

PIC
port d'informació
científica

Site Testing Tutorial

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Site Testing Tutorial

Have to review current situation with proper tools. Tools might be improved in the near future.

In the pages below I'm using tools which were already discussed in either various talks or in the previous tutorials (ex. BigPanDA by Michal Svatos).

There are two major overlapping views.

Sites view

Shifters view

Tools production/maintenance is a very important job.

Big Thanks to all developers/participated parties!

Sites view

Important tools for site admins.

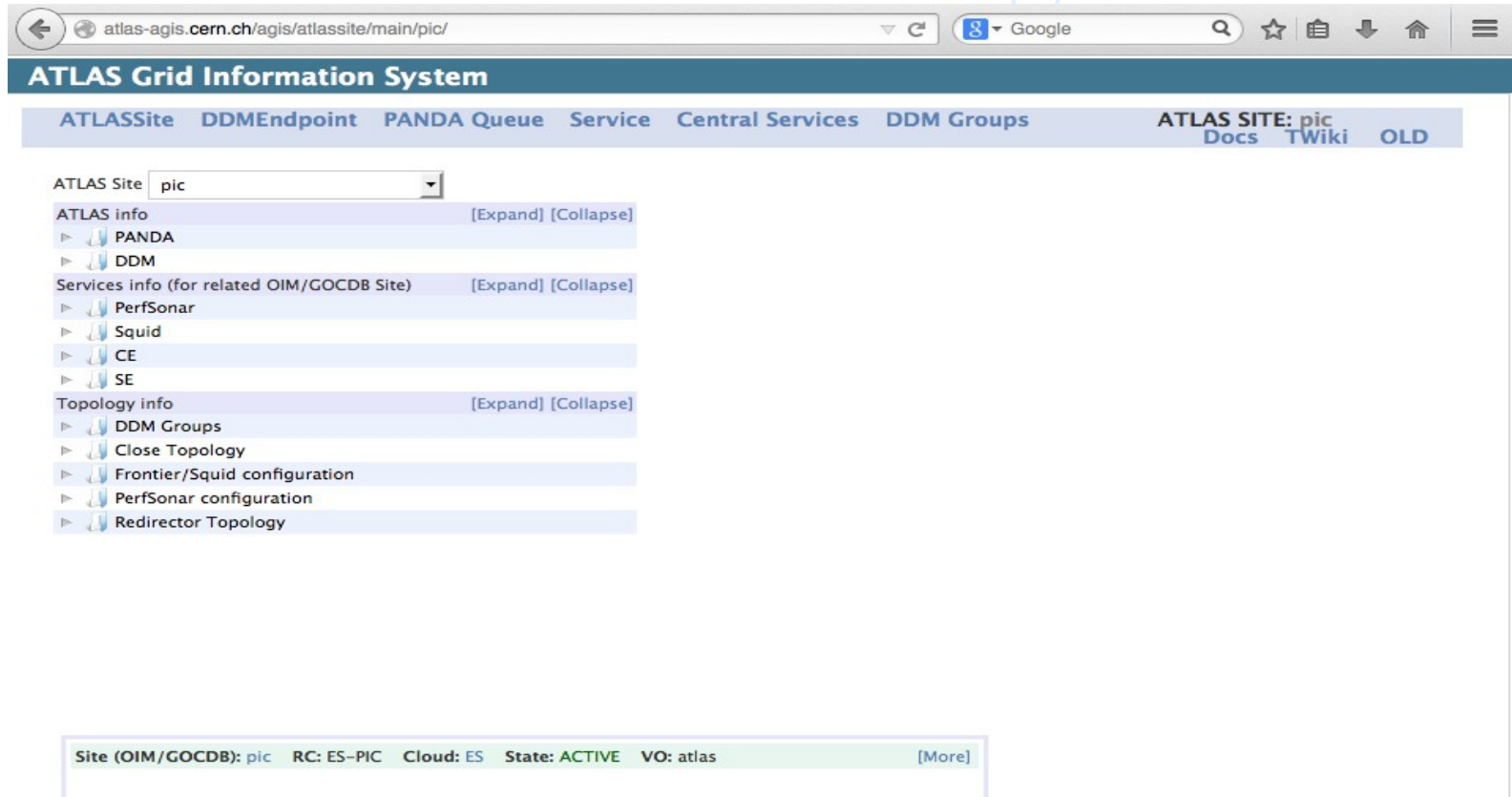
Tools for setup and tests :

- AGIS
- SAM3

Automatic testing/blacklisting tools :

