

RAC-Failover Tests mit Oracle 10gR2

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1 Logfiles

- \$ORACLE_CRS_HOME/log/<hostname>/alert<hostname>.log
- \$ORACLE_CRS_HOME/log/<hostname>/crsd/crsd.log
- \$ORACLE_CRS_HOME/log/<hostname>/cssd/ocssd.log
- \$ORACLE_CRS_HOME/log/<hostname>/evmd/evmd.log
- \$ORACLE_CRS_HOME/log/<hostname>/racg/evtf.log
- \$ORACLE_CRS_HOME/bin/evmwatch -t "@timestamp [@priority] @name" -A
- \$ORACLE_CRS_HOME/bin/evmshow -t "@timestamp [@priority] @name"
- \$ORACLE_CRS_HOME/evm/log/<hostname>_evmlog.<timestamp>
- /var/log/messages

2 Komponenten

- RAC-Nodes:
 - o racnode1.intra
 - o racnode2.intra
- RAC-Instanzen:
 - o PRDRAC1
 - o PRDRAC2

3 Detaillierte Beschreibung der Testcases:

3.1 Testcase 1: Instance Failure (kill -9 <pmon pid>)

Vorbereitung:

- Starten der Workload auf PRDRAC2
- Nach 5 Minuten: kill -9 <pid PMON process> als Oracle User orarac.

Erwartetes Resultat:

- CRS bemerkt Instance Crash und zählt css misscount hoch
- CRS führt reconfiguration durch
- PRDRAC1 führt Instance Recovery durch
- Locks werden erst aufgehoben, wenn Reconfig und Instance Recovery fertig
- Nach kurzem „Freeze“ antwortet PRDRAC1 auf die Queries
- CRS startet PRDRAC2 Instanz wieder
- Kurzes „Freeze“, wenn die Instanz dem Cluster beitrifft.
- Services werden wieder gestartet.

3.2 Testcase 2: Instance Failure (shutdown abort)

Vorbereitung:

- Starten der Workload auf PRDRAC2
- Nach 5 Minuten: „shutdown abort“ auf PRDRAC2

Erwartetes Resultat:

- CRS bemerkt Instance Crash und zählt css misscount hoch
- CRS führt reconfiguration durch
- PRDRAC1 führt Instance Recovery durch
- Nach kurzem „Freeze“ antwortet PRDRAC1 auf die Queries

3.3 Testcase 3: All Instance Failures (kill -9 <pmon pid> auf beiden Instanzen)

Vorbereitung:

- Starten der Workload auf PRDRAC2
- Nach 5 Minuten: „kill -9 auf <pmon pid>“ auf PRDRAC2 und PRDRAC1

Erwartetes Resultat:

- CRS startet PRDRAC1 und PRDRAC2 Instanz wieder, Services werden auch wieder gestartet.
- Datenbanken führen Crash Recovery durch

3.4 Testcase 4: Listener Failure (kill -9 Listener)

Vorbereitung:

- Starten der Workload auf PRDRAC2
- Nach 5 Minuten: „kill -9 <listener pid>“ auf PRDRAC2

Erwartetes Resultat:

- No impact on connected database sessions.
- Listener restarted by CRS
- eingeloggte connections bleiben connected, keine neuen Logins möglich, bis Listener wieder zur Verfügung steht.

3.5 Testcase 5: Node Failure (reboot eines cluster nodes)

Vorbereitung:

- Starten der Workload auf PRDRAC2
- Nach 5 Minuten: reboot racnode2.intra

Erwartetes Resultat:

- PRDRAC2/Listener/CRS/Host wird gestoppt
- racnode2 bootet neu
- PRDRAC1 führt Instance Recovery durch
- VIP wechselt zu racnode1
- Nach kurzem „Freeze“ antwortet PRDRAC1 auf die Queries
- CRS startet PRDRAC2 Instanz wieder, Services werden auch wieder gestartet.
- Short database freeze when failed instance rejoins cluster

1. Versuch:

Zeit	Instanz/Host	Aktion
09:30:40	racnode2	Reboot des Nodes
09:34:04	racnode2	Datenbank Instanz PRDRAC2 ist wieder online

CRS alertracnode1.log:

```
2007-08-03 09:31:42.374
[cssd(17851)]CRS-1607:CSSD evicting node racnode2. Details in /crs/oracle/102/log/racnode1/cssd/ocssd.log.
2007-08-03 09:31:42.378
[cssd(17851)]CRS-1601:CSSD Reconfiguration complete. Active nodes are racnode1 .
2007-08-03 09:31:44.297
[crsd(17441)]CRS-1204:Recovering CRS resources for node racnode2.
2007-08-03 09:33:16.637
[cssd(17851)]CRS-1601:CSSD Reconfiguration complete. Active nodes are racnode1 racnode2 .
```

EVMD.log racnode1:

```
2007-08-03 09:30:37.529: [ EVMEVT][393232]0Reconfig event received for nodename racnode2 received by
clssggrp
stat
2007-08-03 09:30:37.529: [ EVMEVT][376847][ENTER]0Disconnecting P2P connection with node: racnode2
2007-08-03 09:33:21.758: [ EVMEVT][393232]0Private Member Update event for racnode2 received by
clssggrpstat
2007-08-03 09:33:21.759: [ EVMEVT][376847][ENTER]0Establishing P2P connection with node: racnode2
```

ocssd.log racnode1:

```
[ CSSD]2007-08-03 09:31:10.582 [1208023392] >WARNING: clssnmPollingThread: node racnode2
(2) at 50% heartbea
t fatal, eviction in 29.990 seconds
[ CSSD]2007-08-03 09:31:11.573 [1208023392] >WARNING: clssnmPollingThread: node racnode2
(2) at 50% heartbea
t fatal, eviction in 29.000 seconds
[ CSSD]2007-08-03 09:31:25.581 [1208023392] >WARNING: clssnmPollingThread: node racnode2
(2) at 75% heartbea
t fatal, eviction in 14.990 seconds
[ CSSD]2007-08-03 09:31:26.573 [1208023392] >WARNING: clssnmPollingThread: node racnode2
(2) at 75% heartbea
t fatal, eviction in 14.000 seconds
[ CSSD]2007-08-03 09:31:34.579 [1208023392] >WARNING: clssnmPollingThread: node racnode2
(2) at 90% heartbea
t fatal, eviction in 6.000 seconds
[ CSSD]2007-08-03 09:31:35.581 [1208023392] >WARNING: clssnmPollingThread: node racnode2
(2) at 90% heartbea
t fatal, eviction in 4.990 seconds
```

```

[   CSSD]2007-08-03 09:31:36.572 [1208023392] >TRACE:   clssnmPollingThread: node racnode2
(2) is impending re
config
[   CSSD]2007-08-03 09:31:36.573 [1208023392] >WARNING: clssnmPollingThread: node racnode2
(2) at 90% heartbea
t fatal, eviction in 4.000 seconds
[   CSSD]2007-08-03 09:31:36.573 [1208023392] >TRACE:   clssnmPollingThread: diskTimeout set
to (57000)ms impe
nding reconfig status(1)
[   CSSD]2007-08-03 09:31:37.574 [1208023392] >TRACE:   clssnmPollingThread: node racnode2
(2) is impending re
config
[   CSSD]2007-08-03 09:31:37.574 [1208023392] >WARNING: clssnmPollingThread: node racnode2
(2) at 90% heartbea
t fatal, eviction in 3.000 seconds
[   CSSD]2007-08-03 09:31:38.576 [1208023392] >TRACE:   clssnmPollingThread: node racnode2
(2) is impending re
config
[   CSSD]2007-08-03 09:31:38.576 [1208023392] >WARNING: clssnmPollingThread: node racnode2
(2) at 90% heartbea
t fatal, eviction in 2.000 seconds
[   CSSD]2007-08-03 09:31:39.578 [1208023392] >TRACE:   clssnmPollingThread: node racnode2
(2) is impending re
config
[   CSSD]2007-08-03 09:31:39.578 [1208023392] >WARNING: clssnmPollingThread: node racnode2
(2) at 90% heartbea
t fatal, eviction in 1.000 seconds
[   CSSD]2007-08-03 09:31:40.580 [1208023392] >TRACE:   clssnmPollingThread: node racnode2
(2) is impending re
config
[   CSSD]2007-08-03 09:31:40.580 [1208023392] >TRACE:   clssnmPollingThread: Eviction started
for node l1lrdb0
2 (2), flags 0x000d, state 3, wt4c 0
[   CSSD]2007-08-03 09:31:40.580 [1224808800] >TRACE:   clssnmDoSyncUpdate: Initiating sync 8
[   CSSD]2007-08-03 09:31:40.580 [1224808800] >TRACE:   clssnmDoSyncUpdate: diskTimeout set
to (57000)ms
[   CSSD]2007-08-03 09:31:40.580 [1224808800] >TRACE:   clssnmSetupAckWait: Ack message type
(11)
[   CSSD]2007-08-03 09:31:40.580 [1224808800] >TRACE:   clssnmSetupAckWait: node(1) is ALIVE
[   CSSD]2007-08-03 09:31:40.580 [1224808800] >TRACE:   clssnmSetupAckWait: node(2) is ALIVE
[   CSSD]2007-08-03 09:31:40.580 [1224808800] >TRACE:   clssnmSendSync: syncSeqNo(8)
[   CSSD]2007-08-03 09:31:40.580 [1166059872] >TRACE:   clssnmHandleSync: Acknowledging sync:
src[1] srcName[l
1lrdb01] seq[17] sync[8]
[   CSSD]2007-08-03 09:31:40.580 [1166059872] >TRACE:   clssnmHandleSync: diskTimeout set to
(57000)ms
[   CSSD]2007-08-03 09:31:40.580 [1224808800] >TRACE:   clssnmWaitForAcks: Ack message
type(11), ackCount(2)
[   CSSD]2007-08-03 09:31:40.580 [1224808800] >TRACE:   clssnmWaitForAcks: node(2) is
expiring, msg type(11)
[   CSSD]2007-08-03 09:31:40.580 [1224808800] >TRACE:   clssnmWaitForAcks: done, msg type(11)
[   CSSD]2007-08-03 09:31:40.580 [254646536] >USER:   NMEVENT_SUSPEND [00][00][00][06]
[   CSSD]2007-08-03 09:31:40.581 [1224808800] >TRACE:   clssnmDoSyncUpdate: Terminating node
2, racnode2, miss
time(60010) state(3)
[   CSSD]2007-08-03 09:31:40.581 [1224808800] >TRACE:   clssnmSetupAckWait: Ack message type
(13)
[   CSSD]2007-08-03 09:31:40.581 [1224808800] >TRACE:   clssnmSetupAckWait: node(1) is ACTIVE
[   CSSD]2007-08-03 09:31:40.581 [1224808800] >TRACE:   clssnmSendVote: syncSeqNo(8)
[   CSSD]2007-08-03 09:31:40.581 [1224808800] >TRACE:   clssnmWaitForAcks: Ack message
type(13), ackCount(1)
[   CSSD]2007-08-03 09:31:40.581 [1166059872] >TRACE:   clssnmSendVoteInfo: node(1)
syncSeqNo(8)
[   CSSD]2007-08-03 09:31:40.581 [1224808800] >TRACE:   clssnmWaitForAcks: done, msg type(13)
[   CSSD]2007-08-03 09:31:40.581 [1224808800] >TRACE:   clssnmCheckDskInfo: Checking disk
info...
[   CSSD]2007-08-03 09:31:40.581 [1224808800] >TRACE:   clssnmCheckDskInfo: node(2)
timeout(58210) state_netwo
rk(0) state_disk(3) misstime(60010)
[   CSSD]2007-08-03 09:31:41.582 [1224808800] >TRACE:   clssnmCheckDskInfo: node(2)
timeout(59210) state_netwo
rk(0) state_disk(3) misstime(61000)
[   CSSD]2007-08-03 09:31:42.374 [1224808800] >TRACE:   clssnmEvict: Start
[   CSSD]2007-08-03 09:31:42.374 [1224808800] >TRACE:   clssnmEvict: Evicting node 2, birth
7, death 8, killme
1

```

```

[   CSSD]2007-08-03 09:31:42.374 [1224808800] >TRACE:   clssnmSendShutdown: req to node 2,
kill time 340878910
[   CSSD]2007-08-03 09:31:42.374 [1224808800] >TRACE:   clssnmDiscHelper: node racnode2 (2)
connection failed
[   CSSD]2007-08-03 09:31:42.374 [1224808800] >TRACE:   clssnmWaitOnEvictions: Start
[   CSSD]2007-08-03 09:31:42.374 [1224808800] >TRACE:   clssnmWaitOnEvictions: Node(2) down,
LATS(340818910),t
imeout(60000)
[   CSSD]2007-08-03 09:31:42.375 [1224808800] >TRACE:   clssnmSetupAckWait: Ack message type
(15)
[   CSSD]2007-08-03 09:31:42.375 [1224808800] >TRACE:   clssnmSetupAckWait: node(1) is ACTIVE
[   CSSD]2007-08-03 09:31:42.375 [1224808800] >TRACE:   clssnmSendUpdate: syncSeqNo(8)
[   CSSD]2007-08-03 09:31:42.375 [1224808800] >TRACE:   clssnmWaitForAcks: Ack message
type(15), ackCount(1)
[   CSSD]2007-08-03 09:31:42.375 [1166059872] >TRACE:   clssnmUpdateNodeState: node 0, state
(0/0) unique (0/0
) prevConuni(0) birth (0/0) (old/new)
[   CSSD]2007-08-03 09:31:42.375 [1166059872] >TRACE:   clssnmDeactivateNode: node 0 () left
cluster

[   CSSD]2007-08-03 09:31:42.375 [1166059872] >TRACE:   clssnmUpdateNodeState: node 1, state
(3/3) unique (118
5785499/1185785499) prevConuni(0) birth (3/3) (old/new)
[   CSSD]2007-08-03 09:31:42.375 [1166059872] >TRACE:   clssnmUpdateNodeState: node 2, state
(0/0) unique (118
5786147/1185786147) prevConuni(1185786147) birth (7/0) (old/new)
[   CSSD]2007-08-03 09:31:42.375 [1166059872] >TRACE:   clssnmDeactivateNode: node 2
(racnode2) left cluster

[   CSSD]2007-08-03 09:31:42.375 [1166059872] >USER:   clssnmHandleUpdate: SYNC(8) from
node(1) completed
[   CSSD]2007-08-03 09:31:42.375 [1166059872] >USER:   clssnmHandleUpdate: NODE 1 (racnode1)
IS ACTIVE MEMBER
OF CLUSTER
[   CSSD]2007-08-03 09:31:42.375 [1166059872] >TRACE:   clssnmHandleUpdate: diskTimeout set
to (200000)ms
[   CSSD]2007-08-03 09:31:42.375 [1224808800] >TRACE:   clssnmWaitForAcks: done, msg type(15)
[   CSSD]2007-08-03 09:31:42.375 [1224808800] >TRACE:   clssnmDoSyncUpdate: Sync Complete!
[   CSSD]2007-08-03 09:31:42.375 [1233201504] >TRACE:   clssgmReconfigThread: started for
reconfig (8)
[   CSSD]2007-08-03 09:31:42.375 [1233201504] >USER:   NMEVENT_RECONFIG [00][00][00][02]
[   CSSD]2007-08-03 09:31:42.375 [1233201504] >TRACE:   clssgmCleanupGrocks: cleaning up
grock crs_version typ
e 2
[   CSSD]2007-08-03 09:31:42.375 [1233201504] >TRACE:   clssgmCleanupOrphanMembers: cleaning
up remote mbr(1)
grock(crs_version) birth(7/7)
[   CSSD]2007-08-03 09:31:42.375 [1233201504] >TRACE:   clssgmCleanupGrocks: cleaning up
grock DB+ASM type 2
[   CSSD]2007-08-03 09:31:42.375 [1233201504] >TRACE:   clssgmCleanupOrphanMembers: cleaning
up remote mbr(1)
grock(DB+ASM) birth(7/7)
[   CSSD]2007-08-03 09:31:42.375 [1233201504] >TRACE:   clssgmCleanupGrocks: cleaning up
grock DG+ASM type 2
[   CSSD]2007-08-03 09:31:42.375 [1233201504] >TRACE:   clssgmCleanupOrphanMembers: cleaning
up remote mbr(1)
grock(DG+ASM) birth(7/7)
[   CSSD]2007-08-03 09:31:42.375 [1233201504] >TRACE:   clssgmCleanupGrocks: cleaning up
grock DG_FRA type 2
[   CSSD]2007-08-03 09:31:42.375 [1233201504] >TRACE:   clssgmCleanupOrphanMembers: cleaning
up remote mbr(0)
grock(DG_FRA) birth(7/7)
[   CSSD]2007-08-03 09:31:42.375 [1233201504] >TRACE:   clssgmCleanupOrphanMembers: cleaning
up remote mbr(3)
grock(DG_FRA) birth(7/7)
[   CSSD]2007-08-03 09:31:42.375 [1233201504] >TRACE:   clssgmCleanupGrocks: cleaning up
grock DG_DATA type 2
[   CSSD]2007-08-03 09:31:42.375 [1233201504] >TRACE:   clssgmCleanupOrphanMembers: cleaning
up remote mbr(0)
grock(DG_DATA) birth(7/7)
[   CSSD]2007-08-03 09:31:42.375 [1233201504] >TRACE:   clssgmCleanupOrphanMembers: cleaning
up remote mbr(3)
grock(DG_DATA) birth(7/7)
[   CSSD]2007-08-03 09:31:42.376 [1233201504] >TRACE:   clssgmCleanupGrocks: cleaning up
grock OSM_ALL type 2
[   CSSD]2007-08-03 09:31:42.376 [1233201504] >TRACE:   clssgmCleanupOrphanMembers: cleaning
up remote mbr(0)

```

```

grock(OSM_ALL) birth(7/7)
[   CSSD]2007-08-03 09:31:42.376 [1233201504] >TRACE:   clssgmCleanupGrocks: cleaning up
grock DAALL_DB type 2
[   CSSD]2007-08-03 09:31:42.376 [1233201504] >TRACE:   clssgmCleanupOrphanMembers: cleaning
up remote mbr(0)
grock(DAALL_DB) birth(7/7)
[   CSSD]2007-08-03 09:31:42.376 [1233201504] >TRACE:   clssgmCleanupOrphanMembers: cleaning
up remote mbr(3)
grock(DAALL_DB) birth(7/7)
[   CSSD]2007-08-03 09:31:42.376 [1233201504] >TRACE:   clssgmCleanupGrocks: cleaning up
grock EVMDMAIN type 2
[   CSSD]2007-08-03 09:31:42.376 [1233201504] >TRACE:   clssgmCleanupGrocks: cleaning up
grock CRSDMAIN type 2
[   CSSD]2007-08-03 09:31:42.376 [1233201504] >TRACE:   clssgmCleanupOrphanMembers: cleaning
up remote mbr(2)
grock(CRSDMAIN) birth(7/7)
[   CSSD]2007-08-03 09:31:42.376 [1233201504] >TRACE:   clssgmCleanupGrocks: cleaning up
grock DBPRDRAC type
2
[   CSSD]2007-08-03 09:31:42.376 [1233201504] >TRACE:   clssgmCleanupOrphanMembers: cleaning
up remote mbr(1)
grock(DBPRDRAC) birth(7/7)
[   CSSD]2007-08-03 09:31:42.376 [1233201504] >TRACE:   clssgmCleanupGrocks: cleaning up
grock DGPRDRAC type
2
[   CSSD]2007-08-03 09:31:42.376 [1233201504] >TRACE:   clssgmCleanupOrphanMembers: cleaning
up remote mbr(1)
grock(DGPRDRAC) birth(7/7)
[   CSSD]2007-08-03 09:31:42.376 [1233201504] >TRACE:   clssgmCleanupGrocks: cleaning up
grock ocr_crs type 2
[   CSSD]2007-08-03 09:31:42.376 [1233201504] >TRACE:   clssgmCleanupOrphanMembers: cleaning
up remote mbr(2)
grock(ocr_crs) birth(7/7)
[   CSSD]2007-08-03 09:31:42.376 [1233201504] >TRACE:   clssgmCleanupGrocks: cleaning up
grock IGPRDRACALL ty
pe 2
[   CSSD]2007-08-03 09:31:42.376 [1233201504] >TRACE:   clssgmCleanupOrphanMembers: cleaning
up remote mbr(2)
grock(IGPRDRACALL) birth(7/7)
[   CSSD]2007-08-03 09:31:42.376 [1233201504] >TRACE:   clssgmCleanupGrocks: cleaning up
grock _ORA_CRS_MEMBER
_racnode1 type 3
[   CSSD]2007-08-03 09:31:42.376 [1233201504] >TRACE:   clssgmCleanupGrocks: cleaning up
grock _ORA_CRS_MEMBER
_racnode2 type 3
[   CSSD]2007-08-03 09:31:42.376 [1233201504] >TRACE:   clssgmCleanupOrphanMembers: cleaning
up remote mbr(0)
grock(_ORA_CRS_MEMBER_racnode2) birth(7/7)
[   CSSD]2007-08-03 09:31:42.376 [1233201504] >TRACE:   clssgmCleanupGrocks: cleaning up
grock #CSS_CLSSOMON t
ype 2
[   CSSD]2007-08-03 09:31:42.376 [1233201504] >TRACE:   clssgmCleanupOrphanMembers: cleaning
up remote mbr(2)
grock(#CSS_CLSSOMON) birth(7/7)
[   CSSD]2007-08-03 09:31:42.376 [1233201504] >TRACE:   clssgmEstablishConnections: 1 nodes
in cluster incarn
8
[   CSSD]2007-08-03 09:31:42.376 [1199630688] >TRACE:   clssgmPeerDeactivate: node 2
(racnode2), death 8, stat
e 0x80000000 connstate 0xf
[   CSSD]2007-08-03 09:31:42.376 [1199630688] >TRACE:   clssgmPeerListener: connects done
(1/1)
[   CSSD]2007-08-03 09:31:42.376 [1233201504] >TRACE:   clssgmEstablishMasterNode: MASTER for
8 is node(1) bir
th(3)
[   CSSD]2007-08-03 09:31:42.376 [1233201504] >TRACE:   clssgmMasterCMSync: Synchronizing
group/lock status
[   CSSD]2007-08-03 09:31:42.378 [1233201504] >TRACE:   clssgmMasterSendDBDone: group/lock
status synchronizat
ion complete
[   CSSD]CLSS-3000: reconfiguration successful, incarnation 8 with 1 nodes

[   CSSD]CLSS-3001: local node number 1, master node number 1

[   CSSD]2007-08-03 09:31:42.378 [1233201504] >TRACE:   clssgmReconfigThread: completed for
reconfig(8), with
status(1)

