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):

29 Apr 2008

- 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	show	stat	description	sum				
SE-ATLAS-lcg-cp		NA	no status available	0				
SE-ATLAS-lcg-cr		OK	normal status	58				
SE-ATLAS-lcg-del SE-host-cert-valid	☑	INFO	useful information	0	Ι.			atlas tests
SE-lcg-cp	≤	NOTE	important information	0		testname	desc	crit
SE-lcg-cr A SE-lcg-del T	◙	WARN	subject may fail soon	0			Copy a file back from the	
Show atlas critical tests	₫	ERROR	subject has failed and problem is localized	14		atlas_cp	<u>SE</u>	СТ
			*				Copy and	
Sort by: RegionName 🛟	☑	CRIT	subject has failed and problem is fatal	0		atlas_cr	register a file to the SE	CT
ShowSensorTests	☑	MAINT	subject is under maintenance	0		atlas_del	Delete a file from the SE	СТ

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.

							atlas tests
	show	stat	description	sum	testname	desc	crit
	✓	NA	no status available	0	js	Job submission	СТ
Tests Displayed		OK	normal status	16	ca	CA certs	СТ
atlas	◙	INFO	useful information	0		version	
CE-ATLAS-GngRbt CE-ATLAS-sft-lcg-tag CE-ATLAS-sft-lcg-version	◙	NOTE	important information	0	votag	VO Tag management	СТ
CE-ATLAS-sft-vo-swspace CE-apel-pub	₫	WARN	subject may fail soon	67	swdir	VO software directory	СТ
CE-apel-sync	₫	ERROR	subject has failed and problem is	134	gng_rbt	Check ATLAS Ganga Robot results	СТ
·			localized		lcgtag	VO lcgTag list	
Sort by: RegionName	◙	CRIT	subject has failed and problem is fatal	11	lcg- version	Test lcg-utils version on WN	
ShowSensorTests		MAINT	subject is under maintenance	30	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

					Test	s Displayed							
						atlas	show	stat	description	sum			
					FTS-channels FTS-host-cert-	valid		NA	no status available	0			
					FTS-infosites		☑	OK	normal status	13			
					FTS-job-mana FTS-transfer		≤	INFO	useful information	0			
				_	FTS-transfer-B FTS-transfer-F		☑	NOTE	important information	0			
Tests Displayed	show	1	description	sum		ow atlas critical tests	◙	WARN	subject may fail soon	0			
atlas	₫	NA	no status available	0	• 31	low allas critical tests		ERROR	subject has failed and problem	0			
LFC-check-streams		OK normal status 22 Sort by: RegionName		nName	-	LINKOK	is localized	Ŭ			atlas tests		
LFC-check-streams.def LFC-host-cert-valid	☑	INFO	useful information	1				CRIT	subject has failed and problem is fatal	0	testname	desc	crit
LFC-list-replica	☑	NOTE	important information	0		ShowSensorTests		MAINT	subject is under maintenance	0	ftschn	List FTS channels	СТ
LFC-ls LFC-writefile	☑	WARN	subject may fail soon	0				MAINI	subject is under maintenance			channels	
Show atlas critical tests		ERROR	subject has failed and	3				atlas tes	sts				
		LINKOK	problem is localized	Ľ	testname	desc		crit	1				
Sort by: RegionName	◙	CRIT	subject has failed and problem is fatal	0	lfcwf	Check we can create the LFC for this VC		<u>in</u> ст	1				
ShowSensorTests		MAINT	subject is under maintenance	0	lfcls	Check we can do a /grid/	lfc-ls o	ⁿ ст]				5

Other SAM Tests

Many more tests are launched, i.e.:

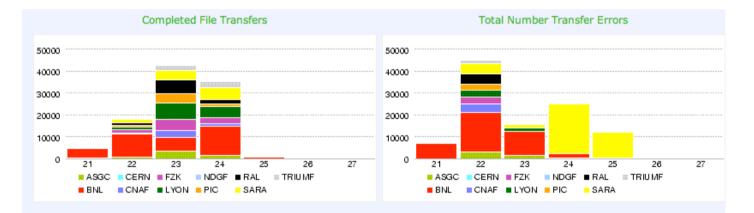
• ATLAS-lcg-versions:

- 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



Activity Summary (Last 168 Hours)

Click on the cloud name to view list of sites

		Transfers		Registi	rations	Er	rors	Services		
	Cloud	Efficiency	Throughput	Successes	Datasets	Files	Transfer	Registration	DQ	Grid
	ASGC	76%	5 MB/s	4644	413	4644	1453	0		
	Click o	n the site i	name to go t	o the site pag	ge, '+' to see	e statistics fo	or this site p	er source NE	N	
+	ASGCDISK	0%	0 MB/s	0	0	0	0	0	OK	degr
+	ASGCDISK_V2	0%	0 MB/s	0	0	0	0	0	OK	degr
+	ASGCTAPE	0%	0 MB/s	0	0	0	0	0	ОК	degr
+	ASGCTAPE_V2	0%	0 MB/s	0	0	0	0	0	ОК	degr
+	AU-ATLAS	0%	0 MB/s	0	0	0	0	0	ОК	down
+TAI	WAN-LCG2_DATADISK	60%	4 MB/s	2197	397	2197	1449	0	ОК	degr
+TAI	WAN-LCG2_DATATAPE	100%	1 MB/s	2447	16	2447	4	0	OK	degr

Work in progress

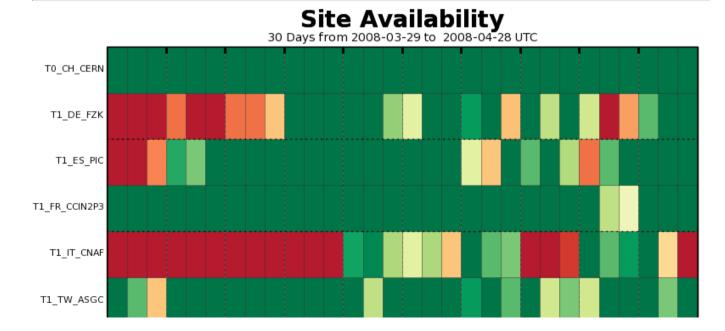
- *Desiderata* for the SAM developers:
 - Tier0/Tier1/Tier2 intrinsic differences
 - Increase site granularity in the SAM DB not to mix results
 - More flexibility to set critical tests

- 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)

Board		SAM VISUAL	IZATION	
Latest Results	Historic	al View	Feedback	Help
View	Time Range	Sites		
Site Availability	Last Month 🛟	Tier1s + Tier0	•	
 Quality Plot Availability Ranking Plot 		All Tier1s + Tier0 T0_CH_CERN T1_DE_FZK T1_ES_PIC T1_FR_CCIN2P3		
Show Results		T1_FR_CCIN2P3 T1_IT_CNAF T1_TW_ASGC		



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

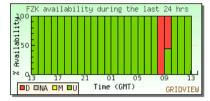


GRIDVIEN

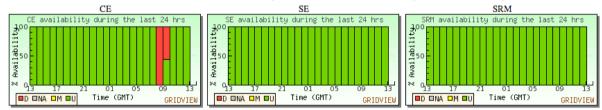
Time (GMT)

Site Availability: one example

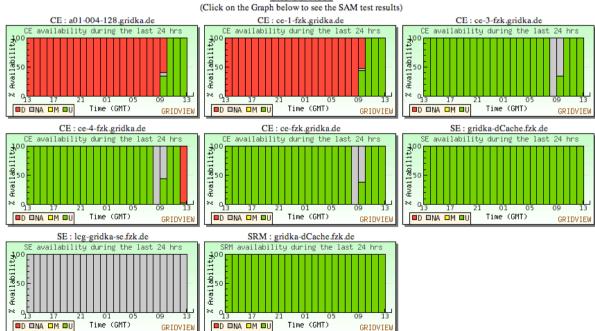
Overall Service Availability for Site:FZK VO:Atlas (Current Status)



