OSG Service and Support Migration Update

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Overview

- OSG is preparing for its next round of funding.
    - The good news in this is we are busy writing proposals. I feel we have positive / useful guidance from the NSF.
    - The bad news is the budget guidance is lower over the next year compared to the last grant.
- Accordingly, one concrete action we are doing is redistribute support and services going forward.
    - All support and services will move from the GOC at IU.
    - OSG Operations - already distributed across several universities - will become even more distributed.
- Today, I'll like to walk through the OSG plans and status.
    - Ideally, everything I mention in this presentation is already listed here: https://opensciencegrid.github.io/technology/policy/service-migrations-spring-2018/
    - If something is missing, let me know!

Contact Info

- **As always, feel free to email me directly at bbockelm@cse.unl.edu.** Even if I can't help immediately, I'll redirect ASAP.
- Between now and end-of-May, we are holding open office hours for questions on the transition:
  - https://unl.zoom.us/j/277958559
    - Mondays, 4-5 PM CDT
    - Tuesdays, 1-3 PM CDT
    - Thursdays, 10-11 AM CDT
- We can also be contacted at the usual locations:
  - help@opensciencegrid.org
  - osg-software@opensciencegrid.org - General discussion amongst team members
  - Slack channel - if you can't create an account, send an e-mail to osg-software@opensciencegrid.org

Really - if you haven't already, Slack is a great option!

Service Migration

- Mentally, I group services into the following categories:
  - ~25%: Those we plan to retire.
  - ~50%: Those we plan to migrate to different sites or to hosted providers. These are either “easy” or “obvious” (significant work, but it’s clear where to send them).
  - ~25%: Services that will be transitioned to a different implementation or whose migration will be disruptive.

Service Retirement

- These services being retired likely won't make a significant impact on the USATLAS facilities:
  - GlideinWMS factory at GOC.
  - OSG-run VOMS-Admin instance (CERN one unaffected). Critically, **make sure you've finished your transition to LCMAPS/VOMS** authorization.
    - This retirement has been long-planned; effectively no change in date.
  - RSV central collector.

Service migration to cloud/ hosted solutions

- **DNS**: Moves to CloudFlare, no longer hosted at an institutional level. Ownership of “opensciencegrid.org" registration goes to Wisconsin. **DONE**.

- **Homepage**: Instead of using an OSG-run WordPress instance, we are using GitHub Pages. **IN PROGRESS**

  - Draft version at http://opensciencegrid.github.io.

- **JIRA**: Used for software project tracking. Transitioning to an Atlassian-hosted version. **IN PROGRESS**.

Service Migration to Different OSG Institutes

- Easy:
  - OSG Display (display.opensciencegrid.org). Moves to Nebraska. Migration scheduled for 26 April
  - Software repository (repo.opensciencegrid.org). Moves to Nebraska. Migration scheduled for 1 May.
  - OSG Collector (collector.opensciencegrid.org). Moves to Nebraska. Feeds AGIS.
  - GlideinWMS ITB instance. Moves to UCSD.
  - StashCache Redirector. Moves to Nebraska.

Service Migration to Different OSG Institutions

- Obvious (but quite a bit of work):
  - OASIS/CVMFS: **Nebraska.** ITB version available today/tomorrow; migration tentatively scheduled for 3 May.
  - XD-Login (OSG User Support login host): **UChicago**.
  - perfSonar monitoring and configuration. **Michigan**.

Difficult Cases

- The difficult migrations involve things running on OIM/ MyOSG:
    - Large Java application -> little expertise outside IU on the platform in general.
    - Little expertise on this application in particular outside IU.
- We are working to replace the various functionalities of OIM and MyOSG; each use case is slightly different.

OIM

- OIM keeps information about the registered OSG topology (service / resources / sites, etc) and the corresponding contacts.
    - Topology information will be migrated to https://github.com/opensciencegrid/topology; updates can be processed via GitHub PR or support ticket.
    - **Short term**: Contact information will go into a private repo; updates will go through support ticket.
    - **Long term**: Will be using CILogon2 to manage groups and authorization. Should be done by summer 2018.

MyOSG

- MyOSG provides machine- and human-readable interfaces into the OIM data.

- Machine-readable interfaces are being re-implemented as part of the topology project. **NO URL OR XML SCHEMA CHANGES**.

    - All scripts that query or interact with MyOSG should be unchanged.

- Human interfaces will not be duplicated in the short term (except for those needed for the Google Map integration).

OSG CA

- **This is the retirement that impacts sites the most.**
- User certificates for ATLAS remain unchanged: users should get this via the CERN CA.
- Host certificates get a dual strategy:
    - **InCommon IGTF CA** can issue certificates for services that need to interact directly with remote (WLCG) clients.
        - To my knowledge, T1/T2 sites without InCommon access are BNL and (maybe?) SLAC.
        - The InCommon subscription is typically administered by the IT department; locate your internal admins.
    - **Let's Encrypt CA** for non-WLCG clients. *Can be used for FTS transfers* and factory-based submissions.
        - Would strongly recommend T3s go this direction.
        - Will be included in the next `osg-ca-certs` package update.
- I strongly encourage sites to become familiar with both approaches:
    - Let's Encrypt offers a better service than any other CA we use, but may take some work to verify all clients accept it.
    - InCommon is administered by your university, not by OSG. Each site will be different.
- In the short term, buy yourself time: renew your OSG CA certificates! We can provide you with a list of valid certificates upon request.

Support Model Changes

- A critical part of the GOC's responsibilities is the helpdesk and the line support. We'll be splitting this in two.

- The LHC community will utilize GGUS directly; no tickets will be routed via Footprints. Site notifications will come from GGUS, site updates will be sent to GGUS (or via the GGUS webpage).

    - If you look closely, the "ROC" (Regional Operations Center) will begin to say "USATLAS" instead of "OSG Prod". Effectively, a USATLAS email list will get CC'd on all site tickets and will be responsible to pester the site if they are unresponsive. (*Within USATLAS, this might be best routed to the US cloud squad?*)

    - There will be an "OSG Software support team". If the ticket is ultimately an OSG / software problem, you will be able to assign it there to raise it the OSG software team.

- For T1 sites, there is additional work to do synchronizing with local ticket systems for ALARM tickets.

Support Model Changes

- OSG-centric tickets (not stemming from LHC) will utilize a new helpdesk hosted by FreshDesk. This is the same one user support has utilized for a few years. See http://support.opensciencegrid.org.
    - Contact points like goc@opensciencegrid.org will be redirected here.
    - New tickets will go here; existing tickets will be wrapped up in IU Footprints and/or copied by hand.
    - Transition in a week or two; firm date not decided upon.
- The internal JIRA instance will become a hosted instance.

Site Homework

- Here's the homework for sites (same thing we assigned to CMS sites):
    - **Review site configs to remove grid.iu.edu**. All repositories and CA configurations reference equivalent opensciencegrid.org aliases. Update to the latest templates or at least review your Puppet/Ansible configs.
    - **Become familiar with the GGUS interface**. Make sure you have the right accounts setup and are comfortable with direct GGUS tickets.
    - **Renew your OSG CA certificates**. If needed, we can provide a list of valid host certificates at your site. This provides you with time to make these changes more slowly.
        - SUGGESTED do this by May 1. Hard shutdown end-May.
    - **Learn how to issue InCommon certificates**. This may require determining the correct contacts at your university.
    - **Obtain Let's Encrypt certificates where possible**. Start with web servers and anything "non-grid".
- If you do these things, you will be in a good position to manage the transition.