

Operational Best Practices for Oracle Exadata

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A Quick Note on enkitec

- Oracle-centric consulting
- Based in Dallas, TX
- Purchased V2 Exadata in 2010
- 100 Exadata implementations

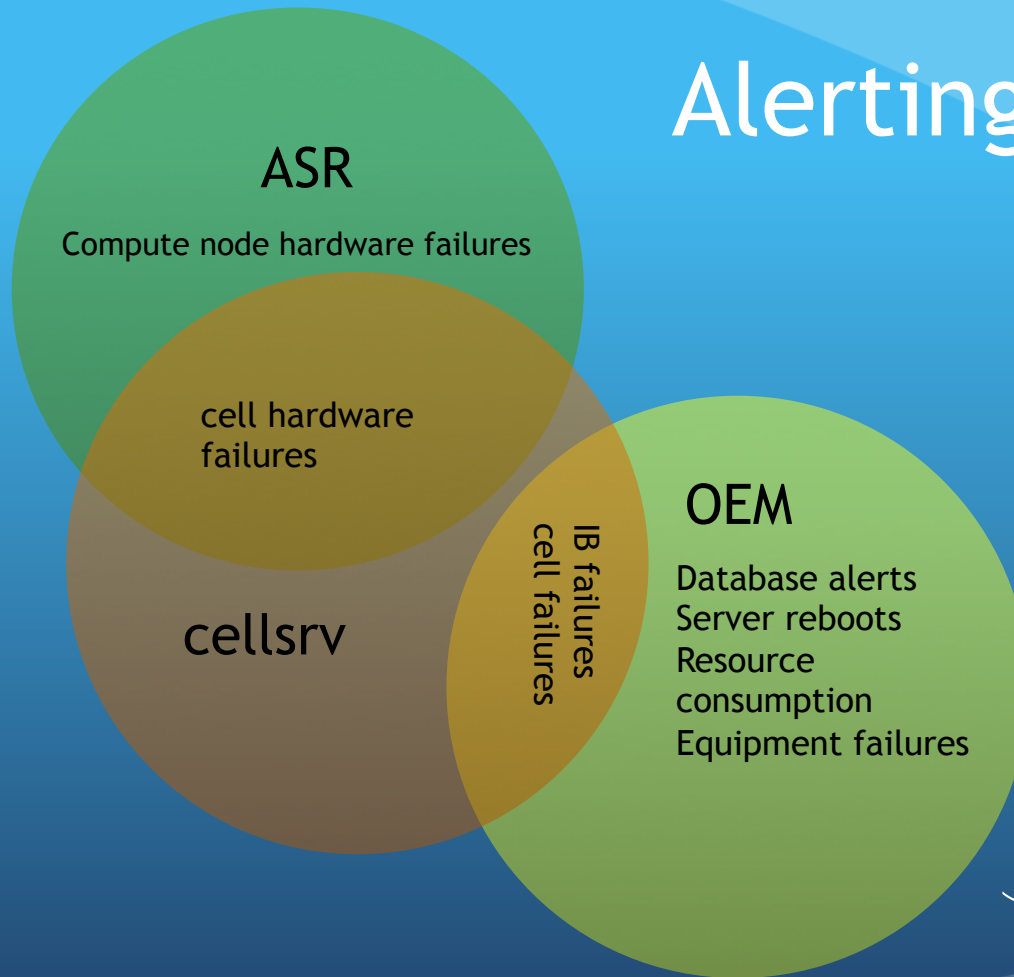

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Patching Recommendations



- Create a repeatable patching process
 - Allows you to prepare for the unexpected
 - Helps plan more accurate maintenance windows
- Run exachk before & after patching
- Standby-first patching is awesome!

Alerting Methods



Alerting Example - cellsrv

ORACLE
EXADATA

Warning: Software Stateful Alert 318_1

Event Time 2012-08-14T16:05:07-05:00

Description A SQLID quarantine has been added. As a result, Smart Scan is disabled for the SQLID.

