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</tr>
<tr>
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</tr>
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</tr>
<tr>
<td>B.2</td>
<td>OAKERR:7007 Error encountered while starting VM</td>
</tr>
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<td>B.3</td>
<td>Unrecognized Token Messages Appear in /var/log/messages</td>
</tr>
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<td>B.4</td>
<td>Unable to use driver domain virtual machines in 12.1.2.12.0</td>
</tr>
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<td>B.5</td>
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</tr>
<tr>
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</tr>
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</tr>
<tr>
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</tr>
<tr>
<td>C.1</td>
<td>Databases that are not running cannot be upgraded</td>
</tr>
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</table>
C.2   After replacing a disk, the disk is not added to Oracle ASM  
C.3   Patch zip files require concatenation
Preface

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

Audience

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

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

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

Documentation Accessibility

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

Access to Oracle Support

Oracle 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 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:

<table>
<thead>
<tr>
<th>Convention</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>boldface</strong></td>
<td>Boldface type indicates graphical user interface elements associated with an action or terms defined in the text.</td>
</tr>
<tr>
<td><em>italic</em></td>
<td>Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.</td>
</tr>
<tr>
<td><code>monospace</code></td>
<td>Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.</td>
</tr>
<tr>
<td><code># prompt</code></td>
<td>The pound (#) prompt indicates a command that is run as the root user.</td>
</tr>
</tbody>
</table>
Oracle Database Appliance X6-2-HA

Learn what's new and known issues with Oracle Database Appliance X6-2-HA.

• What's New in Oracle Database Appliance X6-2-HA
  Release 12.1.2.12.0 for Oracle Database Appliance X6-2-HA includes the latest Oracle Database release updates and Oracle Linux security updates.

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

• Issues Deploying Oracle Database Appliance X6-2-HA
  There are no known issues deploying Oracle Database Appliance X6-2-HA.

• Issues Updating Oracle Database Appliance X6-2-HA
  The following are known issues after updating Oracle Database Appliance X6-2-HA:

• Issues Managing Oracle Database Appliance X6-2-HA
  The following are known issues managing Oracle Database Appliance X6-2-HA:

1.1 What's New in Oracle Database Appliance X6-2-HA

Release 12.1.2.12.0 for Oracle Database Appliance X6-2-HA includes the latest Oracle Database release updates and Oracle Linux security updates.

The following Oracle Grid Infrastructure and Oracle RDBMS updates are in this patch release:

• Oracle Database Bundle Patch (BP) 12.1.0.2.170814
• Oracle Database Patch Set Update (PSU) 11.2.0.4.170814

Oracle Database Appliance Patch Bundle

Use patch 26433712 to update Oracle Database Appliance to release 12.1.2.12.0. The patch is available in My Oracle Support.

Related Topics:

• 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.
1.2 Component Versions for Oracle Database Appliance X6-2-HA

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

<table>
<thead>
<tr>
<th>Component Name</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Controller_INT</td>
<td>4.650.00-7176</td>
</tr>
<tr>
<td>Controller_Ext</td>
<td>13.00.00.00-000B</td>
</tr>
<tr>
<td>Expander</td>
<td>0029</td>
</tr>
<tr>
<td>SSD_LOCAL</td>
<td>A29A</td>
</tr>
<tr>
<td>SSD_SHARED</td>
<td>A29A</td>
</tr>
<tr>
<td>ILOM (Oracle Integrated Lights Out Manager)</td>
<td>3.2.9.23 es r116695</td>
</tr>
<tr>
<td>BIOS</td>
<td>38070200</td>
</tr>
<tr>
<td>IPMI (Intelligent Platform Management Interface)</td>
<td>1.8.12.4</td>
</tr>
<tr>
<td>HMP (Oracle Hardware Management Pack)</td>
<td>2.3.5.2.8</td>
</tr>
<tr>
<td>OAK</td>
<td>12.1.2.12.0</td>
</tr>
<tr>
<td>Oracle Linux</td>
<td>6.8</td>
</tr>
<tr>
<td>Kernel</td>
<td>4.1.12-94.3.9.el6uek.x86_64</td>
</tr>
<tr>
<td>OVS (Oracle VM Server)</td>
<td>3.4.3</td>
</tr>
<tr>
<td>Dom0 Kernel</td>
<td>4.1.12-94.3.9.el6uek.x86_64</td>
</tr>
<tr>
<td>GI_HOME</td>
<td>12.1.0.2.170814</td>
</tr>
<tr>
<td>DB_HOME</td>
<td>12.1.0.2.170814</td>
</tr>
<tr>
<td>Oracle Auto Service Request (Oracle ASR)</td>
<td>5.5.1</td>
</tr>
</tbody>
</table>

1.3 Issues Deploying Oracle Database Appliance X6-2-HA

There are no known issues deploying Oracle Database Appliance X6-2-HA.

1.4 Issues Updating Oracle Database Appliance X6-2-HA

The following are known issues after updating Oracle Database Appliance X6-2-HA:

- Unable to use driver domain virtual machines on version 12.1.2.12
- Virtual Machine Task Blocked
- Unrecognized token messages appear in /var/log/messages
- ERROR: ORA-27301 ASM alert error log shows resource problem in the OS
1.5 Issues Managing Oracle Database Appliance X6-2-HA

The following are known issues managing Oracle Database Appliance X6-2-HA:

- ODA_BASE is in read-only mode or cannot start
- OAKERR:7007 Error encountered while starting VM
Oracle Database Appliance X6-2S, X6-2M, and X6-2L

Learn more about what's new and known issues with Oracle Database Appliance X6-2S, X6-2M, and X6-2L.

• What's New for Oracle Database Appliance X6-2S, X6-2M, and X6-2L
  Release 12.1.2.12.0 for Oracle Database Appliance X6-2S, X6-2M, and X6-2L includes the latest Oracle Database release updates, Oracle Linux security updates, and the Oracle Linux RPM package for the KVM Virtualization Manager.

• 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.

• Issues Deploying Oracle Database Appliance X6-2S, X6-2M, or X6-2L
  There are no known issues deploying Oracle Database Appliance X6-2S, X6-2M, or X6-2L.

• Issues Updating Oracle Database Appliance X6-2S, X6-2M, and X6-2L
  The following is an issue updating Oracle Database Appliance X6-2S, X6-2M or X6-2L:

• Issues Managing Oracle Database Appliance X6-2S, X6-2M, and X6-2L
  The following are known issues managing Oracle Database Appliance X6-2S, X6-2M, and X6-2L:

2.1 What's New for Oracle Database Appliance X6-2S, X6-2M, and X6-2L

Release 12.1.2.12.0 for Oracle Database Appliance X6-2S, X6-2M, and X6-2L includes the latest Oracle Database release updates, Oracle Linux security updates, and the Oracle Linux RPM package for the KVM Virtualization Manager.

