

Open Science Grid

# WLCG Monitoring at OSG

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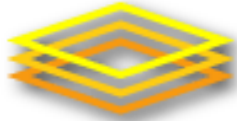
# RSV Project

- Mandate from facilities manager in March
- Simple **probes** that **validate** resources and/or services
- Must be able to be run locally with Site Administrator view
- Metrics gathered at the GOC for analysis
- Provide WLCG with availability statistics
- Add minimal software to OSG Middleware stack



## How is this done?

- Scheduling infrastructure: **Condor** based functionality developed by VDT group
- Data Collection and Storage: **Gratia** based collector and MySQL database developed by Gratia group
- Grid Monitoring Working Group “Standards”
- Simple perl based probes to test basic functionality



## RSV Sysadmin View



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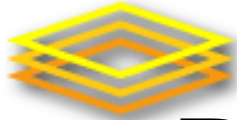
### OSG RSV Status - feynman.uits.iupui.edu 09-17-2007 23:56:27

feynman.uits.iupui.edu

Probe	Metric	Last Executed	Status
<a href="#">ping-host-probe</a>	<a href="#">org.osg.general.ping-host</a>	2007-09-18T03:55:02Z	OK
<a href="#">osg-version-probe</a>	<a href="#">org.osg.general.osg-version</a>	2007-09-18T03:55:02Z	CRITICAL
<a href="#">gram-authentication-probe</a>	<a href="#">org.osg.globus.gram-authentication</a>	2007-09-18T02:01:01Z	CRITICAL
<a href="#">certificate-expiry-local-probe</a>	<a href="#">org.osg.local.httpcert-expiry</a>	2007-09-18T02:06:01Z	OK
<a href="#">jobmanagers-status-probe</a>	<a href="#">org.osg.batch.jobmanager-status</a>	2007-09-18T02:44:02Z	CRITICAL
<a href="#">certificate-expiry-local-probe</a>	<a href="#">org.osg.local.containercert-expiry</a>	2007-09-18T02:29:00Z	OK
<a href="#">cacert-crl-expiry-probe</a>	<a href="#">org.osg.certificates.crl-expiry</a>	2007-09-18T02:31:01Z	CRITICAL
<a href="#">gridftp-simple-probe</a>	<a href="#">org.osg.globus.gridftp-simple</a>	2007-09-18T02:31:00Z	CRITICAL
<a href="#">certificate-expiry-local-probe</a>	<a href="#">org.osg.local.hostcert-expiry</a>	2007-09-18T02:43:01Z	OK
<a href="#">cacert-crl-expiry-probe</a>	<a href="#">org.osg.certificates.cacert-expiry</a>	2007-09-18T02:48:01Z	CRITICAL
<a href="#">osg-directories-probe</a>	<a href="#">org.osg.general.osg-directories</a>	2007-09-18T02:55:02Z	CRITICAL
<a href="#">cacert-expiry-local-probe</a>	<a href="#">org.osg.local.cacerts-expiry</a>	2007-09-18T02:58:01Z	WARNING
<a href="#">jobmanagers-available-probe</a>	<a href="#">org.osg.batch.jobmanagers-available</a>	2007-09-18T02:59:01Z	CRITICAL

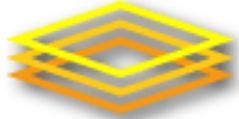
org.osg.general.ping-host

```
metricName: org.osg.general.ping-host
timestamp: 2007-09-18T03:55:02Z
metricStatus: OK
serviceType: other
serviceURI: feynman.uits.iupui.edu
```



# RSV Project: Current Status

- Initial set of RSV probes ready (going through ITB testing)
- Condor scheduling infrastructure in place
- Gratia collector and database (storage) in place
- Simple informative Sysadmin View
- All in OSG ITB release 0.7.1



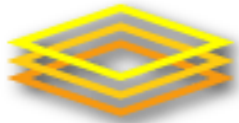
## Yet to be done (RSV v1)

- WLCG Interoperability
  - OSG Critical Tests Defined
  - Test OSG ITB Endpoints Defined
  - SAM Developers working closely with GOC Developers to transport and display data
- Deployment to Production Grid



