

The ALICE Critical Services

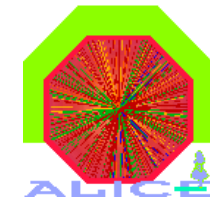


Patricia Méndez Lorenzo

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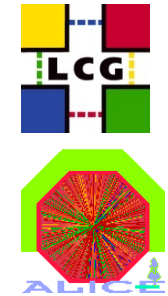
CCRC`08 Post-mortem

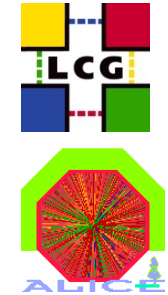
CERN, 13th June 2008



Outlook

- The List of the Critical Services
- The ranking
- Status during the CCRC`08
- Monitoring the services





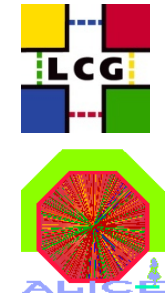
The List of Critical Services

- ALICE Wiki: <http://twiki.cern.ch/twiki/bin/view/ALICE/CCRC08>

Rank	Definition	Max downtime (hrs)
10	Critical	2
7	Serious disruption	8
5	Reduced efficiency	12

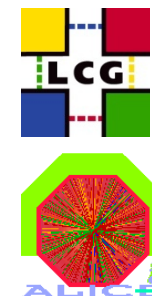
Service	Rank	Comment
Site VO boxes	10	If restored within 2 hours - no loss of jobs
CASTOR2+xrootd@T0	10	Same as above
MSS@T1s	5	
FTS T0->T1	7	Will affect primarily second pass reconstruction at T1s
gLite WMS or RB	5	Failover mechanism 1/3 used, efficiency will be affected if all 3 fail
PROOF@CAF	5	Especially relevant during daytime

The Ranking



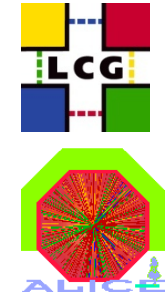
Service	Rank	Reason
Site VO-boxes	10	Vo-box is the entry point to a site. All Alice site services are running inside, including transfer agents.
CASTOR2+xrootd@T0	10	Primary storage for RAW data from P2 to Castor2 at CERN, reconstruction pass1, FTS transfer to T1s
MSS@T1s	5	Replica RAW and 1st pass reconstructed data containers
FTS T0->T1	7	RAW and reconstructed (ESDs) data movement
gLite WMS or RB	5	Failover mechanism uses a list of RBs or WMS per site. Efficiency will be seriously damaged only if all components of the list fail
PROOF@CAF	5	The 'express line' calibration and analysis tasks at CERN

Status during the CCRC`08 (I)



- **Site VO-boxes**

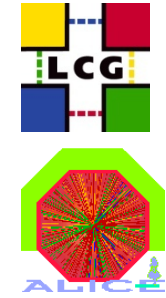
- Good reaction of sites and fast recovery in case of problems
 - During the Feb exercise the FTS T0-T1 transfers were a central task, enabling the stability tests of VO-boxes@T1
- After Run-II in Feb (CCRC`08-I) - migration of all VO-boxes to SL(C)4+gLite3.1 version was defined as major task
 - Use WMS at as high as possible number of sites
 - New version of AliEn (v.2-15), full migration of applications to SLC4 (gcc.3.4.6)
 - 'Native' 64-bit submission on sites with 64-bit WNs - gLite 3.1 VO-box suite on x86_64 required
- **Task finished: Sites migrated, tested and certified ✓**



Status during the CCRC`08 (II)

