Oracle® Virtual Compute Appliance

Release Notes for Release 1.0.2
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Preface

This document is part of the documentation library for Oracle Virtual Compute Appliance X3-2 Release 1.0, which is available at:

http://docs.oracle.com/cd/E40371_01

The documentation library consists of the following items:

**Oracle Virtual Compute Appliance X3-2 Release Notes**
The release notes provide a summary of the new features, changes, fixed bugs and known issues in Oracle Virtual Compute Appliance X3-2.

**Oracle Virtual Compute Appliance X3-2 Installation Guide**
The installation guide provides detailed instructions to prepare the installation site and install Oracle Virtual Compute Appliance X3-2. It also includes the procedure to install an additional compute node.

**Oracle Virtual Compute Appliance X3-2 Safety and Compliance Guide**
The safety and compliance guide is a supplemental guide to the safety aspects of Oracle Virtual Compute Appliance X3-2. It conforms to Compliance Model No. OCA1A.

**Oracle Virtual Compute Appliance X3-2 Administrator's Guide**
The administrator's guide provides instructions for using the management software. It is a comprehensive guide to how to configure, monitor and administer Oracle Virtual Compute Appliance X3-2.

**Oracle Virtual Compute Appliance Quick Start Poster**
The quick start poster provides a step-by-step description of the hardware installation and initial software configuration of Oracle Virtual Compute Appliance X3-2. A printed quick start poster is shipped with each Oracle Virtual Compute Appliance base rack, and is intended for data center operators and administrators who are new to the product.

The quick start poster is also available in the documentation library as an HTML guide, which contains alternate text for ADA 508 compliance.

**Oracle Virtual Compute Appliance Expansion Node Setup Poster**
The expansion node setup poster provides a step-by-step description of the installation procedure for an Oracle Virtual Compute Appliance expansion node. A printed expansion node setup poster is shipped with each Oracle Virtual Compute Appliance expansion node.

The expansion node setup poster is also available in the documentation library as an HTML guide, which contains alternate text for ADA 508 compliance.

**Audience**

The Oracle Virtual Compute Appliance X3-2 documentation is written for technicians, authorized service providers, data center operators and system administrators who want to install, configure and maintain a virtual compute environment in order to deploy virtual machines for users. It is assumed that readers have experience installing and troubleshooting hardware, are familiar with web and virtualization technologies and have a general understanding of operating systems such as UNIX (including Linux) and Windows.

The Oracle Virtual Compute Appliance makes use of Oracle Linux and Oracle Solaris operating systems within its component configuration. It is advisable that administrators have experience of these operating systems at the very least. Oracle Virtual Compute Appliance is capable of running virtual machines with a variety of operating systems including Oracle Solaris and other UNIXes, Linux and Microsoft Windows. The
selection of operating systems deployed in guests on Oracle Virtual Compute Appliance determines the requirements of your administrative knowledge.

Related Documentation

Additional documentation for components related to Oracle Virtual Compute Appliance X3-2 is available as follows:

- All Oracle products
  http://www.oracle.com/documentation
- Sun Rack II 1042 and 1242
  http://docs.oracle.com/cd/E19844-01/index.html
- Sun Server X3-2
  http://docs.oracle.com/cd/E22368_01/index.html
- Sun ZFS Storage Appliance 7320
  http://docs.oracle.com/cd/E28317_01/index.html
- Oracle Switch ES1-24
  http://docs.oracle.com/cd/E39109_01/index.html
- NM2-36P Sun Datacenter InfiniBand Expansion Switch
  http://docs.oracle.com/cd/E26698_01/index.html
- Oracle Fabric Interconnect F1-15 Director Switch
  http://docs.oracle.com/cd/E38500_01/index.html
- Oracle Integrated Lights Out Manager (ILOM) 3.1
  http://docs.oracle.com/cd/E24707_01/index.html
- Oracle VM
  http://docs.oracle.com/cd/E35328_01/index.html

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Feedback

Provide feedback about this documentation at:
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 text or the glossary.</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><strong>monospace</strong></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>
</tbody>
</table>

Document Revision

Chapter 1 About Oracle Virtual Compute Appliance X3-2

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1.2 Components ............................................................................................................................. 1

This chapter provides a quick overview of the product and its components.

1.1 Introduction

Oracle Virtual Compute Appliance X3-2 is an Oracle Engineered System designed for virtualization. It is an offering that industry analysts refer to as a Converged Infrastructure Appliance: an infrastructure solution in the form of a hardware appliance that comes from the factory pre-configured. Compute resources, network hardware, storage providers, operating systems and applications are engineered to work together but are managed and operated as a single unit.