The following Oracle Grid Infrastructure and Oracle RDBMS updates are in this patch release:

• Oracle Database Bundle Patch (BP) 12.1.0.2.170814
• Oracle Database Patch Set Update (PSU) 11.2.0.4.170814

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

Use patch 26433721 to update Oracle Database Appliance to release 12.1.2.12.0. The patch is available in My Oracle Support and consists of two zip files. You must concatenate the two zip files before updating the repository.
Related Topics:

- 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.

- Updating Oracle Database Appliance Software

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 2-1 Component Versions for Oracle Database Appliance X6-2S, X6-2M, and X6-2L in 12.1.2.12.0

<table>
<thead>
<tr>
<th>Component Name</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Controller</td>
<td>KPYAGR3Q</td>
</tr>
<tr>
<td>NVME</td>
<td>KPYAGR3Q</td>
</tr>
<tr>
<td>OS Disk</td>
<td>GXM10R3Q</td>
</tr>
<tr>
<td>ILOM (Oracle Integrated Lights Out Manager)</td>
<td>3.2.9.23 es r116695</td>
</tr>
<tr>
<td>BIOS</td>
<td>X6-2S, X6-2M: 38070200</td>
</tr>
<tr>
<td></td>
<td>X6-2L: 39070200</td>
</tr>
<tr>
<td>IPMI (Intelligent Platform Management Interface)</td>
<td>1.8.12.4</td>
</tr>
<tr>
<td>HMP (Oracle Hardware Management Pack)</td>
<td>2.3.5.2.8</td>
</tr>
<tr>
<td>OAK</td>
<td>12.1.2.12.0</td>
</tr>
<tr>
<td>Oracle Linux</td>
<td>6.8</td>
</tr>
<tr>
<td>Kernel</td>
<td>4.1.12-94.3.9.el6uek.x86_64</td>
</tr>
<tr>
<td>GI_HOME</td>
<td>12.1.0.2.170814</td>
</tr>
<tr>
<td>DB_HOME</td>
<td>12.1.0.2.170814</td>
</tr>
<tr>
<td>Oracle Auto Service Request (Oracle ASR)</td>
<td>5.5.1</td>
</tr>
</tbody>
</table>

2.3 Issues Deploying Oracle Database Appliance X6-2S, X6-2M, or X6-2L

There are no known issues deploying Oracle Database Appliance X6-2S, X6-2M, or X6-2L.

2.4 Issues Updating Oracle Database Appliance X6-2S, X6-2M, and X6-2L

The following is an issue updating Oracle Database Appliance X6-2S, X6-2M or X6-2L:
• Patch zip files require concatenation

2.5 Issues Managing Oracle Database Appliance X6-2S, X6-2M, and X6-2L

The following are known issues managing Oracle Database Appliance X6-2S, X6-2M, and X6-2L:

• Databases that are not running cannot be upgraded
• After replacing a disk, the disk is not added to Oracle ASM
Oracle Database Appliance X5-2

Learn what's new and known issues with Oracle Database Appliance X5-2.

• **What's New for Oracle Database Appliance X5-2**
  Release 12.1.2.12.0 for Oracle Database Appliance X5-2 includes the latest Oracle Database release updates and Oracle Linux security updates.

• **Component Versions for Oracle Database Appliance X5-2**
  The matrix displays the component versions available for Oracle Database Appliance X5-2.

• **Issues Deploying Oracle Database Appliance X5-2**
  There are no known issues deploying Oracle Database Appliance X5-2.

• **Issues Updating Oracle Database Appliance X5-2**
  The following are known issues after updating Oracle Database Appliance X5-2:

• **Issues Managing Oracle Database Appliance X5-2**
  The following are known issues managing Oracle Database Appliance X5-2:

### 3.1 What's New for Oracle Database Appliance X5-2

Release 12.1.2.12.0 for Oracle Database Appliance X5-2 includes the latest Oracle Database release updates and Oracle Linux security updates.

The following Oracle Grid Infrastructure and Oracle RDBMS updates are in this patch release:

• Oracle Database Bundle Patch (BP) 12.1.0.2.170814
• Oracle Database Patch Set Update (PSU) 11.2.0.4.170814

**Oracle Database Appliance Bundle Patch**

Use patch 26433712 to update Oracle Database Appliance to release 12.1.2.12.0. The patch is available in My Oracle Support.

**Related Topics:**

• **Oracle Database Appliance X5-2, X4-2, X3-2, and V1 Patches**
  Download the patches available for Oracle Database Appliance X5-2, X4-2, X3-2, and V1 in My Oracle Support, get information on the prerequisites, and how to apply the patches.

• **Installing the Oracle Database Appliance Patch Bundle**
3.2 Component Versions for Oracle Database Appliance X5-2

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

<table>
<thead>
<tr>
<th>Component Name</th>
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<td>Controller_Ext</td>
<td>13.00.00.00-000B</td>
</tr>
<tr>
<td>Expander</td>
<td>0018</td>
</tr>
<tr>
<td>SSD_LOCAL</td>
<td>n/a</td>
</tr>
<tr>
<td>SSD_SHARED</td>
<td>A29A</td>
</tr>
<tr>
<td>HDD_LOCAL</td>
<td>A7EO</td>
</tr>
<tr>
<td>HDD_SHARED</td>
<td>A3A0, PAG1</td>
</tr>
<tr>
<td>ILOM (Oracle Integrated Lights Out Manager)</td>
<td>3.2.9.23 es r116695</td>
</tr>
<tr>
<td>BIOS</td>
<td>30110000</td>
</tr>
<tr>
<td>IPMI (Intelligent Platform Management Interface)</td>
<td>1.8.12.4</td>
</tr>
<tr>
<td>HMP (Oracle Hardware Management Pack)</td>
<td>2.3.5.2.8</td>
</tr>
<tr>
<td>OAK</td>
<td>12.1.2.12.0</td>
</tr>
<tr>
<td>Oracle Linux</td>
<td>6.8</td>
</tr>
<tr>
<td>Kernel</td>
<td>4.1.12-94.3.9.el6uek.x86_64</td>
</tr>
<tr>
<td>OVS (Oracle VM Server)</td>
<td>3.4.3</td>
</tr>
<tr>
<td>Dom0 Kernel</td>
<td>4.1.12-94.3.9.el6uek.x86_64</td>
</tr>
<tr>
<td>GI_HOME</td>
<td>12.1.0.2.170814</td>
</tr>
<tr>
<td>DB_HOME</td>
<td>12.1.0.2.170814</td>
</tr>
<tr>
<td>Oracle Auto Service Request (Oracle ASR)</td>
<td>5.5.1</td>
</tr>
</tbody>
</table>

3.3 Issues Deploying Oracle Database Appliance X5-2

There are no known issues deploying Oracle Database Appliance X5-2.

