Oracle® Database Appliance
Release Notes

Release 19.8 for Linux x86-64

F32283-01

July 2020

ORACLE®

Oracle Database Appliance Release Notes, Release 19.8 for Linux x86-64

F32283-01

Contents

1   What's New in This Release

2   Component Versions for Oracle Database Appliance

3   Oracle Database Appliance 19.8 Patches

4   Known Issues with Oracle Database Appliance in This Release

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/X4-2 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.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
`monospace`	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.
# prompt	The pound (#) prompt indicates a command that is run as the root user.

1
What's New in This Release

Oracle Database Appliance release 19.8 supports Oracle Database 19*c* 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 either create a bare metal or virtualized platform deployment on Oracle Database Appliance or patch your existing bare metal or virtualized platform deployment to Oracle Database Appliance release 19.8. Read the chapter *Known Issues with Oracle Database Appliance in This Release* for critical fixes before deploying Oracle Database Appliance release 19.8.

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

The following new features are available in this release:

- **Provisioning and Patching of Oracle Database Appliance Bare Metal Deployments**
  This release supports provisioning of bare metal deployments, and patching of bare metal deployments from Oracle Database Appliance releases 19.5 and later.

- **Provisioning and Patching of Oracle Database Appliance Virtualized Platform**
  This release supports provisioning of virtualized platform, and patching of virtualized platform from Oracle Database Appliance release 18.8.

- **Support for Oracle Data Guard**

  Oracle Database Appliance provides client interface through ODACLI commands for easy configuration and management of Oracle Data Guard for high availability, data protection, and disaster recovery. Oracle Data Guard provides a comprehensive set of services that create, maintain, manage, and monitor one or more standby databases to enable production Oracle databases to survive disasters and data corruptions.

  See the chapter *Using Oracle Data Guard for Disaster Management and Recovery on Oracle Database Appliance* in the *Oracle Database Appliance Deployment and User's Guide* for your hardware model for more information.

- **ODACLI Command Enhancements**
  There are new commands to set policies for creation and retention of jobs for Oracle Database Appliance deployments. The commands `odacli create-jobdata-retention-policy`, `odacli create-purge-jobdata-job`, `odacli delete-jobdata-retention-policy`, `odacli list-jobdata-retention-policy`, and `odacli list-purge-jobdata-job` enable you to create, view, and delete job retention policies, and set jobs for retaining and deleting scheduled job data.

  There are new commands to view available disks and release disks. Use the command `odacli list-dgdisks` to display details about the available disks. You can use the `odacli update-dgstorage` command to release disks.

The `odacli update-database` command is desupported. Instead, use the command `odacli move-database` to move databases from one Oracle Database home to another.

The option `--resetDBID`, `-rDBID` in the `odacli irestore-database` command is deprecated in this release. The Database ID of a restored database is always reset to a value different from the Database ID of the source database.

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.

- **Oracle Linux 7 on Oracle Database Appliance Virtualized Platform Deployments**

  Oracle Linux 7.8 is supported with this release of Oracle Database Appliance virtualized platform. You also upgrade the operating system when patch your virtualized platform.

  For more information about upgrading the operating system and applying the server patches, see the *Oracle Database Appliance Deployment and User's Guide* for your hardware model.

- **Oracle Flex Redundancy Support for Oracle ACFS Disk Groups Using Browser User Interface**

  Oracle Database Appliance supports database creation with Oracle Flex redundancy on Oracle ASM disk groups and Oracle ACFS disk groups using the Browser User Interface. You can specify the redundancy when you create a database at the time of creating the appliance, or when you create a database in your deployment, using the Browser User Interface.

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

- **Modify Database using the Browser User Interface or ODACLI Commands**
  You can edit database properties using the Browser User Interface or the `odacli modify-database` command.

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

- **Support for Standard Edition High Availability for Upgrade Database functionality in the Browser User Interface**
  Oracle Database Appliance supports Standard Edition High Availability solution with Oracle Grid Infrastructure that provides cluster-based failover for Oracle Database 19c Standard Edition.

  With Standard Edition High Availability, when there is an instance or a node failure, the database automatically fails over to the other node, after attempting to restart on the local node. The database is restarted on the surviving node, thereby providing high availability for Oracle Standard Edition databases.

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

- **Access to Oracle Database Appliance documentation from the Browser User Interface**
  You can access the Oracle Database Appliance documentation set for this release from the Browser User Interface. 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 2020 Oracle Database Release Update) for bare metal systems and virtualized platform deployments are available in this release:

  – 19.8.0.0.200714

  – 18.11.0.0.200714

  – 12.2.0.1.200714

  – 12.1.0.2.200714

  – 11.2.0.4.200714

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

See the chapter *Oracle Database Appliance Release 19.8 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 19.8 from the drop down list.

- **Oracle Database Appliance 19.8.0.0.0 Server Patch for ODACLI/DCS stack:** Use patch 31481816 to update your bare metal deployment to Oracle Database Appliance release 19.8.

- **Oracle Database Appliance 19.8.0.0.0 GI Clone for ODACLI/DCS stack:** Use patch 30403673 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 19.8.0.0.0 RDBMS Clone File for ODACLI/DCS stack:** Use the Oracle RDBMS 19.8.0.0.200714 Software Clone file to create 19.8.0.0.200714 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 18.11.0.0.0 RDBMS Clone File for ODACLI/DCS stack:** Use the Oracle RDBMS 18.11.0.0.200714 Software Clone file to create 18.11.0.0.200714 Oracle Database homes. Patch 27604558 provides the database clone for this update. This patch is forall Oracle Database Appliance Hardware Models (bare metal).

- **Oracle Database Appliance 12.2.0.1 RDBMS Clone File for ODACLI/DCS stack:** Use the Oracle RDBMS 12.2.0.1.200714 Software Clone file to create 12.2.0.1.200714 database homes. Patch 27119402 provides the database clone for this update.

- **Oracle Database Appliance 12.1.0.2 RDBMS Clone File for ODACLI/DCS stack:** Use the Oracle RDBMS 12.1.0.2.200714 Software Clone file to create 12.1.0.2.200714 database homes. Patch 23494992 provides the database clone for this update.

- **Oracle Database Appliance 11.2.0.4 RDBMS Clone File for ODACLI/DCS stack:** Use the Oracle RDBMS 11.2.0.4.200714 Software Clone file to create 11.2.0.4.200714 database homes. Patch 23494997 provides this update.

- **Oracle Database Appliance 19.8.0.0.0 Server Patch for Virtualized Platform:** Use patch 31481822 to update your Virtualized Platform to Oracle Database Appliance release 19.8.

- **Oracle Database Appliance 19.8.0.0.0 ISO Image (Virtualized Platform):** Use patch 16186163 to re-image the server with an operating system that includes virtualization capabilities. After re-imaging, use the VM Template to deploy ODA_BASE for the Virtualized Platform. The bundle contains the latest Grid Infrastructure components for deployment.

- **Oracle Database Appliance 19.8.0.0.0 VM Template (ODA_BASE) for Virtualized Platform:** Use patch 16186172 to deploy ODA_BASE for the Virtualized Platform.

- **Oracle Database Appliance 19.8.0.0.0 RDBMS Clone for Virtualized Platform:** Use the Oracle RDBMS 19.8.0.0.200714 Software Clone file to create 19.8.0.0.200714 database homes for Virtualized Platform. Patch 30403653 provides this update.

- **Oracle Database Appliance 18.11.0.0.0 RDBMS Clone for Virtualized Platform:** Use the Oracle RDBMS 18.11.0.0.200714 Software Clone file to create 18.11.0.0.200714 database homes for Virtualized Platform. Patch 28864456 provides this update.

- **Oracle Database Appliance 12.2.0.1 RDBMS Clone File for Virtualized Platform:** Use the Oracle RDBMS 12.2.0.1.200714 Software Clone file to create 12.2.0.1.200714 database homes for Virtualized Platform. Patch 27449599 provides the database clone for this update.

- **Oracle Database Appliance 12.1.0.2 RDBMS Clone File for Virtualized Platform:** Use the Oracle RDBMS 12.1.0.2.200714 Software Clone file to create 12.1.0.2.200714 database homes for Virtualized Platform. Patch 19520042 provides the database clone for this update.

- **Oracle Database Appliance 11.2.0.4 RDBMS Clone File for Virtualized Platform:** Use the Oracle RDBMS 11.2.0.4.200714 Software Clone file to create 11.2.0.4.200714 database homes for Virtualized Platform. Patch 17770873 provides the database clone for this update.

Desupport Notice for Oracle Java Development Kit (Oracle JDK), available in the /bin/java directory

Starting with Oracle Database Appliance Release 19.6, Java is installed in a new location. Java Runtime environment (JRE) is installed in the `/opt/oracle/dcs/java/` directory, and is updated during patching of Oracle Database Appliance. Patching of Oracle Java Development Kit (Oracle JDK), available in the `/bin/java` directory, during the Oracle Database Appliance server patching process is not supported. Oracle Java Development Kit (Oracle JDK), available in the `/bin/java` directory, is desupported.