Installation, configuration, high availability, expansion and upgrading are automated and orchestrated as much as possible. The minimum configuration consists of a base rack with infrastructure components, a pair of management nodes, and two compute nodes. This configuration can be extended by one compute node at a time. All rack units, whether populated or not, are pre-cabled and pre-configured at the factory in order to facilitate the installation of expansion compute nodes on-site at a later time. Within approximately one hour after power-on, the appliance is ready to create virtual servers. Virtual servers are commonly deployed from Oracle VM templates (individual pre-configured VMs) and assemblies (interconnected groups of pre-configured VMs).

The primary value proposition of Oracle Virtual Compute Appliance X3-2 is the integration of components and resources for the purpose of ease of use and rapid deployment. It should be considered a general purpose solution in the sense that it supports the widest variety of operating systems, including Windows, and any application they might host. Customers can attach their existing storage or provide storage solutions from Oracle or third parties.

1.2 Components

The Oracle Virtual Compute Appliance X3-2 consists of a Sun Rack II 1242 base, populated with the hardware components identified in Figure 1.1.
Components

**Figure 1.1 Components of an Oracle Virtual Compute Appliance X3-2 Rack**

![Image of Oracle Virtual Compute Appliance X3-2 Rack]

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>Sun ZFS Storage Appliance 7320 (version 2011.1.5.0)</td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>Sun Server X3-2, used as management nodes</td>
</tr>
<tr>
<td>C</td>
<td>2-25</td>
<td>Sun Server X3-2, used as virtualization compute nodes</td>
</tr>
<tr>
<td>D</td>
<td>2</td>
<td>Oracle Fabric Interconnect F1-15 Director Switch (version 3.9)</td>
</tr>
<tr>
<td>E</td>
<td>2</td>
<td>NM2-36P Sun Datacenter InfiniBand Expansion Switch (version 2.1.2)</td>
</tr>
<tr>
<td>F</td>
<td>2</td>
<td>Oracle Switch ES1-24 (version 1.3.0.9)</td>
</tr>
</tbody>
</table>

At the software level, Oracle Virtual Compute Appliance leverages the virtualization technology of Oracle VM and Oracle Virtual Networking. Management, including updates, of the underlying hardware and software is orchestrated and largely automated by the Oracle Virtual Compute Appliance controller software.
Chapter 2 Feature Overview

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This chapter provides an overview of the key features in each release of Oracle Virtual Compute Appliance.

2.1 Changes and Improvements in Release 1.0.2

Oracle Virtual Compute Appliance X3-2 Release 1.0.2 is a maintenance release. This section describes functional changes, improvements and bug fixes compared to the previous release.

Compute Node Provisioning

Release 1.0.2 is a mandatory update of the Release 1.0.1 software stack installed during manufacturing. It enables the provisioning of compute nodes once the appliance is installed and updated on-site. A number of enhancements and bug fixes add more robustness and better serviceability of the functionality offered in this release.

Bugs Fixed in Release 1.0.2

The following table lists bugs that have been fixed in Oracle Virtual Compute Appliance X3-2 Release 1.0.2.

Table 2.1 List of Fixed Bugs

<table>
<thead>
<tr>
<th>Bug ID</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>17704931</td>
<td>“Dashboard does not support simultaneous users”</td>
</tr>
<tr>
<td></td>
<td>Multiple users can now log in to the Dashboard UI simultaneously without issues.</td>
</tr>
<tr>
<td>17703144</td>
<td>“Appliance is connected to data center network but external connectivity fails”</td>
</tr>
<tr>
<td></td>
<td>Both tagged and untagged VLAN traffic is supported for virtual machine networking. Next-level data center switches must be configured accordingly, as described in the section Configuring Data Center Switches for VLAN Traffic of the Oracle Virtual Compute Appliance X3-2 Administrator’s Guide.</td>
</tr>
<tr>
<td></td>
<td>VLAN traffic is not supported for management node external networking.</td>
</tr>
<tr>
<td>17626460</td>
<td>“DNS configuration cannot be modified due to field validation error”</td>
</tr>
<tr>
<td></td>
<td>Field validation has been corrected. DNS entries can be removed from the user-configurable network settings in the Dashboard UI.</td>
</tr>
<tr>
<td>17542460</td>
<td>“Inconsistent password change behavior in Dashboard”</td>
</tr>
<tr>
<td></td>
<td>Password changes through the Dashboard UI are applied as designed in a reliable and consistent way.</td>
</tr>
<tr>
<td>17535669</td>
<td>“Dashboard login screen reports no error for invalid credentials”</td>
</tr>
<tr>
<td></td>
<td>Error messages are displayed when a user attempts to log in with an incorrect user name or password.</td>
</tr>
</tbody>
</table>
### Key Features in Release 1.0.1