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



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

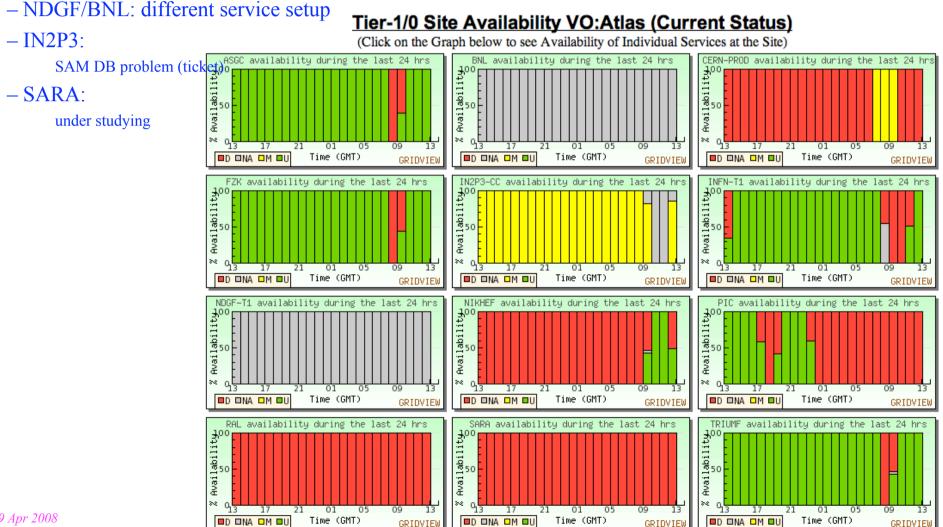


Site Services

Reliability & Availability results

SAM Critical Tests not reliable

for:



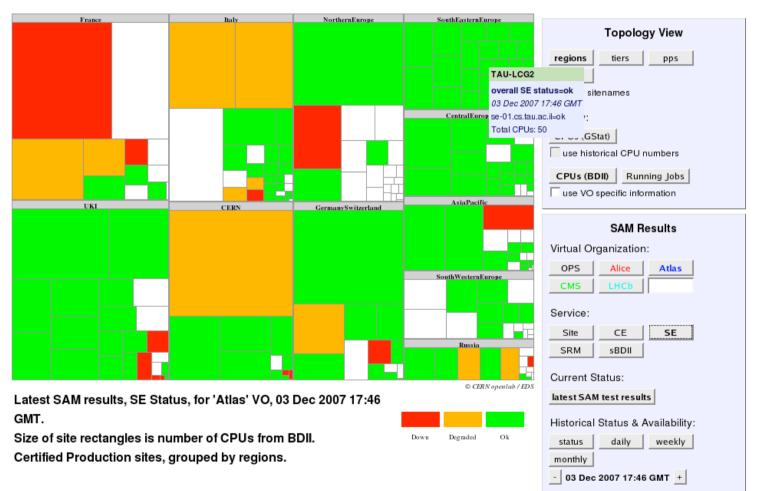
GRIDVIEW

GRIDVIEW

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

Test Status (live data)												
Atlas Critical Services												
DDM central services	VOMS server	Distributed production servers	roduction		l TagCollector		LFC (Tier0)					
	Data transfer from Point1 to Castor	Oracle database RAC (offline, ATLR)	Dashboard	SE (Tier1)	Log file server	gLite WMS	CE (Tier2)					
Oracle database RAC (online, ATONR)	Tier-0 processing farm	Online-offline database connectivity	AMI catalog	CVS server	SE (Tier2)	Tag Collect						
LFC (Tier1)	FTS (Tier1)		VOBOX (Tier1)	3D streaming (Tier0)	Build and RTT system		CE (Tier1)					
2.0 (1.2.2)	(10(101))	V050X (11210)	VOBOX (Herr)	SE (Tier0)	CE (C	AF)	AFS Servers					
		VOB	OX (Tier0)				andah (ED)					
Criticality level: 7 28 Apr 2008 15:35 GMT Sites with SAM VOBOX test results: 0% CERN-PROD no test results												
CERN-PROD NDGF-T1	CERN-PROD TRIUMF-LCG2 IN2P3-CC FZK-LCG2 INFN-T1 SARA-MATRIX											