Physics Database Services Resource Allocation for CCRC'08

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Current DB Resources at Tier0

Experiment	Prod RACs (# nodes)	Integ/test RACs (# nodes)	Streams
ALICE	pdbr (4)	test1 (4)	
ATLAS	atlr (6) atonr (6)	intr (2) int8r (2)	Cond (atlr->t1) PVSS (atonl->atlr)
CMS	cmsr (8)	int2r (2) int9r (2)	Cond (oncon->cmsr)
LHCb	lhcbr (6)	int12r (2)	Cond, LFC (lhcbr->t1)
WLCG	lcgr (8)	int11r (2) Int6r (2)	

Levels of Support at Tier0

- 24x7 on-call team on "best effort" basis
- 8x5 support for streams, with a redo log retention of 5 days to cover weekends
  - Can be extended if there is a streams problem like now
- Need to revisit this within the scope of the WLCG "critical services" review
- Clear metrics by which to judge the production readiness of all aspects of the service need to be agreed!
  - Too late for February; must start to discuss for May

3D Database Resource Request and Current Predictions

LCG

	Dual CPU DB Nodes	DB Storage [TB usable]	
Request	no change wrt GDB Nov'05		
Conditions Challenges (April - Jul)	3	0.3	ATLAS: COOL + TAGs
	2	0.1	LHCb: COOL+ LFC r/o replica
Predictions	next review after initial CDC phase (eg May)		
Dress Rehearsals (Jul-Nov)	3	0.3	ATLAS: 4GB on 64bit DB server
	2	0.1	LHCb: 2 LFC r/o servers in place
	expect resource upgrade: double storage and CPU review		
LHC Startup (from Nov)	3+x	1.0	ATLAS
	2+y	0.3	LHCb
from June 2008		0.2 + 1.4	ATLAS COOL +
2009		0.5 + 3.7	TAGS at volunteer Tier-1 sites
nominal year		0.8 + 6.0	(BNL, TRIUMF, ...)

Updated Request from ATLAS

- More information at
- https://twiki.cern.ch/twiki/bin/view/Atlas/DatabaseVolumes

Year	Total (TB)	TAGS (TB)	COOL (TB)
2007	1.3	1.0	0.3
2008	5.2	4.5	0.7
2009	12.3	11.0	1.3
2010	24.3	22.0	2.3

No major Change until August

Rough Estimates of CMS DB Resources
March 2007 through August 2007

Area (CMS contact)	Disk Maximum (GB)	Concurrent Users Peak usage	Transactions Peak usage (Hz)
Online P5	500	20	10
Offline Conditions Tier-0 (CMSR)	500 (DB) 100 (per Squid) 2-3 Squids	10 (DB)* 10 (Squid) * Incl. On2off Xfer	10 (DB)* 10 (Squid) * Incl. On2off Xfer
Offline Conditions Tier-1 (each site)	100 (per Squid) 2-3 Squids/site	10(per Squid) >100 Σ all sites	10 per (Squid) >100 Σ all sites
Offline DBS Tier-0 (CMSR)	20	10 (currently ~2)	10 (currently ~5)

- Do you expect any DB storage volume or DB server allocations/re-prioritisation to be required wrt to the database resources allocated at Tier 0?

  - Same question for Tier 1

- When do you expect your experiments CCRC workload to impact (in a significant way) on databases services at Tier 0 ?

  - Same question for Tier 1

- LHCb (P. Charpentier): CCRC'08 will not put any extra load on the databases (ConditionsDB or LFC) than regular activities. We plan to register ~1500 files per day in the LFC and production activities went up to 9,000 without problems. For February the ConditionsDB will not be used, and we are discussing what will happen in May

- Waiting for input from the other experiments