<table>
<thead>
<tr>
<th>Bug ID</th>
<th>Description</th>
</tr>
</thead>
</table>
| 17475229   | “Network configuration update is not applied; Dashboard UI provides no feedback”  
User-configurable network settings are applied as designed in a reliable and consistent way. The Dashboard UI does not reload until the services affected by the configuration changes have restarted. |
| 17457001   | “Applying the dummy network configuration from the Quick Start Poster breaks rack connectivity”  
IP addresses are verified before they are applied. Internally used subnets and reserved addresses are rejected. |
| 17449881   | “Choosing Network in Network View causes Java exception”  
The exception – which had no adverse effects – no longer appears. |
| 17415171   | “Virtual machines are assigned to compute nodes in initializing state”  
Oracle VM does not allow compute nodes to join the server pool before they are completely provisioned and ready to use. If a compute node fails after joining the server pool, Oracle VM is unaware of the failure. This is considered normal behavior and is not harmful to the physical or virtual environment. If the issue is not resolved automatically by Oracle VM and the virtual machine will not start, you can log into Oracle VM Manager and move or migrate the virtual machine to a correctly operating compute node. |
| 17360826   | “Updating network configuration fails due to field validation error”  
Field validation has been corrected for all user-configurable network settings in the Dashboard UI. |
| 17347317   | “Backup functionality unavailable in Dashboard”  
The Backup tab has been removed from the Dashboard UI. Built-in backup functionality is based on a cron job. For more information about backing up your data and recovering after a component failure, user error or full system failure, refer to the Oracle technical white paper entitled Oracle Virtual Compute Appliance Backup and Recovery Guide. |
| 17345384   | “Restarting management node network service causes Oracle VM server pool to go offline”  
Manual intervention to restart networking on any node is only necessary in rare situations. This is documented in the section Oracle VM Server Pool Is Offline After Network Services Restart of the Oracle Virtual Compute Appliance X3-2 Administrator’s Guide |
| 17315730   | “Oracle Virtual Compute Appliance Dashboard unavailable when logged in to Oracle VM Manager”  
The order in which you log in to both user interfaces no longer affects their availability. Both may be used side by side. |

### 2.2 Key Features in Release 1.0.1

This section describes the key features offered in Release 1.0.1 of Oracle Virtual Compute Appliance X3-2.
Speed and Ease of Use

The Oracle Virtual Compute Appliance X3-2 is assembled, cabled and pre-installed at the factory, thus eliminating configuration errors and reducing setup time. Administrators are free to focus on transforming the IT infrastructure and delivering flexible services to respond to the organization's requirements. By leveraging the advantages of an integrated system, they save the time normally required for planning and configuring the infrastructure from scratch. Provisioning new applications into flexible virtualized environments, in a fraction of the time required for physical deployments, generates substantial financial benefits. Within approximately one hour after power-on, the appliance is ready to create virtual servers.

Automated Deployment

With the Oracle Virtual Compute Appliance, users only need to move the rack into place in the data center, connect power, network and management Ethernet cables, and power on the system. The controller software orchestrates the installation and configuration of the entire hardware and software environment. At the end of the provisioning process, the user enters the basic configuration properties of the data center environment in the Oracle Virtual Compute Appliance Dashboard, so that the controller software can prepare the appliance for integration with your existing infrastructure.

Compute capacity is extended by adding more compute nodes, one server at a time. The integration of expansion compute nodes is seamless: slide the server into the next available rack unit, connect the cables, and let the controller software discover the new hardware.

For a detailed description of provisioning and orchestration, refer to the section Provisioning and Orchestration in the Oracle Virtual Compute Appliance X3-2 Administrator's Guide.

Network Virtualization

High-performance, low-latency Oracle Fabric Interconnect with Oracle SDN, two products in the Oracle Virtual Networking family, allow automated configuration of the server and storage networks. Oracle SDN dynamically connects servers to networks and storage. It eliminates the physical storage and networking cards found in every server and replaces them with virtual network interface cards (vNICs) and virtual host bus adapters (vHBAs) that can be deployed on the fly. Applications and operating systems see these virtual resources exactly as they would see their physical counterparts. Oracle Virtual Networking simplifies complex data center deployments with a wire-once solution and simple software-defined network configurations.

Integrated Storage

Oracle Virtual Compute Appliance features a fully integrated, enterprise-grade Sun ZFS Storage Appliance 7320 for centrally storing the management environment as well as providing data storage for VMs. This storage subsystem is built using Oracle’s enterprise-class storage products and technology and is designed to be fully redundant for maximum fault tolerance and serviceability in production. In addition, each compute node offers extra disk space that can be used as local storage for the virtual infrastructure deployed on it.

