Oracle® Database Appliance
Release Notes

Release 18.2 for Linux x86-64

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Oracle Database Appliance Release Notes, Release 18.2 for Linux x86-64

E98279-01

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Preface

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

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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 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 Getting Started Guide*

- *Oracle Database Appliance Administration and Reference 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*

The following My Oracle Support Notes contain additional information:

- https://support.oracle.com/CSP/main/article?cmd=show&type=NOT&id=888888.1

- https://support.oracle.com/CSP/main/article?cmd=show&type=NOT&id=2144642.1

The following documents are published in the Oracle Database Appliance Plug-ins for Oracle Enterprise Manager online documentation library at http://docs.oracle.com/cd/E70264_01/index.htm:

- *Oracle Database Appliance Plug-in for Oracle Enterprise Manager 13c User's Guide*

- *Oracle Database Appliance Plug-in for Oracle Enterprise Manager 12c User's 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 18.2 release supports Oracle Database 18*c* functionality on Oracle Database Appliance hardware models.

New Features

This release supports Oracle Database Appliance models X7-2-HA (bare metal), X7-2S, X7-2M, X6-2S, X6-2M, X6-2L, X6-2-HA, and X5-2. You must re-image your machine and deploy the Oracle Database Appliance 18.2 ISO and software patches to access the Oracle Database Appliance 18.2 software.

> ✏ **Note:**
>
> Oracle Database Appliance 18.2 only supports provisioning Oracle Database 18*c* databases. If you need to provision Oracle Database 12.2.0.1, 12.1.0.2, or 11.2.0.4, then deploy Oracle Database Appliance 12.2 instead.

GI Clone, Database RDBMS Clone, and ISO Image Patches

See the chapter *Oracle Database 18c Patches* for patch details and links.

Oracle Database Appliance patches are available in My Oracle Support. When selecting a patch, ensure that you select the 18.2 release from the drop down box.

You must re-image the server using the Oracle Database Appliance 18.2 ISO image for your hardware model. Re-imaging installs the new operating system on the local disks on that server. After re-imaging, use the Oracle Database Appliance GI Clone for ODACLI/DCS stack to deploy Oracle Database Appliance (bare metal platform.) The bundle contains the latest Grid Infrastructure components (ILOM, BIOS, Controller, Expander, disk firmware, and other components.)

- **ISO Image**: Use to re-image the operating system for Oracle Database Appliance 18.2.
- **Oracle Database Appliance 18.2 GI Clone for ODACLI/DCS stack**: Use to perform an initial deployment of Oracle Database Appliance. The bundle contains the latest Oracle Grid Infrastructure components for deployment on Oracle Database Appliance.
- **18*c* Database**: Use the Oracle 18.2 RDBMS Software Clone file to get the RDBMS clone binaries for Oracle Database 18.2.0.0.0 for Oracle Database Appliance. The RDBMS clone file is needed to create Oracle databases and database homes.

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 X7-2 Models (page 2-1)
  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 (page 2-2)
  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 (page 2-2)
  The matrix displays the component versions available for Oracle Database Appliance for X6-2-HA.

- Component Versions for X5-2 Models (page 2-3)
  The matrix display the component versions available for Oracle Database Appliance for X5-2.

2.1 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 2-1   Component Versions for X7-2-HA, X7-2M, and X7-2S in 18.2

Component Name	X7-2-HA	X7-2S and X7-2M
Controller	13.00.00.00	QDV1RE14
Expander	304	Not applicable
SSD	A122 For the HDD/SSD option: A374/A087	A122
NVMe (firmware version)	Not applicable	QDV1RE14
OS Disk (SSD firmware version)	0112	0112
ILOM (Oracle Integrated Lights Out Manager)	3.2.9.23 r116695	3.2.9.23 r116695
BIOS	38070200	38070200
IPMI (Intelligent Platform Management Interface)	1.8.12.4	1.8.12.4