- SAAB
- HammerCloud tests

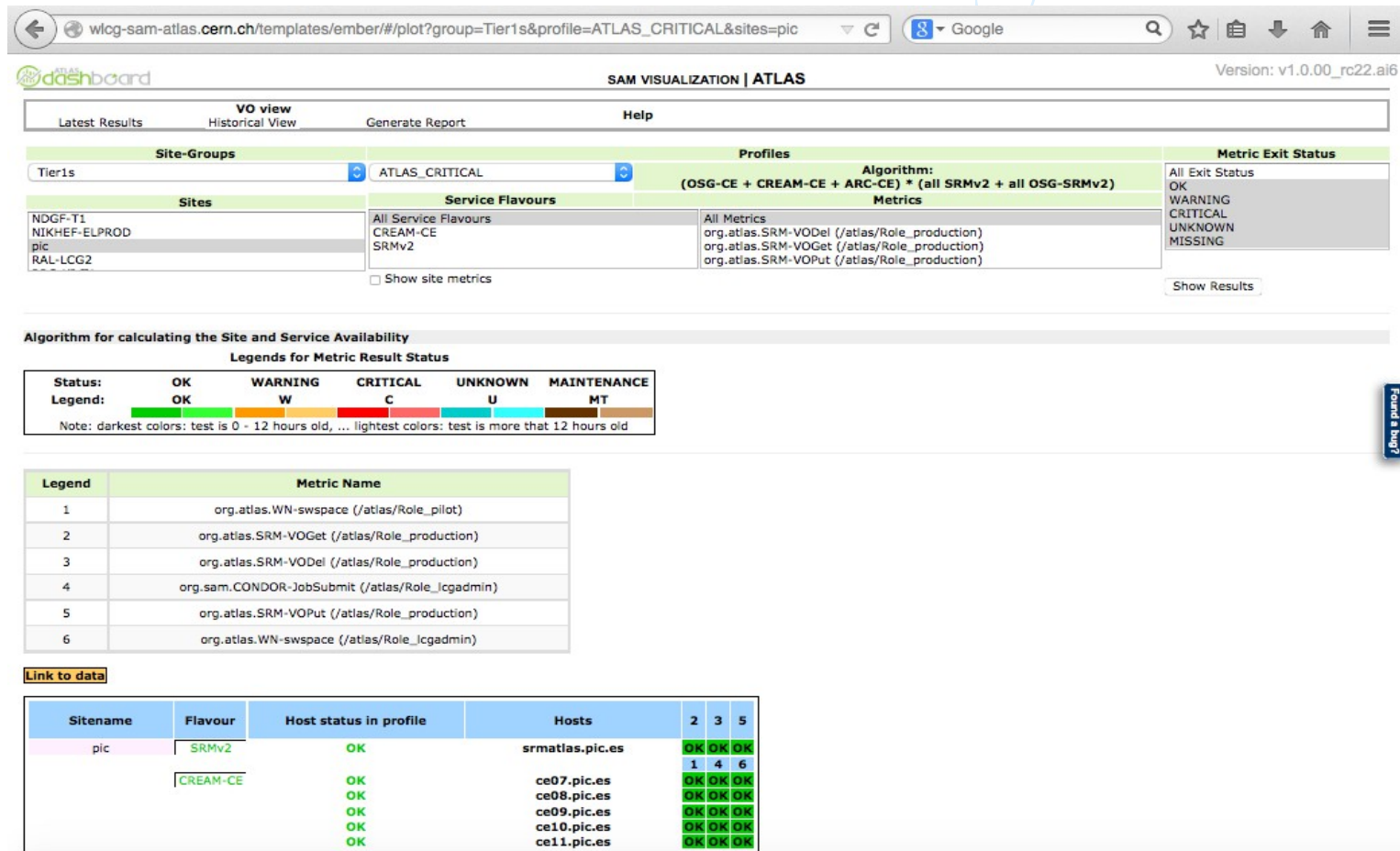
AGIS ATLASite Info



The screenshot shows a web browser window with the URL atlas-agis.cern.ch/agis/atlassite/main/pic/. The page title is "ATLAS Grid Information System". The navigation bar includes links for "ATLASite", "DDMEndpoint", "PANDA Queue", "Service", "Central Services", and "DDM Groups". On the right, it says "ATLAS SITE: pic" with links for "Docs", "TWiki", and "OLD". A dropdown menu for "ATLAS Site" is set to "pic". The main content area has several expandable sections: "ATLAS info" (with "Expand" and "Collapse" buttons), "PANDA", "DDM", "Services info (for related OIM/GOCDB Site)" (with "Expand" and "Collapse" buttons), "PerfSonar", "Squid", "CE", "SE", "Topology info" (with "Expand" and "Collapse" buttons), "DDM Groups", "Close Topology", "Frontier/Squid configuration", "PerfSonar configuration", and "Redirector Topology". At the bottom, a status bar shows: "Site (OIM/GOCDB): pic RC: ES-PIC Cloud: ES State: ACTIVE VO: atlas [More]".

AGIS Information is used for site tests and site (or cloud) admins should be able to modify it, <http://atlas-agis.cern.ch/agis/atlassite/main/pic/> .

SAM3 tests



Dashboard URL: wlcg-sam-atlas.cern.ch/templates/ember/#/plot?group=Tier1s&profile=ATLAS_CRITICAL&sites=pic

Version: v1.0.00_rc22.ai6

Navigation: Latest Results | **VO view** | Historical View | Generate Report | Help

Configuration:

- Site-Groups: Tier1s
- Profiles: ATLAS_CRITICAL
- Algorithm: (OSG-CE + CREAM-CE + ARC-CE) * (all SRMv2 + all OSG-SRMv2)
- Sites: NDGF-T1, NIKHEF-ELPROD, pic, RAL-LCG2
- Service Flavours: CREAM-CE, SRMv2
- Metric Exit Status: All Exit Status, OK, WARNING, CRITICAL, UNKNOWN, MISSING

Algorithm for calculating the Site and Service Availability

Legends for Metric Result Status

Status:	OK	WARNING	CRITICAL	UNKNOWN	MAINTENANCE
Legend:	OK	W	C	U	MT

Note: darkest colors: test is 0 - 12 hours old, ... lightest colors: test is more that 12 hours old

