Oracle® Exalytics In-Memory Machine for Linux

Release Notes

Exalytics X2-4 and X3-4 Release 1 (1.0)

E49604-06

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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 Release 1 (1.0.0.0), also known as Release 11.1.1.6.0

- Oracle Exalytics X2-4 Release 1 Patchset 1 (1.0.0.1)

- Oracle Exalytics X2-4 Release 1 Patchset 2 (1.0.0.2)

- Oracle Exalytics X2-4 and X3-4 Release 1 Patchset 3 (1.0.0.3)

- Oracle Exalytics X2-4 and X3-4 Release 1 Patchset 4 (1.0.0.4)

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 and X3-4*

The manuals are available in the Oracle Exalytics Library at:

http://docs.oracle.com/cd/E49626_01/index.htm

The following list describes the sections of this document:

- Section 1, "Oracle Exalytics Machine X2-4 and X3-4 Release Notes"

- Section 2, "Oracle Exalytics Release 1 Software Release Notes"

- Section 3, "Documentation Accessibility"

How to Use These Release Notes

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/E49626_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

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1 Oracle Exalytics Machine X2-4 and X3-4 Release Notes

This section contains the following topics:

- Section 1.1, "Latest Product Information"

1.1 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

2 Oracle Exalytics Release 1 Software Release Notes

This section contains the following topics:

- Section 2.1, "Patch Requirements"
- Section 2.2, "Oracle Exalytics Issues and Workarounds Identified Since the Last Revision"
- Section 2.3, "Oracle Exalytics General Issues and Workarounds"
- Section 2.4, "Oracle Exalytics Installation Issues and Workarounds"
- Section 2.5, "Oracle Exalytics Post-Installation Issues and Workarounds"
- Section 2.6, "Oracle Exalytics Patching Issues and Workarounds"
- Section 2.7, "Oracle Exalytics Documentation Errata"

2.1 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, "Applying Oracle Exalytics Release 1 Patchset 4 (1.0.0.4)" in *Oracle Exalytics In-Memory Machine Installation and Administration Guide for Linux*.

2.2 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:

- Section 2.3.17, "InfiniBand Interfaces Not Supported on a Virtualized Exalytics Machine"

2.3 Oracle Exalytics General Issues and Workarounds

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

- Section 2.3.1, "Manually Editing Properties for Full-Text Search"
- Section 2.3.2, "Default Address Configured for the eth0 Interface Varies"

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2.3.1 Manually Editing Properties for Full-Text Search

Impacted Releases: 1.0, 1.0.0.1, 1.0.0.2, 1.0.0.3, 1.0.0.4

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*.

2.3.2 Default Address Configured for the eth0 Interface Varies

Impacted Releases: 1.0, 1.0.0.1, 1.0.0.2, 1.0.0.3, 1.0.0.4

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
```

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

Impacted Releases: 1.0.0.1, 1.0.0.2, 1.0.0.3, 1.0.0.4

Auto Service Request (ASR) events generated by Integrated Lights Out Manager (ILOM) continue to be available when using Oracle Exalytics Base Image 2.0.1.1.0 for Exalytics Oracle VM x86-64, with one exception. ASR events for hard disk failures are not supported when using Oracle Exalytics Base Image 2.0.1.1.0 for Exalytics Oracle VM x86-64.

2.3.4 Modifying the OPMN.xml File after Scripted Install

Impacted Releases: 1.0.0.2, 1.0.0.3

After performing an Oracle Exalytics install using the scripted install procedure, edit the resulting 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

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

Impacted Releases 1.0.0.2, 1.0.0.3, 1.0.0.4

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

