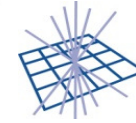




Science & Technology
Facilities Council



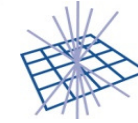
GridPP
UK Computing for Particle Physics

Tier1 Dashboard

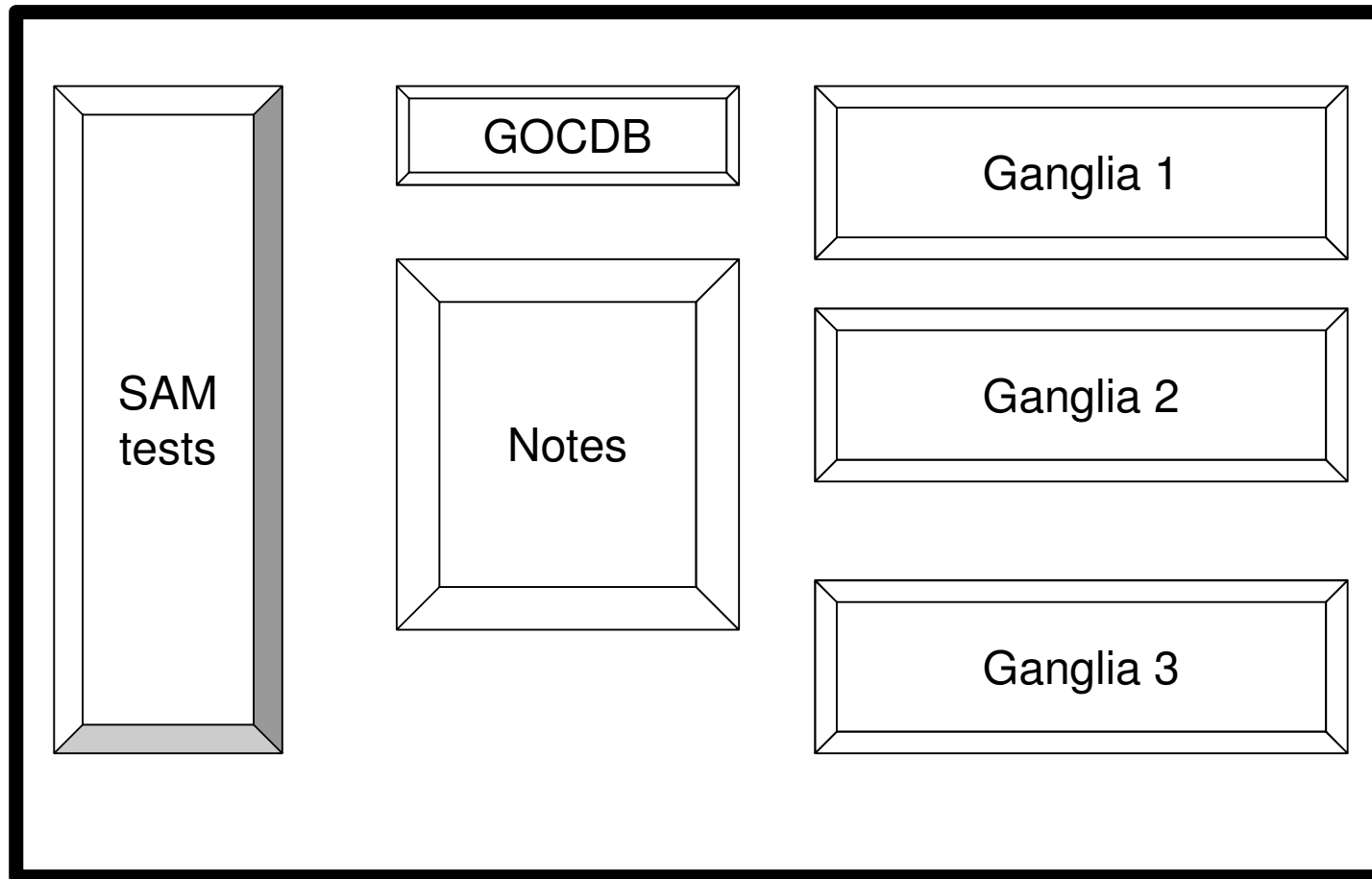
Tiju Idiculla, RAL
HEPSysMan – 11 June 2010



