

Service Availability Monitor tests for ATLAS

Current Status
Work in progress

Alessandro Di Girolamo
CERN IT/GS

SAM Critical Tests: Current Status

Now running ATLAS specific tests together with standard OPS tests. All tests are using ATLAS credentials.

- Sites and endpoints definition:
 - intersection between **GOCDB** and **TiersOfATLAS** (ATLAS specific sites configuration file with Cloud Model)
- Different services and endpoints need to be tested using different VOMS credentials
 - ATLAS endpoints and paths must be explicitly tested
 - The LFC of the Cloud (residing in the T1) is used.
- FCR: No banning if sites are failing Critical Tests

Only Clouds using LFC are tested with ATLAS specific tests

SAM Critical Tests: Current Status - Storage Element

- SE & SRM (centrally from SAM UI):
 - SE-ATLAS-lcg-cr : copy and register (with the cloud LFC) a file from the SAM UI to the endpoint
 - For the Tier1s both Disk and Tape areas are tested
 - SE-ATLAS-lcg-cp: copy back the file from the SE to the UI. Verification of the integrity of the file copied.
 - SE-ATLAS-lcg-del: delete the files from the storage and from the LFC

Tests Displayed

atlas

- SE-ATLAS-lcg-cp
- SE-ATLAS-lcg-cr
- SE-ATLAS-lcg-del
- SE-host-cert-valid
- SE-lcg-cp
- SE-lcg-cr
- SE-lcg-del

show atlas critical tests

Sort by: RegionName

show	stat	description	sum
<input checked="" type="checkbox"/>	NA	no status available	0
<input checked="" type="checkbox"/>	OK	normal status	58
<input checked="" type="checkbox"/>	INFO	useful information	0
<input checked="" type="checkbox"/>	NOTE	important information	0
<input checked="" type="checkbox"/>	WARN	subject may fail soon	0
<input checked="" type="checkbox"/>	ERROR	subject has failed and problem is localized	14
<input checked="" type="checkbox"/>	CRIT	subject has failed and problem is fatal	0
<input checked="" type="checkbox"/>	MAINT	subject is under maintenance	0

atlas tests

testname	desc	crit
atlas_cp	Copy a file back from the SE	CT
atlas_cr	Copy and register a file to the SE	CT
atlas_del	Delete a file from the SE	CT

SAM Critical Tests: Current Status - Computing Element

- CE (job submitted on the CE):
 - On all the ATLAS CE in production and certified (from the BDII):
 - keep on running part of the OPS suite:
 - Job Submission
 - Certification Authority version
 - VO software directory
 - ATLAS specific test:
 - ATLAS-vo-lcgTag: Check VO tag management (lcg-tags)
 - Only for ATLAS Tier1 and Tier2 (from the ToA):
 - Ganga Robot: Compile and execute a real analysis job based on a sample dataset.

Tests Displayed

atlas

- CE-ATLAS-GngRbt
- CE-ATLAS-sft-lcg-tag
- CE-ATLAS-sft-lcg-version
- CE-ATLAS-sft-vo-swspace
- CE-apel-pub
- CE-apel-sync
- CE-apel-test

show atlas critical tests

Sort by: RegionName

show	stat	description	sum
<input checked="" type="checkbox"/>	NA	no status available	0
<input type="checkbox"/>	OK	normal status	16
<input checked="" type="checkbox"/>	INFO	useful information	0
<input checked="" type="checkbox"/>	NOTE	important information	0
<input checked="" type="checkbox"/>	WARN	subject may fail soon	67
<input checked="" type="checkbox"/>	ERROR	subject has failed and problem is localized	134
<input checked="" type="checkbox"/>	CRIT	subject has failed and problem is fatal	11
<input type="checkbox"/>	MAINT	subject is under maintenance	30

atlas tests

testname	desc	crit
js	Job submission	CT
ca	CA certs version	CT
votag	VO Tag management	CT
swdir	VO software directory	CT
gng_rbt	Check ATLAS Ganga Robot results	CT
lcgtag	VO lcgTag list	
lcg-version	Test lcg-utils version on WN	
swdirspace	VO software directory	