Table 2-1   (Cont.) Component Versions for X7-2-HA, X7-2M, and X7-2S in 18.2

Component Name	X7-2-HA	X7-2S and X7-2M
HMP (Oracle Hardware Management Pack)	2.4.1.0.9	2.4.1.0.9
OAK	18.2.0.0.0	18.2.0.0.0
Oracle Linux	6.9	6.9
Kernel	4.1.12-94.4.1.el6uek.x86_64	4.1.12-94.4.1.el6uek.x86_64
GI_HOME	18.2.0.0.0-180417	18.2.0.0.0-180417
DB_HOME	18.2.0.0.0-180417	18.2.0.0.0-180417
Oracle Auto Service Request (Oracle ASR)	5.7.7	5.7.7

2.2 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 2-2   Component Versions for Oracle Database Appliance X6-2S, X6-2M, and X6-2L in 18.2

Component Name	Version
Controller	4.650.00-7176
NVMe (firmware version)	KPYA7R3Q
OS Disk	0112
ILOM (Oracle Integrated Lights Out Manager)	3.2.9.23 r116695
BIOS	X6-2S, X6-2M: 38070200 X6-2L: 38070200
IPMI (Intelligent Platform Management Interface)	1.8.12.4
HMP (Oracle Hardware Management Pack)	2.4.1.0.9
OAK	18.2.0.0.0
Oracle Linux	6.9
Kernel	4.1.12-94.4.1.el6uek.x86_64
GI_HOME	18.2.0.0.0-180417
DB_HOME	18.2.0.0.0-180417
Oracle Auto Service Request (Oracle ASR)	5.7.7

2.3 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 2-3   Component Versions for Oracle Database Appliance X6-2-HA in 18.2

Component Name	Version
Controller_INT	4.650.00-7176
Controller_Ext	13.00.00.00
Expander	0306
SSD_LOCAL	A29A
SSD_SHARED	A29A
ILOM (Oracle Integrated Lights Out Manager)	4.0.2.26.a r123797
BIOS	38100300
IPMI (Intelligent Platform Management Interface)	1.8.12.4
HMP (Oracle Hardware Management Pack)	2.4.1.0.11
OAK	18.2
Oracle Linux	6.9
Kernel	4.1.12-112.16.8.el6uek.x86_64
GI_HOME	18.2.0.0.0-180417
DB_HOME	18.2.0.0.0-180417
Oracle Auto Service Request (Oracle ASR)	5.7.7

2.4 Component Versions for X5-2 Models

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

Table 2-4   Component Versions for Oracle Database Appliance X5-2 for 18.2

Component Name	Version
Controller_INT	4.650.00-7176
Controller_Ext	13.00.00.00
Expander	0018
SSD_LOCAL	n/a
SSD_SHARED	A29A
HDD_LOCAL	A7EO
HDD_SHARED	A3A0, PAG1
ILOM (Oracle Integrated Lights Out Manager)	4.0.2.26.a r123797
BIOS	30130400
IPMI (Intelligent Platform Management Interface)	1.8.12.4
HMP (Oracle Hardware Management Pack)	2.4.1.0.11
OAK	18.2
Oracle Linux	6.9
Kernel	4.1.12-112.16.8.el6uek.x86_64

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Table 2-4   (Cont.) Component Versions for Oracle Database Appliance X5-2 for 18.2

Component Name	Version
GI_HOME	18.2.0.0.0-180417
DB_HOME	18.2.0.0.0-180417
Oracle Auto Service Request (Oracle ASR)	5.7.7

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3

Oracle Database Appliance 18c Patches

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

Topics:

- Oracle Database Appliance X7-2S, X7-2M, and X7-2-HA Patches (page 3-1)
  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 (page 3-3)
  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 (page 3-4)
  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 (page 3-4)
  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.

3.1 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 18.2 from the release list.

