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Status of CASTOR

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Current Status (CASTOR)

- Most recent release concentrated on performance improvements
  - PrepareToGet requests and PutDone requests are no longer scheduled
  - Scheduler completely rewritten to use shared memory
  - Database deadlocks eliminated (at least not seen during testing)
- Release has been internally tested extensively and under simulated load by ATLAS
  - ATLAS now using this release on their production node.
  - Other experiments will be moved to this release in due course.

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Current Status (CASTOR)

- Database now moved to Oracle certified hardware for all instances
- Also running Oracle RAC
  - 'Real Application Cluster'
    - no single point of failure
    - increased scalability

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Current Status (SRM)

- Running versions at CERN and CNAF
  - RAL expected to come on-line 'soon'
- Basic and Use-Case tests seem stable
  - Occasional time-outs seen in GET requests due to load on back-end CASTOR instance
  - One recent instance of database procedure becoming invalid for unknown reason, but requests were still queued and processed when complete
- No Stress testing on CASTOR instance
  - Needed features in latest release to avoid excessive back-logs (unscheduled putDones and PrepareToGets)
  - Stress testing should have just started, or be starting soon now.

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Current Status (SRM)

- Tests against request size have been completed successfully by Alex Sim
  - no details at the moment

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Future Developments

- CASTOR
  - Integrate VOMS security into CASTOR core (GDB Meeting for details)
    - Will follow DPM Model but not likely before 2008
  - Further internal developments to support WLCG/SRM
    - weighted GC (under test)
      - closest thing to true pinning
    - removal of file per service class (required for ChangeSpaceForFiles - planned)
    - Full Disk1Tape0 support (planned)

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Future Developments

- SRM
  - Complete database internal garbage collection (under development)
  - Complete srmCopy
    - current version is working but unreliable.
    - New version designed but not yet implemented
      - works on subrequest rather than request level
      - Reduces possible load on castor back end
      - More responsive to small requests
      - Reuses code known to work in current implementation
  - Implement ChangeSpaceForFiles (planned)

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Other Business

- Extended VOMS support in SRM
  - Restrict access to svc classes by VO role
  - Other restrictions/permission TBD
- Quotas
  - Not planning to implement quotas since CASTOR does not allow dynamic space reservation by user.
  - Not high on CASTOR priority list.
- ACLs
  - Currently supported in CASTOR Nameserver
  - ACL interfaces in SRM implemented and working.