```



```

[   CSSD]2007-08-03 09:31:42.542 [1174452576] >TRACE:   clssgmClientConnectMsg: Connect from
con(0x2a98342b50)
  proc(0x2a98352de0) pid() proto(10:2:1:1)
[   CSSD]2007-08-03 09:31:42.558 [1174452576] >TRACE:   clssgmClientConnectMsg: Connect from
con(0x2a98367900)
  proc(0x2a9833b560) pid() proto(10:2:1:1)
[   CSSD]2007-08-03 09:31:43.236 [1174452576] >TRACE:   clssgmClientConnectMsg: Connect from
con(0x2a98367840)
  proc(0x2a983436d0) pid() proto(10:2:1:1)
[   CSSD]2007-08-03 09:31:44.263 [1174452576] >TRACE:   clssgmClientConnectMsg: Connect from
con(0x2a98367830)
  proc(0x2a983436d0) pid() proto(10:2:1:1)
[   CSSD]2007-08-03 09:32:04.096 [1174452576] >TRACE:   clssgmClientConnectMsg: Connect from
con(0x2a98341640)
  proc(0x2a9833aa80) pid() proto(10:2:1:1)
[   CSSD]2007-08-03 09:32:04.119 [1174452576] >TRACE:   clssgmClientConnectMsg: Connect from
con(0x2a983438d0)
  proc(0x2a98366ea0) pid() proto(10:2:1:1)
[   CSSD]2007-08-03 09:32:42.985 [1174452576] >TRACE:   clssgmClientConnectMsg: Connect from
con(0x2a98341640)
  proc(0x2a9833aa80) pid() proto(10:2:1:1)
[   CSSD]2007-08-03 09:32:44.106 [1174452576] >TRACE:   clssgmClientConnectMsg: Connect from
con(0x2a98341640)
  proc(0x2a9833aa80) pid() proto(10:2:1:1)
[   CSSD]2007-08-03 09:33:13.754 [1107310944] >TRACE:   clssnmReadDskHeartbeat: node(2) is
down. rcfg(1) wrtcn
t(1) LATS(340970290) Disk lastSeqNo(1)
[   CSSD]2007-08-03 09:33:13.809 [1124096352] >TRACE:   clssnmReadDskHeartbeat: node(2) is
down. rcfg(1) wrtcn
t(3) LATS(340970350) Disk lastSeqNo(3)
[   CSSD]2007-08-03 09:33:14.237 [1115703648] >TRACE:   clssnmReadDskHeartbeat: node(2) is
down. rcfg(1) wrtcn
t(2) LATS(340970780) Disk lastSeqNo(2)
[   CSSD]2007-08-03 09:33:15.677 [1166059872] >TRACE:   clssnmConnComplete: connected to node
2 (con 0x78cd90)
, state 1 birth 0, unique 1186126393/1186126393 prevConuni(0)
[   CSSD]2007-08-03 09:33:16.571 [1224808800] >TRACE:   clssnmDoSyncUpdate: Initiating sync 9
[   CSSD]2007-08-03 09:33:16.571 [1224808800] >TRACE:   clssnmDoSyncUpdate: diskTimeout set
to (57000)ms
[   CSSD]2007-08-03 09:33:16.571 [1224808800] >TRACE:   clssnmSetupAckWait: Ack message type
(11)
[   CSSD]2007-08-03 09:33:16.571 [1224808800] >TRACE:   clssnmSetupAckWait: node(1) is ALIVE
[   CSSD]2007-08-03 09:33:16.571 [1224808800] >TRACE:   clssnmSetupAckWait: node(2) is ALIVE
[   CSSD]2007-08-03 09:33:16.571 [1224808800] >TRACE:   clssnmSendSync: syncSeqNo(9)
[   CSSD]2007-08-03 09:33:16.571 [1224808800] >TRACE:   clssnmWaitForAcks: Ack message
type(11), ackCount(2)
[   CSSD]2007-08-03 09:33:16.571 [1166059872] >TRACE:   clssnmHandleSync: Acknowledging sync:
src[1] srcName[1
ilrdb01] seq[21] sync[9]
[   CSSD]2007-08-03 09:33:16.571 [1166059872] >TRACE:   clssnmHandleSync: diskTimeout set to
(57000)ms
[   CSSD]2007-08-03 09:33:16.571 [2546465536] >USER:   NMEVENT_SUSPEND [00][00][00][02]
[   CSSD]2007-08-03 09:33:16.571 [1224808800] >TRACE:   clssnmWaitForAcks: done, msg type(11)
[   CSSD]2007-08-03 09:33:16.571 [1224808800] >TRACE:   clssnmDoSyncUpdate: node(2) is
transitioning from join
ing state to active state
[   CSSD]2007-08-03 09:33:16.571 [1224808800] >TRACE:   clssnmSetupAckWait: Ack message type
(13)
[   CSSD]2007-08-03 09:33:16.571 [1224808800] >TRACE:   clssnmSetupAckWait: node(1) is ACTIVE
[   CSSD]2007-08-03 09:33:16.571 [1224808800] >TRACE:   clssnmSetupAckWait: node(2) is ACTIVE
[   CSSD]2007-08-03 09:33:16.571 [1224808800] >TRACE:   clssnmSendVote: syncSeqNo(9)
[   CSSD]2007-08-03 09:33:16.571 [1166059872] >TRACE:   clssnmSendVoteInfo: node(1)
syncSeqNo(9)
[   CSSD]2007-08-03 09:33:16.572 [1224808800] >TRACE:   clssnmWaitForAcks: Ack message
type(13), ackCount(1)
[   CSSD]2007-08-03 09:33:16.572 [1224808800] >TRACE:   clssnmWaitForAcks: done, msg type(13)
[   CSSD]2007-08-03 09:33:16.572 [1224808800] >TRACE:   clssnmCheckDskInfo: Checking disk
info...
[   CSSD]2007-08-03 09:33:16.572 [1224808800] >TRACE:   clssnmEvict: Start
[   CSSD]2007-08-03 09:33:16.572 [1224808800] >TRACE:   clssnmWaitOnEvictions: Start
[   CSSD]2007-08-03 09:33:16.572 [1224808800] >TRACE:   clssnmSetupAckWait: Ack message type
(15)
[   CSSD]2007-08-03 09:33:16.572 [1224808800] >TRACE:   clssnmSetupAckWait: node(1) is ACTIVE
[   CSSD]2007-08-03 09:33:16.572 [1224808800] >TRACE:   clssnmSetupAckWait: node(2) is ACTIVE
[   CSSD]2007-08-03 09:33:16.572 [1224808800] >TRACE:   clssnmSendUpdate: syncSeqNo(9)
[   CSSD]2007-08-03 09:33:16.572 [1166059872] >TRACE:   clssnmUpdateNodeState: node 0, state
(0/0) unique (0/0)

```

```

) prevConuni(0) birth (0/0) (old/new)
[   CSSD]2007-08-03 09:33:16.572 [1166059872] >TRACE:   clssnmDeactivateNode: node 0 () left
cluster

[   CSSD]2007-08-03 09:33:16.572 [1166059872] >TRACE:   clssnmUpdateNodeState: node 1, state
(3/3) unique (118
5785499/1185785499) prevConuni(0) birth (3/3) (old/new)
[   CSSD]2007-08-03 09:33:16.572 [1166059872] >TRACE:   clssnmUpdateNodeState: node 2, state
(2/2) unique (118
6126393/1186126393) prevConuni(0) birth (9/9) (old/new)
[   CSSD]2007-08-03 09:33:16.572 [1166059872] >USER:     clssnmHandleUpdate: SYNC(9) from
node(1) completed
[   CSSD]2007-08-03 09:33:16.572 [1166059872] >USER:     clssnmHandleUpdate: NODE 1 (racnode1)
IS ACTIVE MEMBER
OF CLUSTER
[   CSSD]2007-08-03 09:33:16.572 [1166059872] >USER:     clssnmHandleUpdate: NODE 2 (racnode2)
IS ACTIVE MEMBER
OF CLUSTER
[   CSSD]2007-08-03 09:33:16.572 [1166059872] >TRACE:   clssnmHandleUpdate: diskTimeout set
to (200000)ms
[   CSSD]2007-08-03 09:33:16.572 [1233201504] >TRACE:   clssgmReconfigThread: started for
reconfig (9)
[   CSSD]2007-08-03 09:33:16.572 [1233201504] >USER:     NMEVENT_RECONFIG [00][00][00][06]
[   CSSD]2007-08-03 09:33:16.572 [1224808800] >TRACE:   clssnmWaitForAcks: Ack message
type(15), ackCount(1)
[   CSSD]2007-08-03 09:33:16.572 [1224808800] >TRACE:   clssnmWaitForAcks: done, msg type(15)
[   CSSD]2007-08-03 09:33:16.572 [1224808800] >TRACE:   clssnmDoSyncUpdate: Sync Complete!
[   CSSD]2007-08-03 09:33:16.573 [1233201504] >TRACE:   clssgmEstablishConnections: 2 nodes
in cluster incarn
9
[   CSSD]2007-08-03 09:33:16.633 [1199630688] >TRACE:   clssgmInitialRecv: (0x2a98341640)
accepted a new conne
ction from node 2 born at 9 active (2, 2), vers (10,3,1,2)
[   CSSD]2007-08-03 09:33:16.633 [1199630688] >TRACE:   clssgmInitialRecv: conns done (2/2)
[   CSSD]2007-08-03 09:33:16.633 [1233201504] >TRACE:   clssgmEstablishMasterNode: MASTER for
9 is node(1) bir
th(3)
[   CSSD]2007-08-03 09:33:16.633 [1233201504] >TRACE:   clssgmMasterCMSync: Synchronizing
group/lock status
[   CSSD]2007-08-03 09:33:16.636 [1233201504] >TRACE:   clssgmMasterSendDBDone: group/lock
status synchronization complete
[   CSSD]CLSS-3000: reconfiguration successful, incarnation 9 with 2 nodes

[   CSSD]CLSS-3001: local node number 1, master node number 1

[   CSSD]2007-08-03 09:33:16.637 [1233201504] >TRACE:   clssgmReconfigThread: completed for
reconfig(9), with
status(1)

```

alertPRDRAC1.log:

```

Fri Aug 3 09:31:45 2007
Reconfiguration started (old inc 4, new inc 6)
List of nodes:
0
Global Resource Directory frozen
* dead instance detected - domain 0 invalid = TRUE
Communication channels reestablished
Master broadcasted resource hash value bitmaps
Non-local Process blocks cleaned out
Fri Aug 3 09:31:45 2007
LMS 0: 1 GCS shadows cancelled, 0 closed
Fri Aug 3 09:31:45 2007
LMS 1: 1 GCS shadows cancelled, 0 closed
Set master node info
Submitted all remote-enqueue requests
Dwn-cvts replayed, VALBLKs dubious
All grantable enqueues granted
Post SMON to start 1st pass IR
Fri Aug 3 09:31:45 2007
Instance recovery: looking for dead threads
Fri Aug 3 09:31:46 2007
LMS 0: 186586 GCS shadows traversed, 0 replayed
Fri Aug 3 09:31:46 2007
LMS 1: 188815 GCS shadows traversed, 0 replayed
Fri Aug 3 09:31:46 2007

```



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Submitted all GCS remote-cache requests
Fix write in gcs resources
Reconfiguration complete
Fri Aug 3 09:31:46 2007
Beginning instance recovery of 1 threads
parallel recovery started with 3 processes
Fri Aug 3 09:31:46 2007
Started redo scan
Fri Aug 3 09:31:47 2007
Completed redo scan
10064 redo blocks read, 3032 data blocks need recovery
Fri Aug 3 09:31:48 2007
Started redo application at
Thread 2: logseq 6, block 67155
Fri Aug 3 09:31:48 2007
Recovery of Online Redo Log: Thread 2 Group 4 Seq 6 Reading mem 0
Mem# 0: +DATA/PRDRAC/onlinelog/group_4.266.629456853
Mem# 1: +FRA/PRDRAC/onlinelog/group_4.260.629456867
Fri Aug 3 09:31:48 2007
Completed redo application
Fri Aug 3 09:31:51 2007
Completed instance recovery at
Thread 2: logseq 6, block 77219, scn 834806
2591 data blocks read, 3341 data blocks written, 10064 redo blocks read
Switch log for thread 2 to sequence 7
Fri Aug 3 09:33:48 2007
Reconfiguration started (old inc 6, new inc 8)
List of nodes:
0 1
Global Resource Directory frozen
Communication channels reestablished
Master broadcasted resource hash value bitmaps
Non-local Process blocks cleaned out
Fri Aug 3 09:33:48 2007
LMS 0: 0 GCS shadows cancelled, 0 closed
Fri Aug 3 09:33:48 2007
LMS 1: 0 GCS shadows cancelled, 0 closed
Set master node info
Submitted all remote-enqueue requests
Dwn-cvts replayed, VALBLKs dubious
All grantable enqueues granted
Fri Aug 3 09:33:48 2007
LMS 0: 7993 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
LMS 1: 8037 GCS shadows traversed, 4001 replayed
LMS 1: 8033 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
LMS 0: 8066 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
LMS 1: 8028 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
LMS 0: 8027 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
LMS 1: 8016 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
LMS 0: 8029 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
LMS 1: 8024 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
LMS 0: 8012 GCS shadows traversed, 4001 replayed
LMS 0: 8021 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
LMS 1: 8052 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
LMS 0: 8074 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
LMS 1: 8030 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
LMS 0: 8006 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
LMS 1: 8039 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
LMS 0: 8040 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
LMS 1: 8058 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
LMS 0: 8036 GCS shadows traversed, 4001 replayed

```

```

Fri Aug 3 09:33:48 2007
  LMS 1: 8038 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
  LMS 0: 8009 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
  LMS 1: 8070 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
  LMS 0: 7980 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
  LMS 1: 8012 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
  LMS 0: 8077 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
  LMS 1: 8063 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
  LMS 0: 8025 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
  LMS 1: 8012 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
  LMS 0: 8000 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
  LMS 1: 8074 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
  LMS 0: 8050 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
  LMS 1: 8036 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
  LMS 0: 8033 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
  LMS 1: 8060 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
  LMS 0: 8039 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
  LMS 1: 8053 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
  LMS 0: 8024 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
  LMS 1: 8060 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
  LMS 0: 8024 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
  LMS 1: 8065 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
  LMS 0: 8043 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
  LMS 1: 8037 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
  LMS 0: 8057 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
  LMS 1: 8029 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
  LMS 0: 7995 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
  LMS 1: 8039 GCS shadows traversed, 4001 replayed
Fri Aug 3 09:33:48 2007
  LMS 0: 2733 GCS shadows traversed, 1362 replayed
Fri Aug 3 09:33:48 2007
  LMS 1: 4902 GCS shadows traversed, 2431 replayed
Fri Aug 3 09:33:48 2007
Submitted all GCS remote-cache requests
Post SMON to start 1st pass IR
Fix write in gcs resources
Reconfiguration complete

```

alertPRDRAC2.log:

```

Fri Aug 3 09:30:43 2007
Errors in file /app/oracle/PRDRAC/oratrace/bdump/PRDRAC2_asmb_30377.trc:
ORA-15064: Message 15064 not found; No message file for product=RDBMS, facility=ORA
ORA-03113: Message 3113 not found; No message file for product=RDBMS, facility=ORA
Fri Aug 3 09:30:43 2007
ASMB: terminating instance due to error 15064
Fri Aug 3 09:30:43 2007
Errors in file /app/oracle/PRDRAC/oratrace/bdump/PRDRAC2_lmd0_20947.trc:
ORA-15064: Message 15064 not found; No message file for product=RDBMS, facility=ORA
Fri Aug 3 09:30:43 2007
System state dump is made for local instance
System State dumped to trace file /app/oracle/PRDRAC/oratrace/bdump/PRDRAC2_diag_20561.trc
Fri Aug 3 09:30:43 2007
Trace dumping is performing id=[cdmp_20070803093043]
Fri Aug 3 09:33:44 2007
Starting ORACLE instance (normal)
LICENSE_MAX_SESSION = 0

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LICENSE_SESSIONS_WARNING = 0
Interface type 1 bond0 10.10.89.0 configured from OCR for use as a cluster interconnect
Interface type 1 bond1 10.10.89.128 configured from OCR for use as a public interface
Picked latch-free SCN scheme 3
Using LOG_ARCHIVE_DEST_10 parameter default value as USE_DB_RECOVERY_FILE_DEST
Autotune of undo retention is turned on.
LICENSE_MAX_USERS = 0
SYS auditing is disabled
ksdpec: called for event 13740 prior to event group initialization
Starting up ORACLE RDBMS Version: 10.2.0.3.0.
System parameters with non-default values:
  processes                = 500
  sessions                  = 555
  resource_limit            = TRUE
  __shared_pool_size        = 754974720
  __large_pool_size         = 16777216
  __java_pool_size         = 16777216
  __streams_pool_size      = 0
  spfile                    = +DATA/PRDRAC/spfilePRDRAC.ora
  nls_language              = GERMAN
  nls_territory             = GERMANY
  filesystemio_options     = setall
  sga_target                = 4177526784
  control_files             = +DATA/PRDRAC/controlfile/current.256.629456217,
+FRA/PRDRAC/controlfile/current.256.629456219
  db_block_size             = 8192
  __db_cache_size          = 3372220416
  db_writer_processes      = 4
  compatible                = 10.2.0.3.0
  db_file_multiblock_read_count= 16
  cluster_database         = TRUE
  cluster_database_instances= 2
  db_create_file_dest      = +DATA
  db_recovery_file_dest    = +FRA
  db_recovery_file_dest_size= 214748364800
  thread                    = 2
  instance_number          = 2
  undo_management          = AUTO
  undo_tablespace          = UNDOTBS2
  remote_login_passwordfile= EXCLUSIVE
  db_domain                =
  dispatchers              = (PROTOCOL=TCP) (SERVICE=PRDRACXDB)
  local_listener           = LISTENER_PRDRAC2
  remote_listener          = LISTENERS_PRDRAC
  job_queue_processes      = 10
  background_dump_dest     = /app/oracle/PRDRAC/oratrace/bdump
  user_dump_dest           = /app/oracle/PRDRAC/oratrace/udump
  core_dump_dest           = /app/oracle/PRDRAC/oratrace/cdump
  audit_file_dest          = /app/oracle/PRDRAC/oratrace/adump
  audit_trail              = DB
  db_name                   = PRDRAC
  open_cursors              = 300
  pga_aggregate_target     = 1073741824
Cluster communication is configured to use the following interface(s) for this instance
192.168.1.2
Fri Aug 3 09:33:46 2007
cluster interconnect IPC version:Oracle UDP/IP (generic)
IPC Vendor 1 proto 2
PSP0 started with pid=4, OS id=13620
DIAG started with pid=3, OS id=13378
PMON started with pid=2, OS id=13196
LMON started with pid=5, OS id=13744
LMD0 started with pid=6, OS id=13855
LMS0 started with pid=7, OS id=14006
LMS1 started with pid=8, OS id=14459
MMAN started with pid=9, OS id=14558
DBW0 started with pid=10, OS id=14560
DBW1 started with pid=11, OS id=14562
DBW2 started with pid=12, OS id=14571
DBW3 started with pid=13, OS id=14593
LGWR started with pid=14, OS id=14617
CKPT started with pid=15, OS id=14633
SMON started with pid=16, OS id=14648
RECO started with pid=17, OS id=14661
CJQ0 started with pid=18, OS id=14665
MMON started with pid=19, OS id=14682
Fri Aug 3 09:33:47 2007

```

```
starting up 1 dispatcher(s) for network address '(ADDRESS=(PARTIAL=YES) (PROTOCOL=TCP))'...
MMNL started with pid=20, OS id=14710
Fri Aug 3 09:33:47 2007
starting up 1 shared server(s) ...
Fri Aug 3 09:33:47 2007
lmon registered with NM - instance id 2 (internal mem no 1)
Fri Aug 3 09:33:48 2007
Reconfiguration started (old inc 0, new inc 8)
List of nodes:
 0 1
  Global Resource Directory frozen
 * allocate domain 0, invalid = TRUE
  Communication channels reestablished
 * domain 0 valid = 1 according to instance 0
Fri Aug 3 09:33:48 2007
  Master broadcasted resource hash value bitmaps
  Non-local Process blocks cleaned out
Fri Aug 3 09:33:48 2007
  LMS 0: 0 GCS shadows cancelled, 0 closed
Fri Aug 3 09:33:48 2007
  LMS 1: 0 GCS shadows cancelled, 0 closed
  Set master node info
  Submitted all remote-enqueue requests
  Dwn-cvts replayed, VALBLKS dubious
  All grantable enqueues granted
Fri Aug 3 09:33:48 2007
  LMS 0: 0 GCS shadows traversed, 0 replayed
Fri Aug 3 09:33:48 2007
  LMS 1: 0 GCS shadows traversed, 0 replayed
Fri Aug 3 09:33:48 2007
  Submitted all GCS remote-cache requests
  Fix write in gcs resources
Reconfiguration complete
LCK0 started with pid=23, OS id=21039
Fri Aug 3 09:33:50 2007
ALTER DATABASE MOUNT
Fri Aug 3 09:33:50 2007
Starting background process ASMB
ASMB started with pid=25, OS id=21318
Starting background process RBAL
RBAL started with pid=26, OS id=21338
Fri Aug 3 09:33:53 2007
SUCCESS: diskgroup DATA was mounted
SUCCESS: diskgroup FRA was mounted
Fri Aug 3 09:33:57 2007
Setting recovery target incarnation to 1
Fri Aug 3 09:33:57 2007
Successful mount of redo thread 2, with mount id 4162443596
Fri Aug 3 09:33:57 2007
Database mounted in Shared Mode (CLUSTER_DATABASE=TRUE)
Completed: ALTER DATABASE MOUNT
Fri Aug 3 09:33:58 2007
ALTER DATABASE OPEN
Picked broadcast on commit scheme to generate SCNs
Fri Aug 3 09:33:58 2007
LGWR: STARTING ARCH PROCESSES
ARC0 started with pid=28, OS id=22169
Fri Aug 3 09:33:58 2007
ARC0: Archival started
ARC1: Archival started
LGWR: STARTING ARCH PROCESSES COMPLETE
ARC1 started with pid=29, OS id=22171
Fri Aug 3 09:33:59 2007
Thread 2 opened at log sequence 7
  Current log# 3 seq# 7 mem# 0: +DATA/PRDRAC/onlinelog/group_3.265.629456829
  Current log# 3 seq# 7 mem# 1: +FRA/PRDRAC/onlinelog/group_3.259.629456843
Successful open of redo thread 2
Fri Aug 3 09:33:59 2007
MTTR advisory is disabled because FAST_START_MTTR_TARGET is not set
Fri Aug 3 09:33:59 2007
ARC1: Becoming the 'no FAL' ARCH
ARC1: Becoming the 'no SRL' ARCH
Fri Aug 3 09:33:59 2007
ARC0: Becoming the heartbeat ARCH
Fri Aug 3 09:33:59 2007
SMON: enabling cache recovery
Fri Aug 3 09:34:00 2007
Successfully online Undo Tablespace 4.
Fri Aug 3 09:34:00 2007
SMON: enabling tx recovery
Fri Aug 3 09:34:00 2007
Database Characterset is AL32UTF8
Fri Aug 3 09:34:00 2007
db_recovery_file_dest_size of 204800 MB is 4.00% used. This is a
user-specified limit on the amount of space that will be used by this
database for recovery-related files, and does not reflect the amount of
```

```
space available in the underlying filesystem or ASM diskgroup.
Fri Aug 3 09:34:00 2007
replication_dependency_tracking turned off (no async multimaster replication found)
Starting background process QMNC
QMNC started with pid=32, OS id=22567
Fri Aug 3 09:34:04 2007
Completed: ALTER DATABASE OPEN
```

3.6 Testcase 6: All Node Failure (reboot aller cluster nodes)

Vorbereitung:

- Starten der Workload auf PRDRAC2
- Nach 5 Minuten: reboot racnode2.intra und racnode1.intra

Erwartetes Resultat:

- PRDRAC2/Listener/CRS/Host wird gestoppt
- PRDRAC1/Listener/CRS/Host wird gestoppt
- racnode1 und racnode2 booten
- CRS wird gestartet
- Datenbank Instanzen werden gestartet
- Datenbank-Instanzen führen nach Restart Instance Recovery durch
- Services werden auch wieder gestartet.

3.7 Testcase 7: CRS Process Failure (kill -9 crsd process)

Vorbereitung:

- Starten der Workload auf PRDRAC2
- Nach 5 Minuten: "kill -9 <pid crsd process>" auf racnode2.intra

Erwartetes Resultat:

- CRS wird restartet

Messung folgender Zeitperioden:

- Time to restart CRSD process

Zeit	Instanz/Host	Aktion
09:47:20	racnode2	CRSD Prozess wird gekillt
09:47:30	racnode2	CRSD Prozess ist wieder vorhanden

crsd.log:

```
2007-08-03 09:47:23.013: [ default][2550517056][ENTER]0
Oracle Database 10g CRS Release 10.2.0.3.0 Production Copyright 1996, 2004, Oracle. All rights reserved
2007-08-03 09:47:23.013: [ default][2550517056]0CRS Daemon Starting
2007-08-03 09:47:23.013: [ CRSMAIN][2550517056]0Checking the OCR device
2007-08-03 09:47:23.096: [ CRSMAIN][2550517056]0Connecting to the CSS Daemon
2007-08-03 09:47:23.748: [ CRSD][2550517056]0Daemon Version: 10.2.0.3.0 Active Version: 10.2.0.3.0
2007-08-03 09:47:23.748: [ CRSD][2550517056]0Active Version and Software Version are same
2007-08-03 09:47:23.748: [ CRSMAIN][2550517056]0Initializing OCR
2007-08-03 09:47:23.843: [ OCRRAW][2550517056]0proprio: for disk 0 (/dev/raw/raw5), id match (1), my id
set (1
796804619,1283008223) total id sets (1), 1st set (1796804619,1283008223), 2nd set (0,0) my votes (1), total
vot
es (2)
2007-08-03 09:47:23.844: [ OCRRAW][2550517056]0proprio: for disk 1 (/dev/raw/raw13), id match (1), my id
set (
1796804619,1283008223) total id sets (1), 1st set (1796804619,1283008223), 2nd set (0,0) my votes (1),
total vo
tes (2)
2007-08-03 09:47:23.899: [ CRSD][2550517056]0ENV Logging level for Module: allcomp 0
```