SAM Critical Tests: Current Status - LFC & FTS

- LFC:
 - lfc ls: list entries in /grid/atlas
 - lfc wf: create an entry in the LFC
- FTS:
 - List FTS channels: glite-transfer-channel-list, Information System configuration and publication

The screenshot displays the SAM Critical Tests interface, which is divided into several sections:

- Tests Displayed (Left Panel):** A list of tests for the 'atlas' region, including LFC-check-streams, LFC-check-streams.def, LFC-host-cert-valid, LFC-list-replica, LFC-ls, and LFC-writefile. A checkbox for 'show atlas critical tests' is checked. The 'Sort by' dropdown is set to 'RegionName'.
- Main Status Table (Center):** A table showing the overall status of tests.

show	stat	description	sum
<input checked="" type="checkbox"/>	NA	no status available	0
<input type="checkbox"/>	OK	normal status	22
<input checked="" type="checkbox"/>	INFO	useful information	1
<input checked="" type="checkbox"/>	NOTE	important information	0
<input checked="" type="checkbox"/>	WARN	subject may fail soon	0
<input checked="" type="checkbox"/>	ERROR	subject has failed and problem is localized	3
<input checked="" type="checkbox"/>	CRIT	subject has failed and problem is fatal	0
<input type="checkbox"/>	MAINT	subject is under maintenance	0
- Tests Displayed (Right Panel):** A list of tests for the 'atlas' region, including FTS-channels, FTS-host-cert-valid, FTS-infosites, FTS-job-management, FTS-transfer, FTS-transfer-BNL-LCG2, and FTS-transfer-FZK-LCG2. A checkbox for 'show atlas critical tests' is checked. The 'Sort by' dropdown is set to 'RegionName'.
- Main Status Table (Right Panel):** A table showing the overall status of tests.

show	stat	description	sum
<input checked="" type="checkbox"/>	NA	no status available	0
<input checked="" type="checkbox"/>	OK	normal status	13
<input checked="" type="checkbox"/>	INFO	useful information	0
<input checked="" type="checkbox"/>	NOTE	important information	0
<input checked="" type="checkbox"/>	WARN	subject may fail soon	0
<input checked="" type="checkbox"/>	ERROR	subject has failed and problem is localized	0
<input checked="" type="checkbox"/>	CRIT	subject has failed and problem is fatal	0
<input type="checkbox"/>	MAINT	subject is under maintenance	0
- Summary Table (Bottom Right):** A table summarizing the status of tests.

testname	desc	crit
lfcwf	Check we can create a file in the LFC for this VO	CT
lfc ls	Check we can do a lfc-ls on /grid/	CT

