Grid Monitoring and the OSG

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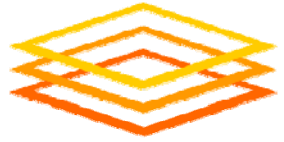# The Grid Operations Center (GOC)

Open Science Grid

- Critical Infrastructure Services
- Communication Hub
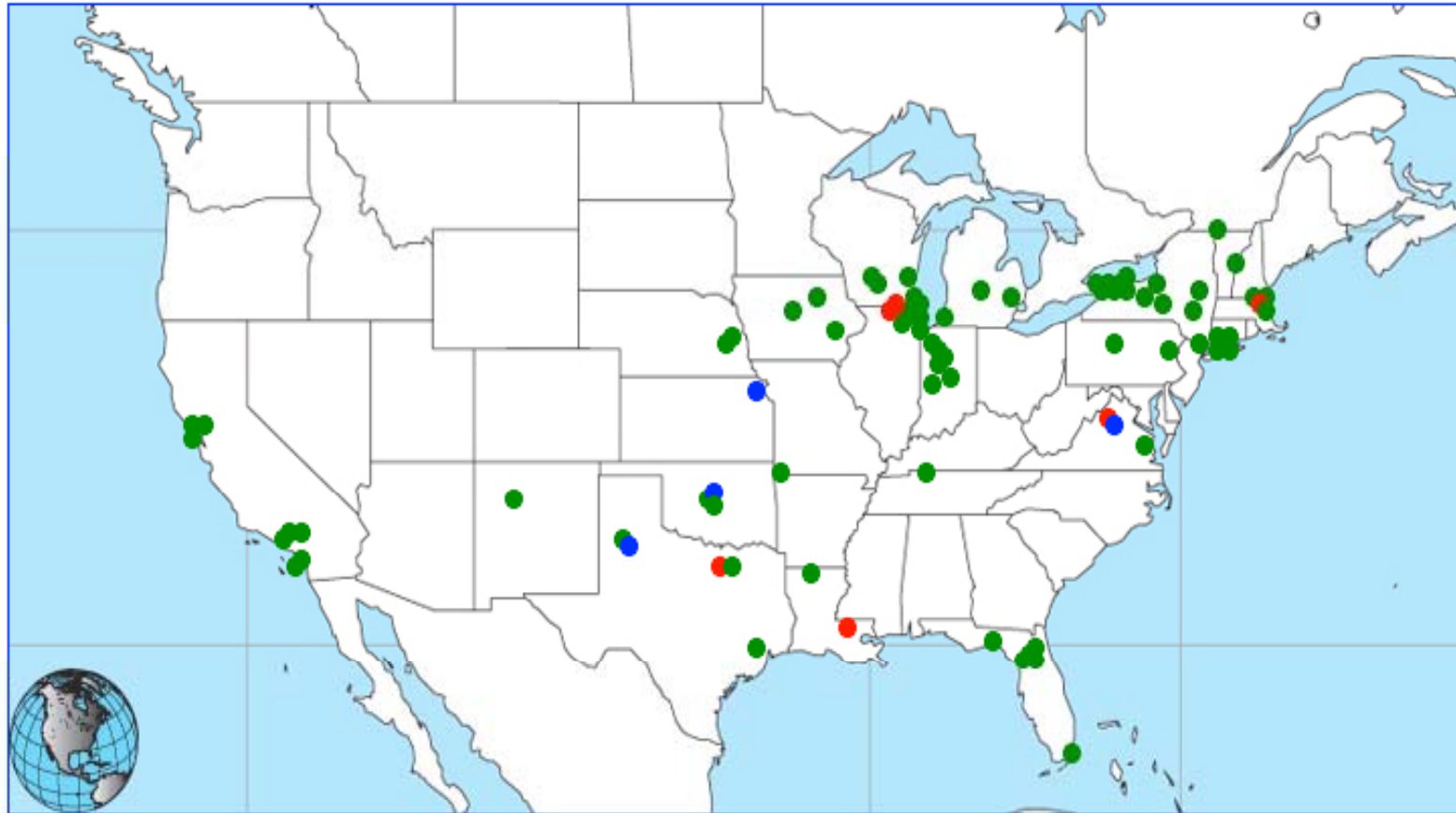- Security Response
- Troubleshooting
- Policy Coordination

OSG Current Information Services

- VORS
- GridView
- SAM
- CEMon/BDII Integrated Server
- GIP Validator
- Gratia Account Data (FNAL)
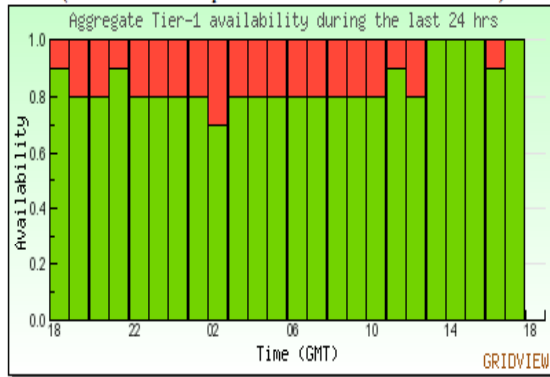- GridCat
- MonALISA
- Site Maintenance Tool