- Started April 2009
- Plan
 - First build an internal dashboard
 - External dashboard later
- The internal version became the external one
 - Went live in September 2009
 - Heavily used at RAL
 - Large number of external users (Glasgow, RHUL, Imperial, Oxford)
- New version of an internal dashboard still being discussed



Proposed internal dashboard



OPS SAM Tests

- CREANCE
- CE
- SRMV2
- FTS
- BDII
- BDII
- VOBOX
- RRB
- LFC_L

Atlas SAM Tests

- CE
- SRMV2
- FTS
- LFC_L

Alice SAM Tests

- CE
- VOBOX

CMS SAM Tests

- CREANCE
- CE
- SRMV2

LHCb SAM Tests

- CREANCE
- CE
- RRB
- SRMV2
- LFC_L

SLS

- FTS 100%

LFC

- 100%

3D Databases

- 100%

Castor Tape

- 64%

Notices

Date	Added by	Subject	Description
08/06/2010 11:26	Catalin Condurache	at risk' on lugh finished	The rebalancing operation successfully completed.
08/06/2010 09:44	Catalin Condurache	at risk' on lugh	currently 'at risk' on lugh (LHCb 3D and LFC) while database nodes are re-balanced
08/06/2010 09:43	Catalin Condurache	RAL site status	no known overnight issues
07/06/2010 14:39	John Kelly	RAL site status	There are no known operational issues.
04/06/2010 11:03	Tijuu Idiculle	Status	No known operational issues.

[\(Click here to add\)](#)

Disk servers in Intervention

Machine	VO	Spacetoken	DiskPool	dxtx
gdss207	alice		aliceTape	0011
gdss67	CMS	cmsFarmRead	cmsFarmRead	0011
gdss474	LHCb	LHCb_M-DST	lhcMdst	0111

Downtimes

No ongoing downtime

Downtimes during next 2 weeks

Downtime ID	Hosts	Start time	End time	Severity	Description
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Storage Usage (in GB)

[Accounting information](#)

VO/DiskPool	Disk Used	Disk Free	Disk Total
alice	16% 48,722	257,951	
atlas	50% 1,099,292	2,185,579	
cms	49% 630,036	1,279,346	
lhc	35% 206,488	582,904	
lhcne	65% 50,762	77,981	
lhc	65% 50,762	77,981	
alice	65% 76,144	116,972	
lhcne	65% 50,762	77,981	
l2k	65% 50,762	77,981	

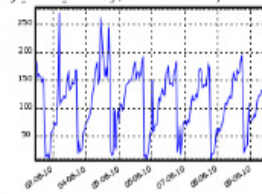
[Click on VO name for details](#)

Tape usage information is temporarily unavailable as the consistency of the values are under review.

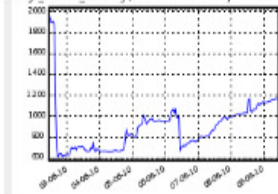
Castormon

Migration Queues

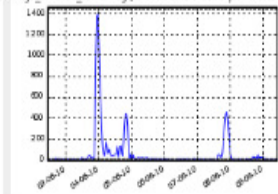
range_CASTOR_ATLAS MigQueue Last Week Wed Jun 9 09:57:02



range_CASTOR_CMS MigQueue Last Week Wed Jun 9 10:10:02 2

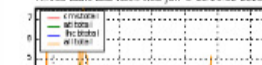


range_CASTOR_LHCb MigQueue Last Week Wed Jun 9 10:16:01 1

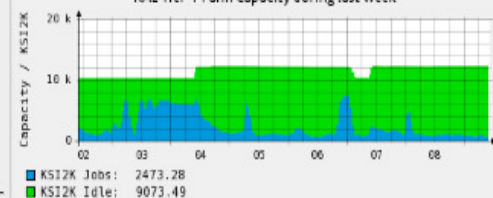


Drive Usage

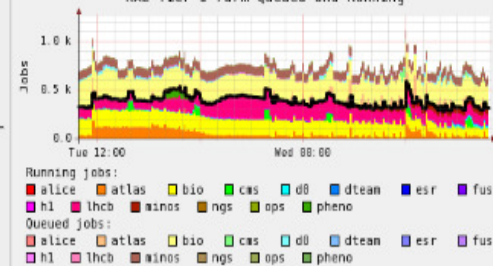
AllVOs Totals Last Week Wed Jun 9 10:25:02 2010