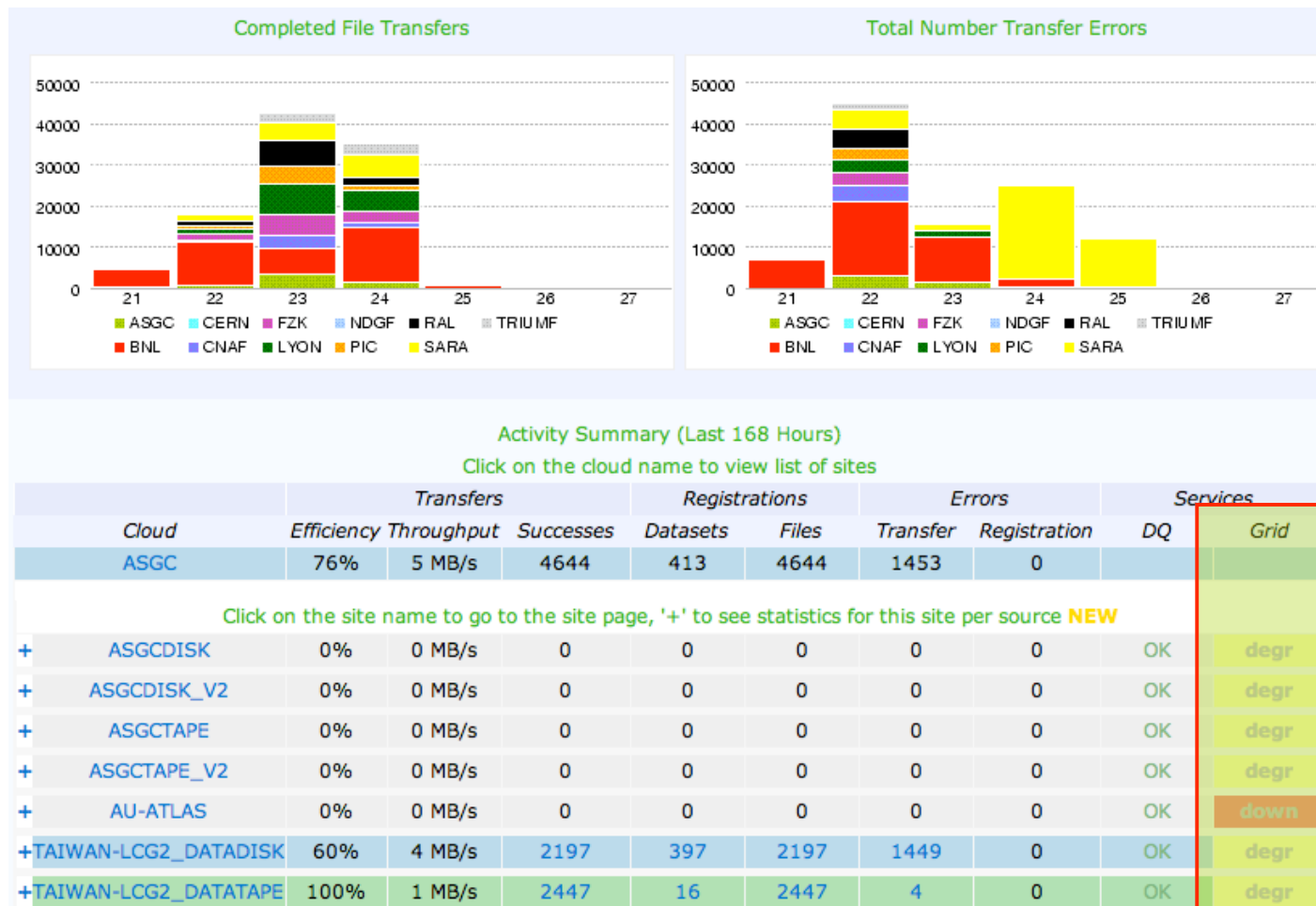
Other SAM Tests

Many more tests are launched, i.e.:

- ATLAS-lcg-versions:
 - Check the version of lcg-utils running on the WNs
- ATLAS-swdirspace:
 - Check the dimension of the ATLAS sw installation area