Related Topics

- Oracle Database Appliance Checklists
- Oracle Database Appliance Command Line Interface Reference

- Upgrading the Operating System and Patching Oracle Database Appliance Virtualized Platform

- Modifying a Database

- Managing Storage on Oracle Database Appliance X8-2

- About the Browser User Interface

- Using Oracle Data Guard for Disaster Management and Recovery on Oracle Database Appliance

- Known Issues with Oracle Database Appliance in This Release
  The following are known issues deploying, updating, and managing Oracle Database Appliance in this release.

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 19.8

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)	4.0.4.51.r134837	4.0.4.51.r134837
BIOS	52021300	52021300

Table 2-1   (Cont.) Component Versions for X8-2-HA, X8-2M, and X8-2S in Oracle Database Appliance Release 19.8

Component Name	X8-2-HA	X8-2S and X8-2M
IPMI (Intelligent Platform Management Interface)	1.8.15.0	1.8.15.0
HMP (Oracle Hardware Management Pack)	2.4.5.0.1	2.4.5.0.1
Oracle Linux	7.8	7.8
Kernel	kernel-uek-4.14.35-1902.303.4.1.el7uek.x86_64	kernel-uek-4.14.35-1902.303.4.1.el7uek.x86_64
OVM (Oracle VM Server)	3.4.4	3.4.4
OVM Kernel	kernel-uek-4.1.12-124.37.1.el6uek.x86_64.rpm	kernel-uek-4.1.12-124.37.1.el6uek.x86_64.rpm
GI_HOME	19.8.0.0.200714	19.8.0.0.200714
DB_HOME	19.8.0.0.200714	19.8.0.0.200714
Oracle Auto Service Request (Oracle ASR)	20.1.0	20.1.0

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 19.8

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	QDV1RF30
OS Disk (SSD firmware version)	0121	0121
ILOM (Oracle Integrated Lights Out Manager)	4.0.4.52.r133103	4.0.4.52.r133103
BIOS	41060700	41060700
IPMI (Intelligent Platform Management Interface)	1.8.15.0	1.8.15.0
HMP (Oracle Hardware Management Pack)	2.4.5.0.1	2.4.5.0.1

Table 2-2   (Cont.) Component Versions for X7-2-HA, X7-2M, and X7-2S in Oracle Database Appliance Release 19.8

Component Name	X7-2-HA	X7-2S and X7-2M
Oracle Linux	7.8	7.8
Kernel	kernel-uek-4.14.35-1902.303.4.1.el7uek.x86_64	kernel-uek-4.14.35-1902.303.4.1.el7uek.x86_64
OVM (Oracle VM Server)	3.4.4	3.4.4
OVM Kernel	kernel-uek-4.1.12-124.37.1.el6uek.x86_64.rpm	kernel-uek-4.1.12-124.37.1.el6uek.x86_64.rpm
GI_HOME	19.8.0.0.200714	19.8.0.0.200714
DB_HOME	19.8.0.0.200714	19.8.0.0.200714
Oracle Auto Service Request (Oracle ASR)	20.1.0	20.1.0

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 19.8

Component Name	Version
Controller	4.650.00-7176
NVMe (firmware version)	KPYAIR3Q
OS Disk	OR3Q
ILOM (Oracle Integrated Lights Out Manager)	X6-2SM: 5.0.0.22.r132877 X6-2L:5.0.0.22.a.r133430
BIOS	X6-2SM:38310100 X6-2L:39310100
IPMI (Intelligent Platform Management Interface)	1.8.15.0
HMP (Oracle Hardware Management Pack)	2.4.5.0.1
Oracle Linux	7.8
Kernel	kernel-uek-4.14.35-1902.303.4.1.el7uek.x86_64
OVM (Oracle VM Server)	3.4.4
Kernel	kernel-uek-4.1.12-124.37.1.el6uek.x86_64.rpm
GI_HOME	19.8.0.0.200714
DB_HOME	19.8.0.0.200714
Oracle Auto Service Request (Oracle ASR)	20.1.0

ORACLE

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 19.8

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)	5.0.0.22.a.r133430
BIOS	38310100
IPMI (Intelligent Platform Management Interface)	1.8.15.0
HMP (Oracle Hardware Management Pack)	2.4.5.0.1
Oracle Linux	7.8
Kernel	kernel-uek-4.14.35-1902.303.4.1.el7uek.x86_64
OVM (Oracle VM Server)	3.4.4
Kernel	kernel-uek-4.1.12-124.37.1.el6uek.x86_64.rpm
GI_HOME	19.8.0.0.200714
DB_HOME	19.8.0.0.200714
Oracle Auto Service Request (Oracle ASR)	20.1.0

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 19.8

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

Table 2-5   (Cont.) Component Versions for Oracle Database Appliance X5-2 for Oracle Database Appliance Release 19.8

Component Name	Version
HDD_SHARED	A3A0, PAG1, PD51
ILOM (Oracle Integrated Lights Out Manager)	4.0.4.52-es-r132805
BIOS	30300200
IPMI (Intelligent Platform Management Interface)	1.8.15.0
HMP (Oracle Hardware Management Pack)	2.4.5.0.1
Oracle Linux	7.8
Kernel	kernel-uek-4.14.35-1902.303.4.1.el7uek.x86_64
OVM (Oracle VM Server)	3.4.4
Kernel	kernel-uek-4.1.12-124.37.1.el6uek.x86_64.rpm
GI_HOME	19.8.0.0.200714
DB_HOME	19.8.0.0.200714
Oracle Auto Service Request (Oracle ASR)	20.1.0

3
Oracle Database Appliance 19.8 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 X8-2S, X8-2M, and X8-2-HA Patches**
  Download the patches available for Oracle Database Appliance X8-2S, X8-2M, and X8-2-HA in My Oracle Support, get information on the prerequisites, and how to apply the patches.

- **Oracle Database Appliance X7-2S, X7-2M, and X7-2-HA Patches**
  Download the patches available for Oracle Database Appliance X7-2S, X7-2M, and X7-2-HA in My Oracle Support, get information on the prerequisites, and how to apply the patches.

- **Oracle Database Appliance X6-2S, X6-2M, and X6-2L Patches**
  Download the patches available for Oracle Database Appliance X6-2S, X6-2M, and X6-2L in My Oracle Support, get information on the prerequisites, and how to apply the patches.

- **Oracle Database Appliance X6-2-HA Patches**
  Download the patches available for Oracle Database Appliance X6-2-HA in My Oracle Support, get information on the prerequisites, and how to apply the patches.

- **Oracle Database Appliance X5-2 Patches**
  Download the patches available for Oracle Database Appliance X5-2 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. 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 (Your deployment must be on this release)
19.8.0.0	For bare metal systems: • 19.7.0.0 • 19.6.0.0 • 19.5.0.0 For virtualized platform deployments: • 18.8.0.0
19.7.0.0	• 19.6.0.0 • 19.5.0.0
19.6.0.0	• 18.8.0.0
18.8.0.0	• 18.7.0.0 • 18.5.0.0 • 18.3.0.0
18.7.0.0	• 18.5.0.0 • 18.3.0.0
18.5.0.0	• 18.3.0.0
18.3.0.0	• 12.2.1.4.0 • 12.2.1.3.0 • 12.2.1.2.0 • 12.1.2.12
12.2.1.4.0	• 12.2.1.3.0 • 12.2.1.2.0 • 12.1.2.12
12.2.1.3.0	• 12.2.1.2.0 • 12.1.2.12
12.2.1.2.0	• 12.1.2.12 **Note:** 12.2.1.2.0 is not supported on virtualized platform.
12.1.2.12	• 12.1.2.11 • 12.1.2.10 • 12.1.2.9 • 12.1.2.8
12.1.2.11	• 12.1.2.10 • 12.1.2.9 • 12.1.2.8 • 12.1.2.7
12.1.2.10	• 12.1.2.9 • 12.1.2.8 • 12.1.2.7 • 12.1.2.6
12.1.2.9	• 12.1.2.8 • 12.1.2.7 • 12.1.2.6
12.1.2.5	12.1.2.0 to 12.1.2.4
12.1.2.0.0	2.2.0.0.0 to 2.10.0.0.0

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 (Your deployment must be on this release)
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.

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 19.8 on Oracle Database Appliance bare metal systems and virtualized platform deployments. You can patch your bare metal systems to Oracle Database Appliance release 19.8 from Oracle Database Appliance release 19.5 or later. You can patch your virtualized platform deployments to Oracle Database Appliance release 19.8 from Oracle Database Appliance release 18.8.

Oracle Database Appliance X8-2S, X8-2M, and X8-2-HA Patches

Download the patches available for Oracle Database Appliance X8-2S, X8-2M, and X8-2-HA 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 19.8 from the release list.