```
date _and _time wtigervm1 kernel: BUG: soft lockup - CPU#5 stuck for 141s!
sadc:1066]
date_ and _time wtigervm1 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) pcspkr(U)
i2c_core(U) ata_piix(U) ata_generic(U) xen_blkfront(U) [last unloaded:
ipmi_msghandler
date_and_time wtigervm1 kernel: CPU 5:
date_and-time wtigervm1 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) pcspkr(U)
i2c_core(U) ata_piix(U) ata_generic(U) xen_blkfront(U) [last unloaded:
ipmi_msghandler]
date_and_time wtigervm1 kernel: Pid: 1066, comm: sadc Not tainted
2.6.32-200.21.2.el5uek #1 HVM domU
date_and_time wtigervm1 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
```

2.3.6 InfiniBand Not Supported When Running Oracle Virtual Server Image

Impacted Releases: 1.0.0.1, 1.0.0.2, 1.0.0.3

InfiniBand interfaces are not supported for network communication when using Oracle Exalytics Base Image 2.0.1.1.0 for Exalytics Oracle VM x86-64.

To establish network connectivity from virtual machines to Exadata, you must connect through 1GB or 10GB Ethernet interfaces.

2.3.7 Unable to Modify Memory Settings of a Guest Virtual Machine

Impacted Releases: 1.0.0.1, 1.0.0.2, 1.0.0.3, 1.0.0.4

When modifying the memory settings of an existing guest virtual machine, the following message may be displayed:

"The memory limit cannot be different than the current memory size on an HVM virtual machine".

To resolve the issue, increase the memory settings of the template used to create the virtual machine before you modify the memory settings of the guest machine.

To create a new guest virtual machine with a memory setting greater than the default, please set the required value in the template first, then create the guest virtual machine.

2.3.8 Linux Operating System Crashes After 208 Days of Continuous Use

Impacted Releases: 1.0.0.1, 1.0.0.2, 1.0.0.3

Linux operating system crashes after 208 days of continuous use.

To resolve the issue, restart the Exalytics Machine before 208 days of continuous use.

2.3.9 Slow Network Connectivity after Upgrading Oracle VM Server 3.0.3 to Oracle VM Server 3.2.4

Impacted Releases:1.0.0.3, 1.0.0.4

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.

2.3.10 Flash Configuration May Fail on the Exalytics X3-4 Machine with New Flash Cards

Impacted Releases: 1.0.0.3, 1.0.0.4

When you configure Flash for the first time on the Exalytics X3-4 machine, Flash configuration may fail by displaying additional number of Flash cards.

To resolve the problem, clear the additional number of Flash cards by rerunning the following command:

```
# ./opt/exalytics/bin/configure_flash --RAID01
```

The output for each Flash card should be similar to the following:

```
Fetching some info on installed flash drives ....
Driver version :   01.250.41.04 (2012.06.04)

Supported number of flash drives detected (6)

Flash card 1 :
Overall health status : GOOD
Size (in MB) : 381468
Capacity (in bytes) : 400000000000
Firmware Version : 108.05.00.00
Devices:  /dev/sdf /dev/sde /dev/sdd /dev/sdc
```

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

Impacted Releases: 1.0.0.3, 1.0.0.4

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 instructed in Section 2.3.4, "Modifying the OPMN.xml File after Scripted Install."

2.3.12 Eth0 Network Might Fail When Starting an Exalytics Machine for the First Time After Installing Oracle Exalytics Release1 Patchset 4 Base Image

Impacted Releases: 1.0.0.4

When you start an Exalytics Machine for the first time after installing the Oracle Release 1 Patchset 4 Base Image, 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 1 Patchset 4 Base Image.

2.3.13 Bluetooth Service Enabled on an Exalytics Machine

Impacted Releases: 1.0.0.4

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

2.3.14 InfiniBand Connection Fails When an Exalytics Machine is Started for the First Time After Installing Oracle Exalytics Release1 Patchset 4

Impacted Releases 1.0.0.4

When you start an Exalytics Machine for the first time after installing the Oracle Exalytics Release 1 Patchset 4, you may notice that the Exalytics Machine is unable to connect to InfiniBand. To resolve the problem, you must restart the Exalytics Machine again.

2.3.15 LSI Firmware Version of 12.12.0-0178 or Higher is Required to Run Capacity on Demand Script

Impacted Releases 1.0.0.4

If you are deploying Oracle Infrastructure as a Service (IaaS) and running the Capacity on Demand script, you must ensure that the LSI firmware version is 12.12.0-0178 or higher.

To confirm LSI Firmware version:

1. Log on to the Exalytics Machine as the root user.

2. Enter the following command:

```
# /opt/MegaRAID/MegaCli/MegaCli64 -AdpAllInfo -a0 | grep "FW Package"
```

Confirm that the following message is displayed:

FW Package Build: 12.12.0-0078

3. If the firmware version is less than 12.12.0-0178, perform the following steps to upgrade the firmware:

   a. Navigate to the following link

   http://www.lsi.com/sep/Pages/oracle/sg_x_sas6-r-int-z.aspx

   b. Download and unzip the MR_FW_pkg12.12.0-178_app2.130.373-2809.zip file.

   The zip file contains the file MR_FW_2108V_4MB.rom

   c. To install the firmware, enter the following command:

   ```
   # /opt/MegaRAID/MegaCli/MegaCli64 -adpfwflash -f MR_FW_2108V_
   4MB.rom -a0
   ```

2.3.16 Oracle Database In-Memory Is Certified for All Exalytics Machines on Oracle Exalytics Release 1 Patchset 4 (1.0.0.4) or Later

Impacted Releases 1.0.0.4

Oracle Database In-Memory is now certified for all Exalytics Machines that have installed Oracle Exalytics Release 1 Patchset 4 (1.0.0.4) or a later Patchset. The following Oracle Database In-Memory configurations are certified to run on an Exalytics Machine:

- Oracle Database 12c Enterprise Edition Release 12.1.0.2.0 - 64bit Production with In-Memory Option.

- Database type of DATA_WAREHOUSE.

- Data warehouse applications. Online Transaction Processing (OLTP) applications are not supported on the Exalytics Machine.

- Storage option of File System only. Oracle Automatic Storage Management (ASM) is not supported.

- Single database instance. Oracle Real Application Clusters (RAC) and Oracle Grid are not supported.

For instructions on how to install and configure Oracle Database In-Memory on an Exalytics Machine, navigate to My Oracle Support and review Document ID 1925793.1.

2.3.17 InfiniBand Interfaces Not Supported on a Virtualized Exalytics Machine

Impacted Releases: 1.0.0.4

Infiniband interfaces are not supported when using Exalytics on a virtual deployment. To establish network connection on a virtual deployment, you must connect through 1GB or 10GB Ethernet interfaces.

2.4 Oracle Exalytics Installation Issues and Workarounds

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

- Section 2.4.1, "Additional Step for Creating a Home Directory Partition Needed"

- Section 2.4.2, "Installation Fails with Permissions Error"

- Section 2.4.3, "Auto-configuration Script when Installing the New Exalytics Image"

- Section 2.4.4, "Exalytics Domain Management Utility Script Times Out When Scaling Out a Domain on the Secondary Exalytics Machine"

2.4.1 Additional Step for Creating a Home Directory Partition Needed

Impacted Releases: 1.0

This issue is fixed in *Oracle Exalytics In-Memory Machine Installation and Administration Guide for Linux* (E24076-04).

Chapter 2 of *Oracle Exalytics In-Memory Machine Installation and Administration Guide for Linux* describes the process for installing software on the Exalytics machine. There is another step needed in the process before you download the software as follows:

To create a /home directory partition:

1. After logging in as the root user, configure the /home directory on the hard disk using commands such as the following ones:

```
# parted /dev/sd

(parted) mklabel msdos
(parted) mkpart
```

```
Primary/extended? Primary
File system type? [ext2]? ext3
Start? 0
End? 1797GB
(parted) quit

