Oracle Exadata Assessment Report

System Health Score is 97 out of 100 (detail)

Cluster Summary

Heading	Description
System Type	Exadata
Cluster Name	Cluster-exa4
OS/Kernel Version	LINUX X86-64 OELRHEL 8 5.15.0-300.163.18.7.el8uek.x86_64
CRS Home - Version	/u01/app/23.0.0.0/grid - 23.7.0.25.01
DB Home - Version - Names	/u01/app/oracle/product/23.0.0.0/dbhome_1 - 23.7.0.25.01 - cdb1 database /u01/app/oracle/product/19.0.0.0/dbhome_1 - 19.26.0.0.250121 - cdb2 database
Exadata Version	25.1.3.0.0.250313
Number of nodes	8
Database Servers	2
Storage Servers	4
RDMA Network Fabric Switches	2
Exachk Version	25.3.0_20250327
Collection	exachk_exa4dbadm01_cdb2_042325_113318
Duration	11 mins, 7 seconds
Executed by	root
Arguments	-dball -switches exa4sw-rocea0,exa4sw-roceb0
Collection Date	23-Apr-2025 11:35:34

Please Note!

- There are 1 critical, 5 failed, 4 warning, 8 info, and 3 undetermined checks. By default it displays the most severe ones. To display other checks, please select the corresponding alert level checkbox. For details on these check alert levels please refer to the Exachk MOS Note 1070954.1, section "Exachk Checks Criticality Criteria".

- This version of Exachk is considered valid for 153 days from today or until a new version is available.

- Checks with status UNDETERMINED or SKIPPED or KILLED are reported in the following format: UNDETERMINED/SKIPPED/KILLED (alert level of check).
Example: UNDETERMINED (CRITICAL) or SKIPPED (FAIL) or KILLED (FAIL).

Exadata Critical Issues

The following Exadata Critical Issues (MOS Note 1270094.1) have been checked in this report:

- This environment has been checked for exposure to the following Exadata Critical Issues from MOS Note 1270094.1
-
- Exadata Database Server and Storage Server : EX1-EX65,EX67,EX69-EX78,EX80-EX85,EX87-EX92
- Oracle Database and Grid Infrastructure : DB1-DB4, DB6, DB9-DB50,DB52-DB54
- Exadata Fabric Switch : IB1-IB3,IB5-IB9

Note: Exadata Critical issues which are not shown in the following table are not applicable to the system configuration.

Exadata Critical Issues on Database Server

Status	Previous Status	Type	Description	Status On	Details
CRITICAL	NA	OS Check	Exadata Critical Issue DB50	All Database Servers	Hide

Exadata Critical Issue DB50	
Recommendation	Benefit / Impact: A system exposed to a critical issue may experience system-wide impact to performance or availability. Risk:

	Issue #1 - Bug 33610957, Bug 34534868 - During operating system startup Oracle Clusterware may not start because the CSS daemon (OCSSD process ocssd.bin) cannot be set to run with real-time scheduler priority. Issue #2 - (Bug 34286265 and Bug 34318125) or Bug 34672698 - Set process priority fails on critical database background processes, such as VMTK and LMS, which can result in performance degradation. Action / Repair: See Exadata Critical Issue DB50 in MOS note 1270094.1(below link)
Links	1. Note: 1270094.1 - Exadata Critical Issues
Needs attention on	exa4dbadm01, exa4dbadm02
Passed on	-

Status on exa4dbadm01:
CRITICAL => System is exposed to Exadata Critical Issue DB50

DATA FROM EXA4DBADM01 - EXADATA CRITICAL ISSUE DB50

```
RDBMS fixes for home - /u01/app/oracle/product/19.0.0.0/dbhome_1
34286265: not installed
34318125: not installed
34672698: not installed

Systemd service configuration files containing Delegate=yes:
/etc/systemd/system/ohasd.service
/etc/systemd/system/oracle-ohasd.service
/etc/systemd/system/oracle-tfa.service


Database process VKTM scheduling policy:
   PID POL CMD
 11198 RR  ora_vktm_cdb21
```
Click for more data

Status on exa4dbadm02:
CRITICAL => System is exposed to Exadata Critical Issue DB50

DATA FROM EXA4DBADM02 - EXADATA CRITICAL ISSUE DB50

```
RDBMS fixes for home - /u01/app/oracle/product/19.0.0.0/dbhome_1
34286265: not installed
34318125: not installed
34672698: not installed

Systemd service configuration files containing Delegate=yes:
/etc/systemd/system/ohasd.service
/etc/systemd/system/oracle-ohasd.service
/etc/systemd/system/oracle-tfa.service


Database process VKTM scheduling policy:
   PID POL CMD
 74174 TS  asm_vktm_+ASM2
```
Click for more data

Hide

Exadata Critical Issues on Storage Server

Status	Previous Status	Type	Description	Status On	Details

Exadata Critical Issues on Cluster Wide

Status	Previous Status	Type	Description	Status On	Details

Database Server

Status	Previous Status	Type	Description	Status On	Details

Storage Server

Status	Previous Status	Type	Description	Status On	Details

Cluster Wide

Status	Previous Status	Type	Description	Status On	Details

Security

The Security section contains selected controls that may impact the overall security of a system.