Table 3-2   Oracle Database Appliance X8-2S, X8-2M, and X8-2-HA Patches for Oracle Database Appliance Release 19.8

Patch Type	Patch Number	Description	Resources
Oracle Database Appliance Server Patch for ODACLI/DCS Stack	31481816	Use the server patch to update your deployment to Oracle Database Appliance release 19.8	Patching Oracle Database Appliance
Oracle Database Appliance Server Patch for Virtualized Platforms	31481822	Use the server patch to update your deployment to Oracle Database Appliance release 19.8	Patching Oracle Database Appliance Virtualized Platform

Table 3-2   (Cont.) Oracle Database Appliance X8-2S, X8-2M, and X8-2-HA Patches for Oracle Database Appliance Release 19.8

Patch Type	Patch Number	Description	Resources
Oracle Database Appliance GI Clone for ODACLI/DCS stack	30403673	Use 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 19.8.	Provisioning Oracle Database Appliance Software
Oracle Database Appliance RDBMS Clone 19.8.0.0.200714 for ODACLI/DCS stack	30403662	Use Oracle Database Appliance RDBMS Clone 19.8.0.0.200714 for ODACLI/DCS stack to create 19.8 database homes for the ODACLI/DCS stack.	Updating Oracle Database Appliance Repository with Database Clone Files
Oracle Database Appliance RDBMS Clone 18.11.0.0.200714 for ODACLI/DCS stack	27604558	Use Oracle Database Appliance RDBMS Clone 18.11.0.0.200714 for ODACLI/DCS stack to create 18c database homes for the ODACLI/DCS stack.	Updating Oracle Database Appliance Repository with Database Clone Files
Oracle Database Appliance RDBMS Clone 12.2.0.1.200714 for ODACLI/DCS stack	27119402	Use Oracle Database Appliance RDBMS Clone 12.2.0.1.200714 for ODACLI/DCS stack to create 12.2.0.1 database homes for the 19.8 ODACLI/DCS stack.	Updating Oracle Database Appliance Repository with Database Clone Files
Oracle Database Appliance RDBMS Clone 12.1.0.2.200714 for ODACLI/DCS stack	23494992	Use Oracle Database Appliance RDBMS Clone 12.1.0.2.200714 for ODACLI/DCS stack to create 12.1.0.2 database homes for the 19.8 ODACLI/DCS stack.	Updating Oracle Database Appliance Repository with Database Clone Files

Table 3-2   (Cont.) Oracle Database Appliance X8-2S, X8-2M, and X8-2-HA Patches for Oracle Database Appliance Release 19.8

Patch Type	Patch Number	Description	Resources
Oracle Database Appliance RDBMS Clone 11.2.0.4.200714 for ODACLI/DCS stack	23494997	Use Oracle Database Appliance RDBMS Clone 11.2.0.4.200714 for ODACLI/DCS stack to create 11.2.0.4 database homes for the 19.8 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 19.8. Re-imaging a server installs the new operating system on the local disks on that server.	Re-imaging Oracle Database Appliance
VM ISO Image (DOM0)	16186163 From the drop-down list, select 19.8	Use to reimage Oracle Database Appliance as a Virtualized Platform.	Deploying an Oracle Database Appliance Virtualized Platform
VM Template (ODA_BASE)	16186172 From the drop-down list, select 19.8	Use to deploy ODA_Base for Virtualized Platform. Includes the GI + Database clone files for deployment. Before deploying the VM Template, reimage the system with the Oracle Database Appliance Virtualized Platform ISO (patch 16186163.)	Deploying an Oracle Database Appliance Virtualized Platform
Oracle Database Appliance RDBMS Clone 19.8.0.0.200714 for Virtualized Platform	30403653	Use Oracle Database Appliance RDBMS Clone 19.8.0.0.200714 for Virtualized Platform to create 19.8 database homes for Virtualized Platform.	Updating Oracle Database Appliance Repository with Database Clone Files
Oracle Database Appliance RDBMS Clone 18.11.0.0.200714 for Virtualized Platform	28864456	Use Oracle Database Appliance RDBMS Clone 18.11.0.0.200714 for Virtualized Platform to create 18c database homes for the 19.8 Virtualized Platform.	Updating Oracle Database Appliance Repository with Database Clone Files

ORACLE

Table 3-2 (Cont.) Oracle Database Appliance X8-2S, X8-2M, and X8-2-HA Patches for Oracle Database Appliance Release 19.8

Patch Type	Patch Number	Description	Resources
Oracle Database Appliance RDBMS Clone 12.2.0.1.200714 for Virtualized Platforms	27449599	Use Oracle Database Appliance RDBMS Clone 12.2.0.1.200714 for Virtualized Platform to create 12.2.0.1 database homes for the 19.8 Virtualized Platform.	Updating Oracle Database Appliance Repository with Database Clone Files
Oracle Database Appliance RDBMS Clone 12.1.0.2.200714 for Virtualized Platform	19520042	Use Oracle Database Appliance RDBMS Clone 12.1.0.2.200714 for Virtualized Platform to create 12.1.0.2 database homes for the 19.8 Virtualized Platform.	Updating Oracle Database Appliance Repository with Database Clone Files
Oracle Database Appliance RDBMS Clone 11.2.0.4.200714 for Virtualized Platform	17770873	Use Oracle Database Appliance RDBMS Clone 11.2.0.4.200714 for Virtualized Platform to create 11.2.0.4 database homes for the 19.8 Virtualized Platform.	Updating Oracle Database Appliance Repository with Database Clone Files

Oracle Database Appliance X7-2S, X7-2M, and X7-2-HA Patches

Download the patches available for Oracle Database Appliance X7-2S, X7-2M, and X7-2-HA 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 19.8 from the release list.

Table 3-3 Oracle Database Appliance X7-2S, X7-2M, and X7-2-HA Patches for Oracle Database Appliance Release 19.8

Patch Type	Patch Number	Description	Resources
Oracle Database Appliance Server Patch for ODACLI/DCS Stack	31481816	Use the server patch to update your deployment to Oracle Database Appliance release 19.8	Patching Oracle Database Appliance

Table 3-3   (Cont.) Oracle Database Appliance X7-2S, X7-2M, and X7-2-HA Patches for Oracle Database Appliance Release 19.8

Patch Type	Patch Number	Description	Resources
Oracle Database Appliance Server Patch for Virtualized Platforms	31481822	Use the server patch to update your deployment to Oracle Database Appliance release 19.8	Patching Oracle Database Appliance Virtualized Platform
Oracle Database Appliance GI Clone for ODACLI/DCS stack	30403673	Use 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 19.8.	Provisioning Oracle Database Appliance Software
Oracle Database Appliance RDBMS Clone 19.8.0.0.200714 for ODACLI/DCS stack	30403662	Use Oracle Database Appliance RDBMS Clone 19.8.0.0.200714 for ODACLI/DCS stack to create 19.8 database homes for the ODACLI/DCS stack.	Updating Oracle Database Appliance Repository with Database Clone Files
Oracle Database Appliance RDBMS Clone 18.11.0.0.200714 for ODACLI/DCS stack	27604558	Use Oracle Database Appliance RDBMS Clone 18.11.0.0.200714 for ODACLI/DCS stack to create 18c database homes for the ODACLI/DCS stack.	Updating Oracle Database Appliance Repository with Database Clone Files
Oracle Database Appliance RDBMS Clone 12.2.0.1.200714 for ODACLI/DCS stack	27119402	Use Oracle Database Appliance RDBMS Clone 12.2.0.1.200714 for ODACLI/DCS stack to create 12.2.0.1 database homes for the 19.8 ODACLI/DCS stack.	Updating Oracle Database Appliance Repository with Database Clone Files

Table 3-3   (Cont.) Oracle Database Appliance X7-2S, X7-2M, and X7-2-HA Patches for Oracle Database Appliance Release 19.8

Patch Type	Patch Number	Description	Resources
Oracle Database Appliance RDBMS Clone 12.1.0.2.200714 for ODACLI/DCS stack	23494992	Use Oracle Database Appliance RDBMS Clone 12.1.0.2.200714 for ODACLI/DCS stack to create 12.1.0.2 database homes for the 19.8 ODACLI/DCS stack.	Updating Oracle Database Appliance Repository with Database Clone Files
Oracle Database Appliance RDBMS Clone 11.2.0.4.200714 for ODACLI/DCS stack	23494997	Use Oracle Database Appliance RDBMS Clone 11.2.0.4.200714 for ODACLI/DCS stack to create 11.2.0.4 database homes for the 19.8 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 19.8. Re-imaging a server installs the new operating system on the local disks on that server.	Re-imaging Oracle Database Appliance
VM ISO Image (DOM0)	16186163 From the drop-down list, select 19.8	Use to reimage Oracle Database Appliance as a Virtualized Platform.	Deploying an Oracle Database Appliance Virtualized Platform
VM Template (ODA_BASE)	16186172 From the drop-down list, select 19.8	Use to deploy ODA_Base for Virtualized Platform. Includes the GI + Database clone files for deployment. Before deploying the VM Template, reimage the system with the Oracle Database Appliance Virtualized Platform ISO (patch 16186163.)	Deploying an Oracle Database Appliance Virtualized Platform
Oracle Database Appliance RDBMS Clone 19.8.0.0.200714 for Virtualized Platform	30403653	Use Oracle Database Appliance RDBMS Clone 19.8.0.0.200714 for Virtualized Platform to create 19.8 database homes for Virtualized Platform.	Updating Oracle Database Appliance Repository with Database Clone Files

Table 3-3   (Cont.) Oracle Database Appliance X7-2S, X7-2M, and X7-2-HA Patches for Oracle Database Appliance Release 19.8

Patch Type	Patch Number	Description	Resources
Oracle Database Appliance RDBMS Clone 18.11.0.0.200714 for Virtualized Platform	28864456	Use Oracle Database Appliance RDBMS Clone 18.11.0.0.200714 for Virtualized Platform to create 18c database homes for the 19.8 Virtualized Platform.	Updating Oracle Database Appliance Repository with Database Clone Files
Oracle Database Appliance RDBMS Clone 12.2.0.1.200714 for Virtualized Platforms	27449599	Use Oracle Database Appliance RDBMS Clone 12.2.0.1.200714 for Virtualized Platform to create 12.2.0.1 database homes for the 19.8 Virtualized Platform.	Updating Oracle Database Appliance Repository with Database Clone Files
Oracle Database Appliance RDBMS Clone 12.1.0.2.200714 for Virtualized Platform	19520042	Use Oracle Database Appliance RDBMS Clone 12.1.0.2.200714 for Virtualized Platform to create 12.1.0.2 database homes for the 19.8 Virtualized Platform.	Updating Oracle Database Appliance Repository with Database Clone Files
Oracle Database Appliance RDBMS Clone 11.2.0.4.200714 for Virtualized Platform	17770873	Use Oracle Database Appliance RDBMS Clone 11.2.0.4.200714 for Virtualized Platform to create 11.2.0.4 database homes for the 19.8 Virtualized Platform.	Updating Oracle Database Appliance Repository with Database Clone Files

Oracle Database Appliance X6-2S, X6-2M, and X6-2L Patches

Download the patches available for Oracle Database Appliance X6-2S, X6-2M, and X6-2L 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 19.8 from the release list.