The storage capacity of Oracle Virtual Compute Appliance can be expanded beyond the internal, included storage, to external data center racks containing more than one Oracle ZFS Storage Appliance or supported storage available from other storage vendors.

High Availability

The Oracle Virtual Compute Appliance X3-2 is designed for high availability at every level.
During the factory installation of Oracle Virtual Compute Appliance X3-2, the two management nodes are configured as a cluster. The cluster relies on an OCFS2 file system exported as a LUN from the ZFS storage to perform the heartbeat function and to store a lock file. The management node that has control over the lock file automatically becomes the master or active node in the cluster. The master management node is always available via the same virtual IP address, thus ensuring continuity of service up to the level of the Dashboard user interface. In case the active management node fails, the cluster detects the failure and the lock is released. Since the standby management node is constantly polling for control over the lock file, it detects when it has control of this file and brings up all the required Oracle Virtual Compute Appliance services. The management node failover process takes up to 5 minutes to complete.

In addition, all configuration databases are stored on the Sun ZFS Storage Appliance 7320, to which components have shared access. The risk of data loss or interruption of service is further reduced by redundant network hardware, clustered storage heads, and a RAID-Z disk configuration that tolerates media failure and automatically detects and corrects bit errors.

For more information about high availability, refer to the section High Availability in the Oracle Virtual Compute Appliance X3-2 Administrator's Guide.

Templates and Assemblies

Within a matter of hours, the system is ready and users can start adding VMs. These can be created from scratch, or deployed from ready-to-run Oracle VM templates and assemblies. As a result, Oracle Virtual Compute Appliance offers out-of-the-box support for thousands of Oracle and third-party applications. This way, complex Oracle software stacks can be rapidly deployed.

The ability to quickly and easily deploy applications to a highly scalable virtualized environment reduces time to market for the business, and allows IT to rapidly deploy and scale test, development, and staging environments. Oracle Virtual Assembly Builder can be used with Oracle Virtual Compute Appliance X3-2. More information about Oracle Virtual Assembly Builder is available at http://www.oracle.com/us/products/middleware/exalogic/virtual-assembly-builder/overview/index.html.

Operating System and Application Support

Support for many operating systems and your choice of storage protects your investment and provides easy deployment into your data centers. Getting applications to users requires a lot more than just hardware provisioning. End-users need their applications provisioned as well. Oracle Virtual Compute Appliance accelerates deployment of the full hardware-to-applications stack so you can get applications to users within hours of power-on, rather than days or weeks.

Oracle VM supports up to 128 vCPUs and a variety of guest OSs such as Oracle Linux, Oracle Solaris, and Microsoft Windows. Entire Oracle application stacks can be deployed in minutes to hours using Oracle VM templates and assemblies. By default, all Oracle software that has been certified for use with Oracle VM is certified for Oracle Virtual Compute Appliance, which includes the Oracle Database, Oracle Fusion Middleware, Oracle Applications, and Oracle Real Application Clusters.
Chapter 3 Known Limitations and Workarounds

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This chapter provides information about the known limitations and workarounds for Oracle Virtual Compute Appliance X3-2.

3.1 Oracle Virtual Compute Appliance Hardware

This section describes hardware-related limitations and workarounds.

3.1.1 Compute Node Boot Sequence Interrupted by LSI Bios Battery Error

When a compute node is powered off for an extended period of time, a week or longer, the LSI BIOS may stop because of a battery error, waiting for the user to press a key in order to continue.

Workaround: Wait for approximately 10 minutes to confirm that the compute node is stuck in boot. Use the Reprovision button in the Oracle Virtual Compute Appliance Dashboard to reboot the server and restart the provisioning process.

Bug 16985965

3.1.2 Management Node Network Interfaces Are Down After System Restart

If the Oracle Virtual Compute Appliance needs to be powered down and restarted for maintenance or in the event of a power failure, the components should come back up in this order: first networking, then storage, and then the management and compute nodes. For detailed instructions to bring the appliance offline and return it to operation, refer to the section Powering Down Oracle Virtual Compute Appliance X3-2 in the Oracle Virtual Compute Appliance X3-2 Administrator’s Guide.

It may occur that the management nodes complete their boot sequence before the appliance network configuration is up. In that case, the management nodes are unreachable because their bond0 and bond2 interfaces are down.

Workaround: Reboot the management nodes again. When they come back online, their network interfaces should be correctly configured.
3.2 Oracle Virtual Compute Appliance Software

This section describes software-related limitations and workarounds.

