

Oracle® Database Appliance

Release Notes



Release 19.12 for Linux x86-64

F44660-03

October 2021

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 19.12 for Linux x86-64

F44660-03

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Primary Author: Aparna Kamath

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Contents

Preface

Audience	vi
Documentation Accessibility	vi
Related Documents	vii
Conventions	vii

1 What's New in This Release

2 Component Versions for Oracle Database Appliance

Component Versions for Oracle Database Appliance X8-2 Models	2-1
Component Versions for Oracle Database Appliance X7-2 Models	2-2
Component Versions for X6-2S, X6-2M, and X6-2L Models	2-3
Component Versions for Oracle Database Appliance X6-2-HA Models	2-3
Component Versions for X5-2 Models	2-4

3 Oracle Database Appliance 19.12 Patches

Patching from Previous Releases	3-1
Minimum Software Version Requirements	3-3
Oracle Database Appliance Patches	3-3

4 Known Issues with Oracle Database Appliance in This Release

Known Issues When Patching Oracle Database Appliance	4-1
Error in server patching	4-3
Error in prepatch report for the update-server command	4-3
Error in prepatch report for the update-dbhome command	4-4
AHF error in prepatch report for the update-dbhome command	4-4
Database clone error in prepatch report for the update-dbhome command	4-5
Error in running the update-dbhome command	4-6
Error in updating dbhome	4-7

Error when patching DB systems	4-7
Error in server patching	4-8
Error in storage patching	4-10
Retrying update-server command after odacli update-server command fails	4-11
Retrying odacli update-dbhome command with -imp option after update fails	4-11
Error in running the update-dbhome command	4-12
Error in upgrading from Oracle Linux 6 to Oracle Linux 7 during Oracle Database Appliance patching	4-13
Error when patching 11.2.0.4 Database homes to Oracle Database Appliance release 19.10	4-13
Error message displayed even when patching Oracle Database Appliance is successful	4-14
Error in updating storage when patching Oracle Database Appliance	4-15
Error in Oracle Grid Infrastructure upgrade	4-16
Error when running ORACheck or updating the server or database home	4-16
Error in patching database homes	4-17
Error in server patching	4-18
Server status not set to Normal when patching	4-18
Error when patching to 12.1.0.2.190716 Bundle Patch	4-19
Patching of M.2 drives not supported	4-20
Error in patching Oracle Database Appliance	4-20
Known Issues When Deploying Oracle Database Appliance	4-21
Error in creating two DB systems	4-22
Error in provisioning the appliance	4-23
Error in registering a non-TDE database in DB Systems	4-23
Error in creating db system	4-24
Error in recovering a database	4-24
Error in adding JBOD	4-25
Error in provisioning appliance after running cleanup.pl	4-25
Error in registering a database	4-26
Error in updating a database	4-26
Error in running tfactl diagcollect command on remote node	4-28
Error in running tfactl diagcollect command	4-28
Error when upgrading database from 11.2.0.4 to 12.1 or 12.2	4-28
Error when upgrading 12.1 single-instance database	4-29
Failure in creating RECO disk group during provisioning	4-29
Simultaneous creation of two Oracle ACFS Databases fails	4-30
Error encountered after running cleanup.pl	4-31
Accelerator volume for data is not created on flash storage	4-32
Errors in clone database operation	4-32
Clone database operation fails	4-33
Known Issues When Managing Oracle Database Appliance	4-33
Error in number of cores enabled after running odacli update-cpucores	4-36

Error in back up of database	4-37
Error in back up of 21.3 database	4-38
OpenSSH command vulnerability	4-38
Error in bare metal CPU pool association	4-38
Error in detaching vnetwork from DB system	4-39
AHF permissions error	4-39
Error in cleaning up a deployment	4-40
Error in restoring a database on DB system	4-40
Error in TDE wallet management	4-41
Error in reinstate operation on Oracle Data Guard	4-41
Error in starting a database from a bare metal CPU pool	4-42
Error in restoring a database	4-43
Error in running concurrent database or database home creation jobs	4-43
Error in restoring a database in dbsystem	4-44
Directories not deleted on dbsystem	4-44
Error in iRestore operation	4-45
Error in iRestore operation on Standard Edition Database	4-46
Error in restoring a standby database for 11.2.0.4 database	4-46
Error in deleting a standby database	4-47
Error in Oracle Data Guard failover operation for 18.14 database	4-48
Error in Oracle Active Data Guard operations	4-48
Error in the enable apply process after upgrading databases	4-49
Error in configuring Oracle Data Guard with cloned primary database	4-50
Error in creating Oracle Data Guard status	4-50
Error in registering a database	4-52
Error in Reinstating Oracle Data Guard	4-52
Failure in Reinstating Oracle Data Guard	4-53
Error in updating Role after Oracle Data Guard operations	4-53
Error in running other operations when modifying database with CPU pool	4-54
Error in restoring a TDE-enabled database	4-54
Error when recovering a single-instance database	4-55
Job history not erased after running cleanup.pl	4-55
Inconsistency in ORAchk summary and details report page	4-56
Missing DATA, RECO, and REDO entries when dbstorage is rediscovered	4-56
The odaeraser tool does not work if oakd is running in non-cluster mode	4-56
Issues with the Web Console on Microsoft web browsers	4-57
Unrecognized Token Messages Appear in /var/log/messages	4-57

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 19.12 supports Oracle Database 19c functionality on Oracle Database Appliance hardware models.

New Features

This release supports Oracle Database Appliance models 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 19.12. 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 19.12.

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 and DB System Deployments**

This release supports provisioning and patching of Oracle Database Appliance bare metal deployments and DB systems.

Oracle Database Appliance provides support for out of place patching. The patches for Oracle Grid Infrastructure and Oracle Database are available as images. There are a few changes to the patching procedure. It is now mandatory to run the `odacli create-prepatchreport` command before you patch your server. You must fix the errors displayed in the report before you can 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.

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

In this release, Oracle Database Appliance supports creation of Oracle Database 21c databases on DB systems. You can provision Oracle Database 21c Grid Infrastructure and then create Oracle Database 21c databases in DB systems.

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.

- **Support for KVM-based Database System on Oracle Database Appliance**

In this release, Oracle Database Appliance supports the following on DB systems:

- Patching of DB systems
- Scale up and scale down of database shapes within the DB system
- Adding and modifying virtual networks
- Life cycle management of DB systems using Browser User Interface (BUI)

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

- **Enabling NUMA on Oracle Database Appliance**

NUMA (Non-Uniform Memory Access) facilitates efficient use of the underlying NUMA hardware. On Oracle Database Appliance, you can enable NUMA for databases on bare metal and DB systems, CPU pools, and for KVM applications.

See the topic *About Enabling NUMA on Oracle Database Appliance* in the *Oracle Database Appliance Deployment and User's Guide* for your hardware model for more information.

- **Support for STIG Compliance on Oracle Database Appliance**

Oracle Database Appliance provides support for Oracle Linux 7 Security Scripts (OLSS) to assist with documenting and aligning with the DISA Oracle Linux 7 STIG. OLSS enables you to verify your existing environment for STIG standards and secure your system against STIG settings that are not set to DISA standards.

Oracle Database Appliance bundles the STIG script with the product for bare metal in the directory `/opt/oracle/dcs/stig`. The `RunSTIG` script replaces the `stig.py` script from the earlier releases of Oracle Database Appliance.

See the *Oracle Database Appliance Security Guide* for more information.

- **Optimizing Oracle ASM Disk Group Rebalance Operations**

Oracle Database Appliance ensures rebalancing of Oracle ASM disks to complete as quickly as possible, without overloading the system and the disks at the same time.

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

- **Bringing Oracle ASM Disk Groups Online Automatically**

Oracle Database Appliance periodically checks the status of Oracle ASM disks in diskgroups. If any Oracle ASM disk is OFFLINE due to transient disk errors, then Oracle Database Appliance attempts to bring the disk ONLINE.

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

- **Diagnostics Data Collection Using the Browser User Interface (BUI)**

Oracle Database Appliance BUI supports collection of diagnostics data to troubleshoot the appliance.

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

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

Oracle Database Appliance BUI supports lifecycle management of KVM-based database systems, including creation of databases, backup and restore functions, enabling of NUMA.

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

- **ODACLI Command Enhancements**

There are new `odacli` commands and new options for existing `odacli` commands to manage storage on bare metal systems and modify KVM deployments.

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

- **Support for Registering TDE-Enabled Databases**

You can migrate and register TDE-enabled databases created outside the Oracle Database Appliance framework into your Oracle Database Appliance deployment using the `odacli register-database` command. In this release, Oracle Database Appliance supports limited TDE wallet management functionality.

See the *About Registering TDE-Enabled Databases* topic in the *Oracle Database Appliance Deployment and User's Guide* for your hardware model for more information.

- **Support for Oracle Enterprise Manager Plug-in with Oracle Database Appliance Release 19.12**

You must install certain patches before you can use Oracle Enterprise Manager plug-in with Oracle Database Appliance release 19.12.

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.

Oracle Database Appliance provides an offline search tool integrated with BUI to search for relevant links from the documentation. There is a search box at the top right hand corner of every BUI page. Search results are links to documentation pages shown as a new window in the BUI. Also, the Help button is present in each BUI tab. When you click the Help button, links from the documentation relevant to the context of the tab are displayed.

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 2021 Oracle Database Release Update) for bare metal systems are available in this release:

- 19.12.0.0.210720
- 21.3.0.0.210720
- 12.2.0.1.210720
- 12.1.0.2.210720

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

See the chapter *Oracle Database Appliance Release 19.12 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 19.12 from the drop down list.

- **Oracle Database Appliance 19.12.0.0.0 Server Patch for ODACLI/DCS stack:** Use patch 33152232 to update your bare metal deployment to Oracle Database Appliance release 19.12. You must download the Server Patch, Oracle Grid Infrastructure clone file, and the Oracle Database clone file to update your deployment to release 19.12.

- **Oracle Database Appliance 19.12.0.0.0 Grid Infrastructure Clone for ODACLI/DCS stack:** Use patch 30403673 to update your deployment to Oracle Database Appliance release 19.12. 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 19.12.0.0.0 Database Clone File for ODACLI/DCS stack:** Use the Oracle Database 19.12.0.0.210720 Software Clone file to create 19.12.0.0.210720 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 12.2.0.1 Database Clone File for ODACLI/DCS stack:** Use the Oracle Database 12.2.0.1.210720 Software Clone file to create 12.2.0.1.210720 database homes. Patch 27119402 provides the database clone for this update.
- **Oracle Database Appliance 12.1.0.2 Database Clone File for ODACLI/DCS stack:** Use the Oracle RDBMS 12.1.0.2.210720 Software Clone file to create 12.1.0.2.210720 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 21.3.0.0.210720 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 21.3.0.0.210720 Database Clone File for DB Systems:** Use the Oracle Database 21.3.0.0.210720 Software Clone file to create 21.3.0.0.210720 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.