VORS

GridView
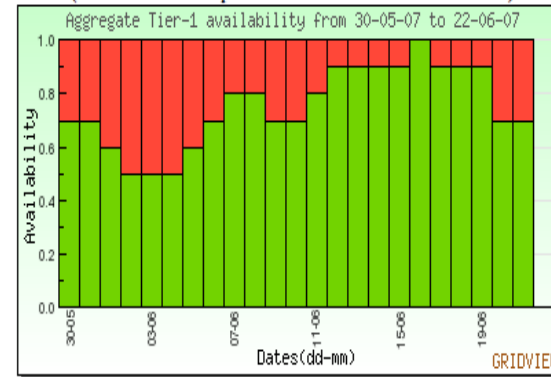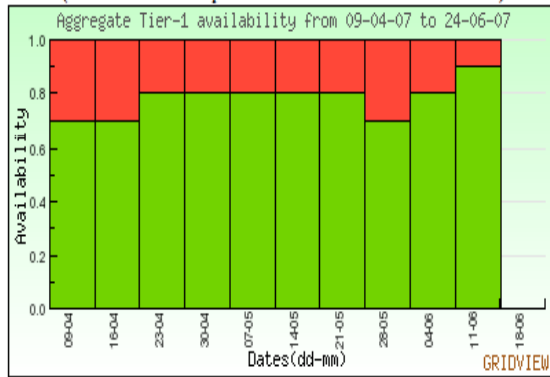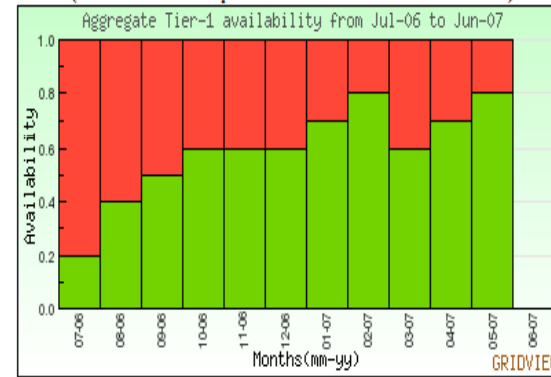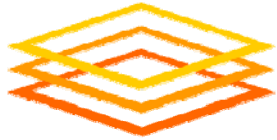
CEMon/BDII Data

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```
dn: mds-vo-name=AGLT2,o=grid
objectClass: GlueTop

