CNAF Database Service

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Overview

- Present CNAF – Tier1's HW Resources
- Oracle RAC scalability tests
- Database service in production

Present Database Service Organization

- Database group is composed by 3 people (almost 1 FTE).

- Database group is responsible for installing and administering all Oracle databases at CNAF and some databases used by experiments team for specific applications.

- LCG application's databases are maintained by LCG local group.

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CNAF Hardware Resources

- At present we have available 6 machines on site:
  - One HP Proliant DL380 G4 (dual Xeon 3,6 GHz, 4 GB RAM, 6 SCSI disks of 300 GB configured in RAID 0+1), in production for FTS DB.
  - Two IBM Xseries 330 (dual Xeon 3 GHz, 4 GB RAM, one 150 GB disk), in production
  - One dual Xeon 2,4 GHz, 2 GB RAM with two 60 GB disks for 3D replication tests
  - One dual Xeon 2,2 GHz, 2 GB RAM with two 20 GB disks, for Pisa's Oracle-MySQL replication tests
  - Two dual Xeon 3 GHz with HyperThreading, 2 GB RAM with two 60 GB disks, for tests

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Oracle 10g RAC Tests

- Aim: scaleup and speedup tests of RAC environment.
- Testbed: 8 SUN Fire V20z (dual AMD Opteron 2,6 GHz, 4 GB RAM, two 73GB SCSI disks, 2 Gigabit Ethernet Interfaces) connected to our Storage Area Network.
- SW: Scientific Linux 3, Oracle 10.2.0 + RAC on OCFS.
- Benchmark Factory (Quest) and Hammerora which run standard performance tests and help in data analisis.

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Oracle Database Service @ CNAF

- Database services in production:

  - FTS database (FTS-File Transfer Service, an high-level service as part of the gLite middleware),

  - Castor database,

  - PostgreSQL "Tier1 database". We plan to migrate it to the new HP server in few weeks,

  - in the future the HP server will host also the new Castor 2 stager database.

- Backup: Daily exports, Daily full backup and Archive log backup with RMAN (on tape with Legato for Castor database). We are evaluating the hypothesis to set up some standby databases (Data Guard configuration).

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