



News about LHC startup, Grid status discussion

ALICE-LCG TF
September 4, 2008

LHC startup

- Official start date – 10 September 2008
- The exact accelerator programme is not yet known
 - There will be a period of injection
 - Followed by tuning
 - Colliding beams – probably not on 10/09
- ALICE detectors on standby, ready to take data immediately after the injection is over
 - Initial energy – 900 GeV CMS – this is the SPS top energy x2
 - Trigger on bunch crossing (random event sampling)
 - Large fraction of empty events expected

LHC startup (2)

- Event rate – very high, event size – varying, depending on detector performance and beam conditions
- RAW data treatment
 - Replication to T1 for all raw collected
 - Replication on standby, will be activated on Monday 08 September
 - Reconstruction – all runs collected in ‘Global partition’, pass 1 at CERN and depending on data volume, at T1
 - Reconstruction with new AliRoot release (in preparation)

LHC startup (3)

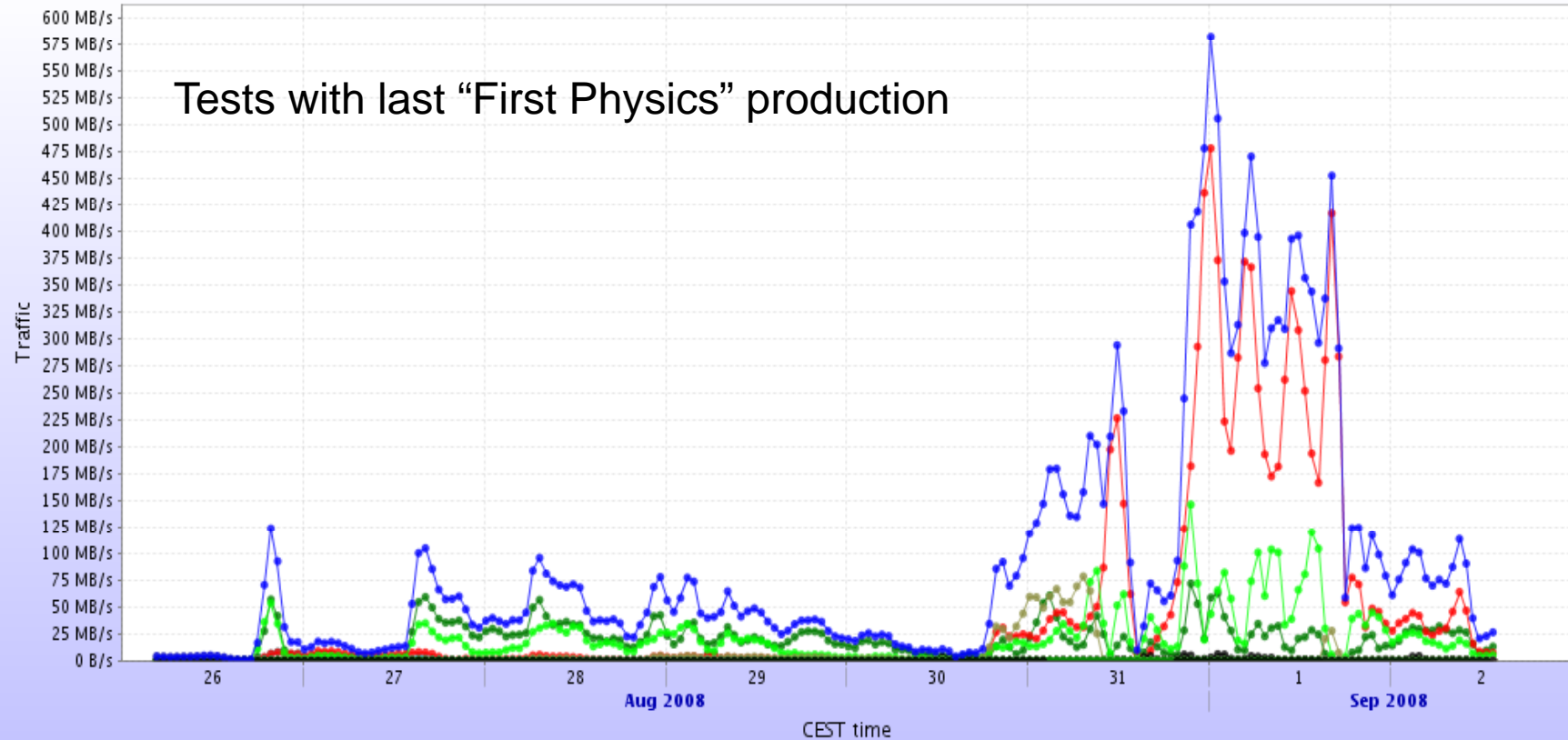
- ESD treatment
 - Stored at the production centre + one more T1 (T2)
 - Replicated to CAF
- Pressure to reconstruct the data will be **very high**
- **Single point of concern – storage elements availability and stability**