Table 3-4   Oracle Database Appliance X6-2S, X6-2M, and X6-2L Patches for Oracle Database Appliance Release 19.8

Patch Type	Patch Number	Description	Resources
Oracle Database Appliance Server Patch for ODACLI/DCS Stack	31481816	Use the server patch to update your deployment to Oracle Database Appliance release 19.8	Patching Oracle Database Appliance
Oracle Database Appliance Server Patch for Virtualized Platforms	31481822	Use the server patch to update your deployment to Oracle Database Appliance release 19.8	Patching Oracle Database Appliance Virtualized Platform
Oracle Database Appliance GI Clone for ODACLI/DCS stack	30403673	Use 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 19.8.	Provisioning Oracle Database Appliance Software
Oracle Database Appliance RDBMS Clone 19.8.0.0.200714 for ODACLI/DCS stack	30403662	Use Oracle Database Appliance RDBMS Clone 19.8.0.0.200714 for ODACLI/DCS stack to create 19.8 database homes for the ODACLI/DCS stack.	Updating Oracle Database Appliance Repository with Database Clone Files
Oracle Database Appliance RDBMS Clone 18.11.0.0.200714 for ODACLI/DCS stack	27604558	Use Oracle Database Appliance RDBMS Clone 18.11.0.0.200714 for ODACLI/DCS stack to create 18c database homes for the ODACLI/DCS stack.	Updating Oracle Database Appliance Repository with Database Clone Files
Oracle Database Appliance RDBMS Clone 12.2.0.1.200714 for ODACLI/DCS stack	27119402	Use Oracle Database Appliance RDBMS Clone 12.2.0.1.200714 for ODACLI/DCS stack to create 12.2.0.1 database homes for the 19.8 ODACLI/DCS stack.	Updating Oracle Database Appliance Repository with Database Clone Files

Table 3-4   (Cont.) Oracle Database Appliance X6-2S, X6-2M, and X6-2L Patches for Oracle Database Appliance Release 19.8

Patch Type	Patch Number	Description	Resources
Oracle Database Appliance RDBMS Clone 12.1.0.2.200714 for ODACLI/DCS stack	23494992	Use Oracle Database Appliance RDBMS Clone 12.1.0.2.200714 for ODACLI/DCS stack to create 12.1.0.2 database homes for the 19.8 ODACLI/DCS stack.	Updating Oracle Database Appliance Repository with Database Clone Files
Oracle Database Appliance RDBMS Clone 11.2.0.4.200714 for ODACLI/DCS stack	23494997	Use Oracle Database Appliance RDBMS Clone 11.2.0.4.200714 for ODACLI/DCS stack to create 11.2.0.4 database homes for the 19.8 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 19.8. Re-imaging a server installs the new operating system on the local disks on that server.	Re-imaging Oracle Database Appliance
VM ISO Image (DOM0)	16186163 From the drop-down list, select 19.8	Use to reimage Oracle Database Appliance as a Virtualized Platform.	Deploying an Oracle Database Appliance Virtualized Platform
VM Template (ODA_BASE)	16186172 From the drop-down list, select 19.8	Use to deploy ODA_Base for Virtualized Platform. Includes the GI + Database clone files for deployment. Before deploying the VM Template, reimage the system with the Oracle Database Appliance Virtualized Platform ISO (patch 16186163.)	Deploying an Oracle Database Appliance Virtualized Platform

Table 3-4   (Cont.) Oracle Database Appliance X6-2S, X6-2M, and X6-2L Patches for Oracle Database Appliance Release 19.8

Patch Type	Patch Number	Description	Resources
Oracle Database Appliance RDBMS Clone 19.8.0.0.200714 for Virtualized Platform	30403653	Use Oracle Database Appliance RDBMS Clone 19.8.0.0.200714 for Virtualized Platform to create 19.8 database homes for Virtualized Platform.	Updating Oracle Database Appliance Repository with Database Clone Files
Oracle Database Appliance RDBMS Clone 12.2.0.1.200714 for Virtualized Platforms	27449599	Use Oracle Database Appliance RDBMS Clone 12.2.0.1.200714 for Virtualized Platform to create 12.2.0.1 database homes for the 19.8 Virtualized Platform.	Updating Oracle Database Appliance Repository with Database Clone Files
Oracle Database Appliance RDBMS Clone 12.1.0.2.200714 for Virtualized Platform	19520042	Use Oracle Database Appliance RDBMS Clone 12.1.0.2.200714 for Virtualized Platform to create 12.1.0.2 database homes for the 19.8 Virtualized Platform.	Updating Oracle Database Appliance Repository with Database Clone Files
Oracle Database Appliance RDBMS Clone 11.2.0.4.200714 for Virtualized Platform	17770873	Use Oracle Database Appliance RDBMS Clone 11.2.0.4.200714 for Virtualized Platform to create 11.2.0.4 database homes for the 19.8 Virtualized Platform.	Updating Oracle Database Appliance Repository with Database Clone Files

Oracle Database Appliance X6-2-HA Patches

Download the patches available for Oracle Database Appliance X6-2-HA 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 19.8 from the release list.

Table 3-5   Oracle Database Appliance X6-2-HA Patches for Oracle Database Appliance Release 19.8

Patch Type	Patch Number	Description	Resources
Oracle Database Appliance Server Patch for ODACLI/DCS Stack	31481816	Use the server patch to update your deployment to Oracle Database Appliance release 19.8	Patching Oracle Database Appliance
Oracle Database Appliance Server Patch for Virtualized Platforms	31481822	Use the server patch to update your deployment to Oracle Database Appliance release 19.8	Patching Oracle Database Appliance Virtualized Platform
Oracle Database Appliance GI Clone for ODACLI/DCS stack	30403673	Use 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 19.8.	Provisioning Oracle Database Appliance Software
Oracle Database Appliance RDBMS Clone 19.8.0.0.200714 for ODACLI/DCS stack	30403662	Use Oracle Database Appliance RDBMS Clone 19.8.0.0.200714 for ODACLI/DCS stack to create 19.8 database homes for the ODACLI/DCS stack.	Updating Oracle Database Appliance Repository with Database Clone Files
Oracle Database Appliance RDBMS Clone 18.11.0.0.200714 for ODACLI/DCS stack	27604558	Use Oracle Database Appliance RDBMS Clone 18.11.0.0.200714 for ODACLI/DCS stack to create 18c database homes for the ODACLI/DCS stack.	Updating Oracle Database Appliance Repository with Database Clone Files
Oracle Database Appliance RDBMS Clone 12.2.0.1.200714 for ODACLI/DCS stack	27119402	Use Oracle Database Appliance RDBMS Clone 12.2.0.1.200714 for ODACLI/DCS stack to create 12.2.0.1 database homes for the 19.8 ODACLI/DCS stack.	Updating Oracle Database Appliance Repository with Database Clone Files

Table 3-5   (Cont.) Oracle Database Appliance X6-2-HA Patches for Oracle Database Appliance Release 19.8

Patch Type	Patch Number	Description	Resources
Oracle Database Appliance RDBMS Clone 12.1.0.2.200714 for ODACLI/DCS stack	23494992	Use Oracle Database Appliance RDBMS Clone 12.1.0.2.200714 for ODACLI/DCS stack to create 12.1.0.2 database homes for the 19.8 ODACLI/DCS stack.	Updating Oracle Database Appliance Repository with Database Clone Files
Oracle Database Appliance RDBMS Clone 11.2.0.4.200714 for ODACLI/DCS stack	23494997	Use Oracle Database Appliance RDBMS Clone 11.2.0.4.200714 for ODACLI/DCS stack to create 11.2.0.4 database homes for the 19.8 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 19.8. Re-imaging a server installs the new operating system on the local disks on that server.	Re-imaging Oracle Database Appliance
VM ISO Image (DOM0)	16186163 From the drop-down list, select 19.8	Use to reimage Oracle Database Appliance as a Virtualized Platform.	Deploying an Oracle Database Appliance Virtualized Platform
VM Template (ODA_BASE)	16186172 From the drop-down list, select 19.8	Use to deploy ODA_Base for Virtualized Platform. Includes the GI + Database clone files for deployment. Before deploying the VM Template, reimage the system with the Oracle Database Appliance Virtualized Platform ISO (patch 16186163.)	Deploying an Oracle Database Appliance Virtualized Platform

