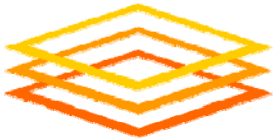


OSG Monitoring Requirements

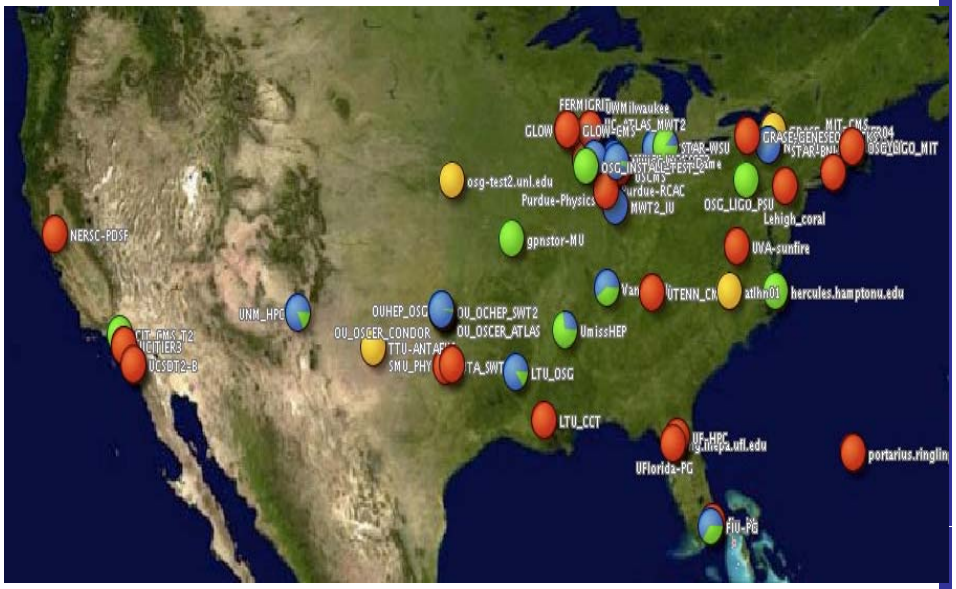
Rob Quick
OSG Operations Coordinator

Agenda

- Monitoring in OSG
- A Change in Philosophy
- Requirements
- Truth v Truthiness

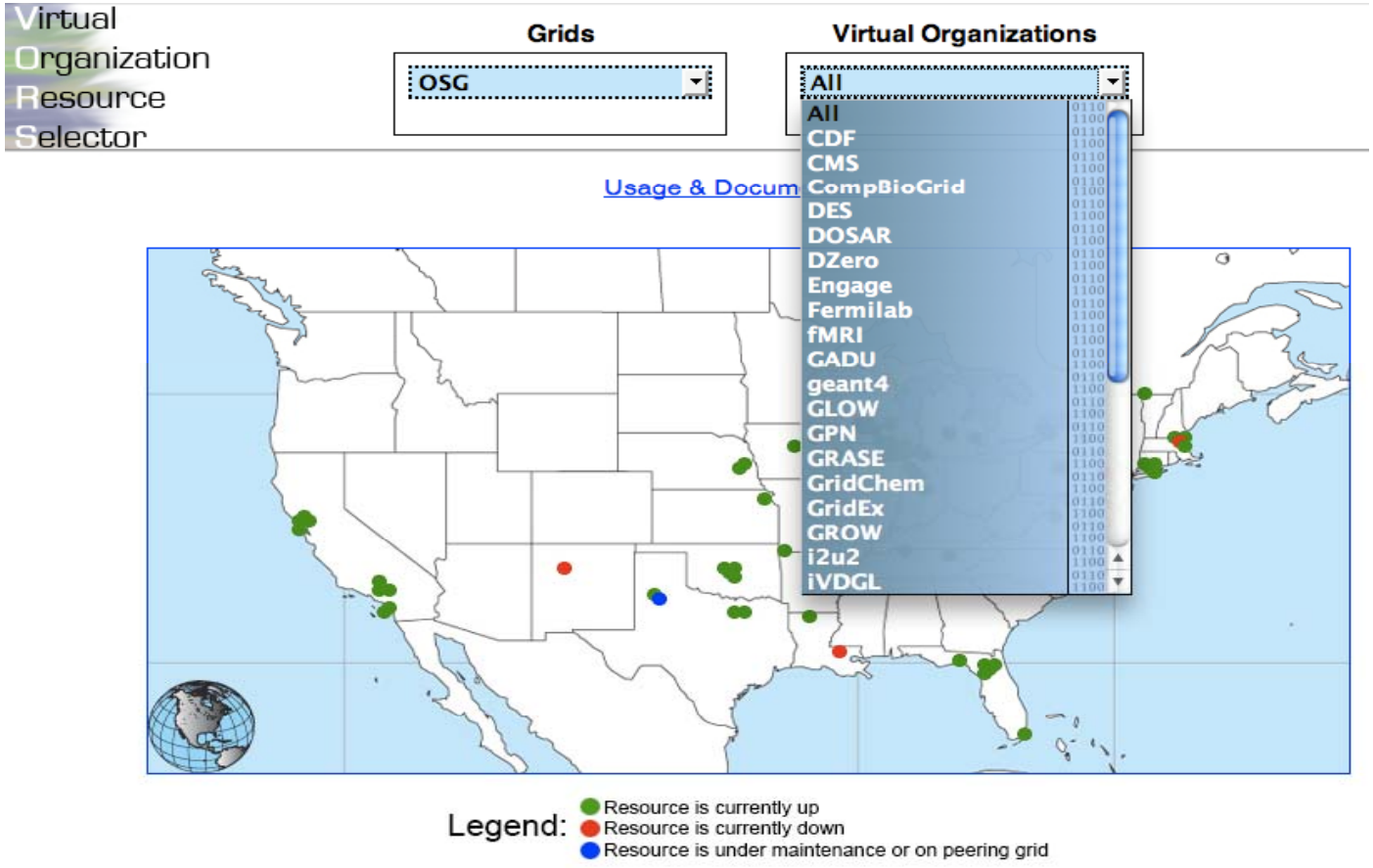
Deprecated

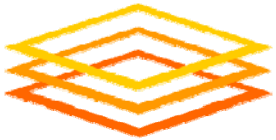
- GridCat and MonALISA



Open Science Grid

VORS





VORS (Continued)

- Status Monitoring
- Attempt to determine if VO is supported on the resource
- Linked to resource BDII information
- Tests run from GOC

VORS Assumptions

- All resources support the MIS VO
- GOC would be responsible for report failures to resources
- Resource admins would schedule downtime via the GOC to assure correct status information
- Resources would respond promptly to reported failures

Problems with VORS

- Very poorly documented
- Fosters the attitude of “install it and forget it” for resource admins.
- Resource admins often fall a couple of steps away in the alert process. (GOC->VO Support Center->Admin)
- Determining what VOs are supported is just not very accurate.

A Change in Philosophy

- Resource admins should want to me more involved.
- Most tests do not really need to be run from a central location (though it would be nice to be able to do this if you wished).
- Reaction time to failures should not be dependant on the GOC's intervention.
- The GOC does not necessarily care about the same status checks as VOs, Users, Admins

Resource and Service Validation

- Simple probes that can be run locally to gather most status information for resources
- A local display is available for resource admins to view and react to failures.
- Results are also uploaded to the GOC for Analysis, Display, and Archive
- WLCG Monitoring Group specification used so results could be reported to SAM

