

# One ATLAS RAC node down due to ORA-01033

## Impact

- ATLAS 3D DB RAC (Oracle 10.2.0.4) @ GridKa/DE-KIT running on only 1 node on Sep 8-17, 2009.

## Time line of the incident

- 07-Sep - Reboot of 1-st ATLAS node by DBA
- 08-Sep - Several restart attempts, finally stop of 1-st DB instance, streams propagation restarted on 2-nd instance by DBA
- 09-Sep - Service Request (SR) with Oracle opened by DBA
- 16-Sep - Reboot of 2-nd node for unknown reasons
- 17-Sep - Restart of 1-st instance and streams by DBA, SR closed by DBA

## Analysis

- The main issue was "ORA-01033: ORACLE initialization or shutdown in progress".
- Due to too many open sessions on the 1-st ATLAS node we rebooted it on Sep 7. After rebooting the DB was not properly open (was to be seen only in alertlog).  
===Alertlog===  
ALTER DATABASE OPEN  
Picked broadcast on commit scheme to generate SCNs  
Tue Sep 8 15:35:19 2009  
Sending CIC to internal enable redo thread  
Tue Sep 8 15:35:19 2009  
LGWR: STARTING ARCH PROCESSES  
ARC0 started with pid=27, OS id=12028  
Tue Sep 8 15:35:20 2009  
ARC0: Archival started  
ARC1: Archival started  
LGWR: STARTING ARCH PROCESSES COMPLETE  
ARC1 started with pid=28, OS id=12030  
Tue Sep 8 15:35:20 2009  
Thread 1 opened at log sequence 5587  
Current log# 9 seq# 5587 mem# 0: +DGDB1A/lcgdb1/onlinelog/log9.ora

```
Current log# 9 seq# 5587 mem# 1: +DGDB1A/lcgdb1/online/redo_9a.rdo
Successful open of redo thread 1
Tue Sep 8 15:35:20 2009
MTTR advisory is disabled because FAST_START_MTTR_TARGET is not set
Tue Sep 8 15:35:20 2009
ARC1: Becoming the 'no FAL' ARCH
ARC1: Becoming the 'no SRL' ARCH
Tue Sep 8 15:35:20 2009
ARC0: Becoming the heartbeat ARCH
Tue Sep 8 15:35:20 2009
SMON: enabling cache recovery
=====
```

“Completed: ALTER DATABASE OPEN” was missing, though:

```
SQL> select * from v$instance;
```

```
INSTANCE_NUMBER INSTANCE_NAME HOST_NAME VERSION STARTUP_T
STATUS PAR THREAD# ARCHIVE LOG_SWITCH_WAIT LOGINS SHU
DATABASE_STATUS INSTANCE_ROLE ACTIVE_ST BLO
```

```
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1 lcgdb11 f01-010-111-e 10.2.0.4.0 07-SEP-09 OPEN YES 1 STARTED ALLOWED
NO ACTIVE PRIMARY_INSTANCE NORMAL NO
```

We tried to restart the instance several times, but not successfully.  
From Sep 8, we stopped the 1-st instance and the DB only worked on the 2-nd node. Next day we opened the SR.

On Sep 16 the 2-nd node rebooted for unknown reasons (maybe network).  
Surprisingly, afterwards the DB started properly on both nodes and everything seems fine now.

Therefore, on Sep 17 we closed the SR.

## Follow up

- Not clear, but we suspect this problem to be an unexpected consequence of the Oracle July CPU that we applied on Aug 11. By a reboot of the nodes (one after the other) directly after patching maybe we would have noticed this issue already on Aug 11. We are discussing to re-open the SR to find the real cause (during the SR, the Oracle support was not very useful).