OSG Area Coordinator Summary

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OSG Management

OSG Management Structure

OSG Executive Team: oversees and manages project

- OSG Executive Director (Frank Würthwein)
- OSG PI and Technical Director (Miron Livny)
- OSG Council Chair (David Swanson)
- Other key stakeholders: Bockelman, Cartwright, Gardner, Holzman, Lancon, Neubauer, Quick

OSG Area Coordinators: detailed planning and tracking

- One lead from each functional area
- Overlaps partially with ET for strong communication

OSG Areas

Technology - define, build, and test OSG technical platform

- ***Investigations*** - technology directions, blueprints, prototypes
- ***Software*** - software packaging, automated testing, Madison ITB
- ***Release*** - release planning, integration testing, releases
- Includes effort for short-term projects for internal and external stakeholders (e.g., perfSONAR data loads)

Networking - monitoring, reporting, alerting

Security - operational security, security-related technical projects

Operations - manage OSG-provided production services

- ***Infrastructure*** - OSG central services and support
- ***Factory & Sites*** - OSG factory operations and site admin support

Production Support - large VOs (ATLAS, CMS, FIFE, etc.)

User and Campus Support - end users, VOs, campus grids, training

Outreach - communications and education

OSG Management Activities

Annual: **Planning Retreat** (Executive Team & Area Coordinators)

- Hash out goals for fiscal year (and beyond)
- Results in SOW by institution and formal plans (WBS) by area

Weekly: **Executive Team** meets

- Check in on key projects
- Sometimes, discuss particular challenges

Weekly: **Area Coordinators** meet

- Rotate through Areas – each AC presents about 6 times per year
- Present accomplishments, active projects, status of annual goals
- Discuss challenges, cross-area issues, longer-term concerns, etc.
- Run by Chief of Staff, notes go to ACs and Executive Director

Key OSG Goals for "Year 6"

(1 Jun 2017 – 31 May 2018)

What are "Key Goals"?

- Combination of greatest importance & highest risk
- Watched by Executive Director (and Chief of Staff)
- List is flexible:
  - Some goals will be completed during the year
  - Priorities and risks change
- Other OSG goals are still important and get regular attention from Area Coordinators and, as needed, attention from Executive Team

Key Goals: Technology Investigations

- Have 3 Blueprint meetings – guide projects & priorities (e.g., effects of increasing hardware heterogeneity)
- Develop & apply Globus Toolkit maintenance strategy
  - Investigate alternatives to GSI, especially for transfers
  - Apply SciTokens work to output data transfers
- Finish authorization overhaul, help retire VOMS Admin
- Automate running of OSG jobs at select HPC systems
- Continue to investigate use of containers in OSG

Key Goals: Software & Release

- Assist with technical details of Globus Toolkit transition
- Streamline packaging infrastructure, testing processes, and release processes
- Determine LHC-only software, services, and processes
- Reduce software effort by relying more on upstream (e.g., BLAHP code to HTCondor) and community providers (e.g., move packages to EPEL)

Key Goals: Networking

- Migrate to new infrastructure for collecting metrics
  - Use the OSG message bus and Elasticsearch
  - Reduce role of esmond in OSG to short-term cache
  - Try to push metrics from perfSONAR directly to OSG
- Add networking metrics from HTCondor queues (and perhaps other sources, e.g., Internet2 and GEANT)
- Increase count of non-LHC sites reporting metrics
- Prototype automated alerts for OSG networking issues

Key Goals: Security

- Build and maintain up-to-date OSG asset inventory
- Produce a new OSG cyberinfrastructure strategic plan
- Help reduce use of X.509 certificates in OSG

Key Goals: Operations

- Investigate, prototype, & execute IT Service Management system for OSG systems and processes; focus on simplicity
- Retire OSG TWiki (affects most areas, but Operations owns)
- Research & plan service to monitor pilot-job infrastructure
- Implement new X.509-free logins for OSG web services
- Cross-train other OSG staff to handle issues for GOC outages

Key Goals: Production Support

- Deliver 180 million opportunistic hours to open VOs, 240 million opportunistic hours to all VOs
- Add HPC/supercomputer sites for use by additional VOs
- Increase GPU usage through better communication and expanding GPU resource availability

Key Goals: User and Campus Support

- Continue to support and grow OSG engagement and usage through OSG Connect, XD Login, and CI Connect for projects (e.g., XENON1T, SPT, VERITAS) & individuals
- Continue to support and grow OSG storage services
- Add resources to OSG quickly using OSG Hosted CEs

Key Goals: Outreach

- Help shepherd 5 articles to publication in Science Node
- Continue to provide educational events and materials for science users (e.g., OSG User School, CODATA-RDA)

Effort Breakdown

Keeping the lights on	50%
Key goals	30%
All other goals	20%

Recent Accomplishments

Recent Accomplishments I

- Shipped OSG 3.4 release series – focus on ***simplification***
  - Dropped 109 (55%) unneeded software packages
  - Removed, e.g., Globus GRAM, GIP/BDII, BeStMan
  - Added new auth system (LCMAPS VOMS plugin), now can retire edg-mkgridmap, gLExec, and GUMS
- Just prototyped a write-enabled version of stashcp for OSG Connect using SciTokens instead of X.509 solution
- Automated configuration of OSG services – resulting in increased capacity, or reduced effort to hold steady

Recent Accomplishments II

- Added 4 sites via OSG Hosted CE – faster, less work for site, less configurable – 5 more in progress now
- Added some significant GPU resources at a couple sites
- As sites migrate to EL 7, OSG added seamless pilot-based EL 6 via Singularity; now 50–60% of all jobs
- Increased use from HPC supercomputers (cf. Rob G.)
- Moved to GRÄCC for accounting storage & reporting

Recent Accomplishments III

- Reached low-100s new and potential users through training events and workshops
- At some workshops, demonstrated use of HTCondor Annex to extend OSG Connect pool into AWS
- Networking handled a major upgrade to perfSONAR
- Delivered over 1.5 billion CPU hours and transferred just under 200 PB data!

Questions or comments?

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