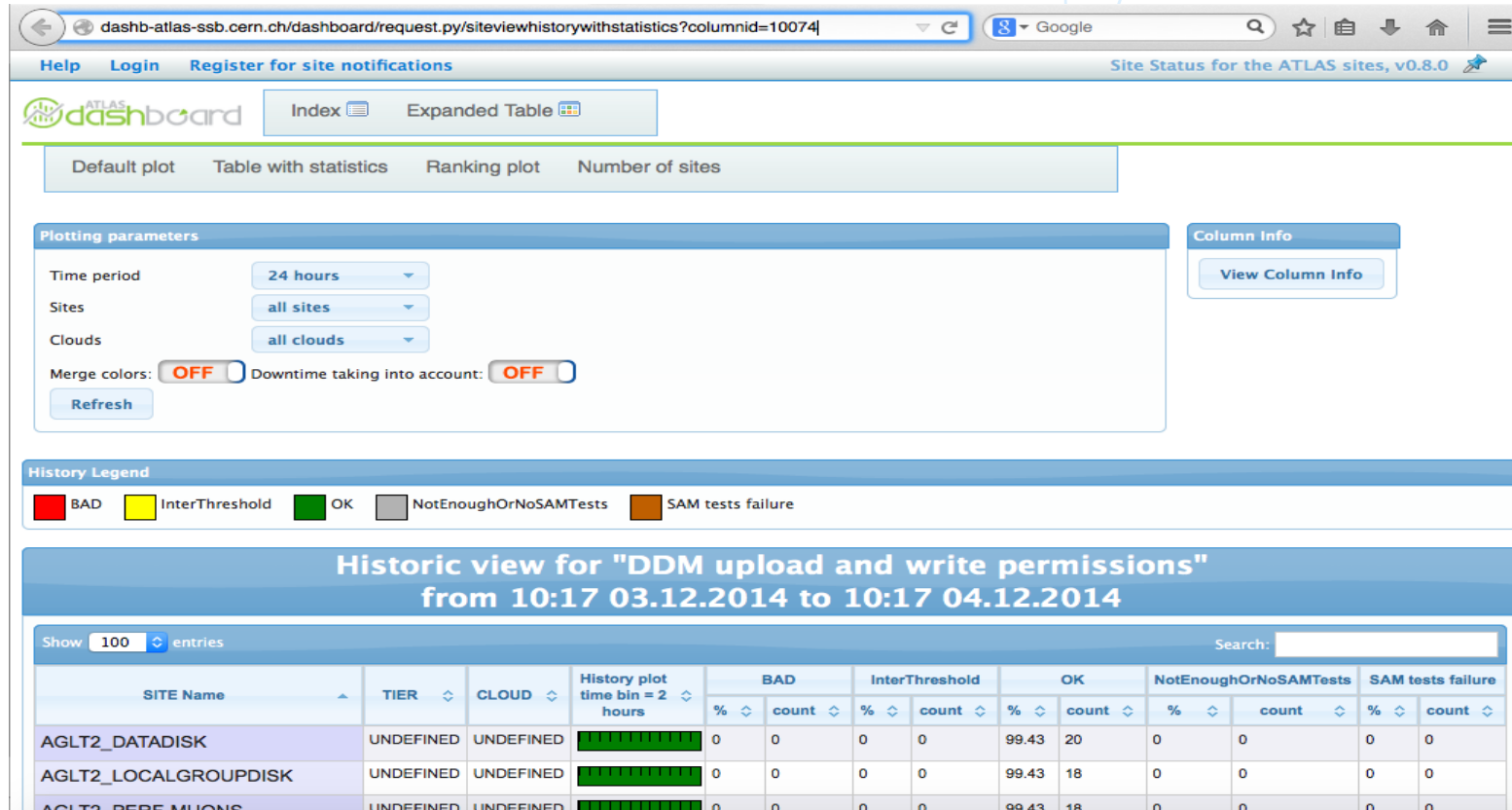
Legend	Metric Name
1	org.atlas.WN-swspace (/atlas/Role_pilot)
2	org.atlas.SRM-VOGet (/atlas/Role_production)
3	org.atlas.SRM-VODEl (/atlas/Role_production)
4	org.sam.CONDOR-JobSubmit (/atlas/Role_icgadmin)
5	org.atlas.SRM-VOPut (/atlas/Role_production)
6	org.atlas.WN-swspace (/atlas/Role_icgadmin)

Link to data

Sitename	Flavour	Host status in profile	Hosts	2	3	5
pic	SRMv2	OK	srmatlas.pic.es	OK	OK	OK
				1	4	6
	CREAM-CE	OK	ce07.pic.es	OK	OK	OK
			ce08.pic.es	OK	OK	OK
			ce09.pic.es	OK	OK	OK
			ce10.pic.es	OK	OK	OK
			ce11.pic.es	OK	OK	OK

<http://wlcg-sam-atlas.cern.ch/templates/ember/#/> - new SAM tests are in place since October (with usual Latest and Historical views)

SAAB



<http://dashb-atlas-ssb.cern.ch/dashboard/request.py/siteviewhistorywithstatistics?columnid=10074> – monitoring page above.

<https://twiki.cern.ch/twiki/bin/viewauth/AtlasComputing/StorageAreaAutomaticBlacklisting> - StorageAreaAutomaticBlacklisting TWiki

AGIS : DDM Blacklisting

atlas-agis.cern.ch/agis/ddmblacklisting/list/

ATLAS Grid Information System

ATLASSite DDMEndpoint PANDA Queue Service Central Services DDM Groups **DDM blacklisting data**
Docs TWiki OLD

Last updated time: DDMCollector: 04 Dec 11:40:08 (Geneva)

