INFN-CNAF 3D Service Review

Distributed Database Operations Workshop 2010

CERN

16-17 November

CNAF Service Review

- Hardware resources

- 3D clusters details

- ASM Storage size and usage

- Other DBs

- Recent work and plans

Hardware resources

- Dell PowerEdge R610

  - 2x Xeon E5504 2.00 GHz quad core

  - 16 GB ram

  - 2x 146 GB SAS 10k disks (in RAID-1 for OS)

  - Qlogic 2462 FC 2 port HBA

  - Redundant power

- 3D services:

  - 3 clusters, 7 nodes

  - 5 DBs: ATLAS+LFC, LHCb+LFC, FTS

3D clusters details

- All 3D DBs are 10.2.0.4 on RH 5.5

- ATLAS: 3 nodes
  - Conditions, LFC
- LHCb: 2 nodes
  - Conditions, LFC

- FTS: 2 nodes
  - There is room to host another DB

ASM storage size and usage

DB	DATA SIZE	% USED	BACKUP SIZE	% USED
ATLAS COND	1 TB	45 %	1,3 TB	59 %
ATLAS LFC		3 %		5 %
LHCb COND	0,8 TB	2 %	0,9 TB	2 %
LHCb LFC		3 %		6 %
FTS (*)	1 TB	33 %	1,3 TB	49 %

EMC CX3-80 storage setup is unchanged from previous reports

* FTS DB needs cleanup of old data

Other DBs

- HW: Dell PE 2950, 4 cores, 8 GB ram, Qlogic 2462 FC HBA

- **Grid Console**:

  - 2 nodes RAC (repository)

  - 2 OMS/console (10.2.0.5) installed, one active, one stand-by

  - Hosts also the RMAN catalog

- **Lemon**:

  - 2 nodes RAC, room for another DB

- **Test RAC**: 2 nodes

- **CASTOR**:

  - 4 nodes RAC + 2 single instance

    Close to be decommissioned: the remaining non-LHC experiments are moving to TSM

Recent work and plans

- 2010:

  - Mostly we have consolidated LCG DBs on the newly acquired HW.
    - Many thanks to CERN for the DataGuard recipe, and to NDGF+RAL for the feedbacks, all was very useful for the migrations and for improving my knowledge
  - 11g Tuning followed at Oracle University (10g was no more avail.)

- Future:

  - ATLAS Frontier is planned to be installed soon
    - Hope it's not too late!!
  - Backup on TSM tested and working
    - Licenses still to be acquired, then it will be implemented
  - Better housekeeping and tuning of the DBs
  - Recovery exercises
  - CASTOR DBs switchoff