

# Oracle® Exalytics In-Memory Machine for Linux

## Release Notes

Exalytics X2-4, X3-4, X4-4, X5-4, and X6-4 Release 2.1 (2.0.0.1.0)

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## Release Notes

Oracle Exalytics In-Memory Machine is an engineered solution that includes a memory-centric hardware platform, proven in-memory technology from Oracle TimesTen, and an optimized version of Oracle Business Intelligence Foundation Suite functionality.

These release notes describe known issues and workarounds for Oracle Exalytics In-Memory Machine and apply to:

- Oracle Exalytics X2-4, X3-4, X4-4, X5-4, and X6-4 Release 2.1 (2.0.0.1.0)

For information about setting up Oracle Exalytics In-Memory Machine and installing software on it, consult the following manuals:

- *Oracle Exalytics In-Memory Machine Installation and Administration Guide for Linux*
- *Oracle Exalytics In-Memory Machine Owner's Guide Exalytics X2-4, X3-4, X4-4, X5-4, and X6-4*

The manuals are available in the Oracle Exalytics Library at:

[http://docs.oracle.com/cd/E62968\\_01/index.htm](http://docs.oracle.com/cd/E62968_01/index.htm)

The following list describes the sections of this document:

- [Oracle Exalytics Machine X2-4, X3-4, X4-4, X5-4, and X6-4 Release Notes](#)
- [Oracle Exalytics Release 2 Software Release Notes](#)
- [Documentation Accessibility](#)

These release notes are updated periodically as new information becomes available. To ensure that you are reading the latest version of the release notes, check the Oracle Exalytics Library at:

[http://docs.oracle.com/cd/E62968\\_01/index.htm](http://docs.oracle.com/cd/E62968_01/index.htm)

Sometimes, there can be a delay before revised Release Notes are published on the Oracle Technology Network (OTN). To get access to Oracle Exalytics Release Notes items as soon as they are available, go to the Oracle Exalytics Release Notes wiki at:

<https://wikis.oracle.com/display/oraclebidocumentation/Oracle+Exalytics+Release+Notes>

- [Oracle Exalytics Machine X2-4, X3-4, X4-4, X5-4, and X6-4 Release Notes](#)
- [Oracle Exalytics Release 2 Software Release Notes](#)
- [Oracle Exalytics Release 2.1 Software Release Notes](#)
- [Documentation Accessibility](#)

## Oracle Exalytics Machine X2-4, X3-4, X4-4, X5-4, and X6-4 Release Notes

This section contains the following topics:

- [Latest Product Information](#)

### Latest Product Information

For the latest information about Sun Fire X4470 M2 Servers, including the product notes, see the following link:

[http://docs.oracle.com/cd/E20781\\_01/index.html](http://docs.oracle.com/cd/E20781_01/index.html)

## Oracle Exalytics Release 2 Software Release Notes

This section contains the following topics:

- [Patch Requirements](#)
- [Oracle Exalytics Issues and Workarounds Identified Since the Last Revision](#)
- [Oracle Exalytics General Issues and Workarounds](#)
- [Oracle Exalytics Installation Issues and Workarounds](#)
- [Oracle Exalytics Post-Installation Issues and Workarounds](#)
- [Oracle Exalytics Patching Issues and Workarounds](#)
- [Oracle Exalytics Documentation Errata](#)

### Patch Requirements

Oracle Exalytics includes various software components with differing release numbers. Do not patch individual software components on the Exalytics Machine unless instructed to do so by Oracle Support. Patches for the Exalytics Machine are announced periodically. For more information, see Chapter 2, "Upgrading to Oracle Exalytics Release 2.1 (2.0.0.1.el6) on Non-Virtual Deployments" and Chapter 3, "Upgrading to Oracle Exalytics Release 2.1 (2.2.0.0.1.ovs-3.3.3) on Virtual Deployments" in *Oracle Exalytics In-Memory Machine Installation and Administration Guide for Linux*.

## Oracle Exalytics Issues and Workarounds Identified Since the Last Revision

The issues and workarounds related to Oracle Exalytics that have been identified or changed since the last revision of the Release Notes include:

This is the first revision of the release notes for Oracle Exalytics Release 2.1.