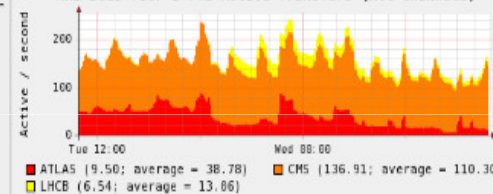
RAL Tier-1 Farm Capacity during last week



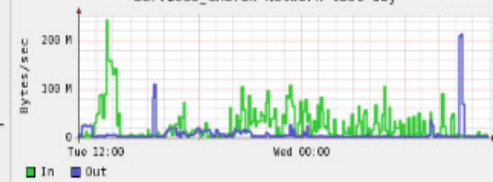
RAL Tier-1 Farm Queued and Running



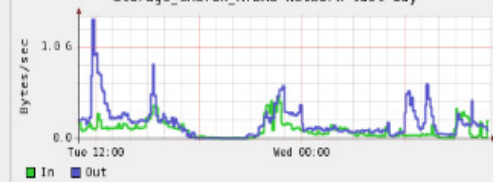
RAL-LCG2 Tier-1 FTS Active Transfers (All Channels)



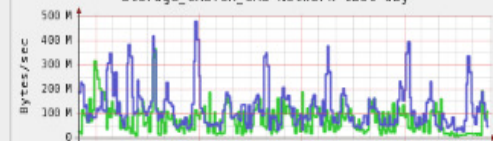
Services_CASTOR Network last day

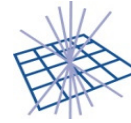


Storage_CASTOR_ATLAS Network last day

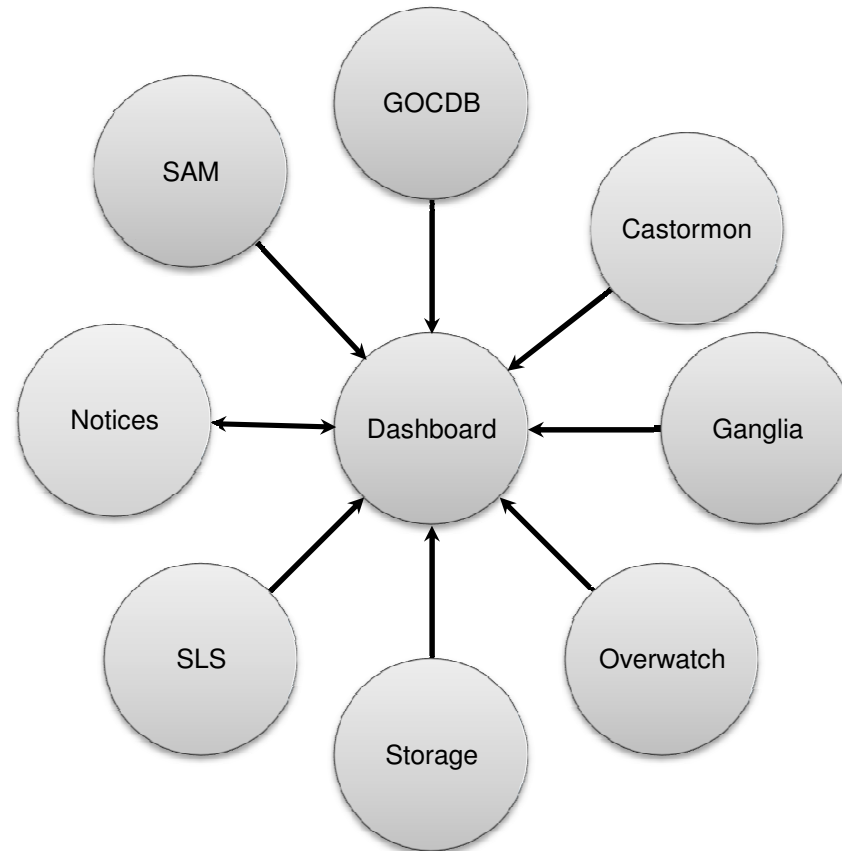


Storage_CASTOR_CMS Network last day





Information flow



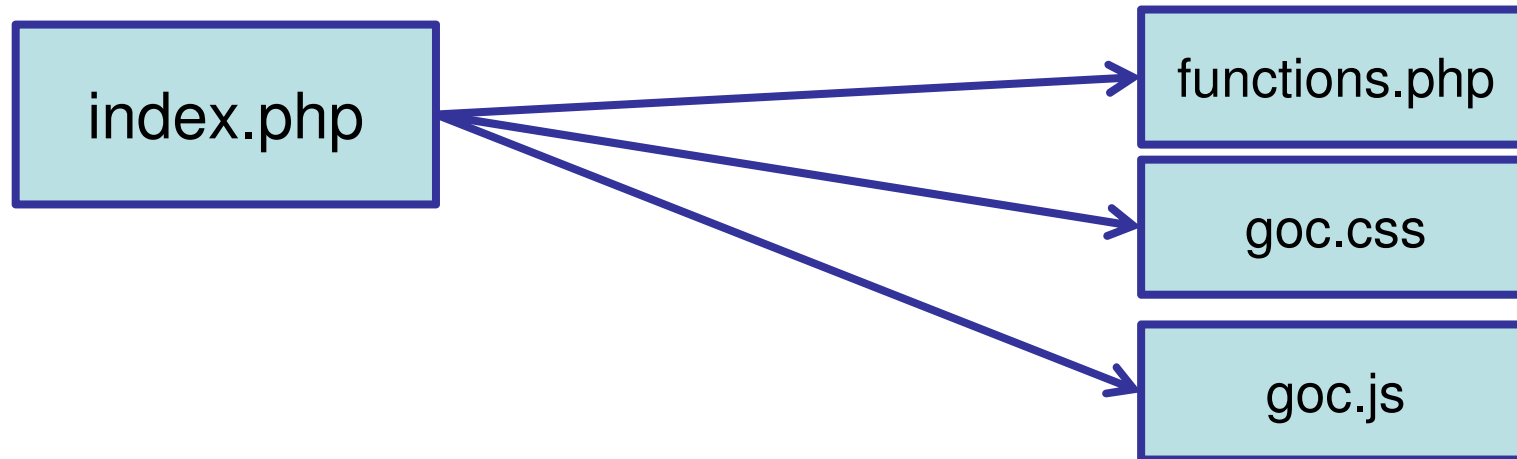
How it is gathered

Scope	Source	Type
External	SAM	Programmatic interface
Semi-external	GOCDDB	Programmatic interface
	SLS	Image display
Internal	Overwatch	PostgreSQL database query
	Storage	BDII query
	Ganglia	Image display
	Castormon	Image display
Local	Notices	Locally generated

Technology

- PHP
 - XMLRPC for connecting to the blog
- Javascript
 - jsProgressBarHandler
- CSS

Implementation



- do_sam_tests("OPS")
- display_notice(5)
- do_diskServers()
- do_downtime(0),do_downtime(2)
- storage_info()

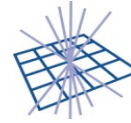
From	RAL Tier1 Duty Administrator <dutyadm@gridpp.rl.ac.uk>
X-RAL-Tier1-Sender-DN	C=UK/O=eScience/OU=CLRC/L=RAL/CN=tiju idiculla
CC	
Subject	
Message	
Ops Blog	<input type="checkbox"/>
Dashboard	<input type="checkbox"/>
Create OnCall ticket	<input type="checkbox"/>