3.4 Issues Updating Oracle Database Appliance X5-2

The following are known issues after updating Oracle Database Appliance X5-2:

- Unable to use driver domain virtual machines on version 12.1.2.12
- Virtual Machine Task Blocked
- Unrecognized token messages appear in /var/log/messages
- ERROR: ORA-27301 ASM alert error log shows resource problem in the OS
3.5 Issues Managing Oracle Database Appliance X5-2

The following are known issues managing Oracle Database Appliance X5-2:

- ODA_BASE is in read-only mode or cannot start
- OAKERR:7007 Error encountered while starting VM
Oracle Database Appliance X4-2

Learn what's new and known issues with Oracle Database Appliance X4-2.

- **What's New in Oracle Database Appliance X4-2**
  Release 12.1.2.12.0 for Oracle Database Appliance X4-2 includes the latest Oracle Database release updates and Oracle Linux security updates.

- **Component Versions for Oracle Database Appliance X4-2**
  The matrix displays the component versions available for Oracle Database Appliance X4-2.

- **Issues Deploying Oracle Database Appliance X4-2**
  There are no known issues deploying Oracle Database Appliance X4-2.

- **Issues Updating Oracle Database Appliance X4-2**
  The following are known issues after updating Oracle Database Appliance X4-2.

- **Issues Managing Oracle Database Appliance X4-2**
  The following are known issues managing Oracle Database Appliance X4-2:

### 4.1 What's New in Oracle Database Appliance X4-2

Release 12.1.2.12.0 for Oracle Database Appliance X4-2 includes the latest Oracle Database release updates and Oracle Linux security updates.

The following Oracle Grid Infrastructure and Oracle RDBMS updates are in this patch release:

- Oracle Database Bundle Patch (BP) 12.1.0.2.170814
- Oracle Database Patch Set Update (PSU) 11.2.0.4.170814

**Oracle Database Appliance Patch Bundle**

Use patch 26433712 to update Oracle Database Appliance to release 12.1.2.12.0. The patch is available in My Oracle Support.

**Related Topics:**

- **Oracle Database Appliance X5-2, X4-2, X3-2, and V1 Patches**
  Download the patches available for Oracle Database Appliance X5-2, X4-2, X3-2, and V1 in My Oracle Support, get information on the prerequisites, and how to apply the patches.

- Installing the Oracle Database Appliance Patch Bundle
4.2 Component Versions for Oracle Database Appliance X4-2

The matrix displays the component versions available for Oracle Database Appliance X4-2.

Table 4-1 Component Versions for Oracle Database Appliance X4-2 in 12.1.2.12.0

<table>
<thead>
<tr>
<th>Component Name</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Controller_INT</td>
<td>11.05.03.00</td>
</tr>
<tr>
<td>Controller_Ext</td>
<td>11.05.03.00</td>
</tr>
<tr>
<td>Expander</td>
<td>0018</td>
</tr>
<tr>
<td>SSD_LOCAL</td>
<td>n/a</td>
</tr>
<tr>
<td>SSD_SHARED</td>
<td>944A</td>
</tr>
<tr>
<td>HDD_LOCAL</td>
<td>A7EO</td>
</tr>
<tr>
<td>HDD_SHARED</td>
<td>A7EO</td>
</tr>
<tr>
<td>iLOM (Oracle Integrated Lights Out Manager)</td>
<td>3.2.9.22 es r115963</td>
</tr>
<tr>
<td>BIOS</td>
<td>25040100</td>
</tr>
<tr>
<td>IPMI (Intelligent Platform Management Interface)</td>
<td>1.8.12.4</td>
</tr>
<tr>
<td>HMP (Oracle Hardware Management Pack)</td>
<td>2.3.5.2.8</td>
</tr>
<tr>
<td>OAK</td>
<td>12.1.2.12.0</td>
</tr>
<tr>
<td>Oracle Linux</td>
<td>6.8</td>
</tr>
<tr>
<td>Kernel</td>
<td>4.1.12-94.3.9.el6uek.x86_64</td>
</tr>
<tr>
<td>OVS (Oracle VM Server)</td>
<td>3.4.3</td>
</tr>
<tr>
<td>Dom0 Kernel</td>
<td>4.1.12-94.3.9.el6uek.x86_64</td>
</tr>
<tr>
<td>GI_HOME</td>
<td>12.1.0.2.170814</td>
</tr>
<tr>
<td>DB_HOME</td>
<td>12.1.0.2.170814</td>
</tr>
<tr>
<td>Oracle Auto Service Request (Oracle ASR)</td>
<td>5.5.1</td>
</tr>
</tbody>
</table>

4.3 Issues Deploying Oracle Database Appliance X4-2

There are no known issues deploying Oracle Database Appliance X4-2.
4.4 Issues Updating Oracle Database Appliance X4-2

The following are known issues after updating Oracle Database Appliance X4-2:

- Unable to use driver domain virtual machines on version 12.1.2.12
- Virtual Machine Task Blocked
- ERROR: ORA-27301 ASM alert error log shows resource problem in the OS

4.5 Issues Managing Oracle Database Appliance X4-2

The following are known issues managing Oracle Database Appliance X4-2:

- ODA_BASE is in read-only mode or cannot start
- OAKERR:7007 Error encountered while starting VM
Oracle Database Appliance X3-2

Learn what's new and known issues for Oracle Database Appliance X3-2.

- **What's New for Oracle Database Appliance X3-2**
  Release 12.1.2.12.0 for Oracle Database Appliance X3-2 includes the latest Oracle Database release updates and Oracle Linux security updates.

- **Component Versions for Oracle Database Appliance X3-2**
  The matrix displays the component versions available for Oracle Database Appliance X3-2.

- **Issues Deploying Oracle Database Appliance X3-2**
  There are no known issues deploying Oracle Database Appliance X3-2.

- **Issues Updating Oracle Database Appliance X3-2**
  The following are known issues after updating Oracle Database Appliance X3-2.

- **Issues Managing Oracle Database Appliance X3-2**
  The following are known issues managing Oracle Database Appliance X3-2:

### 5.1 What's New for Oracle Database Appliance X3-2

Release 12.1.2.12.0 for Oracle Database Appliance X3-2 includes the latest Oracle Database release updates and Oracle Linux security updates.

The following Oracle Grid Infrastructure and Oracle RDBMS updates are in this patch release:

- Oracle Database Bundle Patch (BP) 12.1.0.2.170814
- Oracle Database Patch Set Update (PSU) 11.2.0.4.170814

**Oracle Database Appliance Patch Bundle**

Use patch 26433712 to update Oracle Database Appliance to release 12.1.2.12.0. The patch is available in My Oracle Support.