Work in progress

- Publication of SAM SE ATLAS critical results on the dashboard

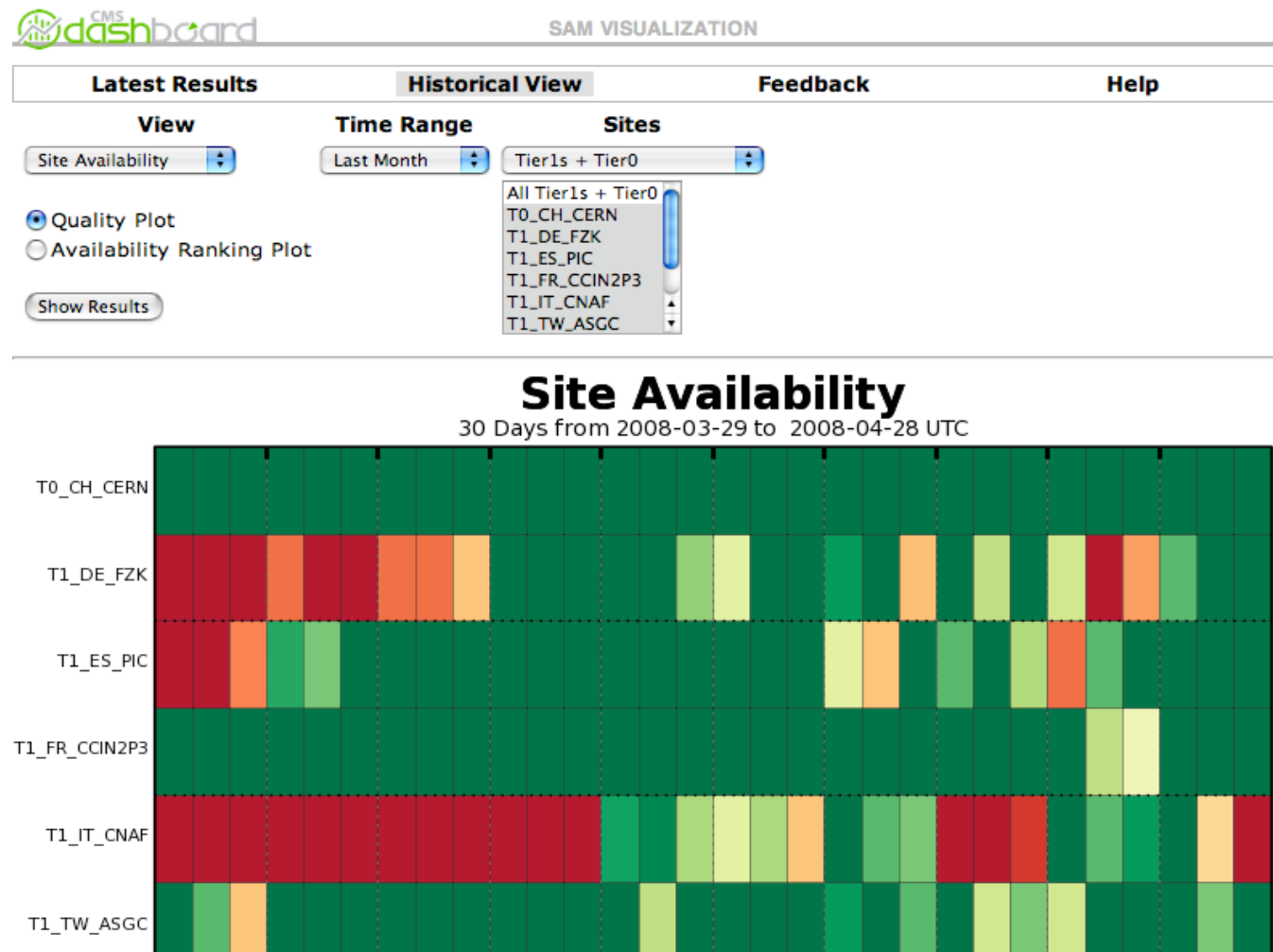


Work in progress

- *Desiderata* for the SAM developers:
 - Tier0/Tier1/Tier2 intrinsic differences
 - Increase site granularity in the SAM DB not to mix results
 - More flexibility to set critical tests
- SE: SRM2 tests for each space token of each endpoint
 - Tests already developed, to be integrated in the framework
- CE:
 - Increase the GangaRobot granularity
 - Retrieve Panda production system information
- CVS and Documentation

Work in progress

- New GUI for SAM test for ATLAS:
 - General solution for VO-specific SAM display, i.e. immediately usable for the other VO (extending/improving early prototype for CMS)



Backup slides



Site Availability: T0/T1

♣ Site Services

Availability:

- ♠ Site Services X = CE, SE, SRM

- ◆ Down: if all services of type X of a site are Down
- ◆ Ok: if all services of type X are Ok
- ◆ Degraded: if some services of type X are Ok and other are Down

- ♠ Site BDII: Ok or Down by taking the status of the site BDII instance

♣ Site Availability:

- ♠ The AND of each single Site Services Availability

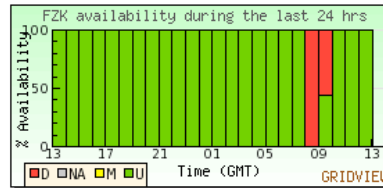
Tier-1/0 Site Availability VO:Atlas (Current Status)