ATLAS Site	DDMEndpoint	Status					
		Delete	Fetch	Read	Subscription	Upload	Write
CERN-PROD	CERN-PROD_DAQ					manual	
	CERN-PROD_TZERO					manual	
IllinoisHEP	ILLINOISHEP_DATADISK		manual	manual		manual	manual
	ILLINOISHEP_LOCALGROUPDISK		manual	manual		manual	manual
	ILLINOISHEP_PRODDISK		manual	manual		manual	manual
	ILLINOISHEP_USERDISK		manual	manual		manual	manual
RO-07-NIPNE	RO-07-NIPNE_LOCALGROUPDISK					DISKSPACE	DISKSPACE
RRC-KI-T1	RRC-KI-T1_DATADISK	AGIS	AGIS	AGIS		AGIS	AGIS
	RRC-KI-T1_SCRATCHDISK	AGIS	AGIS	AGIS		AGIS	AGIS
TRIUMF-LCG2	TRIUMF-LCG2-MWTEST_SCRATCHDISK						manual
Taiwan-LCG2	TAIWAN-LCG2_PPSSCRATCHDISK		manual	manual			
UKI-LT2-QMUL	UKI-LT2-QMUL_PERF-JETS					DISKSPACE	DISKSPACE
	UKI-LT2-QMUL_PHYS-TOP					DISKSPACE	DISKSPACE
UKI-SOUTHGRID-OX-HEP	UKI-SOUTHGRID-OX-HEP_LOCALGROUPDISK					DISKSPACE	DISKSPACE
ifae	IFAE_PHYS-TOP					DISKSPACE	DISKSPACE

DDMBlacklisting JSON API

1. To retrieve data in JSON or permission (activity) value

- `http://atlas-agis/ddmendpointstatus`
- `http://atlas-agis/ddmendpointstatus[ON|OFF]`
- `http://atlas-agis/ddmendpointstatus[ON|OFF]&activity=`

Examples,
The equivalents of DQ2 blacklist

DQ2.listWhitelisted
--- `http://atlas-agis/ddmendpointstatus?activity=w&preset=DQ2.listWhitelisted`

DQ2.listBannedLocations
--- `http://atlas-agis/ddmendpointstatus?activity=w&preset=DQ2.listBannedLocations`

example
--- `http://atlas-agis/ddmendpointstatus/list/?json&preset=provider=DISKSPACE`

<http://atlas-agis.cern.ch/agis/ddmblacklisting/list/> replaced decommissioned corresponding Bourricot page.

HammerCloud

HammerCloud | ATLAS

Home	Tests	Robot	Overviews	PanDA Dashb.	More HC...	Help	Administration
------	-------	-------	-----------	--------------	------------	------	----------------

« Back

Robot for Oct 06, 2014



SWTCH to list -- SWITCH to statistics -- SWITCH to jobs

Switch backend:

PanDA-Analysis PanDA-Production Nordu LCG

PanDA-Analysis

CANADAPANDA

ANALY_AUSTRALIA	ANALY_IAAS	ANALY_IAAS_TEST ?	ANALY_MCGILL	ANALY_NECTAR	ANALY_SCINET	ANALY_SCINET_TEST ?	ANALY_SFU
ANALY_TRIUMF	ANALY_TRIUMF_PPS	ANALY_VICTORIA	ANALY_VICTORIA_TEST				

FZKPANDA

ANALY_CSCS ?	ANALY_CYF	ANALY_DESY-HH ?	ANALY_DESY-HH_TEST ?	ANALY_DESY-ZN	ANALY_DESY-ZN_XRD ?	ANALY_DRESDEN ?	ANALY_FMPH-UNIBA
ANALY_FREIBURG	ANALY_FZK ?	ANALY_FZK_SHORT ?	ANALY_FZU ?	ANALY_FZU_RUCIOTEST ?	ANALY_FZU_TEST	ANALY_GOEGRID ?	ANALY_HEPHY-UIBK ?
ANALY_IEPSAS-Kosice	ANALY_LRZ	ANALY_LRZ_TEST ?	ANALY_MPPMU	ANALY_PSNC ?	ANALY_wuppertalprod ?		

<http://hammercloud.cern.ch/hc/app/atlas/robot/> - current page,
<https://twiki.cern.ch/twiki/bin/view/IT/HammerCloudATLASViews> - TWiki

Shifters view

Shifter need to check for site problems. If there are no obvious explanations of those problems and the problem can be solved by site admins, then shifter should open GGUS **TEAM** ticket to site with site name mentioned in the subject and with CC to cloud support (atlas-adc-cloud-[CLOUD]@cern.ch).

Issues discussed below :

- Overall site issues
- Specific WN problems
- Site or task problem?

Ticket should be issued only if it helps to solve the problem!