**Related Topics:**

- Oracle Database Appliance X5-2, X4-2, X3-2, and V1 Patches
  Download the patches available for Oracle Database Appliance X5-2, X4-2, X3-2, and V1 in My Oracle Support, get information on the prerequisites, and how to apply the patches.

- Installing the Oracle Database Appliance Patch Bundle
5.2 Component Versions for Oracle Database Appliance X3-2

The matrix displays the component versions available for Oracle Database Appliance X3-2.

Table 5-1    Component Versions for Oracle Database Appliance X3-2 in 12.1.2.12.0

<table>
<thead>
<tr>
<th>Component Name</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Controller_INT</td>
<td>11.05.03.00</td>
</tr>
<tr>
<td>Controller_Ext</td>
<td>11.05.03.00</td>
</tr>
<tr>
<td>Expander</td>
<td>0018</td>
</tr>
<tr>
<td>SSD_LOCAL</td>
<td>n/a</td>
</tr>
<tr>
<td>SSD_SHARED</td>
<td>944A</td>
</tr>
<tr>
<td>HDD_LOCAL</td>
<td>A4C0</td>
</tr>
<tr>
<td>HDD_SHARED</td>
<td>A7EO</td>
</tr>
<tr>
<td>ILOM (Oracle Integrated Lights Out Manager)</td>
<td>3.2.9.22 es r115963</td>
</tr>
<tr>
<td>BIOS</td>
<td>17120100</td>
</tr>
<tr>
<td>IPMI (Intelligent Platform Management Interface)</td>
<td>1.8.12.4</td>
</tr>
<tr>
<td>HMP (Oracle Hardware Management Pack)</td>
<td>2.3.5.2.8</td>
</tr>
<tr>
<td>OAK</td>
<td>12.1.2.12.0</td>
</tr>
<tr>
<td>Oracle Linux</td>
<td>6.8</td>
</tr>
<tr>
<td>Kernel</td>
<td>4.1.12-94.3.9.el6uek.x86_64</td>
</tr>
<tr>
<td>OVS (Oracle VM Server)</td>
<td>3.4.3</td>
</tr>
<tr>
<td>Dom0 Kernel</td>
<td>4.1.12-94.3.9.el6uek.x86_64</td>
</tr>
<tr>
<td>GI_HOME</td>
<td>12.1.0.2.170814</td>
</tr>
<tr>
<td>DB_HOME</td>
<td>12.1.0.2.170814</td>
</tr>
<tr>
<td>Oracle Auto Service Request (Oracle ASR)</td>
<td>5.5.1</td>
</tr>
</tbody>
</table>

5.3 Issues Deploying Oracle Database Appliance X3-2

There are no known issues deploying Oracle Database Appliance X3-2.

5.4 Issues Updating Oracle Database Appliance X3-2

The following are known issues after updating Oracle Database Appliance X3-2.

- Unable to use driver domain virtual machines on version 12.1.2.12
- Virtual Machine Task Blocked
- ERROR: ORA-27301 ASM alert error log shows resource problem in the OS
5.5 Issues Managing Oracle Database Appliance X3-2

The following are known issues managing Oracle Database Appliance X3-2:

- ODA_BASE is in read-only mode or cannot start
- OAKERR:7007 Error encountered while starting VM
Oracle Database Appliance V1

Learn what's new and known issues for Oracle Database Appliance V1.

- **What's New for Oracle Database Appliance V1**
  Release 12.1.2.12.0 for Oracle Database Appliance V1 includes the latest Oracle Database release updates and Oracle Linux security updates.

- **Component Versions for Oracle Database Appliance V1**
  The matrix displays the component versions available for Oracle Database Appliance V1 in the 12.1.2.12.0 release.

- **Issues Deploying Oracle Database Appliance V1**
  There are no known issues deploying Oracle Database Appliance.

- **Issues Updating Oracle Database Appliance V1**
  The following are known issues after updating Oracle Database Appliance V1.

- **Issues Managing Oracle Database Appliance V1**
  The following are known issues managing Oracle Database Appliance V1:

### 6.1 What's New for Oracle Database Appliance V1

Release 12.1.2.12.0 for Oracle Database Appliance V1 includes the latest Oracle Database release updates and Oracle Linux security updates.

The following Oracle Grid Infrastructure and Oracle RDBMS updates are in this patch release:

- Oracle Database Bundle Patch (BP) 12.1.0.2.170814
- Oracle Database Patch Set Update (PSU) 11.2.0.4.170814

**Oracle Database Appliance Patch Bundle**

Use patch 26433712 to update Oracle Database Appliance to release 12.1.2.12.0. The patch is available in My Oracle Support.

**Related Topics:**

- **Oracle Database Appliance X5-2, X4-2, X3-2, and V1 Patches**
  Download the patches available for Oracle Database Appliance X5-2, X4-2, X3-2, and V1 in My Oracle Support, get information on the prerequisites, and how to apply the patches.

- **Installing the Oracle Database Appliance Patch Bundle**
6.2 Component Versions for Oracle Database Appliance V1

The matrix displays the component versions available for Oracle Database Appliance V1 in the 12.1.2.12.0 release.

**Table 6-1 Component Versions for Oracle Database Appliance V1 in 12.1.2.12.0**

<table>
<thead>
<tr>
<th>Component Name</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Controller_INT</td>
<td>11.05.03.00</td>
</tr>
<tr>
<td>Controller_Ext</td>
<td>n/a</td>
</tr>
<tr>
<td>Expander</td>
<td>0342</td>
</tr>
<tr>
<td>SSD_LOCAL</td>
<td>n/a</td>
</tr>
<tr>
<td>SSD_SHARED</td>
<td>E12B</td>
</tr>
<tr>
<td>HDD_LOCAL</td>
<td>SF04, SA03</td>
</tr>
<tr>
<td>HDD_SHARED</td>
<td>0B25, A880</td>
</tr>
<tr>
<td>ILOM (Oracle Integrated Lights Out Manager)</td>
<td>3.0.16.22.f r110119</td>
</tr>
<tr>
<td>BIOS</td>
<td>12010311</td>
</tr>
<tr>
<td>IPMI (Intelligent Platform Management Interface)</td>
<td>1.8.12.4</td>
</tr>
<tr>
<td>HMP (Oracle Hardware Management Pack)</td>
<td>2.3.5.2.8</td>
</tr>
<tr>
<td>OAK</td>
<td>12.1.2.12.0</td>
</tr>
<tr>
<td>Oracle Linux</td>
<td>6.8</td>
</tr>
<tr>
<td>Kernel</td>
<td>4.1.12-94.3.9.el6uek.x86_64</td>
</tr>
<tr>
<td>OVS (Oracle VM Server)</td>
<td>3.4.3</td>
</tr>
<tr>
<td>Dom0 Kernel</td>
<td>4.1.12-94.3.9.el6uek.x86_64</td>
</tr>
<tr>
<td>GI_HOME</td>
<td>12.1.0.2.170814</td>
</tr>
<tr>
<td>DB_HOME</td>
<td>12.1.0.2.170814</td>
</tr>
<tr>
<td>Oracle Auto Service Request (Oracle ASR)</td>
<td>5.5.1</td>
</tr>
</tbody>
</table>

6.3 Issues Deploying Oracle Database Appliance V1

There are no known issues deploying Oracle Database Appliance.