(Click on the Graph below to see Availability of Individual Services at the Site)

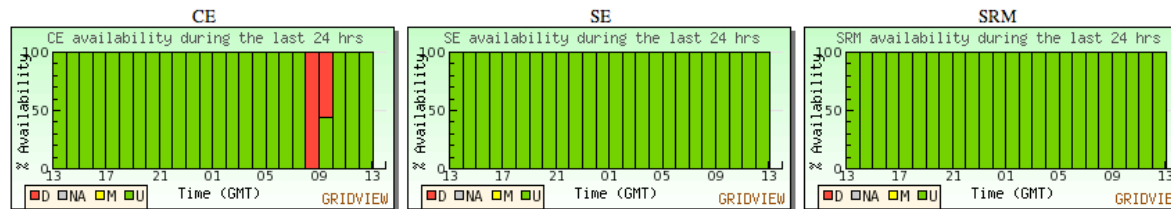


Site Availability: one example

Overall Service Availability for Site:FZK VO:Atlas (Current Status)



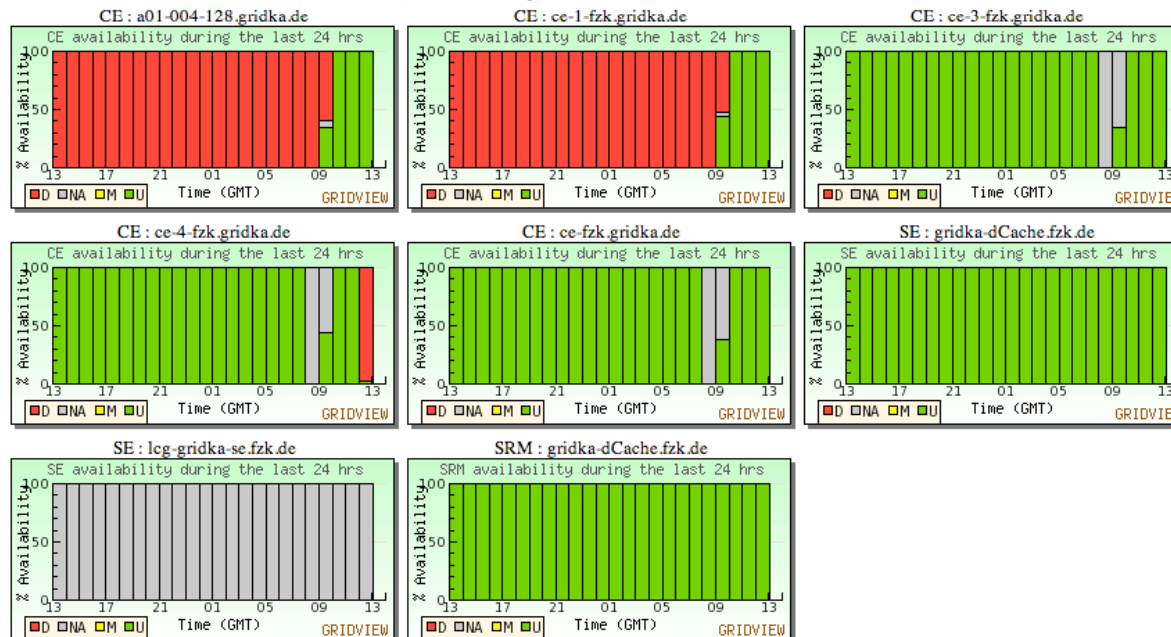
Individual Service Availability for site:FZK VO:Atlas (Current Status)



Service Instance Availability for site:FZK VO:Atlas (Current Status)

Site Services

(Click on the Graph below to see the SAM test results)