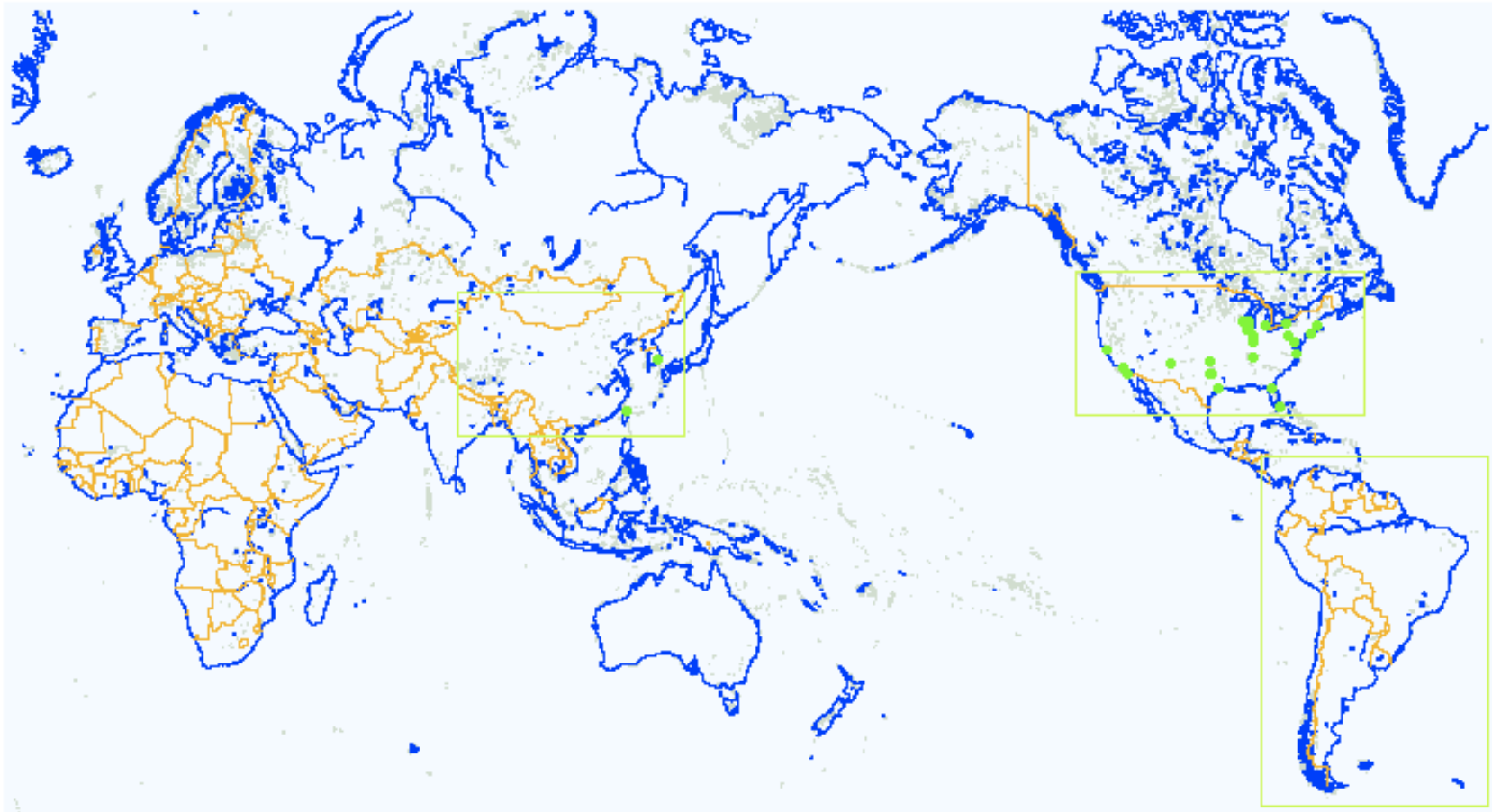
## Future Direction (RSV v2)

- Web interface for collector
- Probe Nagios compatibility
- Extend probe set
  - SE Tests
  - Other Infrastructure Services
  - Health of Probes