Table 3-1   Oracle Database Appliance X7-2S, X7-2M, and X7-2-HA Patches for Release 18.2.0.0.0

Patch Type	Patch Number	Description	Resources
Oracle Database Appliance ISO Image for X7-2S, X7-2M	27604575	Use the ISO image to re-image the operating system for Oracle Database Appliance 18.2. Re-imaging a server installs the new OS on the local disks on that server. This patch is for Oracle Database Appliance X7-2S and X7-2M.	Re-imaging Oracle Database Appliance with an Oracle Database 18c Image
Oracle Database Appliance ISO Image for X7-2-HA	27604623	Use the ISO image to re-image the operating system for Oracle Database Appliance 18.2. Re-imaging a server installs the new OS on the local disks on that server. This patch is for Oracle Database Appliance X7-2-HA Bare Metal.	Re-imaging Oracle Database Appliance with an Oracle Database 18c Image
Oracle Database Appliance GI Clone for ODACLI/DCS stack	27604593	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 18.2 ISO Image. This patch is for Oracle Database Appliance X7-2S, X7-2M, and X7-2-HA Bare Metal.	Updating the Repository with the GI and RDBMS Files
Oracle Database Appliance RDBMS 18.2 Clone for ODACLI/DCS stack	27604558	Use to create 18.2 database homes for the ODACLI/DCS stack.	Updating the Repository with the GI and RDBMS Files

3.2 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 18.2 from the release list.

Table 3-2   Oracle Database Appliance X6-2S, X6-2M, and X6-2L Patches for Release 18.2.0.0.0

Patch Type	Patch Number	Description	Resources
Oracle Database Appliance ISO Image for X6-2S, X6-2M, and X6-2L	27604575	Use the ISO image to re-image the operating system for Oracle Database Appliance 18.2. Re-imaging a server installs the new OS on the local disks on that server. This patch is for Oracle Database Appliance X6-2S, X6-2M, and X6-2L	Re-imaging Oracle Database Appliance with an Oracle Database 18c Image
Oracle Database Appliance GI Clone for ODACLI/DCS stack	27604593	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 18.2 OS ISO Image. This patch is for Oracle Database Appliance X6-2S, X6-2M, and X6-2L.	Updating the Repository with the GI and RDBMS Files
Oracle Database Appliance RDBMS 18.2 Clone for ODACLI/DCS stack	27604558	Use to create 18.2 database homes for the ODACLI/DCS stack.	Updating the Repository with the GI and RDBMS Files

3.3 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 18.2 from the release list.

Table 3-3   Oracle Database Appliance X6-2-HA Patches for Release 18.2.0.0.0

Patch Type	Patch Number	Description	Resources
Oracle Database Appliance ISO Image for X6-2-HA	27604575	Use the ISO image to re-image the operating system for Oracle Database Appliance 18.2. Re-imaging a server installs the new OS on the local disks on that server. This patch is for Oracle Database Appliance X6-2-HA	Re-imaging Oracle Database Appliance with an Oracle Database 18c Image
Oracle Database Appliance GI Clone for ODACLI/DCS stack	27604593	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 18.2 OS ISO Image. This patch is for Oracle Database Appliance X6-2-HA.	Updating the Repository with the GI and RDBMS Files
Oracle Database Appliance RDBMS 18.2 Clone for ODACLI/DCS stack	27604558	Use to create 18.2 database homes for the ODACLI/DCS stack.	Updating the Repository with the GI and RDBMS Files

3.4 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 18.2 from the release list.

Table 3-4   Oracle Database Appliance X5-2 Patches for Release 18.2

Patch Type	Patch Number	Description	Resources
Oracle Database Appliance ISO Image for X5-2	27604575	Use the ISO image to re-image the operating system for Oracle Database Appliance 18.2. Re-imaging a server installs the new OS on the local disks on that server. This patch is for Oracle Database Appliance X5-2.	• Re-imaging Oracle Database Appliance with an Oracle Database 18c Image
Oracle Database Appliance GI Clone for ODACLI/DCS stack	27604593	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 18.2 OS ISO Image. This patch is for Oracle Database Appliance X5-2.	Updating the Repository with the GI and RDBMS Files
Oracle Database Appliance RDBMS 18.2 Clone for ODACLI/DCS stack	27604558	Use to create 18.2 database homes for the ODACLI/DCS stack.	Updating the Repository with the GI and RDBMS Files

4

Issues with the Oracle Database Appliance DCS (odacli) Stack

The following are known issues deploying, updating, and managing Oracle Database Appliance DCS stack:

- DCS-10001: Fail to run GI configtools (page 4-1)
  When deploying the appliance with VLAN, the GI configtools fail to run.