## Oracle Exalytics General Issues and Workarounds

This section describes general issues and workarounds related to Oracle Exalytics. It includes the following topics:

- [Manually Editing Properties for Full-Text Search](#)
- [Default Address Configured for the eth0 Interface Varies](#)
- [Guest Operating System Hangs with Soft Lockup: Error on Exalytics Virtual Machine](#)
- [Slow Network Connectivity after Upgrading Oracle VM Server 3.0.3 to Oracle VM Server 3.2.4+](#)
- [Flash Configuration May Fail on the Exalytics X3-4 or X4-4 Machine with New Flash Cards](#)
- [Errors When Upgrading the OBIEE 11.1.1.6 Domain to the 11.1.1.7 Domain](#)
- [Eth0 Network Might Fail When Starting an Exalytics Machine for the First Time After Installing Oracle Exalytics Release 2](#)
- [Bluetooth Service Enabled on an Exalytics Machine](#)
- [InfiniBand Connection Fails When an Exalytics Machine is Started for the First Time After Installing Oracle Exalytics Release 2](#)
- [Exalytics Deployments Affected by Bash "Shellshock" Vulnerabilities- CVE-2014-7169](#)
- [Exalytics Virtual Deployments Affected by Venom Vulnerability-CVE-2015-3456](#)
- [ILOM \(Release 3.1.2.24.d\) Is Unable to Verify Status of Sun Flash Accelerator F80 Adapter Cards on an X2-4 or X3-4 Exalytics Machine](#)
- [Slow Network Connection on Oracle VM Guest](#)
- [Auto Service Request Not Supported When Running Oracle Virtual Server Image](#)
- [Sockets Direct Protocol \(SDP\) Not Supported With InfiniBand When Configured on Oracle Exalytics Virtual Deployments](#)
- [Non-Virtualized Exalytics Machine Fails to Respond When Sockets Direct Protocol \(SDP\) is Enabled With InfiniBand Connectivity](#)
- [QLogic Cards Not Supported for Networking on Oracle Exalytics Virtual Deployments](#)
- [VNC Client Unable to Connect to the VNC Server on an Exalytics Machine Installed on an Oracle Linux 6 Operating System](#)
- [Ignore Error Messages in the Exalytics Startup and Shutdown Log](#)

## Manually Editing Properties for Full-Text Search

Impacted Releases: 2.0

If you configure the Full-Text Search on the Exalytics Machine, then you must manually edit the `BISearchConfig.properties` file so that the following properties point to the proper external IP addresses:

- `BIServerUrl`
- `BISearchServerUrl`
- `ECSF_DataServiceURL`
- `ECSF_RedirectServiceURL`
- `ECSF_SecurityServiceURL`

For information on editing the file, see "Configuring Properties for Full-Text Catalog Search Manually" in *Oracle Fusion Middleware System Administrator's Guide for Oracle Business Intelligence Enterprise Edition*.

## Default Address Configured for the eth0 Interface Varies

Impacted Releases: 2.0

When an Oracle Exalytics In-Memory Machine is delivered, the default IP address that is configured for the eth0 (physical NET0 port) interface of the machine might vary. It can be any IP address in the class C subnet 192.168.1.0.

To determine the eth0 IP address of an Exalytics Machine, connect to the Integrated Lights Out Manager (ILOM) of that machine through Secure Shell (SSH) using the default IP address 192.168.1.200. After logging in, run the following command to view the network configuration information:

```
show /SP/network
```

