

Castor Databases Some Points for Discussion

Dirk Duellmann Distributed Database Workshop @ PIC, Barcelona, Spain 21st April 2009



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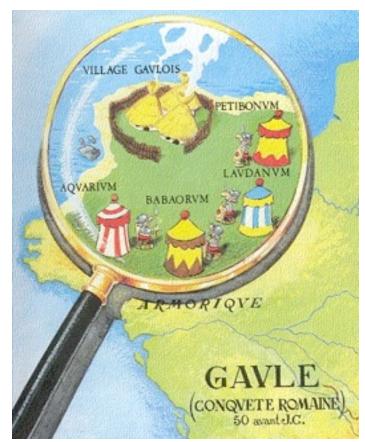
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Tuesday, 21 April 2009

Integration of CASTOR DB clusters into the 3D monitoring

- CERN**IT** Department
- All LCG Oracle Databases are part of the grid control monitoring...
 - ... apart from a small exception: CASTOR/SRM
- We should just fix that now!
- Can we have all RACs in the 3D OEM?





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Managing session and thread counts between database and CASTOR components

- CERN**IT** Department
- This is an old topic for experiment databases
 - we already went through the determination of safe numbers of connections via experiment test
- In case of CASTOR we need/can to tune two sides consistently
 - # thread configured in castor & srm daemons
 - # connections in the back-end DB cluster
- This should be managed deployment operation
 - documented which test are run and how to derive a safe number
 - repeated when new hardware configs become available
 - should be run at CERN for h/w deployed there
 - should be repeated at T1 in case h/w config differs
 - results shared among castor sites



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DB monitoring/alerting for reliable execution of PL/SQL database jobs

- CASTOR relies on several regular database jobs to
 - cleanup unused DB entries
 - recover from known deployment issues
- Failure to run these jobs can cause
 - performance degradation
 - requests waiting forever
- Need a reliable way to insure that jobs have actually run successfully.
 - Job execution may get stuck because of database configuration problems -> alert the DBA
 - Job execution may got stuck because of code problems -> bug report to castor developers
- Should establish common automated altering
 - Can we define a Grid Control bases alerts? Volunteers?



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T1-like DB setup at CERN to reproduce T1 DB problem

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- DB setups at Tier 1 sites are different from current DB deployment @ CERN
 - increased deployment risk for T1
 - difficulties for dev team to reproduce T1 problems
- Agreed already at last workshop on T1 like DB setup at CERN
 - 1. shared cluster for castor component DBs
 - 2. shared VO setup
 - DB cluster hardware is already available
- Propose to run release certification and experiment workload in this T1 testbed
 - Standard CASTOR release stress tests
 - Packaged ATLAS load test as part of STEP09?



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