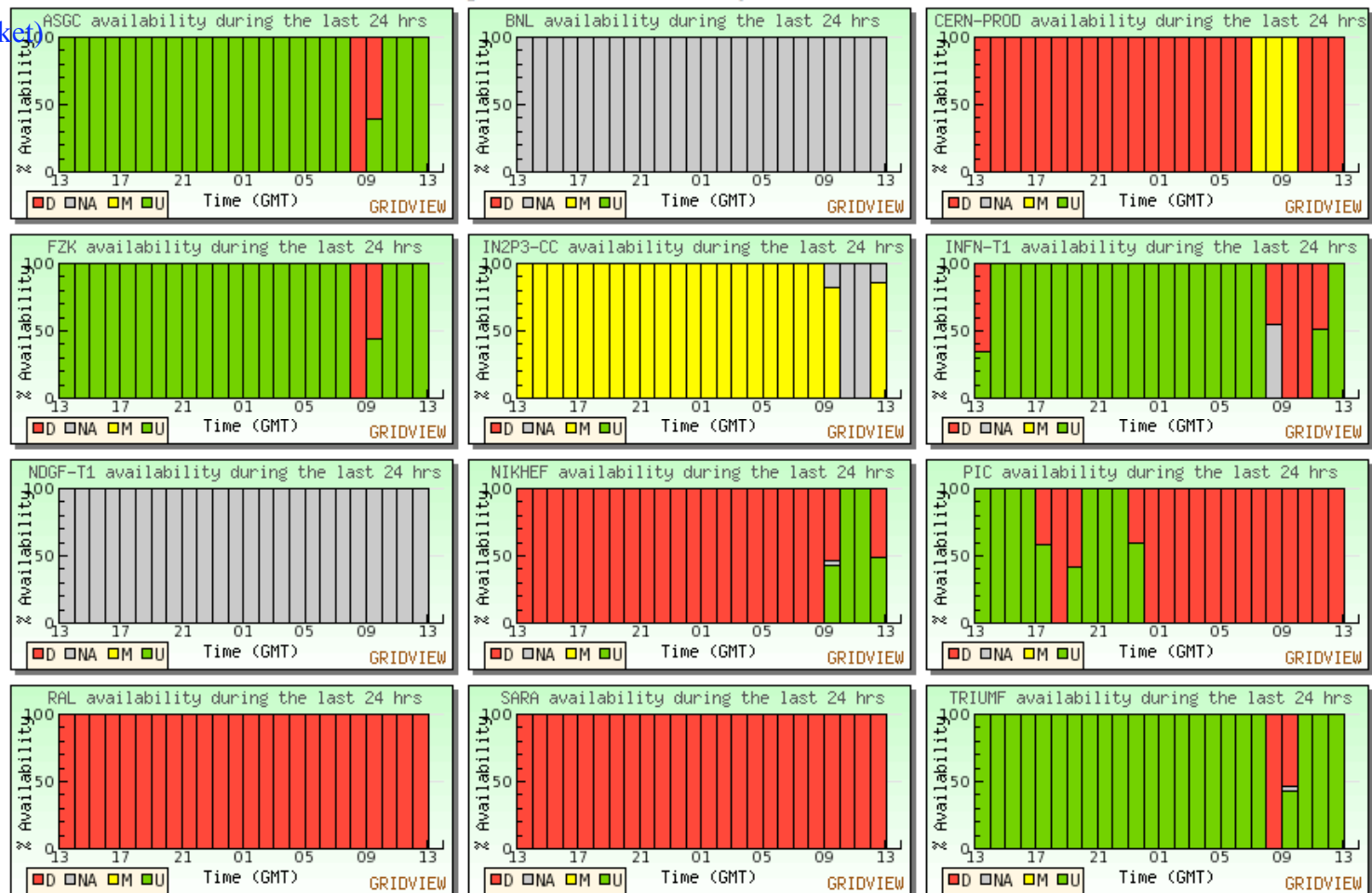
Reliability & Availability results

SAM Critical Tests not reliable for:

- NDGF/BNL: different service setup
- IN2P3:
 - SAM DB problem (ticket)
- SARA:
 - under studying

Tier-1/0 Site Availability VO:Atlas (Current Status)

(Click on the Graph below to see Availability of Individual Services at the Site)