Related Topics

- Oracle Database Appliance Checklists
- Patching Oracle Database Appliance
- Oracle Database Appliance Command Line Interface Reference
- Oracle Database Appliance Command Line Interface for KVM
- Collecting Diagnostics Data Using the BUI
- About Managing Oracle ASM Disks
- Checking for STIG Compliance on Oracle Database Appliance
- Managing an Oracle Database Appliance KVM Deployment
- Managing Database Systems in KVM Deployment
- About the Browser User Interface
- About Registering a TDE-Enabled Database

- [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

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 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 X8-2 Models

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

Table 2-1 Component Versions for X8-2-HA, X8-2M, and X8-2S in Oracle Database Appliance Release 19.12

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)	0121	0121
ILOM (Oracle Integrated Lights Out Manager)	5.0.1.28.r140682	5.0.1.28.r140682
BIOS	52040600	52040600

Table 2-1 (Cont.) Component Versions for X8-2-HA, X8-2M, and X8-2S in Oracle Database Appliance Release 19.12

Component Name	X8-2-HA	X8-2S and X8-2M
IPMI (Intelligent Platform Management Interface)	1.8.18.0	1.8.18.0
HMP (Oracle Hardware Management Pack)	2.4.8.0.600	2.4.8.0.600
Oracle Linux	7.9	7.9
MySQL	8.0.25	8.0.25
Kernel	kernel-uek-4.14.35-2047.505.4.el7uek.x86_64	kernel-uek-4.14.35-2047.505.4.el7uek.x86_64
GI_HOME	19.12.0.0.210720	19.12.0.0.210720
DB_HOME	19.12.0.0.210720	19.12.0.0.210720
Oracle Auto Service Request (Oracle ASR)	21.1.0	21.1.0

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 2-2 Component Versions for X7-2-HA, X7-2M, and X7-2S in Oracle Database Appliance Release 19.12

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)	0121	0121
ILOM (Oracle Integrated Lights Out Manager)	5.0.1.28.r140682	5.0.1.28.r140682
BIOS	41090500	41090500
IPMI (Intelligent Platform Management Interface)	1.8.18.0	1.8.18.0
HMP (Oracle Hardware Management Pack)	2.4.8.0.600	2.4.8.0.600
Oracle Linux	7.9	7.9
MySQL	8.0.25	8.0.25

Table 2-2 (Cont.) Component Versions for X7-2-HA, X7-2M, and X7-2S in Oracle Database Appliance Release 19.12

Component Name	X7-2-HA	X7-2S and X7-2M
Kernel	kernel-uek-4.14.35-2047.505.4.el7uek.x86_64	kernel-uek-4.14.35-2047.505.4.el7uek.x86_64
GI_HOME	19.12.0.0.210720	19.12.0.0.210720
DB_HOME	19.12.0.0.210720	19.12.0.0.210720
Oracle Auto Service Request (Oracle ASR)	21.1.0	21.1.0

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 2-3 Component Versions for Oracle Database Appliance X6-2S, X6-2M, and X6-2L in Oracle Database Appliance Release 19.12

Component Name	Version
Controller	4.650.00-7176
NVMe (firmware version)	KPYAJR3Q
OS Disk	OR3Q
ILOM (Oracle Integrated Lights Out Manager)	X6-2SM: 5.0.1.21.r136383 X6-2L: 5.0.1.21.r136383
BIOS	X6-2SM:38320100 X6-2L:39320100
IPMI (Intelligent Platform Management Interface)	1.8.18.0
HMP (Oracle Hardware Management Pack)	2.4.8.0.600
Oracle Linux	7.9
MySQL	8.0.25
Kernel	kernel-uek-4.14.35-2047.505.4.el7uek.x86_64
GI_HOME	19.12.0.0.210720
DB_HOME	19.12.0.0.210720
Oracle Auto Service Request (Oracle ASR)	21.1.0

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 2-4 Component Versions for Oracle Database Appliance X6-2-HA in Oracle Database Appliance Release 19.12

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)	5.0.1.21.r136383
BIOS	38320100
IPMI (Intelligent Platform Management Interface)	1.8.18.0
HMP (Oracle Hardware Management Pack)	2.4.8.0.600
Oracle Linux	7.9
MySQL	8.0.25
Kernel	kernel-uek-4.14.35-2047.505.4.el7uek.x86_64
GI_HOME	19.12.0.0.210720
DB_HOME	19.12.0.0.210720
Oracle Auto Service Request (Oracle ASR)	21.1.0

Component Versions for X5-2 Models

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

Table 2-5 Component Versions for Oracle Database Appliance X5-2 for Oracle Database Appliance Release 19.12

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)	5.0.1.21.r136383
BIOS	30320100
IPMI (Intelligent Platform Management Interface)	1.8.18.0
HMP (Oracle Hardware Management Pack)	2.4.8.0.600
Oracle Linux	7.9

Table 2-5 (Cont.) Component Versions for Oracle Database Appliance X5-2 for Oracle Database Appliance Release 19.12

Component Name	Version
MySQL	8.0.25
Kernel	kernel-uek-4.14.35-2047.505.4.el7uek.x86_64
GI_HOME	19.12.0.0.210720
DB_HOME	19.12.0.0.210720
Oracle Auto Service Request (Oracle ASR)	21.1.0

3

Oracle Database Appliance 19.12 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 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...)
19.12.0.0	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

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...)
19.10.0.0	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
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

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

Oracle Database Appliance Release (To patch to this release...)	Earliest Supported Release To Patch From (Oracle recommends this release...)
12.1.2.11	<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 19.12 on Oracle Database Appliance bare metal systems. You can patch your bare metal systems to Oracle Database Appliance release 19.12 from Oracle Database Appliance release 19.8 or later. You can also patch Oracle Database Appliance DB systems on KVM to release 19.12.

Oracle Database Appliance 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 19.12 from the release list.

Table 3-2 Oracle Database Appliance Patches for Oracle Database Appliance Release 19.12

Patch Type	Patch Number	Description	Resources
Oracle Database Appliance Server Patch for ODACLI/DCS Stack	33152232	Use the server patch to update your deployment to Oracle Database Appliance release 19.12. You must download the Server Patch, Oracle Grid Infrastructure clone file, and the Oracle Database clone file to update your deployment to release 19.12.	Patching Oracle Database Appliance
Oracle Database Appliance Grid Infrastructure Clone for ODACLI/DCS stack	30403673	Use patch 30403673 to update your deployment to Oracle Database Appliance release 19.12. 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 19.12.	Provisioning Oracle Database Appliance Software
Oracle Database Appliance Database Clone 19.12.0.0.210720 for ODACLI/DCS stack	30403662	Use Oracle Database Appliance Database Clone 19.12.0.0.210720 for ODACLI/DCS stack to create 19.12 database homes for the ODACLI/DCS stack.	Updating Oracle Database Appliance Repository with Database Clone Files
Oracle Database Appliance Database Clone 12.2.0.1.210720 for ODACLI/DCS stack	27119402	Use Oracle Database Appliance Database Clone 12.2.0.1.210720 for ODACLI/DCS stack to create 12.2.0.1 database homes for the 19.12 ODACLI/DCS stack.	Updating Oracle Database Appliance Repository with Database Clone Files

Table 3-2 (Cont.) Oracle Database Appliance Patches for Oracle Database Appliance Release 19.12

Patch Type	Patch Number	Description	Resources
Oracle Database Appliance Database Clone 12.1.0.2.210720 for ODACLI/DCS stack	23494992	Use Oracle Database Appliance Database Clone 12.1.0.2.210720 for ODACLI/DCS stack to create 12.1.0.2 database homes for the 19.12 ODACLI/DCS stack.	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 19.12. Re-imaging a server installs the new operating system on the local disks on that server.	Re-imaging Oracle Database Appliance
Oracle Database Appliance KVM Database System Template	32451228	Use the KVM Database System template to deploy KVM-based virtualization for Oracle Database Appliance 19.12.	Managing DB Systems in KVM Deployment
Oracle Database Appliance 21.3.0.0.210720 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 21.3.0.0.210720 Database Clone for DB Systems	33152237	Use the Oracle Database Appliance 21.3.0.0.210720 clone file to deploy Oracle Database 21c database on DB system.	Managing DB Systems in KVM Deployment

4

Known Issues with Oracle Database Appliance in This Release

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

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

Known Issues When Patching Oracle Database Appliance

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

- [Error in server patching](#)
When patching Oracle Database Appliance which already has STIG V1R2 deployed, an error is encountered.
- [Error in prepatch report for the update-server command](#)
When you patch server to Oracle Database Appliance release 19.12, the `odacli update-server` command fails.
- [Error in prepatch report for the update-dbhome command](#)
When you patch server to Oracle Database Appliance release 19.12, the `odacli update-dbhome` command fails.
- [AHF error in prepatch report for the update-dbhome command](#)
When you patch server to Oracle Database Appliance release 19.12, the `odacli update-dbhome` command fails.
- [Database clone error in prepatch report for the update-dbhome command](#)
When you patch server to Oracle Database Appliance release 19.12, the `odacli update-dbhome` command fails.
- [Error in running the update-dbhome command](#)
When you patch database homes to Oracle Database Appliance release 19.11, the `odacli update-dbhome` command fails.
- [Error in updating dbhome](#)
When you patch database homes to Oracle Database Appliance release 19.12, the `odacli update-dbhome` command fails.
- [Error when patching DB systems](#)
When patching DB systems on Oracle Database Appliance, an error is encountered.