```

2007-08-03 09:47:23.902: [ CRSDD] [2550517056]0ENV Logging level for Module: default 0
2007-08-03 09:47:23.905: [ CRSDD] [2550517056]0ENV Logging level for Module: COMMCRS 0
2007-08-03 09:47:23.908: [ CRSDD] [2550517056]0ENV Logging level for Module: COMMNS 0
2007-08-03 09:47:23.910: [ CRSDD] [2550517056]0ENV Logging level for Module: CRSUI 0
2007-08-03 09:47:23.913: [ CRSDD] [2550517056]0ENV Logging level for Module: CRSCOMM 0
2007-08-03 09:47:23.916: [ CRSDD] [2550517056]0ENV Logging level for Module: CRSRTI 0
2007-08-03 09:47:23.918: [ CRSDD] [2550517056]0ENV Logging level for Module: CRSMAIN 0
2007-08-03 09:47:23.921: [ CRSDD] [2550517056]0ENV Logging level for Module: CRSPLACE 0
2007-08-03 09:47:23.924: [ CRSDD] [2550517056]0ENV Logging level for Module: CRSAPP 0
2007-08-03 09:47:23.926: [ CRSDD] [2550517056]0ENV Logging level for Module: CRSRES 0
2007-08-03 09:47:23.929: [ CRSDD] [2550517056]0ENV Logging level for Module: CRSOCR 0
2007-08-03 09:47:23.932: [ CRSDD] [2550517056]0ENV Logging level for Module: CRSTIMER 0
2007-08-03 09:47:23.934: [ CRSDD] [2550517056]0ENV Logging level for Module: CRSEVT 0
2007-08-03 09:47:23.937: [ CRSDD] [2550517056]0ENV Logging level for Module: CRSDD 0
2007-08-03 09:47:23.940: [ CRSDD] [2550517056]0ENV Logging level for Module: CLUCLS 0
2007-08-03 09:47:23.942: [ CRSDD] [2550517056]0ENV Logging level for Module: OCRRAW 0
2007-08-03 09:47:23.945: [ CRSDD] [2550517056]0ENV Logging level for Module: OCROSD 0
2007-08-03 09:47:23.948: [ CRSDD] [2550517056]0ENV Logging level for Module: CSSCLNT 0
2007-08-03 09:47:23.950: [ CRSDD] [2550517056]0ENV Logging level for Module: OCRAPI 0
2007-08-03 09:47:23.953: [ CRSDD] [2550517056]0ENV Logging level for Module: OCRUTL 0
2007-08-03 09:47:23.956: [ CRSDD] [2550517056]0ENV Logging level for Module: OCRMSG 0
2007-08-03 09:47:23.958: [ CRSDD] [2550517056]0ENV Logging level for Module: OCRCLI 0
2007-08-03 09:47:23.961: [ CRSDD] [2550517056]0ENV Logging level for Module: OCRCAC 0
2007-08-03 09:47:23.964: [ CRSDD] [2550517056]0ENV Logging level for Module: OCRSRV 0
2007-08-03 09:47:23.971: [ CRSDD] [2550517056]0ENV Logging level for Module: OCRMAS 0
2007-08-03 09:47:23.972: [ CRSMMAIN] [2550517056]0Filename is /crs/oracle/102/crs/init/racnode2.pid
[ clsdmt] [1333913952]Listening to (ADDRESS=(PROTOCOL=ipc) (KEY=racnode2DBG_CRSD))
2007-08-03 09:47:23.998: [ CRSMMAIN] [2550517056]0Using Authorizer location: /crs/oracle/102/crs/auth/
2007-08-03 09:47:24.046: [ CRSMMAIN] [2550517056]0Initializing RTI
2007-08-03 09:47:24.146: [CRSTIMER] [1350699360]0Timer Thread Starting.
2007-08-03 09:47:24.150: [ CRSRES] [2550517056]0Parameter SECURITY = 1, running in USER Mode
2007-08-03 09:47:24.150: [ CRSMMAIN] [2550517056]0Initializing EVMMgr
2007-08-03 09:47:24.434: [ CRSMMAIN] [2550517056]0CRSD locked during state recovery, please wait.
2007-08-03 09:47:25.217: [ CRSRES] [2550517056]0ora.racnode2.vip check shows ONLINE
2007-08-03 09:47:25.822: [ CRSRES] [2550517056]0ora.racnode2.gsd check shows ONLINE
2007-08-03 09:47:26.419: [ CRSRES] [2550517056]0ora.racnode2.ons check shows ONLINE
2007-08-03 09:47:27.109: [ CRSRES] [2550517056]0ora.racnode2.LISTENER_ASM_RACNODE2.lsnr check shows ONLINE
2007-08-03 09:47:27.931: [ CRSRES] [2550517056]0ora.racnode2.ASM2.asm check shows ONLINE
2007-08-03 09:47:29.283: [ CRSRES] [2550517056]0ora.PRDRAC.PRDRAC2.inst check shows ONLINE
2007-08-03 09:47:30.067: [ CRSRES] [2550517056]0ora.racnode2.LISTENER_RACNODE2.lsnr check shows ONLINE
2007-08-03 09:47:30.068: [ CRSMMAIN] [2550517056]0CRSD recovered, unlocked.
2007-08-03 09:47:30.069: [ CRSMMAIN] [2550517056]0QS socket on: (ADDRESS=(PROTOCOL=ipc) (KEY=ora_crsqs))
2007-08-03 09:47:30.084: [ CRSMMAIN] [2550517056]0CRSD UI socket on:
(ADDRESS=(PROTOCOL=ipc) (KEY=CRSD_UI_SOCKET))
2007-08-03 09:47:30.091: [ CRSMMAIN] [2550517056]0E2E socket on: (ADDRESS=(PROTOCOL=tcp) (HOST=racnode2-
ic) (PORT=4
9896))
2007-08-03 09:47:30.091: [ CRSMMAIN] [2550517056]0Starting Threads
2007-08-03 09:47:30.091: [ CRSMMAIN] [1394764128]0Starting runCommandServer for (UI = 1, E2E = 0). 0
2007-08-03 09:47:30.091: [ CRSMMAIN] [2550517056]0CRSD Daemon Started.
2007-08-03 09:47:30.091: [ CRSMMAIN] [1396865376]0Starting runCommandServer for (UI = 1, E2E = 0). 1

```

3.8 Testcase 8: EVMD Process Failure (kill -9 evmd process)

Vorbereitung:

- Starten der Workload auf PRDRAC2
- Nach 5 Minuten: "kill -9 <pid evmd process>" auf racnode2.intra

Erwartetes Resultat:

- EVMD wird restartet

1. Testlauf:

Beim ersten Testlauf hat es 10 Minuten gedauert, bis EVMD wieder gestartet wurde.

Zeit	Instanz/Host	Aktion
09:51:30	racnode2	EVMD Prozesse werden gekillt
10:00:14	racnode2	EVMD Prozesse sind wieder vorhanden

2. Testlauf

Zeit	Instanz/Host	Aktion
10:03:10	racnode2	EVMD Parent Prozess wird gekillt
10:03:10.909	racnode2	EVMD Prozesse sind wieder vorhanden

Log:

```

2007-08-03 10:03:10.909: [ EVMD][16384]0EVMD Starting
2007-08-03 10:03:10.909: [ EVMD][16384]0
Oracle Database 10g CRS Release 10.2.0.3.0 Production Copyright 1996, 2006, Oracle. All rights reserved
2007-08-03 10:03:10.909: [ EVMD][16384]0Initializing OCR
2007-08-03 10:03:11.033: [ CSSCLNT][16384]clssgsGroupJoin: member in use group(2/EVMDMAIN)

2007-08-03 10:03:11.033: [ EVMD][16384]0Exiting due to Registration error, another EVMD may be running
err =
 14
2007-08-03 10:03:12.467: [ EVMD][16384]0EVMD Starting
2007-08-03 10:03:12.467: [ EVMD][16384]0
Oracle Database 10g CRS Release 10.2.0.3.0 Production Copyright 1996, 2006, Oracle. All rights reserved
2007-08-03 10:03:12.467: [ EVMD][16384]0Initializing OCR
2007-08-03 10:03:12.772: [ EVMD][16384]0Daemon Version: 10.2.0.3.0 Active Version: 10.2.0.3.0
2007-08-03 10:03:12.772: [ EVMD][16384]0Active Version and Software Version are same
2007-08-03 10:03:12.772: [ EVMD][16384]0Initializing Diagnostics Settings
2007-08-03 10:03:12.793: [ EVMD][16384]0ENV Logging level for Module: allcomp 0
2007-08-03 10:03:12.814: [ EVMD][16384]0ENV Logging level for Module: default 0
2007-08-03 10:03:12.829: [ EVMD][16384]0ENV Logging level for Module: COMMCRS 0
2007-08-03 10:03:12.850: [ EVMD][16384]0ENV Logging level for Module: COMMNS 0
2007-08-03 10:03:12.862: [ EVMD][16384]0ENV Logging level for Module: EVMD 0
2007-08-03 10:03:12.880: [ EVMD][16384]0ENV Logging level for Module: EVMDMAIN 0
2007-08-03 10:03:12.896: [ EVMD][16384]0ENV Logging level for Module: EVMCOMM 0
2007-08-03 10:03:12.922: [ EVMD][16384]0ENV Logging level for Module: EVMEVT 0
2007-08-03 10:03:12.937: [ EVMD][16384]0ENV Logging level for Module: EVMAPP 0
2007-08-03 10:03:12.950: [ EVMD][16384]0ENV Logging level for Module: EVMAGENT 0
2007-08-03 10:03:12.962: [ EVMD][16384]0ENV Logging level for Module: CRSOCR 0
2007-08-03 10:03:12.973: [ EVMD][16384]0ENV Logging level for Module: CLUCLS 0
2007-08-03 10:03:12.985: [ EVMD][16384]0ENV Logging level for Module: OCRRAW 0
2007-08-03 10:03:12.998: [ EVMD][16384]0ENV Logging level for Module: OCROSD 0
2007-08-03 10:03:13.084: [ EVMD][16384]0ENV Logging level for Module: OCRAPI 0
2007-08-03 10:03:13.118: [ EVMD][16384]0ENV Logging level for Module: OCRUTL 0
2007-08-03 10:03:13.142: [ EVMD][16384]0ENV Logging level for Module: OCRMSG 0
2007-08-03 10:03:13.174: [ EVMD][16384]0ENV Logging level for Module: OCRCLI 0
2007-08-03 10:03:13.194: [ EVMD][16384]0ENV Logging level for Module: CSSCLNT 0
2007-08-03 10:03:13.194: [ EVMD][16384]0Creating pidfile /crs/oracle/102/evm/init/racnode2.pid
[ clsdmt][49156]Listening to (ADDRESS=(PROTOCOL=ipc) (KEY=racnode2DBG_EVMD))
2007-08-03 10:03:13.212: [ EVMD][16384]0Authorization database built successfully.
2007-08-03 10:03:13.362: [ EVMEVT][16384][ENTER]0EVM Listening on: 1700850
2007-08-03 10:03:13.365: [ EVMAPP][16384]0EVMD Started
2007-08-03 10:03:13.366: [ EVMEVT][180236]0Listening at (ADDRESS=(PROTOCOL=tcp) (HOST=racnode2-
ic) (PORT=49898))
for P2P evmd connections requests
2007-08-03 10:03:13.368: [ EVMEVT][229391][ENTER]0Establishing P2P connection with node: racnode1
2007-08-03 10:03:13.370: [ EVMD][16384]0Authorization database built successfully.
2007-08-03 10:03:13.372: [ EVMEVT][245776]0Private Member Update event for racnode2 received by
clssgsgrpstat

```

3.9 Testcase 9: OCSSD Process Failure (kill -9 ocssd)

Vorbereitung:

- Starten der Workload auf PRDRAC2
- Nach 5 Minuten: "kill -9 <pid OCSSD process>" auf racnode2.intra

Erwartetes Resultat:

- Node reboot

Zeit	Instanz/Host	Aktion
10:06:20	racnode2	CSSD Prozess wird getötet
10:09:32	racnode2	RAC Instanz PRDRAC2 steht nach Node Eviction wieder zur Verfügung.

racnode1:ocssd.log:

```

[ CSSD]2007-08-03 10:06:20.085 [1233201504] >TRACE: clssgmPeerDeactivate: node 2
(racnode2), death 0, state 0x1 connstate 0xf
[ CSSD]2007-08-03 10:06:20.085 [1199630688] >WARNING: clssnmeventhndlr: Receive failure
with node 2 (racnode2), rc=11
[ CSSD]2007-08-03 10:06:20.085 [1199630688] >TRACE: clssnmDiscHelper: node racnode2 (2)
connection failed
[ CSSD]2007-08-03 10:06:20.697 [1258379616] >TRACE: clssnmDoSyncUpdate: Initiating sync 2

```

```

[   CSSD]2007-08-03 10:06:20.697 [1258379616] >TRACE:   clssnmDoSyncUpdate: diskTimeout set
to (57000)ms
[   CSSD]2007-08-03 10:06:20.697 [1258379616] >TRACE:   clssnmSetupAckWait: Ack message type
(11)
[   CSSD]2007-08-03 10:06:20.697 [1258379616] >TRACE:   clssnmSetupAckWait: node(1) is ALIVE
[   CSSD]2007-08-03 10:06:20.697 [1258379616] >TRACE:   clssnmSetupAckWait: node(2) is ALIVE
[   CSSD]2007-08-03 10:06:20.697 [1258379616] >TRACE:   clssnmSendSync: syncSeqNo(2)
[   CSSD]2007-08-03 10:06:20.697 [1258379616] >TRACE:   clssnmWaitForAcks: Ack message
type(11), ackCount(2)
[   CSSD]2007-08-03 10:06:20.697 [1258379616] >TRACE:   clssnmWaitForAcks: node(2) is
expiring, msg type(11)
[   CSSD]2007-08-03 10:06:20.697 [1199630688] >TRACE:   clssnmHandleSync: Acknowledging sync:
src[1] srcName[racnode1] seq[5] sync[2]
[   CSSD]2007-08-03 10:06:20.697 [1199630688] >TRACE:   clssnmHandleSync: diskTimeout set to
(57000)ms
[   CSSD]2007-08-03 10:06:20.697 [1258379616] >TRACE:   clssnmWaitForAcks: done, msg type(11)
[   CSSD]2007-08-03 10:06:20.697 [1258379616] >TRACE:   clssnmDoSyncUpdate: Terminating node
2, racnode2, misstime(950) state(3)
[   CSSD]2007-08-03 10:06:20.697 [1258379616] >TRACE:   clssnmSetupAckWait: Ack message type
(13)
[   CSSD]2007-08-03 10:06:20.697 [1258379616] >TRACE:   clssnmSetupAckWait: node(1) is ACTIVE
[   CSSD]2007-08-03 10:06:20.697 [1258379616] >TRACE:   clssnmSendVote: syncSeqNo(2)
[   CSSD]2007-08-03 10:06:20.697 [2546465536] >USER:   NMEVENT_SUSPEND [00][00][00][06]
[   CSSD]2007-08-03 10:06:20.697 [1258379616] >TRACE:   clssnmWaitForAcks: Ack message
type(13), ackCount(1)
[   CSSD]2007-08-03 10:06:20.697 [1199630688] >TRACE:   clssnmSendVoteInfo: node(1)
syncSeqNo(2)
[   CSSD]2007-08-03 10:06:20.697 [1258379616] >TRACE:   clssnmWaitForAcks: done, msg type(13)
[   CSSD]2007-08-03 10:06:20.697 [1258379616] >TRACE:   clssnmCheckDskInfo: Checking disk
info...
[   CSSD]2007-08-03 10:06:20.697 [1258379616] >TRACE:   clssnmCheckDskInfo: node(2)
timeout(630) state_network(0) state_disk(3) misstime(950)
[   CSSD]2007-08-03 10:06:21.700 [1258379616] >TRACE:   clssnmCheckDskInfo: node(2)
timeout(1630) state_network(0) state_disk(3) misstime(1950)
[   CSSD]2007-08-03 10:06:22.702 [1258379616] >TRACE:   clssnmCheckDskInfo: node(2)
timeout(2640) state_network(0) state_disk(3) misstime(2960)
[   CSSD]2007-08-03 10:06:23.704 [1258379616] >TRACE:   clssnmCheckDskInfo: node(2)
timeout(3640) state_network(0) state_disk(3) misstime(3950)
[   CSSD]2007-08-03 10:06:24.706 [1258379616] >TRACE:   clssnmCheckDskInfo: node(2)
timeout(4640) state_network(0) state_disk(3) misstime(4950)
[   CSSD]2007-08-03 10:06:25.708 [1258379616] >TRACE:   clssnmCheckDskInfo: node(2)
timeout(5640) state_network(0) state_disk(3) misstime(5950)
[   CSSD]2007-08-03 10:06:26.710 [1258379616] >TRACE:   clssnmCheckDskInfo: node(2)
timeout(6640) state_network(0) state_disk(3) misstime(6950)
[   CSSD]2007-08-03 10:06:27.712 [1258379616] >TRACE:   clssnmCheckDskInfo: node(2)
timeout(7650) state_network(0) state_disk(3) misstime(7960)
[   CSSD]2007-08-03 10:06:28.714 [1258379616] >TRACE:   clssnmCheckDskInfo: node(2)
timeout(8650) state_network(0) state_disk(3) misstime(8950)
[   CSSD]2007-08-03 10:06:29.716 [1258379616] >TRACE:   clssnmCheckDskInfo: node(2)
timeout(9650) state_network(0) state_disk(3) misstime(9950)
[   CSSD]2007-08-03 10:06:30.718 [1258379616] >TRACE:   clssnmCheckDskInfo: node(2)
timeout(10650) state_network(0) state_disk(3) misstime(10950)
[   CSSD]2007-08-03 10:06:31.720 [1258379616] >TRACE:   clssnmCheckDskInfo: node(2)
timeout(11650) state_network(0) state_disk(3) misstime(11950)
[   CSSD]2007-08-03 10:06:32.722 [1258379616] >TRACE:   clssnmCheckDskInfo: node(2)
timeout(12660) state_network(0) state_disk(3) misstime(12960)
[   CSSD]2007-08-03 10:06:33.724 [1258379616] >TRACE:   clssnmCheckDskInfo: node(2)
timeout(13660) state_network(0) state_disk(3) misstime(13950)
[   CSSD]2007-08-03 10:06:34.725 [1258379616] >TRACE:   clssnmCheckDskInfo: node(2)
timeout(14660) state_network(0) state_disk(3) misstime(14950)
[   CSSD]2007-08-03 10:06:35.727 [1258379616] >TRACE:   clssnmCheckDskInfo: node(2)
timeout(15660) state_network(0) state_disk(3) misstime(15950)
[   CSSD]2007-08-03 10:06:36.729 [1258379616] >TRACE:   clssnmCheckDskInfo: node(2)
timeout(16660) state_network(0) state_disk(3) misstime(16950)
[   CSSD]2007-08-03 10:06:37.731 [1258379616] >TRACE:   clssnmCheckDskInfo: node(2)
timeout(17670) state_network(0) state_disk(3) misstime(17960)
[   CSSD]2007-08-03 10:06:38.733 [1258379616] >TRACE:   clssnmCheckDskInfo: node(2)
timeout(18670) state_network(0) state_disk(3) misstime(18950)
[   CSSD]2007-08-03 10:06:39.735 [1258379616] >TRACE:   clssnmCheckDskInfo: node(2)
timeout(19670) state_network(0) state_disk(3) misstime(19950)
[   CSSD]2007-08-03 10:06:40.737 [1258379616] >TRACE:   clssnmCheckDskInfo: node(2)
timeout(20670) state_network(0) state_disk(3) misstime(20950)
[   CSSD]2007-08-03 10:06:41.739 [1258379616] >TRACE:   clssnmCheckDskInfo: node(2)
timeout(21670) state_network(0) state_disk(3) misstime(21950)
[   CSSD]2007-08-03 10:06:42.741 [1258379616] >TRACE:   clssnmCheckDskInfo: node(2)
timeout(22680) state_network(0) state_disk(3) misstime(22960)

```