Table 3-5   (Cont.) Oracle Database Appliance X6-2-HA Patches for Oracle Database Appliance Release 19.8

Patch Type	Patch Number	Description	Resources
Oracle Database Appliance RDBMS Clone 19.8.0.0.200714 for Virtualized Platform	30403653	Use Oracle Database Appliance RDBMS Clone 19.8.0.0.200714 for Virtualized Platform to create 19.8 database homes for Virtualized Platform.	Updating Oracle Database Appliance Repository with Database Clone Files
Oracle Database Appliance RDBMS Clone 18.11.0.0.200714 for Virtualized Platform	28864456	Use Oracle Database Appliance RDBMS Clone 18.11.0.0.200714 for Virtualized Platform to create 18c database homes for the 19.8 Virtualized Platform.	Updating Oracle Database Appliance Repository with Database Clone Files
Oracle Database Appliance RDBMS Clone 12.2.0.1.200714 for Virtualized Platforms	27449599	Use Oracle Database Appliance RDBMS Clone 12.2.0.1.200714 for Virtualized Platform to create 12.2.0.1 database homes for the 19.8 Virtualized Platform.	Updating Oracle Database Appliance Repository with Database Clone Files
Oracle Database Appliance RDBMS Clone 12.1.0.2.200714 for Virtualized Platform	19520042	Use Oracle Database Appliance RDBMS Clone 12.1.0.2.200714 for Virtualized Platform to create 12.1.0.2 database homes for the 19.8 Virtualized Platform.	Updating Oracle Database Appliance Repository with Database Clone Files
Oracle Database Appliance RDBMS Clone 11.2.0.4.200714 for Virtualized Platform	17770873	Use Oracle Database Appliance RDBMS Clone 11.2.0.4.200714 for Virtualized Platform to create 11.2.0.4 database homes for the 19.8 Virtualized Platform.	Updating Oracle Database Appliance Repository with Database Clone Files

Oracle Database Appliance X5-2 Patches

Download the patches available for Oracle Database Appliance X5-2 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 19.8 from the release list.

Table 3-6   Oracle Database Appliance X5-2 Patches for Oracle Database Appliance Release 19.8

Patch Type	Patch Number	Description	Resources
Oracle Database Appliance Server Patch for ODACLI/DCS Stack	31481816	Use the server patch to update your deployment to Oracle Database Appliance release 19.8	Patching Oracle Database Appliance
Oracle Database Appliance Server Patch for Virtualized Platforms	31481822	Use the server patch to update your deployment to Oracle Database Appliance release 19.8	Patching Oracle Database Appliance Virtualized Platform
Oracle Database Appliance GI Clone for ODACLI/DCS stack	30403673	Use 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 19.8.	Provisioning Oracle Database Appliance Software
Oracle Database Appliance RDBMS Clone 19.8.0.0.200714 for ODACLI/DCS stack	30403662	Use Oracle Database Appliance RDBMS Clone 19.8.0.0.200714 for ODACLI/DCS stack to create 19.8 database homes for the ODACLI/DCS stack.	Updating Oracle Database Appliance Repository with Database Clone Files
Oracle Database Appliance RDBMS Clone 18.11.0.0.200714 for ODACLI/DCS stack	27604558	Use Oracle Database Appliance RDBMS Clone 18.11.0.0.200714 for ODACLI/DCS stack to create 18c database homes for the ODACLI/DCS stack.	Updating Oracle Database Appliance Repository with Database Clone Files

Table 3-6   (Cont.) Oracle Database Appliance X5-2 Patches for Oracle Database Appliance Release 19.8

Patch Type	Patch Number	Description	Resources
Oracle Database Appliance RDBMS Clone 12.2.0.1.200714 for ODACLI/DCS stack	27119402	Use Oracle Database Appliance RDBMS Clone 12.2.0.1.200714 for ODACLI/DCS stack to create 12.2.0.1 database homes for the 19.8 ODACLI/DCS stack.	Updating Oracle Database Appliance Repository with Database Clone Files
Oracle Database Appliance RDBMS Clone 12.1.0.2.200714 for ODACLI/DCS stack	23494992	Use Oracle Database Appliance RDBMS Clone 12.1.0.2.200714 for ODACLI/DCS stack to create 12.1.0.2 database homes for the 19.8 ODACLI/DCS stack.	Updating Oracle Database Appliance Repository with Database Clone Files
Oracle Database Appliance RDBMS Clone 11.2.0.4.200714 for ODACLI/DCS stack	23494997	Use Oracle Database Appliance RDBMS Clone 11.2.0.4.200714 for ODACLI/DCS stack to create 11.2.0.4 database homes for the 19.8 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 19.8. Re-imaging a server installs the new operating system on the local disks on that server.	Re-imaging Oracle Database Appliance
VM ISO Image (DOM0)	16186163 From the drop-down list, select 19.8	Use to reimage Oracle Database Appliance as a Virtualized Platform.	Deploying an Oracle Database Appliance Virtualized Platform

ORACLE®

Table 3-6   (Cont.) Oracle Database Appliance X5-2 Patches for Oracle Database Appliance Release 19.8

Patch Type	Patch Number	Description	Resources
VM Template (ODA_BASE)	16186172 From the drop-down list, select 19.8	Use to deploy ODA_Base for Virtualized Platform. Includes the GI + Database clone files for deployment. Before deploying the VM Template, reimage the system with the Oracle Database Appliance Virtualized Platform ISO (patch 16186163.)	Deploying an Oracle Database Appliance Virtualized Platform
Oracle Database Appliance RDBMS Clone 19.8.0.0.200714 for Virtualized Platform	30403653	Use Oracle Database Appliance RDBMS Clone 19.8.0.0.200714 for Virtualized Platform to create 19.8 database homes for Virtualized Platform.	Updating Oracle Database Appliance Repository with Database Clone Files
Oracle Database Appliance RDBMS Clone 18.11.0.0.200714 for Virtualized Platform	28864456	Use Oracle Database Appliance RDBMS Clone 18.11.0.0.200714 for Virtualized Platform to create 18c database homes for the 19.8 Virtualized Platform.	Updating Oracle Database Appliance Repository with Database Clone Files
Oracle Database Appliance RDBMS Clone 12.2.0.1.200714 for Virtualized Platforms	27449599	Use Oracle Database Appliance RDBMS Clone 12.2.0.1.200714 for Virtualized Platform to create 12.2.0.1 database homes for the 19.8 Virtualized Platform.	Updating Oracle Database Appliance Repository with Database Clone Files
Oracle Database Appliance RDBMS Clone 12.1.0.2.200714 for Virtualized Platform	19520042	Use Oracle Database Appliance RDBMS Clone 12.1.0.2.200714 for Virtualized Platform to create 12.1.0.2 database homes for the 19.8 Virtualized Platform.	Updating Oracle Database Appliance Repository with Database Clone Files

Table 3-6   (Cont.) Oracle Database Appliance X5-2 Patches for Oracle Database Appliance Release 19.8

Patch Type	Patch Number	Description	Resources
Oracle Database Appliance RDBMS Clone 11.2.0.4.200714 for Virtualized Platform	17770873	Use Oracle Database Appliance RDBMS Clone 11.2.0.4.200714 for Virtualized Platform to create 11.2.0.4 database homes for the 19.8 Virtualized Platform.	Updating Oracle Database Appliance Repository with Database Clone Files

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

- Error when patching 11.2.0.4 database homes
  When patching 11.2.0.4 database home, an error is encountered.

- Error in SSD_LOCAL value after patching Oracle Database Appliance Virtualized Platform
  After patching Oracle Database Appliance Virtualized Platform from release 18.8 to 19.8, there may be an error in SSD_LOCAL value.

- Error when running the prepatch report
  When running Oracle ORAchk or the `odacli create-prepatchreport` command, an error is encountered.

- Error when upgrading operating system on Virtualized Platform
  When upgrading operating system on Virtualized Platform, 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.

- TFA not running after server or database patching
  Oracle TFA does not run after server or database patching.

- **Disk firmware not updated after patching**
  After patching Oracle Database Appliance, disk firmware is not updated on some Oracle Database Appliance hardware models.

- **Error in server patching**
  An error is encountered when patching the server.

- **Error in database patching**
  An error is encountered when patching the database.

- **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.

- **11.2.0.4 databases fail to start after patching**
  After patching Oracle Database Appliance to release 18.3, databases of version 11.2.0.4 fail to start.

- **Patching errors on Oracle Database Appliance Virtualized Platform**
  When applying the server patch for Oracle Database Appliance Virtualized Platform, an error is encountered.

- **Patching Oracle Database home fails with errors**
  When applying the patch for Oracle Database homes, an error is encountered.

- **Error in patching Oracle Database Appliance**
  When applying the server patch for Oracle Database Appliance, an error is encountered.

- **Versions of some components not updated after cleaning up and reprovisioning Oracle Database Appliance**
  Oracle Auto Service Request (ASR), or Oracle TFA Collector, or Oracle ORAchk versions are not updated after cleaning up and reprovisioning Oracle Database Appliance.