- [Error in server patching](#)
When patching Oracle Database Appliance, errors are encountered.
- [Error in storage patching](#)
When patching Oracle Database Appliance, errors are encountered.
- [Retrying update-server command after odacli update-server command fails](#)
When you patch Oracle Database Appliance release 19.11, the `odacli update-server` command fails.
- [Retrying odacli update-dbhome command with -imp option after update fails](#)
When you patch database homes to Oracle Database Appliance release 19.11, the `odacli update-dbhome` command fails.
- [Error in running the update-dbhome command](#)
When you patch database homes to Oracle Database Appliance release 19.11, the `odacli update-dbhome` command fails.
- [Error in upgrading from Oracle Linux 6 to Oracle Linux 7 during Oracle Database Appliance patching](#)
During upgrade of Oracle Linux 6 to Oracle Linux 7 during Oracle Database Appliance upgrade from release 18.8 to 19.x, an error is encountered.
- [Error when patching 11.2.0.4 Database homes to Oracle Database Appliance release 19.10](#)
Patching of database home of versions 11.2.0.4.180717, or 11.2.0.4.170814, or 11.2.0.4.180417 to version 11.2.0.4.210119 may fail.
- [Error message displayed even when patching Oracle Database Appliance is successful](#)
Although patching of Oracle Database Appliance was successful, an error message is displayed.
- [Error in updating storage when patching Oracle Database Appliance](#)
When updating storage during patching of Oracle Database Appliance, an error is encountered.
- [Error in Oracle Grid Infrastructure upgrade](#)
Oracle Grid Infrastructure upgrade fails, though the `rootupgrade.sh` script ran successfully.
- [Error when running ORACheck or updating the server or database home](#)
When running Oracle ORACheck or the commands `odacli create-prepatchreport`, `odacli update-server`, `odacli update-dbhome`, an error is encountered.
- [Error in patching database homes](#)
An error is encountered when patching database homes on databases that have Standard Edition High Availability enabled.
- [Error in server patching](#)
An error is encountered when patching the server.
- [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 patching Oracle Database Appliance](#)
When applying the server patch for Oracle Database Appliance, an error is encountered.

Error in server patching

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

On an Oracle Database Appliance deployment with release earlier than 19.12, if the Security Technical Implementation Guidelines (STIG) V1R2 is already deployed, then when you patch to 19.12 or earlier, the command `odacli update-server -f version`.

Hardware Models

All Oracle Database Appliance hardware models

Workaround

As per the analysis, the STIG V1R2 rule OL7-00-040420 tried to change the permission of the file `/etc/ssh/ssh_host_rsa_key` from '640' to '600' which caused 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.

Error in prepatch report for the update-server command

When you patch server to Oracle Database Appliance release 19.12, the `odacli update-server` command fails.

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

```
Evaluate GI patching Failed Internal error encountered:  
/u01/app/19.12.0.0/ygridDCS-10001:  
PRGO-1022 : Working copy "OraGrid191200" already exists.....
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Follow these steps:

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

```
/opt/oracle/dcs/bin/odacli update-server -v 19.12.0.0.0 -f
```

This issue is tracked with Oracle bug 33261965.

Error in prepatch report for the update-dbhome command

When you patch server to Oracle Database Appliance release 19.12, the `odacli update-dbhome` command fails.

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

```
Evaluate DBHome patching with Failed Internal error encountered:  
Internal RHP error encountered: PRGO-1693 : The database patching  
cannot be completed  
in a rolling manner because the target patched home at "/u01/app/  
odaorahome/oracle/product/19.0.0.0/dbhome_3" contains non-rolling bug  
fixes "32327201"  
compared to the source home at "/u01/app/oracle/product/19.0.0.0/  
dbhome_1"....
```

```
Evaluate DBHome patching with Failed Internal error encountered:  
Internal RHP error encountered: PRCT-1003 : failed to run "rhp-helper"  
on node "node1"  
PRCT-1014 : Internal error: RHPHELP12102_main-02...
```

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 19.12.0.0.0 -f
```

This issue is tracked with Oracle bug 33251523.

AHF error in prepatch report for the update-dbhome command

When you patch server to Oracle Database Appliance release 19.12, the `odacli update-dbhome` command fails.

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

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

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 19.12.0.0.0 -f
```

This issue is tracked with Oracle bug 33144170.

Database clone error in prepatch report for the update-dbhome command

When you patch server to Oracle Database Appliance release 19.12, the `odacli update-dbhome` command fails.

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

```
Is DB clone available          Failed    The DB clone for  
version                               19.12.0.0.210720 cannot be found.
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Follow these steps:

1. Stop and restart the DCS agent and run the pre-patch report again.

```
systemctl stop initdcsagent  
systemctl start initdcsagent
```

2. Create the pre-patch report again and check that the same error is not displayed in the report:

```
/opt/oracle/dcs/bin/odacli create-prepatchreport -s -v 19.12.0.0.0
```

3. Run the `odacli update-dbhome` command.

```
/opt/oracle/dcs/bin/odacli update-dbhome --dbhomeid 7c67c5b4-  
f585-4ba9-865f-c719c63c0a6e -v 19.12.0.0.0 -f
```

This issue is tracked with Oracle bug 33293991.

Error in running the update-dbhome command

When you patch database homes to Oracle Database Appliance release 19.11, the `odacli update-dbhome` command fails.

For Oracle Database Appliance release 19.11, when you run the `odacli update-dbhome` command, due to the inclusion of the non-rolling DST patch, the job waits for 12,000 seconds (around 3.5 hours). The following error message is displayed:

```
DCS-10001:Internal error encountered: PRCC-1021 :
One or more of the submitted commands did not execute successfully.
PRCC-1025 : Command submitted on node cdb1 timed out after 12,000
seconds..
```

The `rhp.log` file contains the following entries:

```
"PRGO-1693 : The database patching cannot be completed in a rolling
manner because the target patched home at "/u01/app/odaorahome/oracle/
product/19.0.0.0/dbhome_4" contains non-rolling bug fixes "32327201"
compared to the source home at "/u01/app/oracle/product/19.0.0.0/
dbhome_1"
```

Hardware Models

All Oracle Database Appliance hardware models with Oracle Database Appliance release 19.11

Workaround

Follow these steps:

1. Shut down and restart database the failed database and run the `datapatch` script manually to complete the database update.

```
db_home_path_the_database_is_running_on/OPatch/datapatch
```

2. If the database is an Oracle ACFS database that was patched to 19.12, then run `odacli list-dbstorages` command, and locate the corresponding entries by `db_unique_name`. Check the DATA and RECO destination location if they exist from the result.
3. For DATA destination location, the value should be similar to the following:

```
/u02/app/oracle/oradata/db_unique_name
```

4. For RECO, pre-process the values from the beginning to the last forward slash (/). For example:

```
/u03/app/oracle
addlFS = /u01/app/odaorahome,/u01/app/odaorabase0(for single-node
systems)
addlFS = /u01/app/odaorahome,/u01/app/odaorabase0, /u01/app/
odaorabase1(for high availability systems)
```

5. Run the `srvctl` command `db_home_path_the_database_is_running_on/bin/srvctl modify database -d db_unique_name -acfspace $data, $reco, $addlFS -diskgroup DATA`. For example:

```
srvctl modify database -d provDb0 -acfspace
/u02/app/oracle/oradata/provDb0,/u03/app/oracle/,/u01/app/
odaorahome,/u01/app/
odaorabase0 -diskgroup DATA
```

This issue is tracked with Oracle bug 32740491.

Error in updating dbhome

When you patch database homes to Oracle Database Appliance release 19.12, the `odacli update-dbhome` command fails.

The following error message is displayed:

```
PRGH-1153 : RHPHelper call to get running nodes failed for DB: "GIS_IN"
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Ensure that the database instances are running before you run the `odacli update-dbhome` command. Do not manually stop the database before updating it.

This issue is tracked with Oracle bug 33114855.

Error when patching DB systems

When patching DB systems on Oracle Database Appliance, an error is encountered.

When a DB system node, which has Oracle Database Appliance 19.10, reboots, the `ora` packages repository is not mounted automatically. The 19.10 DCS Agent does not mount the repositories causing a failure in operations that needs repository access, such as patching.

Hardware Models

All Oracle Database Appliance hardware models

Workaround

When you restart the bare metal system, the DCS Agent on the bare metal system restarts NFS on both nodes. Follow these steps to remount the repository on the DB system:

1. On the VM mount `pkgrepos` directory, on the first node, run these steps:

```
cp /opt/oracle/oak/pkgrepos/System/VERSION /opt/oracle/oak/conf/VERSION
mount 192.168.17.2:/opt/oracle/oak/pkgrepos /opt/oracle/oak/pkgrepos
```

For InfiniBand environments:

```
mount 192.168.16.24:/opt/oracle/oak/pkgrepos /opt/oracle/oak/
pkgrepos
```

2. On the VM mount `pkgrepos` directory, on the second node, run these steps:

```
cp /opt/oracle/oak/pkgrepos/System/VERSION /opt/oracle/oak/conf/
VERSION
mount 192.168.17.3:/opt/oracle/oak/pkgrepos /opt/oracle/oak/pkgrepos
```

For InfiniBand environments:

```
mount 192.168.16.25:/opt/oracle/oak/pkgrepos /opt/oracle/oak/
pkgrepos
```

3. Patch the DB system with the same steps as when patching the bare metal system:

```
odacli update-dcsadmin -v 19.12.0.0.0
odacli update-dcscomponents -v 19.12.0.0.0
odacli update-dcsagent -v 19.12.0.0.0
odacli create-prepatchreport -v 19.12.0.0.0 -s
odacli update-server -v 19.12.0.0.0
odacli create-prepatchreport -v 19.12.0.0.0 -d -i id
odacli update-dbhome -v 19.12.0.0.0 0 -i id -f -imp
```

This issue is tracked with Oracle bug 33217680.

Error in server patching

When patching Oracle Database Appliance, errors are encountered.

The `odacli update-server` command may fail with the following message:

```
Fail to patch GI with RHP : DCS-10001:Internal error encountered:
PRGH-1057
    : failure during move of an Oracle Grid Infrastructure home
    ...
    ...
RCZ-4001 : failed to execute command
"/u01/app/19.12.0.0/grid/crs/install/rootcrs.sh" using the
privileged execution plugin "odaexec" on nodes "xxxxxxx"
within 36,000 seconds
PRCZ-2103 : Failed to execute command
"/u01/app/19.12.0.0/grid/crs/install/rootcrs.sh" on node
"xxxxxxx" as user
"root". Detailed error: Using configuration parameter file:
/u01/app/19.12.0.0/grid/crs/install/crsconfig_params
The log of current session can be found at:
/u01/app/grid/crsdata/<node_name>/crsconfig/
crs_postpatch_apply_oop_node_name_timestamp.log
```

This error shows that during the move of Oracle Grid Infrastructure stack to the new home location, stopping the Clusterware on the earlier Oracle home fails. Confirm that it is the same error by checking the error log for the following entry:

```
"Error unmounting '/opt/oracle/oak/pkgrepos/orapkgs/clones'. Possible busy
file system. Verify
the logs.Retrying unmount
CRS-2675: Stop of 'ora.data.acfsclone.acfs' on
'nodel' failed
CRS-2679: Attempting to clean 'ora.data.acfsclone.acfs' on 'nodel'
Clean action is about to exhaust maximum waiting time
CRS-2678: 'ora.data.acfsclone.acfs' on 'nodel' has experienced an
unrecoverable failure
CRS-0267: Human intervention required to resume its availability.
CRS-2679: Attempting to clean 'ora.data.acfsclone.acfs' on 'nodel'
Clean action is about to exhaust maximum waiting time
CRS-2680: Clean of 'ora.data.acfsclone.acfs' on 'nodel'
failed

...
..."
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Follow these steps on both nodes:

1. Restart the Clusterware manually from the old grid home that is, the 19.10 or 19.11 home.
2. Locate all export points of `/opt/oracle/oak/pkgrepos`:

```
# cat /var/lib/nfs/etab
/opt/oracle/oak/pkgrepos
192.168.17.4(ro,sync,wdelay,hide,crossmnt,secure,root_squash,no_all_squash
,no_subtree_check,secure_locks,acl,no_pnfs,anonuid=65534,anongid=65534,sec
=sys,ro,secure,root_squash,no_all_squash)
```

3. Clear references to export of clones:

```
# exportfs -u host:/opt/oracle/oak/pkgrepos
# exportfs -u 192.168.17.4:/opt/oracle/oak/pkgrepos
```

4. After running steps 1-3 on both nodes, run the `odacli update-server` command and patch your appliance.

This issue is tracked with Oracle bug 33284607.

Error in storage patching

When patching Oracle Database Appliance, errors are encountered.

The `odacli update-storage` command may fail with the following message:

```
DCS-10001:Internal error encountered: Failed to stop cluster
```

This error shows that stopping the Clusterware may fail. Confirm that it is the same error by checking the error log for the following entry:

```
"Error unmounting '/opt/oracle/oak/pkgrepos/orapkg/clones'. Possible
busy file system. Verify
the logs.Retrying unmount
CRS-2675: Stop of 'ora.data.acfsclone.acfs' on
'nodel' failed
CRS-2679: Attempting to clean 'ora.data.acfsclone.acfs' on 'nodel'
Clean action is about to exhaust maximum waiting time
CRS-2678: 'ora.data.acfsclone.acfs' on 'nodel' has experienced an
unrecoverable failure
CRS-0267: Human intervention required to resume its availability.
CRS-2679: Attempting to clean 'ora.data.acfsclone.acfs' on 'nodel'
Clean action is about to exhaust maximum waiting time
CRS-2680: Clean of 'ora.data.acfsclone.acfs' on 'nodel'
failed
...
..."
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Follow these steps on both nodes:

1. Restart the Clusterware manually from the old grid home that is, the 19.10 or 19.11 home.
2. Locate all export points of `/opt/oracle/oak/pkgrepos`:

```
# cat /var/lib/nfs/etab
/opt/oracle/oak/pkgrepos
192.168.17.4(ro, sync, wdelay, hide, crossmnt, secure, root_squash, no_all_
squash, no_subtree_check, secure_locks, acl, no_pnfs, anonuid=65534, anong
id=65534, sec=sys, ro, secure, root_squash, no_all_squash)
```

3. Clear references to export of clones:

```
# exportfs -u host:/opt/oracle/oak/pkgrepos
# exportfs -u 192.168.17.4:/opt/oracle/oak/pkgrepos
```

4. After running steps 1-3 on both nodes, run the `odacli update-storage` command and patch the storage.

This issue is tracked with Oracle bug 33284607.

Retrying update-server command after odacli update-server command fails

When you patch Oracle Database Appliance release 19.11, the `odacli update-server` command fails.

Even when the `odacli update-server` job is successful, `odacli describe-job` output may show a message about missing patches on the source home. For example:

```
Message: Contact Oracle Support Services to request patch(es) "bug #". The
patched "OraGrid191100" is missing the patches for bug "bug#" which is
present in the source "OraGrid19000"
```

For release 19.11, a missing patch error for bug number 29511771 is expected. This patch contains Perl version 5.28 for the source grid home. Oracle Database Appliance release 19.11 includes the later Perl version 5.32 in the Oracle Grid Infrastructure clone files, and hence, you can ignore the error. For any other missing patches reported in the `odacli describe-job` command output, contact Oracle Support to request the patches for Oracle Clusterware release 19.11.

Hardware Models

All Oracle Database Appliance hardware models with Oracle Database Appliance release 19.11

Workaround

Review the error messages reported in the `odacli describe-job` command output for any missing patches other than the patch with bug number 29511771, and contact Oracle Support to request the patches for Oracle Clusterware release 19.11.

This issue is tracked with Oracle bug 32973488.

Retrying odacli update-dbhome command with -imp option after update fails

When you patch database homes to Oracle Database Appliance release 19.11, the `odacli update-dbhome` command fails.

For Oracle Database Appliance release 19.11, when you run the `odacli update-dbhome` command, the following error message is displayed:

```
DCS-10001:Internal error encountered: Contact Oracle Support Services to
request patch(es) "bug#". Then supply the --ignore-missing-patch|-imp to
retry the command.
```

You need not contact Oracle Support for the following bug numbers in the error message:

- 27138071 and 30508171, applicable to Oracle Database release 12.1
- 28581244 and 30508161, applicable to Oracle Database release 12.2
- 28628507 and 31225444, applicable to Oracle Database release 18c

- 29511771, applicable to Oracle Database release 19c

These patches contain the earlier versions of Perl 5.26 and Perl 5.28 for the source database home. Oracle Database Appliance release 19.11 includes the later Perl version 5.32 in the database clone files, and hence, you can ignore the error. You must rerun the `odacli update-dbhome` command again with the `-imp` option.

Hardware Models

All Oracle Database Appliance hardware models with Oracle Database Appliance release 19.11

Workaround

Rerun the `odacli update-dbhome` command again with the `-imp` option:

```
# /opt/oracle/dcs/bin/odacli update-dbhome --dbhomeid 7c67c5b4-  
f585-4ba9-865f-c719c63c0a6e -v 19.12.0.0.0 -imp
```

This issue is tracked with Oracle bug 32915897.

Error in running the update-dbhome command

When you patch database homes to Oracle Database Appliance release 19.11, the `odacli update-dbhome` command fails.

For Oracle Database Appliance release 19.11, when you run the `odacli update-dbhome` command, due to the inclusion of the non-rolling DST patch, the job waits for 12,000 seconds (around 3.5 hours). The following error message is displayed:

```
DCS-10001:Internal error encountered: PRCC-1021 :  
One or more of the submitted commands did not execute successfully.  
PRCC-1025 : Command submitted on node cdb1 timed out after 12,000  
seconds..
```

The `rhp.log` file contains the following entries:

```
"PRGO-1693 : The database patching cannot be completed in a rolling  
manner because the target patched home at "/u01/app/odaorahome/oracle/  
product/19.0.0.0/dbhome_4" contains non-rolling bug fixes "32327201"  
compared to the source home at "/u01/app/oracle/product/19.0.0.0/  
dbhome_1"
```

Hardware Models

All Oracle Database Appliance hardware models with Oracle Database Appliance release 19.11

Workaround

Shut down and restart database the failed database and run the `datapatch` script manually to complete the database update.

```
/u01/app/odaorahome/oracle/product/19.0.0.0/dbhome_4/OPatch/datapatch
```

This issue is tracked with Oracle bug 32801095.

Error in upgrading from Oracle Linux 6 to Oracle Linux 7 during Oracle Database Appliance patching

During upgrade of Oracle Linux 6 to Oracle Linux 7 during Oracle Database Appliance upgrade from release 18.8 to 19.x, an error is encountered.

Following are the errors reported when running the `odacli update-server` command:

```
DCS-10059:Clusterware is not running on all nodes
```

The log file `/u01/app/grid/diag/asm/+asm/+ASM1/trace/+ASM1_ora_25383.trc` has the following error:

```
KSIPC: ksipc_open: Failed to complete ksipc_open at process startup!!  
KSIPC: ksipc_open: ORA-27504: IPC error creating OSD context
```

This is because, the STIG Oracle Linux 6 rules deployed on an Oracle Database Appliance system due to RDS/RDS_TCP not being loaded (due to OL6-00-000126 rule).

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Follow these steps:

1. Edit the `/etc/modprobe.d/modprobe.conf` file.
2. Comment the following lines:

```
# The RDS protocol is disabled  
# install rds /bin/true
```

3. Restart the nodes.
4. Run the `odacli update-server` command again.

This issue is tracked with Oracle bug 31881957.

Error when patching 11.2.0.4 Database homes to Oracle Database Appliance release 19.10

Patching of database home of versions 11.2.0.4.180717, or 11.2.0.4.170814, or 11.2.0.4.180417 to version 11.2.0.4.210119 may fail.

Following are the scenarios when this error may occur:

- When DCS Agent version is 19.9, and you patch database homes from 11.2.0.4.180717, or 11.2.0.4.170814, or 11.2.0.4.180417 to 11.2.0.4.201020 (which was the Database home version released with Oracle Database Appliance release 19.9)

- When DCS Agent version is 19.10, and you patch database homes from 11.2.0.4.180717, or 11.2.0.4.170814, or 11.2.0.4.180417 to 11.2.0.4.210119 (which was the Database home version released with Oracle Database Appliance release 19.9)
- When DCS Agent version is 19.10, and you patch database homes from 11.2.0.4.180717, or 11.2.0.4.170814, or 11.2.0.4.180417 to 11.2.0.4.200114 (which was the Database home version released with Oracle Database Appliance release 19.6)

This error occurs only when patching Oracle Database homes of versions 11.2.0.4.180717, or 11.2.0.4.170814, or 11.2.0.4.180417 to Oracle Database home using 19.10.0.0.0 version DCS Agent.

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Patch your 11.2.0.4 Oracle Database home to any version earlier than 11.2.0.4.210119 (the version released with Oracle Database Appliance release 19.10) so that the DCS Agent is of version earlier than 19.10.0.0.0, and then update the DCSAgent to 19.10.

Note that once you patch DCS Agent to 19.10.0.0.0, then patching of these old 11.2.0.4 homes will fail.

This issue is tracked with Oracle bug 32498178.

Error message displayed even when patching Oracle Database Appliance is successful

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

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

```
# time odacli update-dcscomponents -v 19.10.0.0.0
^[[ADCS-10008:Failed to update DCScomponents: 19.10.0.0.0
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.