## Guest Operating System Hangs with Soft Lockup: Error on Exalytics Virtual Machine

Impacted Releases: 2.0

When installing a guest operating system on a virtual Exalytics Machine you might see an error message such as the following:

```
date_and_time wtigervml kernel: BUG: soft lockup - CPU#5 stuck for 141s!  
sadc:1066]  
date_and_time wtigervml kernel: Modules linked in: ovmapi(U) autofs4(U)  
@ hidp(U) l2cap(U) bluetooth(U) rfkill(U) lockd(U) sunrpc(U) be2iscsi(U)  
@ ib_iser(U) iscsi_tcp(U) bnx2i(U) cnic(U) uio(U) cxgb3i(U) libcxgbi(U)  
@ cxgb3(U) mdio(U) libiscsi_tcp(U) libiscsi(U) scsi_transport_iscsi(U)  
rdma_ucm(U) ib_sdp(U) rdma_cm(U) iw_cm(U) ib_addr(U) ib_ipoib(U) ib_cm(U)  
ipv6(U) ib_uverbs(U) ib_umad(U) mlx4_vnic(U) mlx4_vnic_helper(U) mlx4_ib(U)  
ib_sa(U) ib_mad(U) ib_core(U) mlx4_core(U) video(U) output(U) sbs(U) sbshc(U)  
lp(U) serio_raw(U) parport_pc(U) parport(U) floppy(U) snd_seq_dummy(U)  
snd_seq_oss(U) snd_seq_midi_event(U) snd_seq(U) snd_seq_device(U)  
snd_pcm_oss(U) snd_mixer_oss(U) snd_pcm(U) snd_timer(U) snd(U) soundcore(U)
```

```

snd_page_alloc(U) pata_acpi(U) i2c_piix4(U) xen_netfront(U) pcspskr(U)
i2c_core(U) ata_piix(U) ata_generic(U) xen_blkfront(U) [last unloaded:
ipmi_msghandler
date_and_time wtigervml kernel: CPU 5:
date_and-time wtigervml kernel: Modules linked in: ovmapi(U) autofs4(U)
@ hidp(U) l2cap(U) bluetooth(U) rfkill(U) lockd(U) sunrpc(U) be2iscsi(U)
@ ib_iser(U) iscsi_tcp(U) bnx2i(U) cnic(U) uio(U) cxgb3i(U) libcxgbi(U)
@ cxgb3(U) mdio(U) libiscsi_tcp(U) libiscsi(U) scsi_transport_iscsi(U)
rdma_ucm(U) ib_sdp(U) rdma_cm(U) iw_cm(U) ib_addr(U) ib_ipoib(U) ib_cm(U)
ipv6(U) ib_uverbs(U) ib_umad(U) mlx4_vnic(U) mlx4_vnic_helper(U) mlx4_ib(U)
ib_sa(U) ib_mad(U) ib_core(U) mlx4_core(U) video(U) output(U) sbs(U) sbshc(U)
lp(U) serio_raw(U) parport_pc(U) parport(U) floppy(U) snd_seq_dummy(U)
snd_seq_oss(U) snd_seq_midi_event(U) snd_seq(U) snd_seq_device(U)
snd_pcm_oss(U) snd_mixer_oss(U) snd_pcm(U) snd_timer(U) snd(U) soundcore(U)
snd_page_alloc(U) pata_acpi(U) i2c_piix4(U) xen_netfront(U) pcspskr(U)
i2c_core(U) ata_piix(U) ata_generic(U) xen_blkfront(U) [last unloaded:
ipmi_msghandler]
date_and_time wtigervml kernel: Pid: 1066, comm: sadc Not tainted
2.6.32-200.21.2.el5uek #1 HVM domU
date_and_time wtigervml kernel: RIP: 0010:[<ffffffff810652cd>]
[<ffffffff810652cd>] run_timer_softirq+0x212/0x221

```

To work around this issue, you must update the console of the Oracle Virtual Machine for the Oracle Exalytics Base Image 2.0.1.1.0 for Exalytics Oracle VM x86-64, from version 1.3.1 to version 1.3.2.

#### To update the console of the Oracle Virtual Machine:

1. Navigate to My Oracle Support and download patch number 15954524.  
The patch number contains the *ovm-consoled-0.1-3.2.noarch.rpm* package.
2. Copy the package on all the servers in the pool.
3. Navigate to the directory where the previous ovm-consoled package is installed.
4. Enter the following command to update the rpm file:

```
# rpm -Uvh ovm-consoled-0.1-3.2.noarch.rpm
```

5. Enter the following command to restart the ovm-consoled service:

```
# service ovm-consoled restart
```

#### Note:

To update all guest operating systems, you must restart the server.