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 Applaince server patching process again to upgrade Oracle Grid Infrastructure.

This issue is tracked with Oracle bug 31546654.

Error when patching 11.2.0.4 database homes

When patching 11.2.0.4 database home, an error is encountered.

The following error message is observed:

```
WARNING: 2020-07-09 04:34:56:  Errors found while running catbundle.sql
on
the Database db_name
INFO: 2020-07-09 04:34:56:  Please run catbundle.sql manually on
Database db_name
```

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Use the following workaround:

1. Navigate to the catbundle log files in the location `/u01/app/`*`db_user`*`/product/`
   `11.2.0.4/`*`home_name`*`/cfgtoollogs/catbundle`.

2. Locate the log file for the the failed operations using the date and timestamp in the warning message.

3. Check for ORA errors in the file. Ignore the following ORA errors and fix the other errors.

   ```
   ORA-29809 ORA-29931 ORA-29830 ORA-00942 ORA-00955 ORA-01430
   ORA-01432
   ORA-01434 ORA-01435 ORA-01917 ORA-01920 ORA-01921 ORA-01952
   ORA-02303
   ```

```
ORA-02443 ORA-04043 ORA-29832 ORA-29844 ORA-14452 ORA-06512
ORA-01927
```

4. Run `catbundle.sql` again.

This issue is tracked with Oracle bug 31579565.

Error in SSD_LOCAL value after patching Oracle Database Appliance Virtualized Platform

After patching Oracle Database Appliance Virtualized Platform from release 18.8 to 19.8, there may be an error in SSD_LOCAL value.

After upgrading from Oracle Database Appliance release 18.8 to 19.8, on Virtualized Platform with SSD local disks for the operating system, the following output is displayed when you run the `oakcli show version -detail` command:

```
SSD_LOCAL                      0121                    Up-to-date, 0121
SSD_LOCAL                      0212                    Up-to-date, 0212
```

Hardware Models

All Oracle Database Appliance hardware models Virtualized Platform deployments

Workaround

There is a display issue. Ignore the inconsistency.

This issue is tracked with Oracle bug 31607196.

Error when running the prepatch report

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

The following messages may be displayed:

```
- CSS disktimeout is not set to the default value of 200
- Cluster Synchronization Services (CSS) misscount not set to
recommended
value
```

Hardware Models

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

Workaround

Ignore the error messages and continue patching.

This issue is tracked with Oracle bug 31631618.

Error when upgrading operating system on Virtualized Platform

When upgrading operating system on Virtualized Platform, an error is encountered.

The error message displays an unhandled python exception in the `/opt/oracle/oak/bin/dcliagent.py` file.

Hardware Models

All Oracle Database Appliance hardware models on Virtualized Platform

Workaround

The `dcliagent.py` starts after a few retries. Ignore the error message.

This issue is tracked with Oracle bug 31633374.

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
    ```

ORACLE®

This issue is tracked with Oracle bug 31654816.

TFA not running after server or database patching

Oracle TFA does not run after server or database patching.

TFA is shut down during patching of Oracle Database and Oracle Database Appliance.

Hardware Models

All Oracle Database Appliance bare metal deployments

Workaround

Run `tfactl start` to start TFA manually.

This issue is tracked with Oracle bug 31091006.

Disk firmware not updated after patching

After patching Oracle Database Appliance, disk firmware is not updated on some Oracle Database Appliance hardware models.

The `odacli describe-component` command shows available version for disks as 0112 but the `odacli update-storage` and `odacli update-server` commands do not update the disk firmware.

Hardware Models

All Oracle Database Appliance X7-2-HA hardware models

Workaround

None

This issue is tracked with Oracle bug 30841243.

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.

Error in database patching

An error is encountered when patching the database.

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

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Run datapatch with list of all valid PDBs by connecting all the databases that are running from database home. Follow these steps:

1. Find all databases running from the database home. For example:

   ```
   odacli list-databases|grep DB home resource ID
   ```

2. Find the PDBs for each database:

   ```
   #su oracle
       #export ORACLE_HOME=Database home location
       #export ORACLE_SID=Database SID
       #sqlplus "/as sysdba"
       SQL> SELECT NAME, OPEN_MODE FROM V$CONTAINERS WHERE
   OPEN_MODE='READ
   WRITE';
   ```

   This query returns all PDB names including `CDB$ROOT` if the PDB is in "READ WRITE" mode.

3. Exit from SQL*Plus.

4. Run datapatch:

   ```
   #su oracle
       #export ORACLE_HOME=Database home location
       #export ORACLE_SID=Database SID
       #$ORACLE_HOME/OPatch/datapatch -pdbs "PDB name","PDB name"
   ```

5. As `root` user, run the `odacli update-dbhome` command again to correct the metadata entries.

```
# odacli update-dbhome -i dbhome id -v 19.7.0.0.0
```

This issue is tracked with Oracle bug 31399885.

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.

11.2.0.4 databases fail to start after patching

After patching Oracle Database Appliance to release 18.3, databases of version 11.2.0.4 fail to start.

Hardware Models

All Oracle Database Appliance Hardware models

Workaround

Databases of versions 11.2.0.4.170814 and 11.2.0.4.171017 must be manually started after patching to Oracle Database Appliance release 18.3.

Start the databases with the command:

```
srvctl start database -db db_unique_name
```

This issue is tracked with Oracle bug 28815716.

Patching errors on Oracle Database Appliance Virtualized Platform

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

Error Encountered When Patching Virtualized Platform:

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

```
ERROR: Unable to apply the GRID patch
ERROR: Failed to patch server (grid) component
```

This error can occur even if you stopped Oracle TFA Collector before patching. During server patching on the node, Oracle TFA Collector is updated and this can restart the TFA processes, thus causing an error. To resolve this issue, follow the steps described in the Workaround.

Hardware Models

All Oracle Database Appliance hardware models

Workaround

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. Run the command:

   ```
   /u01/app/18.0.0.0/grid/bin/cluutil -ckpt -oraclebase /u01/app/grid -
   chkckpt -name ROOTCRS_PREPATCH -status
   ```

   Verify that the command output is `SUCCESS`.

3. If the command output was `SUCCESS`, then run the following commands on all the nodes:

   ```
   /u01/app/18.0.0.0/grid/crs/install/rootcrs.sh -prepatch -rollback
   /u01/app/18.0.0.0/grid/crs/install/rootcrs.sh -postpatch
   ```

4. Restart patching.

This issue is tracked with Oracle bug 30886701.

Patching Oracle Database home fails with errors

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

Error Encountered When Patching Oracle Database Homes on Bare Metal Systems:

When patching Oracle Database homes on baremetal systems, the `odacli update-dbhome` command fails with an error similar to the following:

```
Please stop TFA before dbhome patching.
```

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

Error Encountered When Patching Oracle Database Homes on Virtualized Platform:

When patching Oracle Database homes 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 bugs 30799713 and 30892062.

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 bugs 30260318 and 30892062.

Versions of some components not updated after cleaning up and reprovisioning Oracle Database Appliance

Oracle Auto Service Request (ASR), or Oracle TFA Collector, or Oracle ORAchk versions are not updated after cleaning up and reprovisioning Oracle Database Appliance.

When cleaning up and reprovisioning Oracle Database Appliance with release 19.8, the Oracle Auto Service Request (ASR), or Oracle TFA Collector, or Oracle ORAchk RPMs may not be updated to release 19.8. The components are updated when you apply the patches for Oracle Database Appliance release 19.8.

Hardware Models

All Oracle Database Appliance deployments

Workaround

Update to the latest server patch for the release.

This issue is tracked with Oracle bugs 28933900 and 30187516.

Known Issues When Deploying Oracle Database Appliance

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

- Error when performing backup and recovery of Standard Edition High Availability Database
  When performing backup and recovery of Standard Edition High Availability Database, an error is encountered.

- NTP service not running after rebooting node
  The Network Time Protocol daemon (ntpd) fails to start after rebooting the node.

- Cannot create 11.2.0.4 and 12.1 Oracle ACFS databases with Oracle Flex redundancy
  Creation of 11.2.0.4 and 12.1 Oracle ACFS databases with Oracle Flex redundancy fails.

- Error when creating 11.2.0.4 database
  An error is encountered when creating 11.2.0.4 databases.

- Error when creating or restoring 11.2.0.4 database
  An error is encountered when creating or restoring 11.2.0.4 databases.

- 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 creating 19c single-instance database
  When creating 19c single-instance database, 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.

- Database creation hangs when using a deleted database name for database
  creation
  The accelerator volume for data is not created on flash storage, for database
  created during provisioning of appliance.

- 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 12.0.0.0.0

Error when performing backup and recovery of Standard Edition High Availability Database

When performing backup and recovery of Standard Edition High Availability Database,
an error is encountered.

Associating a backup configuration to Standard Edition High Availability Database, and
backup and recovery operations of Standard Edition High Availability Database fail
with the following error:

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

Hardware Models

All Oracle Database Appliance hardware models

Workaround

None.

This issue is tracked with Oracle bug 31173818.

NTP service not running after rebooting node

The Network Time Protocol daemon (ntpd) fails to start after rebooting the node.

On Oracle Linux 7 environment, even though Network Time Protocol (NTP) was configured during provisioning, the Network Time Protocol daemon (ntpd) fails to start.