Overall site issues

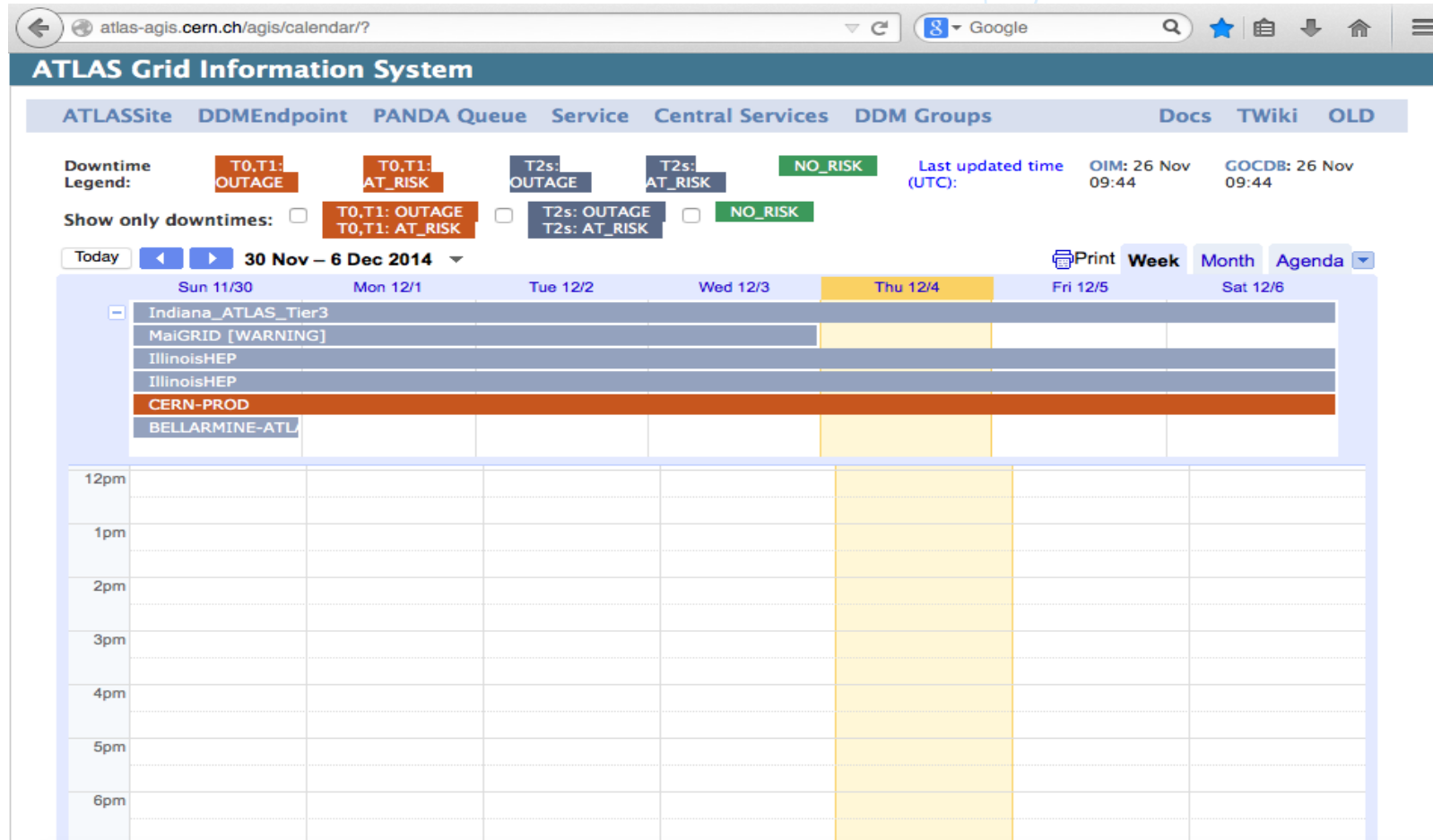
Shifter can observe failed transfers to/from site using **DDM Dashboard**, see talk from Kai and Cedric, and/or failures in **SAAB**.

It might be due to **Scheduled Downtime** or known problem and this should be checked first. If it is not a full group disk related problem, then it most likely a site problem and **GGUS** ticket is in order.

If site is failing HammerCloud tests then an automatic e-mail notification is issued. In most cases it is a site problem and site admin already knows about it.

If jobs are failing on site then the question is if it is site related or task related.

AGIS Calendar



AGIS Calendar Monitoring page is currently not working, but AGIS API works well as expected.

GOCDDB page

DB 5.3

Overview of Current and Planned Downtimes
All currently active and planned downtimes over the coming weeks

Currently Active Downtimes

Downtime Id	Description	Severity	Classification	Services Affected	Start	End
16213	move of servers to new VM infrastructure	OUTAGE	SCHEDULED	1 of 35	04-12-2014 09:00	11-12-2014 00:40
+Show Affected Services						
16228	update of voms server	OUTAGE	SCHEDULED	1 of 16	04-12-2014 09:00	04-12-2014 11:00
+Show Affected Services						
16214	upgrade and move of services to dual stack IPV6 network	OUTAGE	SCHEDULED	2 of 35	04-12-2014 09:00	11-12-2014 12:00
+Show Affected Services						
16227	Scheduled power supply maintenance.	OUTAGE	SCHEDULED	1 of 2	03-12-2014 13:30	04-12-2014 17:00
+Show Affected Services						
16148	Software upgrade, tape library maintenance.	OUTAGE	SCHEDULED	1 of 16	03-12-2014 07:00	04-12-2014 20:00
+Show Affected Services						
16233	Waiting for sam nagios update	OUTAGE	UNSCHEDULED	1 of 6	02-12-2014 23:27	10-12-2014 01:27
+Show Affected Services						

https://goc.egi.eu/portal/index.php?Page_Type=Downtimes_Overview is a possible temporary solution, but this page is not shifter friendly (have to click on each current downtime).