6.4 Issues Updating Oracle Database Appliance V1

The following are known issues after updating Oracle Database Appliance V1.

- Unable to use driver domain virtual machines on version 12.1.2.12
- Virtual Machine Task Blocked
- ERROR: ORA-27301 ASM alert error log shows resource problem in the OS
6.5 Issues Managing Oracle Database Appliance V1

The following are known issues managing Oracle Database Appliance V1:

• **ODA_BASE** is in read-only mode or cannot start
• **OAKERR:7007** Error encountered while starting VM
Oracle Database Appliance Patches

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

Topics:

• **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 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 X5-2, X4-2, X3-2, and V1 Patches**
  Download the patches available for Oracle Database Appliance X5-2, X4-2, X3-2, and V1 in My Oracle Support, get information on the prerequisites, and how to apply the patches.

**A.1 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 12.1.2.12.0 from the release list.

<table>
<thead>
<tr>
<th>Table A-1</th>
<th>Oracle Database Appliance X6-2-HA Patches</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patch Type</strong></td>
<td><strong>Patch Number</strong></td>
</tr>
<tr>
<td>Oracle Database Appliance Patch Bundle for 12.1.2.12.0</td>
<td>26433712</td>
</tr>
<tr>
<td>Patch Type</td>
<td>Patch Number</td>
</tr>
<tr>
<td>-----------------------------------------------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>Oracle Database Appliance End User Bundle with GI+Database Clone</td>
<td>12978712</td>
</tr>
<tr>
<td>VM ISO Image (DOM0)</td>
<td>16186163</td>
</tr>
<tr>
<td>VM Template (ODA_BASE)</td>
<td>16186172</td>
</tr>
<tr>
<td>Patch Type</td>
<td>Patch Number</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>End User RDBMS Clone file</td>
<td>19520042</td>
</tr>
<tr>
<td>for 12.1.0.2.170814</td>
<td></td>
</tr>
<tr>
<td>End User RDBMS Clone file</td>
<td>17770873</td>
</tr>
<tr>
<td>for 11.2.0.4.170814</td>
<td></td>
</tr>
<tr>
<td>ISO Image</td>
<td>12999313</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**A.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 12.1.2.12.0 from the release list.
<table>
<thead>
<tr>
<th>Patch Type</th>
<th>Patch Number</th>
<th>Description</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oracle Database Appliance patch bundle for 12.1.2.12.0</td>
<td>26433721</td>
<td>Use this patch bundle to update to the latest release after Oracle Database Appliance is deployed. The patch updates the Oracle Database Appliance server, storage, and database components.</td>
<td>Updating Oracle Database Appliance Software</td>
</tr>
<tr>
<td>GI Clone</td>
<td>23494985 From the list, select 12.1.2.12.0</td>
<td>Use to perform an initial deployment of Oracle Database Appliance. The bundle contains the latest Grid Infrastructure and RDBMS components for deployment on an Oracle Database Appliance in the &quot;shipped from factory&quot; state, or an Oracle Database Appliance that has been re-imaged using the OS ISO Image. If Oracle Database Appliance is already deployed, use the Oracle Database Appliance patch bundle to update to the latest release.</td>
<td>Deploying Oracle Database Appliance</td>
</tr>
<tr>
<td>End-User RDBMS Clone files for Oracle Database 12.1.0.2</td>
<td>23494992</td>
<td>Use the Oracle 12.1.0.2.170814 RDBMS Software Clone file to create new 12.1.0.2 database homes.</td>
<td>Downloading an End-User RDBMS Clone File</td>
</tr>
<tr>
<td>End-User RDBMS Clone files for Oracle Database 11.2.0.4</td>
<td>23494997</td>
<td>Use the Oracle 11.2.0.4.170814 RDBMS Software Clone file to create new 11.2.0.4 database homes.</td>
<td>Downloading an End-User RDBMS Clone File</td>
</tr>
</tbody>
</table>
### Table A-2  (Cont.) Oracle Database Appliance X6-2S, X6-2M, and X6-2L Patches

<table>
<thead>
<tr>
<th>Patch Type</th>
<th>Patch Number</th>
<th>Description</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Optional) ISO Image</td>
<td>23530609</td>
<td>Use the ISO image only when you must re-image the operating system to perform a bare metal restore (re-image) of the operating system. Re-imaging a server installs the new OS on the local disks on that server. Bare metal is a non-virtualized Oracle Database Appliance configuration.</td>
<td>Performing a Bare Metal Restore</td>
</tr>
</tbody>
</table>

**Related Topics:**
- Issues Updating Oracle Database Appliance X6-2S, X6-2M, and X6-2L
  The following is an issue updating Oracle Database Appliance X6-2S, X6-2M or X6-2L:

### A.3 Oracle Database Appliance X5-2, X4-2, X3-2, and V1 Patches

Download the patches available for Oracle Database Appliance X5-2, X4-2, X3-2, and V1 in My Oracle Support, get information on the prerequisites, and how to apply the patches.

When downloading a patch from My Oracle Support, select 12.1.2.12.0 from the release list.

### Table A-3  Oracle Database Appliance X5-2, X4-2, X3-2, and V1 Patches

<table>
<thead>
<tr>
<th>Patch Type</th>
<th>Patch Number</th>
<th>Description</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oracle Database Appliance patch bundle for 12.1.2.12.0</td>
<td>26433712</td>
<td>Use to patch, or update, the Oracle Database Appliance server, storage, and database components.</td>
<td>Installing the Oracle Database Appliance Patch Bundle</td>
</tr>
<tr>
<td>Patch Type</td>
<td>Patch Number</td>
<td>Description</td>
<td>Resources</td>
</tr>
<tr>
<td>------------------------------------------------</td>
<td>--------------</td>
<td>------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Oracle Database Appliance End User Bundle with GI + Database Clone</td>
<td>12978712</td>
<td>Use to perform an initial deployment of the Oracle Database Appliance. The bundle contains the latest Grid Infrastructure and RDBMS components for deployment on an Oracle Database Appliance in the &quot;shipped from factory&quot; state, or an Oracle Database Appliance that has been re-imaged using the OS ISO Image. If Oracle Database Appliance is already deployed, use the Oracle Database Appliance patch bundle to update to the latest release.</td>
<td>Deploying Bare Metal Platforms on Oracle Database Appliance</td>
</tr>
<tr>
<td>VM ISO Image (DOM0)</td>
<td>16186163</td>
<td>Re-images Oracle Database Appliance as a Virtualized Platform.</td>
<td>Deploying Virtualized Platforms on Oracle Database Appliance</td>
</tr>
<tr>
<td>VM Template (ODA_BASE)</td>
<td>16186172</td>
<td>Use to deploy ODA_Base for the virtualized platform. Includes the GI + Database clone files for deployment.</td>
<td>Deploying Virtualized Platforms on Oracle Database Appliance</td>
</tr>
<tr>
<td>End User RDBMS Clone file for 12.1.0.2.170814</td>
<td>19520042</td>
<td>Use to create new 12.1.0.2.170814 database homes.</td>
<td>How to Upgrade and Update the Oracle Database on Oracle Database Appliance</td>
</tr>
<tr>
<td>End User RDBMS Clone file for 11.2.0.4.170814</td>
<td>17770873</td>
<td>Use to create new 11.2.0.4.170814 database homes.</td>
<td>How to Upgrade and Update the Oracle Database on Oracle Database Appliance</td>
</tr>
</tbody>
</table>
### Table A-3  (Cont.) Oracle Database Appliance X5-2, X4-2, X3-2, and V1 Patches