dn: GlueCEUniqueID=gate02.grid.umich.edu:2119/jobmanager-condor-cdf,mds-vo-name=AGLT2,o=grid
objectClass: GlueCETop
objectClass: GlueCE
objectClass: GlueSchemaVersion
objectClass: GlueCEAccessControlBase
objectClass: GlueCEInfo
objectClass: GlueCEPolicy
objectClass: GlueCEState
objectClass: GlueInformationService
objectClass: GlueKey
GlueCEHostingCluster: gate02.grid.umich.edu
GlueCEName: cdf
GlueCEUniqueID: gate02.grid.umich.edu:2119/jobmanager-condor-cdf
GlueCEInfoGatekeeperPort: 2119
GlueCEInfoHostName: gate02.grid.umich.edu
GlueCEInfoLRMSType: condor
GlueCEInfoLRMSVersion: 6.8.5
GlueCEInfoTotalCPUs: 299
GlueCEInfoJobManager: condor
GlueCEInfoContactString: gate02.grid.umich.edu:2119/jobmanager-condor-cdf
GlueCEInfoApplicationDir: /atlas/data08/OSG/APP
GlueCEInfoDataDir: /atlas/data08/OSG/DATA
GlueCEInfoDefaultSE: umfs02.grid.umich.edu
GlueCEStateEstimatedResponseTime: 0
GlueCEStateFreeCPUs: 0
GlueCEStateRunningJobs: 0
GlueCEStateStatus: Production
GlueCEStateTotalJobs: 0
GlueCEStateWaitingJobs: 0
GlueCEStateWorstResponseTime: 0
GlueCEStateFreeJobSlots: 51
GlueCEPolicyMaxCPUTime: 6000
GlueCEPolicyMaxRunningJobs: 0
GlueCEPolicyMaxTotalJobs: 0
GlueCEPolicyMaxWallClockTime: 6000
GlueCEPolicyPriority: 0
GlueCEPolicyAssignedJobSlots: 299
GlueCEAccessControlBaseRule: VO:cdf
GlueForeignKey: GlueClusterUniqueID=gate02.grid.umich.edu
GlueInformationServiceURL: ldap://is.grid.iu.edu:2170/mds-vo-name=AGLT2,mds-vo-name=local,o=grid
GlueSchemaVersionMajor: 1
GlueSchemaVersionMinor: 2
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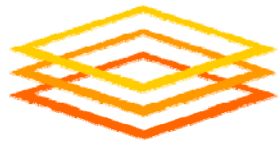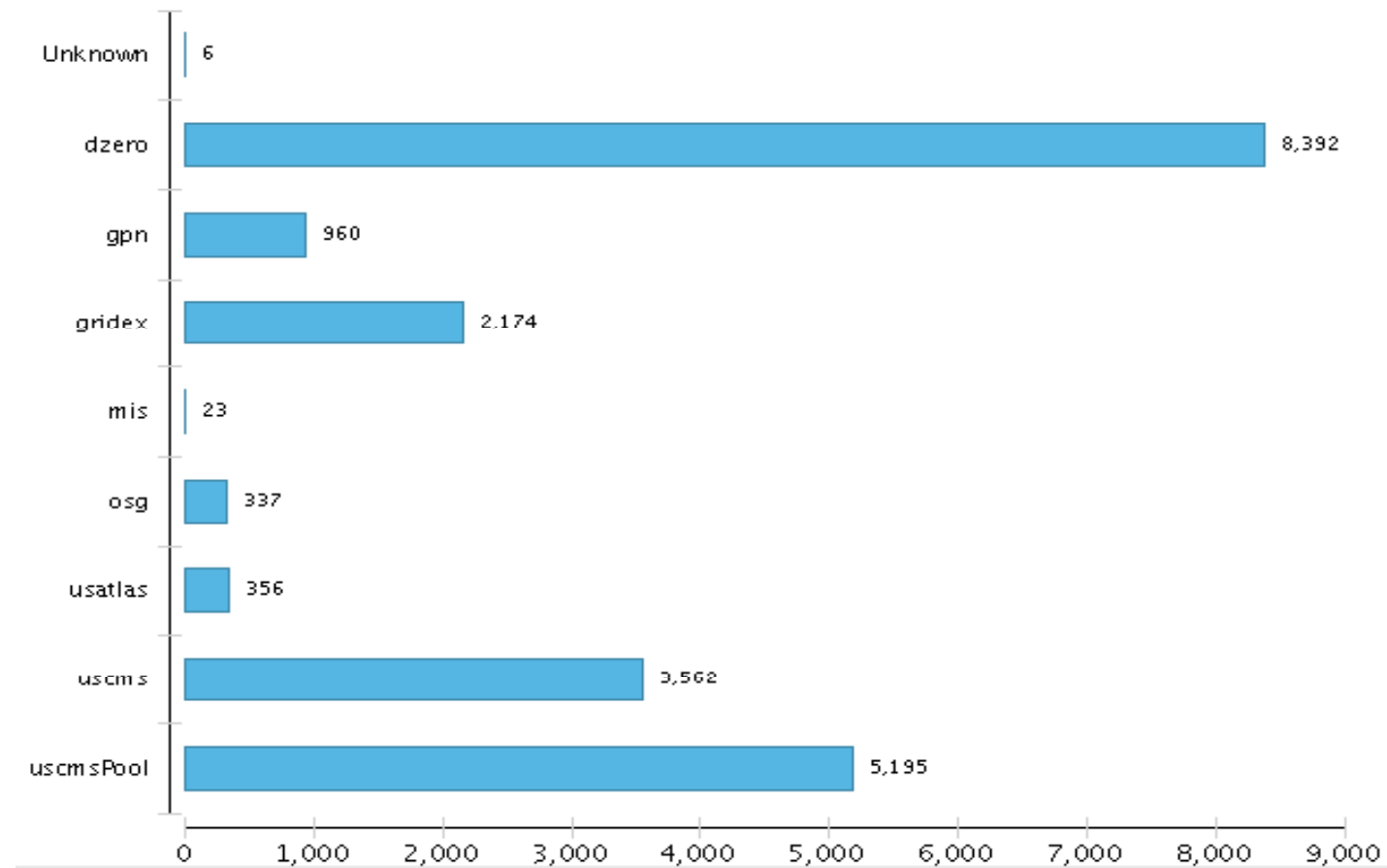
Gratia

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Job Count by VO

VO	Count
Unknown	6
dzero	8,392
gpn	960
gridex	2,174
mis	23
osg	337
usatlas	356
uscms	3,562
uscmsPool	5,195

Why this is difficult for Operations

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- Each Critical Service must be monitored and supported
- Upkeep on tools each with different developer
- Communication flow from reported tools to Site Administrator
- Where do I find my status and what does it mean
- Inconsistencies between tools

Why this is difficult for the Site Administrator

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- Monitoring is Outside existing fabric monitoring
- Several different places to look for data
- No immediate contact when there is a problem
- Differences between tools
- Inconsistencies between tools

Fitting the Pieces Together

Admin Dashboard

Other Ideas?

- Combine Existing Fabric Monitoring with Grid Monitoring
- Notification Should Go to Site Admin First
- Who is Responsible for Making Sure a Grid Site is Up
- What About Interoperability and Peering Grids
- Others?

Thank You

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- Special to the Thanks GOC Team: John Rosheck, Tim Silvers, Kyle Gross, and Arvind Gopu

- www.opensciencegrid.org

- www.grid.iu.edu