6. Enter the following command to verify the upgrade:

```
# rpm -qi ovm-consoled
```

7. Confirm that the output is displayed as follows:

```
Name: ovm-consoled
Version: 0.1
Release: 3.2
Architecture: noarch
```

Install Date: (not installed)  
Group: Applications/System  
Size: 35030

## Slow Network Connectivity after Upgrading Oracle VM Server 3.0.3 to Oracle VM Server 3.2.4+

Impacted Releases: 2.0

After upgrading Oracle VM Server 3.0.3 to Oracle VM Server 3.2.4+, you may notice slow network connectivity when copying and transferring data.

To resolve the problem, configure the Intel ixgbe 10G Ethernet Kernel Driver for bridging.

### To configure Intel ixgbe 10G Ethernet Kernel Driver for Bridging:

1. Connect to Oracle VM Server.
2. To configure the driver, enter the following command:  

```
echo "options ixgbe LRO=0" > /etc/modprobe.d/ixgbe.conf
```
3. Save the file.
4. Restart Oracle VM Server using Oracle VM Manager.

## Flash Configuration May Fail on the Exalytics X3-4 or X4-4 Machine with New Flash Cards

Impacted Releases: 2.0

When you configure Flash for the first time on an Exalytics Machine, Flash configuration may fail by displaying additional number of Flash cards.

To resolve the problem, rerun the command you were running previously.

For example, if you ran the command `# ./opt/exalytics/bin/configure_flash --RAID10` and the configuration failed, rerun the same command again.

## Errors When Upgrading the OBIEE 11.1.1.6 Domain to the 11.1.1.7 Domain

Impacted Releases: 2.0

When upgrading from the OBIEE 11.1.1.6 domain to the 11.1.1.7 domain, you may get error messages related to invalid XML child elements during the *non-j2ee management update* step.

To resolve the error, modify the OPMN.xml file as follows:

- For the LD\_LIBRARY\_PATH variable, add a forward slash after `append="true"`  
Before the edit, the line looks like this: `$ORACLE_HOME/lib:/u01/app/oracle/product/TimesTen/tt1122/lib" append="true">`

After the edit, the line looks like this: `$ORACLE_HOME/lib:/u01/app/oracle/product/TimesTen/tt1122/lib" append="true"/>`

- For the `TIMESTEN_DLL` variable, remove the unnecessary `</variable>` tag at the end of the line

Before the edit, the line looks like: `<variable id="TIMESTEN_DLL" value="/u01/app/oracle/product/TimesTen/tt1122/lib/libttclient.so"/></variable>`

After the edit, the line looks like: `<variable id="TIMESTEN_DLL" value="/u01/app/oracle/product/TimesTen/tt1122/lib/libttclient.so"/>`

The `opmn.xml` file is in the following directory:

`/u01/app/oracle/product/fmw/instances/instance1/config/OPMN`

## Eth0 Network Might Fail When Starting an Exalytics Machine for the First Time After Installing Oracle Exalytics Release 2

Impacted Releases: 2.0

When you start an Exalytics Machine for the first time after installing the Oracle Release 2, you may notice that the `eth0` network fails to start.

To resolve the problem, configure the network by running the `exalytics_configure_network.sh` script, after you install Oracle Exalytics Release 2.

## Bluetooth Service Enabled on an Exalytics Machine

Impacted Releases: 2.0

When you start an Exalytics Machine, you will notice that Bluetooth service is enabled.

For security reasons, perform the following actions to disable Bluetooth services on the Exalytics Machine:

1. Log in as the root user.
2. To query the status of Bluetooth service, enter the following command:

```
# chkconfig --list bluetooth
```

If Bluetooth is enabled, the output displayed is similar to the following:

```
bluetooth 0:off 1:off 2:on 3:on 4:on 5:on 6:off
```

3. To disable Bluetooth service, enter the following command:

```
# chkconfig bluetooth off
```

4. To check the status of Bluetooth service, enter the following command:

```
# chkconfig --list bluetooth
```

5. Confirm that the output displayed is similar to the following:

```
bluetooth 0:off 1:off 2:off 3:off 4:off 5:off 6:off
```

## InfiniBand Connection Fails When an Exalytics Machine is Started for the First Time After Installing Oracle Exalytics Release 2

Impacted Releases: 2.0

When you start an Exalytics Machine for the first time after installing the Oracle Exalytics Release 2, you may notice that the Exalytics Machine is unable to connect to InfiniBand. To resolve the problem, you must restart the Exalytics Machine again.