```
[ CSSD]2007-08-03 10:06:43.743 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(23680) state_network(0) state_disk(3) misstime(23950)
[ CSSD]2007-08-03 10:06:44.745 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(24680) state_network(0) state_disk(3) misstime(24950)
[ CSSD]2007-08-03 10:06:45.747 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(25680) state_network(0) state_disk(3) misstime(25950)
[ CSSD]2007-08-03 10:06:46.749 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(26680) state_network(0) state_disk(3) misstime(26950)
[ CSSD]2007-08-03 10:06:47.751 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(27690) state_network(0) state_disk(3) misstime(27960)
[ CSSD]2007-08-03 10:06:48.753 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(28690) state_network(0) state_disk(3) misstime(28950)
[ CSSD]2007-08-03 10:06:49.755 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(29690) state_network(0) state_disk(3) misstime(29950)
[ CSSD]2007-08-03 10:06:50.757 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(30690) state_network(0) state_disk(3) misstime(30950)
[ CSSD]2007-08-03 10:06:51.759 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(31690) state_network(0) state_disk(3) misstime(31950)
[ CSSD]2007-08-03 10:06:52.761 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(32700) state_network(0) state_disk(3) misstime(32960)
[ CSSD]2007-08-03 10:06:53.763 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(33700) state_network(0) state_disk(3) misstime(33950)
[ CSSD]2007-08-03 10:06:54.765 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(34700) state_network(0) state_disk(3) misstime(34950)
[ CSSD]2007-08-03 10:06:55.767 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(35700) state_network(0) state_disk(3) misstime(35950)
[ CSSD]2007-08-03 10:06:56.769 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(36700) state_network(0) state_disk(3) misstime(36950)
[ CSSD]2007-08-03 10:06:57.771 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(37710) state_network(0) state_disk(3) misstime(37960)
[ CSSD]2007-08-03 10:06:58.773 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(38710) state_network(0) state_disk(3) misstime(38950)
[ CSSD]2007-08-03 10:06:59.774 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(39710) state_network(0) state_disk(3) misstime(39950)
[ CSSD]2007-08-03 10:07:00.776 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(40710) state_network(0) state_disk(3) misstime(40950)
[ CSSD]2007-08-03 10:07:01.778 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(41710) state_network(0) state_disk(3) misstime(41950)
[ CSSD]2007-08-03 10:07:02.780 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(42720) state_network(0) state_disk(3) misstime(42960)
[ CSSD]2007-08-03 10:07:03.782 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(43720) state_network(0) state_disk(3) misstime(43950)
[ CSSD]2007-08-03 10:07:04.784 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(44720) state_network(0) state_disk(3) misstime(44950)
[ CSSD]2007-08-03 10:07:05.786 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(45720) state_network(0) state_disk(3) misstime(45950)
[ CSSD]2007-08-03 10:07:06.788 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(46720) state_network(0) state_disk(3) misstime(46950)
[ CSSD]2007-08-03 10:07:07.790 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(47730) state_network(0) state_disk(3) misstime(47960)
[ CSSD]2007-08-03 10:07:08.792 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(48730) state_network(0) state_disk(3) misstime(48950)
[ CSSD]2007-08-03 10:07:09.794 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(49730) state_network(0) state_disk(3) misstime(49950)
[ CSSD]2007-08-03 10:07:10.796 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(50730) state_network(0) state_disk(3) misstime(50950)
[ CSSD]2007-08-03 10:07:11.798 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(51730) state_network(0) state_disk(3) misstime(51950)
[ CSSD]2007-08-03 10:07:12.800 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(52740) state_network(0) state_disk(3) misstime(52960)
[ CSSD]2007-08-03 10:07:13.802 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(53740) state_network(0) state_disk(3) misstime(53950)
[ CSSD]2007-08-03 10:07:14.804 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(54740) state_network(0) state_disk(3) misstime(54950)
[ CSSD]2007-08-03 10:07:15.806 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(55740) state_network(0) state_disk(3) misstime(55950)
[ CSSD]2007-08-03 10:07:16.808 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(56740) state_network(0) state_disk(3) misstime(56950)
[ CSSD]2007-08-03 10:07:17.810 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(57750) state_network(0) state_disk(3) misstime(57960)
[ CSSD]2007-08-03 10:07:18.812 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(58750) state_network(0) state_disk(3) misstime(58950)
[ CSSD]2007-08-03 10:07:19.814 [1258379616] >TRACE: clssnmCheckDskInfo: node(2)
timeout(59750) state_network(0) state_disk(3) misstime(59950)
[ CSSD]2007-08-03 10:07:20.066 [1258379616] >TRACE: clssnmEvict: Start
[ CSSD]2007-08-03 10:07:20.066 [1258379616] >TRACE: clssnmEvict: Evicting node 2, birth
1, death 2, killme 1
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[   CSSD]2007-08-03 10:07:20.066 [1258379616] >TRACE:   clssnmWaitOnEvictions: Start
[   CSSD]2007-08-03 10:07:20.066 [1258379616] >TRACE:   clssnmWaitOnEvictions: Node(2) down,
LATS(1723240),timeout(60000)
[   CSSD]2007-08-03 10:07:20.066 [1258379616] >TRACE:   clssnmSetupAckWait: Ack message type
(15)
[   CSSD]2007-08-03 10:07:20.066 [1258379616] >TRACE:   clssnmSetupAckWait: node(1) is ACTIVE
[   CSSD]2007-08-03 10:07:20.066 [1258379616] >TRACE:   clssnmSendUpdate: syncSeqNo(2)
[   CSSD]2007-08-03 10:07:20.066 [1258379616] >TRACE:   clssnmWaitForAcks: Ack message
type(15), ackCount(1)
[   CSSD]2007-08-03 10:07:20.066 [1199630688] >TRACE:   clssnmUpdateNodeState: node 0, state
(0/0) unique (0/0) prevConuni(0) birth (0/0) (old/new)
[   CSSD]2007-08-03 10:07:20.066 [1199630688] >TRACE:   clssnmDeactivateNode: node 0 () left
cluster
[   CSSD]2007-08-03 10:07:20.066 [1199630688] >TRACE:   clssnmUpdateNodeState: node 1, state
(3/3) unique (1186126712/1186126712) prevConuni(0) birth (1/1) (old/new)
[   CSSD]2007-08-03 10:07:20.066 [1199630688] >TRACE:   clssnmUpdateNodeState: node 2, state
(0/0) unique (1186126711/1186126711) prevConuni(1186126711) birth (1/0) (old/new)
[   CSSD]2007-08-03 10:07:20.066 [1199630688] >TRACE:   clssnmDeactivateNode: node 2
(racnode2) left cluster
[   CSSD]2007-08-03 10:07:20.066 [1199630688] >USER:    clssnmHandleUpdate: SYNC(2) from
node(1) completed
[   CSSD]2007-08-03 10:07:20.066 [1199630688] >USER:    clssnmHandleUpdate: NODE 1 (racnode1)
IS ACTIVE MEMBER OF CLUSTER
[   CSSD]2007-08-03 10:07:20.066 [1199630688] >TRACE:   clssnmHandleUpdate: diskTimeout set
to (20000)ms
[   CSSD]2007-08-03 10:07:20.066 [1258379616] >TRACE:   clssnmWaitForAcks: done, msg type(15)
[   CSSD]2007-08-03 10:07:20.066 [1258379616] >TRACE:   clssnmDoSyncUpdate: Sync Complete!
[   CSSD]2007-08-03 10:07:20.066 [1266772320] >TRACE:   clssgmReconfigThread: started for
reconfig (2)
[   CSSD]2007-08-03 10:07:20.066 [1266772320] >USER:    NMEVENT_RECONFIG [00][00][00][02]
[   CSSD]2007-08-03 10:07:20.066 [1266772320] >TRACE:   clssgmCleanupGlocks: cleaning up
grock crs_version type 2
[   CSSD]2007-08-03 10:07:20.066 [1266772320] >TRACE:   clssgmCleanupOrphanMembers: cleaning
up remote mbr(0) grock(crs_version) birth(1/0)
[   CSSD]2007-08-03 10:07:20.066 [1266772320] >TRACE:   clssgmCleanupGlocks: cleaning up
grock DB+ASM type 2
[   CSSD]2007-08-03 10:07:20.066 [1266772320] >TRACE:   clssgmCleanupOrphanMembers: cleaning
up remote mbr(1) grock(DB+ASM) birth(1/0)
[   CSSD]2007-08-03 10:07:20.066 [1266772320] >TRACE:   clssgmCleanupGlocks: cleaning up
grock DG+ASM type 2
[   CSSD]2007-08-03 10:07:20.066 [1266772320] >TRACE:   clssgmCleanupOrphanMembers: cleaning
up remote mbr(1) grock(DG+ASM) birth(1/0)
[   CSSD]2007-08-03 10:07:20.067 [1266772320] >TRACE:   clssgmCleanupGlocks: cleaning up
grock ORA_CLSRD_1_PRDRAC type 2
[   CSSD]2007-08-03 10:07:20.067 [1266772320] >TRACE:   clssgmCleanupGlocks: cleaning up
grock ORA_CLSRD_1_PRDRAC type 3
[   CSSD]2007-08-03 10:07:20.067 [1266772320] >TRACE:   clssgmCleanupGlocks: cleaning up
grock DG_FRA type 2
[   CSSD]2007-08-03 10:07:20.067 [1266772320] >TRACE:   clssgmCleanupOrphanMembers: cleaning
up remote mbr(0) grock(DG_FRA) birth(1/0)
[   CSSD]2007-08-03 10:07:20.067 [1266772320] >TRACE:   clssgmCleanupOrphanMembers: cleaning
up remote mbr(2) grock(DG_FRA) birth(1/0)
[   CSSD]2007-08-03 10:07:20.067 [1266772320] >TRACE:   clssgmCleanupGlocks: cleaning up
grock DG_DATA type 2
[   CSSD]2007-08-03 10:07:20.067 [1266772320] >TRACE:   clssgmCleanupOrphanMembers: cleaning
up remote mbr(0) grock(DG_DATA) birth(1/0)
[   CSSD]2007-08-03 10:07:20.067 [1266772320] >TRACE:   clssgmCleanupOrphanMembers: cleaning
up remote mbr(2) grock(DG_DATA) birth(1/0)
[   CSSD]2007-08-03 10:07:20.067 [1266772320] >TRACE:   clssgmCleanupGlocks: cleaning up
grock OSM_ALL type 2
[   CSSD]2007-08-03 10:07:20.067 [1266772320] >TRACE:   clssgmCleanupOrphanMembers: cleaning
up remote mbr(0) grock(OSM_ALL) birth(1/0)
[   CSSD]2007-08-03 10:07:20.067 [1266772320] >TRACE:   clssgmCleanupGlocks: cleaning up
grock DAALL_DB type 2
[   CSSD]2007-08-03 10:07:20.067 [1266772320] >TRACE:   clssgmCleanupOrphanMembers: cleaning
up remote mbr(0) grock(DAALL_DB) birth(1/0)
[   CSSD]2007-08-03 10:07:20.067 [1266772320] >TRACE:   clssgmCleanupOrphanMembers: cleaning
up remote mbr(2) grock(DAALL_DB) birth(1/0)
[   CSSD]2007-08-03 10:07:20.067 [1266772320] >TRACE:   clssgmCleanupGlocks: cleaning up
grock CRSMAIN type 2
[   CSSD]2007-08-03 10:07:20.067 [1266772320] >TRACE:   clssgmCleanupOrphanMembers: cleaning
up remote mbr(2) grock(CRSMAIN) birth(1/0)
[   CSSD]2007-08-03 10:07:20.067 [1266772320] >TRACE:   clssgmCleanupGlocks: cleaning up
grock EVMDMAIN type 2
[   CSSD]2007-08-03 10:07:20.067 [1266772320] >TRACE:   clssgmCleanupOrphanMembers: cleaning
up remote mbr(2) grock(EVMDMAIN) birth(1/0)

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[ CSSD]2007-08-03 10:07:20.067 [1266772320] >TRACE: clssgmCleanupGrocks: cleaning up
grock DBPRDRAC type 2
[ CSSD]2007-08-03 10:07:20.067 [1266772320] >TRACE: clssgmCleanupOrphanMembers: cleaning
up remote mbr(1) grock(DBPRDRAC) birth(1/0)
[ CSSD]2007-08-03 10:07:20.067 [1266772320] >TRACE: clssgmCleanupGrocks: cleaning up
grock DGPRDRAC type 2
[ CSSD]2007-08-03 10:07:20.067 [1266772320] >TRACE: clssgmCleanupOrphanMembers: cleaning
up remote mbr(1) grock(DGPRDRAC) birth(1/0)
[ CSSD]2007-08-03 10:07:20.067 [1266772320] >TRACE: clssgmCleanupGrocks: cleaning up
grock ocr_crs type 2
[ CSSD]2007-08-03 10:07:20.067 [1266772320] >TRACE: clssgmCleanupOrphanMembers: cleaning
up remote mbr(2) grock(ocr_crs) birth(1/0)
[ CSSD]2007-08-03 10:07:20.067 [1266772320] >TRACE: clssgmCleanupGrocks: cleaning up
grock IGPRDRACALL type 2
[ CSSD]2007-08-03 10:07:20.067 [1266772320] >TRACE: clssgmCleanupOrphanMembers: cleaning
up remote mbr(2) grock(IGPRDRACALL) birth(1/0)
[ CSSD]2007-08-03 10:07:20.067 [1266772320] >TRACE: clssgmCleanupGrocks: cleaning up
grock _ORA_CRS_MEMBER_racnode1 type 3
[ CSSD]2007-08-03 10:07:20.067 [1266772320] >TRACE: clssgmCleanupGrocks: cleaning up
grock #CSS_CLSSOMON type 2
[ CSSD]2007-08-03 10:07:20.067 [1266772320] >TRACE: clssgmCleanupOrphanMembers: cleaning
up remote mbr(2) grock(#CSS_CLSSOMON) birth(1/0)
[ CSSD]2007-08-03 10:07:20.068 [1266772320] >TRACE: clssgmEstablishConnections: 1 nodes
in cluster incarn 2
[ CSSD]2007-08-03 10:07:20.068 [1233201504] >TRACE: clssgmPeerListener: connects done
(1/1)
[ CSSD]2007-08-03 10:07:20.068 [1266772320] >TRACE: clssgmEstablishMasterNode: MASTER for
2 is node(1) birth(1)
[ CSSD]2007-08-03 10:07:20.068 [1266772320] >TRACE: clssgmMasterCMSync: Synchronizing
group/lock status
[ CSSD]2007-08-03 10:07:20.070 [1266772320] >TRACE: clssgmMasterSendDBDone: group/lock
status synchronization complete
[ CSSD]2007-08-03 10:07:20.070 [1266772320] >TRACE: clssgmReconfigThread: completed for
reconfig(2), with status(1)
[ CSSD]2007-08-03 10:07:20.247 [1208023392] >TRACE: clssgmClientConnectMsg: Connect from
con(0x643fa0) proc(0x6656f0) pid() proto(10:2:1:1)
[ CSSD]2007-08-03 10:07:20.293 [1208023392] >TRACE: clssgmClientConnectMsg: Connect from
con(0x665d00) proc(0x669360) pid() proto(10:2:1:1)
[ CSSD]2007-08-03 10:07:20.890 [1208023392] >TRACE: clssgmClientConnectMsg: Connect from
con(0x646210) proc(0x6657a0) pid() proto(10:2:1:1)
[ CSSD]2007-08-03 10:08:20.699 [1208023392] >TRACE: clssgmClientConnectMsg: Connect from
con(0x662f00) proc(0x644db0) pid() proto(10:2:1:1)
[ CSSD]2007-08-03 10:08:23.289 [1208023392] >TRACE: clssgmClientConnectMsg: Connect from
con(0x662f00) proc(0x644db0) pid() proto(10:2:1:1)
[ CSSD]2007-08-03 10:08:44.756 [1107310944] >TRACE: clssnmReadDskHeartbeat: node(2) is
down. rcf(1) wrtcnt(1) LATS(1867940) Disk lastSeqNo(1)
[ CSSD]2007-08-03 10:08:45.057 [1132489056] >TRACE: clssnmReadDskHeartbeat: node(2) is
down. rcf(1) wrtcnt(4) LATS(1868240) Disk lastSeqNo(4)
[ CSSD]2007-08-03 10:08:45.151 [1124096352] >TRACE: clssnmReadDskHeartbeat: node(2) is
down. rcf(1) wrtcnt(3) LATS(1868330) Disk lastSeqNo(3)
[ CSSD]2007-08-03 10:08:45.615 [1140881760] >TRACE: clssnmReadDskHeartbeat: node(2) is
down. rcf(1) wrtcnt(5) LATS(1868800) Disk lastSeqNo(5)
[ CSSD]2007-08-03 10:08:45.626 [1115703648] >TRACE: clssnmReadDskHeartbeat: node(2) is
down. rcf(1) wrtcnt(2) LATS(1868810) Disk lastSeqNo(2)
[ CSSD]2007-08-03 10:08:46.760 [1107310944] >TRACE: clssnmReadDskHeartbeat: node(2) is
down. rcf(1) wrtcnt(5) LATS(1869940) Disk lastSeqNo(5)
[ CSSD]2007-08-03 10:08:46.845 [1199630688] >TRACE: clssnmConnComplete: connected to node
2 (con 0x662f00), state 1 birth 0, unique 1186128524/1186128524 prevConuni(0)
[ CSSD]2007-08-03 10:08:47.695 [1258379616] >TRACE: clssnmDoSyncUpdate: Initiating sync 3
[ CSSD]2007-08-03 10:08:47.695 [1258379616] >TRACE: clssnmDoSyncUpdate: diskTimeout set
to (57000)ms
[ CSSD]2007-08-03 10:08:47.695 [1258379616] >TRACE: clssnmSetupAckWait: Ack message type
(11)
[ CSSD]2007-08-03 10:08:47.695 [1258379616] >TRACE: clssnmSetupAckWait: node(1) is ALIVE
[ CSSD]2007-08-03 10:08:47.695 [1258379616] >TRACE: clssnmSetupAckWait: node(2) is ALIVE
[ CSSD]2007-08-03 10:08:47.695 [1258379616] >TRACE: clssnmSendSync: syncSeqNo(3)
[ CSSD]2007-08-03 10:08:47.695 [1199630688] >TRACE: clssnmHandleSync: Acknowledging sync:
src[1] srcName[racnode1] seq[9] sync[3]
[ CSSD]2007-08-03 10:08:47.695 [1199630688] >TRACE: clssnmHandleSync: diskTimeout set to
(57000)ms
[ CSSD]2007-08-03 10:08:47.695 [1258379616] >TRACE: clssnmWaitForAcks: Ack message
type(11), ackCount(2)
[ CSSD]2007-08-03 10:08:47.695 [2546465536] >USER: NMEVENT_SUSPEND [00][00][00][02]
[ CSSD]2007-08-03 10:08:47.696 [1258379616] >TRACE: clssnmWaitForAcks: done, msg type(11)
[ CSSD]2007-08-03 10:08:47.696 [1258379616] >TRACE: clssnmDoSyncUpdate: node(2) is
transitioning from joining state to active state
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[ CSSD]2007-08-03 10:08:47.696 [1258379616] >TRACE: clssnmSetupAckWait: Ack message type
(13)
[ CSSD]2007-08-03 10:08:47.696 [1258379616] >TRACE: clssnmSetupAckWait: node(1) is ACTIVE
[ CSSD]2007-08-03 10:08:47.696 [1258379616] >TRACE: clssnmSetupAckWait: node(2) is ACTIVE
[ CSSD]2007-08-03 10:08:47.696 [1258379616] >TRACE: clssnmSendVote: syncSeqNo(3)
[ CSSD]2007-08-03 10:08:47.696 [1199630688] >TRACE: clssnmSendVoteInfo: node(1)
syncSeqNo(3)
[ CSSD]2007-08-03 10:08:47.696 [1258379616] >TRACE: clssnmWaitForAcks: Ack message
type(13), ackCount(1)
[ CSSD]2007-08-03 10:08:47.696 [1258379616] >TRACE: clssnmWaitForAcks: done, msg type(13)
[ CSSD]2007-08-03 10:08:47.696 [1258379616] >TRACE: clssnmCheckDskInfo: Checking disk
info...
[ CSSD]2007-08-03 10:08:47.696 [1258379616] >TRACE: clssnmEvict: Start
[ CSSD]2007-08-03 10:08:47.696 [1258379616] >TRACE: clssnmWaitOnEvictions: Start
[ CSSD]2007-08-03 10:08:47.696 [1258379616] >TRACE: clssnmSetupAckWait: Ack message type
(15)
[ CSSD]2007-08-03 10:08:47.696 [1258379616] >TRACE: clssnmSetupAckWait: node(1) is ACTIVE
[ CSSD]2007-08-03 10:08:47.696 [1258379616] >TRACE: clssnmSetupAckWait: node(2) is ACTIVE
[ CSSD]2007-08-03 10:08:47.696 [1258379616] >TRACE: clssnmSendUpdate: syncSeqNo(3)
[ CSSD]2007-08-03 10:08:47.696 [1258379616] >TRACE: clssnmWaitForAcks: Ack message
type(15), ackCount(2)
[ CSSD]2007-08-03 10:08:47.696 [1199630688] >TRACE: clssnmUpdateNodeState: node 0, state
(0/0) unique (0/0) prevConuni(0) birth (0/0) (old/new)
[ CSSD]2007-08-03 10:08:47.696 [1199630688] >TRACE: clssnmDeactivateNode: node 0 () left
cluster
[ CSSD]2007-08-03 10:08:47.696 [1199630688] >TRACE: clssnmUpdateNodeState: node 1, state
(3/3) unique (1186126712/1186126712) prevConuni(0) birth (1/1) (old/new)
[ CSSD]2007-08-03 10:08:47.696 [1199630688] >TRACE: clssnmUpdateNodeState: node 2, state
(2/2) unique (1186128524/1186128524) prevConuni(0) birth (3/3) (old/new)
[ CSSD]2007-08-03 10:08:47.696 [1199630688] >USER: clssnmHandleUpdate: SYNC(3) from
node(1) completed
[ CSSD]2007-08-03 10:08:47.696 [1199630688] >USER: clssnmHandleUpdate: NODE 1 (racnode1)
IS ACTIVE MEMBER OF CLUSTER
[ CSSD]2007-08-03 10:08:47.696 [1199630688] >USER: clssnmHandleUpdate: NODE 2 (racnode2)
IS ACTIVE MEMBER OF CLUSTER
[ CSSD]2007-08-03 10:08:47.696 [1199630688] >TRACE: clssnmHandleUpdate: diskTimeout set
to (200000)ms
[ CSSD]2007-08-03 10:08:47.697 [1266772320] >TRACE: clssgmReconfigThread: started for
reconfig (3)
[ CSSD]2007-08-03 10:08:47.697 [1266772320] >USER: NMEVENT_RECONFIG [00][00][00][06]
[ CSSD]2007-08-03 10:08:47.697 [1258379616] >TRACE: clssnmWaitForAcks: done, msg type(15)
[ CSSD]2007-08-03 10:08:47.697 [1258379616] >TRACE: clssnmDoSyncUpdate: Sync Complete!
[ CSSD]2007-08-03 10:08:47.697 [1266772320] >TRACE: clssgmEstablishConnections: 2 nodes
in cluster incarn 3
[ CSSD]2007-08-03 10:08:47.780 [1233201504] >TRACE: clssgmInitialRecv: (0x2a987407c0)
accepted a new connection from node 2 born at 3 active (2, 2), vers (10,3,1,2)
[ CSSD]2007-08-03 10:08:47.780 [1233201504] >TRACE: clssgmInitialRecv: conns done (2/2)
[ CSSD]2007-08-03 10:08:47.780 [1266772320] >TRACE: clssgmEstablishMasterNode: MASTER for
3 is node(1) birth(1)
[ CSSD]2007-08-03 10:08:47.780 [1266772320] >TRACE: clssgmMasterCMSync: Synchronizing
group/lock status
[ CSSD]2007-08-03 10:08:47.782 [1266772320] >TRACE: clssgmMasterSendDBDone: group/lock
status synchronization complete
[ CSSD]2007-08-03 10:08:47.783 [1266772320] >TRACE: clssgmReconfigThread: completed for reconfig(3),
with status(1)
```

alertPRDRAC1.log:

```
Fri Aug 3 10:07:23 2007
Reconfiguration started (old inc 4, new inc 6)
List of nodes:
0
Global Resource Directory frozen
* dead instance detected - domain 0 invalid = TRUE
Communication channels reestablished
Master broadcasted resource hash value bitmaps
Non-local Process blocks cleaned out
Fri Aug 3 10:07:23 2007
LMS 0: 2 GCS shadows cancelled, 2 closed
Fri Aug 3 10:07:23 2007
LMS 1: 1 GCS shadows cancelled, 0 closed
Set master node info
Submitted all remote-enqueue requests
Dwn-cvts replayed, VALBLKs dubious
All grantable enqueues granted
Post SMON to start 1st pass IR
Fri Aug 3 10:07:23 2007
LMS 0: 10073 GCS shadows traversed, 0 replayed
LMS 1: 10055 GCS shadows traversed, 0 replayed
Fri Aug 3 10:07:23 2007
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Submitted all GCS remote-cache requests
Fix write in gcs resources
Reconfiguration complete
Fri Aug 3 10:07:23 2007
Instance recovery: looking for dead threads
Fri Aug 3 10:07:23 2007
Beginning instance recovery of 1 threads
parallel recovery started with 3 processes
Fri Aug 3 10:07:23 2007
Started redo scan
Fri Aug 3 10:07:24 2007
Completed redo scan
2124 redo blocks read, 691 data blocks need recovery
Fri Aug 3 10:07:24 2007
Started redo application at
Thread 2: logseq 8, block 7066
Fri Aug 3 10:07:24 2007
Recovery of Online Redo Log: Thread 2 Group 4 Seq 8 Reading mem 0
Mem# 0: +DATA/PRDRAC/onlinelog/group_4.266.629456853
Mem# 1: +FRA/PRDRAC/onlinelog/group_4.260.629456867
Fri Aug 3 10:07:24 2007
Completed redo application
Fri Aug 3 10:07:24 2007
Completed instance recovery at
Thread 2: logseq 8, block 9190, scn 903864
575 data blocks read, 722 data blocks written, 2124 redo blocks read
Switch log for thread 2 to sequence 9
Fri Aug 3 10:07:42 2007
db_recovery_file_dest_size of 204800 MB is 4.10% used. This is a
user-specified limit on the amount of space that will be used by this
database for recovery-related files, and does not reflect the amount of
space available in the underlying filesystem or ASM diskgroup.
Fri Aug 3 10:09:17 2007
Reconfiguration started (old inc 6, new inc 8)
List of nodes:
0 1
Global Resource Directory frozen
Communication channels reestablished
Master broadcasted resource hash value bitmaps
Non-local Process blocks cleaned out
Fri Aug 3 10:09:17 2007
LMS 0: 0 GCS shadows cancelled, 0 closed
Fri Aug 3 10:09:17 2007
LMS 1: 0 GCS shadows cancelled, 0 closed
Set master node info
Submitted all remote-enqueue requests
Dwn-cvts replayed, VALBLKs dubious
All grantable enqueues granted
Fri Aug 3 10:09:17 2007
LMS 1: 7512 GCS shadows traversed, 4001 replayed
Fri Aug 3 10:09:17 2007
LMS 0: 7962 GCS shadows traversed, 4001 replayed
Fri Aug 3 10:09:17 2007
LMS 1: 2949 GCS shadows traversed, 1558 replayed
Fri Aug 3 10:09:17 2007
LMS 0: 2521 GCS shadows traversed, 1278 replayed
Fri Aug 3 10:09:17 2007
Submitted all GCS remote-cache requests
Post SMON to start 1st pass IR
Fix write in gcs resources
Reconfiguration complete

```

3.10 Testcase 10: Public NIC Failure

Vorbereitung:

- Nach 5 Minuten: Switch Port des aktiven Public LAN Interfaces von racnode2.intra down.

Interface	Host	IP	DNS
bond1 (eth3, eth5)	racnode1	10.10.89.129	racnode1.intra
bond1 (eth3, eth5)	racnode2	10.10.89.131	racnode2.intra

Erwartetes Resultat:

- Linux bonding soll Problem erkennen
- Problem soll transparent sein und die Verarbeitung nicht behindern.

Ergebnis:

In /proc/net/bonding/bond1 sieht man den Wechsel des Aktive Interfaces. Das Passive Interface übernimmt für das ausgefallene aktive Interface. Oracle / CRS bemerkt nichts davon.