Security controls are typically reviewed for impact against Confidentiality, Integrity, and Availability (CIA). NIST definition of CIA is as follows:

- Confidentiality â€" preserving authorized restrictions on information access and disclosure, including means for protecting personal privacy and proprietary information
- Integrity â€" guarding against improper information modification or destruction and ensuring information non-repudiation and authenticity
- Availability â€" ensuring timely and reliable access to and use of information

For more information for general security guidelines, please refer to the following resources:

- Security Guide for Exadata Database Machine (DBMSQ)
- Oracle Exadata Database Machine Security FAQ (Doc ID 2751741.1)
- Exadata Maximum Security Architecture Presentation

Security checks for Database Server

Status	Previous Status	Type	Description	Status On	Details

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Maximum Availability Architecture (MAA) Scorecard

Outage Type	Status	Previous Status	Type	Description	Status On	Details

Component		Host/Location	Found version	Recommended versions	Status
DATABASE SERVER	Database Home	exa4dbadm01,exa4dbadm02: /u01/app/oracle/product/19.0.0.0/dbhome_1	19.26.0.0.250121	19.26.0.0.250121	Version within recommended range (minimum version is 19.23.0.0.240416).
		exa4dbadm01,exa4dbadm02: /u01/app/oracle/product/23.0.0.0/dbhome_1	23.7.0.25.01	23.7.0.25.01	Version within recommended range (minimum version is 23.6.0.0.0).
	Grid Infrastructure	exa4dbadm01,exa4dbadm02: /u01/app/23.0.0.0/grid	23.7.0.25.01	23.7.0.25.01	Version within recommended range (minimum version is 23.6.0.0.0).
	Exadata	exa4dbadm01,exa4dbadm02	25.1.3.0.0	25.1.2.0.0	Version within recommended range (minimum version is 25.1.1.0.0).
STORAGE SERVER	Exadata	exa4celadm01,exa4celadm02,exa4celadm03	25.1.3.0.0	25.1.2.0.0	Version within recommended range (minimum version is 25.1.1.0.0).

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Infrastructure Software and Configuration Summary

NOTE: This table displays the configuration summary of the system. It is for informational purposes only. No action is required.

Component	Attribute	Host	Value

Oracle Database Server	Exadata image version	exa4dbadm02,exa4dbadm01	`25.1.3.0.0.250313`
	Operating system	exa4dbadm02,exa4dbadm01	`Linux x86_64`
	Operating system version	exa4dbadm02,exa4dbadm01	`5.15.0-300.163.18.7.el8uek.x86_64`
	Hardware model	exa4dbadm02,exa4dbadm01	`ORACLE SERVER E5-2L`
	Disk configuration	exa4dbadm02,exa4dbadm01	`[INFO    ] /opt/oracle.SupportTools/reclaimdisks.sh: There is nothing to reclaim on RoCE-based Exadata database servers`

	Logical Volume Configuration	exa4dbadm02,exa4dbadm01	`Volume groups`
			`  VG      VSize VFree PV         PSize PFree Used    Fmt`
			`  VGExaDb 3.48t 3.21t /dev/md25   3.48t 3.21t 278.00g lvm2`
			`Logical volumes`
			`  LV                VG       LSize`
			`  LVDbHome          VGExaDb   4.00g`
			`  LVDbOra1          VGExaDb 200.00g`
			`  LVDbSwap1         VGExaDb  16.00g`
			`  LVDbSys1          VGExaDb  15.00g`
			`  LVDbSys2          VGExaDb  15.00g`
			`  LVDbTmp           VGExaDb   3.00g`
			`  LVDbVar1          VGExaDb   2.00g`
			`  LVDbVar2          VGExaDb   2.00g`
			`  LVDbVarLog        VGExaDb  18.00g`
			`  LVDbVarLogAudit   VGExaDb   1.00g`
			`  LVDoNotRemoveOrUse VGExaDb   2.00g`

	Network interface configuration	exa4dbadm02,exa4dbadm01	`Master bondeth0: slaves eth10 eth9` `Master bondeth1: slaves eth29 eth30`
	Memory size	exa4dbadm02,exa4dbadm01	`2304 GB`
	CPUs enabled	exa4dbadm02,exa4dbadm01	`384`

	Custom RPMS	exa4dbadm02,exa4dbadm01	`Exadata computenode package   : exact (locked)`
			`Missing capabilities          : 0`
			`Exadata packages upgraded     : 2363`
			`Additional packages installed : 15`

	ASM disk group configuration	exa4dbadm02	`STATE    TYPE     SECTOR      BLOCK         AU TOTAL_MB    FREE_MB REQ_MIR_FREE_MB USABLE_FILE_MB OFFLINE_DISKS VOTING NAME`
			`------- ------ ---------- ---------- ---------- ---------- ---------- --------------- --------- ----- ------------- ------ ---------------`
			`MOUNTED NORMAL       512       4096    4194304 805650432  804716232       120847564 341934334           0 Y    DATAC1`
			`MOUNTED NORMAL       512       4096    4194304 201471744  201255736        30220761 85517487            0 N    RECOC1`