Quarantine id	1
Quarantine type	SQLID
Quarantine reason	Manual
SQLID	futc2d3agtqbv

Affected Cell

Name	enkcel02
Server Model	SUN MICROSYSTEMS SUN FIRE X4275 SERVER SATA
Chassis Serial Number	
Release Version	11.2.3.1.1
Release Label	OSS_11.2.3.1.1_LINUX.X64_120607

Recommended Action A quarantine has been manually created by the cell administrator. Make sure the quarantine will be dropped to prevent potential performance degradation. When possible, disable offload for the SQL statement or apply the Oracle Database patch that fixes the crash, then you can run remove the quarantine by the following CellCLI command:
CellCLI> drop quarantine 1
All quarantines are automatically removed when a cell is patched or upgraded. For information about how to disable offload for the SQL statement, refer to the section about 'SQL Processing Offload' in Oracle Exadata Storage Server User's Guide.

Alerting Differences - cellsrv

CRITICAL: CELL enkcel02: Hard disk status changed to predictive failure — Inbox


ORACLE
EXADATA

Critical: Hardware Alert 322_1

Event Time 2012-09-10T19:39:39-05:00

Description Hard disk status changed to predictive failure.

Status	PREDICTIVE FAILURE
Manufacturer	HITACHI
Model Number	H7220AA30SUN2.0T
Size	2.0TB
Serial Number	
Firmware	JKAOA28A
Slot Number	5
Cell Disk	CD_05_enkcel02
Grid Disk	DATA_CD_05_enkcel02, RECO_CD_05_enkcel02, DBFS_DG_CD_05_enkcel02



Affected Cell

Name	enkcel02
Server Model	SUN MICROSYSTEMS SUN FIRE X4275 SERVER SATA
Chassis Serial Number	
Release Version	11.2.3.1.1
Release Label	OSS_11.2.3.1.1_LINUX.X64_120607

Recommended Action The data hard disk has entered predictive failure status. It will soon fail and should be replaced at the earliest opportunity. A white cell locator LED has been lit to help locate the affected cell, and an amber service action LED has been lit on the drive to help locate the affected drive. The Oracle ASM disks associated with the grid disks on the physical drive are automatically dropped, and an Oracle ASM rebalance will relocate the data from the predictively failed disk to other disks. Please wait until the Oracle ASM disks have been successfully dropped by querying the VSASM_DISK_STAT view before proceeding with the physical disk replacement. Detailed information on this problem can be found at <https://support.oracle.com/CSP/main/article?cmd=show&type=NOT&id=1112995.1>

Alerting Differences - ASR

ORNASRINTFC_WW@ORACLE.COM - April 8, 2012 11:49:46 AM GMT-05:00 [Customer Problem Description]

Problem Description: =ASR Alarm=
Automatic Service Request (ASR) Alarm
Generated: 2012-04-08 10:49:21
Severity : 2
Device :
Eventcode: HALRT-02001

Event num: HALRT-02001

ASR: System hard disk failure

Hostname: dm03cel06-ilom.
Product Type: SUN FIRE X4270 M2 SERVER
Summary:ASR: System hard disk failure
Description:Please review MOS note 1112994.1 by selecting "Related Articles"

sunHwTrapChassisId =
sunHwTrapProductName = SUN FIRE X4270 M2 SERVER
sunHwTrapSuspectComponentName = SEAGATE ST32000SSSUN2.0T; Slot: 1
sunHwTrapFaultClass = NULL
sunHwTrapFaultCertainty = 0
sunHwTrapFaultMessageID = HALRT-02001
sunHwTrapFaultUUID = 5f93b935-a04f-4a63-84fe-faa25f4dcb25
sunHwTrapAssocObjectId = .0.0
sunHwTrapAdditionalInfo = Exadata Storage Server: dm03cel06 Disk Serial Number: L78518

Please review MOS note 1112994.1 by selecting "Related Articles"

Extra information:-

Alerts received for this system in last 2 months (limit 10):

None

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Wrapping Up



- Exadata is still running Oracle and Linux/Solaris
- Use common sense
- It's not a black box