# mkfs.ext3 /dev/sdb1
# mount /dev/sdb1 /home
```

2. Add the following line to the /etc/fstab file:

   ```
   /dev/sdb1          /home   ext3      defaults 1 2
   ```

3. Restart the computer.

4. Verify that the partition has been created by entering the following command:

   ```
   df -lh
   ```

2.4.2 Installation Fails with Permissions Error

Impacted Releases: 1.0

This issue is fixed in *Oracle Exalytics In-Memory Machine Installation and Administration Guide for Linux* (E24076-04).

As part of the process of installing software on the Exalytics Machine, you prepare to run installation scripts by editing the oraInst.loc file. When you run the scripts, you might find that they fail and display an error message such as the following one:

"You do not have permissions to write to the inventory at <inventory_location>"

In addition, you notice what appears to be two inventory directories with the same name in the location that is specified in the oraInst.loc file. In fact, the name of one directory likely includes an extra space at the end. The extra space is likely included because you inadvertently added it at the end of the line that contains the 'inventory_loc' path in the oraInst.loc file.

To resolve this issue, remove the space from the line in the oraInst.loc file that contains the path name and restart the installation.

2.4.3 Auto-configuration Script when Installing the New Exalytics Image

Impacted Releases: 1.0.0.3

After you download and complete the installation of a new Exalytics image, a configuration script automatically starts, initially asking you to enter details about the exalogic rack type (enter 3 for full) and node index (enter 1). This script will only configure the IB ports, the eth0 port, hostname and domain settings. If you need to configure further networking such as bonding on the 1GB or 10GB Ethernet ports, please use the Exalytics network configuration script found in the /opt/exalytics/bin directory.

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

Impacted Releases: 1.0.0.4

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.

2.5 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:

- Section 2.5.1, "Delete Extraneous Directory After Installation"

- Section 2.5.2, "Changes Required to sys.odbc.ini File After Installation"

- Section 2.5.3, "mcelog Warning Generated Unnecessarily"

2.5.1 Delete Extraneous Directory After Installation

Impacted Releases: 1.0, 1.0.0.1, 1.0.0.2, 1.0.0.3, 1.0.0.4

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

2.5.2 Changes Required to sys.odbc.ini File After Installation

Impacted Releases: 1.0

This issue is fixed in *Oracle Exalytics In-Memory Machine Installation and Administration Guide for Linux* (E24076-04).

When you use the installation scripts to install software on the Exalytics Machine, the scripts automatically add a DSN entry into the sys.odbc.ini file for TimesTen. You must edit this TT_AGGR_STORE DSN entry so that it reads as follows:

```
[TT_AGGR_STORE]
Driver=/home/oracle/TimesTen/tt1122/lib/libtten.so
DataStore=/home/oracle/aggregate_store/tt_aggr_store
LogDir=/home/oracle/aggregate_store/logs
DatabaseCharacterSet=AL32UTF8
ConnectionCharacterSet=AL32UTF8
LogFileSize=1024
LogBufMB=1024
LogBufParallelism=16
Preallocate=0
PermSize=25000
TempSize=25000
MemoryLock=4
CkptFrequency=30
CkptLogVolume=0
CkptRate=20
PrivateCommands=1
RecoveryThreads=40
```

The changes that you must make are the following:

- Change LogBufParallelism to a value of 16 from the installed value of 12.

- Remove the following lines:

  ```
  RangeIndexType=1
  Connections=1024
  ```

Note that the settings for PermSize and TempSize are altered per the requirements for each Exalytics Machine. The values that are set as part of the installation are only the initial settings.

In addition, in the section of the sys.odbc.ini file that starts `#[sampledb_1122]`, the scripts incorrectly include duplicate entries that you must delete or comment out, as shown in the following list:

```
ConnectionCharacterSet=AL32UTF8
LogFileSize=1024
LogBufMB=1024
LogBufParallelism=16
Preallocate=0
PermSize=25000
TempSize=25000
MemoryLock=4
CkptFrequency=30
CkptLogVolume=0
CkptRate=20
PrivateCommands=1
RangeIndexType=1
Connections=1024
RecoveryThreads=40
```

2.5.3 mcelog Warning Generated Unnecessarily

Impacted Releases: 1.0, 1.0.0.1, 1.0.0.2, 1.0.0.3

On the Exalytics Machine as delivered, the cron daemon emails the following warning message to the system administrator every hour:

```
mcelog: warning: record length longer than expected. Consider update.
```

To prevent this warning message from occurring, edit the /etc/cron.hourly/mcelog.cron file and comment out the line that contains the command that runs mcelog.

Before you make the change, the line in the mcelog.cron file is shown as follows:

```
/usr/sbin/mcelog --ignorenodev --filter >> /var/log/mcelog
```

After you make the change, the line in the mcelog.cron file is shown as follows:

```
#/usr/sbin/mcelog --ignorenodev --filter >> /var/log/mcelog
```

2.6 Oracle Exalytics Patching Issues and Workarounds

This section describes the patching issues and workarounds related to Oracle Exalytics Release 1 Patchset 1 (1.0.0.1) and Oracle Exalytics Release 1 Patchset 3 (1.0.0.3). It includes the following sections:

- Section 2.6.1, "Configuring Oracle TimesTen Checkpoint Frequency When Not Using Aggregate Persistence"

- Section 2.6.2, "Downloading Oracle Essbase 11.1.2.2.100 for Release 1 Patchset 1 (1.0.0.1)"

- Section 2.6.3, "Flash not Supported with Oracle Virtual Machine 3.0.3"

- Section 2.6.4, "Oracle VM Server 3.2.7 Supports Oracle VM Manager 3.2.7 and Later Versions (in the Oracle VM Manager 3.2.x Releases)"

2.6.1 Configuring Oracle TimesTen Checkpoint Frequency When Not Using Aggregate Persistence

Impacted Releases: 1.0.0.1

This issue is fixed in *Oracle Exalytics In-Memory Machine Installation and Administration Guide for Linux* (E24076-06).

When you load data into an Oracle TimesTen database schema that uses Aggregate Persistence, set the CkptFrequency parameter to -1 by following the instructions in Section 7.2.6.1.1 "Configuring Oracle TimesTen Checkpoint Frequency" of *Oracle Exalytics In-Memory Machine Installation and Administration Guide for Linux.*

If you load data into an Oracle TimesTen database schema that does not use Aggregate Persistence, then locate the DSN entry for the schema in the *timesten-install-dir/info/sys.odbc.ini* file and edit the three parameters for that DSN entry as follows:

- CkptFrequency=30

- CkptLogVolume=0

- CkptRate=0

2.6.2 Downloading Oracle Essbase 11.1.2.2.100 for Release 1 Patchset 1 (1.0.0.1)

Impacted Releases: 1.0.0.1

This issue is fixed in *Oracle Exalytics In-Memory Machine Installation and Administration Guide for Linux* (E24076-06).

If Oracle Essbase is deployed on the Exalytics machine, then download and install Oracle Essbase 11.1.2.2.000, Patchset 11.1.2.2.100 from the Oracle Software Delivery Cloud web site.

To download Oracle Essbase 11.1.2.2.100 for Release 1 Patchset 1:

1. Navigate to the Oracle Software Delivery Cloud web site at the following link:

   http://edelivery.oracle.com

2. For Product Pack, select **Oracle Enterprise Performance System**.

3. For Platform, select **Linux x86-64**.

4. Click **Go**.

5. Select and download **Oracle Enterprise Performance Management System (11.1.2.2.0) Media Pack for Linux x86-64**.

   The 11.1.2.2.0 media pack contains Oracle Essbase 11.1.2.2.100.

2.6.3 Flash not Supported with Oracle Virtual Machine 3.0.3

Impacted Releases:1.0.0.3

Flash is not supported by Oracle VM 3.0.3 included in the Oracle Exalytics Base Image (v 2.0.1.1.0) for Exalytics Oracle VM x86-64, currently certified with Oracle Exalytics Release 1 Patchset 3.

Therefore, Flash capabilities are not available for customers running Oracle Exalytics Base Image (v 2.0.1.1.0) for Exalytics Oracle VM x86-64 on the following hardware configurations:

- Oracle Exalytics In-Memory Machine X3-4

- Oracle Exalytics In-Memory Machine X2-4 with Oracle Exalytics In-Memory Machine X2-4 Flash Upgrade kit

- Oracle Exalytics In-Memory Machine X2-4 with Oracle Exalytics In-Memory Machine X2-4 Memory and Flash Upgrade kit

An update to the Oracle Base Image for Exalytics Oracle VM x86-64 for enabling Flash capability for Oracle Exalytics is expected to be released shortly after the Oracle Exalytics Release 1 Patchset 3.

2.6.4 Oracle VM Server 3.2.7 Supports Oracle VM Manager 3.2.7 and Later Versions (in the Oracle VM Manager 3.2.*x* Releases)

Impacted Releases 1.0.0.4

In Oracle Exalytics Patchset 4 (1.0.0.4) for Oracle VM Linux x86-64, Oracle VM Server 3.2.7 supports Oracle VM Manager 3.2.7 and later versions (in the Oracle VM Manager 3.2.*x* releases).