## Exalytics Deployments Affected by Bash "Shellshock" Vulnerabilities- CVE-2014-7169

Impacted Releases: 2.0

All virtual and non-virtual Exalytics deployments affected by Bash Shellshock Vulnerabilities (CVE-2014-7169) may be remotely exploited without authentication.

To remedy the vulnerability, navigate to My Oracle Support and follow the instructions detailed in Note 1930588.1.

## Exalytics Virtual Deployments Affected by Venom Vulnerability- CVE-2015-3456

Impacted Releases: 2.0

All Exalytics virtual deployments may be affected by the Venom Vulnerability (CVE-2015-3456).

To remedy the vulnerability, navigate to My Oracle Support and follow the instructions detailed in Note 2011585.1.

## ILOM (Release 3.1.2.24.d) Is Unable to Verify Status of Sun Flash Accelerator F80 Adapter Cards on an X2-4 or X3-4 Exalytics Machine

Impacted Releases: 2.0

When using ILOM (Release 3.1.2.24.d), you may notice that ILOM is unable to verify status of the Sun Flash Accelerator F80 800GB adapter cards on an X2-4 or X3-4 Exalytics Machine.

Note that while ILOM does not recognize the cards under its PCIe inventory, the cards are accessible under the operating system. To work around the limitation, and to list and verify status of the cards, enter one of the following commands as a root user:

- # /opt/exalytics/bin/exalytics\_CheckFlash.sh
- # ddoemcli

## Slow Network Connection on Oracle VM Guest

Impacted Releases: 2.0



When connecting to a Network File System (NFS) through Oracle VM Server and Oracle VM Guest, you may notice a slower connection to the NFS when connecting through Oracle VM Guest than when connecting through Oracle VM Server. To confirm and resolve the problem, navigate to My Oracle Support and follow the instructions detailed in Note 1930365.1.

## Auto Service Request Not Supported When Running Oracle Virtual Server Image

Impacted Releases: 2.0

Auto Service Request (ASR) events generated by Integrated Lights Out Manager (ILOM) are not supported when using Oracle Exalytics Base Images for Exalytics Oracle VM x86-64.

## Sockets Direct Protocol (SDP) Not Supported With InfiniBand When Configured on Oracle Exalytics Virtual Deployments

Impacted Releases: 2.0

Sockets Direct Protocol (SDP) is not supported with InfiniBand that is configured on a Oracle Exalytics Virtual deployment.

## Non-Virtualized Exalytics Machine Fails to Respond When Sockets Direct Protocol (SDP) is Enabled With InfiniBand Connectivity

Impacted Releases: 2.0

When you apply the Oracle Exalytics Release 2 on a non- virtualized Exalytics Machine, you might notice that the Exalytics Machine fails to respond when SDP is enabled with InfiniBand connectivity.

To resolve the problem, navigate to My Oracle Support and follow the instructions detailed in Note 1994907.1.

## QLogic Cards Not Supported for Networking on Oracle Exalytics Virtual Deployments

Impacted Releases: 2.0

Please note that QLogic cards are not supported for networking on Oracle Exalytics virtual deployments.

## VNC Client Unable to Connect to the VNC Server on an Exalytics Machine Installed on an Oracle Linux 6 Operating System

Impacted Releases: 2.0

When you try using the VNC client to access the VNC server with a non-virtualized Exalytics Machine that is installed on an Oracle Linux 6 operating system, you might notice that the VNC client is unable to connect to the VNC server.