BigPanda : Site WNs

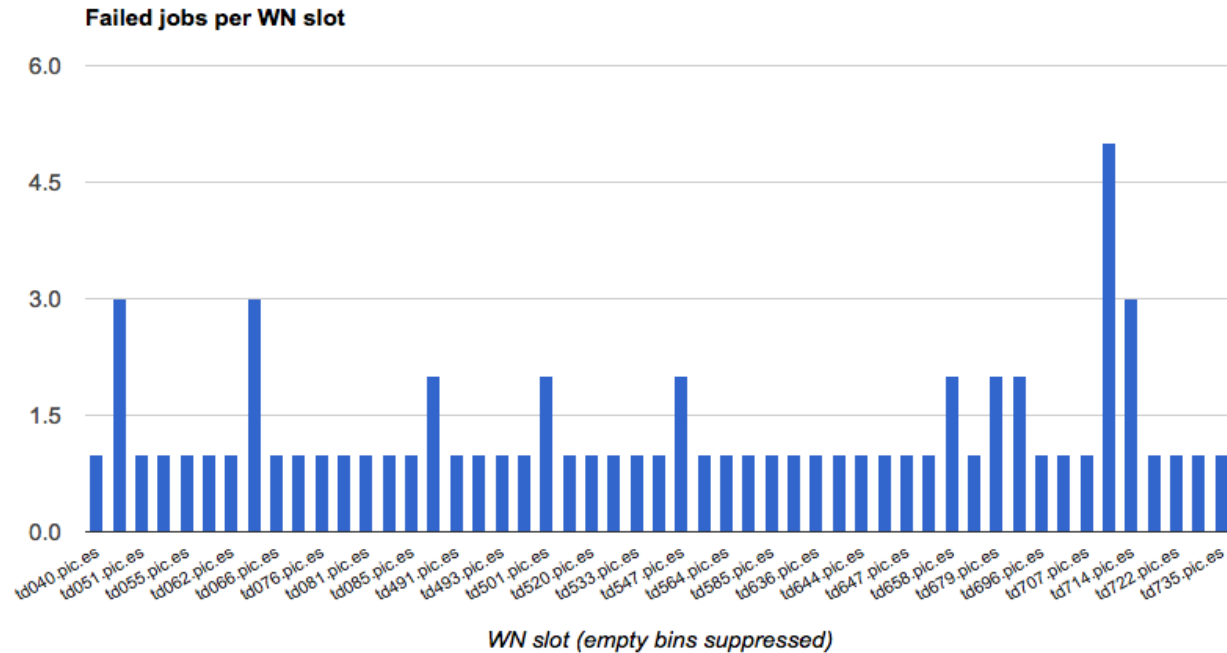
bigpanda.cern.ch/wns/pic/

ATLAS PanDA monitor Dashboards Tasks Jobs Errors Users Sites Incidents Search

PanDA WN slot performance at pic, last 12 hours, limit 999999 per table. Params: Built 2014-12-04 09:02 UTC

Prodsys Services VO Help

Worker node slot performance at pic



Simple check if there are specific WN problems on site.

Specific WN check

bigpanda.cern.ch/wns/pic/?sortBy=failed

Google

WN summary for pic

WN	nSlots	nJobs	defined	waiting	throttled	sent	starting	running	holding	transferring	finished	failed
td709.pic.es	1	9						1			3	5
td042.pic.es	1	10						1			6	3
td065.pic.es	1	17						3			11	3
td714.pic.es	1	6						1			2	3
td547.pic.es	1	5						1			2	2
td658.pic.es	1	5						1			2	2
td679.pic.es	1	3									1	2
td686.pic.es	1	5						2			1	2
td696.pic.es	1	5						2			1	2
td040.pic.es	1	3						1			1	1
td051.pic.es	1	2									1	1
td053.pic.es	1	2									1	1
td055.pic.es	1	7						1			5	1
td062.pic.es	1	5						1			3	1
td076.pic.es	1	2						1				1

One can go to WN summary and sort by failed jobs.

Failed jobs (specific WN)

bigpanda.cern.ch/jobs/?computingsite=pic&modificationhost=td709.pic.es&hours=12&jt

computingsite=pic

Built 2014-12-04 09:21 UTC

5 jobs in this selection
Job status: **failed**
Site: [pic](#) [Show site information page](#)

Job **modification times** in this listing range from **2014-12-03 21:06** to **2014-12-04 09:06**.
Job **current priorities** in this listing range from **-14494** to **10000**. See priorityrange in the job attribute summary to see how priorities are distributed.

Job attribute summary	Sort by count , alpha
atlasrelease (2)	Atlas-17.2.7 (1) Atlas-19.1.4 (4)
attemptnr (1)	1 (5)
cloud (1)	ES (5)
computingelement (1)	pic-all-prod-CEs (5)
computingsite (1)	pic (5)
destinationse (1)	pic (5)
homepackage (2)	AtlasDerivation/19.1.4.3 (4) AtlasProduction/17.2.7.4 (1)
inputfileproject (2)	data12_8TeV (1) mc14_13TeV:mc14_13TeV (4)
inputfiletype (2)	AOD (4) DAOD_ZEE (1)
jeditaskid (2)	4497547 (4) 4505766 (1)
jobstatus (1)	failed (5)

Check of task 4497547 shows that it has **failed** status.

Checking problematic task

ATLAS PanDA monitor [Dashboards](#) [Tasks](#) [Jobs](#) [Errors](#) [Users](#) [Sites](#) [Incidents](#) [Search](#)

[Prodsys](#) [Services](#) [VO](#) [Help](#)

PanDA task 4425944: mc14_13TeV.169153.PowhegPythia8_AU2CT10_VBFH600NWA_WWlepnuqq.recon.e3292_s1982_s2008_r5787 Built 2014-12-04 08:21 UTC

Task 4425944: mc14_13TeV.169153.PowhegPythia8_AU2CT10_VBFH600NWA_WWlepnuqq.recon.e3292_s1982_s2008_r5787

Task ID	Request	Type	WorkingGroup	User	Campaign	Task status	Ninputfiles finished failed	Created	Modified	Cores	Priority	Parent	Tracker
4425944	1101	prod	AP_HIGG	jgarcian	MC14a	running	198 179 (90%)	2014-11-20 15:37	12-04 08:20	8	550	4425943	JIRA

States of jobs in this task (merge jobs excluded) [Show all jobs](#)

defined	waiting	pending	assigned	throttled	activated	sent	starting	running	holding	transferring	finished	failed	cancelled	merged
4			3		2		1	8		1	179			

[Jump to job parameters, task parameters](#)

View: [job list \(access to job details and logs\)](#) [parent task 4425943](#) [child tasks](#) [prodsys task page](#) [brokerage logger](#) [JEDI action logger](#) [error summary](#)

6 datasets, show/hide by type: [all](#) [input\(3\)](#) [log\(1\)](#) [output\(1\)](#) [random_seed\(1\)](#)

Dataset, container name	Type	Stream	State	Status	Nfiles	Created	Modified
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Task may show no **failed** jobs, so one need to click on **error summary**.