<table>
<thead>
<tr>
<th>Patch Type</th>
<th>Patch Number</th>
<th>Description</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>End User RDBMS Clone file</td>
<td>14777276</td>
<td>Use to create new 11.2.0.3.15 database homes.</td>
<td>How to Upgrade and Update the Oracle Database on Oracle Database Appliance</td>
</tr>
<tr>
<td>for 11.2.0.3.15</td>
<td></td>
<td>The End User RDBMS Clone file for 11.2.0.3.15 is supported for X5-2, X4-2,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>X3-2, and V1 running Appliance Manager releases greater than 12.1.2.4.</td>
<td></td>
</tr>
<tr>
<td>End-User RDBMS Clone files</td>
<td>14349293</td>
<td>Use to create new 11.2.0.2.12 database homes.</td>
<td>How to Upgrade and Update the Oracle Database on Oracle Database Appliance</td>
</tr>
<tr>
<td>for Oracle Database 11.2.0.2.12</td>
<td></td>
<td>The End User RDBMS Clone file for 11.2.0.2.12 is supported for X4-2, X3-2,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>and V1 running Appliance Manager releases greater than 12.1.2.4. Oracle</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Database 11.2.0.2 is not supported for Oracle Database Appliance X5-2.</td>
<td></td>
</tr>
<tr>
<td>(Optional) ISO Image</td>
<td>12999313</td>
<td>Re-imaging a server installs the new OS on the local disks on that server.</td>
<td>Performing a Bare Metal Restore</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Use only when you must re-image the operating system to perform a bare</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>metal restore (re-image) of the operating system.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bare metal is a non-virtualized Oracle Database Appliance configuration.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>You must apply the GI Clone patch using the --server option to update</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ILOM, BIOS, Controller, Expander, disk firmware, and other components</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>after re-imaging.</td>
<td></td>
</tr>
</tbody>
</table>
Caution:

Use of any 11.2 database on Oracle ASM with Oracle Database Appliance X5-2 is subject to data corruption. If you used OAK 12.1.2.2 to create any 11.2.0.2.x or 11.2.0.3.x databases on Oracle Database Appliance X5-2, you must immediately migrate to 11.2.0.4.x or 12.1.0.2.x on ACFS.
Issues with Oracle Database Appliance
X6-2-HA, X5-2, X4-2, X3-2, and V1

The following are known issues deploying, updating, and managing Oracle Database Appliance X6-2-HA, X5-2, X4-2, X3-2, and V1:

- **ODA_BASE is in read-only mode or cannot start**
  The /ovs directory is full and ODA_BASE is in read-only mode.

- **OAKERR:7007 Error encountered while starting VM**
  When starting a virtual machine (VM), an error message appears that the domain does not exist.

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

- **Unable to use driver domain virtual machines in 12.1.2.12.0**
  Driver domain virtual machines are unable to access vdisk after upgrading to Oracle Database Appliance 12.1.2.12.0.

- **Virtual machine task blocked**
  After updating to Oracle Database Appliance 12.1.2.11.0, the IOs to local disks can get stuck and block tasks.

- **ERROR: ORA-27301 ASM alert error log shows resource problem in the OS**
  After upgrading to Oracle Database Appliance 12.1.2.11.0, the ASM alert error log shows failed processes due to a resource problem in the operating system.

- **High Availability IP (HAIP) addresses are not supported**
  High Availability IP (HAIP) addresses are not supported on Oracle engineered systems.

- **Upgrading an SE database results in an error: Failed to run datapatch**
  After successfully upgrading an Oracle Database Standard Edition (SE) to 12.1.0.2, the following error appears in the log file: Failed to run datapatch

B.1 ODA_BASE is in read-only mode or cannot start

The /ovs directory is full and ODA_BASE is in read-only mode.

The vmcore file in the /ovs/var directory can cause the /ovs directory (Dom 0) to become 100% used. When Dom 0 is full, ODA_BASE is in read-only mode or cannot start.

**Hardware Models**

Oracle Database Appliance X6-2-HA, X5-2, X4-2, X3-2, and V1

**Workaround**

Perform the following to correct or prevent this issue:
- Periodically check the file usage on Dom 0 and clean up the vmcore file, as needed.
- Edit the oda_base vm.cfg file and change the on_crash = 'coredump-restart' parameter to on_crash = 'restart'. Especially when ODA_BASE is using more than 200 GB (gigabytes) of memory.

### B.2 OAKERR:7007 Error encountered while starting VM

When starting a virtual machine (VM), an error message appears that the domain does not exist.

If a VM was cloned in Oracle Database Appliance 12.1.2.10 or earlier, you cannot start the HVM domain VMs in Oracle Database Appliance 12.1.2.11.

This issue does not impact newly cloned VMs in Oracle Database Appliance 12.1.2.11 or any other type of VM cloned on older versions. The vm templates were fixed in 12.1.2.11.0.

When trying to start the VM (`vm4` in this example), the output is similar to the following:

```
# oakcli start vm vm4 -d
Start VM : test on Node Number : 0 failed.
DETAILS:
  Attempting to start vm on node:0=>FAILED.
<OAKERR:7007 Error encountered while starting VM - Error: Domain 'vm4' does not exist.>
```

The following is an example of the `vm.cfg` file for `vm4`:

```
vif = ['']
name = 'vm4'
extra = 'NODENAME=vm4'
builder = 'hvm'
cpus = '0,1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23'
vcpus = 2
memory = 2048
cpu_cap = 0
vnc = 1
serial = 'pty'
disk =
  [u'file:/OVS/Repositories/odarepo1/VirtualMachines/vm4/68c32afe2ba8493e89f018a70c64ea.img,xvda,w']
maxvcpus = 2
maxmem = 2048
```

### Hardware Models

**Oracle Database Appliance X6-2-HA, X5-2, X4-2, X3-2, and V1**

### Workaround

Delete the extra = 'NODENAME=vm_name' line from the `vm.cfg` file for the VM that failed to start.