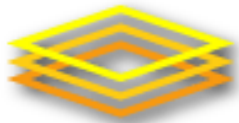


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# GridCat







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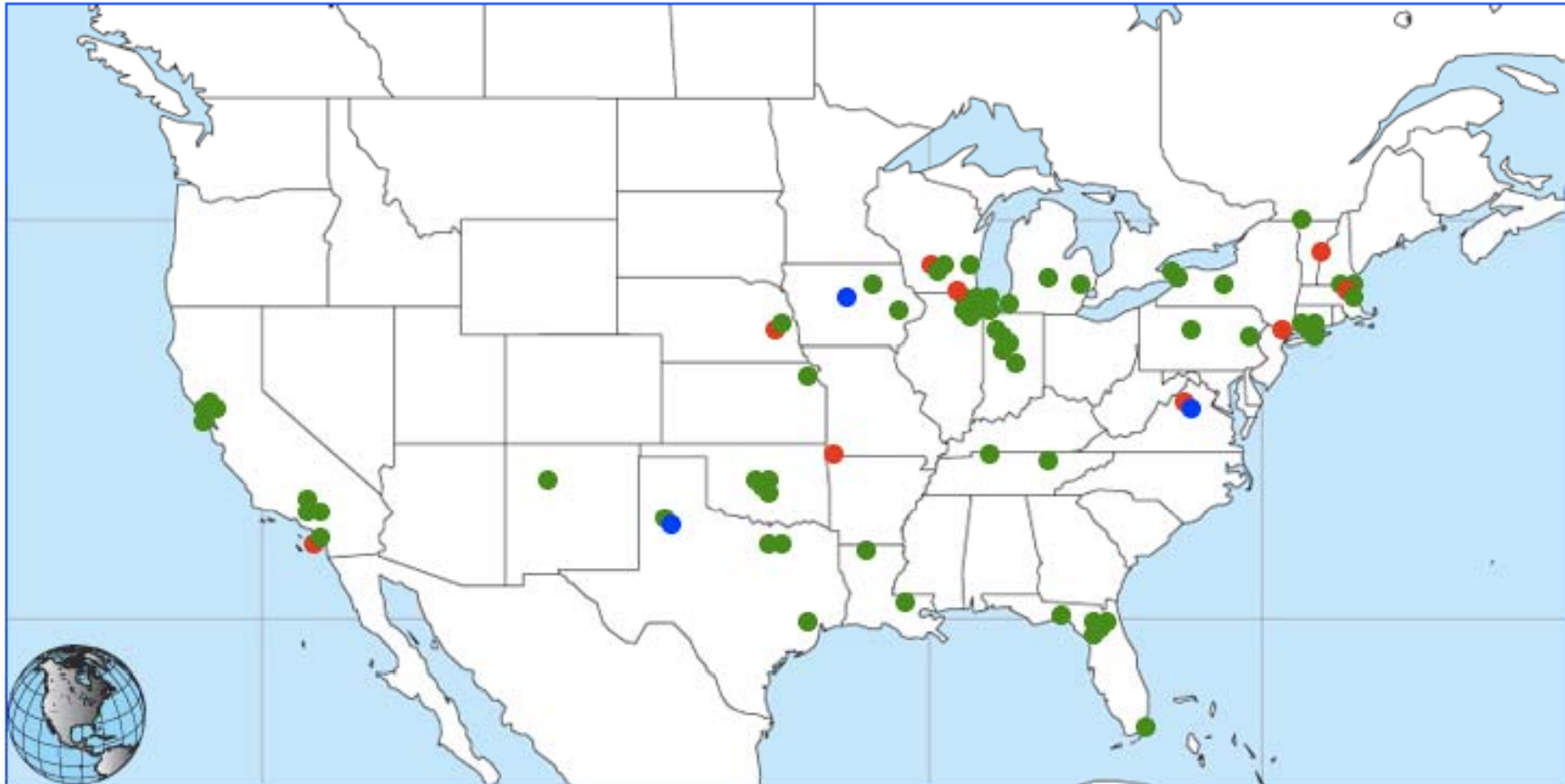
# MonALISA