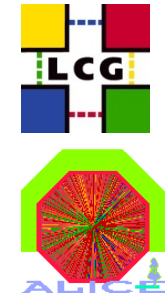
- **Castor2+xrootd@T0**
 - Excellent performance of the storage
 - Quick upgrades, agreed with the Castor team, minimal downtimes
- **MSS@T1**
 - Fundamental role during the new Run-III exercise (Pass 2 reconstruction)
 - Stable behavior at all T1 sites
 - **dCache**: CCIN2P3, GridKA, NDGF, NL-T1
 - **CASTOR2**: CERN, CNAF, RAL (still being set-up, FTS access OK)
- **FTS T0->T1**
 - Fully tested
 - The target rate of 60MB/sec was achieved, average over 3 weeks was **125MB/sec**
 - Tests going on up to Run-III
 - Using the previous v2-14 Alien version

Status during the CCRC`08 (III)



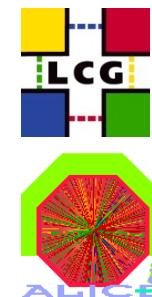
- **gLite WMS**
 - Good, stable WMS performance
 - deployed at T0/1s and T2s (CERN, RDIG, France)
 - RB still predominant method of submission
- **PROOF@CAF – ‘express line’ calibration/analysis**
 - In production for prompt analysis and especially calibration, O(40) users, 5 PWGs
 - Integrated with Grid storage – primary source of data for CAF
 - MC for first physics (Grid produced) staged and analyzed by physics task force in preparation for first LHC data.
- **Storage+xrootd@T2**
 - dCache and DPM+xrootd installation ongoing at T2 sites (more than 15 SEs at present)
 - MC production results, user files and user data analysis

Monitoring the Critical Services (I)



Service Name	MonALISA	GridMap	Dashboard	GridView	SAM
VO box	✓	✓			✓
Castor2 +xrootd@T0	✓	✓			
FTS T0-T1	✓	✓	✓	✓	
Glite WMS or RB	✓				✓
PROOF@CAF	✓	✓			

Monitoring with MonALISA



<http://alimonitor.cern.ch/>

MSS
 Voboxes
 SAM
 (WMS and RB)
 FTS
 CAF
 Thursday, June 12, 2008

ALICE Repository

MonALISA Repository for ALICE

MonALISA
 MONitoring Agents using a Large
 Integrated Services Architecture

Repository Home Administration Section ALICE Reports Events XML Feed Firefox Toolbar MonALISA GUI

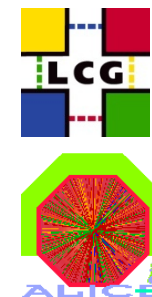
Global view
 AllEn Services: History of sites' status (efficiency) | Detailed history for each site
 LCG Services: History of sites' status (efficiency) | Detailed history for each site