3.2.1 Do Not Reconfigure Network During Compute Node Provisioning or Upgrade

In the Oracle Virtual Compute Appliance Dashboard, the Network Setup tab becomes available when the first compute node has been provisioned successfully. However, when installing and provisioning a new system, you must wait until all nodes have completed the provisioning process before changing the network configuration. Also, when provisioning new nodes at a later time, or when upgrading the environment, do not apply a new network configuration before all operations have completed. Failure to follow these guidelines is likely to leave your environment in an indeterminate state.

Workaround: Before reconfiguring the system network settings, make sure that no provisioning or upgrade processes are running.

3.2.2 Nodes Attempt to Synchronize Time with the Wrong NTP Server

External time synchronization, based on `ntpd`, is left in default configuration at the factory. As a result, NTP does not work when you first power on the Oracle Virtual Compute Appliance, and you may find messages in system logs similar to these:

```
Oct  1 11:20:33 ovcamn06r1 kernel: o2dlm: Joining domain ovca ( 0 1 ) 2 nodes
Oct  1 11:20:53 ovcamn06r1 ntpd_initres[3478]: host name not found:0.rhel.pool.ntp.org
Oct  1 11:20:58 ovcamn06r1 ntpd_initres[3478]: host name not found:1.rhel.pool.ntp.org
Oct  1 11:21:03 ovcamn06r1 ntpd_initres[3478]: host name not found:2.rhel.pool.ntp.org
```

Workaround: Apply the appropriate network configuration for your data center environment, as described in the section Network Setup in the Oracle Virtual Compute Appliance X3-2 Administrator's Guide. When the data center network configuration is applied successfully, the default values for NTP configuration are overwritten and components will synchronize their clocks with the source you entered.

3.2.3 Unknown Symbol Warning during InfiniBand Driver Installation

Towards the end of the management node `install.log` file, the following warnings appear:

```
> WARNING:
> /lib/modules/2.6.39-300.32.1.el6uek.x86_64/kernel/drivers/infiniband/ \
> hw/ipath/lib_ipath.ko needs unknown symbol ib_wq
> WARNING:
> /lib/modules/2.6.39-300.32.1.el6uek.x86_64/kernel/drivers/infiniband/ \
> hw/qib/lib_qib.ko needs unknown symbol ib_wq
> WARNING:
> /lib/modules/2.6.39-300.32.1.el6uek.x86_64/kernel/drivers/infiniband/ \
> upl/srp/lib_srp.ko needs unknown symbol ib_wq
> *** FINISHED INSTALLING PACKAGES ***
```

These warnings have no adverse effects and may be disregarded.
3.2.4 Do Not Add Compute Node When Management Node Services Are Restarted

Compute node provisioning fails if services on the management node are shut down or restarted during the process. For example, upgrading management nodes involves restarting services. Adding compute nodes to the system must be avoided at such times.

**Workaround:** When adding a compute node to the environment, make sure that there are no active processes that may interrupt services on the management node.

Bug 17431002

3.2.5 Node Manager Does Not Show Node Offline Status

The role of the Node Manager database is to track the various states a compute node goes through during provisioning. After successful provisioning the database continues to list a node as *running*, even if it is shut down. For nodes that are fully operational, the server status is tracked by Oracle VM Manager. However, the Oracle Virtual Compute Appliance Dashboard displays status information from the Node Manager. This may lead to inconsistent information between the Dashboard and Oracle VM Manager.

**Workaround:** To verify the status of operational compute nodes, use the Oracle VM Manager user interface.

Bug 17456373

3.2.6 Network View Tab Partially Displayed in Internet Explorer

When you use Internet Explorer 8 or 9 to access the Oracle Virtual Compute Appliance Dashboard, the Network View tab is not displayed correctly. Only a part of the image in the tab is displayed.

**Workaround:** Use another web browser instead. This issue does not occur in Firefox or Chrome.

Bug 17607389

3.2.7 Update Functionality Not Available in Dashboard

The Oracle Virtual Compute Appliance Dashboard cannot be used to perform an update of the software stack.

**Workaround:** Use the command line tool `ovca-updater` to update the software stack of your Oracle Virtual Compute Appliance. For details, refer to the section Oracle Virtual Compute Appliance X3-2 Software Update in the Oracle Virtual Compute Appliance X3-2 Administrator's Guide. For step-by-step instructions, refer to the section Update. You can use SSH to log in to each management node and check `/etc/ovca-info` for log entries indicating restarted services and new software revisions.