To resolve the problem, log on as the root user and run the following commands to turn off iptables:

```
#chkconfig iptables off
#service iptables stop
```

## Ignore Error Messages in the Exalytics Startup and Shutdown Log

Impacted Releases: 2.0

When you start and stop an Exalytics Machine, you might notice the following error messages displayed in the log:

During startup:

```
-----
Bringing up interface eth0:
@ Determining IP information for eth0... failed; no link present.  Check cable?
@ [FAILED]
@ .
@ .
@ .
```

During shutdown:

```
-----
@ Shutting down interface usb0: [ OK ]
@ .
@ Shutting down loopback interface: [ OK ]
@ .
@ Unloading OpenIB kernel modules:
@ Failed to unload rds_rdma
@ .
@ Failed to unload ib_ipoib
@ .
@ Failed to unload rdma_cm
@ .
@ Failed to unload ib_cm
@ .
@ Failed to unload iw_cm
@ .
@ Failed to unload ib_addr
@ .
@ Failed to unload ib_sa
@ .
@ Failed to unload ib_mad
@ .
@ Failed to unload ib_core
@ [FAILED]
```

You can ignore these messages.

## Oracle Exalytics Installation Issues and Workarounds

This section describes the installation issues and workarounds related to Oracle Exalytics. It includes the following sections:

- [Exalytics Domain Management Utility Script Times Out When Scaling Out a Domain on the Secondary Exalytics Machine](#)

### Exalytics Domain Management Utility Script Times Out When Scaling Out a Domain on the Secondary Exalytics Machine

Impacted Releases: 2.0

When scaling out a primary domain on the secondary Exalytics Machine, you may notice that sometimes the script times out when starting a scaled out Managed Server on the secondary machine. Note that although the script times out, the domain is installed successfully.

To resolve this problem and to view the scaled out domain on the secondary Exalytics Machine, perform the following actions:

1. Confirm that the scaled out domain is successfully installed by performing the following actions:
  - a. Log on to Oracle Enterprise Manager.
  - b. Expand **WebLogic Domain**, then **bifoundation\_domain**, then **Admin Server**, and then **bi\_cluster**.
  - c. Under **bi\_cluster**, confirm **bi\_server2** is up and running.
2. Register the scaled out domain on the secondary Exalytics Machine by entering the following command:

```
/opt/exalytics/bin/exalytics-domain-management.sh --  
action=register_existing_domain --input=<location and name of input file> --  
domain=<domain_name_on_the_secondary_machine>
```

3. Verify that the scaled out domain is listed on the secondary Exalytics Machine by entering the following command on the secondary Exalytics Machine:

```
/opt/exalytics/bin/exalytics-domain-management.sh --action=list_domains --  
input=<location and name of input file>
```

4. Confirm that the scaled out domain is listed on the secondary Exalytics Machine.

## Oracle Exalytics Post-Installation Issues and Workarounds

This section describes the post-installation issues and workarounds related to Oracle Exalytics. It includes the following sections:

- [Delete Extraneous Directory After Installation](#)

## Delete Extraneous Directory After Installation

Impacted Releases: 2.0

When you use the installation scripts (manual method) to install software on the Exalytics Machine, you see that the scripts create the following directory:

```
/home/oracle/aggregate_store/tt_aggr_store
```

The scripts create this directory in error, and you must delete it before instantiating the TimesTen database with a DSN called TT\_AGGR\_STORE.

You can leave intact the following directories, because they are referenced by the TimesTen DSN:

```
/home/oracle/aggregate_store/
```

```
/home/oracle/aggregate_store/logs
```

## Oracle Exalytics Patching Issues and Workarounds

This section describes the patching issues and workarounds related to Oracle Exalytics Release 2 and includes the following section:

- [Oracle VM Server 3.2.9 Supports Oracle VM Manager 3.2.9 and Later Versions \(in the Oracle VM Manager 3.2.x Releases\)](#)
- [Patch to Upgrade From OVM 3.2.9 to OVM 3.3.3](#)

### Oracle VM Server 3.2.9 Supports Oracle VM Manager 3.2.9 and Later Versions (in the Oracle VM Manager 3.2.x Releases)

Impacted Releases: 2.0 and 2.1

In Oracle Exalytics Release 2 for Oracle VM Linux x86-64, Oracle VM Server 3.2.9 supports Oracle VM Manager 3.2.9 and later versions (in the Oracle VM Manager 3.2.x releases).