Hardware Models

All Oracle Database Appliance hardware models bare metal deployments

Workaround

Follow the instructions described in My Oracle Support Note 2422378.1.

This issue is tracked with Oracle bug 31399685.

Cannot create 11.2.0.4 and 12.1 Oracle ACFS databases with Oracle Flex redundancy

Creation of 11.2.0.4 and 12.1 Oracle ACFS databases with Oracle Flex redundancy fails.

Hardware Models

All Oracle Database Appliance hardware deployments

Workaround

Optionally, create a 11.2.0.4 or 12.1 database home.

Create a 11.2.0.4 or 12.1 database based on an existing 11.2.0.4 or 12.1 database home.

This issue is tracked with Oracle bug 31016061.

Error when creating 11.2.0.4 database

An error is encountered when creating 11.2.0.4 databases.

When you run the command `odacli create-database` for 11.2.0.4 databases specifying the Oracle Database version as 18.10.0.0, the command fails.

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Run the command specifying a five digit Oracle Database version, for example, 18.10.0.0.200414.

This issue is tracked with Oracle bug 31328317.

Error when creating or restoring 11.2.0.4 database

An error is encountered when creating or restoring 11.2.0.4 databases.

When you run the command `odacli create-database` or `odacli irestore-database` for 11.2.0.4 databases, the command fails to run at the Configuring DB Console step. This error may also occur when creating 11.2.0.4 databases using the Browser User Interface.

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Run the commands without enabling DB Console.

This issue is tracked with Oracle bug 31017360.

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 creating 19c single-instance database

When creating 19c single-instance database, an error is encountered.

When creating a 19c single-instance database with different `dbName` and `dbUniqueName`, the password file is stored in the local storage instead of shared storage.

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Use the same `dbName` and `dbUniqueName` when creating a 19c single-instance database.

This issue is tracked with Oracle bug 31194087.

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, 31214657, 31210407, and 31178058.

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 Perfomance 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 Perfomance 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 rdodbname
```

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 rdodbname
```

This issue is tracked with Oracle bug 30750497.

Database creation hangs when using a deleted database name for database creation

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

If you delete a 11.2.0.4 database, and then create a new database with same name as the deleted database, database creation hangs while unlocking the DBSNMP user for the database.

Hardware Models

All Oracle Database Appliance high-availability environments

Workaround

Before creating the 11.2.0.4 database with the same name as the deleted database, delete the DBSNMP user, if the user exists.

For example, the following command creates a database `testdb` with user `DBSNMP`.

```
/u01/app/18.0.0.0/grid/bin/crsctl delete wallet -type CVUDB -name
testdb -user DBSNMP
```

This issue is tracked with Oracle bug 28916487.

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 switchover operation with Oracle Data Guard
  When performing switchover operation with 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 switchover operation on Oracle Data Guard with 11.2.0.4 database
  When performing switchover operation with Oracle Data Guard with 11.2.0.4 database on Oracle Database Appliance, an error is encountered.

- Error in configuring Oracle Data Guard on system with customer user group settings
  When configuring Oracle Data Guard on a system with customer user group settings, an error is encountered.

- Error in configuring Oracle Data Guard with protection mode and transport type
  When configuring Oracle Data Guard with protection mode as Max Protection and transport type as SYNC, an error is encountered.

- Error in Oracle Data Guard failover operation
  When performing an Oracle Data Guard failover operation, an error is encountered.

- Error in Oracle Data Guard reinstate operation
  When performing an Oracle Data Guard reinstate operation, an error is encountered.

- Inconsistency in database version on Oracle Data Guard primary and standby systems after restore operation
  There is an inconsistency in database version on Oracle Data Guard primary and standby systems after performing a restore operation.

- Delay in completing delete filegroup operation
  There may be a delay in the delete filegroup operation completion if there are a number of files to be deleted.

- Error when relocating database
  When relocating a database having host name in upper case letters, an error is encountered.

- Error when connecting to the database after relocation
  When connecting to the database after relocation, an error is encountered.

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

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

- Database ID incorrectly displayed in odacli describe-database output
  Database ID is incorrectly displayed in the output of the command `odacli describe-database`.

- Error when rebooting the appliance
  When rebooting Oracle Database Appliance, the user interactive screen is displayed.

- 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.

- Disk space issues due to Zookeeper logs size
  The Zookeeper log files, `zookeeper.out` and `/opt/zookeeper/log/zkMonitor.log`, are not rotated, when new logs are added. This can cause disk space issues.

- Error after running the cleanup script
  After running the `cleanup.pl` script, the following error message appears:
  `DCS-10001:Internal error encountered: Fail to start hand shake`.

- Error in attaching vdisk to guest VM
  The current system firmware may be different from the available firmware after applying the latest patch.

- Unrecognized Token Messages Appear in /var/log/messages
  After updating Oracle Database Appliance, unrecognized token messages appear in `/var/log/messages`.

Error in switchover operation with Oracle Data Guard

When performing switchover operation with Oracle Data Guard on Oracle Database Appliance, an error is encountered.

The Role component described in the output of the `odacli describe-dataguardstatus` command is inconsistent with the `DGMGRL> show configuration;` output. The command `odacli switchover-dataguard` fails because the Role component in `odacli describe-dataguardstatus` is not correct.

Hardware Models

All Oracle Database Appliance hardware models with Oracle Data Guard configuration

Workaround

Run `odacli describe-dataguardstatus -i dgconfigId` a few times to check if Role is updated. Perform the switchover operation after the Role component in the output of the `odacli describe-dataguardstatus` command is updated.

This issue is tracked with Oracle bugs 31428670 and 31584695.

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 switchover operation on Oracle Data Guard with 11.2.0.4 database

When performing switchover operation with Oracle Data Guard with 11.2.0.4 database on Oracle Database Appliance, an error is encountered.

The following error message is displayed:

```
DCS-10001:Internal error encountered: Unable enqueue Id and update
DgConfig.
```

Hardware Models

All Oracle Database Appliance hardware models with Oracle Data Guard configuration

Workaround

1. Check if all instances are running:

   ```
   srvctl status database -d new_standby_db_unique_name
   ```

2. If any instance is not running, then start the instance manually:

   ```
   srvctl start instance
   ```

3. Run `odacli describe-dataguardstatus -i dgconfigId` a few times to ensure the correct status on all nodes.

This issue is tracked with Oracle bug 31639494.

Error in configuring Oracle Data Guard on system with customer user group settings

When configuring Oracle Data Guard on a system with customer user group settings, an error is encountered.

The following error is seen in the step `Upload password file to Standby database (Standby site)`.

```
DCS-10001:Internal error encountered: Unable to set file roles and
groups to dbUser:oinstall.
```

Hardware Models

All Oracle Database Appliance hardware models with Oracle Data Guard configuration

Workaround

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

Follow these steps:

1. Locate the password file location on the primary system:

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

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

    ```
    su - grid
    asmcmd
    ASMCMD> pwcopy +DATA/system2/PASSWORD/orapwsystem2 /tmp/orapwsystem2
    ```

3. If the output is empty, check the directory at `/dbHome/dbs/orapwdbName`. For example, the `orapwd` can be in `/u01/app/oracle/product/19.0.0.0/dbhome_1/dbs/orapwsystem2`.

4. Run the following command on the standby system to copy the password file to the standby system:

    ```
    /u01/app/oracle/product/19.0.0.0/dbhome_1/dbs/orapwsystem2
    /u01/app/oracle/product/19.0.0.0/dbhome_1/dbs/orapwsystem2.ori
    scp
    root@primaryHost:/u01/app/oracle/product/19.0.0.0/dbhome_1/dbs/
    orapwsystem2
    /u01/app/oracle/product/19.0.0.0/dbhome_1/dbs/orapwsystem2
    ```

5. Change the standby `orapwd` file permissions:

    ```
    chown -R oracle /u01/app/oracle/product/19.0.0.0/dbhome_1/dbs/
    orapwsystem2
    ```

ORACLE®

```
chgrp oinstall /u01/app/oracle/product/19.0.0.0/dbhome_1/dbs/
orapwsystem2
```

6. Check the password file location and copy to Oracle ASM directory, if necessary:

```
srvctl config database -d system2 | grep -i password
Password file: +DATA/system2/PASSWORD/orapwsystem2
```

7. Copy the password from the local folder to the Oracle ASM directory:

```
su - grid
asmcmd
ASMCMD> pwcopy /u01/app/oracle/product/19.0.0.0/dbhome_1/dbs/
orapwsystem2
+DATA/system2/PASSWORD/orapwsystem2
```

This issue is tracked with Oracle bug 31616641.

Error in configuring Oracle Data Guard with protection mode and transport type

When configuring Oracle Data Guard with protection mode as Max Protection and transport type as SYNC, an error is encountered.

Hardware Models

All Oracle Database Appliance hardware models with Oracle Data Guard configuration

Workaround

Configure Oracle Data Guard with default protection mode Max Performance and default Transport Type as ASYNC. After Oracle Data Guard is successfully configured, manually change the protection mode and transport type.

```
su - oracle
DGMGRL> edit database primary_db_unique_name set property
'LogXptMode'='SYNC';
Property "LogXptMode" updated
DGMGRL> edit database standby_db_unique_name set property
'LogXptMode'='SYNC';
Property "LogXptMode" updated
DGMGRL>  EDIT CONFIGURATION SET PROTECTION MODE AS MAXAVAILABILITY;
DGMGRL> EDIT CONFIGURATION SET PROTECTION MODE AS MAXPROTECTION;
```

This issue is tracked with Oracle bugs 31600966 and 31601031.