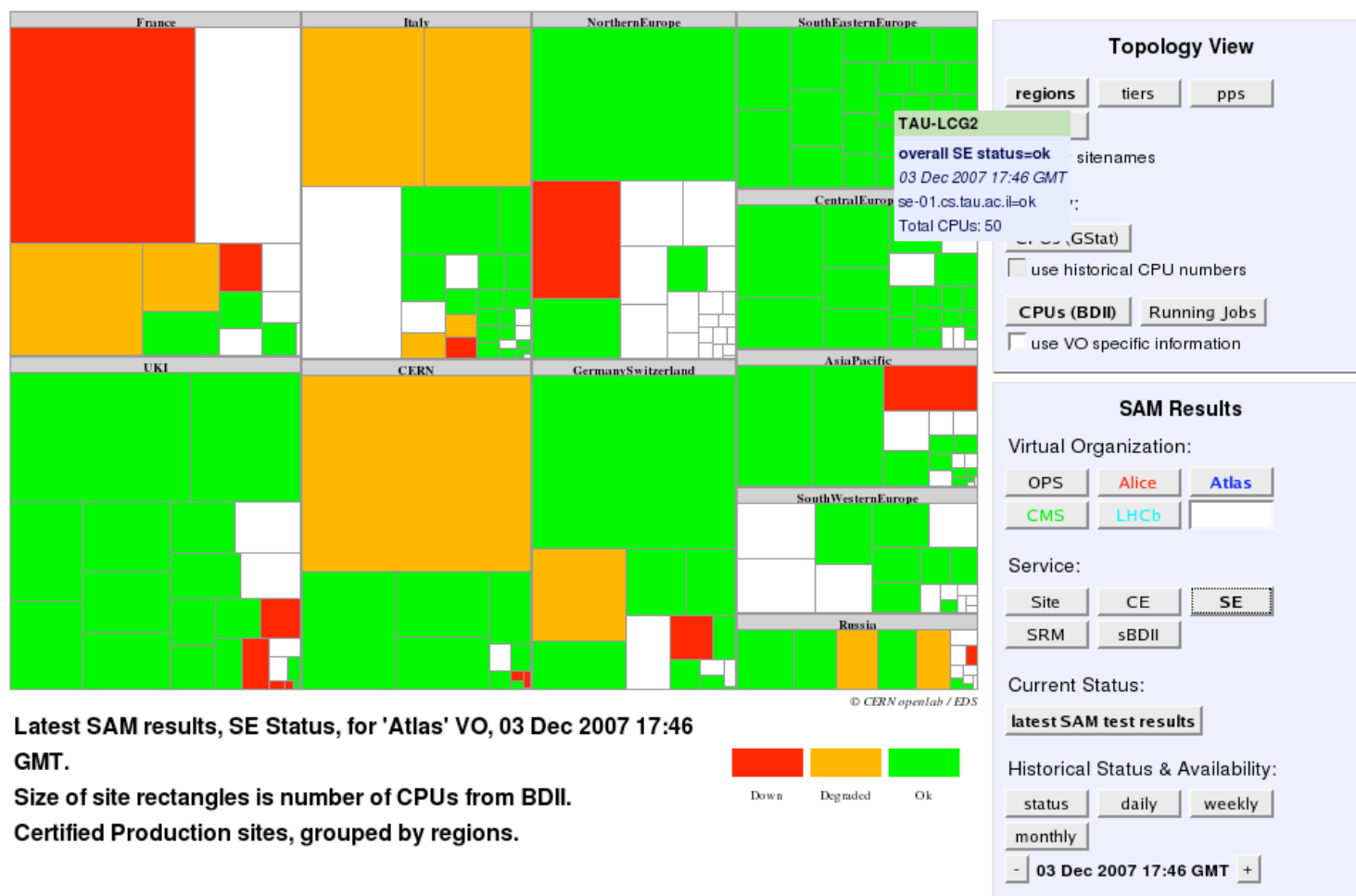
SAM results on Gridmap

Topology:

- ⌘ Possibility to include ATLAS Cloud view,
- ⌘ Possibility to change the metrics for the sites size

The collaboration with the Gridmap developers is already started

GridMap Prototype – Visualizing the "State" of the Grid



SAM results on CCRC08 Gridmap

