



LHCb and site availability



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■ Sources of information

- dedicated jobs (SAM jobs)

- check site capabilities

- SW repository access rights
- sgm account mapping
- platform, deployed middleware (lcg-utils version)

- installs LHCb software

- from a list of current releases of applications
- installation on the SW repository (shared area)

- runs test applications

- simulation, digitisation, reconstruction
- analysis

- dedicated tests (cron jobs)

- FTS transfers (full matrix)
- SRM tests (response time)

- information gathered by operations

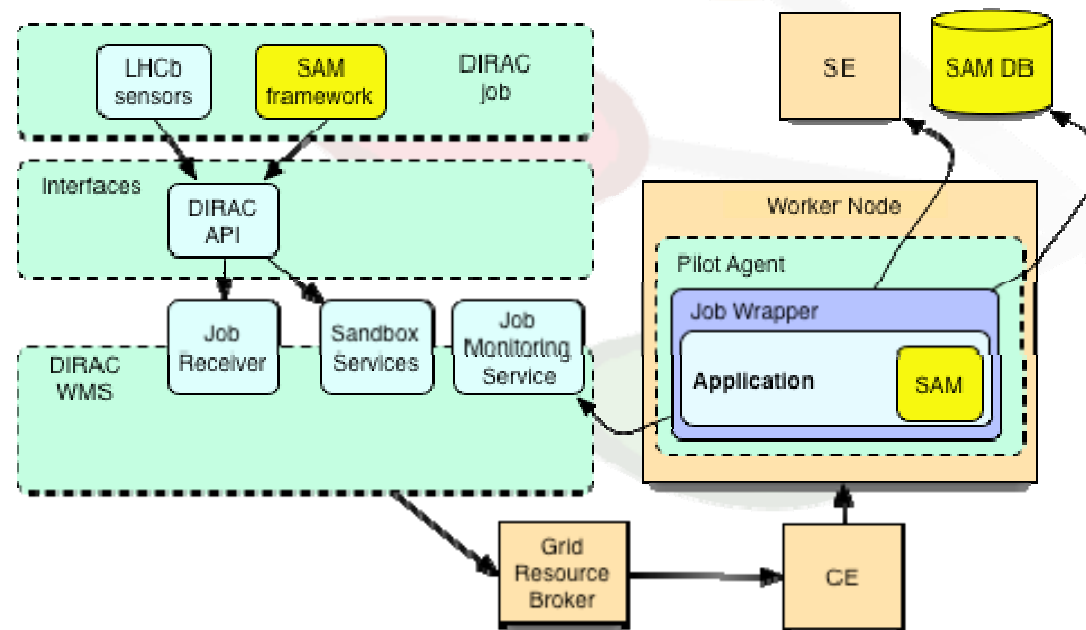
- SE performance (staging time, SRM response)
- transfer error analysis

critical

**not yet in
production**



- Submitted through DIRAC
 - target all CEs accepting LHCb jobs
 - reports to the SAM DB
 - uploads logfiles to the DIRAC log system





LHCb SAM CE test results

Tests Displayed				lhc tests						
lhc				show	stat	description	sum	testname	desc	crit
CE-apel-pub CE-apel-sync CE-apel-test CE-cms-basic CE-cms-cmswver CE-cms-dummy CE-cms-frontier				<input checked="" type="checkbox"/>	NA	no status available	0	LHCb CE-lhcb-install	LHCb SAM CE-lhcb-install	CT
				<input checked="" type="checkbox"/>	OK	normal status	50	LHCb CE-lhcb-job-Boole	LHCb SAM CE-lhcb-job-Boole	CT
				<input checked="" type="checkbox"/>	INFO	useful information	2	LHCb CE-lhcb-job-Brunel	LHCb SAM CE-lhcb-job-Brunel	CT
				<input checked="" type="checkbox"/>	NOTE	important information	0			
				<input checked="" type="checkbox"/>	WARN	subject may fail soon	2			

History

No	Timestamp (submission time)	Status	lhc					
			LHCb CE-lhcb-queues	LHCb CE-lhcb-job-Gauss	LHCb CE-lhcb-job-Brunel	LHCb CE-lhcb-job-Boole	LHCb CE-lhcb-install	LHCb CE-lhcb-os
1	03-Dec-2007 12:43:27	OK	na	na	ok	na	na	na
2	03-Dec-2007 12:43:22	OK	na	na	na	ok	na	na
3	03-Dec-2007 12:43:18	OK	na	ok	na	na	na	na
4	03-Dec-2007 12:43:13	OK	na	na	na	na	ok	na