```
Aug 3 14:11:20 racnode2 kernel: e1000: eth3: e1000_watchdog: NIC Link is Down
Aug 3 14:11:20 racnode2 kernel: bonding: bond1: link status definitely down for interface eth3, disabling it
Aug 3 14:11:20 racnode2 kernel: bonding: bond1: making interface eth5 the new active one.
Aug 3 14:11:52 racnode2 kernel: e1000: eth5: e1000_watchdog: NIC Link is Down
Aug 3 14:11:52 racnode2 kernel: bonding: bond1: link status definitely down for interface eth5, disabling it
Aug 3 14:11:52 racnode2 kernel: bonding: bond1: now running without any active interface !
```

```
Aug 3 14:15:25 racnode2 kernel: e1000: eth3: e1000_watchdog: NIC Link is Up 1000 Mbps Full Duplex
Aug 3 14:15:25 racnode2 kernel: bonding: bond1: link status definitely up for interface eth3.
Aug 3 14:15:25 racnode2 kernel: bonding: bond1: making interface eth3 the new active one.
Aug 3 14:15:29 racnode2 kernel: e1000: eth5: e1000_watchdog: NIC Link is Up 1000 Mbps Full Duplex
Aug 3 14:15:29 racnode2 kernel: bonding: bond1: link status definitely up for interface eth5.
```

3.11 Testcase 11: Public Network (VIP) Failure

Vorbereitung:

- Zusätzlich zu dem schon ausgeschalteten Switch Port des ehemals aktiven public Interfaces von racnode2 wird nun auch das neue aktive Interface am Switch Port deaktiviert.

Erwartetes Resultat:

- VIP and Instance should shut down and be deregistered with the surviving listeners.

Messung folgender Zeitperioden:

- Time to detect instance failure
- Time to complete instance recovery. Check alert log for recovering instance
-

vorher:

```
orarak@racnode1:/crs/oracle/102/log/racnode1/cssd> /sbin/ifconfig bond1
bond1      Link encap:Ethernet  HWaddr 00:1B:78:57:AC:9D
           inet addr:10.0.0.1  Bcast:10.0.0.255  Mask:255.255.255.0
           UP BROADCAST RUNNING MASTER MULTICAST  MTU:1500  Metric:1

orarak@racnode1:/crs/oracle/102/log/racnode1/cssd> /sbin/ifconfig bond1:1
bond1:1    Link encap:Ethernet  HWaddr 00:1B:78:57:AC:9D
           inet addr:10.0.0.10  Bcast:10.0.0.255  Mask:255.255.255.0
           UP BROADCAST RUNNING MASTER MULTICAST  MTU:1500  Metric:1

orarak@racnode1:/crs/oracle/102/log/racnode1/cssd> cat /proc/net/bonding/bond1
Ethernet Channel Bonding Driver: v2.6.5 (November 4, 2005)

Bonding Mode: fault-tolerance (active-backup)
Primary Slave: None
Currently Active Slave: eth3
MII Status: up
MII Polling Interval (ms): 100
Up Delay (ms): 0
Down Delay (ms): 0

Slave Interface: eth3
MII Status: up
Link Failure Count: 0

Slave Interface: eth5
MII Status: up
Link Failure Count: 0

orarak@racnode1:/crs/oracle/102/log/racnode1/cssd> dmesg|grep eth3
eth3: TCP Segmentation Offload (TSO) disabled by default
e1000: eth3: e1000_probe: Intel(R) PRO/1000 Network Connection
e1000: eth3: e1000_watchdog: NIC Link is Up 1000 Mbps Full Duplex
bonding: bond1: making interface eth3 the new active one.
bonding: bond1: enslaving eth3 as an active interface with an up link.
```

```
eth3: no IPv6 routers present
```

```
oramac@racnode1:/crs/oracle/102/log/racnode1/cssd> dmesg|grep eth5
eth5: TCP Segmentation Offload (TSO) disabled by default
e1000: eth5: e1000_probe: Intel(R) PRO/1000 Network Connection
e1000: eth5: e1000_watchdog: NIC Link is Up 1000 Mbps Full Duplex
bonding: bond1: enslaving eth5 as a backup interface with an up link.
eth5: no IPv6 routers present
```

```
oramac@racnode2:/crs/oracle/102/log/racnode2/evmd> cat /proc/net/bonding/bond1
Ethernet Channel Bonding Driver: v2.6.5 (November 4, 2005)
```

```
Bonding Mode: fault-tolerance (active-backup)
Primary Slave: None
Currently Active Slave: eth3
MII Status: up
MII Polling Interval (ms): 100
Up Delay (ms): 0
Down Delay (ms): 0
```

```
Slave Interface: eth3
MII Status: up
Link Failure Count: 0
```

```
Slave Interface: eth5
MII Status: up
Link Failure Count: 0
```

```
oramac@racnode2:/crs/oracle/102/log/racnode2/evmd> dmesg|grep eth3
eth3: TCP Segmentation Offload (TSO) disabled by default
e1000: eth3: e1000_probe: Intel(R) PRO/1000 Network Connection
e1000: eth3: e1000_watchdog: NIC Link is Up 1000 Mbps Full Duplex
bonding: bond1: making interface eth3 the new active one.
bonding: bond1: enslaving eth3 as an active interface with an up link.
eth3: no IPv6 routers present
oramac@racnode2:/crs/oracle/102/log/racnode2/evmd> dmesg|grep eth5
eth5: TCP Segmentation Offload (TSO) disabled by default
e1000: eth5: e1000_probe: Intel(R) PRO/1000 Network Connection
e1000: eth5: e1000_watchdog: NIC Link is Up 1000 Mbps Full Duplex
bonding: bond1: enslaving eth5 as a backup interface with an up link.
eth5: no IPv6 routers present
```

alertPRDRAC1:

```
Fri Aug 3 14:12:27 2007
Reconfiguration started (old inc 12, new inc 14)
List of nodes:
0
Global Resource Directory frozen
* dead instance detected - domain 0 invalid = TRUE
Communication channels reestablished
Master broadcasted resource hash value bitmaps
Non-local Process blocks cleaned out
Fri Aug 3 14:12:27 2007
LMS 0: 0 GCS shadows cancelled, 0 closed
Fri Aug 3 14:12:27 2007
LMS 1: 0 GCS shadows cancelled, 0 closed
Set master node info
Submitted all remote-enqueue requests
Dwn-cvts replayed, VALBLKS dubious
All grantable enqueues granted
Post SMON to start 1st pass IR
Fri Aug 3 14:12:27 2007
Instance recovery: looking for dead threads
Fri Aug 3 14:12:27 2007
Beginning instance recovery of 1 threads
Fri Aug 3 14:12:27 2007
LMS 0: 20002 GCS shadows traversed, 0 replayed
Fri Aug 3 14:12:27 2007
LMS 1: 20090 GCS shadows traversed, 0 replayed
Fri Aug 3 14:12:27 2007
Submitted all GCS remote-cache requests
Fix write in gcs resources
Reconfiguration complete
Fri Aug 3 14:12:28 2007
parallel recovery started with 3 processes
Fri Aug 3 14:12:28 2007
Started redo scan
Fri Aug 3 14:12:28 2007
Completed redo scan
551 redo blocks read, 43 data blocks need recovery
Fri Aug 3 14:12:28 2007
Started redo application at
Thread 2: logseq 9, block 9910
Fri Aug 3 14:12:28 2007
Recovery of Online Redo Log: Thread 2 Group 3 Seq 9 Reading mem 0
Mem# 0: +DATA/PRDRAC/onlineolog/group_3.265.629456829
```

```
Mem# 1: +FRA/PRDRAC/onlinelog/group_3.259.629456843
Fri Aug 3 14:12:28 2007
Completed redo application
Fri Aug 3 14:12:28 2007
Completed instance recovery at
Thread 2: logseq 9, block 10461, scn 956502
43 data blocks read, 43 data blocks written, 551 redo blocks read
Switch log for thread 2 to sequence 10
```

Nach aktivieren der Public Interface Ports müssen die Nodeapps, ASM und die DB Instanz als Oracle-User mit `srvctl` wieder gestartet werden. Hier trat ein Problem auf, dass der ASM Listener nicht mit gestartet wurde. Nur ein manueller Start des ASM Listeners konnte ihn starten.

`/var/log/messages:`

```
Aug 3 14:11:20 racnode2 kernel: e1000: eth3: e1000_watchdog: NIC Link is Down
Aug 3 14:11:20 racnode2 kernel: bonding: bond1: link status definitely down for interface
eth3, disabling it
Aug 3 14:11:20 racnode2 kernel: bonding: bond1: making interface eth5 the new active one.
Aug 3 14:11:52 racnode2 kernel: e1000: eth5: e1000_watchdog: NIC Link is Down
Aug 3 14:11:52 racnode2 kernel: bonding: bond1: link status definitely down for interface
eth5, disabling it
Aug 3 14:11:52 racnode2 kernel: bonding: bond1: now running without any active interface !

Aug 3 14:15:25 racnode2 kernel: e1000: eth3: e1000_watchdog: NIC Link is Up 1000 Mbps Full
Duplex
Aug 3 14:15:25 racnode2 kernel: bonding: bond1: link status definitely up for interface eth3.
Aug 3 14:15:25 racnode2 kernel: bonding: bond1: making interface eth3 the new active one.
Aug 3 14:15:29 racnode2 kernel: e1000: eth5: e1000_watchdog: NIC Link is Up 1000 Mbps Full
Duplex
Aug 3 14:15:29 racnode2 kernel: bonding: bond1: link status definitely up for interface eth5.
```

3.12 Testcase 12: Interconnect NIC Failure

Vorbereitung:

- Starten der Workload auf PRDRAC2
- Nach 5 Minuten: ziehen von einem der beiden Netzwerk-Stecker für das Private Interface `bond0 (eth2 eth4)` auf `racnode2.intra`

Erwartetes Resultat:

- Linux bonding soll Problem erkennen
- Problem soll transparent sein und die Verarbeitung nicht behindern.

selbe Resultate wie bei Testcase 11.

`/var/log/messages:`

```
Aug 3 14:31:23 racnode2 kernel: e1000: eth2: e1000_watchdog: NIC Link is Down
Aug 3 14:31:24 racnode2 kernel: bonding: bond0: link status definitely down for interface
eth2, disabling it
Aug 3 14:31:24 racnode2 kernel: bonding: bond0: making interface eth4 the new active one.
```

3.13 Testcase 13: Interconnect Network Failure

Vorbereitung:

- Nach 5 Minuten: ziehen von beiden Netzwerk-Steckern für das Private Interface (RAC Interconnect) auf `racnode2.intra`

Zusätzlich zum schon deaktivierten Switch Port des ersten Interconnect Interfaces, wird nun auch das verbleibende aktive Interface gestoppt.

Erwartetes Resultat:

- CRS and/or RAC will detect split brain situation and evict node and instance from CRS cluster and RAC cluster. In a two node cluster the node with the lowest node number will survive.

Ergebnisse:

Zeitpunkt des Stops: 14.32:40

Instance Reconfiguration von überlebener Instanz fertig: 14:34:46 2007

Die Switch Ports des Interconnects wurden vermutlich etwas zu spät wieder aktiviert, sodaß der Node racnode2 nach der Eviction schon wieder gebootet hat und CSS nicht korrekt gestartet werden konnte. Ein erneuter manueller reboot von racnode2 hatte zur Folge, dass danach automatisch alle CRS Ressourcen automatisch gestartet haben.

/var/log/messages:

```
Aug 3 14:32:37 racnode2 kernel: e1000: eth4: e1000_watchdog: NIC Link is Down
Aug 3 14:32:37 racnode2 kernel: bonding: bond0: link status definitely down for interface
eth4, disabling it
Aug 3 14:32:37 racnode2 kernel: bonding: bond0: now running without any active interface !
Aug 3 14:36:01 racnode2 logger: Cluster Ready Services completed waiting on dependencies.
Aug 3 14:36:01 racnode2 logger: Cluster Ready Services completed waiting on dependencies.
Aug 3 14:36:01 racnode2 logger: Cluster Ready Services completed waiting on dependencies.
Aug 3 14:36:01 racnode2 logger: Running CRSD with TZ =
Aug 3 14:36:16 racnode2 kernel: e1000: eth4: e1000_watchdog: NIC Link is Up 1000 Mbps Full
Duplex
Aug 3 14:36:16 racnode2 kernel: bonding: bond0: link status definitely up for interface eth4.
Aug 3 14:36:16 racnode2 kernel: bonding: bond0: making interface eth4 the new active one.
Aug 3 14:36:19 racnode2 kernel: e1000: eth2: e1000_watchdog: NIC Link is Up 1000 Mbps Full
Duplex
Aug 3 14:36:19 racnode2 kernel: bonding: bond0: link status definitely up for interface eth2.
```

alertPRDRAC1.log:

```
Fri Aug 3 14:34:45 2007
Reconfiguration started (old inc 16, new inc 18)
List of nodes:
0
Global Resource Directory frozen
* dead instance detected - domain 0 invalid = TRUE
Communication channels reestablished
Master broadcasted resource hash value bitmaps
Non-local Process blocks cleaned out
Fri Aug 3 14:34:45 2007
LMS 0: 1 GCS shadows cancelled, 0 closed
Fri Aug 3 14:34:45 2007
LMS 1: 0 GCS shadows cancelled, 0 closed
Set master node info
Submitted all remote-enqueue requests
Dwn-cvts replayed, VALBLKs dubious
All grantable enqueues granted
Post SMON to start 1st pass IR
Fri Aug 3 14:34:45 2007
Instance recovery: looking for dead threads
Fri Aug 3 14:34:45 2007
Beginning instance recovery of 1 threads
Fri Aug 3 14:34:45 2007
LMS 0: 20022 GCS shadows traversed, 0 replayed
Fri Aug 3 14:34:45 2007
LMS 1: 20097 GCS shadows traversed, 0 replayed
Fri Aug 3 14:34:45 2007
Submitted all GCS remote-cache requests
Fix write in gcs resources
Reconfiguration complete
Fri Aug 3 14:34:45 2007
parallel recovery started with 3 processes
Fri Aug 3 14:34:46 2007
Started redo scan
Fri Aug 3 14:34:46 2007
Completed redo scan
0 redo blocks read, 0 data blocks need recovery
Fri Aug 3 14:34:46 2007
Started redo application at
Thread 2: logseq 10, block 95, scn 957360
Fri Aug 3 14:34:46 2007
```

```
Recovery of Online Redo Log: Thread 2 Group 4 Seq 10 Reading mem 0
  Mem# 0: +DATA/PRDRAC/onlinelog/group_4.266.629456853
  Mem# 1: +FRA/PRDRAC/onlinelog/group_4.260.629456867
Fri Aug 3 14:34:46 2007
Completed redo application
Fri Aug 3 14:34:46 2007
Completed instance recovery at
  Thread 2: logseq 10, block 95, scn 977361
  0 data blocks read, 0 data blocks written, 0 redo blocks read
Switch log for thread 2 to sequence 11
```

racnode1 crsd.log:

```
2007-08-03 14:34:42.177: [ OCSRVR][1403169120]s_update_remote_cache_int: FAILED TO RCV ACK FROM node 2
retcode
7
2007-08-03 14:34:42.186: [ CRSCOMM][1415764320]CLEANUP: Searching for connections to failed node racnode2
2007-08-03 14:34:42.186: [ CRSEVT][1415764320]Processing member leave for racnode2, incarnation: 4
2007-08-03 14:34:42.187: [ CRSD][1415764320]OSM: recovery in process: 8
2007-08-03 14:34:42.187: [ CRSEVT][1415764320]Do failover for: racnode2
2007-08-03 14:34:43.190: [ CRSRES][1403169120]startRunnable: setting CLI values
2007-08-03 14:34:43.238: [ CRSRES][1403169120]Attempting to start `ora.racnode2.vip` on member `racnode1`
2007-08-03 14:34:43.802: [ CRSRES][1403169120]Start of `ora.racnode2.vip` on member `racnode1` succeeded.
2007-08-03 14:34:43.935: [ CRSEVT][1415764320]Post recovery done evmd event for: racnode2
2007-08-03 14:34:43.935: [ CRSD][1415764320]OSM: recoveryDone: 0
2007-08-03 14:34:43.936: [ CRSEVT][1415764320]Processing RecoveryDone
```

racnode2 ocspd.log:

```
[ CSSD]2007-08-03 14:33:08.115 [1241594208] >WARNING: clssnmPollingThread: node racnode2 (2) at 50%
heartbeat fatal, eviction in 29.010 seconds
[ CSSD]2007-08-03 14:33:23.114 [1241594208] >WARNING: clssnmPollingThread: node racnode2 (2) at 75%
heartbeat fatal, eviction in 14.010 seconds
[ CSSD]2007-08-03 14:33:31.120 [1241594208] >WARNING: clssnmPollingThread: node racnode2 (2) at 90%
heartbeat fatal, eviction in 6.000 seconds
[ CSSD]2007-08-03 14:33:32.112 [1241594208] >WARNING: clssnmPollingThread: node racnode2 (2) at 90%
heartbeat fatal, eviction in 5.010 seconds
[ CSSD]2007-08-03 14:33:33.114 [1241594208] >WARNING: clssnmPollingThread: node racnode2 (2) at 90%
heartbeat fatal, eviction in 4.010 seconds
[ CSSD]2007-08-03 14:33:34.116 [1241594208] >TRACE: clssnmPollingThread: node racnode2 (2) is
impending reconfig
[ CSSD]2007-08-03 14:33:34.116 [1241594208] >WARNING: clssnmPollingThread: node racnode2 (2) at 90%
heartbeat fatal, eviction in 3.010 seconds
[ CSSD]2007-08-03 14:33:34.116 [1241594208] >TRACE: clssnmPollingThread: diskTimeout set to (57000)ms
impending reconfig status(1)
[ CSSD]2007-08-03 14:33:35.118 [1241594208] >TRACE: clssnmPollingThread: node racnode2 (2) is
impending reconfig
[ CSSD]2007-08-03 14:33:35.118 [1241594208] >WARNING: clssnmPollingThread: node racnode2 (2) at 90%
heartbeat fatal, eviction in 2.010 seconds
[ CSSD]2007-08-03 14:33:36.120 [1241594208] >TRACE: clssnmPollingThread: node racnode2 (2) is
impending reconfig
[ CSSD]2007-08-03 14:33:36.120 [1241594208] >WARNING: clssnmPollingThread: node racnode2 (2) at 90%
heartbeat fatal, eviction in 1.000 seconds
[ CSSD]2007-08-03 14:33:37.111 [1241594208] >TRACE: clssnmPollingThread: node racnode2 (2) is
impending reconfig
[ CSSD]2007-08-03 14:33:37.112 [1241594208] >WARNING: clssnmPollingThread: node racnode2 (2) at 90%
heartbeat fatal, eviction in 0.010 seconds
[ CSSD]2007-08-03 14:33:37.123 [1241594208] >TRACE: clssnmPollingThread: node racnode2 (2) is
impending reconfig
[ CSSD]2007-08-03 14:33:37.123 [1241594208] >TRACE: clssnmPollingThread: Eviction started for node
racnode2 (2), flags 0x000d, state 3, wt4c 0
[ CSSD]2007-08-03 14:33:37.124 [1258379616] >TRACE: clssnmDoSyncUpdate: Initiating sync 4
[ CSSD]2007-08-03 14:33:37.124 [1258379616] >TRACE: clssnmDoSyncUpdate: diskTimeout set to (57000)ms
[ CSSD]2007-08-03 14:33:37.124 [1258379616] >TRACE: clssnmSetupAckWait: Ack message type (11)
[ CSSD]2007-08-03 14:33:37.124 [1258379616] >TRACE: clssnmSetupAckWait: node(1) is ALIVE
[ CSSD]2007-08-03 14:33:37.124 [1258379616] >TRACE: clssnmSetupAckWait: node(2) is ALIVE
[ CSSD]2007-08-03 14:33:37.124 [1258379616] >TRACE: clssnmSendSync: syncSeqNo(4)
[ CSSD]2007-08-03 14:33:37.124 [1199630688] >TRACE: clssnmHandleSync: Acknowledging sync: src[1]
srcName[racnode1] seq[13] sync[4]
[ CSSD]2007-08-03 14:33:37.124 [1199630688] >TRACE: clssnmHandleSync: diskTimeout set to (57000)ms
[ CSSD]2007-08-03 14:33:37.124 [1258379616] >TRACE: clssnmWaitForAcks: Ack message type(11),
ackCount(2)
[ CSSD]2007-08-03 14:33:37.124 [1258379616] >TRACE: clssnmWaitForAcks: node(2) is expiring, msg
type(11)
[ CSSD]2007-08-03 14:33:37.124 [2546465536] >USER: NMEVENT_SUSPEND [00][00][00][06]
[ CSSD]2007-08-03 14:33:37.124 [1258379616] >TRACE: clssnmWaitForAcks: done, msg type(11)
[ CSSD]2007-08-03 14:33:37.124 [1258379616] >TRACE: clssnmDoSyncUpdate: Terminating node 2, racnode2,
misstime(60000) state(3)
[ CSSD]2007-08-03 14:33:37.124 [1258379616] >TRACE: clssnmSetupAckWait: Ack message type (13)
[ CSSD]2007-08-03 14:33:37.124 [1258379616] >TRACE: clssnmSetupAckWait: node(1) is ACTIVE
[ CSSD]2007-08-03 14:33:37.124 [1258379616] >TRACE: clssnmSendVote: syncSeqNo(4)
[ CSSD]2007-08-03 14:33:37.124 [1258379616] >TRACE: clssnmWaitForAcks: Ack message type(13),
ackCount(1)
[ CSSD]2007-08-03 14:33:37.124 [1199630688] >TRACE: clssnmSendVoteInfo: node(1) syncSeqNo(4)
[ CSSD]2007-08-03 14:33:37.124 [1258379616] >TRACE: clssnmWaitForAcks: done, msg type(13)
[ CSSD]2007-08-03 14:33:37.124 [1258379616] >TRACE: clssnmCheckDskInfo: Checking disk info...
```