Checking task errors

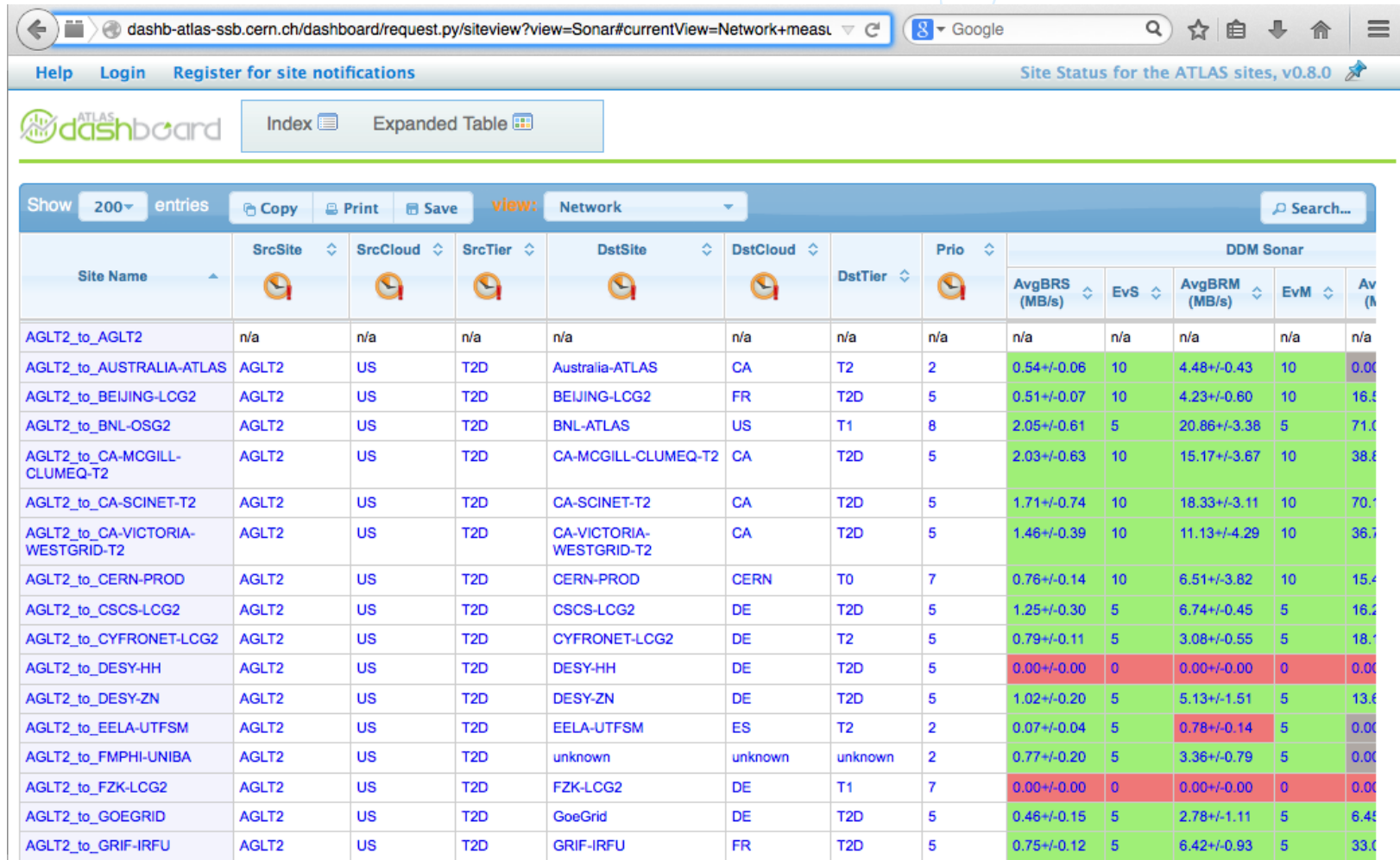
Site error summary		
AGLT2_MCORE	45	Total errors in 46 jobs. Finished: 39 Failed: 46 % failed: 54 Holding: 0 Cancelled: 0
	4	pilot:1099 Get error: Staging input file failed
	41	pilot:1201 Job killed by signal 15: Signal handler has set job result to FAILED, ec = 1201
CPPM_MCORE	1	Total errors in 2 jobs. Finished: 53 Failed: 7 % failed: 11 Holding: 0 Cancelled: 0
	1	ddm:200 Could not add files to DDM:
SLACXRD_MP8	1	Total errors in 1 jobs. Finished: 1 Failed: 1 % failed: 50 Holding: 0 Cancelled: 0
	1	jobdispatcher:100 lost heartbeat : 2014-12-03 13:53:50
SWT2_CPB_MCORE	1	Total errors in 1 jobs. Finished: 0 Failed: 1 % failed: 100 Holding: 0 Cancelled: 0
	1	jobdispatcher:100 lost heartbeat : 2014-12-03 22:42:52
TRIUMF_MCORE	2	Total errors in 5 jobs. Finished: 44 Failed: 6 % failed: 12 Holding: 0 Cancelled: 0
	2	pilot:1182 Get error: Encountered an empty SURL-GUID dictionary
pic_MCORE	1	Total errors in 5 jobs. Finished: 24 Failed: 6 % failed: 20 Holding: 0 Cancelled: 0
	1	ddm:200 Could not add files to DDM:

On the task error page check [site](#) part to see if the problem is site related.