1. Open the `vm.cfg` file for the virtual machine (vm) that failed to start.
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.

```bash
cat /etc/opensm/opensm.conf  | egrep -w
'max_seq_redisc|rereg_on_guid_migr|aguid_inout_notice|sm_assign_guid_func|repos
ts|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.

**B.4 Unable to use driver domain virtual machines in 12.1.2.12.0**

Driver domain virtual machines are unable to access vdisk after upgrading to Oracle Database Appliance 12.1.2.12.0.

Using driver domain functionality results in the following error in version 12.1.2.12:

```
end_request: I/O error, dev xvdb, sector 0
__ratelimit: 2 callbacks suppressed
Buffer I/O error on device xvdb, logical block 0
```

The issue is the result of a check for minimum IO block size for loopback devices that was added in UEK kernel 4.1.12-94.3.9.el6uek.x86_64.

**Hardware Models**

Oracle Database Appliance X6-2-HA, X5-2, X4-2, X3-2, and V1 with a virtualized platform that use driver domain virtual machines.

**Workaround**

There is no workaround. If you are using driver domain virtual machines, do not upgrade to Oracle Database Appliance 12.1.2.12. This issue is not found in the kernel used in Oracle Database Appliance 12.1.2.11.0.

If you have already upgraded Oracle Database Appliance to version 12.1.2.12 and driver domain is not mandatory, you can use a traditional Network File System (NFS) communication method for virtual machines (VMs). Contact support on how to convert from driver domain to an NFS-based communication.

**B.5 Virtual machine task blocked**

After updating to Oracle Database Appliance 12.1.2.11.0, the IOs to local disks can get stuck and block tasks.

The issue is cased by an Oracle Linux bug when using Oracle VM 3.4.3. All Oracle Database Appliance guest virtual machines that use multiple VLANS and have VDISKS might encounter this bug, causing the IO to hang. The problem can manifest itself in different ways, depending on which process gets stuck. For example, after
deploying ODA_BASE, the untar command cannot proceed or virtual machines can hang.

**Hardware Models**

Oracle Database Appliance X6-2-HA, X5-2, X4-2, X3-2, and V1 with guest virtual machines that use multiple VLANS and VDISKS.

**Workaround**

Oracle Database Appliance X6-2-HA and X5-2 Dom0 use grub2. For these models, perform the following to set the `gnttab_max_frames` to 256 on dom0 of both nodes:

1. Increase the `gnttab_max_frames` in the update `/etc/default/grub` file by changing the following line:

   ```
   GRUB_CMDLINE_XEN="dom0_mem=max:4096M allowsuperpage crashkernel=256M@64M extra_guest_irqs=256,2048 nr_irqs=2048 dom0_vcpus_pin dom0_max_vcpus=20"
   ```

   to

   ```
   GRUB_CMDLINE_XEN="dom0_mem=max:4096M allowsuperpage crashkernel=256M@64M extra_guest_irqs=256,2048 nr_irqs=2048 dom0_vcpus_pin dom0_max_vcpus=20 gnttab_max_frames=256"
   ```

2. Create a new configuration file based on the changes.

   ```
   grub2-mkconfig -o /boot/grub2/grub.cfg
   ```

3. Reboot.

4. Repeat the process on Dom0 of the second node.

Oracle Database Appliance X4-2, X3-2, and V1 Dom0 uses grub1. For these models, perform the following to set the `gnttab_max_frames` to 256 in the xen hypervisor on Dom0 of both nodes:

1. Open the `/boot/grub/grub.conf` file in Dom0.

2. Add the line `gnttab_max_frames=256` at the `xen.gz` command line.

   For example, change the following line:

   ```
   kernel /xen.gz dom0_mem=4096M crashkernel=256M@64M
   ```

   to

   ```
   kernel /xen.gz dom0_mem=4096M crashkernel=256M@64M gnttab_max_frames=256
   ```

3. Reboot.

4. Repeat the process on Dom0 of the second node.

**B.6 ERROR: ORA-27301 ASM alert error log shows resource problem in the OS**

After upgrading to Oracle Database Appliance 12.1.2.11.0, the ASM alert error log shows failed processes due to a resource problem in the operating system.

The failure indicates that buffer space is not available and is caused by High value of MTU for loop back adapter.
Hardware Models
Oracle Database Appliance X6-2-HA, X5-2, X4-2, X3-2, and V1

Workaround
1. Add the following line in the /etc/sysconfig/network-scripts/ifcfg-lo file.
   MTU=16436
2. Save the file and restart the network service to load the changes.
   # service network restart
3. Repeat the process on the second node.

B.7 High Availability IP (HAIP) addresses are not supported

High Availability IP (HAIP) addresses are not supported on Oracle engineered systems.

If you use an HAIP address, then an error message will appear in your operating system log indicating that the address is not supported.

The following error messages might appear in system logs during boot of Oracle Database Appliance systems:

Aug 11 15:31:11 odac1n1 kernel: [ 9932.651622] ** WARNING WARNING WARNING WARNING WARNING WARNING
Aug 11 15:31:11 odac1n1 kernel: [ 9932.651624] **
Aug 11 15:31:11 odac1n1 kernel: [ 9932.651627] ** RDS/IB: Link local address 169.254.165.15 NOT SUPPORTED **
Aug 11 15:31:11 odac1n1 kernel: [ 9932.651629] **
Aug 11 15:31:11 odac1n1 kernel: [ 9932.651631] ** HAIP IP addresses should not be used on ORACLE **
Aug 11 15:31:11 odac1n1 kernel: [ 9932.651632] ** engineered systems **
Aug 11 15:31:11 odac1n1 kernel: [ 9932.651634] **
Aug 11 15:31:11 odac1n1 kernel: [ 9932.651636] ** If you see this message, please refer to **
Aug 11 15:31:11 odac1n1 kernel: [ 9932.651638] ** cluster_interconnects in MOS note #1274318.1 **
Aug 11 15:31:11 odac1n1 kernel: [ 9932.651639]

You can ignore these messages. Functionality is not impacted.

Hardware Models
Oracle Database Appliance X6-2S, X6-2M, X6-2L, X6-2-HA, X5-2, X4-2, X3-2, and V1
B.8 Upgrading an SE database results in an error: Failed to run datapatch

After successfully upgrading an Oracle Database Standard Edition (SE) to 12.1.0.2, the following error appears in the log file: **Failed to run datapatch**

Datapatch is a tool that enables automation of post-patch SQL actions for RDBMS patches. The error impacts all Standard Edition databases upgrading to release 12.1.0.2.

The following is an excerpt of the log:

```
... The following patches will be applied: 25397136
   (DATABASE BUNDLE PATCH 12.1.0.2.170418)

   Installing patches...
   Patch installation complete. Total patches installed: 1

   Validating logfiles...
   Patch 26609798 apply: WITH ERRORS
   logfile:
   /u01/app/oracle/cfgtoollogs/sqlpatch/26609798/21481992/26609798_apply_XT_2017S
   ep28_06_58_16.log (errors)

   Error at line 1310: Warning: Package altered with compilation errors.