Group	Contact	Add
Tier1 Contacts	Duty Admin	<input type="checkbox"/>
	ESC PSCS CASTOR Team	<input type="checkbox"/>
	ESC PSCS Fabric Team	<input type="checkbox"/>
	ESC PSCS Grid Services Team	<input type="checkbox"/>
	ESC PSCS Production Team	<input type="checkbox"/>
GridPP	GridPP-Users Mailing List	<input type="checkbox"/>
Alice	Lee Barnby	<input type="checkbox"/>
Atlas	Atlas UK Comp Operations	<input type="checkbox"/>
	Atlas ADC Operations Shifts	<input type="checkbox"/>
	Atlas Point 1 Shifts	<input type="checkbox"/>
	Atlas ADC Experts	<input type="checkbox"/>
	Alastair Dewhurst	<input type="checkbox"/>
BaBar	Tim Abye	<input type="checkbox"/>
	Fergus Wilson	<input type="checkbox"/>
CMS	Andrew Lahiff	<input type="checkbox"/>
	Chris Brew	<input type="checkbox"/>
	James Jackson	<input type="checkbox"/>
	David Colling	<input type="checkbox"/>
LHCb	Raja Nandakumar	<input type="checkbox"/>
	Andrew Cameron Smith	<input type="checkbox"/>
	Roberto Santinelli	<input type="checkbox"/>
	Glenn Patrick	<input type="checkbox"/>
MICE	MICE Data Manager	<input type="checkbox"/>
	Paul Kyberd	<input type="checkbox"/>
MINOS	Philip Rodrigues	<input type="checkbox"/>
ILC	Steve Worm	<input type="checkbox"/>
	Jan Strube	<input type="checkbox"/>
T2K.org	Ben Still	<input type="checkbox"/>
SNO	Steven Biller	<input type="checkbox"/>

[Experiment Operational Contacts List](#)

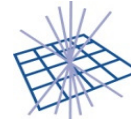
[Add GOCDB Downtime](#)

Send



Notices/Mailer

- Access to Tier1 staff only
 - X.509 certificates
- Post notices to dashboard
- Send mail to experiments
 - Very useful at 2am
 - DN used in the email headers
- Post entries to the Duty admin logbook
- Link to GOCDDB for adding downtime



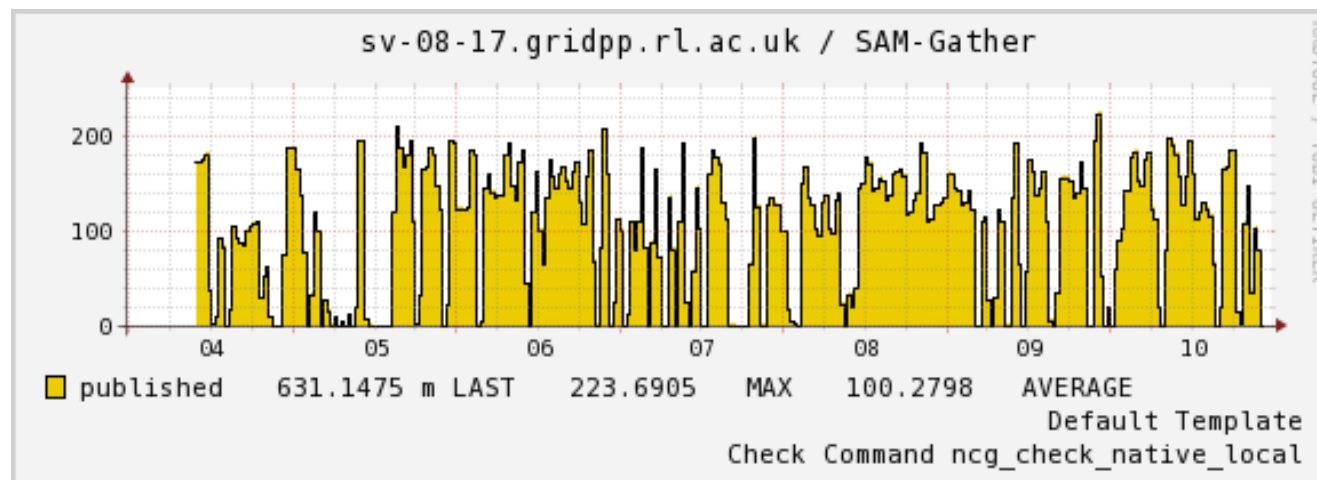
- Code available at
<http://www.gridpp.rl.ac.uk/status/dashboard.tar.bz2>
- Search for “CHANGEME”

