
DB Questions and Answers open session

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DBA Q & A Session

-Recommended sources of information-

- 3D twiki
<https://twiki.cern.ch/twiki/bin/view/PSSGroup/LCG3DWiki>
- DBA area
<https://twiki.cern.ch/twiki/bin/view/PSSGroup/DbArea>
- Oracle support website Metalink
metalink.oracle.com
Documents
White papers
Service Request
- Oracle books

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-general RAC questions-

Why on each node has one different VIP address?
why don't RAC use one VIP address for all the nodes?

Transparent Application Failover

- When node is down VIP fails over to one of the other node
- Node that gets VIP will re-ARP to the world indicating new mac address of surviving node.
- Clients that were connected to this VIP will immediately get a reset packet sent. Client get error immediately rather than waiting for TCP time out value
- If client is connecting to the node will get error and the APPLICATION will choose the next connection descriptor.

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-database patch best practices-

- Do I need to patch more than \$ORACLE_HOME?
- Is +ASM to be patched or updated?
 - Read specific information related to the patch purpose (README.TXT). This will advise which oracle home needs to be patch.

Suggested documentation:

- Also this paper has Oracle CPU patch best practices

http://www.oracle.com/technology/deploy/security/pdf/cpu_whitepaper.pdf

- Rolling Patch - OPatch Support for RAC [DocID:Note:244241.1](#)

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-OEM and database OS system maintenance-

- How to prevent Grid Control fill up all disk?
 - Monitoring admin files from Grid Control, include analyze history data?
 - Any experience or recommendation for Grid Control ?
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- How to get rid of \$ORACLE_HOME/rdbms/audit/ files?
Example can be found in the Gordon Brown presentation (WLCG workshop at CERN November 2007)

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-database performance metrics-

- Collecting Oracle Server performance metrics (throughput, I/O ...) best practice?

Information about this topic was presented in the past WLCG November 2007 Service and reliability workshop:

DB performance tuning in a RAC environment for administrators by Luca Canali

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-postgres to oracle migration tools-

CERN provided a useful script to migrate LFC catalog from mysql to oracle.

For all the TER1 using dCache and who want to migrate from postgres to oracle (chimera project).

Did CERN provide a similar super script able to make the postgres2oracle migration?

No. CERN does not support dcache

Information about chimera and migration tools in evaluation can be found at <http://trac.dcache.org/trac.cgi/wiki/ChimeraSetup>

Developer contact info:

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-external vs normal ASM redundancy-

Better doing striping/mirroring at ASM level or at hardware level (SAN)? what is the trade off?

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-Partitioning-

Best practices for partitioning tables for applications
(i.e FTS)

