

Technology Investigations Update

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May 5, 2015

Goals from last time

- Double # of non-CMS HTCondor CE instances in the glideinWMS factory: PARTIAL. 40 HTCondor-CE entry points versus 71 GRAM.
 - Turn off remaining GRAM instances for US T2s. PARTIAL. 13 entry points remaining (3/7 T2 sites).
- rsv-perfsonar probe validated for throughput and latency metrics. DONE (?!?)
- OASIS2 fully deployed: PARTIAL
- All components of StashCache deployed and in use by OSG Connect. PARTIAL (redirector missing).

HTCondor-CE & Info Services

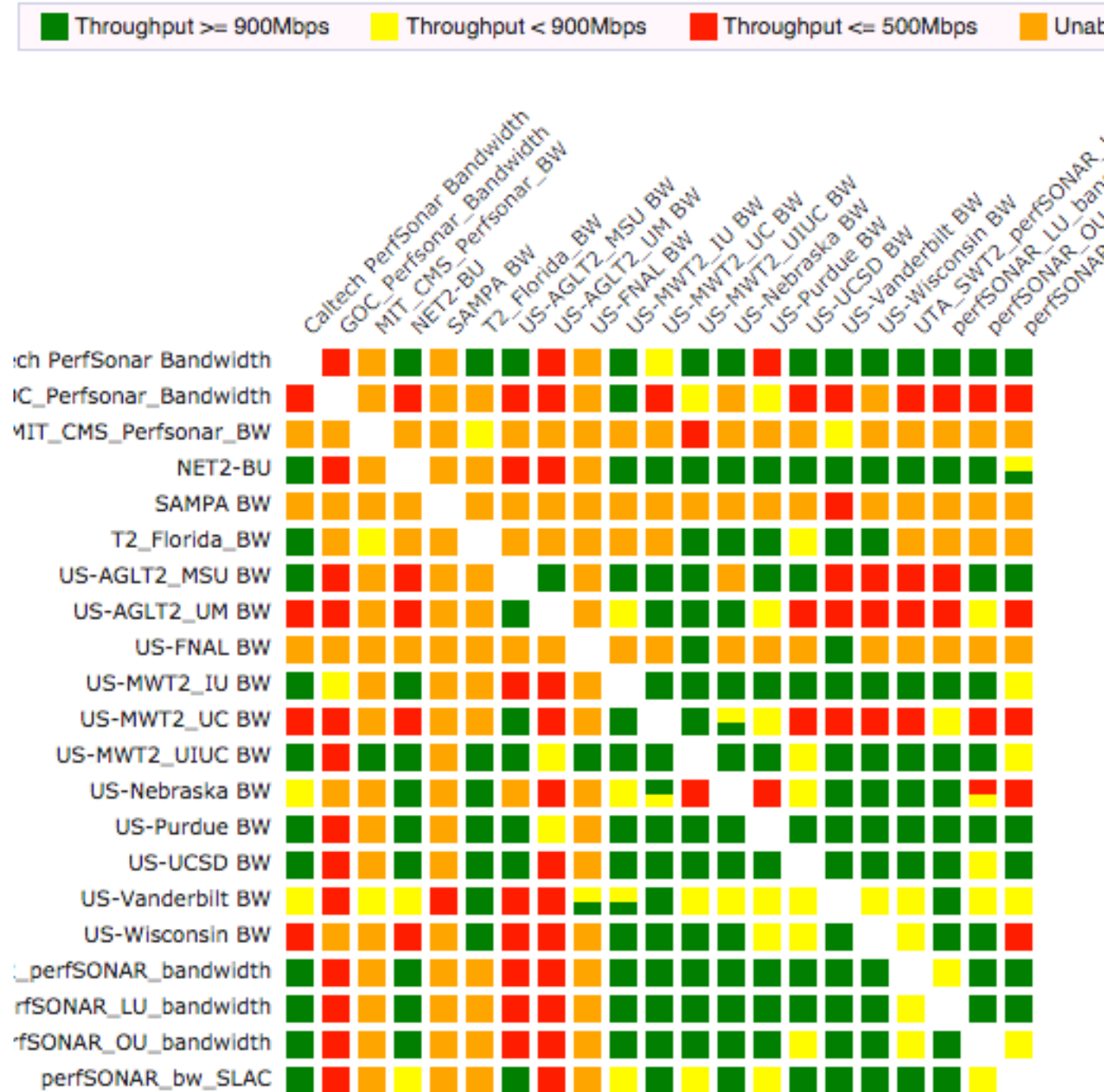
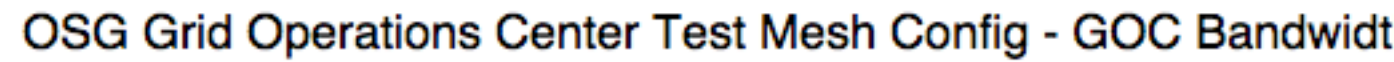
- Release HTCondor update fixing bug that caused CEs to disappear from info service. 20 CEs currently reporting.
- Still waiting on external WLCG team to remove the dependency on BDII for CMS. :(
- Working to deploy a new version of the info service that allows:
 - Unregistered CEs to advertise.
 - StashCache caching proxies to advertise.