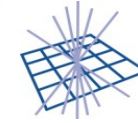
SAM PI replacements

- Metrics Result Store programmatic interface (MRS-PI)
 - <https://twiki.cern.ch/twiki/bin/view/LCG/MRS>
 - Retrieve results as XML, JSON, YAML, PICKLE
 - Who will provide the service?
- Streaming Text Oriented Messaging Protocol (STOMP)
 - <https://twiki.cern.ch/twiki/bin/view/EGEE/MsgTutorial>
- perl-GridMon and msg-nagios-bridge in SA1 repo

Site Nagios - 1

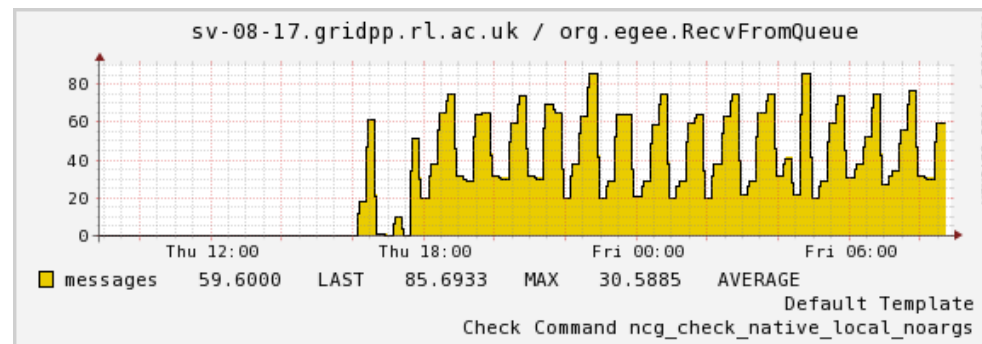
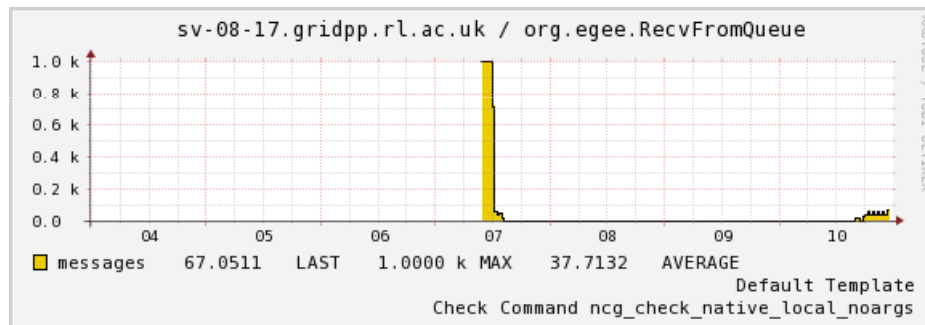
- NCG_PROBES_TYPE=remote
 - Collect remote results only; no local tests
- NCG_REMOTE_USE_SAM=true
 - Collect SAM test results from SAM PI every hour.





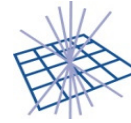
Site Nagios - 2

- NCG_REMOTE_USE_NAGIOS=true
 - Collect Nagios results from message bus every 10 minutes.



Site Nagios - 3

- **Message brokers**
 - stomp://gridmsg102.cern.ch:6163/
 - stomp://gridmsg101.cern.ch:6163/
 - stomp://msg.cro-ngi.hr:6163/
 - stomp://broker.afroditi.hellasgrid.gr:6163/
- **Subscribed queues**
 - /topic/grid.probe.metricOutput.EGEE.roc.RAL-LCG2
 - /topic/grid.probe.metricOutput.vo.*.RAL-LCG2
 - /topic/grid.config.metricOutput.EGEE.roc.RAL-LCG2
 - /topic/grid.config.metricOutput.vo.*.RAL-LCG2



Questions ?