VOBOX.AllEn services status

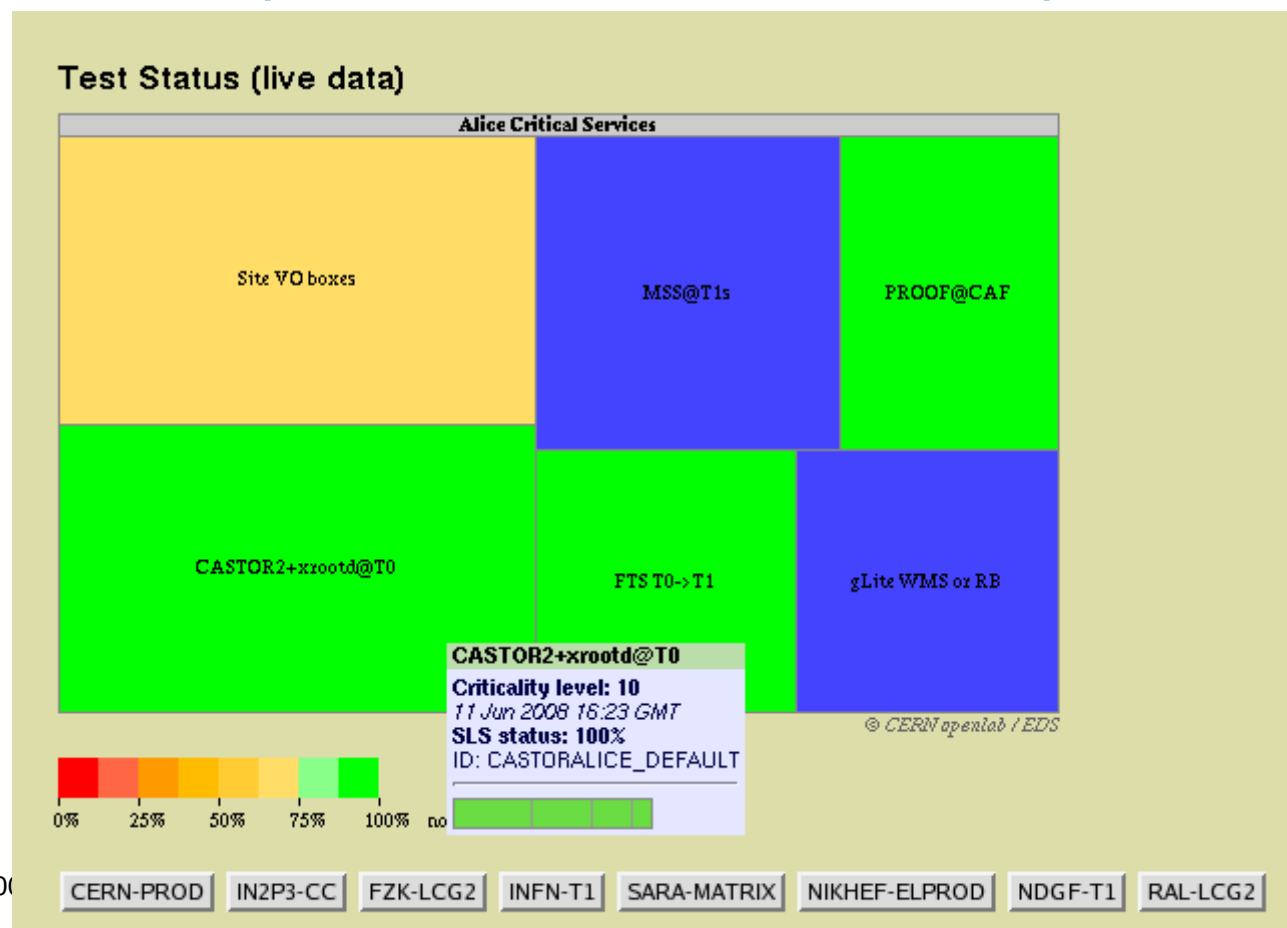
What is this about?

Service	Address	AllEn version	Monitoring script	AllEn services				
				CE	SE	PackMan	Monitor	FTD
1. Aalborg	francis.grid.aau.dk	v2-15.5	-	-	-	-	-	-
2. Athens	vob01.athena.hellasgrid.gr	v2-15.2	-	-	-	-	-	-
3. Bari	alicegrid6.ba.infn.it	v2-15.2	-	-	-	-	-	-
4. Birmingham	epcf01.ph.bham.ac.uk	v2-15.2	-	-	-	-	-	-
5. BITP	alice9.bitp.kiev.ua	v2-15.3	-	-	-	-	-	-
6. Bologna	boalice6.bo.infn.it	v2-15.2	-	-	-	-	-	-
7. Cagliari	vobox.ca.infn.it	-	-	-	-	-	-	-
8. Catania	vobox.ct.infn.it	v2-15.3	-	-	-	-	-	-
9. CCIN2P3	cclogalice.in2p3.fr	-	-	-	-	-	-	-
10. CERN	allendb4.cern.ch	v2-15.3	-	-	-	-	-	-
11. CERN-L	voalice06.cern.ch	v2-14.67	-	-	-	-	-	-
12. CERN_gLite	voalice03.cern.ch	v2-14.67	-	-	-	-	-	-
13. CERN_HLT	alhlt-vobox0.cern.ch	-	-	-	-	-	-	-
14. CERN_lrgate	lrgate38.cern.ch	-	-	-	-	-	-	-
15. CERNMAC	alimacx01.cern.ch	-	-	-	-	-	-	-
16. Clermont	clrvoboxalice.in2p3.fr	v2-15.2	-	-	-	-	-	-
17. CNAF	u01-alice.cr.cnaf.infn.it	Timeout af...	-	-	-	-	-	-
18. CSC	alice-vobox.csc.fi	v2-15.2	-	-	-	-	-	-
19. CyberSar_Cagliari	vobox-cybr.ca.infn.it	-	-	-	-	-	-	-
20. Cyfronet	alice.grid.cyf-kr.edu.pl	v2-15.2	-	-	-	-	-	-
21. DCSC_KU	172.20.1.6	v2-15.2	-	-	-	-	-	-
22. Florence	tullo.math.unifi.it	v2-15.2	-	-	-	-	-	-
23. FZK	alice-fzk.gridka.de	-	-	-	-	-	-	-
24. Grenoble	lpsc-vobox.in2p3.fr	v2-15.8	-	-	-	-	-	-
25. GRIF_DAPNIA	node21.datagrid.cea.fr	v2-15.2	-	-	-	-	-	-
26. GSI	schgrid1.gsi.de	v2-15.8	-	-	-	-	-	-
27. Houston	login2.tkc2.uh.edu	v2-15.21	-	Down...	-	-	-	-
28. IC	uagrid.org.ua	v2-15.2	-	-	-	-	-	-
29. IHEP	vobox0001.m45.ihep.su	v2-15.4	-	-	-	-	-	-