```
[ CSSD]2007-08-03 14:33:37.124 [1258379616] >TRACE: clssnmCheckDskInfo: node(2) timeout(30)
state_network(0) state_disk(3) misstime(60000)
[ CSSD]2007-08-03 14:33:37.341 [1140881760] >TRACE: clssnmReadDskHeartbeat: node(2) is down. rcfg(4)
wrtcnt(15724) LATS(17761100) Disk lastSeqNo(15724)
[ CSSD]2007-08-03 14:33:37.433 [1107310944] >TRACE: clssnmReadDskHeartbeat: node(2) is down. rcfg(4)
wrtcnt(15724) LATS(17761190) Disk lastSeqNo(15724)
[ CSSD]2007-08-03 14:33:37.628 [1115703648] >TRACE: clssnmReadDskHeartbeat: node(2) is down. rcfg(4)
wrtcnt(15723) LATS(17761380) Disk lastSeqNo(15723)
[ CSSD]2007-08-03 14:33:37.630 [1124096352] >TRACE: clssnmReadDskHeartbeat: node(2) is down. rcfg(4)
wrtcnt(15724) LATS(17761390) Disk lastSeqNo(15724)
[ CSSD]2007-08-03 14:33:38.125 [1258379616] >TRACE: clssnmCheckDskInfo: node(2) disk HB found, network
state 0, disk state(3) misstime(60000)
[ CSSD]2007-08-03 14:33:38.161 [1132489056] >TRACE: clssnmReadDskHeartbeat: node(2) is down. rcfg(4)
wrtcnt(15723) LATS(17761920) Disk lastSeqNo(15723)
[ CSSD]2007-08-03 14:33:38.352 [1140881760] >TRACE: clssnmReadDskHeartbeat: node(2) is down. rcfg(4)
wrtcnt(15725) LATS(17762110) Disk lastSeqNo(15725)
[ CSSD]2007-08-03 14:33:38.447 [1107310944] >TRACE: clssnmReadDskHeartbeat: node(2) is down. rcfg(4)
wrtcnt(15725) LATS(17762200) Disk lastSeqNo(15725)
[ CSSD]2007-08-03 14:33:38.631 [1115703648] >TRACE: clssnmReadDskHeartbeat: node(2) is down. rcfg(4)
wrtcnt(15724) LATS(17762390) Disk lastSeqNo(15724)
[ CSSD]2007-08-03 14:33:38.633 [1124096352] >TRACE: clssnmReadDskHeartbeat: node(2) is down. rcfg(4)
wrtcnt(15725) LATS(17762390) Disk lastSeqNo(15725)
[ CSSD]2007-08-03 14:33:39.127 [1258379616] >TRACE: clssnmCheckDskInfo: node(2) disk HB found, network
state 0, disk state(3) misstime(61000)
[ CSSD]2007-08-03 14:33:39.163 [1132489056] >TRACE: clssnmReadDskHeartbeat: node(2) is down. rcfg(4)
wrtcnt(15724) LATS(17762920) Disk lastSeqNo(15724)
[ CSSD]2007-08-03 14:33:39.394 [1140881760] >TRACE: clssnmReadDskHeartbeat: node(2) is down. rcfg(4)
wrtcnt(15726) LATS(17763150) Disk lastSeqNo(15726)
[ CSSD]2007-08-03 14:33:39.449 [1107310944] >TRACE: clssnmReadDskHeartbeat: node(2) is down. rcfg(4)
wrtcnt(15726) LATS(17763210) Disk lastSeqNo(15726)
[ CSSD]2007-08-03 14:33:39.634 [1115703648] >TRACE: clssnmReadDskHeartbeat: node(2) is down. rcfg(4)
wrtcnt(15725) LATS(17763390) Disk lastSeqNo(15725)
[ CSSD]2007-08-03 14:33:39.635 [1124096352] >TRACE: clssnmReadDskHeartbeat: node(2) is down. rcfg(4)
wrtcnt(15726) LATS(17763390) Disk lastSeqNo(15726)
[ CSSD]2007-08-03 14:33:40.129 [1258379616] >TRACE: clssnmCheckDskInfo: node(2) disk HB found, network
state 0, disk state(3) misstime(62000)
[ CSSD]2007-08-03 14:33:40.166 [1132489056] >TRACE: clssnmReadDskHeartbeat: node(2) is down. rcfg(4)
wrtcnt(15725) LATS(17763920) Disk lastSeqNo(15725)
[ CSSD]2007-08-03 14:33:40.403 [1140881760] >TRACE: clssnmReadDskHeartbeat: node(2) is down. rcfg(4)
wrtcnt(15727) LATS(17764160) Disk lastSeqNo(15727)
[ CSSD]2007-08-03 14:33:40.505 [1107310944] >TRACE: clssnmReadDskHeartbeat: node(2) is down. rcfg(4)
wrtcnt(15727) LATS(17764260) Disk lastSeqNo(15727)
[ CSSD]2007-08-03 14:33:40.637 [1124096352] >TRACE: clssnmReadDskHeartbeat: node(2) is down. rcfg(4)
wrtcnt(15727) LATS(17764390) Disk lastSeqNo(15727)
[ CSSD]2007-08-03 14:33:40.691 [1115703648] >TRACE: clssnmReadDskHeartbeat: node(2) is down. rcfg(4)
wrtcnt(15726) LATS(17764450) Disk lastSeqNo(15726)
[ CSSD]2007-08-03 14:33:41.131 [1258379616] >TRACE: clssnmCheckDskInfo: node(2) misstime(64010)
state(0). Smaller(1) cluster node 2. mine is 1. (2/1)
[ CSSD]2007-08-03 14:33:41.131 [1258379616] >TRACE: clssnmEvict: Start
[ CSSD]2007-08-03 14:33:41.131 [1258379616] >TRACE: clssnmEvict: Evicting node 2, birth 3, death 4,
killme 1
[ CSSD]2007-08-03 14:33:41.131 [1258379616] >TRACE: clssnmEvict: Evicting Node(2), timeout(440)
[ CSSD]2007-08-03 14:33:41.131 [1258379616] >TRACE: clssnmSendShutdown: req to node 2, kill time
17764890
[ CSSD]2007-08-03 14:33:41.132 [1258379616] >TRACE: clssnmDiscHelper: node racnode2 (2) connection
failed
[ CSSD]2007-08-03 14:33:41.132 [1258379616] >TRACE: clssnmWaitOnEvictions: Start
[ CSSD]2007-08-03 14:33:41.132 [1132489056] >TRACE: clssnmReadDskHeartbeat: node(2) is down. rcfg(4)
wrtcnt(15726) LATS(17764890) Disk lastSeqNo(15726)
[ CSSD]2007-08-03 14:33:41.135 [1115703648] >TRACE: clssnmReadDskHeartbeat: node(2) is down. rcfg(4)
wrtcnt(15727) LATS(17764890) Disk lastSeqNo(15727)
[ CSSD]2007-08-03 14:33:42.135 [1132489056] >TRACE: clssnmReadDskHeartbeat: node(2) is down. rcfg(4)
wrtcnt(15727) LATS(17765890) Disk lastSeqNo(15727)
[ CSSD]2007-08-03 14:33:42.142 [1140881760] >TRACE: clssnmReadDskHeartbeat: node(2) is down. rcfg(4)
wrtcnt(15728) LATS(17765900) Disk lastSeqNo(15728)
[ CSSD]2007-08-03 14:34:11.190 [1258379616] >WARNING: clssnmWaitOnEvictions: DHB, waittime 30950
[ CSSD]2007-08-03 14:34:11.190 [1258379616] >WARNING: clssnmWaitOnEvictions: DHB, waittime 30950
[ CSSD]2007-08-03 14:34:12.192 [1258379616] >WARNING: clssnmWaitOnEvictions: DHB, waittime 29950
[ CSSD]2007-08-03 14:34:13.194 [1258379616] >WARNING: clssnmWaitOnEvictions: DHB, waittime 28950
[ CSSD]2007-08-03 14:34:14.196 [1258379616] >WARNING: clssnmWaitOnEvictions: DHB, waittime 27950
[ CSSD]2007-08-03 14:34:15.198 [1258379616] >WARNING: clssnmWaitOnEvictions: DHB, waittime 26940
[ CSSD]2007-08-03 14:34:16.200 [1258379616] >WARNING: clssnmWaitOnEvictions: DHB, waittime 25940
[ CSSD]2007-08-03 14:34:17.202 [1258379616] >WARNING: clssnmWaitOnEvictions: DHB, waittime 24940
[ CSSD]2007-08-03 14:34:18.204 [1258379616] >WARNING: clssnmWaitOnEvictions: DHB, waittime 23940
[ CSSD]2007-08-03 14:34:19.206 [1258379616] >WARNING: clssnmWaitOnEvictions: DHB, waittime 22940
[ CSSD]2007-08-03 14:34:20.208 [1258379616] >WARNING: clssnmWaitOnEvictions: DHB, waittime 21930
[ CSSD]2007-08-03 14:34:21.210 [1258379616] >WARNING: clssnmWaitOnEvictions: DHB, waittime 20930
[ CSSD]2007-08-03 14:34:22.212 [1258379616] >WARNING: clssnmWaitOnEvictions: DHB, waittime 19930
[ CSSD]2007-08-03 14:34:23.214 [1258379616] >WARNING: clssnmWaitOnEvictions: DHB, waittime 18930
[ CSSD]2007-08-03 14:34:24.216 [1258379616] >WARNING: clssnmWaitOnEvictions: DHB, waittime 17930
[ CSSD]2007-08-03 14:34:25.218 [1258379616] >WARNING: clssnmWaitOnEvictions: DHB, waittime 16920
[ CSSD]2007-08-03 14:34:26.220 [1258379616] >WARNING: clssnmWaitOnEvictions: DHB, waittime 15920
[ CSSD]2007-08-03 14:34:27.222 [1258379616] >WARNING: clssnmWaitOnEvictions: DHB, waittime 14920
[ CSSD]2007-08-03 14:34:28.223 [1258379616] >WARNING: clssnmWaitOnEvictions: DHB, waittime 13920
[ CSSD]2007-08-03 14:34:29.225 [1258379616] >WARNING: clssnmWaitOnEvictions: DHB, waittime 12920
[ CSSD]2007-08-03 14:34:30.227 [1258379616] >WARNING: clssnmWaitOnEvictions: DHB, waittime 11910
[ CSSD]2007-08-03 14:34:31.229 [1258379616] >WARNING: clssnmWaitOnEvictions: DHB, waittime 10910
[ CSSD]2007-08-03 14:34:32.231 [1258379616] >WARNING: clssnmWaitOnEvictions: DHB, waittime 9910
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[ CSSD]2007-08-03 14:34:33.233 [1258379616] >WARNING: clssnmWaitOnEvictions: DHB, waittime 8910
[ CSSD]2007-08-03 14:34:34.235 [1258379616] >WARNING: clssnmWaitOnEvictions: DHB, waittime 7910
[ CSSD]2007-08-03 14:34:35.237 [1258379616] >WARNING: clssnmWaitOnEvictions: DHB, waittime 6900
[ CSSD]2007-08-03 14:34:36.239 [1258379616] >WARNING: clssnmWaitOnEvictions: DHB, waittime 5900
[ CSSD]2007-08-03 14:34:37.241 [1258379616] >WARNING: clssnmWaitOnEvictions: DHB, waittime 4900
[ CSSD]2007-08-03 14:34:38.243 [1258379616] >WARNING: clssnmWaitOnEvictions: DHB, waittime 3900
[ CSSD]2007-08-03 14:34:39.245 [1258379616] >WARNING: clssnmWaitOnEvictions: DHB, waittime 2900
[ CSSD]2007-08-03 14:34:40.247 [1258379616] >WARNING: clssnmWaitOnEvictions: DHB, waittime 1890
[ CSSD]2007-08-03 14:34:41.249 [1258379616] >WARNING: clssnmWaitOnEvictions: DHB, waittime 890
[ CSSD]2007-08-03 14:34:42.141 [1258379616] >WARNING: clssnmWaitOnEvictions: Unconfirmed dead node count
1
[ CSSD]2007-08-03 14:34:42.141 [1258379616] >TRACE: clssnmSetupAckWait: Ack message type (15)
[ CSSD]2007-08-03 14:34:42.141 [1258379616] >TRACE: clssnmSetupAckWait: node(1) is ACTIVE
[ CSSD]2007-08-03 14:34:42.141 [1258379616] >TRACE: clssnmSendUpdate: syncSeqNo(4)
[ CSSD]2007-08-03 14:34:42.141 [1258379616] >TRACE: clssnmWaitForAcks: Ack message type(15),
ackCount (1)
[ CSSD]2007-08-03 14:34:42.141 [1199630688] >TRACE: clssnmUpdateNodeState: node 0, state (0/0) unique
(0/0) prevConuni(0) birth (0/0) (old/new)
[ CSSD]2007-08-03 14:34:42.141 [1199630688] >TRACE: clssnmDeactivateNode: node 0 () left cluster
[ CSSD]2007-08-03 14:34:42.141 [1199630688] >TRACE: clssnmUpdateNodeState: node 1, state (3/3) unique
(1186126712/1186126712) prevConuni (0) birth (1/1) (old/new)
[ CSSD]2007-08-03 14:34:42.141 [1199630688] >TRACE: clssnmUpdateNodeState: node 2, state (0/0) unique
(1186128524/1186128524) prevConuni(1186128524) birth (3/0) (old/new)
[ CSSD]2007-08-03 14:34:42.141 [1199630688] >TRACE: clssnmDeactivateNode: node 2 (racnode2) left
cluster
[ CSSD]2007-08-03 14:34:42.141 [1199630688] >USER: clssnmHandleUpdate: SYNC(4) from node(1) completed
[ CSSD]2007-08-03 14:34:42.141 [1199630688] >USER: clssnmHandleUpdate: NODE 1 (racnode1) IS ACTIVE
MEMBER OF CLUSTER
[ CSSD]2007-08-03 14:34:42.141 [1199630688] >TRACE: clssnmHandleUpdate: diskTimeout set to (200000)ms
[ CSSD]2007-08-03 14:34:42.141 [1258379616] >TRACE: clssnmWaitForAcks: done, msg type(15)
[ CSSD]2007-08-03 14:34:42.141 [1258379616] >TRACE: clssnmDoSyncUpdate: Sync Complete!
[ CSSD]2007-08-03 14:34:42.141 [1266772320] >TRACE: clssgmReconfigThread: started for reconfig (4)
[ CSSD]2007-08-03 14:34:42.141 [1266772320] >USER: NMEVENT_RECONFIG [00][00][00][02]
[ CSSD]2007-08-03 14:34:42.141 [1266772320] >TRACE: clssgmCleanupGlocks: cleaning up grock crs_version
type 2
[ CSSD]2007-08-03 14:34:42.141 [1266772320] >TRACE: clssgmCleanupOrphanMembers: cleaning up remote
mbr(0) grock(crs_version) birth(3/3)
[ CSSD]2007-08-03 14:34:42.141 [1266772320] >TRACE: clssgmCleanupGlocks: cleaning up grock DB+ASM type
2
[ CSSD]2007-08-03 14:34:42.141 [1266772320] >TRACE: clssgmCleanupOrphanMembers: cleaning up remote
mbr(1) grock(DB+ASM) birth(3/3)
[ CSSD]2007-08-03 14:34:42.142 [1266772320] >TRACE: clssgmCleanupGlocks: cleaning up grock DG+ASM type
2
[ CSSD]2007-08-03 14:34:42.142 [1266772320] >TRACE: clssgmCleanupOrphanMembers: cleaning up remote
mbr(1) grock(DG+ASM) birth(3/3)
[ CSSD]2007-08-03 14:34:42.142 [1266772320] >TRACE: clssgmCleanupGlocks: cleaning up grock
ORA_CLSRD_1_PDRAC type 2
[ CSSD]2007-08-03 14:34:42.142 [1266772320] >TRACE: clssgmCleanupGlocks: cleaning up grock
ORA_CLSRD_1_PDRAC type 3
[ CSSD]2007-08-03 14:34:42.142 [1266772320] >TRACE: clssgmCleanupGlocks: cleaning up grock
ORA_CLSRD_2_PDRAC type 2
[ CSSD]2007-08-03 14:34:42.142 [1266772320] >TRACE: clssgmCleanupOrphanMembers: cleaning up remote
mbr(0) grock(ORA_CLSRD_2_PDRAC) birth(3/3)
[ CSSD]2007-08-03 14:34:42.142 [1266772320] >TRACE: clssgmCleanupGlocks: cleaning up grock
ORA_CLSRD_2_PDRAC type 3
[ CSSD]2007-08-03 14:34:42.142 [1266772320] >TRACE: clssgmCleanupOrphanMembers: cleaning up remote
mbr(0) grock(ORA_CLSRD_2_PDRAC) birth(3/3)
[ CSSD]2007-08-03 14:34:42.142 [1266772320] >TRACE: clssgmCleanupGlocks: cleaning up grock DG_FRA type
2
[ CSSD]2007-08-03 14:34:42.142 [1266772320] >TRACE: clssgmCleanupOrphanMembers: cleaning up remote
mbr(0) grock(DG_FRA) birth(3/3)
[ CSSD]2007-08-03 14:34:42.142 [1266772320] >TRACE: clssgmCleanupOrphanMembers: cleaning up remote
mbr(2) grock(DG_FRA) birth(3/3)
[ CSSD]2007-08-03 14:34:42.142 [1266772320] >TRACE: clssgmCleanupGlocks: cleaning up grock DG_DATA
type 2
[ CSSD]2007-08-03 14:34:42.142 [1266772320] >TRACE: clssgmCleanupOrphanMembers: cleaning up remote
mbr(0) grock(DG_DATA) birth(3/3)
[ CSSD]2007-08-03 14:34:42.142 [1266772320] >TRACE: clssgmCleanupOrphanMembers: cleaning up remote
mbr(2) grock(DG_DATA) birth(3/3)
[ CSSD]2007-08-03 14:34:42.142 [1266772320] >TRACE: clssgmCleanupGlocks: cleaning up grock OSM_ALL
type 2
[ CSSD]2007-08-03 14:34:42.142 [1266772320] >TRACE: clssgmCleanupOrphanMembers: cleaning up remote
mbr(0) grock(OSM_ALL) birth(3/3)
[ CSSD]2007-08-03 14:34:42.142 [1266772320] >TRACE: clssgmCleanupGlocks: cleaning up grock DAALL_DB
type 2
[ CSSD]2007-08-03 14:34:42.142 [1266772320] >TRACE: clssgmCleanupOrphanMembers: cleaning up remote
mbr(0) grock(DAALL_DB) birth(3/3)
[ CSSD]2007-08-03 14:34:42.142 [1266772320] >TRACE: clssgmCleanupOrphanMembers: cleaning up remote
mbr(2) grock(DAALL_DB) birth(3/3)
[ CSSD]2007-08-03 14:34:42.142 [1266772320] >TRACE: clssgmCleanupGlocks: cleaning up grock CRSDOMAIN
type 2
[ CSSD]2007-08-03 14:34:42.142 [1266772320] >TRACE: clssgmCleanupOrphanMembers: cleaning up remote
mbr(2) grock(CRSDOMAIN) birth(3/3)
[ CSSD]2007-08-03 14:34:42.142 [1266772320] >TRACE: clssgmCleanupGlocks: cleaning up grock EVMDMAIN
type 2
[ CSSD]2007-08-03 14:34:42.142 [1266772320] >TRACE: clssgmCleanupOrphanMembers: cleaning up remote
mbr(2) grock(EVMDMAIN) birth(3/3)
```

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[ CSSD]2007-08-03 14:34:42.142 [1266772320] >TRACE: clssgmCleanupGrocks: cleaning up grock DBPRDRAC
type 2
[ CSSD]2007-08-03 14:34:42.142 [1266772320] >TRACE: clssgmCleanupOrphanMembers: cleaning up remote
mbr(1) grock(DBPRDRAC) birth(3/3)
[ CSSD]2007-08-03 14:34:42.142 [1266772320] >TRACE: clssgmCleanupGrocks: cleaning up grock DGPRDRAC
type 2
[ CSSD]2007-08-03 14:34:42.142 [1266772320] >TRACE: clssgmCleanupOrphanMembers: cleaning up remote
mbr(1) grock(DGPRDRAC) birth(3/3)
[ CSSD]2007-08-03 14:34:42.142 [1266772320] >TRACE: clssgmCleanupGrocks: cleaning up grock ocr_crs
type 2
[ CSSD]2007-08-03 14:34:42.142 [1266772320] >TRACE: clssgmCleanupOrphanMembers: cleaning up remote
mbr(2) grock(ocr_crs) birth(3/3)
[ CSSD]2007-08-03 14:34:42.142 [1266772320] >TRACE: clssgmCleanupGrocks: cleaning up grock IGPRDRACALL
type 2
[ CSSD]2007-08-03 14:34:42.142 [1266772320] >TRACE: clssgmCleanupOrphanMembers: cleaning up remote
mbr(2) grock(IGPRDRACALL) birth(3/3)
[ CSSD]2007-08-03 14:34:42.143 [1266772320] >TRACE: clssgmCleanupGrocks: cleaning up grock
_ORA_CRS_MEMBER_racnode1 type 3
[ CSSD]2007-08-03 14:34:42.143 [1266772320] >TRACE: clssgmCleanupGrocks: cleaning up grock
_ORA_CRS_MEMBER_racnode2 type 3
[ CSSD]2007-08-03 14:34:42.143 [1266772320] >TRACE: clssgmCleanupOrphanMembers: cleaning up remote
mbr(0) grock(_ORA_CRS_MEMBER_racnode2) birth(3/3)
[ CSSD]2007-08-03 14:34:42.143 [1266772320] >TRACE: clssgmCleanupGrocks: cleaning up grock
#CSS_CLSSOMON type 2
[ CSSD]2007-08-03 14:34:42.143 [1266772320] >TRACE: clssgmCleanupOrphanMembers: cleaning up remote
mbr(2) grock(#CSS_CLSSOMON) birth(3/3)
[ CSSD]2007-08-03 14:34:42.143 [1266772320] >TRACE: clssgmEstablishConnections: 1 nodes in cluster
incarn 4
[ CSSD]2007-08-03 14:34:42.143 [1233201504] >TRACE: clssgmPeerDeactivate: node 2 (racnode2), death 4,
state 0x0 connstate 0xf
[ CSSD]2007-08-03 14:34:42.143 [1233201504] >TRACE: clssgmPeerListener: connects done (1/1)
[ CSSD]2007-08-03 14:34:42.143 [1266772320] >TRACE: clssgmEstablishMasterNode: MASTER for 4 is node(1)
birth(1)
[ CSSD]2007-08-03 14:34:42.143 [1266772320] >TRACE: clssgmMasterCMSync: Synchronizing group/lock
status
[ CSSD]2007-08-03 14:34:42.145 [1266772320] >TRACE: clssgmMasterSendDBDone: group/lock status
synchronization complete
[ CSSD]2007-08-03 14:34:42.145 [1266772320] >TRACE: clssgmReconfigThread: completed for reconfig(4),
with status(1)
```

3.14 Testcase 14: Lost connection to storage

Vorbereitung:

- Starten der Workload auf PRDRAC2
- Nach 5 Minuten: entfernen der Verbindung eines HBAs von racnode2.intra .
-

Erwartetes Resultat:

- Multipathing soll das Problem erkennen und der Host soll trotzdem noch beide Storages sehen können. Für ASM und CRS sollen unbeeinflusst weiterarbeiten.

```
Aug 8 09:44:24 racnode2 kernel: qla2400 0000:0e:00.0: LIP reset occured (f800).
Aug 8 09:44:24 racnode2 kernel: qla2400 0000:0e:00.0: LOOP DOWN detected (2).
Aug 8 09:44:25 racnode2 kernel: SCSI error : <0 0 3 0> return code = 0x10000
Aug 8 09:44:25 racnode2 kernel: end_request: I/O error, dev sdw, sector 8288
Aug 8 09:44:25 racnode2 kernel: end_request: I/O error, dev sdw, sector 8291
Aug 8 09:44:25 racnode2 kernel: device-mapper: dm-multipath: 65:96 (#8320): IO
error - error: -5 - bi_rw: 8 - bi_flags: 3000000000000018 - bi_error: 01000005
Aug 8 09:44:25 racnode2 kernel: device-mapper: dm-multipath: Failing path 65:96
Aug 8 09:44:25 racnode2 kernel: device-mapper: dm-multipath: 65:96 (#8288):
Requeued sector as #1
Aug 8 09:44:25 racnode2 kernel: SCSI error : <0 0 1 6> return code = 0x10000
Aug 8 09:44:25 racnode2 kernel: end_request: I/O error, dev sdn, sector 530
Aug 8 09:44:25 racnode2 kernel: device-mapper: dm-multipath: 8:208 (#531): IO
error - error: -5 - bi_rw: 8 - bi_flags: 1000000000000018 - bi_error: 01000005
Aug 8 09:44:25 racnode2 kernel: device-mapper: dm-multipath: Failing path 8:208
Aug 8 09:44:25 racnode2 kernel: device-mapper: dm-multipath: 8:208 (#530):
Requeued sector as #1
Aug 8 09:44:25 racnode2 kernel: SCSI error : <0 0 2 7> return code = 0x10000
Aug 8 09:44:25 racnode2 kernel: end_request: I/O error, dev sdv, sector 18
Aug 8 09:44:25 racnode2 multipathd: 8:208: mark as failed
Aug 8 09:44:25 racnode2 kernel: device-mapper: dm-multipath: 65:80 (#19): IO error
- error: -5 - bi_rw: 9 - bi_flags: 1000000000000018 - bi_error: 01000005
```

```

Aug  8 09:44:25 racnode2 multipathd: 1HITACHI_750502540040: remaining active paths:
3
Aug  8 09:44:25 racnode2 kernel: device-mapper: dm-multipath: Failing path 65:80
Aug  8 09:44:25 racnode2 multipathd: 65:80: mark as failed
Aug  8 09:44:25 racnode2 kernel: device-mapper: dm-multipath: 65:80 (#18): Requeued
sector as #1
Aug  8 09:44:25 racnode2 multipathd: 1HITACHI_750500750031: remaining active paths:
3
Aug  8 09:44:25 racnode2 kernel: SCSI error : <0 0 2 7> return code = 0x10000
Aug  8 09:44:25 racnode2 multipathd: 65:48: mark as failed
Aug  8 09:44:25 racnode2 multipathd: 1HITACHI_750500750029: remaining active paths:
3
Aug  8 09:44:25 racnode2 kernel: end_request: I/O error, dev sdv, sector 530
Aug  8 09:44:25 racnode2 multipathd: 65:96: mark as failed
Aug  8 09:44:25 racnode2 multipathd: 1HITACHI_750500750020: remaining active paths:
3
Aug  8 09:44:25 racnode2 kernel: device-mapper: dm-multipath: 65:80 (#531): IO
error - error: -5 - bi_rw: 8 - bi_flags: 1000000000000018 - bi_error: 01000005
Aug  8 09:44:25 racnode2 kernel: device-mapper: dm-multipath: 65:80 (#530):
Requeued sector as #2
Aug  8 09:44:25 racnode2 kernel: SCSI error : <0 0 1 6> return code = 0x10000
Aug  8 09:44:25 racnode2 kernel: end_request: I/O error, dev sdn, sector 18
Aug  8 09:44:25 racnode2 kernel: device-mapper: dm-multipath: 8:208 (#19): IO error
- error: -5 - bi_rw: 9 - bi_flags: 1000000000000018 - bi_error: 01000005
Aug  8 09:44:25 racnode2 kernel: device-mapper: dm-multipath: 8:208 (#18): Requeued
sector as #2
Aug  8 09:44:25 racnode2 kernel: SCSI error : <0 0 2 5> return code = 0x10000
Aug  8 09:44:25 racnode2 kernel: end_request: I/O error, dev sdt, sector 18
Aug  8 09:44:25 racnode2 kernel: device-mapper: dm-multipath: Failing path 65:48
Aug  8 09:44:25 racnode2 kernel: SCSI error : <0 0 2 5> return code = 0x10000
Aug  8 09:44:25 racnode2 kernel: end_request: I/O error, dev sdt, sector 530
Aug  8 09:44:26 racnode2 kernel: SCSI error : <0 0 1 0> return code = 0x10000
Aug  8 09:44:26 racnode2 kernel: end_request: I/O error, dev sdh, sector 18560
Aug  8 09:44:26 racnode2 kernel: end_request: I/O error, dev sdh, sector 18567
Aug  8 09:44:26 racnode2 kernel: device-mapper: dm-multipath: Failing path 8:112
Aug  8 09:44:26 racnode2 multipathd: 8:112: mark as failed
Aug  8 09:44:26 racnode2 multipathd: 1HITACHI_750502540030: remaining active paths:
3
Aug  8 09:44:26 racnode2 multipathd: 8:16: mark as failed
Aug  8 09:44:26 racnode2 multipathd: 1HITACHI_750502540031: remaining active paths:
3
Aug  8 09:44:26 racnode2 kernel: SCSI error : <0 0 0 1> return code = 0x10000
Aug  8 09:44:26 racnode2 kernel: end_request: I/O error, dev sdb, sector 100480
Aug  8 09:44:26 racnode2 kernel: end_request: I/O error, dev sdb, sector 100487
Aug  8 09:44:26 racnode2 kernel: device-mapper: dm-multipath: Failing path 8:16
Aug  8 09:44:26 racnode2 kernel: SCSI error : <0 0 2 1> return code = 0x10000
Aug  8 09:44:26 racnode2 kernel: end_request: I/O error, dev sdp, sector 106624
Aug  8 09:44:26 racnode2 kernel: end_request: I/O error, dev sdp, sector 106631
Aug  8 09:44:26 racnode2 kernel: device-mapper: dm-multipath: Failing path 8:240
Aug  8 09:44:26 racnode2 multipathd: 8:240: mark as failed
Aug  8 09:44:26 racnode2 multipathd: 1HITACHI_750500750021: remaining active paths:
3
Aug  8 09:44:29 racnode2 kernel: SCSI error : <0 0 3 4> return code = 0x10000
Aug  8 09:44:29 racnode2 multipathd: 65:160: readsector0 checker reports path is
down
Aug  8 09:44:29 racnode2 multipathd: checker failed path 65:160 in map
1HITACHI_750500750028
Aug  8 09:44:29 racnode2 kernel: device-mapper: dm-multipath: Failing path 65:160
Aug  8 09:44:29 racnode2 multipathd: 1HITACHI_750500750028: remaining active paths:
3
Aug  8 09:44:29 racnode2 kernel: SCSI error : <0 0 3 5> return code = 0x10000
Aug  8 09:44:29 racnode2 kernel: device-mapper: dm-multipath: Failing path 65:176
Aug  8 09:44:29 racnode2 multipathd: 65:176: readsector0 checker reports path is
down
Aug  8 09:44:29 racnode2 multipathd: checker failed path 65:176 in map
1HITACHI_750500750029
Aug  8 09:44:29 racnode2 multipathd: 1HITACHI_750500750029: remaining active paths:
2