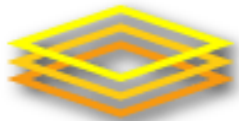




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# Virtual Organization Resource Selector (VORS)





## Gratia



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### Featured Reports

#### Reports - VO Views

- Jobs by VO
- Daily Jobs by VO
- Daily Jobs by Site for VO
- Usage by VO
- Daily Usage by VO
- Daily Usage by Site for VO

#### Reports - VO Views - Weekly History

- Wall Time Usage By VO
- CPU Usage By VO
- Jobs By VO
- Usage Metrics - For VO(s)

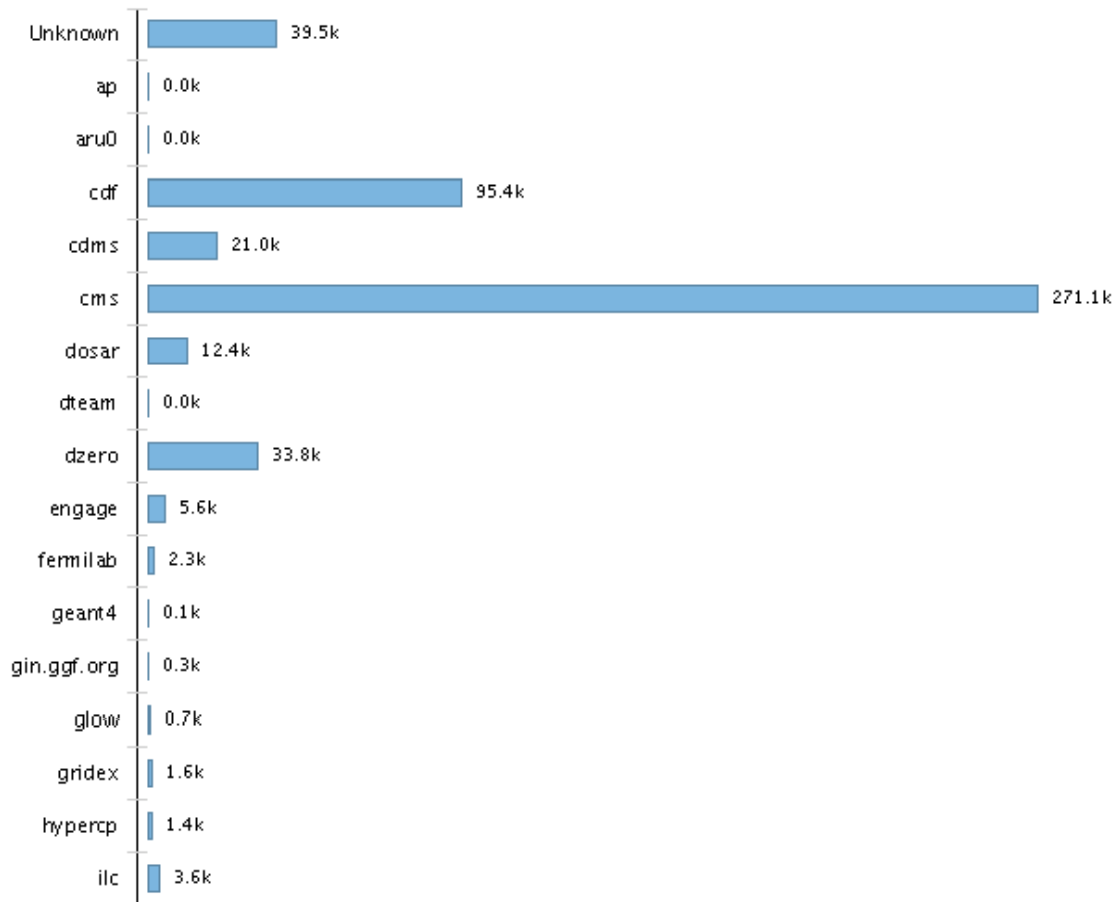
#### Reports - Site Views

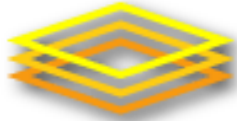
- Jobs by Site
- Daily Jobs by Site
- Daily Jobs by VO for Site
- Usage by Site
- Daily Usage by Site
- Daily Usage by VO for Site