Monitoring Gridmap



<http://servicemap.cern.ch/ccrc08/servicemap.html>



Thursday, June 12, 2008

Monitoring SLS



Service Level Status overview

Home	Search	KPIs	Tags	Admin	Documentation	Help
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Search for services 11 Jun 2008 Wed 18:33:58

Search results [link to this search](#)

service status unknown (info expired)

c2alicedlfd

Service Level Status overview

- ALICE CAF
- RB : ...
- srn- ...
- WM ...
- ALICE ...
- c2al ...
- ALICE ...

Home	Search	KPIs	Tags	Admin	Documentation	Help
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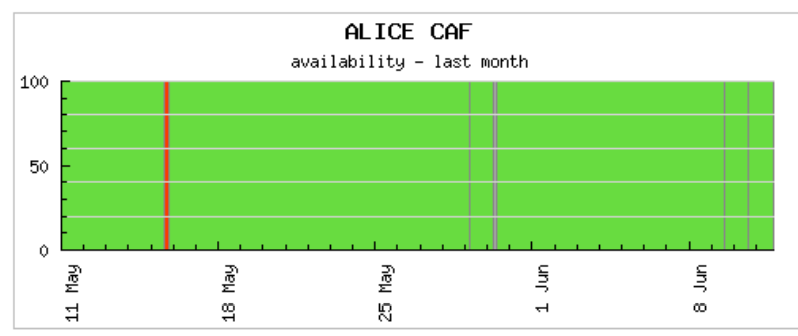
ALICE CAF 11 Jun 2008 Wed 18:38:00

Service More on availability in the last month

name: **ALICE CAF**
[back to service details](#)

Menu

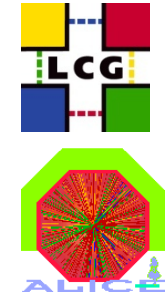
see details of:
Service availability
 for the period of:
[last 24 hours](#)
[last week](#)
[last month](#)



SLS by CERN IT/FIO

SLS by CERN IT/FIO

SLS.Support@cern.ch



Conclusions

- The set of critical services for ALICE is well established
 - Criticality is based on computing model and operational experience
- Services shows good quality and stability
 - Outages are handled fast, downtimes are within tolerances before 'major disruption' status is reached
- Communications between VO and sites is good
 - Many channels and forums exist to facilitate information flow, new 'express channels' are being prepared
 - Responsiveness of the sites is in 'steady state'
- Good (and multiple) monitoring tools for the services status are in production
 - Quite often the variety of tools helps to pinpoint a problem a single test system will not show