Bug 17476010, 17475976 and 17475845

3.2.8 Compute Node Provisioning Fails and Reprovision Button Does Not Work

If during provisioning a compute node becomes stuck in an intermittent state or goes into error status, the solution is to reprovision the compute node. The Hardware View tab of the Oracle Virtual Compute Appliance Dashboard has a Reprovision button specifically for this purpose. However, this functionality
may become unavailable depending on the provisioning stage that failed. If the Reprovision button does not work, the compute node has likely become stuck after joining the Oracle VM server pool.

**Workaround:** Remove the failing compute node from the Oracle VM configuration first. Then use the Reprovision button to restart the provisioning process for the compute node in question. In some cases it may be necessary to manually power-on the compute node. For detailed instructions, refer to the section A Compute Node Fails to Complete Provisioning in the Oracle Virtual Compute Appliance X3-2 Administrator's Guide.

Bug 17430135, 17192103 and 17389234

### 3.2.9 Backup to Sun ZFS Storage Appliance 7320 Fails Because Too Many Old Backups Exist

When too many old backups are stored on the Sun ZFS Storage Appliance 7320, the cron-based backup system fails. Typically, the sosreport output contains entries like this: `KeyError: 'pop from an empty set'`. Currently, there is no mechanism in place to clean up stale backup data.

**Workaround:** Clean up the old backups manually.

**Manually Removing Backups from the Sun ZFS Storage Appliance 7320**

1. Using SSH and an account with superuser privileges, log in to the Sun ZFS Storage Appliance 7320 on the appliance management network.

   ```bash
   # ssh root@192.168.4.1
   root@192.168.4.1's password: ovca
   ovca>
   ``

2. Change directory to the location of the backups.

   `ovca>` maintenance system configs
   `ovca:`maintenance system configs>

3. Display a list of existing backups, which are called saved configurations.

   The first column contains the UUID of each saved configuration.

   ```text
   CONFIG                               DATE                SYSTEM    VERSION
   0263e115-10cc-e7a9-f6cd-b24bb7265260  2013-12-1 17:03:59  ovcasn01  2011.04.24.5.0,1-1.33
   07bc03c0-3da8-4039-fc8b-a68733a40232  2013-12-16 05:04:06 ovcasn01  2011.04.24.5.0,1-1.33
   144881c9-5868-e790-a4e3-da9cc8d0e670  2013-12-9 17:04     ovcasn01  2011.04.24.5.0,1-1.33
   2054ae5f-e316-eb4-a2a2-c518a0588af1  2013-12-27 17:04:21 ovcasn01  2011.04.24.5.0,1-1.33
   [...]
   212cfb03-dd25-cc44-d4de-820b80438212  2014-1-7 17:04:20   ovcasn01  2011.04.24.5.0,1-1.33
   ovca:>`maintenance system configs>
   ``

4. Remove any obsolete saved configuration by its UUID.

   Confirm deletion by entering "Y" when prompted.

   ```text
   ovca:`maintenance system configs> destroy 0263e115-10cc-e7a9-f6cd-b24bb7265260
   Are you sure you want to delete the configuration "Backup on 2013_12_01-09.00.01"?
   Are you sure? (Y/N)
   ovca:`maintenance system configs>
   ``

   Repeat the destroy command for each saved configuration to be removed.

Bug 17895011
3.2.10 External Storage Cannot Be Discovered Over Data Center Network

The default compute node configuration does not allow connectivity to additional storage resources in the data center network. Compute nodes are connected to the data center subnet to enable public connectivity for the virtual machines they host, but the compute nodes' physical network interfaces have no IP address in that subnet. Consequently, SAN or file server discovery will fail.

Bug 17508885
Chapter 4 Feedback and Support

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This chapter contains information about how to provide feedback and contact support for the Oracle Virtual Compute Appliance X3-2 product.

4.1 Providing Feedback and Reporting Problems

If you need to report an issue and have an Oracle Premier Support Agreement, you should open a case with Oracle Support at https://support.oracle.com.

If you are reporting an issue, please provide the following information where applicable:

• Description of the problem, including the situation where the problem occurs, and its impact on your operation.

• Machine type, operating system release, browser type and version, locale and product release, including any patches you have applied, and other software that might be affecting the problem.

• Detailed steps on the method you have used, to reproduce the problem.

• Any error logs or core dumps.

4.2 Contacting Oracle Specialist Support

If you have an Oracle Customer Support Identifier (CSI), first try to resolve your issue by using My Oracle Support at https://support.oracle.com. Your Oracle Premier Support CSI does not cover customization support, third-party software support, or third-party hardware support.

If you cannot resolve your issue, open a case with the Oracle specialist support team for technical assistance on break/fix production issues. The responding support engineer will need the following information to get started:

• Your Oracle Customer Support Identifier.

• The product you are calling about.

• A brief description of the problem you would like assistance with.

• Any logs or support data you have, see Section 4.3, “Data Collection for Service and Support” for details.

If your CSI is unknown, find the correct Service Center for your country (http://www.oracle.com/us/support/contact-068555.html), then contact Oracle Services to open a non-technical service request (SR) to get your CSI sorted. Once you have your CSI, you can proceed to open your case through My Oracle Support.

4.3 Data Collection for Service and Support

When submitting a Service Request (SR), please include an archive file with the relevant log files and debugging information as listed in this section. This information can be used by Oracle Support to analyze and diagnose system issues. The support data files can be uploaded for further analysis by Oracle Support.
Tip
Collecting support files involves logging in to the command line on components in your Oracle Virtual Compute Appliance rack and copying files to a storage location external to the appliance environment, in the data center network. This can only be achieved from a system with access to both the internal appliance management network and the data center network. You can set up a physical or virtual system with those connections, or use the master management node.

The most convenient way to collect the necessary files, is to mount the target storage location on the system using `nfs`, and copy the files using `scp` with the appropriate login credentials and file path. The command syntax should be similar to this example:

```
# mkdir /mnt/mynfsshare
# mount -t nfs storage-host-ip:/path-to-share /mnt/mynfsshare
# scp root@component-ip:/path-to-file /mnt/mynfsshare/ovca-support-data/
```

Collecting Oracle Virtual Compute Appliance Support Data

Warning
For more accurate diagnosis of physical server issues, Oracle Support Services require a system memory dump. To be able to provide this, you should install and configure `kdump`, as described in the support note with Doc ID 1520837.1.

Caution
For diagnostic data collection, Oracle Support Services recommend that the OSWatcher tool be run for an extended period of time. For details about the use of OSWatcher, please consult the support note with Doc ID 580513.1.

For diagnostic purposes, Oracle Support Services use a script called `VMPInfo3` that automatically collects vital troubleshooting information from your Oracle Virtual Compute Appliance environment. This script is installed with the Oracle Virtual Compute Appliance controller software on both management nodes and is located at `/usr/sbin/vmpinfo3.sh`.

To collect support data from your system, proceed as follows:

1. Log in to the master management node as root.
   
   If you accidentally run the `vmpinfo3` script from the secondary management node, an error message is displayed and you are instructed to run the script from the master management node.

2. Run the diagnostic script as follows:

```
[root@ovcamn05r1 ~]# /usr/sbin/vmpinfo3.sh --username=admin --password=Welcome1
Gathering files from all servers. This process may take some time.
Gathering OVM Model Dump files
Gathering sosreport from ovcacn07r1
Gathering sosreport from ovcacn08r1
Gathering sosreport from ovcacn09r1
[...]
Gathering sosreport from ovcacn41r1
Gathering sosreport from ovcacn42r1
Gathering OVM Manager Logs
```
3. When prompted, enter the root password for the secondary management node.

<table>
<thead>
<tr>
<th>File Name</th>
<th>Size</th>
<th>Throughput</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>access.log</td>
<td>100% 2949KB</td>
<td>2.9MB/s</td>
<td>00:00</td>
</tr>
<tr>
<td>access.log00001</td>
<td>100% 5000KB</td>
<td>4.9MB/s</td>
<td>00:00</td>
</tr>
<tr>
<td>access.log00002</td>
<td>100% 5000KB</td>
<td>4.9MB/s</td>
<td>00:00</td>
</tr>
<tr>
<td>access.log00003</td>
<td>100% 5000KB</td>
<td>4.9MB/s</td>
<td>00:00</td>
</tr>
<tr>
<td>AdminServer-diagnostic.log</td>
<td>100% 322KB</td>
<td>321.6KB/s</td>
<td>00:00</td>
</tr>
<tr>
<td>AdminServer.log</td>
<td>100% 5292KB</td>
<td>5.2MB/s</td>
<td>00:00</td>
</tr>
<tr>
<td>AdminServer.log00002</td>
<td>100% 284KB</td>
<td>284.4KB/s</td>
<td>00:00</td>
</tr>
<tr>
<td>AdminServer.log00003</td>
<td>100% 302KB</td>
<td>302.3KB/s</td>
<td>00:00</td>
</tr>
<tr>
<td>AdminServer.log00001</td>
<td>100% 10MB</td>
<td>9.8MB/s</td>
<td>00:00</td>
</tr>
<tr>
<td>base_adf_domain.log</td>
<td>100% 2709KB</td>
<td>2.7MB/s</td>
<td>00:00</td>
</tr>
<tr>
<td>base_adf_domain.log00001</td>
<td>100% 5001KB</td>
<td>4.9MB/s</td>
<td>00:00</td>
</tr>
<tr>
<td>CLIAudit.log</td>
<td>100% 7401</td>
<td>7.2KB/s</td>
<td>00:00</td>
</tr>
<tr>
<td>CLI.log</td>
<td>100% 1039KB</td>
<td>1.0MB/s</td>
<td>00:00</td>
</tr>
<tr>
<td>CLI.log.1</td>
<td>100% 5120KB</td>
<td>5.0MB/s</td>
<td>00:01</td>
</tr>
<tr>
<td>metricdump-20131126.173510.log.gz</td>
<td>100% 596KB</td>
<td>595.9KB/s</td>
<td>00:00</td>
</tr>
<tr>
<td>metricdump-20131126.203511.log.gz</td>
<td>100% 595KB</td>
<td>595.1KB/s</td>
<td>00:00</td>
</tr>
<tr>
<td>metricdump-20131126.143507.log.gz</td>
<td>100% 593KB</td>
<td>593.4KB/s</td>
<td>00:00</td>
</tr>
<tr>
<td>metricdump-20131126.233509.log.gz</td>
<td>100% 596KB</td>
<td>596.1KB/s</td>
<td>00:00</td>
</tr>
</tbody>
</table>

The script collects the logs from both management nodes to ensure that the diagnostic data you send to Oracle Support is as complete and detailed as possible.

When all files have been collected, the script compresses them into a single tarball and displays a message with the name and location.