SE status

Storage elements														
SE Name	AliEn name	SE Status	Size	Used	Free	Usage	No. of files	Type	add	ls	get	whereis	rm	
1. Bari - dCache	ALICE::Bari::dCache	OK	9.77 TB	1.223 TB	8.547 TB	12.52%	-	SRM	Sep ...	Last...	Last...	Last...	Last...	
2. Catania - DPM	ALICE::Catania::DPM	OK	45.63 TB	45.63 TB	2 KB	100%	-	SRM	Sep ...	Last...	Last...	Last...	Last...	
3. CCIN2P3 - dCache	ALICE::CCIN2P3::dCache	OK	90.84 TB	18.66 TB	72.18 TB	20.54%	-	SRM	Sep ...	Last...	Last...	Last...	Last...	
4. CCIN2P3 - dCache_sink	ALICE::CCIN2P3::dCache_sink	OK	838.2 TB	33.27 TB	804.9 TB	3.969%	-	SRM	Sep ...	-	-	-	-	
5. CCIN2P3 - dCache_tape	ALICE::CCIN2P3::dCache_tape	OK	838.2 TB	32.21 TB	806 TB	3.843%	-	SRM	Sep ...	Last...	Last...	Last...	Last...	
6. CERN - C2PPS	ALICE::CERN::C2PPS	OK	-	5.855 GB	-	-	-	CASTOR	Last...	Last...	Last...	Last...	Last...	
7. CERN - Castor2	ALICE::CERN::Castor2	OK	931.3 TB	518.4 TB	412.9 TB	55.66%	19,856,146	CASTOR						
8. CERN - Castor2X	ALICE::CERN::Castor2X	OK	931.3 TB	45.37 GB	931.3 TB	0.005%	-	CASTOR	Sep ...	Last...	Last...	Last...	Last...	
9. CERN - DPM	ALICE::CERN::DPM	Not responding	-	-	-	-	-		Sep ...	-	-	-	-	
10. CERN - se	ALICE::CERN::se	OK	20.01 PB	5.767 TB	20 PB	0.028%	2,208,106	File						
11. CNAF - Castor2	ALICE::CNAF::Castor2	OK	30.73 TB	26.38 TB	4.353 TB	85.84%	-	CASTOR						
12. CNAF - CASTOR2_sink	ALICE::CNAF::CASTOR2_sink	OK	931.3 TB	114 TB	817.3 TB	12.24%	-	CASTOR						
13. FZK - dCache	ALICE::FZK::dCache	OK	211.9 TB	3.626 TB	208.2 TB	0.856%	-	SRM	Sep ...					
14. FZK - dCache_sink	ALICE::FZK::dCache_sink	OK	1.364 PB	52.28 TB	1.313 PB	1.871%	-	SRM	Sep ...					
15. FZK - dCache_tape	ALICE::FZK::dCache_tape	OK	1.364 PB	25.72 TB	1.339 PB	0.921%	-	SRM	Sep ...					
16. GSI - dCache	ALICE::GSI::dCache	OK	953.7 GB	953.7 GB	9.052 MB	100%	148,815	SRM	Sep ...	Last...	Last...	Last...	Last...	
17. GSI - se	ALICE::GSI::se	OK	35.01 TB	30.59 TB	4.417 TB	87.38%	-	SRM						
18. GSI - se_tactical	ALICE::GSI::se_tactical	OK	27.94 TB	207.8 GB	27.74 TB	0.726%	-	SRM	Sep ...	Last...	Last...	Last...	Last...	
19. ISS - File	ALICE::ISS::File		-	-	-	-	-		Sep ...	Last...	Last...	Last...	Last...	
20. ITEP - DPM	ALICE::ITEP::DPM	OK	23.44 TB	13.46 GB	23.42 TB	0.056%	-	SRM	Sep ...	-	-	-	-	
21. JINR - dCache	ALICE::JINR::dCache	OK	51.76 TB	893.3 GB	50.89 TB	1.685%	-	SRM						
22. Legnaro - dCache	ALICE::Legnaro::dCache	OK	18.9 TB	13.04 TB	5.853 TB	69.03%	-	SRM						
23. Madrid - DPM	ALICE::Madrid::DPM	OK	4.102 TB	0.877 GB	4.101 TB	0.021%	-	SRM						
24. NDGF - dcache	ALICE::NDGF::dcache	OK	68.36 TB	22.7 TB	45.66 TB	33.2%	-	SRM						
25. NDGF - dCache_sink	ALICE::NDGF::dCache_sink	OK	838.2 TB	130.6 TB	707.5 TB	15.59%	-	SRM						
26. NDGF - dCache_tape	ALICE::NDGF::dCache_tape	OK	24.21 TB	35.94 GB	24.18 TB	0.145%	-	SRM						
27. NIHAM - File	ALICE::NIHAM::File	OK	117.2 TB	42.23 TB	74.96 TB	36.04%	5,585,069	File						
28. PNPI - DPM	ALICE::PNPI::DPM	OK	27.34 TB	31 GB	27.31 TB	0.111%	-	SRM						
29. Prague - Disk	ALICE::Prague::Disk	OK	1.267 TB	1.267 TB	1 KB	100%	1,220	File	Sep ...	Last...	Last...	Last...	Last...	
30. Prague - Disk2	ALICE::Prague::Disk2	OK	19.4 TB	9.372 TB	10.03 TB	48.31%	-	File						
31. RAL - Castor2	ALICE::RAL::Castor2	OK	931.3 TB	0.343 GB	931.3 TB	0%	-	CASTOR	Last...	-	-	-	-	
32. RAL - Castor2_sink	ALICE::RAL::Castor2_sink	OK	90.95 PB	0.351 GB	90.95 PB	0%	-	CASTOR	Last...	-	-	-	-	
33. RRC-KI - DPM	ALICE::RRC-KI::DPM	OK	113.3 TB	3.113 TB	110.2 TB	2.748%	-	SRM						
34. SARA - dcache	ALICE::SARA::dcache	Not responding	-	-	-	-	-		Sep ...	-	-	-	-	
35. SARA - dCache_sink	ALICE::SARA::dCache_sink	Not responding	-	-	-	-	-		Sep ...	-	-	-	-	
36. SARA - dCache_tape	ALICE::SARA::dCache_tape	Not responding	-	-	-	-	-		Sep ...	-	-	-	-	
37. SPbSU - DPM	ALICE::SPbSU::DPM	OK	5.402 TB	37.14 GB	5.365 TB	0.672%	-	SRM						
38. Subatech - DPM	ALICE::Subatech::DPM	OK	40.04 TB	9.517 TB	30.52 TB	23.77%	-	SRM						
39. Torino - DPM	ALICE::Torino::DPM	OK	16.78 TB	3.58 TB	13.2 TB	21.33%	-	SRM						
Total		39	120.7 PB	1.119 PB			27,799,356							