Error in updating storage when patching Oracle Database Appliance

When updating storage during patching of Oracle Database Appliance, an error is encountered.

The following error is displayed:

```
# odacli describe-job -i 765c5601-f4ad-44f0-a989-45a0b7432a0d
```

Job details

```
-----  
ID: 765c5601-f4ad-44f0-a989-45a0b7432a0d  
Description: Storage Firmware Patching  
Status: Failure  
Created: February 24, 2021 8:15:21 AM PST  
Message: ZK Wait Timed out. ZK is Offline
```

Task Name	Start Time	End
Time	Status	

Storage Firmware Patching	February 24, 2021 8:18:06 AM PST	February
24, 2021 8:18:48 AM PST	Failure	
task:TaskSequential_140	February 24, 2021 8:18:06 AM PST	February
24, 2021 8:18:48 AM PST	Failure	
Applying Firmware Disk Patches	February 24, 2021 8:18:28 AM PST	February
24, 2021 8:18:48 AM PST	Failure	

Hardware Models

Oracle Database Appliance X5-2 hardware models with InfiniBand

Workaround

Follow these steps:

1. Check the private network (ibbond0) and ping private IPs from each node.
2. If the private IPs are not ping-able, then restart the private network interfaces on both nodes and retry.
3. Check the zookeeper status.
4. On Oracle Database Appliance high availability deployments, if the zookeeper status is not in the leader of follower mode, then continue to the next job.

This issue is tracked with Oracle bug 32550378.

Error in Oracle Grid Infrastructure upgrade

Oracle Grid Infrastructure upgrade fails, though the `rootupgrade.sh` script ran successfully.

The following messages are logged in the grid upgrade log file located under `/opt/oracle/oak/log/<NODENAME>/patch/19.8.0.0.0/`.

```
ERROR: The clusterware active state is UPGRADE_AV_UPDATED
INFO: ** Refer to the release notes for more information **
INFO: ** and suggested corrective action **
```

This is because when the root upgrade scripts run on the last node, the active version is not set to the correct state.

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Follow these steps:

1. As `root` user, run the following command on the second node:

```
/u01/app/19.0.0.0/grid/rootupgrade.sh -f
```

2. After the command completes, verify that the active version of the cluster is updated to `UPGRADE FINAL`.

```
/u01/app/19.0.0.0/grid/bin/crsctl query crs activeversion -f
The cluster upgrade state is [UPGRADE FINAL]
```

3. Run Oracle Database Appliance server patching process again to upgrade Oracle Grid Infrastructure.

This issue is tracked with Oracle bug 31546654.

Error when running ORACheck or updating the server or database home

When running Oracle ORACheck or the commands `odacli create-prepatchreport`, `odacli update-server`, `odacli update-dbhome`, an error is encountered.

The following messages may be displayed:

```
- Table AUD$[FGA_LOG$] should use Automatic Segment Space Management
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

1. To verify the segment space management policy currently in use by the AUD\$ and FGA_LOG\$ tables, use the following SQL*Plus command:

```
select t.table_name,ts.segment_space_management from dba_tables t,
dba_tablespaces ts where ts.tablespace_name = t.tablespace_name and
t.table_name in ('AUD$','FGA_LOG$');
```

2. The output should be similar to the following:

```
TABLE_NAME                                SEGMENT
-----
FGA_LOG$                                  AUTO
AUD$                                       AUTO
```

If one or both of the AUD\$ or FGA_LOG\$ tables return "MANUAL", use the DBMS_AUDIT_MGMT package to move them to the SYSAUX tablespace:

```
BEGIN
DBMS_AUDIT_MGMT.set_audit_trail_location(audit_trail_type =>
DBMS_AUDIT_MGMT.AUDIT_TRAIL_AUD_STD,--this moves table AUD$
audit_trail_location_value => 'SYSAUX');
END;

BEGIN
DBMS_AUDIT_MGMT.set_audit_trail_location(audit_trail_type =>
DBMS_AUDIT_MGMT.AUDIT_TRAIL_FGA_STD,--this moves table FGA_LOG$
audit_trail_location_value => 'SYSAUX');
END;
```

This issue is tracked with Oracle bug 27856448.

Error in patching database homes

An error is encountered when patching database homes on databases that have Standard Edition High Availability enabled.

When running the command `odacli update-dbhome -v release_number` on database homes that have Standard Edition High Availability enabled, an error is encountered.

```
WARNING::Failed to run the datapatch as db <db_name> is not in running state
```

Hardware Models

All Oracle Database Appliance hardware models with High-Availability deployments

Workaround

Follow these steps:

1. Locate the running node of the target database instance:

```
srvctl status database -database dbUniqueName
```


Or, relocate the single-instance database instance to the required node:

```
odacli modify-database -g node_number (-th node_name)
```

2. On the running node, manually run the datapatch for non-CDB databases:

```
dbhomeLocation/OPatch/datapatch
```

3. For CDB databases, locate the PDB list using SQL*Plus.

```
select name from v$containers where open_mode='READ WRITE';  
dbhomeLocation/OPatch/datapatch -pdbs  
pdb_names_found_in_previous_step_divided_by_comma
```

This issue is tracked with Oracle bug 31654816.

Error in server patching

An error is encountered when patching the server.

When running the command `odacli update-server -v release_number`, the following error is encountered:

```
DCS-10001:Internal error encountered: patchmetadata for 19.6.0.0.0  
missing  
target version for GI.
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Follow these steps:

1. Change the file ownership temporarily to the appropriate `grid` user for the `osdbagrp` binary in the `grid_home/bin` location. For example:

```
$ chown -R grid:oinstall /u01/app/18.0.0.0/grid/bin/osdbagrp
```

2. Run either the `update-registry -n gihome` or the `update-registry -n system` command.

This issue is tracked with Oracle bug 31125258.

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.

Error in patching Oracle Database Appliance

When applying the server patch for Oracle Database Appliance, an error is encountered.

Error Encountered When Patching Bare Metal Systems:

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

```
Please stop TFA before server patching.
```

To resolve this issue, follow the steps described in the Workaround.

Error Encountered When Patching Virtualized Platform:

When patching the appliance on Virtualized Platform, patching fails with an error similar to the following:

```
INFO: Running prepatching on local node  
WARNING: errors seen during prepatch on local node  
ERROR: Unable to apply the patch 1
```

Check the prepatch log file generated in the directory `/opt/oracle/oak/log/hostname/patch/18.8.0.0.0`. You can also view the prepatch log for the last run with the command `ls -lrt prepatch_*.log`. Check the last log file in the command output.

In the log file, search for entries similar to the following:

```
ERROR: date_time_stamp: TFA is running on one or more nodes.  
WARNING: date_time_stamp: Shutdown TFA and then restart patching
```

INFO: `date_time_stamp`: Read the Release Notes for additional information.

To resolve this issue, follow the steps described in the Workaround.

Hardware Models

All Oracle Database Appliance hardware models

Workaround

On Oracle Database Appliance bare metal systems, do the following:

1. Run `tfactl stop` on all the nodes in the cluster.
2. Restart patching once Oracle TFA Collector has stopped on all nodes.

On Oracle Database Appliance Virtualized Platform, do the following:

1. Run `/etc/init.d/init.tfa stop` on all the nodes in the cluster.
2. Restart patching once Oracle TFA Collector has stopped on all nodes.

This issue is tracked with Oracle bug 30260318.

Known Issues When Deploying Oracle Database Appliance

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

- [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 provisioning the appliance](#)
When provisioning Oracle Database Appliance, an error is encountered if the `/u01` directory does not have sufficient space.
- [Error in registering a non-TDE database in DB Systems](#)
When registering a non-TDE database in a DB system on Oracle Database Appliance, an error is encountered.
- [Error in creating db system](#)
The command `odacli create-dbsystem` operation fails due to errors.
- [Error in recovering a database](#)
When recovering a database on Oracle Database Appliance, an error is encountered.
- [Error in adding JBOD](#)
When you add a second JBOD to your Oracle Database Appliance deployment on which a DB system is running, an error is encountered.
- [Error in provisioning appliance after running cleanup.pl](#)
Errors encountered in provisioning appliance after running `cleanup.pl`.
- [Error in registering a database](#)
When registering a database on Oracle Database Appliance, an error is encountered.
- [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 in running tfactl diagcollect command](#)
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.
- [Failure in creating RECO disk group during provisioning](#)
When provisioning Oracle Database Appliance X8-2-HA with High Performance configuration containing default storage and expansion shelf, creation of RECO disk group fails.
- [Simultaneous creation of two Oracle ACFS Databases fails](#)
If you try to create two Oracle ACFS databases on a system where there is no database or database storage already created, then database creation fails for one of the databases with an error.
- [Error encountered after running cleanup.pl](#)
Errors encountered in running `odacli` commands after running `cleanup.pl`.
- [Accelerator volume for data is not created on flash storage](#)
The accelerator volume for data is not created on flash storage, for databases created during provisioning of appliance.
- [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.

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 provisioning the appliance

When provisioning Oracle Database Appliance, an error is encountered if the /u01 directory does not have sufficient space.

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Verify that the /u01 directory has sufficient space before you start provisioning the appliance.

This issue is tracked with Oracle bug 33255007.

Error in registering a non-TDE database in DB Systems

When registering a non-TDE database in a DB system on Oracle Database Appliance, an error is encountered.

The following error is displayed:

```
DCS-10107:TDE wallet ewallet.p12 not found at location +DATA/DB_UNIQUE_NAME.  
Please copy the wallet to proceed.
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Follow these steps to register a non-TDE database in DB system:

1. Log in as the `oracle` user and create a directory `tde` at `+DATA/DB_UNIQUE_NAME/` using the following command:

```
<DB_HOME>/bin/asmcmd --privilege sysdba mkdir +DATA/DB_UNIQUE_NAME/tde
```

2. Connect to SQL*Plus and run the following:

```
ADMINISTER KEY MANAGEMENT CREATE KEYSTORE '+DATA/DB_UNIQUE_NAME/tde'  
IDENTIFIED BY "WelCome#_123";
```

```
ADMINISTER KEY MANAGEMENT CREATE AUTO_LOGIN KEYSTORE FROM KEYSTORE  
'+DATA/DB_UNIQUE_NAME/tde' IDENTIFIED BY "WelCome#_123";
```

3. Retry registering the database.
4. As the `oracle` user, delete the empty TDE wallets and directory as follows:

```
DB_HOME/bin/asmcmd --privilege sysdba rm  
+DATA/DB_UNIQUE_NAME/tde/ewallet.p12  
  
DB_HOME/bin/asmcmd --privilege sysdba rm  
+DATA/DB_UNIQUE_NAME/tde/cwallet.sso  
  
DB_HOME/bin/asmcmd --privilege sysdba rm +DATA/DB_UNIQUE_NAME/tde/
```

This issue is tracked with Oracle bug 33305399.

Error in creating db system

The command `odacli create-dbsystem` operation fails due to errors.

The following error message is displayed:

```
DCS-10032:Resource of type 'Virtual Network' with name 'pubnet' is not  
found.
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Restart the DCS agent. For high-availability systems, restart the DCS agent on both nodes.

```
systemctl restart initdcsagent
```

This issue is tracked with Oracle bug 32740754.