Error in Oracle Data Guard failover operation

When performing an Oracle Data Guard failover operation, an error is encountered.

Running the `odacli failover-dataguard` command fails with the following error:

```
DCS-10001 - UNABLE TO PRECHECKFAILOVERDG11G DG
```

The `dcs-agent.log` file contains this line:

```
PHYSICAL STANDBY|YES  |NO
```

Hardware Models

All Oracle Database Appliance hardware models with Oracle Data Guard configuration

Workaround

Check if flashback is enabled on the standby database. If not, enable flashback and retry the `odacli failover-dataguard` command.

Follow these steps:

1. Check if flashback is enabled on the standby database:

   ```
   select flashback_on from v$database;
   ```

2. If the output is No, then run the following:

   ```
   alter database recover managed standby database cancel;
   alter database flashback on;
   alter database recover managed standby database using current
   logfile
   disconnect;
   ```

3. Retry the `odacli failover-dataguard` command:

   ```
   odacli failover-dataguard
   ```

   This issue is tracked with Oracle bug 31626430.

Error in Oracle Data Guard reinstate operation

When performing an Oracle Data Guard reinstate operation, an error is encountered.

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

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

The `dcs-agent.log` file contains this line:

```
Error: 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

Check if flashback is enabled on the standby database. If not, enable flashback and retry the `odacli failover-dataguard` command.

Follow these steps:

1. Check Oracle Data Guard status:

```
DGMGRL> show configuration;
```

2. If the status is SUCCESS, then the reinstate job was actually successful. Run `odacli describe-dataguardstatus` on both primary and standby systems to update Oracle Data Guard status.

```
odacli describe-dataguardstatus
```

This issue is tracked with Oracle bug 31571682.

Inconsistency in database version on Oracle Data Guard primary and standby systems after restore operation

There is an inconsistency in database version on Oracle Data Guard primary and standby systems after performing a restore operation.

Hardware Models

All Oracle Database Appliance hardware models with Oracle Data Guard configuration

Workaround

Update the repository with the correct Oracle Database clone files before running the restore operation.

This issue is tracked with Oracle bug 31616944.

Delay in completing delete filegroup operation

There may be a delay in the delete filegroup operation completion if there are a number of files to be deleted.

Hardware Models

All Oracle Database Appliance hardware models

Workaround

None. Wait till the operation completes.

This issue is tracked with Oracle bug 31534406.

Error when relocating database

When relocating a database having host name in upper case letters, an error is encountered.

If the database host name has uppercase letters, then the operation to relocate the database fails.

Hardware Models

All Oracle Database Appliance hardware models

Workaround

Specify the host name with lower case letters, or use the `-g` option to specify target node number.

This issue is tracked with Oracle bug 31386630.

Error when connecting to the database after relocation

When connecting to the database after relocation, an error is encountered.

After relocating a cloned database, there is an error when connecting to the database using SQL*Plus.

Hardware Models

All Oracle Database Appliance hardware models

Workaround

1. Copy the password file from the current location to `/u02/app/oracle/oradata/`*sourcedbUniqueName*`/`*dbName*`/dbs`.

2. Change the password file owner and group to `oracle:oinstall`.

3. Modify the password file location using the command:

   ```
   srvctl modify database -db dbUniqueName -pwfile newPwFileLoc
   ```

This issue is tracked with Oracle bug 31317837.

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.

Errors when running ORAchk or the odacli create-prepatchreport command

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

The following error messages may be seen:

```
Table AUD$[FGA_LOG$] should use Automatic Segment Space Management
diagsnap or pstack are configured to collect first failure diagnostic
Initialization parameter RESOURCE_MANAGER_PLAN should be set.
One or more log archive destination and alternate log archive
destination settings are not as recommended
Software home check failed
```

Hardware Models

Oracle Database Appliance hardware models bare metal deployments

Workaround

Ignore the error messages and continue the deployment.

This issue is tracked with Oracle bug 30931017.

Database ID incorrectly displayed in odacli describe-database output

Database ID is incorrectly displayed in the output of the command `odacli describe-database`.

The ID field in the output of the command `odacli describe-database` wrongly displays the databaseId instead of db object ID.

Hardware Models

All Oracle Database Appliance bare metal deployments

Workaround

Run the `odacli list-databases` command to view the correct ID. You can also view the correct ID details using the Browser User Interface.

This issue is tracked with Oracle bug 31121016.

Error when rebooting the appliance

When rebooting Oracle Database Appliance, the user interactive screen is displayed.

Hardware Models

Oracle Database Appliance X7-2-HA hardware models

Workaround

From the system console, select or highlight the kernel using the Up or Down arrow keys and then press Enter to continue with the reboot of the appliance.

This issue is tracked with Oracle bug 31196452.

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.

Disk space issues due to Zookeeper logs size

The Zookeeper log files, `zookeeper.out` and `/opt/zookeeper/log/zkMonitor.log`, are not rotated, when new logs are added. This can cause disk space issues.

Hardware Models

All Oracle Database Appliance hardware models for bare metal deployments

Workaround

Rotate the zookeeper log file manually, if the log file size increases, as follows:

1. Stop the DCS-agent service for zookeeper on both nodes.

   ```
   initctl stop initdcsagent
   ```

2. Stop the zookeeper service on both nodes.

   ```
   /opt/zookeeper/bin/zkServer.sh stop
   ```

3. Clean the zookeeper logs after taking the backup, by manually deleting the existing file or by following steps 4 to 10.

4. Set the `ZOO_LOG_DIR` as an environment variable to a different log directory, before starting the zookeeper server.

   ```
   export ZOO_LOG_DIR=/opt/zookeeper/log
   ```

5. Switch to `ROLLINGFILE`, to set the capability to roll.

   ```
   export ZOO_LOG4J_PROP="INFO, ROLLINGFILE"
   ```

   Restart the zookeeper server, for the changes to take effect.

6. Set the following parameters in the `/opt/zookeeper/conf/log4j.properties` file, to limit the number of backup files, and the file sizes.

```
zookeeper.log.dir=/opt/zookeeper/log
zookeeper.log.file=zookeeper.out
log4j.appender.ROLLINGFILE.MaxFileSize=10MB
log4j.appender.ROLLINGFILE.MaxBackupIndex=10
```

7. Start zookeeper on both nodes.

```
/opt/zookeeper/bin/zkServer.sh start
```

8. Check the zookeeper status, and verify that zookeeper runs in `leader/follower/standalone` mode.

```
/opt/zookeeper/bin/zkServer.sh status
ZooKeeper JMX enabled by default
Using config: /opt/zookeeper/bin/../conf/zoo.cfg
Mode: follower
```

9. Start the dcs agent on both nodes.

```
initctl start initdcsagent
```

10. Purge the zookeeper monitor log, `zkMonitor.log`, in the location `/opt/zookeeper/log`. You do not have to stop the zookeeper service.

This issue is tracked with Oracle bug 29033812.

Error after running the cleanup script

After running the `cleanup.pl` script, the following error message appears: `DCS-10001:Internal error encountered: Fail to start hand shake.`

The error is caused when you run the following steps:

1. Run `cleanup.pl` on the first node (Node0). Wait until the cleanup script finishes, then reboot the node.

2. Run `cleanup.pl` on the second node (Node1). Wait until the cleanup script finishes, then reboot the node.

3. After both nodes are started, use the command-line interface to list the jobs on Node0. An internal error appears.

```
# odacli list-jobs
DCS-10001:Internal error encountered: Fail to start hand shake to
localhost:7070
```

Hardware Models

Oracle Database Appliance X7-2-HA

Workaround

1. Verify the zookeeper status on the both nodes before starting `dcsagent`:

   ```
   /opt/zookeeper/bin/zkServer.sh status
   ```

   For a single-node environment, the status should be: leader, or follower, or standalone.

2. Restart the `dcsagent` on Node0 after running the `cleanup.pl` script.

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

   This issue is tracked with Oracle bug 26996134.

Error in attaching vdisk to guest VM

The current system firmware may be different from the available firmware after applying the latest patch.

When multiple vdisks from the oda_base driver_domain are attached to the guest VM, their entries are not written on the xenstore, vdisks are not attached to the VM, and the VM may not start.

The following errors are logged on `xen-hotplug.log` in ODA_BASE:

```
xenstore-write: could not write path backend/vbd/6/51728/node
xenstore-write: could not write path backend/vbd/6/51728/hotplug-error
```

Hardware Models

Oracle Database Appliance Virtualized Platform

Workaround

1. Add the followng into the `/etc/sysconfig/xencommons` file in `dom0`:

   ```
   XENSTORED_ARGS="--entry-nb=4096 --transaction=512"
   ```

2. Reboot `dom0`.

This issue is tracked with Oracle bug 30886365.

Unrecognized Token Messages Appear in /var/log/messages

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

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

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

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

Hardware Models

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

Workaround

Perform the following to remove the parameters:

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

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

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

This issue is tracked with Oracle bug 25985258.

Index

C

component versions, *2-1*, *2-2*, *2-4*