#### Reports - by Probe

- Jobs by Probe

Usage by VO  
GratiaUser

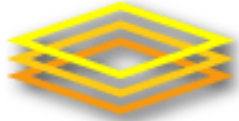




# CEMon/BDII Info

## CEMon / BDII Integrated Server Status

Resource		Served Data		Data Feed			
Name	Host	Source	Age	CEMon	SCEMon	BDII	Web
AGLT2	gate01.aglt2.org	None	--:--:--	<a href="#">86:09:03</a>	None	None	None
ASGC_OSG	osgc01.grid.sinica.edu.tw	cemon	<a href="#">0:05:19</a>	<a href="#">0:00:19</a>	None	<a href="#">269:15:39</a>	None
BNL_ATLAS_1	gridgk01.racf.bnl.gov	cemon	<a href="#">0:03:49</a>	<a href="#">0:03:49</a>	None	None	None
BNL_ATLAS_2	gridgk02.racf.bnl.gov	cemon	<a href="#">0:04:07</a>	<a href="#">0:04:07</a>	None	None	None
BU_ATLAS_Tier2	atlas.bu.edu	cemon	<a href="#">0:00:46</a>	<a href="#">0:00:46</a>	None	<a href="#">21:10:29</a>	None
cinvestav	proton.fis.cinvestav.mx	cemon	<a href="#">0:05:21</a>	<a href="#">0:00:21</a>	None	None	None
CIT_CMS_T2	cithep169.ultralight.org	cemon	<a href="#">0:03:09</a>	<a href="#">0:03:09</a>	None	None	None
DARTMOUTH	pbs-01.grid.dartmouth.edu	None	--:--:--	None	None	<a href="#">2132:04:13</a>	None
FIU-PG	fiupg.ampath.net	cemon	<a href="#">0:03:30</a>	<a href="#">0:03:30</a>	None	<a href="#">702:18:35</a>	None
FNAL_FERMIGRID	fermigrid1.fnal.gov	cemon	<a href="#">0:05:30</a>	<a href="#">0:00:30</a>	None	None	None
FNAL_GPFARM	fngp-osg.fnal.gov	cemon	<a href="#">0:00:51</a>	<a href="#">0:00:51</a>	None	None	None
FSU-HEP	gridrocks.hep.fsu.edu	cemon	<a href="#">0:03:26</a>	<a href="#">0:03:26</a>	None	<a href="#">0:09:38</a>	None
gpnjayhawk	gpnjayhawk.cpe.engr.ku.edu	cemon	<a href="#">0:03:24</a>	<a href="#">0:03:24</a>	None	None	None
GLOW	cmsgrid01.hep.wisc.edu	cemon	<a href="#">0:02:51</a>	<a href="#">0:02:51</a>	None	None	None
GLOW-CMS	cmsgrid02.hep.wisc.edu	cemon	<a href="#">0:00:46</a>	<a href="#">0:00:46</a>	None	<a href="#">2371:43:52</a>	None
GRASE-CCR-U2	u2-grid.ccr.buffalo.edu	cemon	<a href="#">0:02:06</a>	<a href="#">0:02:06</a>	None	None	None
GRASE-NU-CARTMAN	cartman-grid.niagara.edu	cemon	<a href="#">0:01:49</a>	<a href="#">0:01:49</a>	None	<a href="#">2540:19:08</a>	None
GRASE-NYU-BENCH	bench.es.its.nyu.edu	None	--:--:--	<a href="#">40:03:04</a>	None	None	None
GROW-PROD	grow-prod.its.uiowa.edu	cemon	<a href="#">0:05:19</a>	<a href="#">0:00:19</a>	None	None	None



# RSV v3 and Beyond

- Can Nagios replace existing status monitoring infrastructure?
- Community development of probe set
- Dashboards (Operations, User, VO)
- Advanced Metric Analysis
- Interaction with OSG Information Management Project



# Thank You

- Questions?