```



```
Aug 8 09:44:29 racnode2 kernel: SCSI error : <0 0 3 6> return code = 0x10000
Aug 8 09:44:29 racnode2 kernel: device-mapper: dm-multipath: Failing path 65:192
Aug 8 09:44:29 racnode2 multipathd: 65:192: readsector0 checker reports path is
down
Aug 8 09:44:29 racnode2 kernel: SCSI error : <0 0 3 7> return code = 0x10000
Aug 8 09:44:29 racnode2 kernel: device-mapper: dm-multipath: Failing path 65:208
Aug 8 09:44:29 racnode2 multipathd: checker failed path 65:192 in map
1HITACHI_750500750030
Aug 8 09:44:29 racnode2 multipathd: 1HITACHI_750500750030: remaining active paths:
3
Aug 8 09:44:29 racnode2 multipathd: 65:208: readsector0 checker reports path is
down
Aug 8 09:44:29 racnode2 multipathd: checker failed path 65:208 in map
1HITACHI_750500750031
Aug 8 09:44:29 racnode2 multipathd: 1HITACHI_750500750031: remaining active paths:
2
Aug 8 09:44:29 racnode2 kernel: SCSI error : <0 0 0 0> return code = 0x10000
Aug 8 09:44:29 racnode2 multipathd: 8:0: readsector0 checker reports path is down
Aug 8 09:44:29 racnode2 multipathd: checker failed path 8:0 in map
1HITACHI_750502540030
Aug 8 09:44:29 racnode2 kernel: device-mapper: dm-multipath: Failing path 8:0
Aug 8 09:44:29 racnode2 multipathd: 1HITACHI_750502540030: remaining active paths:
2
Aug 8 09:44:29 racnode2 kernel: SCSI error : <0 0 0 1> return code = 0x10000
Aug 8 09:44:29 racnode2 kernel: SCSI error : <0 0 0 1> return code = 0x10000
Aug 8 09:44:29 racnode2 kernel: SCSI error : <0 0 0 2> return code = 0x10000
Aug 8 09:44:29 racnode2 kernel: device-mapper: dm-multipath: Failing path 8:32
Aug 8 09:44:29 racnode2 kernel: SCSI error : <0 0 0 3> return code = 0x10000
Aug 8 09:44:29 racnode2 kernel: device-mapper: dm-multipath: Failing path 8:48
Aug 8 09:44:29 racnode2 kernel: SCSI error : <0 0 0 4> return code = 0x10000
Aug 8 09:44:29 racnode2 kernel: device-mapper: dm-multipath: Failing path 8:64
Aug 8 09:44:29 racnode2 kernel: SCSI error : <0 0 0 5> return code = 0x10000
Aug 8 09:44:29 racnode2 kernel: device-mapper: dm-multipath: Failing path 8:80
Aug 8 09:44:29 racnode2 kernel: SCSI error : <0 0 0 6> return code = 0x10000
Aug 8 09:44:29 racnode2 kernel: device-mapper: dm-multipath: Failing path 8:96
Aug 8 09:44:29 racnode2 multipathd: error calling out /sbin/pp_hds_modular 8:16
Aug 8 09:44:29 racnode2 multipathd: 8:32: readsector0 checker reports path is down
Aug 8 09:44:29 racnode2 multipathd: checker failed path 8:32 in map
1HITACHI_750502540034
Aug 8 09:44:29 racnode2 multipathd: 1HITACHI_750502540034: remaining active paths:
3
Aug 8 09:44:29 racnode2 multipathd: 8:48: readsector0 checker reports path is down
Aug 8 09:44:29 racnode2 multipathd: checker failed path 8:48 in map
1HITACHI_750502540035
Aug 8 09:44:29 racnode2 kernel: SCSI error : <0 0 1 0> return code = 0x10000
Aug 8 09:44:29 racnode2 multipathd: 1HITACHI_750502540035: remaining active paths:
3
Aug 8 09:44:29 racnode2 multipathd: 8:64: readsector0 checker reports path is down
Aug 8 09:44:29 racnode2 multipathd: checker failed path 8:64 in map
1HITACHI_750502540038
Aug 8 09:44:29 racnode2 multipathd: 1HITACHI_750502540038: remaining active paths:
3
Aug 8 09:44:29 racnode2 multipathd: 8:80: readsector0 checker reports path is down
Aug 8 09:44:29 racnode2 multipathd: checker failed path 8:80 in map
1HITACHI_750502540039
Aug 8 09:44:29 racnode2 multipathd: 1HITACHI_750502540039: remaining active paths:
3
Aug 8 09:44:29 racnode2 multipathd: 8:96: readsector0 checker reports path is down
Aug 8 09:44:29 racnode2 multipathd: checker failed path 8:96 in map
1HITACHI_750502540040
Aug 8 09:44:29 racnode2 multipathd: 1HITACHI_750502540040: remaining active paths:
2
Aug 8 09:44:29 racnode2 kernel: SCSI error : <0 0 1 0> return code = 0x10000
Aug 8 09:44:29 racnode2 multipathd: error calling out /sbin/pp_hds_modular 8:112
Aug 8 09:44:29 racnode2 multipathd: 8:128: readsector0 checker reports path is
down
Aug 8 09:44:29 racnode2 multipathd: checker failed path 8:128 in map
1HITACHI_750502540031
```

```
Aug 8 09:44:29 racnode2 kernel: SCSI error : <0 0 1 1> return code = 0x10000
Aug 8 09:44:29 racnode2 kernel: device-mapper: dm-multipath: Failing path 8:128
Aug 8 09:44:29 racnode2 multipathd: 1HITACHI_750502540031: remaining active paths:
2
Aug 8 09:44:29 racnode2 kernel: SCSI error : <0 0 1 2> return code = 0x10000
Aug 8 09:44:29 racnode2 multipathd: 8:144: readsector0 checker reports path is
down
Aug 8 09:44:29 racnode2 multipathd: checker failed path 8:144 in map
1HITACHI_750502540034
Aug 8 09:44:29 racnode2 kernel: device-mapper: dm-multipath: Failing path 8:144
Aug 8 09:44:29 racnode2 multipathd: 1HITACHI_750502540034: remaining active paths:
2
Aug 8 09:44:29 racnode2 kernel: SCSI error : <0 0 1 3> return code = 0x10000
Aug 8 09:44:29 racnode2 multipathd: 8:160: readsector0 checker reports path is
down
Aug 8 09:44:29 racnode2 multipathd: checker failed path 8:160 in map
1HITACHI_750502540035
Aug 8 09:44:29 racnode2 kernel: device-mapper: dm-multipath: Failing path 8:160
Aug 8 09:44:29 racnode2 multipathd: 1HITACHI_750502540035: remaining active paths:
2
Aug 8 09:44:29 racnode2 kernel: SCSI error : <0 0 1 4> return code = 0x10000
Aug 8 09:44:29 racnode2 multipathd: 8:176: readsector0 checker reports path is
down
Aug 8 09:44:29 racnode2 multipathd: checker failed path 8:176 in map
1HITACHI_750502540038
Aug 8 09:44:29 racnode2 kernel: device-mapper: dm-multipath: Failing path 8:176
Aug 8 09:44:29 racnode2 multipathd: 1HITACHI_750502540038: remaining active paths:
2
Aug 8 09:44:29 racnode2 kernel: SCSI error : <0 0 1 5> return code = 0x10000
Aug 8 09:44:29 racnode2 multipathd: 8:192: readsector0 checker reports path is
down
Aug 8 09:44:29 racnode2 multipathd: checker failed path 8:192 in map
1HITACHI_750502540039
Aug 8 09:44:29 racnode2 kernel: device-mapper: dm-multipath: Failing path 8:192
Aug 8 09:44:29 racnode2 multipathd: 1HITACHI_750502540039: remaining active paths:
2
Aug 8 09:44:29 racnode2 kernel: SCSI error : <0 0 1 6> return code = 0x10000
Aug 8 09:44:29 racnode2 kernel: SCSI error : <0 0 1 6> return code = 0x10000
Aug 8 09:44:29 racnode2 multipathd: error calling out /sbin/pp_hds_modular 8:208
Aug 8 09:44:29 racnode2 multipathd: 8:224: readsector0 checker reports path is
down
Aug 8 09:44:29 racnode2 kernel: SCSI error : <0 0 2 0> return code = 0x10000
Aug 8 09:44:29 racnode2 multipathd: checker failed path 8:224 in map
1HITACHI_750500750020
Aug 8 09:44:29 racnode2 kernel: device-mapper: dm-multipath: Failing path 8:224
Aug 8 09:44:29 racnode2 multipathd: 1HITACHI_750500750020: remaining active paths:
2
Aug 8 09:44:29 racnode2 kernel: SCSI error : <0 0 2 1> return code = 0x10000
Aug 8 09:44:29 racnode2 multipathd: error calling out /sbin/pp_hds_modular 8:240
Aug 8 09:44:29 racnode2 multipathd: 65:0: readsector0 checker reports path is down
Aug 8 09:44:29 racnode2 multipathd: checker failed path 65:0 in map
1HITACHI_750500750024
Aug 8 09:44:29 racnode2 multipathd: 1HITACHI_750500750024: remaining active paths:
3
Aug 8 09:44:29 racnode2 kernel: SCSI error : <0 0 2 1> return code = 0x10000
Aug 8 09:44:29 racnode2 kernel: SCSI error : <0 0 2 2> return code = 0x10000
Aug 8 09:44:29 racnode2 kernel: device-mapper: dm-multipath: Failing path 65:0
Aug 8 09:44:29 racnode2 kernel: SCSI error : <0 0 2 3> return code = 0x10000
Aug 8 09:44:29 racnode2 multipathd: 65:16: readsector0 checker reports path is
down
Aug 8 09:44:29 racnode2 multipathd: checker failed path 65:16 in map
1HITACHI_750500750025
Aug 8 09:44:29 racnode2 kernel: device-mapper: dm-multipath: Failing path 65:16
Aug 8 09:44:29 racnode2 multipathd: 1HITACHI_750500750025: remaining active paths:
3
Aug 8 09:44:29 racnode2 kernel: SCSI error : <0 0 2 4> return code = 0x10000
Aug 8 09:44:29 racnode2 multipathd: 65:32: readsector0 checker reports path is
down
```



```
Aug 8 09:44:29 racnode2 multipathd: checker failed path 65:32 in map
1HITACHI_750500750028
Aug 8 09:44:29 racnode2 kernel: device-mapper: dm-multipath: Failing path 65:32
Aug 8 09:44:29 racnode2 multipathd: 1HITACHI_750500750028: remaining active paths:
2
Aug 8 09:44:29 racnode2 kernel: SCSI error : <0 0 2 5> return code = 0x10000
Aug 8 09:44:29 racnode2 kernel: SCSI error : <0 0 2 5> return code = 0x10000
Aug 8 09:44:29 racnode2 multipathd: error calling out /sbin/pp_hds_modular 65:48
Aug 8 09:44:29 racnode2 kernel: SCSI error : <0 0 2 6> return code = 0x10000
Aug 8 09:44:29 racnode2 kernel: device-mapper: dm-multipath: Failing path 65:64
Aug 8 09:44:29 racnode2 multipathd: 65:64: readsector0 checker reports path is
down
Aug 8 09:44:29 racnode2 multipathd: checker failed path 65:64 in map
1HITACHI_750500750030
Aug 8 09:44:29 racnode2 multipathd: 1HITACHI_750500750030: remaining active paths:
2
Aug 8 09:44:29 racnode2 kernel: SCSI error : <0 0 2 7> return code = 0x10000
Aug 8 09:44:29 racnode2 kernel: SCSI error : <0 0 2 7> return code = 0x10000
Aug 8 09:44:29 racnode2 multipathd: error calling out /sbin/pp_hds_modular 65:80
Aug 8 09:44:29 racnode2 kernel: SCSI error : <0 0 3 0> return code = 0x10000
Aug 8 09:44:29 racnode2 kernel: SCSI error : <0 0 3 0> return code = 0x10000
Aug 8 09:44:29 racnode2 multipathd: error calling out /sbin/pp_hds_modular 65:96
Aug 8 09:44:29 racnode2 kernel: SCSI error : <0 0 3 1> return code = 0x10000
Aug 8 09:44:29 racnode2 multipathd: 65:112: readsector0 checker reports path is
down
Aug 8 09:44:29 racnode2 multipathd: checker failed path 65:112 in map
1HITACHI_750500750021
Aug 8 09:44:29 racnode2 kernel: device-mapper: dm-multipath: Failing path 65:112
Aug 8 09:44:29 racnode2 multipathd: 1HITACHI_750500750021: remaining active paths:
2
Aug 8 09:44:29 racnode2 kernel: SCSI error : <0 0 3 2> return code = 0x10000
Aug 8 09:44:29 racnode2 multipathd: 65:128: readsector0 checker reports path is
down
Aug 8 09:44:29 racnode2 multipathd: checker failed path 65:128 in map
1HITACHI_750500750024
Aug 8 09:44:29 racnode2 kernel: device-mapper: dm-multipath: Failing path 65:128
Aug 8 09:44:29 racnode2 multipathd: 1HITACHI_750500750024: remaining active paths:
2
Aug 8 09:44:29 racnode2 kernel: SCSI error : <0 0 3 3> return code = 0x10000
Aug 8 09:44:29 racnode2 multipathd: 65:144: readsector0 checker reports path is
down
Aug 8 09:44:29 racnode2 multipathd: checker failed path 65:144 in map
1HITACHI_750500750025
Aug 8 09:44:29 racnode2 kernel: device-mapper: dm-multipath: Failing path 65:144
Aug 8 09:44:29 racnode2 multipathd: 1HITACHI_750500750025: remaining active paths:
2
...
```

HBA wird wieder aktiviert:

```
Aug 8 09:46:05 racnode2 kernel: qla2400 0000:0e:00.0: LIP occured (f800).
Aug 8 09:46:05 racnode2 kernel: qla2400 0000:0e:00.0: LOOP UP detected (4 Gbps).
Aug 8 09:46:06 racnode2 multipathd: 65:160: readsector0 checker reports path is up
Aug 8 09:46:06 racnode2 multipathd: 65:160: reinstated
Aug 8 09:46:06 racnode2 multipathd: 1HITACHI_750500750028: remaining active paths:
3
Aug 8 09:46:06 racnode2 multipathd: 65:176: readsector0 checker reports path is up
Aug 8 09:46:06 racnode2 multipathd: 65:176: reinstated
Aug 8 09:46:06 racnode2 multipathd: 1HITACHI_750500750029: remaining active paths:
3
Aug 8 09:46:06 racnode2 multipathd: 65:192: readsector0 checker reports path is up
Aug 8 09:46:06 racnode2 multipathd: 65:192: reinstated
Aug 8 09:46:06 racnode2 multipathd: 1HITACHI_750500750030: remaining active paths:
3
Aug 8 09:46:06 racnode2 multipathd: 65:208: readsector0 checker reports path is up
Aug 8 09:46:06 racnode2 multipathd: 65:208: reinstated
Aug 8 09:46:06 racnode2 multipathd: 1HITACHI_750500750031: remaining active paths:
3
```

```
Aug 8 09:46:06 racnode2 multipathd: 8:0: readsector0 checker reports path is up
Aug 8 09:46:06 racnode2 multipathd: 8:0: reinstated
Aug 8 09:46:06 racnode2 multipathd: 1HITACHI_750502540030: remaining active paths:
3
Aug 8 09:46:06 racnode2 multipathd: 8:16: readsector0 checker reports path is up
Aug 8 09:46:06 racnode2 multipathd: 8:16: reinstated
Aug 8 09:46:06 racnode2 multipathd: 1HITACHI_750502540031: remaining active paths:
3
Aug 8 09:46:06 racnode2 multipathd: 8:32: readsector0 checker reports path is up
Aug 8 09:46:06 racnode2 multipathd: 8:32: reinstated
Aug 8 09:46:06 racnode2 multipathd: 1HITACHI_750502540034: remaining active paths:
3
Aug 8 09:46:06 racnode2 multipathd: 8:48: readsector0 checker reports path is up
Aug 8 09:46:06 racnode2 multipathd: 8:48: reinstated
Aug 8 09:46:06 racnode2 multipathd: 1HITACHI_750502540035: remaining active paths:
3
Aug 8 09:46:06 racnode2 multipathd: 8:64: readsector0 checker reports path is up
Aug 8 09:46:06 racnode2 multipathd: 8:64: reinstated
Aug 8 09:46:06 racnode2 multipathd: 1HITACHI_750502540038: remaining active paths:
3
Aug 8 09:46:06 racnode2 multipathd: 8:80: readsector0 checker reports path is up
Aug 8 09:46:06 racnode2 multipathd: 8:80: reinstated
Aug 8 09:46:06 racnode2 multipathd: 1HITACHI_750502540039: remaining active paths:
3
Aug 8 09:46:06 racnode2 multipathd: 8:96: readsector0 checker reports path is up
Aug 8 09:46:06 racnode2 multipathd: 8:96: reinstated
Aug 8 09:46:06 racnode2 multipathd: 1HITACHI_750502540040: remaining active paths:
3
Aug 8 09:46:06 racnode2 multipathd: 8:112: readsector0 checker reports path is up
Aug 8 09:46:06 racnode2 multipathd: 8:112: reinstated
Aug 8 09:46:06 racnode2 multipathd: 1HITACHI_750502540030: remaining active paths:
4
Aug 8 09:46:06 racnode2 multipathd: 8:128: readsector0 checker reports path is up
Aug 8 09:46:06 racnode2 multipathd: 8:128: reinstated
Aug 8 09:46:06 racnode2 multipathd: 1HITACHI_750502540031: remaining active paths:
4
Aug 8 09:46:06 racnode2 multipathd: 8:144: readsector0 checker reports path is up
Aug 8 09:46:06 racnode2 multipathd: 8:144: reinstated
Aug 8 09:46:06 racnode2 multipathd: 1HITACHI_750502540034: remaining active paths:
4
Aug 8 09:46:06 racnode2 multipathd: 8:160: readsector0 checker reports path is up
Aug 8 09:46:06 racnode2 multipathd: 8:160: reinstated
Aug 8 09:46:06 racnode2 multipathd: 1HITACHI_750502540035: remaining active paths:
4
Aug 8 09:46:06 racnode2 multipathd: 8:176: readsector0 checker reports path is up
Aug 8 09:46:06 racnode2 multipathd: 8:176: reinstated
Aug 8 09:46:06 racnode2 multipathd: 1HITACHI_750502540038: remaining active paths:
4
Aug 8 09:46:06 racnode2 multipathd: 8:192: readsector0 checker reports path is up
Aug 8 09:46:06 racnode2 multipathd: 8:192: reinstated
Aug 8 09:46:06 racnode2 multipathd: 1HITACHI_750502540039: remaining active paths:
4
Aug 8 09:46:06 racnode2 multipathd: 8:208: readsector0 checker reports path is up
Aug 8 09:46:06 racnode2 multipathd: 8:208: reinstated
Aug 8 09:46:06 racnode2 multipathd: 1HITACHI_750502540040: remaining active paths:
4
Aug 8 09:46:06 racnode2 multipathd: 8:224: readsector0 checker reports path is up
Aug 8 09:46:06 racnode2 multipathd: 8:224: reinstated
Aug 8 09:46:06 racnode2 multipathd: 1HITACHI_750500750020: remaining active paths:
3
Aug 8 09:46:06 racnode2 multipathd: 8:240: readsector0 checker reports path is up
Aug 8 09:46:06 racnode2 multipathd: 8:240: reinstated
Aug 8 09:46:06 racnode2 multipathd: 1HITACHI_750500750021: remaining active paths:
3
Aug 8 09:46:06 racnode2 multipathd: 65:0: readsector0 checker reports path is up
Aug 8 09:46:06 racnode2 multipathd: 65:0: reinstated
Aug 8 09:46:06 racnode2 multipathd: 1HITACHI_750500750024: remaining active paths:
3
```

```

Aug  8 09:46:06 racnode2 multipathd: 65:16: readsector0 checker reports path is up
Aug  8 09:46:06 racnode2 multipathd: 65:16: reinstated
Aug  8 09:46:06 racnode2 multipathd: 1HITACHI_750500750025: remaining active paths:
3
Aug  8 09:46:06 racnode2 multipathd: 65:32: readsector0 checker reports path is up
Aug  8 09:46:06 racnode2 multipathd: 65:32: reinstated
Aug  8 09:46:06 racnode2 multipathd: 1HITACHI_750500750028: remaining active paths:
4
Aug  8 09:46:06 racnode2 multipathd: 65:48: readsector0 checker reports path is up
Aug  8 09:46:06 racnode2 multipathd: 65:48: reinstated
Aug  8 09:46:06 racnode2 multipathd: 1HITACHI_750500750029: remaining active paths:
4
Aug  8 09:46:06 racnode2 multipathd: 65:64: readsector0 checker reports path is up
Aug  8 09:46:06 racnode2 multipathd: 65:64: reinstated
Aug  8 09:46:06 racnode2 multipathd: 1HITACHI_750500750030: remaining active paths:
4
Aug  8 09:46:06 racnode2 multipathd: 65:80: readsector0 checker reports path is up
Aug  8 09:46:06 racnode2 multipathd: 65:80: reinstated
Aug  8 09:46:06 racnode2 multipathd: 1HITACHI_750500750031: remaining active paths:
4
Aug  8 09:46:06 racnode2 multipathd: 65:96: readsector0 checker reports path is up
Aug  8 09:46:06 racnode2 multipathd: 65:96: reinstated
Aug  8 09:46:06 racnode2 multipathd: 1HITACHI_750500750020: remaining active paths:
4
Aug  8 09:46:06 racnode2 multipathd: 65:112: readsector0 checker reports path is up
Aug  8 09:46:06 racnode2 multipathd: 65:112: reinstated
Aug  8 09:46:06 racnode2 multipathd: 1HITACHI_750500750021: remaining active paths:
4
Aug  8 09:46:06 racnode2 multipathd: 65:128: readsector0 checker reports path is up
Aug  8 09:46:06 racnode2 multipathd: 65:128: reinstated
Aug  8 09:46:06 racnode2 multipathd: 1HITACHI_750500750024: remaining active paths:
4
Aug  8 09:46:06 racnode2 multipathd: 65:144: readsector0 checker reports path is up
Aug  8 09:46:06 racnode2 multipathd: 65:144: reinstated

```

3.15 Testcase 15: Simulation des Storage-Ausfalls in einem RZ für einen Host

Vorbereitung:

- deaktivieren des LUN Mappings auf einem Storage für den Host racnode2. Damit wird der Ausfall eines Storage für einen Host simuliert.

