

# **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 the proposal is submitted to the funding agency.
  - 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](mailto: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>
  - Tuesdays, 2-3 PM CDT
  - Thursdays, 10-11 AM CDT
- We can also be contacted at the usual locations:
  - [help@opensciencegrid.org](mailto:help@opensciencegrid.org)
  - [osg-software@opensciencegrid.org](mailto: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](mailto:osg-software@opensciencegrid.org)

# 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 WLCG:
  - GlideinWMS factory at GOC. Keeping one at UCSD.
  - OSG-run VOMS-Admin instance (CERN one unaffected). This retirement has been long-planned; effectively no change in date.
  - RSV central collector.

# Service migration to cloud/ hosted solutions

- **DNS:** Ownership of “opensciencegrid.org” registration went to Wisconsin. **DONE.**
- **Homepage:** Migrate from OSG-run WordPress to GitHub Pages-based Jekyll. **DONE.**
- **JIRA:** Used for internal software project tracking. Transitioning to an Atlassian-hosted version. **IN PROGRESS.**

# Service Migration to Different OSG Institutes

- Easy:
  - OSG Display ([display.opensciencegrid.org](http://display.opensciencegrid.org)) to Nebraska. **DONE.**
  - Software repository ([repo.opensciencegrid.org](http://repo.opensciencegrid.org)) to Nebraska. **DONE.**
  - OSG Collector ([collector.opensciencegrid.org](http://collector.opensciencegrid.org)) to Nebraska (Feeds AGIS with CE status). **IN PROGRESS.**
  - GlideinWMS testing instance to UCSD. **IN PROGRESS.**

# Service Migration to Different OSG Institutions

- Obvious (but quite a bit of work):
  - OASIS/CVMFS to Nebraska. **DONE.**
  - XD-Login (OSG User Support login host) to UChicago. **IN PROGRESS.**
  - perfSonar monitoring and configuration to Michigan. **IN PROGRESS.**
  - Carefully coordinated with Marian Babik on WLCG side to minimize disruption.

# 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).
- Cutover no later than 22 May; likely cutover earlier, but not set yet.

# OSG CA

- **This is the retirement that impacts sites the most.**
- User certificates for LHC VOs 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. Yearly subscription service model (up to \$20k/yr).
    - Working to determine which US LHC sites don't have access InCommon. Some sites have had to discover the internal university process or policies to get the certificates; more layers to work with InCommon than the OSG CA.
  - **Let's Encrypt CA** for non-WLCG clients. *Can be used for FTS transfers and factory-based submissions.*
    - Will be included in the next `osg-ca-certs` package update.
- Given the costs involved in using the IGTF accredited CAs, lack of support at the funding agencies, and superior automation / tooling provided by Let's Encrypt, there will be continued site pressure to be mindful of our actual requirements on host certificates.

# 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 initial support center will begin to say "USATLAS" or "USCMS" instead of "OSG Prod". Effectively, a USATLAS/USCMS email list will get CC'd on all site tickets and will be responsible to pester the site if they are unresponsive.
  - 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 (RT, SNOW) 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](mailto: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.

# Concluding Thoughts

- There's an immense number of moving parts in this transition.
  - Patience is appreciated, as well as any heads-up of blind spots where we may not be addressing issues.
- This transition has prompted us to do introspection of all our services — it has pushed OSG to move farther, faster.
  - Many parts of this evolution are a hopefully a good thing, long-term!
- The resulting OSG is nimbler and ideally more sustainable.