

Web Proxy Auto Discovery for WLCG

- There are caching web proxies at most WLCG sites
 - Up until now they have been difficult for most VOs and applications to find
- There is an internet protocol for this called Web Proxy Auto Discovery (WPAD)
 - Supported by both Frontier Distributed Database and CernVM File System (CVMFS) clients
- <http://wlcg-wpad.cern.ch/wpad.dat> now returns a WPAD proxy list for WLCG sites
 - Matches reader's IP address with proxies in same address range according to Maxmind GeolIP Organization database
 - Uses lists of web proxies (squids) for Frontier from ATLAS and CMS
 - Cross-checked with squids registered in GOCDB & OIM (cannot simply use all of those because they may not be sized large enough for Frontier)
 - Can be overridden or extended by an exceptions file on `wlcg-squid-monitor.cern.ch`
 - Hosted on a pair of 10gbit/s physical machines at CERN (along with some other services)
 - Makes it reasonable for ATLAS & CMS to use squids at each other's sites opportunistically, and for any VO to find squids for other purposes