RSV V1 in OSG 0.8.0

Open Science Grid

OSG RSV Status - Main
11-27-2007 14:50:58

Archived HTML pages

tier2-osg.uchicago.edu

Probe	Metric	Last Executed	Status
classad-valid-probe	org.osg.general.classad-valid	2007-11-27T20:46:01Z	CRITICAL
osg-version-probe	org.osg.general.osg-version	2007-11-27T20:50:01Z	OK
gridftp-simple-probe	org.osg.globus.gridftp-simple	2007-11-20T17:08:01Z	CRITICAL
gram-authentication-probe	org.osg.globus.gram-authentication	2007-11-27T14:31:00Z	OK
jobmanagers-status-probe	org.osg.batch.jobmanager-fork-status	2007-11-20T18:21:01Z	CRITICAL
jobmanagers-status-probe	org.osg.batch.jobmanager-managedfork-status	2007-11-20T18:24:00Z	CRITICAL
osg-directories-probe	org.osg.general.osg-directories-CE-permissions	2007-11-27T20:37:00Z	OK
jobmanagers-status-probe	org.osg.batch.jobmanager-condor-status	2007-11-27T20:44:04Z	OK
certificate-expiry-local-probe	org.osg.local.httpcert-expiry	2007-11-20T18:06:01Z	OK
certificate-expiry-local-probe	org.osg.local.containercert-expiry	2007-11-20T18:29:00Z	OK
certificate-expiry-local-probe	org.osg.local.hostcert-expiry	2007-11-27T18:43:09Z	OK
cacert-expiry-local-probe	org.osg.local.cacerts-expiry	2007-11-20T18:58:00Z	OK
jobmanagers-available-probe	org.osg.batch.jobmanagers-available	2007-11-27T06:59:00Z	OK
cacert-crl-expiry-probe	org.osg.certificates.cacert-expiry	2007-11-20T20:40:47Z	CRITICAL
cacert-crl-expiry-probe	org.osg.certificates.crl-expiry	2007-11-27T14:31:01Z	OK

The Next Steps

- Transmission to SAM (tests underway)
- Increase Probe Set
- Dashboards (Operations, VO, Management, Custom) with accounting and administrative data available in the same place.
- Proxy Handling

Requirements

- OSG does not like the word “requirement”!
- The RSV Package which is part of the OSG Middleware
- MIS VO Support (If you want GOC to monitor your site)
- WLCG Grid Monitoring Specifications for Probes

Criticality and Monitoring

GOC Service Criticality

- GOC Service Criticality
  - Services
  - Criticality Table

Services

Service	Critcality	Location	Currently Redundant	Need to be redundant?	Notes
GOC Mail Accounts	4	IUB/IUPUI	Y	Y	
FP Trouble Ticketing	4	IUB/IUPUI	Y	Y	
Production CEMon/BDII Aggregator	4	IUB	N	Y	
GOC VOMS	4	IUB	N	Y	
TWiki	4	IUB	N	Y	
ReSS	4	FNAL	N	Y	
VORS	4	IUB	N	Y	
Registration DB	4	IUB	N	Y	
Software Cache	3	IUB	N	N	
GridScan	3	IUB	N	N	
Registration Forms	3	IUB	N	N	
GOC Nagios	3	IUB	N	N	

Open Science Grid

Truthiness

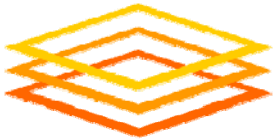
- An opinion of what is true, unencumbered by the facts.
- The quality by which something is believed emotionally without regard to evidence or rational thought.

Truthiness in Monitoring

- Monitoring shows 95% Availability, user still can't run on most resources…
- Accounting shows 93% of jobs complete successfully, user sees 75% on a good day…
- Resource has given high priority or dedicated node to monitoring jobs…

Separating Truth from Truthiness

- RSV Probes can be run by the user as easily as the GOC.
- Easy to write and plug custom probes into the RSV infrastructure.
- Individual dashboard displays coming soon.
- Operations will probably always have a bit better picture than users, VOs, and Resource Admins, but if users have the same tools, we can close the gap.



Thank you for your attention.

Questions?