#### Note:

- You must install Oracle VM Manager 3.2.9 or later versions (in the Oracle VM Manager 3.2.x releases) outside the Exalytics Machine.
- Oracle Exalytics X5-4 and X6-4 supports Oracle VM Server 3.3.3 and later versions.

### Patch to Upgrade From OVM 3.2.9 to OVM 3.3.3

Impacted Releases: Release 2.0.0.1.0

In Oracle Exalytics Release 2.1 to upgrade from OVM 3.2.9 to 3.3.3 on Exalytics X series, the patch 22546910 should be applied. This patch can only be applied after upgrading OVM Manager from 3.2.9 to 3.3.3.

For instructions to install the patch, see Upgrading Oracle VM Server 3.2.9 to Oracle VM Server 3.3.3 in Oracle Exalytics In Memory Machine Installation and Administration Guide for Linux.

## Oracle Exalytics Documentation Errata

This section describes errata in Oracle Exalytics documentation and help systems. It includes the following topics:

- [Oracle Exalytics In-Memory Machine Installation and Administration Guide for Linux](#)
- [Oracle Exalytics In-Memory Machine Owner's Guide Exalytics X2-4, X3-4, X4-4, X5-4, and X6-4](#)

### Oracle Exalytics In-Memory Machine Installation and Administration Guide for Linux

This section describes documentation errata in *Oracle Exalytics In-Memory Machine Installation and Administration Guide for Linux*.

There are no known issues at this time.

### Oracle Exalytics In-Memory Machine Owner's Guide Exalytics X2-4, X3-4, X4-4, X5-4, and X6-4

This section describes documentation errata in *Oracle Exalytics In-Memory Machine Owner's Guide Exalytics X2-4, X3-4, X4-4, X5-4, and X6-4*.

There are no know issues at this time.

## Oracle Exalytics Release 2.1 Software Release Notes

This section contains the following topics:

- [Patch Requirements](#)

### Patch Requirements

Install the following patches to update the Oracle Exalytics Release 2.1.

**Table 1-1 Patches Required for R2.1**

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### Patches Required for R2.1

**Table 1-1 (Cont.) Patches Required for R2.1**

Patch Name	Description
20431965	Patchset Upgrade Utility for Exalytics Base Image 2.2.0.0.0 for Oracle VM X86-64 (Patch)
22546910	Create a Patch with Virtual Image for X5-4 Machines (Patch)
23332931/23322047	Tracking Bug for R2.1 OL6 Upgrade (System Patch)
24427676	FAI: Flash Configuration Failed and did not create or U02 (Patch)
24750720	IB Diagnostic Tools Does not work with R2.1 Installation and Upgrade (Patch)
24901336	Patch Creation for Bugs (Patch)
25101855	Security Patch for Exalytics OL6 Based Virtual Image for OVS 3.3.3 (CVE-2016-5195)
25102056	Security Patch for Exalytics R2 Images OVS 3.2.9 (For CVE-2016-5195)
25139780	R2.1 VM Template shows wrong "#IMAGEINFO" Output (Patch)
25299460	SW2.1 Exalytics_Configure_Network.SH Script Fails 10 G Config On X2-4 or X3-4 (Patch)
25699640	Missing Configure_For_EMCC.SH ON EXALYTICS X5-4 (Patch)
25949480	Latest Kernel Security Patch For OL6 BM Image ( FOR R2.0 OL6 AND R2.1 Images) (Patch)
26384965	Kernel Security Patch For OL6 BM IMG (For R2.0 OL6 and R2.1 Images, as on Jul 1st) (Patch)
26385014	Security Patch for Exalytics OL6 Based for OVS 3.3 (OL6 Images as on Jul 1st)
26525839	Bare Metal R2.1 OEL6 System Performance Versus Bare Metal R2.0 OEL5 (Patch)

# Documentation Accessibility

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Oracle® Exalytics In-Memory Machine for Linux Release Notes, Exalytics X2-4, X3-4, X4-4, X5-4, and X6-4 Release 2.1 (2.0.0.1.0)  
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