No	Site	Timestamp	Status	Message
5		03-Dec-2007 12:4		***** * SAM / DIRAC Job OS Test v1.0 * *****
6		03-Dec-2007 12:4		*****
7		01-Dec-2007 06:5		Voms proxy info: subject : /DC=ch/DC=cern/OU=Organic Units/OU=Users/CN=castella/CN=525694/CN=Gianluca Castellani/CN=proxy/CN=proxy/CN=limited proxy
8		01-Dec-2007 06:5		issuer : /DC=ch/DC=cern/OU=Organic Units/OU=Users/CN=castella/CN=525694/CN=Gianluca Castellani/CN=proxy/CN=proxy
9	South	01-Dec-2007 06:5		identity : /DC=ch/DC=cern/OU=Organic Units/OU=Users/CN=castella/CN=525694/CN=Gianluca Castellani/CN=proxy/CN=proxy
10	South	01-Dec-2007 06:5		type : limited proxy
11	South	01-Dec-2007 06:5		strength : 512 bits
12	Cen	01-Dec-2007 06:5		path : /tmp/globus-tmp.td218.30664.0
13	Cen	30-Nov-2007 13:0		timeleft : 119:54:44
14		30-Nov-2007 13:0		=== VO lhcb extension information === VO : lhcb subject : /DC=ch/DC=cern/OU=Organic Units/OU=Users/CN=castella/CN=525694/CN=Gianluca Castellani issuer : /DC=ch/DC=cern/OU=computers/CN=lcg-voms.cern.ch attribute : /lhcb/Role=lcgadmin/Capability=NULL attribute : /lhcb/Role=NULL/Capability=NULL timeleft : 119:54:44
15		30-Nov-2007 13:0		-----
16		30-Nov-2007 13:0		-----
17		30-Nov-2007 13:0		-----
18		30-Nov-2007 13:0		Local Account Mapping: uid=26001(lhsgm001) gid=50050(lhsgm) groups=1470(lhcb),50050(lhsgm)
19		30-Nov-2007 01:0		-----
20		30-Nov-2007 01:0		RPM for lcg_util: 1.5.2
21		30-Nov-2007 01:0		-----
22		30-Nov-2007 01:0		Running test job in /scratch2/pbs/3405925.pbs01.pic.es/globus-tmp.td218.30664.0/WMS_td218_031136_https_3a_2f_2frb123.cern.ch_3a9000_2fx_5ff2aw1B4biyoQ07a3kOgw/work/117358
23		30-Nov-2007 01:0		0 /bin/sh: edg-brokerinfo: command not found
24		30-Nov-2007 01:0		0 ce07.pic.es SAM Node Name is ce07.pic.es CMTCONFIG: slc4_ia32_gcc34