SE performance

Site Incoming Traffic



- SUM — Incoming_Aalborg — Incoming_Bari — Incoming_BITP — Incoming_Bologna — Incoming_Bratislava — Incoming_Cagliari — Incoming_Catania — Incoming_CERN
- Incoming_CERN_gLite — Incoming_Clermont — Incoming_CNAF — Incoming_CSC — Incoming_Cyfronet — Incoming_FZK — Incoming_FZK-PPS — Incoming_Grenoble
- Incoming_GRIF_DAPNIA — Incoming_GSI — Incoming_IHEP — Incoming_IPNO — Incoming_ISS — Incoming_ITEP — Incoming_JINR — Incoming_Jyvaskyla — Incoming_KFKI
- Incoming_KISTI — Incoming_KNU — Incoming_Legnaro — Incoming_Madrid — Incoming_Muenster — Incoming_NDGF — Incoming_NIHAM — Incoming_NIKHEF
- Incoming_OSC — Incoming_PNPI — Incoming_Poznan — Incoming_Prague — Incoming_RAL — Incoming_RRC-KI — Incoming_SINP — Incoming_SPbSU
- Incoming_Subatech — Incoming_Torino — Incoming_UIB — Incoming_UNKNOWN

SE performance (2)

- Incoming tested up to 10x the expected rate
- Preliminary conclusion – limited by bandwidth or network latency (failed transfers if network loaded)
- Do not expect that this will be the case on the first day (from ALICE)
- **Summary – if the SE is operational, it can handle the load**

Startup programme

- T1 sites – must be in working order
- T2 sites – all sites with a SE must be in working order
- Replication tests on Monday
- Automatic reconstruction with new AliRoot
- Remaining issues
 - Access to storage at CCIN2P3 – ongoing discussion
 - All regional experts – please take all messages from MonALISA alerts service seriously