   Please refer to MOS Note 1609718.1 and/or the invocation log
   /u01/app/oracle/cfgtoollogs/sqlpatch/sqlpatch_95130_2017_09_28_06_57_51/sqlpatch_invocation.log
   for information on how to resolve the above errors.

   SQL Patching tool complete on Thu Sep 28 06:58:51 2017
   2017-09-28 06:58:51,867 ERROR [Running DataPatch] []
   c.o.d.a.r.s.d.DbOperations: run datapatch
   2017-09-28 06:58:51,867 WARN [Running DataPatch] [] c.o.d.a.r.s.d.DbActions:
   Failed to run datapatch.
```

**Hardware Models**

Oracle Database Appliance X7-2S, X7-2M, X7-2-HA, X6-2S, X6-2M, X6-2L
C

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

The following are known issues deploying, updating, and managing Oracle Database Appliance X6-2S, X6-2M, and X6-2L:

- **Databases that are not running cannot be upgraded**
  When a database is not running, the `odacli upgrade-database` command does not upgrade the database. However, the job shows that the upgrade completed successfully.

- **After replacing a disk, the disk is not added to Oracle ASM**
  When replacing or adding disks to Oracle Database Appliance X6-2S, X6-2M, or X6-2L, the disk is recognized as good, but it is not added to Oracle Automatic Storage Management (ASM).

- **Patch zip files require concatenation**
  The patch to update Oracle Database Appliance to release 12.1.2.12.0 consists of two zip files. You must concatenate the two zip files before updating the repository.

C.1 Databases that are not running cannot be upgraded

When a database is not running, the `odacli upgrade-database` command does not upgrade the database. However, the job shows that the upgrade completed successfully.

**Hardware Models**
Oracle Database Appliance X6-2S, X6-2M, and X6-2L

**Workaround**
Start the database and upgrade it. After successful upgrade, the database status changes to Configured. To verify, run the `odacli list-databases` command to verify the status.

C.2 After replacing a disk, the disk is not added to Oracle ASM

When replacing or adding disks to Oracle Database Appliance X6-2S, X6-2M, or X6-2L, the disk is recognized as good, but it is not added to Oracle Automatic Storage Management (ASM).

Use the procedure to add or expand storage and wait the recommended time between tasks, but the new disks are not added to Oracle ASM.
Hardware Models
Oracle Database Appliance X6-2S, X6-2M, and X6-2L

Workaround
After expanding, adding, or replacing disks, restart oakd.

C.3 Patch zip files require concatenation

The patch to update Oracle Database Appliance to release 12.1.2.12.0 consists of two zip files. You must concatenate the two zip files before updating the repository.

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

Workaround
Perform the following to concatenate the files before updating the repository:

1. Download both zip files for patch 26433721 from My Oracle Support.
   p26433721_1212120_Linux-x86-64_lof2.zip and p26433721_1212120_Linux-x86-64_2of2.zip

2. Upload the files to a temporary location in the /u01 directory in Oracle Database Appliance, then unzip the files.
   When inflated, the files are named oda-sm-12.1.2.12.0-170920-server_lof2.zippart and oda-sm-12.1.2.12.0-170920-server_2of2.zippart

3. Concatenate the two zip files into a single zip file. For example, a file named p26433721_1212120_Linux-x86-64.zip.
   # cat oda-sm-12.1.2.12.0-170920-server_lof2.zippart oda-sm-12.1.2.12.0-170920-server_2of2.zippart > p26433721_1212120_Linux-x86-64.zip
   The file is named p26433721_1212120_Linux-x86-64.zip

   Update the repository.
   # /opt/oracle/dcs/bin/odacli update-repository -f /u01/tmpdir p26433721_1212120_Linux-x86-64.zip

   
   
   
   

4. Verify that the job completed successfully.
   # odacli describe-job -i c5288c4f-4a0e-4977-9aa4-4acbf81b65a1
   Job details
   
   
   
   
   
   
   
   

Appendix C
Patch zip files require concatenation
5. Update the agent, server, and database, as described in “Updating Oracle Database Appliance Software”.
Glossary

Oracle Database Appliance Operating System Image
Contains the components typically installed and available on Oracle Database Appliance. The following components are typically included:
• Oracle Appliance Manager command-line interface
• Oracle Appliance Manager (Web Console)
• Oracle Linux
• Hardware drivers

Bare Metal
A non-virtualized Oracle Database Appliance configuration. Oracle Database Appliance ships from the factory with a non-virtualized configuration. To create a virtualized configuration, you must install the VM ISO Image.

Oracle Database Appliance Bundle Patch (Patch)
Contains patches for the following components: operating system (OS), component firmware and Oracle Appliance Manager Modules, Grid Infrastructure, and Relational Database Management System (RDBMS).

End-User GI/RDBMS Clone Files
Contains specific Grid Infrastructure (GI) and Relational Database Management System (RDBMS) software 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 OS ISO Image. Also known as Oracle Database Appliance Single Instance Software Bundle (SIB) files.

Oracle Database Appliance X6-2S/M/L Bundle Patch
Contains patches to the following components: OS, Component Firmware and Oracle Appliance Manager Modules, Grid Infrastructure, and Relational Database Management System (RDBMS) software.

OS ISO image
Oracle Database Appliance ships from the factory with a default OS image installed. Use the bare metal operating system (OS) ISO image to install a new OS on the local disks. Use this ISO image to re-image the Oracle Database Appliance for Bare Metal Restore to restore the OS to the "shipped from factory" state. Use only when necessary.
Single Instance Software Bundle (SIB) Files
Oracle Database Appliance Single Instance Software Bundle (SIB) files are also known as End-User GI/RDBMS Clone Files. The files contain specific Grid Infrastructure (GI) and Relational Database Management System (RDBMS) software 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 OS ISO Image.

Virtualized Platform
An Oracle Database Appliance virtualized configuration. Oracle Database Appliance ships from the factory with a non-virtualized configuration. To create a virtualized configuration, you must install the VM ISO Image on Dom0.

VM ISO Image
Install the VM ISO Image on Dom0 to create an Oracle Database Appliance virtualized configuration. You can use the VM ISO image to re-image the Oracle Database Appliance for Virtualized Machine Restore.