Unrecognized token: "aguid_inout_notice"  
Unrecognized token: "sm_assign_guid_func"  
Unrecognized token: "reports"  
Unrecognized token: "per_module_logging"  
Unrecognized token: "consolidate_ipv4_mask"
```

You can ignore the messages for these parameters, they do not impact the InfiniBand compliant Subnet Manager and Administration (opensm) functionality. However, Oracle recommends removing the parameters to avoid flooding `/var/log/messages`.

Hardware Models

Oracle Database Appliance X6-2-HA and X5-2 with InfiniBand

Workaround

Perform the following to remove the parameters:

1. After patching, update the `/etc/opensm/opensm.conf` file in bare metal deployments and in Dom0 in virtualized platform environment to remove the parameters.

```
cat /etc/opensm/opensm.conf | egrep -w  
'max_seq_redisc|rereg_on_guid_migr|aguid_inout_notice|sm_assign_guid_func|  
repo  
rts|per_module_logging|consolidate_ipv4_mask' | grep -v ^#  
max_seq_redisc 0  
rereg_on_guid_migr FALSE  
aguid_inout_notice FALSE  
sm_assign_guid_func uniq_count  
reports 2  
per_module_logging FALSE  
consolidate_ipv4_mask 0xFFFFFFFF
```

2. Reboot. The messages will not appear after rebooting the node.

This issue is tracked with Oracle bug 25985258.