Logfile

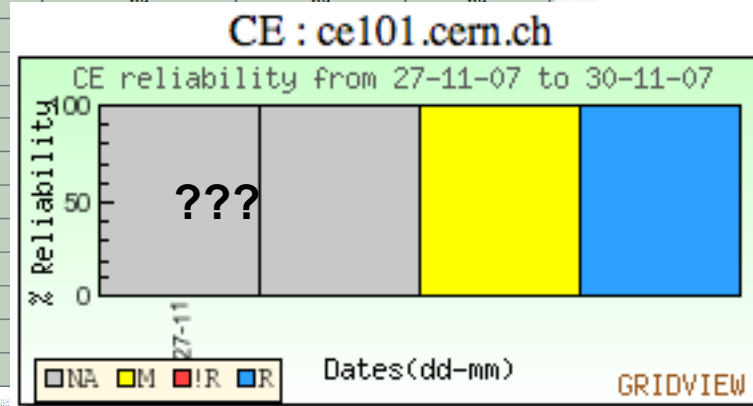
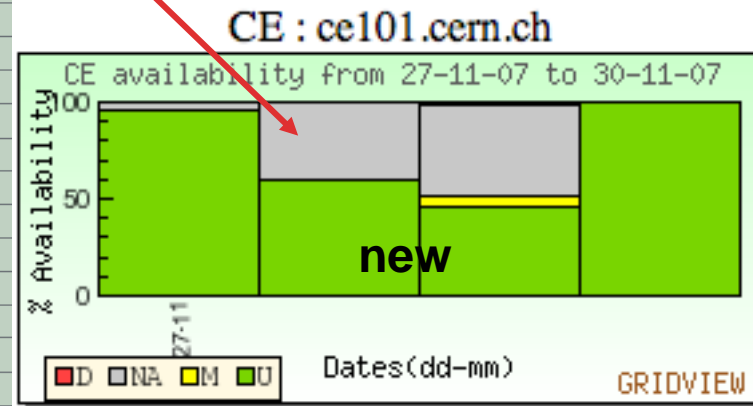
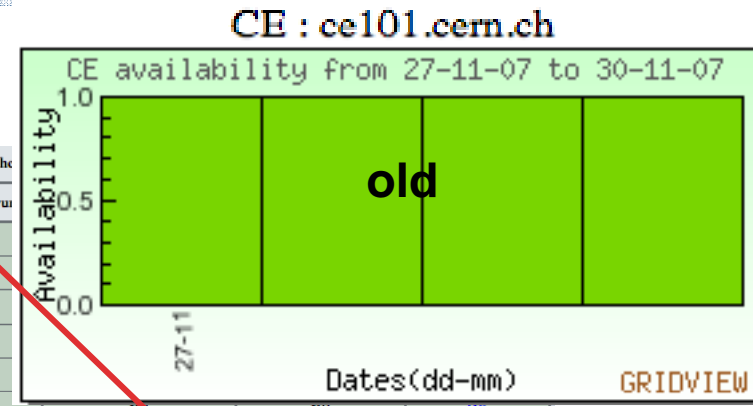




GridView of results

Missing test on 28-11: state NA for 24h

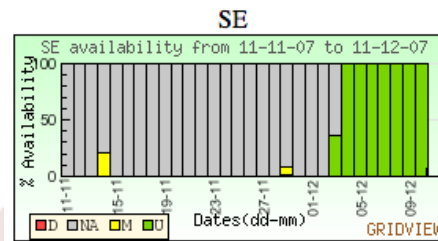
No	Timestamp (submission time)	Status	lhc		
			LHCb CE-lhcb-queues	LHCb CE-lhcb-job-Gauss	LHCb CE-lhcb-job-Brui
1	30-Nov-2007 13:02:25	OK	na	na	ok
2	30-Nov-2007 13:02:23	OK	na	na	na
3	30-Nov-2007 13:02:20	OK	na	ok	na
4	30-Nov-2007 13:02:17	OK	na	na	na
5	30-Nov-2007 13:02:15	OK	ok	na	na
6	30-Nov-2007 13:02:13	OK	na	na	na
7	30-Nov-2007 01:05:51	OK	na	na	ok
8	30-Nov-2007 01:05:49	OK	na	na	na
9	30-Nov-2007 01:05:48	OK	na	ok	na
10	30-Nov-2007 01:05:46	OK	na	na	na
11	30-Nov-2007 01:05:45	OK	ok	na	na
12	30-Nov-2007 01:05:43	OK	na	na	na
13	29-Nov-2007 12:50:56	OK	na	na	ok
14	29-Nov-2007 12:50:54	OK	na	na	na
15	29-Nov-2007 12:50:52	OK	na	ok	na
16	29-Nov-2007 12:50:51	OK	na	na	na
17	29-Nov-2007 12:50:49	OK	ok	na	na
18	29-Nov-2007 12:50:47	OK	na	na	na
19	27-Nov-2007 14:22:20	OK	na	na	ok
20	27-Nov-2007 14:22:16	OK	na	na	na
21	27-Nov-2007 14:22:12	OK	na	ok	na
22	27-Nov-2007 14:22:07	OK	na	na	na
23	27-Nov-2007 14:22:03	OK	ok	na	na
24	27-Nov-2007 14:21:59	OK	na	na	na
25	27-Nov-2007 00:53:50	OK	na	na	ok
26	27-Nov-2007 00:53:46	OK	na	na	na
27	27-Nov-2007 00:53:43	OK	na	ok	na
28	27-Nov-2007 00:53:39	OK	na	na	na
29	27-Nov-2007 00:53:34	OK	ok	na	na
30	27-Nov-2007 00:53:29	OK	na	na	na