Error in recovering a database

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

When you run the command `odacli recover-database` on a Standard Edition High Availability database, the following error message is displayed:

```
DCS-10001:Internal error encountered: Unable to get valid database node  
number to post recovery.
```

Hardware Models

All Oracle Database Appliance high-availability hardware models

Workaround

Run the following commands:

```
srvctl config database -db db_name | grep "Configured nodes" | awk  
'{print $3}', whose output is nodeX,nodeY  
srvctl modify database -db db_name -node nodeX  
odacli recover-database  
srvctl stop database -db db_name  
srvctl modify database -db db_name -node nodeX,nodeY  
srvctl start database -db db_name
```

This issue is tracked with Oracle bug 32928688.

Error in adding JBOD

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

The following error message is displayed:

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

Hardware Models

All Oracle Database Appliance hardware models bare metal and dbsystem

Workaround

Shut down dbsystem before adding the second JBOD.

```
systemctl restart initdcsagent
```

This issue is tracked with Oracle bug 32586762.

Error in provisioning appliance after running cleanup.pl

Errors encountered in provisioning 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 registering a database

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

In DB system, if you create a database manually, then it consumes HugePages if the parameter (`use_large_pages=true`) is set to use the HugePages for SGA. The command `odacli register-database` fails with the following error:

```
DCS-10045:Validation error encountered: Available Memory is less than  
SGA Size { Available : size_in_MB and SGA Size : size_in_MB }.
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Start the database manually, and then disable the HugePages setting manually with the command `SET use_large_pages=false`, and after that register the database using the `odacli register-database` command.

This issue is tracked with Oracle bug 32847601.

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_comma
```

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 in running tfactl diagcollect command

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

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Run the command both nodes separately with the `-node local` options:

```
tfactl diagcollect -node local
```

This issue is tracked with Oracle bug 32940358.

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.

Failure in creating RECO disk group during provisioning

When provisioning Oracle Database Appliance X8-2-HA with High Performance configuration containing default storage and expansion shelf, creation of RECO disk group fails.

Hardware Models

All Oracle Database Appliance X8-2-HA with High Performance configuration

Workaround

1. Power off storage expansion shelf.
2. Reboot both nodes.
3. Proceed with provisioning the default storage shelf (first JBOD).

4. After the system is successfully provisioned with default storage shelf (first JBOD), check that `oakd` is running on both nodes in foreground mode.

```
# ps -aef | grep oakd
```

5. Check that all first JBOD disks have the status online, good in `oakd`, and CACHED in Oracle ASM.
6. Power on the storage expansion shelf (second JBOD), wait for a few minutes for the operating system and other subsystems to recognize it.
7. Run the following command from the master node to add the storage expansion shelf disks (two JBOD setup) to `oakd` and Oracle ASM.

```
#odaadmcli show ismaster
OAKD is in Master Mode

# odaadmcli expand storage -ndisk 24 -enclosure 1
Skipping precheck for enclosure '1'...
Check the progress of expansion of storage by executing
'odaadmcli
show disk'
Waiting for expansion to finish ...
#
```

8. Check that the storage expansion shelf disks (two JBOD setup) are added to `oakd` and Oracle ASM.

Replace `odaadmcli` with `oakcli` commands on Oracle Database Appliance Virtualized Platform in the procedure.

For more information, see the chapter *Managing Storage* in the *Oracle Database Appliance X8-2 Deployment Guide*.

This issue is tracked with Oracle bug 30839054.

Simultaneous creation of two Oracle ACFS Databases fails

If you try to create two Oracle ACFS databases on a system where there is no database or database storage already created, then database creation fails for one of the databases with an error.

```
DCS-10001:Internal error encountered: Fail to run command Failed to
create
volume.
```

Hardware Models

All Oracle Database Appliance bare metal deployments

Workaround

Manually delete the DATA volume (and REDO volume, in case of Oracle Database Appliance X8-2) from the system.

For High Performance configuration, run the following commands:

```
su - GRID_USER
export ORACLE_SID=+ASM1(in case of first node) /+ASM2(in case of second
node);
export ORACLE_HOME=GRID_HOME;
GRID_HOME/bin/asmcmd --nocp voldelete -G Data datdbname
```

For Oracle Database Appliance X8-2 High Performance configuration, remove the REDO volume as follows:

```
su - GRID_USER
export ORACLE_SID=+ASM1(in case of first node) /+ASM2(in case of second
node);
export ORACLE_HOME=GRID_HOME;
GRID_HOME/bin/asmcmd --nocp voldelete -G Reco rdoddbname
```

For High Capacity configuration, run the following commands:

```
su - GRID_USER
export ORACLE_SID=+ASM1(in case of first node) /+ASM2(in case of second
node);
export ORACLE_HOME=GRID_HOME;
GRID_HOME/bin/asmcmd --nocp voldelete -G Flash datdbname (if volume exists
in FLASH disk group)
GRID_HOME/bin/asmcmd --nocp voldelete -G data datdbname (if volume exists in
DATA disk group)
```

For Oracle Database Appliance X8-2 High Capacity configuration, remove the REDO volume as follows:

```
su - GRID_USER
export ORACLE_SID=+ASM1(in case of first node) /+ASM2(in case of second
node);
export ORACLE_HOME=GRID_HOME;
GRID_HOME/bin/asmcmd --nocp voldelete -G Flash rdoddbname
```

This issue is tracked with Oracle bug 30750497.

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.

Accelerator volume for data is not created on flash storage

The accelerator volume for data is not created on flash storage, for databases created during provisioning of appliance.

Hardware Models

Oracle Database Appliance high capacity environments with HDD disks

Workaround

Do not create the database when provisioning the appliance. This creates all required disk groups, including flash. After provisioning the appliance, create the database. The accelerator volume is then created.

This issue is tracked with Oracle bug 28836461.

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 number of cores enabled after running odacli update-cpucore](#)
When running the `odacli update-cpucore -c value` command on an Oracle Database Appliance Small hardware model, only half the specified CPU cores are enabled.
- [Error in back up of database](#)
When backing up a database on Oracle Database Appliance, an error is encountered.
- [Error in back up of 21.3 database](#)
When attaching a 21.3 database with a backupconfig on Oracle Database Appliance, an error is encountered.
- [OpenSSH command vulnerability](#)
OpenSSH command vulnerability issue detected in Qualys and Nessus scans.
- [Error in bare metal CPU pool association](#)
After patching to Oracle Database Appliance release 19.12, bare metal CPU pool which is not NUMA allocated, can be associated to a database.

- [Error in detaching vnetwork from DB system](#)
When detaching a vnetwork from DB system on Oracle Database Appliance, an error is encountered.
- [AHF permissions error](#)
When running the OERR tool in the AHF_HOME on Oracle Database Appliance, an error is encountered.
- [Error in cleaning up a deployment](#)
When cleaning up a Oracle Database Appliance, an error is encountered.
- [Error in restoring a database on DB system](#)
When restoring a database on 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 reinstate operation on Oracle Data Guard](#)
When running the command `odacli reinstate-dataguard` on Oracle Data Guard an error is encountered.
- [Error in starting a database from a bare metal CPU pool](#)
When starting a database after patching to Oracle Database Appliance release 19.10, an error is encountered.
- [Error in restoring a database](#)
When restoring a database on Oracle Database Appliance, 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 restoring a database in dbsystem](#)
When restoring a database in dbsystem on Oracle Database Appliance, an error is encountered.
- [Directories not deleted on dbsystem](#)
After running the command `odacli delete-dbsystem --force -n`, certain empty non-Oracle Managed Files (OMF) directories under `+diskgroup/dbuniqueName` are not deleted.
- [Error in iRestore operation](#)
When restoring a database from NFS backup location on Oracle Database Appliance, an error is encountered.
- [Error in iRestore operation on Standard Edition Database](#)
When restoring a Standard Edition Database on Oracle Database Appliance, an error is encountered.
- [Error in restoring a standby database for 11.2.0.4 database](#)
When performing an iRestore operation on a standby database of version 11.2.0.4, an error is encountered.
- [Error in deleting a standby database](#)
When deleting a standby database, an error is encountered.

- [Error in Oracle Data Guard failover operation for 18.14 database](#)
When running the `odacli failover-dataguard` command on a database of version 18.14, an error is encountered.
- [Error in Oracle Active Data Guard operations](#)
When performing switchover, failover, and reinstate operations on Oracle Active Data Guard on Oracle Database Appliance, 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 configuring Oracle Data Guard with cloned primary database](#)
When configuring Oracle Data Guard on Oracle Database Appliance, 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 registering a database](#)
When registering a single instance database on Oracle Database Appliance, if the RAC option is specified in the `odacli register-database` command, an error is 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 in running other operations when modifying database with CPU pool](#)
When modifying a database with CPU pool, an error is encountered with other operations.
- [Error in restoring a TDE-enabled database](#)
When restoring a TDE-enabled database on Oracle Database Appliance, an error is encountered.
- [Error when recovering a single-instance database](#)
When recovering a single-instance database, an error is encountered.
- [Job history not erased after running cleanup.pl](#)
After running `cleanup.pl`, job history is not erased.
- [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.

- [Issues with the Web Console on Microsoft web browsers](#)
Oracle Database Appliance Web Console has issues on Microsoft Edge and Microsoft Internet Explorer web browsers.
- [Unrecognized Token Messages Appear in /var/log/messages](#)
After updating Oracle Database Appliance, unrecognized token messages appear in /var/log/messages.

Error in number of cores enabled after running odacli update-cpucore

When running the `odacli update-cpucore -c value` command on an Oracle Database Appliance Small hardware model, only half the specified CPU cores are enabled.

No error message is displayed when you run the command. However, after the appliance restarts, only half the number of cores specified in the command are enabled at a BIOS level.