Questions ?

Backup slides

Network measurements



dashb-atlas-ssb.cern.ch/dashboard/request.py/siteview?view=Sonar#currentView=Network+meas

Help Login Register for site notifications Site Status for the ATLAS sites, v0.8.0

ATLAS dashboard Index Expanded Table

Show 200 entries Copy Print Save view: Network Search...

Site Name	SrcSite	SrcCloud	SrcTier	DstSite	DstCloud	DstTier	Prio	DDM Sonar					
								AvgBRS (MB/s)	EvS	AvgBRM (MB/s)	EvM	Av (M)	
AGLT2_to_AGLT2	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
AGLT2_to_AUSTRALIA-ATLAS	AGLT2	US	T2D	Australia-ATLAS	CA	T2	2	0.54+/-0.06	10	4.48+/-0.43	10	0.00	0.00
AGLT2_to_BEIJING-LCG2	AGLT2	US	T2D	BEIJING-LCG2	FR	T2D	5	0.51+/-0.07	10	4.23+/-0.60	10	16.5	16.5
AGLT2_to_BNL-OSG2	AGLT2	US	T2D	BNL-ATLAS	US	T1	8	2.05+/-0.61	5	20.86+/-3.38	5	71.0	71.0
AGLT2_to_CA-MCGILL-CLUMEQ-T2	AGLT2	US	T2D	CA-MCGILL-CLUMEQ-T2	CA	T2D	5	2.03+/-0.63	10	15.17+/-3.67	10	38.8	38.8
AGLT2_to_CA-SCINET-T2	AGLT2	US	T2D	CA-SCINET-T2	CA	T2D	5	1.71+/-0.74	10	18.33+/-3.11	10	70.1	70.1
AGLT2_to_CA-VICTORIA-WESTGRID-T2	AGLT2	US	T2D	CA-VICTORIA-WESTGRID-T2	CA	T2D	5	1.46+/-0.39	10	11.13+/-4.29	10	36.7	36.7
AGLT2_to_CERN-PROD	AGLT2	US	T2D	CERN-PROD	CERN	T0	7	0.76+/-0.14	10	6.51+/-3.82	10	15.4	15.4
AGLT2_to_CSCS-LCG2	AGLT2	US	T2D	CSCS-LCG2	DE	T2D	5	1.25+/-0.30	5	6.74+/-0.45	5	16.2	16.2
AGLT2_to_CYFRONET-LCG2	AGLT2	US	T2D	CYFRONET-LCG2	DE	T2	5	0.79+/-0.11	5	3.08+/-0.55	5	18.1	18.1
AGLT2_to_DESY-HH	AGLT2	US	T2D	DESY-HH	DE	T2D	5	0.00+/-0.00	0	0.00+/-0.00	0	0.00	0.00
AGLT2_to_DESY-ZN	AGLT2	US	T2D	DESY-ZN	DE	T2D	5	1.02+/-0.20	5	5.13+/-1.51	5	13.6	13.6
AGLT2_to_EELA-UTFSM	AGLT2	US	T2D	EELA-UTFSM	ES	T2	2	0.07+/-0.04	5	0.78+/-0.14	5	0.00	0.00
AGLT2_to_FMPHI-UNIBA	AGLT2	US	T2D	unknown	unknown	unknown	2	0.77+/-0.20	5	3.36+/-0.79	5	0.00	0.00
AGLT2_to_FZK-LCG2	AGLT2	US	T2D	FZK-LCG2	DE	T1	7	0.00+/-0.00	0	0.00+/-0.00	0	0.00	0.00
AGLT2_to_GOEGRID	AGLT2	US	T2D	GoeGrid	DE	T2D	5	0.46+/-0.15	5	2.78+/-1.11	5	6.45	6.45
AGLT2_to_GRIF-IRFU	AGLT2	US	T2D	GRIF-IRFU	FR	T2D	5	0.75+/-0.12	5	6.42+/-0.93	5	33.0	33.0

<http://dashb-atlas-ssb.cern.ch/dashboard/request.py/siteview?view=Sonar#currentView=Network+meas>
Network measurements page of Dashboard.

Squid monitoring

dashb-atlas-ssb.cern.ch/dashboard/request.py/siteview#aaSorting[0][]=2&aaSorting[0][]=desc&curr

Help Login Register for site notifications Site Status for the ATLAS sites, v0.8.0

ATLAS dashboard Index Expanded Table

Show 200 entries Copy Print Save view: Frontier_Squid Search...

Site Name	Frontier	frontier-squid
Lpad-CERN-T0	100	n/a
ANLASC	n/a	down
ZA-UJ	n/a	down
UKI-NORTHGRID-LANCS-HEP	n/a	OK
UKI-SCOTGRID-ECDF	n/a	OK
UKI-NORTHGRID-LIV-HEP	n/a	OK
wuppertalprod	n/a	OK
HEPHY-UIBK	n/a	OK
FMPH-UNIBA	n/a	OK
WEIZMANN-LCG2	n/a	OK
TOKYO-LCG2	n/a	OK
INFN-LECCE	n/a	OK
RU-Protvino-IHEP	n/a	OK
RRC-KI-T1	n/a	OK
UAM-LCG2	n/a	OK
INFN-MILANO-ATLASC	n/a	OK
ru-PNPI	n/a	OK
SWT2_CPB	n/a	OK
UTA_SWT2	n/a	OK
CA-SCINET-T2	n/a	OK
NGC-INGRID-PT	n/a	OK