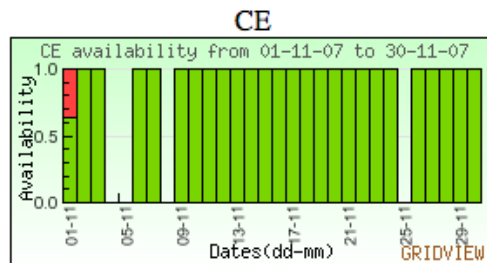
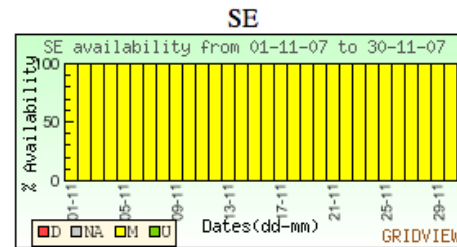
GridView info / graphs

- Currently only CE reports
- Have to fake “OK” results for SE and SRM (since last week)
 - otherwise result is unpredictable (with new alg)

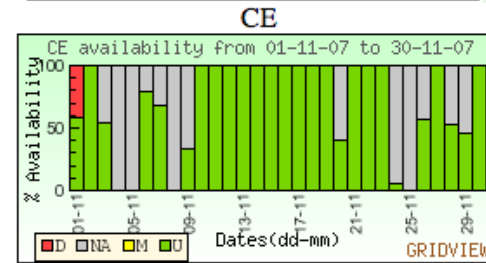


- sometimes information strange (not related to our tests)

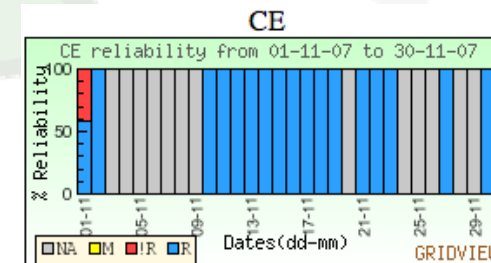
availability for site:IN2P3-CC V



old



new





- How to restrict Tier1's to those relevant?
- Why are NIKHEF and SARA two Tier1's?
 - Should be NIKHEF CE with SARA SE
- SE and SRM states should NOT be the "OR" of instances
 - for a site to be usable, we need all SEs and SRMs to be available
 - how can we define those that we need for a given VO
 - more generally: would it be possible to define the logic?
 - should there be CE, SE and SRM and only those?
 - e.g. how to include availability of VO services (LFC, VOBOXes)?
- Ergonomics of the queries
 - Menus are not really convenient ;-)
 - Selecting time ranges cumbersome (limit to 31 days!)



LHCb tests in SAM-DB

- SAM-DB keeps knowledge of all past tests
- Clean-up needed!
- Have to simulate fake tests (OK) for missing tests
 - rigid framework...
- Latency problem:
 - sometimes jobs take days to be submitted
 - but we can't want to bypass standard submission ;-)
 - result: n/a state
- Problems on our side
 - some errors are persistent
 - when installation fails, it is recurrent (SW should be properly un-installed)
 - c.f. IN2P3... sorry!

Service	Node	Test Name	Test VO	Test Help	Critical	Status						
						na	ok	info	note	warn	error	crit
		Service Status				[Progress bar: 00 04 08 12 16 20]						
		CE-lhcb-install	LHCb		Y	[Progress bar: 00 04 08 12 16 20]						
		CE-lhcb-job-Boole	LHCb		Y	[Progress bar: 00 04 08 12 16 20]						
		CE-lhcb-job-Brunel	LHCb		Y	[Progress bar: 00 04 08 12 16 20]						
		CE-lhcb-job-Gauss	LHCb		Y	[Progress bar: 00 04 08 12 16 20]						
		CE-lhcb-os	LHCb		Y	[Progress bar: 00 04 08 12 16 20]						
		CE-lhcb-queues	LHCb		Y	[Progress bar: 00 04 08 12 16 20]						
		CE-lhcb	LHCb	?	N	[Progress bar: 00 04 08 12 16 20]						
		CE-lhcb-job-DaVinci	LHCb		N	[Progress bar: 00 04 08 12 16 20]						
		CE-lhcb-remove	LHCb		N	[Progress bar: 00 04 08 12 16 20]						
		CE-lhcb_Boole	LHCb	?	N	[Progress bar: 00 04 08 12 16 20]						
		CE-lhcb_Brunel	LHCb	?	N	[Progress bar: 00 04 08 12 16 20]						
		CE-lhcb_DaVinci	LHCb	?	N	[Progress bar: 00 04 08 12 16 20]						
		CE-lhcb_Gauss	LHCb	?	N	[Progress bar: 00 04 08 12 16 20]						
		CE-lhcb_dirac	LHCb	?	N	[Progress bar: 00 04 08 12 16 20]						
		CE-lhcb_queues	LHCb	?	N	[Progress bar: 00 04 08 12 16 20]						
		CE-lhcb_software	LHCb	?	N	[Progress bar: 00 04 08 12 16 20]						
CE	ce101.cern.ch	CE-sft-brokerinfo	LHCb	?	N	[Progress bar: 00 04 08 12 16 20]						
		CE-sft-caver	LHCb	?	N	[Progress bar: 00 04 08 12 16 20]						