Hardware Models

All Oracle Database Appliance X8-2S, X7-2S, X6-2S hardware models

Workaround

Run the following steps only after you run the `odacli update-cpucore -c value` command and observe that only half the specified CPU cores are enabled. You can, then, manually set the desired number of cores to be enabled in the BIOS:

1. As the `root` user, run the `ubiosconfig` command to retrieve the configuration. Save the unmodified XML file for reference later.

```
# /usr/sbin/ubiosconfig export all -f --expert -x /tmp/bios.xml
```

2. Edit the file `/tmp/bios.xml` and change the value between the the tags `<Active_Processor_Cores>enabled_core</Active_Processor_Cores>` to the value specified in the `odacli update-cpucore` command. If you specified to enable 8 cores, then you will see a value of 4. Change this value to 8.

Before:

```
<!-- Active Processor Cores -->
<!-- Description: Number of cores to enable in each processor
package. -->
<!-- Possible Values: "All", "1", "2", "3", "4", "5", "6", "7",
"8", "9",
"10", "11", "12", "13", "14", "15", "16", "17", "18", "19", "20",
"21", "22",
"23", "24", "25", "26", "27" -->
<Active_Processor_Cores>4</Active_Processor_Cores>
```

After:

```
<!-- Active Processor Cores -->
<!-- Description: Number of cores to enable in each processor
package. -->
<!-- Possible Values: "All", "1", "2", "3", "4", "5", "6", "7",
"8", "9",
"10", "11", "12", "13", "14", "15", "16", "17", "18", "19", "20",
```

```
"21", "22",  
"23", "24", "25", "26", "27" -->  
<Active_Processor_Cores>8</Active_Processor_Cores>
```

3. As the `root` user, run the `ubiosconfig` command to save the configuration.

```
# /usr/sbin/ubiosconfig import config -f --expert -y -x /tmp/bios.xml
```

4. Reboot the node.
5. Confirm the desired number of CPU cores is enabled:

```
# /usr/bin/lscpu | grep Core  
Core(s) per socket: 8
```

This issue is tracked with Oracle bug 33400434.

Error in back up 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 in back up of 21.3 database

When attaching a 21.3 database with a backupconfig on Oracle Database Appliance, 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.

This issue is tracked with Oracle bug 33214654.

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 bare metal CPU pool association

After patching to Oracle Database Appliance release 19.12, bare metal CPU pool which is not NUMA allocated, can be associated to a database.

This is an error since the bare metal CPU pool does not follow NUMA allocation and thus the bare metal database do not run on appropriate physical CPUs.

Hardware Models

All Oracle Database Appliance hardware models that support release 19.12 and were patched from earlier 19.x release. New provisioning with 19.12 are not affected, since new bare metal CPU pools are NUMA allocated.

Workaround

Run the `odacli remap-cpupools` command and restart the bare metal database instances.

This issue is tracked with Oracle bug 31907677.

Error in detaching vnetwork from DB system

When detaching a vnetwork from DB system on Oracle Database Appliance, an error is encountered.

When detaching a vnetwork from DB system, the job does not verify whether the network is currently associated to the database.

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Follow these steps:

1. Before you detach the vnetwork from the DB system, dissociate the network from the database within the DB system:

```
odacli modify-database -in db_name -dn network_name
```

2. On the bare metal system, run the following:

```
odacli modify-dbsystem -n db_name -dvn network_name
```

This issue is tracked with Oracle bug 33284771.

AHF permissions error

When running the OERR tool in the AHF_HOME 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:

```
cd /opt/oracle/dcs/oracle.ahf/bin
../oerr
-bash: ../oerr: Permission denied
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Run the tool, with `sh`, as follows:

```
cd /opt/oracle/dcs/oracle.ahf/bin
sh oerr
Use AHF XXXX format... Exiting
```

This issue is tracked with Oracle bug 33293560.

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 restoring a database on DB system

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

iRestore operation of a database in a DB system fails when creating the directory `/opt/oracle/dcs/localstore/objectstore/opc_pfile/DBID`. The follow error message is displayed:

```
/opt/oracle/dcs/bin/odacli irestore-database -r
/u01/backup_report_ohMp_irestore.json -u tgtohMp -on ohMp_aaa -bp -c 4 -
t -ro
standby -dh f43e12cf-3353-4227-9af9-7cda00a97fc8
Enter SYS user password:
Retype SYS user password:
Enter TDE wallet password:
Enter RMAN backup encryption password:
Do you want to provide another RMAN backup encryption password? [y/n]
(default 'n'): n
DCS-10001:Internal error encountered: Failed to create directory during
irestore: /opt/oracle/dcs/localstore/objectstore/opc_pfile/1559793085.
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Before running the `odacli irestore-database` command, run the following commands, as the `root` user:

```
mkdir -p /opt/oracle/dcs/localstore/objectstore
chown user_with_role_of_oracleUser_in_prov.json_for_DBVM:group_with
role_of_oinstall_in_prov.json_for_DBVM
/opt/oracle/dcs/localstore/objectstore/
```

For example:

```
chown zoracle:zoinstall /opt/oracle/dcs/localstore/objectstore/
```

This issue is tracked with Oracle bug 33232650.

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 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 an 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 starting a database from a bare metal CPU pool

When starting a database after patching to Oracle Database Appliance release 19.10, an error is encountered.

After patching to Oracle Database Appliance release 19.10, the database using bare metal CPU pool fails to start after the system restarts. The service `cgconfig.service` is down.

```
# systemctl status cgconfig.service
cgconfig.service - Control Group configuration service
   Loaded: loaded (/usr/lib/systemd/system/cgconfig.service; disabled;
   vendor
   preset: disabled)
   Active: inactive (dead)
```

.

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Follow these steps:

1. Check the `cgconfig.service` status. If the status is disabled or inactive, then continue.

```
# systemctl status cgconfig.service
cgconfig.service - Control Group configuration service
   Loaded: loaded (/usr/lib/systemd/system/cgconfig.service;
   disabled; vendor
   preset: disabled)
   Active: inactive (dead)
```

2. Start cgconfig.service:

```
# systemctl start cgconfig.service
```

3. Enable cgconfig.service:

```
# systemctl enable cgconfig.service
Created symlink from
/etc/systemd/system/sysinit.target.wants/cgconfig.service to
/usr/lib/systemd/system/cgconfig.service.
```

4. Check cgconfig.service status:

```
# systemctl status cgconfig.service
cgconfig.service - Control Group configuration service
   Loaded: loaded (/usr/lib/systemd/system/cgconfig.service; enabled;
   vendor
   preset: disabled)
   Active: active (exited) since Mon 2021-02-22 23:03:34 CST; 3min 40s
   ago
   Main PID: 16594 (code=exited, status=0/SUCCESS)
```

5. Restart the failed database.

This issue is tracked with Oracle bug 31907677.

Error in restoring a database

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

iRestore operation fails when specifying a wrong backup location which does not point to the parent directory of the source database backup.

This is because there are multiple database IDs in the wrong location, leading to failure in RMAN.

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Do not specify backup location, or provide the correct backup location pointing to the parent directory of the source database backup.

This issue is tracked with Oracle bug 31907677.

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 restoring a database in dbsystem

When restoring a database in dbsystem on Oracle Database Appliance, an error is encountered.

Manual restore of the database to dbsystem fails with the following error:

```
/u01/app/oracle/product/19.0.0.0/dbhome_1/bin/orapwd  
file='+DATA/brtest/orapwdbtrtest' password=xxxxxx entries=5  
dbuniquename="BRTEST" force=y  
OPW-00014: Could not delete password file +DATA/brtest/orapwdbtrtest.  
ORA-15056: additional error message  
ORA-06512: at line 4  
ORA-15260: permission denied on ASM disk group  
ORA-06512: at "SYS.X$DBMS_DISKGROUP", line 533  
ORA-06512: at line 2
```

The `odacli delete-dbsystem` command did not completely delete some of the Oracle ASM files that belonged to the deleted database, the password file, in the above example. This can cause an error when trying to restore the database using the same name.

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Run the `asmcmd` command from the Oracle Database Appliance host to manually delete the files that belong to the deleted database. See the *Automatic Storage Management Administrator's Guide* for the `asmcmd` commands. Make sure you verify the database name first before deleting the files.

This issue is tracked with Oracle bug 32931078.

Directories not deleted on dbsystem

After running the command `odacli delete-dbsystem --force -n`, certain empty non-Oracle Managed Files (OMF) directories under `+diskgroup/dbuniquename` are not deleted.

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Manually run the command `asmcmd rm` on the directory to manually delete it.

This issue is tracked with Oracle bug 32806915.

Error in iRestore operation

When restoring a database from NFS backup location on Oracle Database Appliance, an error is encountered.

The following error message is displayed:

```
DCS-10001:Internal error encountered: Failed to run Rman Script :  
/tmp/dcsfiles/duplicateRman2021-05-25_06-03-50.0840547.script. Please refer  
log at location :  
/u01/app/oracle/diag/rdbms/mydb/mydb/scaoda8s002/rman/bkup/rman_duplicate/  
2021  
-05-25/rman_duplicate_2021-05-25_06-03-50.0864.log.Duplicate command  
execution failed.
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

This issue occurs if NFS is configured so that the user ID of the user `oracle` and group ID of group `asmadmin` do not match, in the primary and backup systems, `mac1` and `mac2` respectively. However, even with the mismatch if iRestore from the NFS backup needs to be performed, then make sure the user or group of the `oracle` binary in `mac2` is able to at least read the backup files in the NFS backup location `NFS_backup_location/orabackups/cluster_name/database/DBID/DbUniqueName/db` of `mac1`.

You can find the user or group of the `oracle` binary by running the `ls -ltr` command on the 'oracle' binary `oracle` binary present at the `<DBHOME>/bin`.

In the following example, the user and group of the `oracle` binary are `oracle` and `asmadmin` respectively.

