

ATLAS & Service Challenges

Service Challenges Meeting

Taipei

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ATLAS & SC3



- ❑ ATLAS is highly interested to participate to SC3
 - Continue to test and validate its Computing Model
 - Pursue the integration of
 - Production system
 - ATLAS Data Management system (DonQuijote)
- ❑ Also interested in using COOL for the conditions data (calibration and alignment)

ATLAS & SC3: preparation phase



- ❑ "gLite FTS" has just been released
 - We intend to test it asap
 - We will still keep an eye on CMS PhEDEX
- ❑ Need to understand the SRM issues
 - We said already that SRMCopy is important for us
 - What about interoperability between different SRM servers?
- ❑ Plans (from now to July)
 - 1) Test CERN -> BNL transfer with "gLite FTS" (no Don Quijote)
 - 2) Test with FTS "within" DQ
 - 1) More file transfers; more sites
 - 3) More integration within DDM ready for July

ATLAS & SC3: preparation phase



- ❑ We see FTS as a service
- ❑ We want to use it (now) as it is, even if it is fairly simple and even if it has less functionality than DQ
 - Because it uses GridFtp and SRM
 - And we don't need to handle the GridFtp and SRM errors
- ❑ We don't foresee major integration issues
 - Both DQ and FTS have "transfer queues"
 - DQ will ask FTS to do the transfer
 - Later on we will handle the "priority" issues
- ❑ We want to test all kind of transfers
 - Disk -> Disk; Tape -> Disk; Disk-> tape; Tape-> Tape
 - With all kind of data (Dummy; small files as AOD; large files)
- ❑ At BNL
 - Somebody will take care of the installation; maintenance and testing
- ❑ For testing we don't need too much hardware resources (1 machine is probably enough)

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- In July
 - Scalability test
 - With "commissioning" (real) data if available
 - With "Rome Physics workshop" data
 - Small and large files

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□ September

- ATLAS release 11 (mid September)
 - Will include use of conditions data base and COOL
- We intend to use COOL for several sub-detectors
 - Not clear how many sub-detectors will be ready
 - Not clear as well how we will use COOL
 - Central COOL database or COOL distributed database
- Debug scaling for distributed conditions data access calibration/alignment, DDM, event data distribution and discovery
- TO exercise testing
- A dedicated server is requested for the initial ATLAS COOL service
- Issues on FroNtier are still under discussion and ATLAS is interested
- Data can be thrown away
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ATLAS and SC3



□ > Mid-October

- Service phase: becomes a production facility
- Scalability test
- Using more data and more sites
- Operations at SC3 scale producing and distributing useful data
- New DDM system deployed and operating
- Conduct distributed calibration/alignment scaling test
- Progressively integrate new tier centers into DDM system.

ATLAS and SC3



- ❑ > Mid-October; we intend to run:
 - Tier-0 exercise
 - Reconstruction at Tier-0 et production of ESD; AOD; Event collections
 - Data distributed from Tier-0 to Tier-1s then Tier-2s
 - Distributed Monte Carlo production
 - Data generated on Tier-2s, Tier-1s and are store on Tier-1s for permanent storage
 - Use of conditions database will be part of the "game"
 - Reprocessing
 - Run at Tier-1s, "where the data is".
 - But this will be done in the last months of 2005
 - For DC3 we need to produce "few" 10 Million events
- ❑ We don't forget analysis!

ATLAS & SC3: Summary



- ❑ April-July: Preparation phase
 - Test of FTS ("gLite-SRM")
 - Integration of FTS with DDM
- ❑ July: Scalability tests (commissioning data; Rome Physics workshop data)
- ❑ September: test of new components and preparation for real use of the service
 - Intensive debugging of COOL and DDM
 - Prepare for "scalability" running
- ❑ Mid-October
 - Use of the Service
 - Scalability tests of all components (DDM)
 - Production of real data (MonteCarlo; Tier-0; ...)
- ❑ Later
 - "continuous" production mode
 - Re-processing
 - Analysis