SAM Storage tests (in preparation)

- Why are SE and SRM two different entities?
 - assume SRM is just the service (no data access)
 - SE is related to data access
- State of SE and SRM at a site should not be an “OR” of all instances
 - define VO-related critical services
 - make an “AND” of SE / SRM services
 - files are registered within an SE, not sufficient that one works
 - “OR” is OK for CEs provided they see the same batch system
- Sensors
 - SRM response time
 - FTS test transfers
 - Operations information
 - file access, staging, transfer errors



- FTS transfers

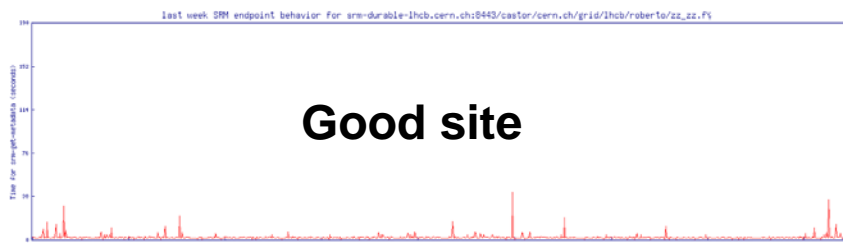
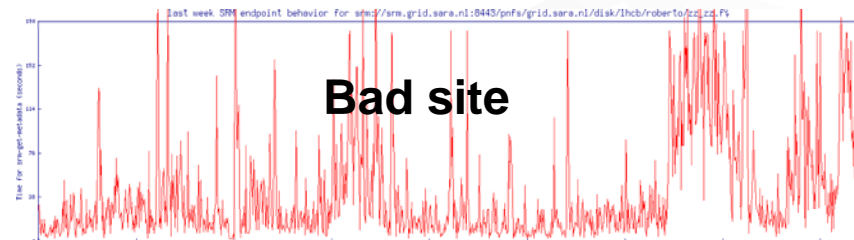
T1 to T1 channels status: FTS tests. Last update Tue Nov 27 16:51:45 2007

SITE DESTINATION	SITE SOURCE						
	IN2P3	PIC	CNAF	RAL	SARA	FZK	CERN_TAPE
IN2P3	No LOG	log	log	log	log	log	log
PIC	log	No LOG	log	log	log	log	log
CNAF	log	log	No LOG	log	log	log	log
RAL	log	log	log	No LOG	log	log	log
SARA	log	log	log	log	No LOG	log	log
FZK	log	log	log	log	log	No LOG	log

- SRM response time

SRM health status : srm-get-metadata response time (secs). Last update Tue Nov 27 17:50:18 2007

	IN2P3	PIC	CNAF	RAL	SARA	FZK	CERN
DISK	166	2	1	2	23	3	1
TAPE	150	2	1	4	3	3	2





- LHCb using SAM jobs
 - report to SAM DB
 - used to install SW and test site capabilities
- ... but
 - a lot of effort needed for tuning test
 - interpreting results
 - logging information (logbook)
 - allowing monthly reports
 - history plots of critical test results would be very useful
 - as a service state is the “AND” of all tests
 - better flexibility from SAM framework needed
 - define logic (e.g. define critical services in addition to critical tests)
 - SE / SRM should be an “AND” of critical services
 - few cosmetics in GridView
 - define correctly Tier1s for a VO
 - ergonomics of the interface (but matter of taste!)