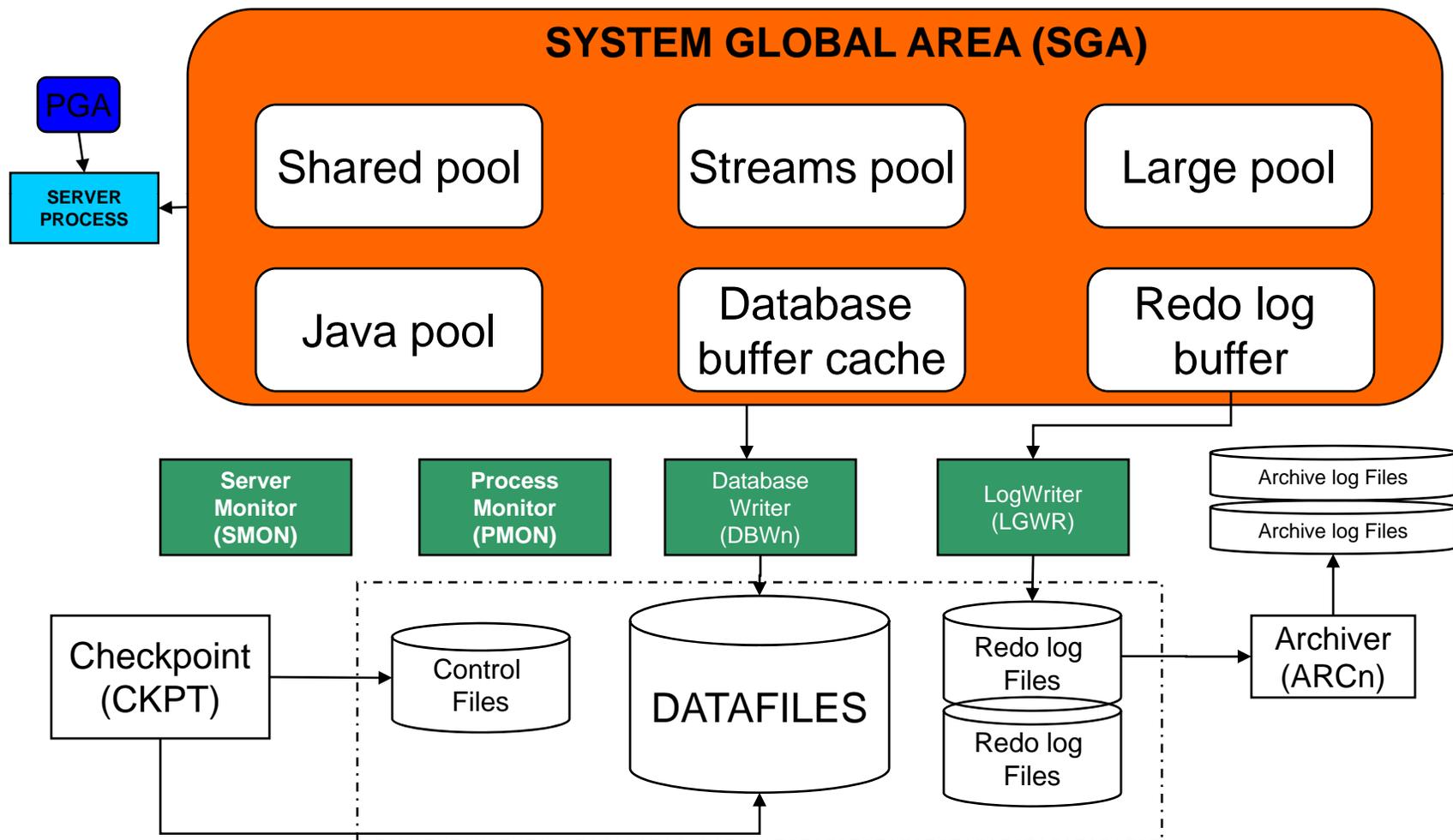
Bibliography

Oracle Database 10g Real Application Clusters Handbook,
McGraw

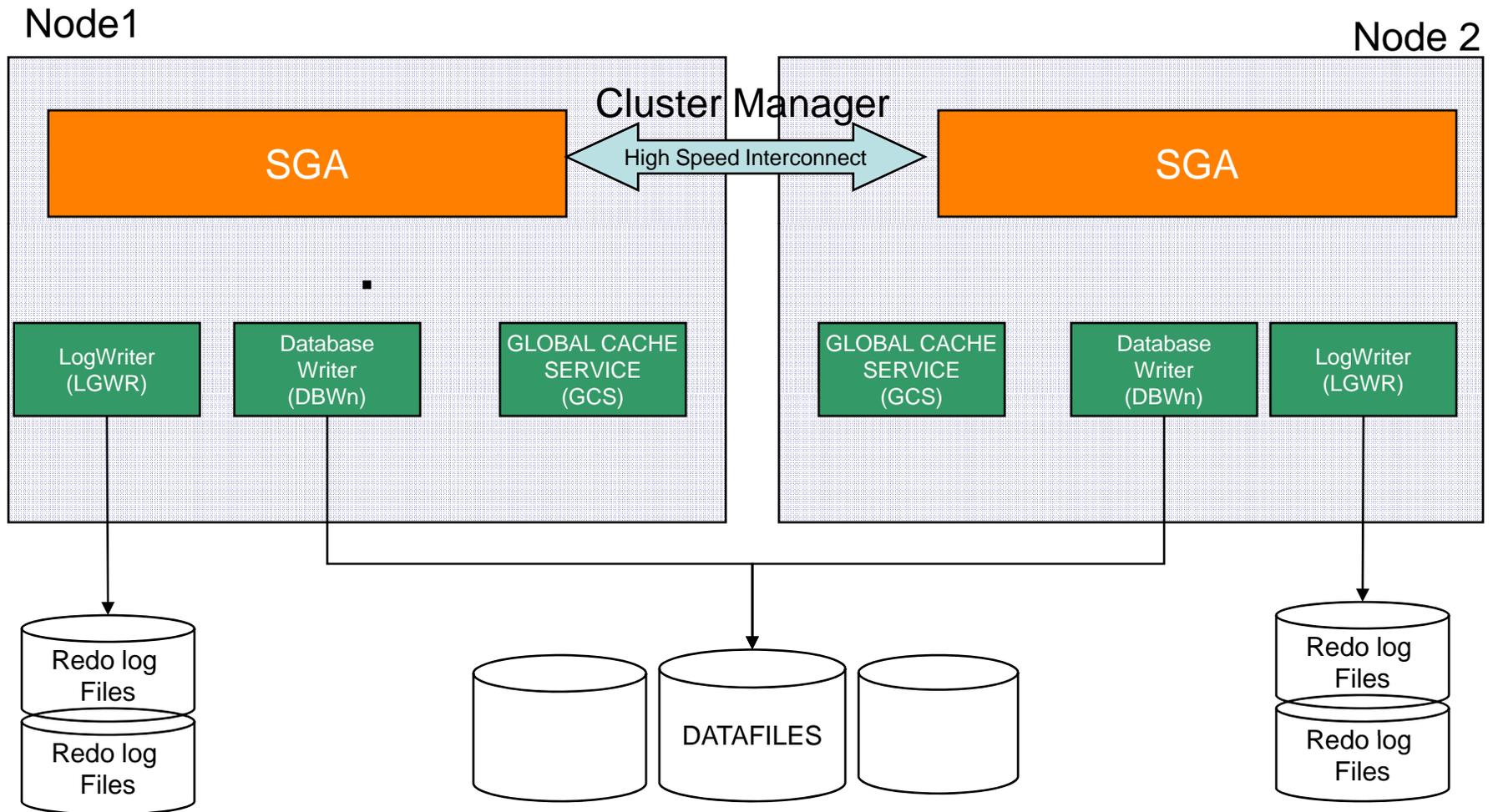
Hill Osborne Media; 1 edition (November 22, 2006)

BACKUP SLIDES

Oracle single instance manager



Oracle cluster architecture



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-general RAC questions-

ARP: Address Resolution Protocol

- Method to find host's hardware address (MAC address) when only IP address is known
- Used by hosts to communicate with each other on the same subnet
- Used by routers to forward packets from one host through another router.
- Cluster VIP failover the new node that gets the VIP advertises the new ARP to the rest of the world. The old hardware address is invalidated in the ARP cache. New connections will get the new hardware address.