	CPUs vendor	exa4dbadm02,exa4dbadm01	` AuthenticAMD`
	Total number of CDBs for entire cluster	exa4dbadm02,exa4dbadm01	`2`
	Total number of PDBs per CDB	exa4dbadm02,exa4dbadm01	`cdb1: 1` `cdb2: 1`
	Total number of PDBs for entire cluster	exa4dbadm02,exa4dbadm01	`2`
	Total number of CRS managed services per CDB	exa4dbadm02,exa4dbadm01	`cdb1: 2` `cdb2: 1`
	Total number of CRS managed services for entire cluster	exa4dbadm02,exa4dbadm01	`6`
	Total number of open RAC instances	exa4dbadm02,exa4dbadm01	`2`
	Unacceptable Hidden Parameters	exa4dbadm01:cdb1,exa4dbadm02:cdb1	Unacceptable Hidden Parameters
Exadata Storage Server	Hardware model	192.168.10.6,192.168.10.10	`Oracle Corporation ORACLE SERVER X10-2L High Capacity`
	Exadata image version	192.168.10.6,192.168.10.10	`25.1.3.0.0.250313`
	releaseTrackingBug	192.168.10.6,192.168.10.10	`37661058`
	cellVersion	192.168.10.6,192.168.10.10	`OSS_25.1.3.0.0_LINUX.X64_250313`

Cell offloadgroup	192.168.10.6,192.168.10.10	SYS_112331_240415 running
		   SYS_121240_240125 running
		   SYS_251300_250313 running	

flashCacheMode	192.168.10.6,192.168.10.10	WriteBack	
flashCacheCompress	192.168.10.6,192.168.10.10	CELL-01504: Invalid command syntax.	
hardDiskScrubInterval	192.168.10.6,192.168.10.10	biweekly	
eighthRack	192.168.10.6,192.168.10.10	NO	
Flashlog size	192.168.10.6,192.168.10.10	512M	
Flashcache size	192.168.10.6,192.168.10.10	24.742431640625T	
IORM plan active	192.168.10.6,192.168.10.10	auto active	
Physical disk size	192.168.10.6,192.168.10.10	12 HardDisk 20.009765625T 8 FlashDisk 3.092891894280910491943359375T 2 M2Disk 447.131675720214484375G	
Operating system version	192.168.10.6,192.168.10.10	5.15.0-300.163.18.7.el8uek.x86_64	
RDMA Network Fabric Switch	BIOS	exa4sw-rocea0,exa4sw-roceb0	version 05.51
	NXOS	exa4sw-rocea0,exa4sw-roceb0	version 10.3(6) [Maintenance Release]
	Device Type	exa4sw-rocea0,exa4sw-roceb0	cisco Nexus9000 C9336C-FX2 Chassis
	Serial Number	exa4sw-rocea0	FLM273804N2
		exa4sw-roceb0	FLM27380A9Z

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Cluster Verification Utility (CVU 23.7.0.25.1) result

Status	Previous Status	Type	Description	Status On	Details

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Findings needing further review

NOTE: This section contains best practices that Exachk can only do a partial check for because a complete check requires information it cannot gather (ex: data outside of Exachk run scope, requires customer knowledge, etc). Please investigate the partial finding that Exachk reports in this section, paying particular attention to the details, to determine if any action is required.

Status	Previous Status	Type	Description	Status On	Details

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Platinum Certification

Status	Previous Status	Type	Description	Status On	Details

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Component Elapsed Times

Component Name	Component Type	Elapsed Time

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Top 10 Time Consuming Checks

NOTE: This information is primarily used for helping Oracle optimize the run time of Exachk.

These timings are not necessarily indicative of any problem and may vary widely from one system to another.

Name	Type	Target	Execution Duration
Infrastructure Software and Configuration for compute	OS Collection	exa4dbadm02	54 seconds
Infrastructure Software and Configuration for compute	OS Collection	exa4dbadm01	52 seconds
Verify Hardware and Firmware on Database and Storage Servers (CheckHWnFWProfile) [Storage Server]	OS Collection	exa4celadm04	37 seconds
Verify Hardware and Firmware on Database and Storage Servers (CheckHWnFWProfile) [Storage Server]	OS Collection	exa4celadm03	37 seconds
Verify Hardware and Firmware on Database and Storage Servers (CheckHWnFWProfile) [Storage Server]	OS Collection	exa4celadm02	37 seconds

Verify Hardware and Firmware on Database and Storage Servers (CheckHWnFWProfile) [Storage Server]	OS Collection	exa4celadm01	37 seconds
Verify Hardware and Firmware on Database and Storage Servers (CheckHWnFWProfile) [Database Server]	OS Collection	exa4dbadm01	25 seconds
Verify Hardware and Firmware on Database and Storage Servers (CheckHWnFWProfile) [Database Server]	OS Collection	exa4dbadm02	23 seconds
Collect smart rebalance data [Storage Server]	OS Collection	exa4celadm01	23 seconds
Collect smart rebalance data [Storage Server]	OS Collection	exa4celadm02	22 seconds