

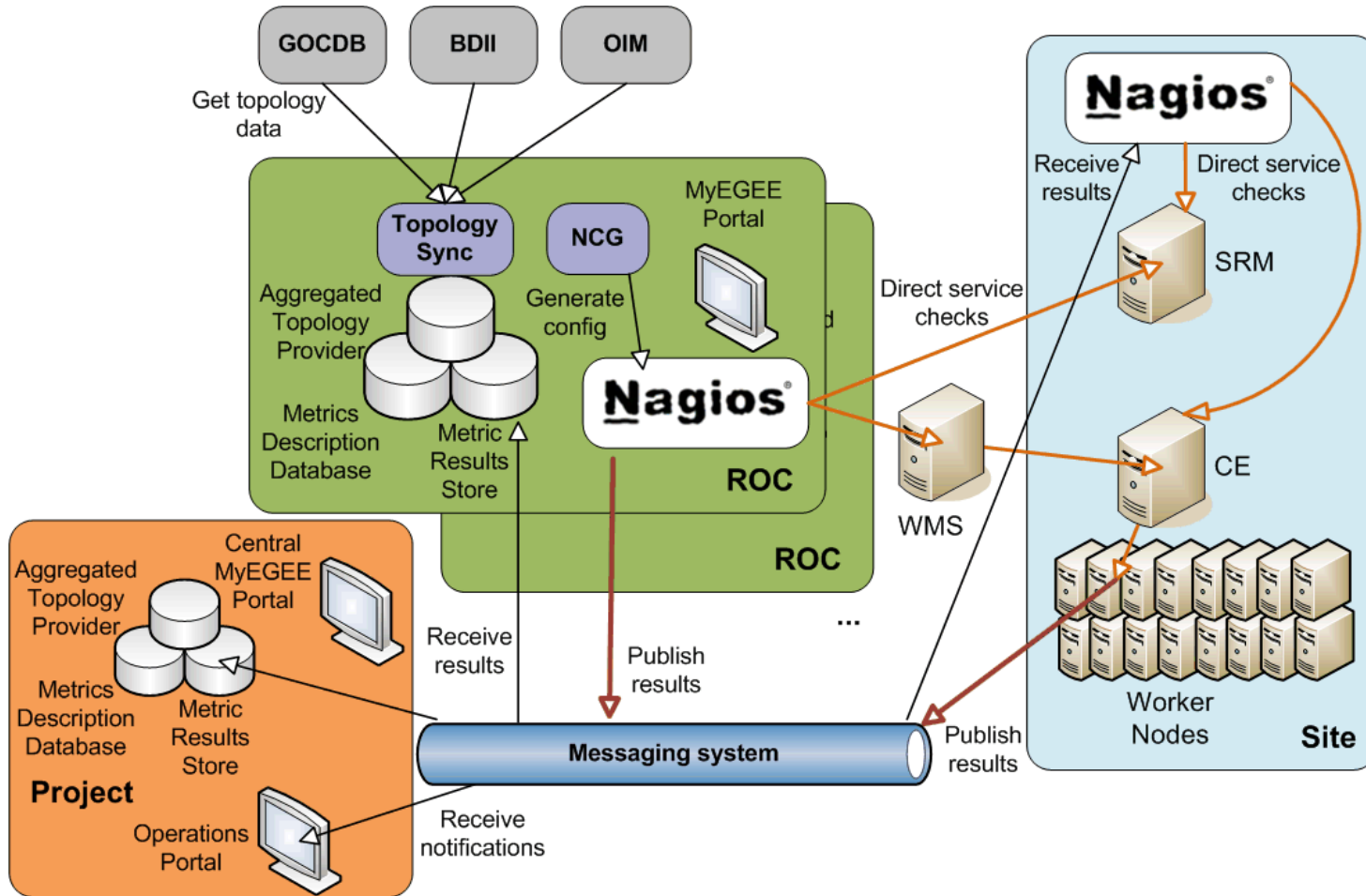
# GridPP

UK Computing for Particle Physics

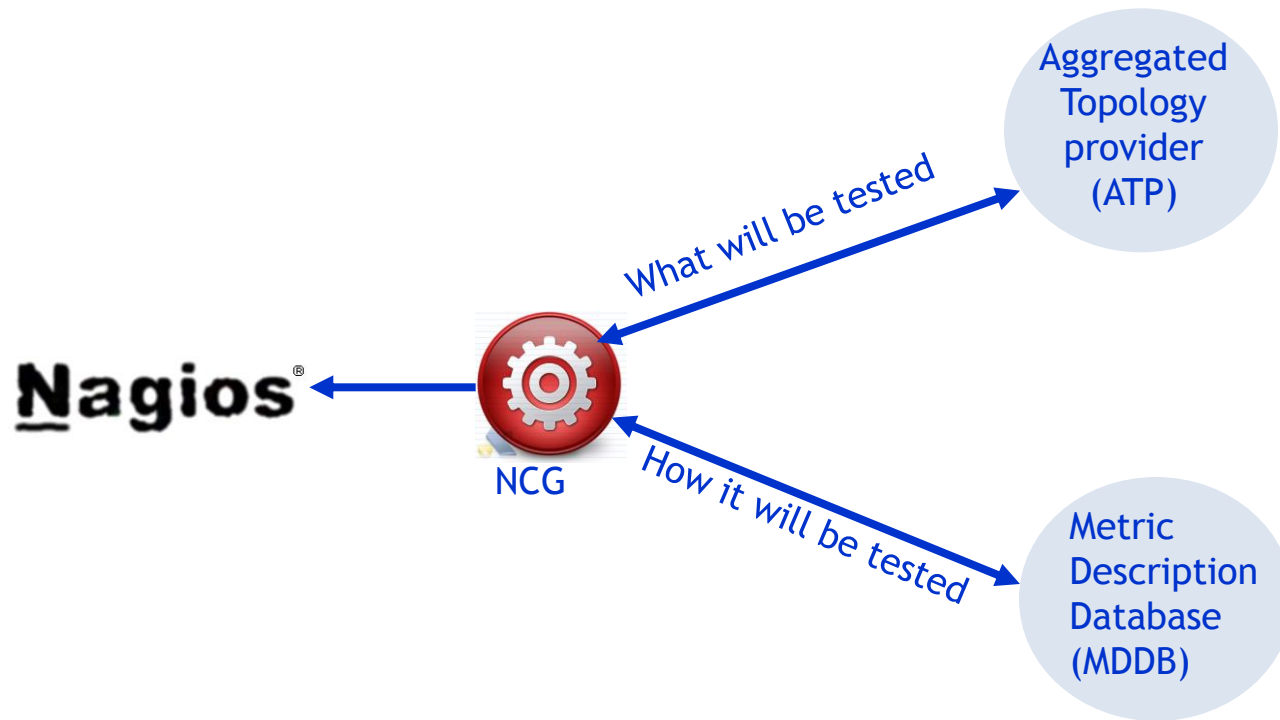
## REGIONAL NAGIOS

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- Grid Monitoring has been switched from CERN based Nagios machine to Regional Nagios based in Oxford from 26<sup>th</sup> May
- Dashboard receives alarms from Regional Nagios and ROD create tickets based on those alarms
- Reliability and Availability of resources will also be based on metrics from these tests.
- OPS testing by SAM will be stopped sometime in July.
- Testing from experiment VO's by SAM will continue for some time.
- Eventually all testing by Experiment VO's would be switch to Nagios.



- Nagios Configuration Generator (NCG)
  - It dynamically configure Nagios based on information from different sources.