OASIS Software & Service

- Items reported last time:
 - We now distribute the [EGI.eu](https://egi.eu) repos requested by OSG VOs.
 - We now have an ITB infrastructure in place.
 - We attempted the OASIS2 upgrade for the GOC Stratum-1 on Feb 24. This was not successful; we identified (and solved) 3 bugs and will try again next production release (March 10).
- Since then:
 - Tried to get release into production but delayed due to external factors (NoVA and newly-discovered upstream bug). Several successful ITB reddeploys!
 - Planning for next round of service improvements is (purposely) delayed until successful release. However, we already know improvements are needed to client packaging and upstream CVMFS Stratum-1 utilities.
- Trying to get a requirements document from the OSG User Support area for OASIS.
- Despite a few contacts, having LIGO evaluate OASIS has gotten stuck in the mud.

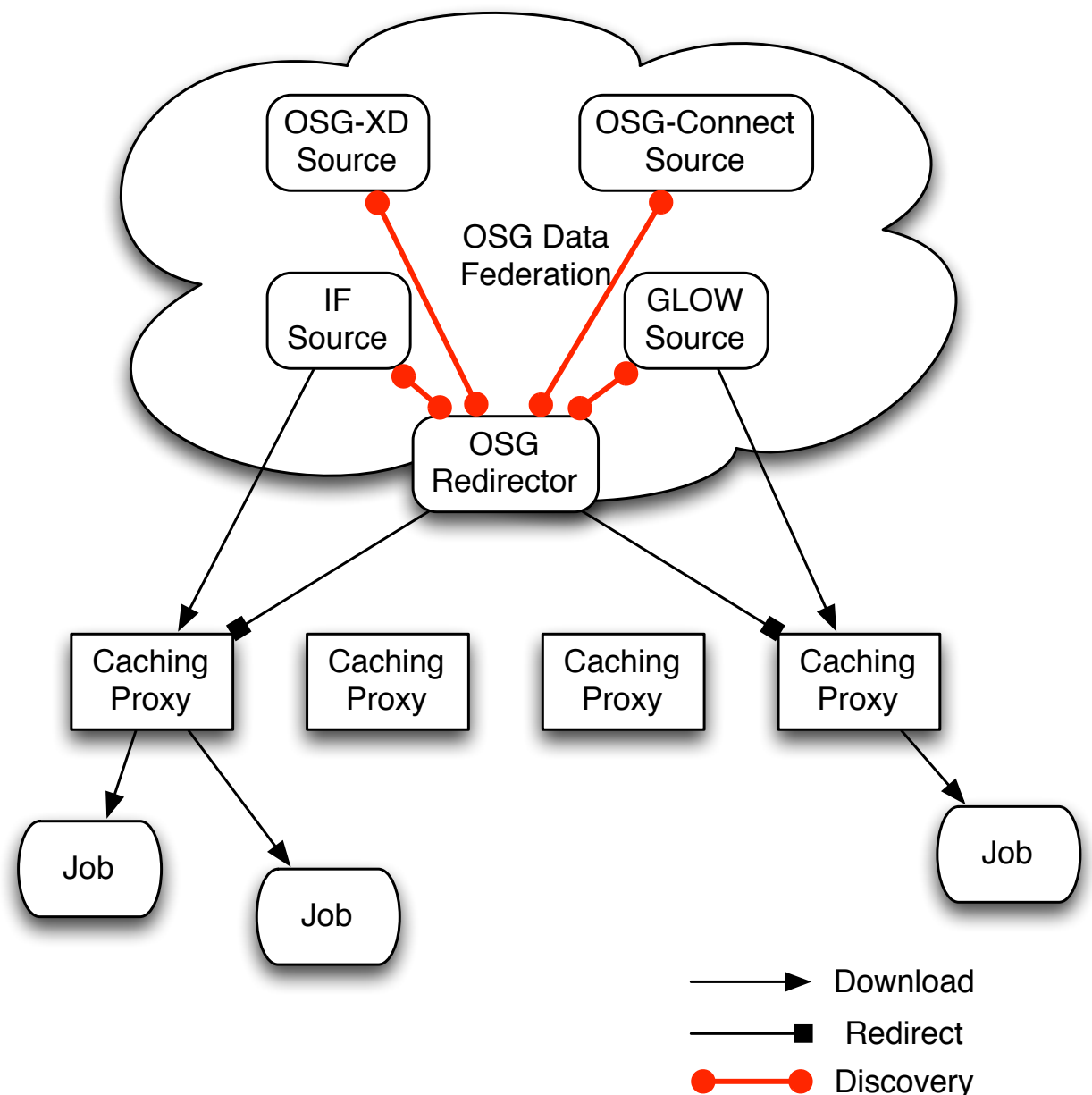
Network Monitoring

- Helped GOC tune esmond instance.
- Performance increased by >2x
- Since this change, Jorge from Network Area reports that there have been no issues identified in the last 1M records compared.
- Is there anything left here for the Technology Area to contribute?



StashCache

- See https://twiki.opensciencegrid.org/bin/view/SoftwareTeam/SW023_XrootdAcrossOsg for details.
- Only component missing is the redirector; we've had a bit of a "phase mismatch" between GOC and Technology team (people on vacation at mutually exclusive times, etc).
 - Hope to resolve this item by Friday.
- OSG and IF are starting to test various performance aspects.