```
Compressing VMPinfo3 <date>-<time>.
Please send /tmp/vmpinfo3-<version>-<date>-<time>.tar.gz to Oracle support
```

4. If the diagnostic script should fail, collect the files manually.

Use a separate subdirectory for each component. For easy identification, use the host name as directory name.

**Caution**

Because of the log rotation mechanism, additional files may exist with the same names but ending in extension .0, .1, .2 and so on. Please include those in the support data files as well.

a. From both management nodes, copy these files:

   - the entire directory `/u01/app/oracle/ovm-manager-3/domains/ovm_domain/servers/AdminServer/logs/`
   - the Oracle Virtual Compute Appliance log files:
     `/tmp/install.log, /var/log/ovca.log, /etc/ovca-info`
   - the entire directory `/opt/xsigo/xms/logs/`

b. From each compute node, copy the entire `/var/log/` directory, as well as the file `/tmp/sosreport.`
If no such file exists, run the `sosreport` command to generate it.

c. From each Oracle Fabric Interconnect F1-15 Director Switch, copy the entire `/var/log/` directory.

5. To allow better analysis of physical server issues, for example hanging, crashing or rebooting, also include the system memory dump file (`vmcore`).

The location of the file is: `<kdump-partition-mount-point>/var/crash/127.0.0.1-<date>-<time>/vmcore`. The partition and mount point are defined during `kdump` configuration. For details, please consult the support note with Doc ID 1520837.1.

6. Collect the OSWatcher logs. The default location is `/opt/osw`.

   For details, please consult the support note with Doc ID 580513.1.

7. Copy all diagnostic files to a location external to the appliance environment.

**Uploading Support Data Files**

For support data up to 2 GB, upload the file as part of the Service Request (SR) process in My Oracle Support (MOS).

- If you are still in the process of logging the SR, upload the support data in the **Upload Files/Attachments** step of the SR.

- If you have already logged the SR and need to upload files afterwards, proceed as follows:
  1. Log into MOS and open the Dashboard or Service Request tab.
  2. In the Service Request region, click the SR you want to update.
  3. In the Update section, select Add Attachment.
  4. In the pop-up window, select the file for upload, include any notes, and click Attach File.

If uploading the support data with the SR is not an option, or for support data files over 2 GB in size, use the file transfer service from Oracle support at `sftp.oracle.com`. Oracle Support might request that you upload using a different mechanism.

1. Using a browser or FTP client, access the Oracle SFTP server `sftp.oracle.com` at port 2021.
2. Log in with your Oracle Single Sign-On user name and password.
3. Select the support data file to upload.
4. Select a destination for the file.
   - Use the directory path provided by Oracle Support.
   - Typically, the directory path is constructed as follows: `/support/incoming/case_number/`.
   - The use of a case number ensures that the file is correctly associated with the service request. Write down the full path to the file and the case number for future reference in communications with Oracle Support.
5. Click the Upload button to upload the file.
   - Some browsers do not show the progress of the upload.
Do not click the Upload button multiple times, as this restarts the transfer.

When the upload is complete, a confirmation message is displayed.

For detailed information about the use of Oracle's SFTP server, refer to the support notes with Doc ID 549180.1 and Doc ID 464666.1.