- Aggregated Topology Provider (ATP) is a service which aggregate information from different sources like
  - Different grid infrastructure (EGEE,OSG)
  - Projects (WLCG)
  - Sites, Services and VOs
  - Downtime
  - A history of the above
- All the information is stored in a database.
- ATP database is part of regional nagios and configured by YAIM.
- But Regional Nagios is still using SAMPI for topology information.

- Metric Description Database (MDDDB) stores metrics which are used to test grid infrastructure
- It can store different profiles for different availabilities and configuration of Nagios installations.
- This is also part of regional nagios package and configured by YAIM
- Not fully functional yet
- Nagios uses text file for this information

- Metric Result Store

- Historic metric results for services
- It would be the replacement for SAM DB





Host ↑	Service ↑	Status ↑	Last Check ↑	Duration ↑	Attempt ↑	Status Information
t2ce04.physics.ox.ac.uk	hr_srce.GRAM-CertLifetime	OK	06-08-2010 14:16:12	0d 17h 26m 30s	1/2	CERT LIFETIME OK - Certificate will expire in 331.96 days (May 8 12:13:59 2011 GMT)
	org.sam.CE-JobState-/ops /Role=lcgadmin	OK	06-08-2010 15:37:53	0d 17h 16m 30s	1/2	OK: success.
	org.sam.CE-JobSubmit-/ops /Role=lcgadmin	OK	06-08-2010 15:37:53	0d 16h 50m 53s	1/2	OK: success.
	org.sam.VVN-Bi-/ops /Role=lcgadmin	OK	06-08-2010 14:54:23	0d 17h 13m 9s	1/2	t2wn54.physics.ox.ac.uk: OK: getCE: t2ce04.physics.ox.ac.uk:2119/jobmanager-lcgpbs-expressfive
	org.sam.VVN-CAver-/ops /Role=lcgadmin	OK	06-08-2010 14:54:28	0d 17h 13m 5s	1/2	t2wn54.physics.ox.ac.uk: OK
	org.sam.VVN-Csh-/ops /Role=lcgadmin	OK	06-08-2010 14:54:25	0d 17h 13m 7s	1/2	t2wn54.physics.ox.ac.uk: OK
	org.sam.VVN-Rep-/ops /Role=lcgadmin	OK	06-08-2010 14:55:22	0d 17h 12m 23s	1/2	t2wn54.physics.ox.ac.uk: OK: success.
	org.sam.VVN-RepCr-/ops /Role=lcgadmin	OK	06-08-2010 14:54:45	0d 17h 12m 53s	1/2	t2wn54.physics.ox.ac.uk: OK: File was copied to SE t2se01.physics.ox.ac.uk and registered in LFC prod-lfc-shared-central.cern.ch. CLI
	org.sam.VVN-RepDel-/ops /Role=lcgadmin	OK	06-08-2010 14:55:22	0d 17h 12m 23s	1/2	t2wn54.physics.ox.ac.uk: OK: Replicas for [lfn:/grid/ops/SAM/sam-lcg-rm-cr-t2wn54.physics.ox.ac.uk.100608135436.6832190] were deleted. CLI
	org.sam.VVN-RepFree-/ops /Role=lcgadmin	OK	06-08-2010 14:54:28	0d 17h 13m 5s	1/2	t2wn54.physics.ox.ac.uk: OK: ok
	org.sam.VVN-RepGet-/ops /Role=lcgadmin	OK	06-08-2010 14:54:53	0d 17h 12m 45s	1/2	t2wn54.physics.ox.ac.uk: OK: File was copied from SRM. Diff successful. CLI
	org.sam.VVN-RepSenv-/ops /Role=lcgadmin	OK	06-08-2010 14:54:27	0d 17h 13m 5s	1/2	t2wn54.physics.ox.ac.uk: OK: LCG_GFAL_INFOSYS is set to lcgbdii.gridpp.rl.ac.uk:2170,lcg-bdii.gridpp.ac.uk:2170,lcg-bdii.cern.ch:2170
	org.sam.VVN-RepRep-/ops /Role=lcgadmin	OK	06-08-2010 14:55:13	0d 17h 12m 27s	1/2	t2wn54.physics.ox.ac.uk: OK: File was replicated to SE samdpm002.cern.ch. Replicas listed successfully. CLI
	org.sam.VVN-SoftVer-/ops /Role=lcgadmin	OK	06-08-2010 14:54:28	0d 17h 13m 4s	1/2	t2wn54.physics.ox.ac.uk: OK: 3.2.0
	org.sam.CE-JobMonit-/ops /Role=lcgadmin	OK	06-08-2010 15:42:38	45d 2h 1m 37s	1/2	OK: Jobs processed - 32
	org.sam.CREAMCE-JobMonit-/ops /Role=lcgadmin	OK	06-08-2010 15:47:12	45d 2h 21m 31s	1/2	OK: Jobs processed - 6
	org.sam.mpi.CE-JobMonit-/ops /Role=lcgadmin	OK	06-08-2010 15:43:44	45d 2h 11m 31s	1/2	OK: Jobs processed - 3