> **Note:**   You must install Oracle VM Manager 3.2.7 or later versions (in the Oracle VM Manager 3.2.*x* releases) outside the Exalytics Machine.

2.7 Oracle Exalytics Documentation Errata

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

- Section 2.7.1, "Oracle Exalytics In-Memory Machine Installation and Administration Guide for Linux"

- Section 2.7.2, "Oracle Exalytics In-Memory Machine Owner's Guide Exalytics X2-4 and X3-4"

2.7.1 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*. It includes the following topics:

- Section 2.7.1.1, "Updates to Procedure for Configuring ASR"

- Section 2.7.1.2, "Incorrect Indication of sys.odbc.ini File"

- Section 2.7.1.3, "Incorrect Instructions for Editing the Properties File"

- Section 2.7.1.4, "Incorrect Procedure for Configuring ASR"

- Section 2.7.1.5, "Incorrect Procedure for Replacing Defective Flash Cards"

- Section 2.7.1.6, "Incorrect Name of the Exalytics Configuration Utilities Script"

2.7.1.1 Updates to Procedure for Configuring ASR Impacted Releases: 1.0.0.1

This issue is fixed in *Oracle Exalytics In-Memory Machine Installation and Administration Guide for Linux* (E24076-06).

Chapter 7 contains Section 7.2.5, "Installing the Oracle Exalytics Release 1 Patchset 1." That section includes a procedure for configuring Auto Service Request (ASR). Replace the steps in that procedure with the ones in Section 2.7.2.1, "Updates to Procedure for Configuring ASR."

2.7.1.2 Incorrect Indication of sys.odbc.ini File Impacted Releases: 1.0.0.1

This issue is fixed in *Oracle Exalytics In-Memory Machine Installation and Administration Guide for Linux* (E24076-06).

The references to the sys.odbc.ini file are incorrect in two locations of the guide. In Section 4.5.3 (Step 4) and Section 7.2.6.1.1 (Step 1), the file name is shown as *timesten-install-root/info/sys.odbc.ini*. The file name must be changed to the following:

timesten-install-dir/info/sys.odbc.ini.

2.7.1.3 Incorrect Instructions for Editing the Properties File Impacted Releases: 1.0.0.1

This issue is fixed in *Oracle Exalytics In-Memory Machine Installation and Administration Guide for Linux* (E24076-07).

Section 3.2.7, "Step 7: Editing the Properties File" contains points to keep in mind as you edit the file. The fourth point in the list is to ensure that the file system does not include a bim.mw.home directory, which is incorrect. The line should read as follows:

"Ensure that the file system includes an empty directory to be used as the bim.mw.home directory in the properties file."

2.7.1.4 Incorrect Procedure for Configuring ASR Impacted Releases: 1.0.0.3

This issue is fixed in *Oracle Exalytics In-Memory Machine Installation and Administration Guide for Linux* (E49602-01).

Chapter 7 contains Section 7.4.5, "Installing the Oracle Exalytics Release 1 Patchset 3." That section includes a procedure for configuring Auto Service Request (ASR). Replace the steps in that procedure with the following procedures:

1. To configure ASR, follow instructions detailed in "Chapter 9 Installing Auto Service Request (ASR)" in *Oracle Exalytics In-Memory Machine Owner's Guide Exalytics X2-4 and X3-4*, but change the following steps:

2. Replace Step 5 in "Section 9.3 Before You Begin" with the following steps:

   a. Navigate to the /opt/exalytics/asr directory and add the following line to the /etc/inittab file

      emh1:345:respawn:/opt/exalytics/asr/bda_mon_hw_asr.pl -server

   b. At the command line, enter the following command to initialize and start the bda_mon server

      ```
      init q
      ```

3. Replace the commands in Step 2 in "Section 9.7 Configuring Telemetry Sources" by the following commands:

   ```
   # cd /opt/exalytics/asr
   ```

   ```
   # ./setup_asr_ilom.pl -host <hostname OR ip>
   ```

2.7.1.5 Incorrect Procedure for Replacing Defective Flash Cards Impacted Releases 1.0.0.3, 1.0.0.4

This issue is fixed in *Oracle Exalytics In-Memory Machine Installation and Administration Guide for Linux* (E49602-02).

Chapter 2 contains Section 2.3.4, "Replacing a Defective Flash Card". That section includes an incorrect command in Step 11 to re-assemble the failed RAID0. The correct command in Step 11 is as follows:

```
# mdadm /dev/md2 --create /dev/sdg /dev/sdf /dev/sde /dev/sdk /dev/sdh
/dev/sdj /dev/sdi /dev/sdo /dev/sdn /dev/sdm /dev/sdl /dev/sdab
```

2.7.1.6 Incorrect Name of the Exalytics Configuration Utilities Script Impacted Releases 1.0.0.3

This issue is fixed in *Oracle Exalytics In-Memory Machine Installation and Administration Guide for Linux* (E49602-01).

Chapter 7, Section 7.4.5.4 contains Step 4: Run the Oracle Exalytics Configuration Utilities Scripts. In Table 7-9 Oracle Exalytics Configuration Utilities Scripts and Step b (c), the name of the Exalytics Configuration script is incorrectly named as exalytics_CheckFlash. The correct name of the script is exalytics_CheckFlash.sh.

2.7.2 Oracle Exalytics In-Memory Machine Owner's Guide Exalytics X2-4 and X3-4

This section describes documentation errata in *Oracle Exalytics In-Memory Machine Owner's Guide Exalytics X2-4 and X3-4.* It includes the following topics:

- Section 2.7.2.1, "Updates to Procedure for Configuring ASR"

2.7.2.1 Updates to Procedure for Configuring ASR Impacted Releases: 1.0.0.1

This issue is fixed in *Oracle Exalytics In-Memory Machine Owner's Guide Exalytics X2-4 and X3-4*(E25369-06).

Chapter 8 contains Section 8.3, "Before You Begin." That section includes a procedure for configuring ASR. Replace the steps in that procedure with the following ones:

1. Create a directory using a command such as the following:

   ```
   mkdir -p /opt/exalytics/asr
   ```

2. Copy the following files into the new directory from the directory where you previously extracted them, and ensure that the two Perl files have execute permissions:

   bda_mon_hw_asr.pl

   setup_asr_ilom.pl

   common_subs.pm

   SUN-HW-TRAP-MIB.mib

3. Add the following line to the /etc/inittab file:

   ```
   emh1:345:respawn:/opt/exalytics/asr/bda_mon_hw_asr.pl -server
   ```

4. At the command line, execute the `init q` command to initialize and start the bda_ mon server.

5. Run the following commands to add executive permissions on the pl script:

   ```
   chmod +x setup_asr_ilom.pl
   ```

   ```
   chmod +x bda_mon_hw_asr.pl
   ```

6. Use the client to configure ASR destinations by using the instructions that are available from the following command that you execute from the /opt/exalytics/asr directory:

   ```
   ./bda_mon_hw_asr.pl -help
   ```

3 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.

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Oracle customers 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.