Erwartetes Resultat:

- Die redundanten OCRs / Voting Disks werden verloren. ASM soll bemerken, dass ein Storage nicht mehr erreichbar ist. Die Datenbank-Instanzen sollen nicht beeinflusst werden.
- Leider entspricht das tatsächliche Ergebnis nicht dem erwarteten.

alertPRDRAC2.log:

```

Wed Aug  8 09:49:27 2007
Errors in file /app/oracle/PRDRAC/oratrace/bdump/PRDRAC2_ckpt_17123.trc:
ORA-27091: Message 27091 not found; No message file for product=RDBMS, facility=ORA
ORA-27072: Message 27072 not found; No message file for product=RDBMS, facility=ORA
Linux-x86_64 Error: 5: Input/output error
Additional information: 4
Additional information: 18560
Additional information: -1
Wed Aug  8 09:49:27 2007
Errors in file /app/oracle/PRDRAC/oratrace/bdump/PRDRAC2_ckpt_17123.trc:
ORA-27091: Message 27091 not found; No message file for product=RDBMS, facility=ORA
ORA-27072: Message 27072 not found; No message file for product=RDBMS, facility=ORA
Linux-x86_64 Error: 5: Input/output error
Additional information: 4

```

```
Additional information: 100480
Additional information: -1
Wed Aug 8 09:49:27 2007
WARNING: offlining disk 1.4042320697 (DATA_0001) with mask 0x3
WARNING: offlining disk 2.4042320696 (FRA_0002) with mask 0x3
Wed Aug 8 09:49:42 2007
Errors in file /app/oracle/PRDRAC/oratrace/bdump/PRDRAC2_arcl_23014.trc:
ORA-27091: Message 27091 not found; No message file for product=RDBMS, facility=ORA
ORA-27072: Message 27072 not found; No message file for product=RDBMS, facility=ORA
Linux-x86_64 Error: 5: Input/output error
Additional information: 4
Additional information: 104448
Additional information: -1
Wed Aug 8 09:49:42 2007
Errors in file /app/oracle/PRDRAC/oratrace/bdump/PRDRAC2_arcl_23014.trc:
ORA-27091: Message 27091 not found; No message file for product=RDBMS, facility=ORA
ORA-27072: Message 27072 not found; No message file for product=RDBMS, facility=ORA
Linux-x86_64 Error: 5: Input/output error
Additional information: 4
Additional information: 104512
Additional information: -1
Wed Aug 8 09:49:42 2007
Errors in file /app/oracle/PRDRAC/oratrace/bdump/PRDRAC2_arcl_23014.trc:
ORA-27091: Message 27091 not found; No message file for product=RDBMS, facility=ORA
ORA-27072: Message 27072 not found; No message file for product=RDBMS, facility=ORA
Linux-x86_64 Error: 5: Input/output error
Additional information: 4
Additional information: 104448
Additional information: -1
Wed Aug 8 09:49:42 2007
Errors in file /app/oracle/PRDRAC/oratrace/bdump/PRDRAC2_arcl_23014.trc:
ORA-27091: Message 27091 not found; No message file for product=RDBMS, facility=ORA
ORA-27072: Message 27072 not found; No message file for product=RDBMS, facility=ORA
Linux-x86_64 Error: 5: Input/output error
Additional information: 4
Additional information: 104512
Additional information: -1
Wed Aug 8 09:49:42 2007
Errors in file /app/oracle/PRDRAC/oratrace/bdump/PRDRAC2_arcl_23014.trc:
ORA-27091: Message 27091 not found; No message file for product=RDBMS, facility=ORA
ORA-27072: Message 27072 not found; No message file for product=RDBMS, facility=ORA
Linux-x86_64 Error: 5: Input/output error
Additional information: 4
Additional information: 104544
Additional information: -1
Wed Aug 8 09:49:42 2007
Errors in file /app/oracle/PRDRAC/oratrace/bdump/PRDRAC2_arcl_23014.trc:
ORA-27091: Message 27091 not found; No message file for product=RDBMS, facility=ORA
ORA-27072: Message 27072 not found; No message file for product=RDBMS, facility=ORA
Linux-x86_64 Error: 5: Input/output error
Additional information: 4
Additional information: 104448
Additional information: -1
Wed Aug 8 09:49:42 2007
Errors in file /app/oracle/PRDRAC/oratrace/bdump/PRDRAC2_arcl_23014.trc:
ORA-27091: Message 27091 not found; No message file for product=RDBMS, facility=ORA
ORA-27072: Message 27072 not found; No message file for product=RDBMS, facility=ORA
Linux-x86_64 Error: 5: Input/output error
Additional information: 4
Additional information: 104512
Additional information: -1
Wed Aug 8 09:49:42 2007
Errors in file /app/oracle/PRDRAC/oratrace/bdump/PRDRAC2_arcl_23014.trc:
ORA-27091: Message 27091 not found; No message file for product=RDBMS, facility=ORA
ORA-27072: Message 27072 not found; No message file for product=RDBMS, facility=ORA
Linux-x86_64 Error: 5: Input/output error
Additional information: 4
Additional information: 104640
```

```
Additional information: -1
Wed Aug 8 09:49:42 2007
Errors in file /app/oracle/PRDRAC/oratrace/bdump/PRDRAC2_arcl_23014.trc:
ORA-27091: Message 27091 not found; No message file for product=RDBMS, facility=ORA
ORA-27072: Message 27072 not found; No message file for product=RDBMS, facility=ORA
Linux-x86_64 Error: 5: Input/output error
Additional information: 4
Additional information: 104544
Additional information: -1
Wed Aug 8 09:49:53 2007
Errors in file /app/oracle/PRDRAC/oratrace/udump/PRDRAC2_ora_24428.trc:
ORA-27091: unable to queue I/O
ORA-27072: File I/O error
Linux-x86_64 Error: 5: Input/output error
Additional information: 4
Additional information: 104448
Additional information: -1
Wed Aug 8 09:49:53 2007
Errors in file /app/oracle/PRDRAC/oratrace/udump/PRDRAC2_ora_24428.trc:
ORA-27091: unable to queue I/O
ORA-27072: File I/O error
Linux-x86_64 Error: 5: Input/output error
Additional information: 4
Additional information: 104512
Additional information: -1
Wed Aug 8 09:49:53 2007
Errors in file /app/oracle/PRDRAC/oratrace/udump/PRDRAC2_ora_24428.trc:
ORA-27091: unable to queue I/O
ORA-27072: File I/O error
Linux-x86_64 Error: 5: Input/output error
Additional information: 4
Additional information: 104448
Additional information: -1
Wed Aug 8 09:49:53 2007
Errors in file /app/oracle/PRDRAC/oratrace/udump/PRDRAC2_ora_24428.trc:
ORA-27091: unable to queue I/O
ORA-27072: File I/O error
Linux-x86_64 Error: 5: Input/output error
Additional information: 4
Additional information: 104512
Additional information: -1
Wed Aug 8 09:49:53 2007
Errors in file /app/oracle/PRDRAC/oratrace/udump/PRDRAC2_ora_24428.trc:
ORA-27091: unable to queue I/O
ORA-27072: File I/O error
Linux-x86_64 Error: 5: Input/output error
Additional information: 4
Additional information: 104544
Additional information: -1
```

alert_+ASM2.log:

```
Wed Aug 8 09:49:28 2007
Errors in file /app/oracle/+ASM/oratrace/bdump/+asm2_gmon_19678.trc:
ORA-27091: unable to queue I/O
ORA-27072: File I/O error
Linux-x86_64 Error: 5: Input/output error
Additional information: 4
Additional information: 2056
Additional information: -1
Wed Aug 8 09:49:28 2007
Errors in file /app/oracle/+ASM/oratrace/bdump/+asm2_gmon_19678.trc:
ORA-27091: unable to queue I/O
ORA-27072: File I/O error
Linux-x86_64 Error: 5: Input/output error
Additional information: 4
Additional information: 2056
```

```
Additional information: -1
Wed Aug 8 09:49:28 2007
NOTE: group DATA: relocated PST to: disk 0000 (PST copy 0)
Wed Aug 8 09:49:28 2007
NOTE: PST update: grp = 1, dsk = 1, mode = 0x4
Wed Aug 8 09:49:28 2007
Errors in file /app/oracle/+ASM/oratrace/bdump/+asm2_gmon_19678.trc:
ORA-27091: unable to queue I/O
ORA-27072: File I/O error
Linux-x86_64 Error: 5: Input/output error
Additional information: 4
Additional information: 2056
Additional information: -1
Wed Aug 8 09:49:28 2007
NOTE: group DATA: relocated PST to: disk 0000 (PST copy 0)
NOTE: cache closing disk 1 of grp 1: DATA_0001
Wed Aug 8 09:49:31 2007
WARNING: offlining disk 2.4042320696 (FRA_0002) with mask 0x3
NOTE: PST update: grp = 2, dsk = 2, mode = 0x6
Wed Aug 8 09:49:31 2007
Errors in file /app/oracle/+ASM/oratrace/bdump/+asm2_gmon_19678.trc:
ORA-27091: unable to queue I/O
ORA-27072: File I/O error
Linux-x86_64 Error: 5: Input/output error
Additional information: 4
Additional information: 2056
Additional information: -1
Wed Aug 8 09:49:31 2007
Errors in file /app/oracle/+ASM/oratrace/bdump/+asm2_gmon_19678.trc:
ORA-27091: unable to queue I/O
ORA-27072: File I/O error
Linux-x86_64 Error: 5: Input/output error
Additional information: 4
Additional information: 2056
Additional information: -1
Wed Aug 8 09:49:31 2007
NOTE: group FRA: relocated PST to: disk 0000 (PST copy 0)
Wed Aug 8 09:49:34 2007
NOTE: PST update: grp = 2, dsk = 2, mode = 0x4
Wed Aug 8 09:49:34 2007
Errors in file /app/oracle/+ASM/oratrace/bdump/+asm2_gmon_19678.trc:
ORA-27091: unable to queue I/O
ORA-27072: File I/O error
Linux-x86_64 Error: 5: Input/output error
Additional information: 4
Additional information: 2056
Additional information: -1
Wed Aug 8 09:49:34 2007
NOTE: group FRA: relocated PST to: disk 0000 (PST copy 0)
NOTE: cache closing disk 2 of grp 2: FRA_0002
Wed Aug 8 09:50:42 2007
WARNING: PST-initiated drop disk 1(1646271431).1(4042320697) (DATA_0001)
Wed Aug 8 09:50:42 2007
Errors in file /app/oracle/+ASM/oratrace/bdump/+asm2_lgwr_19670.trc:
ORA-27091: unable to queue I/O
ORA-27072: File I/O error
Linux-x86_64 Error: 5: Input/output error
Additional information: 4
Additional information: 12504
Additional information: -1
Wed Aug 8 09:50:42 2007
NOTE: cache initiating offline of disk 3 group 1
WARNING: offlining disk 3.4042320695 (DATA_0003) with mask 0x3
NOTE: PST update: grp = 1, dsk = 3, mode = 0x6
Wed Aug 8 09:50:42 2007
NOTE: group DATA: relocated PST to: disk 0000 (PST copy 0)
Wed Aug 8 09:50:43 2007
NOTE: PST update: grp = 1, dsk = 3, mode = 0x4
```



```
Wed Aug 8 09:50:43 2007
NOTE: group DATA: relocated PST to: disk 0000 (PST copy 0)
NOTE: cache closing disk 3 of grp 1: DATA_0003
Wed Aug 8 09:50:46 2007
NOTE: PST update: grp = 1
Wed Aug 8 09:50:46 2007
NOTE: group DATA: relocated PST to: disk 0000 (PST copy 0)
Wed Aug 8 09:50:46 2007
NOTE: requesting all-instance PST refresh for group=1
Wed Aug 8 09:50:46 2007
NOTE: PST refresh pending for group 1/0x62201bc7 (DATA)
SUCCESS: refreshed PST for 1/0x62201bc7 (DATA)
Wed Aug 8 09:50:48 2007
SUCCESS: PST-initiated disk drop completed
WARNING: PST-initiated drop disk 2(1646271432).2(4042320696) (FRA_0002)
NOTE: PST update: grp = 2
Wed Aug 8 09:50:49 2007
Errors in file /app/oracle/+ASM/oratrace/bdump/+asm2_gmon_19678.trc:
ORA-27091: unable to queue I/O
ORA-27072: File I/O error
Linux-x86_64 Error: 5: Input/output error
Additional information: 4
Additional information: 2056
Additional information: -1
Wed Aug 8 09:50:49 2007
NOTE: group FRA: relocated PST to: disk 0000 (PST copy 0)
Wed Aug 8 09:50:49 2007
NOTE: requesting all-instance PST refresh for group=2
Wed Aug 8 09:50:49 2007
NOTE: PST refresh pending for group 2/0x62201bc8 (FRA)
SUCCESS: refreshed PST for 2/0x62201bc8 (FRA)
Wed Aug 8 09:50:50 2007
NOTE: starting rebalance of group 1/0x62201bc7 (DATA) at power 1
Starting background process ARB0
ARB0 started with pid=19, OS id=6994
Wed Aug 8 09:50:50 2007
NOTE: assigning ARB0 to group 1/0x62201bc7 (DATA)
Wed Aug 8 09:50:51 2007
NOTE: X->S down convert bast on F1B3 bastCount=2
Wed Aug 8 09:50:51 2007
SUCCESS: PST-initiated disk drop completed
Wed Aug 8 09:51:56 2007
WARNING: process ARB0 terminated via OS
Wed Aug 8 09:51:59 2007
NOTE: rebalance interrupted for group 1/0x62201bc7 (DATA)
Wed Aug 8 09:51:59 2007
NOTE: starting rebalance of group 2/0x62201bc8 (FRA) at power 1
Starting background process ARB0
ARB0 started with pid=23, OS id=17468
Wed Aug 8 09:51:59 2007
NOTE: assigning ARB0 to group 2/0x62201bc8 (FRA)
NOTE: PST refresh pending for group 1/0x62201bc7 (DATA)
Wed Aug 8 09:52:09 2007
Errors in file /app/oracle/+ASM/oratrace/bdump/+asm2_gmon_19678.trc:
ORA-27091: unable to queue I/O
ORA-27072: File I/O error
Linux-x86_64 Error: 5: Input/output error
Additional information: 4
Additional information: 2048
Additional information: -1
Wed Aug 8 09:52:09 2007
Errors in file /app/oracle/+ASM/oratrace/bdump/+asm2_gmon_19678.trc:
ORA-27091: unable to queue I/O
ORA-27072: File I/O error
Linux-x86_64 Error: 5: Input/output error
Additional information: 4
Additional information: 2056
Additional information: -1
```

```

Wed Aug 8 09:52:09 2007
Errors in file /app/oracle/+ASM/oratrace/bdump/asm2_gmon_19678.trc:
ORA-27091: unable to queue I/O
ORA-27072: File I/O error
Linux-x86_64 Error: 5: Input/output error
Additional information: 4
Additional information: 2048
Additional information: -1
Wed Aug 8 09:52:09 2007
Errors in file /app/oracle/+ASM/oratrace/bdump/asm2_gmon_19678.trc:
ORA-27091: unable to queue I/O
ORA-27072: File I/O error
Linux-x86_64 Error: 5: Input/output error
Additional information: 4
Additional information: 2056
Additional information: -1
Wed Aug 8 10:08:08 2007
GES: Potential blocker (pid=19676) on resource CI-0000003E-00000002;
  enqueue info in file /app/oracle/+ASM/oratrace/bdump/asm2_lmd0_19656.trc and DIAG
  trace file
Wed Aug 8 10:08:08 2007
GES: Potential blocker (pid=19666) on resource CI-0000001C-00000002;
  enqueue info in file /app/oracle/+ASM/oratrace/bdump/asm2_arb0_17468.trc and DIAG
  trace file

```

messages:

```

Aug 8 09:49:27 racnode2 multipathd: 8:112: mark as failed
Aug 8 09:49:27 racnode2 multipathd: 1HITACHI_750502540030: remaining active paths:
0
Aug 8 09:49:27 racnode2 multipathd: 8:208: mark as failed
Aug 8 09:49:27 racnode2 multipathd: 1HITACHI_750502540040: remaining active paths:
0
Aug 8 09:49:27 racnode2 kernel: SCSI error : <0 0 1 1> return code = 0x10000
Aug 8 09:49:27 racnode2 kernel: end_request: I/O error, dev sdi, sector 100480
Aug 8 09:49:27 racnode2 kernel: end_request: I/O error, dev sdi, sector 100487
Aug 8 09:49:27 racnode2 kernel: device-mapper: dm-multipath: Failing path 8:128
Aug 8 09:49:27 racnode2 multipathd: 8:128: mark as failed
Aug 8 09:49:27 racnode2 multipathd: 1HITACHI_750502540031: remaining active paths:
0
Aug 8 09:49:28 racnode2 kernel: SCSI error : <0 0 1 2> return code = 0x10000
Aug 8 09:49:28 racnode2 kernel: end_request: I/O error, dev sdj, sector 2056
Aug 8 09:49:28 racnode2 kernel: end_request: I/O error, dev sdj, sector 2058
Aug 8 09:49:28 racnode2 kernel: device-mapper: dm-multipath: Failing path 8:144
Aug 8 09:49:28 racnode2 multipathd: 8:144: mark as failed
Aug 8 09:49:28 racnode2 multipathd: 1HITACHI_750502540034: remaining active paths:
0

```

auf racnode2:

```

ocrcheck
PROT-602: Failed to retrieve data from the cluster registry

orarc@racnode2:~> crsctl check crs
CSS appears healthy
CRS appears healthy
EVM appears healthy

crsctl query css votedisk
OCR initialization failed accessing OCR device: PROC-26: Error while accessing
the physical storage Operating System error [Input/output error] [5]

```

Tests mit dd:

- die Voting-Disk und OCR Datei auf dem überlebenden Storage können mit dd gelesen werden, die andere(n) nicht.

```

orarac@racnode2:~> dd if=/dev/raw/raw5 of=/tmp/test count=1 bs=512k
1+0 records in
1+0 records out
orarac@racnode2:~> dd if=/dev/raw/raw13 of=/tmp/test count=1 bs=512k
orarac@racnode2:~> dd if=/dev/raw/raw13 of=/tmp/test count=1 bs=512k
dd: reading `/dev/raw/raw13': Input/output error
0+0 records in
0+0 records out

```

- +ASM2 Instanz kann nicht abgefragt werden: query auf v\$asm_disk, v\$asm_diskgroup hängt, aber v\$session funktioniert:

```
SQL> 1* select username, osuser,terminal,machine,program, event from v$session
```

USERN	OSUSER	TERMINAL	MACHINE	PROGRAM	EVENT
	orariam1	UNKNOWN	racnode2	oracle@racnode2 (PMON)	pmon timer
	orariam1	UNKNOWN	racnode2	oracle@racnode2 (LMON)	rdbms ipc message
	orariam1	UNKNOWN	racnode2	oracle@racnode2 (MMAN)	rdbms ipc message
	orariam1	UNKNOWN	racnode2	oracle@racnode2 (LGWR)	rdbms ipc message
SYS	orarac		racnode2	oracle@racnode2 (TNS V1-V3)	rdbms ipc message
	orariam1	UNKNOWN	racnode2	oracle@racnode2 (SMON)	rdbms ipc message
	orariam1	UNKNOWN	racnode2	oracle@racnode2 (GMON)	rdbms ipc message
	orariam1	UNKNOWN	racnode2	oracle@racnode2 (LCK0)	rdbms ipc message
	orariam1	UNKNOWN	racnode2	oracle@racnode2 (PSP0)	rdbms ipc message
	orariam1	UNKNOWN	racnode2	oracle@racnode2 (CKPT)	rdbms ipc message
	orariam1	UNKNOWN	racnode2	oracle@racnode2 (O001)	class slave wait
	orariam1	UNKNOWN	racnode2	oracle@racnode2 (DIAG)	DIAG idle wait
	orariam1	UNKNOWN	racnode2	oracle@racnode2 (LMD0)	ges remote message
	orariam1	UNKNOWN	racnode2	oracle@racnode2 (LMS0)	gcs remote message
SYS	orariam1	pts/11	racnode2	sqlplus@racnode2 (TNS V1-V3)	SQL*Net message to client
	orariam1	UNKNOWN	racnode2	oracle@racnode2 (DBW0)	kfk: async disk IO
	orariam1	UNKNOWN	racnode2	oracle@racnode2 (ARB0)	DFS lock handle
SYS	orariam1	pts/14	racnode2	sqlplus@racnode2 (TNS V1-V3)	buffer busy
	orariam1	UNKNOWN	racnode2	oracle@racnode2 (RBAL)	buffer busy
SYS	orariam1	pts/12	racnode2	sqlplus@racnode2 (TNS V1-V3)	enq: DG - contention
	orariam1	UNKNOWN	racnode2	oracle@racnode2 (B003)	enq: DG - contention
	orariam1	UNKNOWN	racnode2	oracle@racnode2 (B004)	enq: DG - contention
	orariam1	UNKNOWN	racnode2	oracle@racnode2 (B001)	enq: DG - contention
SYS	orariam1	pts/2	racnode2	sqlplus@racnode2 (TNS V1-V3)	enq: DG - contention
	orariam1	UNKNOWN	racnode2	oracle@racnode2 (B002)	enq: DG - contention
SYS	orariam1	pts/10	racnode2	perl@racnode2 (TNS V1-V3)	enq: DG - contention
	orariam1	UNKNOWN	racnode2	oracle@racnode2 (B000)	enq: DG - contention

27 rows selected.

- PRDRAC2:

```
SQL> select username,program,event from v$session where username is not null;
```

USERNAME	PROGRAM	EVENT
SYS	sqlplus@racnode2 (TNS V1-V3)	SQL*Net message to client
SYS	sqlplus@racnode2 (TNS V1-V3)	log file sync
SYS	sqlplus@racnode2 (TNS V1-V3)	log file sync
SYS	plsqldev.exe	log file sync
SYS	racgimon@racnode2 (TNS V1-V3)	SQL*Net message from client
SYS	racgimon@racnode2 (TNS V1-V3)	SQL*Net message from client
SYS	racgimon@racnode2 (TNS V1-V3)	SQL*Net message from client
SYS	plsqldev.exe	log file sync
SOE	JDBC Thin Client	log file sync
SOE	JDBC Thin Client	log file sync
SYS	racgimon@racnode2 (TNS V1-V3)	SQL*Net message from client

11 rows selected.

3.16 Testcase 16: Lost one copy of OCR

Vorbereitung

- Starten der Workload auf PRDRAC2
- Nach 5 Minuten: überschreiben von Raw Device von einer OCR Kopie auf racnode2

```
dd if=/dev/zero of=raw_device_from_ocr_Mirror
```

Erwartetes Resultat:

- Everything should continue to run without problems

Beispiel:

```
2006-08-25 13:43:14.665: [ OCRRAW][2894404528]propirowv: Vote information on disk 0
[/opt/oracle/oradata/PRDRAC/crs/ora_ocr_raw100m] is adjusted from [1/2] to [2/2]
2006-08-25 13:43:14.665: [ OCRRAW][2894404528]proprior: vote information on disk 0
(/opt/oracle/oradata/PRDRAC/crs/ora_ocr_raw100m) updated
```

```
[crsd(4883)]CRS-1006:The OCR location /opt/oracle/oradata/PRDRAC/crs/ora_ocr_raw100m_02 is inaccessible.
Details in /opt/oracle/product/10.1.0/crs/log/muc-dba04/crsd/crsd.log.
```

3.17 Testcase 17: Restore lost copy of OCR

Vorbereitung:

- Restore Procedure für OCR Kopie racnode2.intra

Erwartetes Resultat:

- Everything should continue to run without problems

BeispielResult:

```
[oracle@muc-dba04 bin]$ ./ocrcheck
Status of Oracle Cluster Registry is as follows :
  Version                :                2
  Total space (kbytes)   :            102184
  Used space (kbytes)    :             7956
  Available space (kbytes) :           94228
  ID                     :           945896861
  Device/File Name       : /opt/oracle/oradata/PRDRAC/crs/ora_ocr_raw100m
                        : Device/File integrity check succeeded
  Device/File Name       :
/opt/oracle/oradata/PRDRAC/crs/ora_ocr_raw100m_02
                        : Device/File needs to be synchronized with the
other device

Cluster registry integrity check succeeded

[root@muc-dba04 ~]# /opt/oracle/product/10.1.0/crs/bin/ocrconfig -replace ocrmirror
/opt/oracle/oradata/PRDRAC/crs/ora_ocr_raw100m_02
[root@muc-dba04 ~]# /opt/oracle/product/10.1.0/crs/bin/ocrcheck
Status of Oracle Cluster Registry is as follows :
  Version                :                2
  Total space (kbytes)   :            102184
  Used space (kbytes)    :             7956
  Available space (kbytes) :           94228
  ID                     :           945896861
  Device/File Name       : /opt/oracle/oradata/PRDRAC/crs/ora_ocr_raw100m
                        : Device/File integrity check succeeded
  Device/File Name       :
/opt/oracle/oradata/PRDRAC/crs/ora_ocr_raw100m_02
                        : Device/File integrity check succeeded

Cluster registry integrity check succeeded
```

3.18 Testcase 18: Lost one copy of voting disk

Vorbereitung:

- Starten der Workload auf PRDRAC
- Nach 5 Minuten: überschreiben von Raw Device von einer Voting Disk Kopie auf racnode2.intra

Beispiel:

```
[root@racnode2~]# /opt/oracle/product/10.2.0/crs/bin/crsctl query css votedisk
0. 0 /opt/oracle/oradata/PRDRAC/crs/ora_vote_raw_20m
1. 0 /opt/oracle/oradata/PRDRAC/crs/ora_vote_raw20m_02
2. 0 /opt/oracle/oradata/PRDRAC/crs/ora_vote_raw20m_03
```

```
[root@ racnode2~]# ls -al /opt/oracle/oradata/PRDRAC/crs/ora_vote_raw20m_03
lrwxrwxrwx 1 oracle dba 14 Jul 27 14:35 /opt/oracle/oradata/PRDRAC/crs/ora_vote_raw20m_03 ->
/dev/raw/raw22
```

```
dd if=/dev/zero of=/dev/raw/raw22<voting_raw>
```

Erwartetes Resultat:

- Everything should continue to run without problems

3.19 Testcase 19: Restore lost copy of voting disk

Vorbereitung:

- Restore Procedure für Voting Disk Kopie racnode2.intra

Erwartetes Resultat:

- SR# 5716029.993 says that adding (recovery is done via delete/add) is only possible with crs down in Linux.
Important: Never use "-force" while CRS is up!