- Org.sam.CE-JobSubmit service submits job to CE every hour
- Org.sam.CE-JobMonit service monitor all jobs submitted from Nagios every 5 min and update the status to org.sam.CE-JobSubmit.
- If job completes successfully on CE, result is uploaded to message bus directly from WN
- Nagios subscribes to message bus and the results are displayed as passive test result.
- If job stays in waiting state for 45 min or not completed within 55 min, job is killed and status change to critical.

Host ↑ ↓	Service ↑ ↓	Status ↑ ↓	Last Check ↑ ↓	Duration ↑ ↓	Attempt ↑ ↓	Status Information
<a href="#">dgc-grid-38.brunel.ac.uk</a>	 <a href="#">hr_srce_SRM2-CertLifetime</a>	 OK	06-08-2010 14:01:48	0d 23h 34m 25s	1/2	CERT LIFETIME OK - Certificate will expire in 188.17 days (Dec 13 16:59:28 2010 GMT)
	<a href="#">org.sam.SRM-All-/ops/Role=lcgadmin</a>	 OK	06-08-2010 17:12:02	1d 0h 24m 11s	1/4	OK: success.
	<a href="#">org.sam.SRM-Del-/ops/Role=lcgadmin</a>	  OK	06-08-2010 17:12:30	1d 0h 23m 43s	1/4	OK: File was deleted from SRM.
	<a href="#">org.sam.SRM-Get-/ops/Role=lcgadmin</a>	  OK	06-08-2010 17:12:30	1d 0h 23m 43s	1/4	OK: File was copied from SRM. Diff successful.
	<a href="#">org.sam.SRM-GetSURLs-/ops/Role=lcgadmin</a>	  OK	06-08-2010 17:12:02	1d 0h 24m 11s	1/4	OK: Got SRM endpoint(s) and Storage Path(s) from BDII
	<a href="#">org.sam.SRM-GetURLs-/ops/Role=lcgadmin</a>	  OK	06-08-2010 17:12:22	1d 0h 23m 51s	1/4	OK: protocols OK-[gsiftp, rfi]
	<a href="#">org.sam.SRM-Ls-/ops/Role=lcgadmin</a>	  OK	06-08-2010 17:12:10	1d 0h 24m 3s	1/4	OK: listing [/dpm/brunel.ac.uk/mice1/ops/testfile-put-1276013522-72e4603d07a1.txt]-ok:
	<a href="#">org.sam.SRM-LsDir-/ops/Role=lcgadmin</a>	  OK	06-08-2010 17:12:02	1d 0h 24m 11s	1/4	OK: Storage Path[/dpm/brunel.ac.uk/mice1/ops]-ok:
	<a href="#">org.sam.SRM-Put-/ops/Role=lcgadmin</a>	  OK	06-08-2010 17:12:10	1d 0h 24m 3s	1/4	OK: File was copied to SRM.