- DCS-10045:Validation error encountered: Error retrieving the cpucores (page 4-2)
  When deploying the appliance, DCS-10045 error appears. There is an error retrieving the CPU cores of the second node.

- Deployment might fail with status code 400: Unable to process JSON (page 4-2)
  In some cases, the deployment in the Web Console fails with status code 400: Unable to process JSON.

- Unable to create a test alert with internal Oracle ASR (page 4-2)
  Unable to create a test alert for Oracle Auto Service Request (ASR) that is configured with SNMP version 3.

4.1 DCS-10001: Fail to run GI configtools

When deploying the appliance with VLAN, the GI configtools fail to run.

Hardware Models

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

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

Workaround

1. Run cleanup. If the system is X7-2-HA, run the cleanup on both nodes. The script will reboot the nodes.

   ```
   #/opt/oracle/oak/onecmd/cleanup.pl
   ```

2. Create (deploy) the appliance without the DNS server.

This issue is tracked with Oracle bug 27597126.

4.2 DCS-10045:Validation error encountered: Error retrieving the cpucores

When deploying the appliance, DCS-10045 error appears. There is an error retrieving the CPU cores of the second node.

Hardware Models

Oracle Database Appliance X7-2-HA

Workaround

1. Remove the following directory in Node0: `/opt/oracle/dcs/repo/node_0`
2. Remove the following directory in Node1: `/opt/oracle/dcs/repo/node_1`
3. Restart the `dcs-agent` on both nodes.

    ```
    cd /opt/oracle/dcs/bin
    initctl stop initdcsagent
    initctl start initdcsagent
    ```

This issue is tracked with Oracle bug 27527676.

4.3 Deployment might fail with status code 400: Unable to process JSON

In some cases, the deployment in the Web Console fails with status code 400: Unable to process JSON.

Hardware Models

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

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

Workaround

Restart the `dcs-agent`, then open a new browser session to the Web Console to finish creating (deploying) the appliance.

```
cd /opt/oracle/dcs/bin
initctl stop initdcsagent
initctl start initdcsagent
```

This issue is tracked with Oracle bug 27535868.

4.4 Unable to create a test alert with internal Oracle ASR

Unable to create a test alert for Oracle Auto Service Request (ASR) that is configured with SNMP version 3.

When you configure an internal Oracle Auto Service Request (ASR) with SNMP version 3 and then generate a test, the test appears to success but the alert does not appear in the `asr.log` file.

Hardware Models

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

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

Workaround

Configure Oracle ASR to use SNMP version 2. The command `odacli test-asr` generates a test alert and updates the `asr.log` file.

This issue is tracked with Oracle bug 27596890.

A

Documentation Addendum

These topics contain corrections or additions that need to be made to published documentation.

- Setup Poster X7-2-HA (page A-1)
  Review this topic for corrections to the instructions in the Setup Poster for X7-2HA (PDF version).

A.1 Setup Poster X7-2-HA

Review this topic for corrections to the instructions in the Setup Poster for X7-2HA (PDF version).

- On Page 4, in Step D, in the procedure *3. Verify Virtual Machine Image and Cabling*, read the command as:

  ```
  /opt/oracle/oak/bin/oakcli validate -c storagetopology
  ```

- On Page 4, in Step B, in the procedure *4. Configure the Network*, read the command as:

  ```
  /opt/oracle/oak/bin/oakcli configure firstnet
  ```

- On Page 4, in Step F, in the procedure *5. Deploy ODA_BASE and Validate Storage*, read the command as:

  ```
  /opt/oracle/oak/bin/oakcli validate -c storagetopology
  ```

- On Page 4, in Step A, in the procedure *6. Deploy the Oracle Software on ODA_BASE*, read the command as:

  ```
  /opt/oracle/oak/bin/oakcli configure firstnet
  ```

- On Page 4, in Step C, in the procedure *6. Deploy the Oracle Software on ODA_BASE*, read the command as:

  ```
  vncserver
  ```

- On Page 4, in Step D, in the procedure *6. Deploy the Oracle Software on ODA_BASE*, you need not specify port 5901.

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