 - We've been able to resolve negative results.
 - Testing not yet at scale.



Certificate-less glxexec

- Reported last time: OSG Security has asked us to help evaluate certificate-less glxexec for improving traceability.
- Working to narrow down options. Likely:
 - A. **Provide payload/pilot separation**: Done through LCMAPS plugin and glxexec packaging changes. Sites will have to deploy a second account per VO.
 - B. **Provide above plus payload/payload separation**: Requires GUMS, LCMAPS plugin, and glxexec packaging changes. Sites will have to deploy a new GUMS configuration.
 - C. **Decrease barrier for certificates (seamless, invisible CILogon)**: More of a separate project to steer effort toward instead.
- Option A is significantly easier but option B provides significantly better security.

Authorization Configuration Thoughts:

- Regardless of the option chosen for glexec, authorization is currently a mess for OSG-Software.
 - Default configurations, best-practices are out of date.
 - Seems no area has really taken “ownership” of the end-to-end.
 - We don’t provide an “easy path” to setup a site.
- We started the discussion in December: <https://twiki.opensciencegrid.org/bin/view/SoftwareTeam/WhichAuthorizationToUse>
 - No real progress since.

Goals for Next Time

- Have StashCache fully deployed and tested by 2 VOs (ideally, OSG and NoVA).
- In conjunction with the security team, have full plan for certificate-less glexec and simplified authorization configuration.
- Finish GRAM turn-down goal from last time.
- OASIS2 to production!