- Org.sam.SRM-All is the parent test wrapper which is executed every hour.
- Test results are published to message bus.

- Nagios equivalent of SAMAP functionality with a twist.
- People registered as admin in GOADB can reschedule test for their site, those registered as regional staff can submit job to any site in ROC.
- Test can only be rescheduled if org.sam.CE-jobSubmit status is in terminal state, i.e success, aborted or cancel
- It can not be rescheduled if it is in non terminal state like running, waiting, etc

## Service State Information

Current Status: **OK** (for 0d 3h 19m 45s)

Status Information: OK: success.  
OK: success.

Testing from: gridppnagios.physics.ox.ac.uk  
 DN: /C=UK/O=eScience/OU=Oxford/L=OeSC/CN=kashif mohammad/CN=proxy/CN=proxy/CN=proxy  
 /CN=proxy  
 VOMS FQANs: /ops/Role=lcgadmin/Capability=NULL, /ops/ROC/Role=NULL/Capability=NULL,  
 /ops/ROC/UKI/Role=NULL/Capability=NULL, /ops/Role=NULL/Capability=NULL  
 glite-wms-job-status https://lcglb02.gridpp.rl.ac.uk:9000/9zAIZ3KTSMTri5IKShuQAA











===== glite-wms-job-status Success =====  
 BOOKKEEPING INFORMATION:

Status info for the Job : https://lcglb02.gridpp.rl.ac.uk:9000/9zAIZ3KTSMTri5IKShuQAA  
 Current Status: Done (Success)  
 Logged Reason(s):  
 - job completed  
 - Job Terminated Successfully  
 Exit code: 0  
 Status Reason: Job Terminated Successfully  
 Destination: t2ce02.physics.ox.ac.uk:8443/cream-pbs-express  
 Submitted: Wed Jun 9 13:37:33 2010 BST

-----  
 Getting job output: OK.

Performance Data:  
 Current Attempt: 1/2 (HARD state)

## Service Commands

-  [Enable active checks of this service](#)
-  [Re-schedule the next check of this service](#)
-  [Submit passive check result for this service](#)
-  [Stop accepting passive checks for this service](#)
-  [Stop obsessing over this service](#)
-  [Disable notifications for this service](#)
-  [Send custom service notification](#)
-  [Schedule downtime for this service](#)
-  [Disable event handler for this service](#)
-  [Enable flap detection for this service](#)

- If you want to see only your site
  - <https://gridppnagios.physics.ox.ac.uk/nagios/cgi-bin/status.cgi?hostgroup=site-UKI-SOUTHGRID-BRIS-HEP&style=detail>
  - <http://tinyurl.com/36zs562>
- Adding this with firefox plugin gives instant error notification for your site
  - <https://addons.mozilla.org/en-US/firefox/addon/3607/>

- If a critical test fails 2 times in a row, a notification is sent to a special notification queue in message bus
- Operation dashboard subscribe to Notification queue and after some complicated filtering display those result to dashboard.
- Regional Operator on Duty create a Ticket based on alarm.
- Site can also look at Operation Dashboard for alarms against their site.
  - <https://operations-portal.in2p3.fr/>



*MyEGEE*

*or*

*MyEGI ?*



- MyEGEE is the visualization tool for operations to check metric results and resource statuses
- It is a separate component but installed with Regional Nagios
  - <https://gridppnagios.physics.ox.ac.uk/myegee>
- It takes it input from Metric Resource Database



- Sites can install Nagios in two flavour
  - PROBE\_TYPE=Remote
    - It subscribes to topic in Message Bus and display the result as passive test
  - PROBE\_TYPE=Remote,Local
    - It also submit some local test.
- Advantages
  - It is possible to configure email notification.
  - It can be configured to add non production services for testing.
- Disadvantage
  - Extra service to maintain
  - Useless in case of network failure or machine room problem



**GridPP**

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Thank You