```
[root@***** bin]# ls -ltr /u01/app/oracle/product/19.0.0.0/dbhome_3/bin/  
oracle  
-rwxr-s--x 1 oracle asmadmin 448749536 *** 25 06:03 /u01/app/oracle/product/  
19.0.0.0/dbhome_3/bin/oracle
```

If one cannot provide permission for either user or group of the `oracle` binary on `mac2`, then at least 'read' permission must be provided for 'others', that is `**4` on `mac1` to all the NFS backup files. For example:

```
[root@mac1 bin]#/scratch2/orabackups/scaoda8s002-c/database/2987837625/  
mydb/db  
-rwxr--r-- 1 oracle asmadmin 1097728 Jun 3 10:55  
auto_cf_DBSE3_2116871228_0100fgpa_1_1_1_20210603_1074250538  
-rwxr--r-- 1 oracle asmadmin 1097728 Jun 3 10:55 c-2116871228-20210603-00
```

This issue is tracked with Oracle bug 32422681.

Error in iRestore operation on Standard Edition Database

When restoring a Standard Edition Database on Oracle Database Appliance, an error is encountered.

The following error message is displayed:

```
DCS-10001:Internal error encountered: Failed to run sql in method :  
runRmanDuplicateDbFromDiskBackup.Unable to startup instance in nomount  
mode as output contains ora-
```

The `/opt/oracle/dcs/log/dcs-agent.log` contains the following entries:

```
ORACLE instance shut down.  
ORA-00371: not enough shared pool memory, should be at least 1141769669  
bytes
```

This issue occurs only if more than 8 CPUs are online on the appliance.

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Apply the BLR corresponding to bug 32961939 and retry the operation.

This issue is tracked with Oracle bug 32957033.

Error in restoring a standby database for 11.2.0.4 database

When performing an iRestore operation on a standby database of version 11.2.0.4, an error is encountered.

iRestore to standby may fail for database of version 11.2.0.4 if the standby database control file checkpoint is more recent than duplication point-in-time.

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Follow these steps:

1. After taking backup and before performing the iRestore operation, delete control file autobackups in the directory shown as attribute `backupLocation` in the backup report:

```
c-3737675288-20210211-04  
c-3737675288-20210211-05  
c-3737675288-20210211-06  
c-3737675288-20210212-00  
c-3737675288-20210212-01
```

2. Perform the database iRestore operation.
3. After successfully performing the iRestore operation, create a backup of the source database.

This issue is tracked with Oracle bug 32473071.

Error in deleting a standby database

When deleting a standby database, an error is encountered.

When you iRestore a database as standby database and then delete it and then again iRestore the same standby database with the same database unique name, the following error is displayed:

```
DCS-10001:Internal error encountered: Failed to run the asm command:
[/u01/app/19.0.0.0/grid/bin/asmcmd, --nocp, rm, -rf, RECO/ABCDEU]
Error:ORA-29261: bad argument
ORA-06512: at line 4
ORA-15178: directory 'ABCDEU' is not empty; cannot drop this directory
ORA-15260: permission denied on ASM disk group
ORA-06512: at "SYS.X$DBMS_DISKGROUP", line 666
ORA-06512: at line 2 (DBD ERROR: OCIStmtExecute).
```

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

Hardware Models

All Oracle Database Appliance hardware models with Oracle Active Data Guard configuration

Workaround

Run any of the following workarounds:

- After deleting the standby database and before recreating the same standby database, perform the following steps:

1. After deleting the standby database and before recreating the same standby database, perform the following steps:

- a. Log in as the `oracle` user:

```
su - oracle
```

- b. Set the environment:

```
. oraenv
ORACLE_SID = null
ORACLE_HOME = dbhome_path (such as /u01/app/oracle/product/
19.0.0.0/dbhome_1)
3. cd dbhome_path/bin
4. asmcmd --privilege sysdba rm -rf +RECO/DBUNIQUENAME/
5. asmcmd --privilege sysdba rm -rf +DATA/DBUNIQUENAME/arc10/
6. asmcmd --privilege sysdba rm -rf +DATA/DBUNIQUENAME/PASSWORD/
```

- Recreate the standby database with a different database unique name.

This issue is tracked with Oracle bug 32871772.

Error in Oracle Data Guard failover operation for 18.14 database

When running the `odacli failover-dataguard` command on a database of version 18.14, an error is encountered.

The following error message is displayed:

```
DCS-10001:Internal error encountered: Unable to precheckFailoverDg1lg  
Dg.
```

The error message can be viewed in the DCS agent log:

```
select DATABASE_ROLE, FORCE_LOGGING, FLASHBACK_ON from v$database  
ERROR at line 1:  
ORA-00600: internal error code, arguments: [kcbgtcr_17], [], [], [],  
[], [],  
[], [], [], [], [], []
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Follow these steps:

1. Run the following DGMGRL statements on the system with the database to fail over to:

```
DGMGRL> SHOW CONFIGURATION;  
DGMGRL> VALIDATE DATABASE '<DB_UQNIUE_NAME_to_failover_to>';  
DGMGRL> FAILOVER TO '<DB_UQNIUE_NAME_to_failover_to>';  
DGMGRL> SHOW CONFIGURATION;
```

2. After failover is successful, run the `odacli describe-dataguardstatus -i id` command several times to update the DCS metadata.

This issue is tracked with Oracle bug 32727379.

Error in Oracle Active Data Guard operations

When performing switchover, failover, and reinstate operations on Oracle Active Data Guard on Oracle Database Appliance, an error is encountered.

When performing switchover, failover, and reinstate operations on Oracle Active Data Guard, upgrading primary database may fail at step Database Upgrade with the following error:

```
PRCZ-2103 : Failed to execute command  
"/u01/app/odaorahome/oracle/product/19.0.0.0/dbhome_1/bin/dbua" on  
node  
"node1" as user "oracle". Detailed error:
```

Logs directory:
/u01/app/odaoracle/oracle/cfgtoollogs/dbua/upgrade2021-05-06_01-31-16PM

The log contains the following message:

```
SEVERE: May 08, 2021 6:50:24 PM oracle.assistants.dbua.prereq.PrereqChecker  
logPrereqResults  
SEVERE: Starting with Oracle Database 11.2, setting JOB_QUEUE_PROCESSES=0  
will disable job execution via DBMS_JOBS and DBMS_SCHEDULER. FIXABLE:  
MANUAL  
Database: ptdkjqt  
Cause: The database has JOB_QUEUE_PROCESSES=0.  
Action: Set the value of JOB_QUEUE_PROCESSES to a non-zero value, or remove  
the setting entirely and accept the Oracle default.
```

Hardware Models

All Oracle Database Appliance hardware models with Oracle Active Data Guard configuration

Workaround

Follow these steps:

1. Use SQL*Plus to access the database and run the following command:

```
alter system set JOB_QUEUE_PROCESSES=1000;
```

2. Retry the upgrade command.

This issue is tracked with Oracle bug 32856214.

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 configuring Oracle Data Guard with cloned primary database

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

When configuring Oracle Data Guard with cloned primary database, the `odacli configure-dataguard` command fails at step `Configure Primary database (Primary site)` with the following error:

```
DCS-10001: FAILED TO CREATE BROKER CONFIG FILE DIRECTORY
```

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

Hardware Models

All Oracle Database Appliance hardware models with Oracle Active Data Guard configuration

Workaround

Follow these steps:

1. On the system with the cloned primary database, run the following commands:

```
mkdir /u02/app/oracle/oradata/dbUniqueName  
chown oracle:oinstall /u02/app/oracle/oradata/dbUniqueName
```

2. Run the `odacli configure-dataguard` command.

This issue is tracked with Oracle bug 32906493.

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 registering a database

When registering a single instance database on Oracle Database Appliance, if the RAC option is specified in the `odacli register-database` command, an error is encountered.

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Create a single-instance database using Oracle Database Configuration Assistance (DBCA) and then register the database using the `odacli register-database` command with the RAC option.

This issue is tracked with Oracle bug 32853078.

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 reinstate operations on Oracle Database Appliance.

Hardware Models

All Oracle Database Appliance hardware models with Oracle Data Guard configuration

Workaround

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

This issue is tracked with Oracle bug 31378202.

Error in running other operations when modifying database with CPU pool

When modifying a database with CPU pool, an error is encountered with other operations.

Since modifying a database to attach or detach a CPU Pool needs a database restart, it may affect any other concurrent operation on the same database. For instance, the database backup job fails when you concurrently modify the same database with the CPU Pool option. The ODACLI job displays the following error:

```
# odacli create-backup -in dbName -bt Regular-L0
DCS-10089:Database dbName is in an invalid state `{Node Name:closed}'
```

Hardware Models

All Oracle Database Appliance hardware models with bare metal configuration

Workaround

Wait until the `odacli modify-database` completes before you perform any other operation on the same database.

This issue is tracked with Oracle bug 32045674.

Error in restoring a TDE-enabled database

When restoring a TDE-enabled database on Oracle Database Appliance, an error is encountered.

When a TDE-enabled database with Oracle ASM database storage is restored on an Oracle ACFS database storage, the following error message is displayed:

```
Failed to copy file from : source_location to: destination_location
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Do not change the database storage type when restoring a TDE-enabled database.

This issue is tracked with Oracle bug 31848183.

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.

Job history not erased after running cleanup.pl

After running `cleanup.pl`, job history is not erased.

After running `cleanup.pl`, when you run `/opt/oracle/dcs/bin/odacli list-jobs` commands, the list is not empty.

Hardware Models

All Oracle Database Appliance hardware models for bare metal deployments

Workaround

1. Stop the DCS Agent by running the following commands on both nodes.
For Oracle Linux 6, run:

```
initctl stop initdcsagent
```

For Oracle Linux 7, run:

```
systemctl stop initdcsagent
```

2. Run the cleanup script sequentially on both the nodes.

This issue is tracked with Oracle bug 30529709.

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.

Issues with the Web Console on Microsoft web browsers

Oracle Database Appliance Web Console has issues on Microsoft Edge and Microsoft Internet Explorer web browsers.

Following are issues with Microsoft web browsers:

- Oracle Database Appliance Web Console does not display correctly on Microsoft Edge and Microsoft Internet Explorer web browsers.
- Advanced Information for the appliance does not display on Microsoft Internet Explorer web browser.
- Job activity status does not refresh in the Web Console on Microsoft Internet Explorer web browser.
- After configuring the oda-admin password, the following error is displayed:

```
Failed to change the default user (oda-admin) account password.  
Status Code: 500 DCS-10001: DCS-10001:Internal error encountered: User  
not authorized
```

Workaround: Close the Microsoft Internet Explorer browser session and open another browser session.

Models

All Oracle Database Appliance Hardware Models bare metal deployments

Workaround

To access the Web Console, use either Google Chrome or Firefox.

This issue is tracked with Oracle bugs 30077007, 30099089, and 29887027.

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_redis|rereg_on_guid_migr|aguid_inout_notice|  
sm_assign_guid_func|repo  
rts|per_module_logging|consolidate_ipv4_mask' | grep -v ^#  
max_seq_redis 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.