OSG 3.0 Installation at MWT2

Sarah Williams

Indiana University

Pilot Test Procedure

- In order to test the upgrade, we did an install of a non-production gatekeeper that submitted to our production cluster
- Provisioned a separate KVM
- Installed condor from the Condor repo
- Configured as condor submitter that talks to our production condor manager
- Installed OSG 3.0 CE & RSV with CEMon and the RSV gratia consumer turned off
- Copied config.ini on production gatekeeper to 99-config.ini in /etc/osg/config.ini. Ran osg-configure –v and –c, and resolved conflicts
- Verifed the CE worked using RSV, globus-url-copy, and globus-job-run (as described in the ValidatingComputeElement doc)

Changes to config.ini

Removed

- wsgram (twice)
- use_cert_updater
- enable_webpage_creation
- itb-metric-gratia
- osg-metric-gratia
- rsv-user
- user_service_cert
- enable_ce_probes
- enable_gridftp_probes
- enable_gums_probes
- enable_srm_probes
- setup_for_apache
- setup_rsv_nagios
- rsv_nagios_conf_file

Changed

- authorization_method = xacml (was prima)
- service_cert (was rsv_cert_file)
- service_key (was rsv_key_file)
- service_proxy (was rsv_proxy_out_file)
- user_proxy (was proxy_file)
- ce_hosts = %(localhost)s (was UNAVAILABLE)
- srm_webservice_path = srm/managerv2 (was UNAVAILABLE)

Pilot Test Results

- Total time to a working install was one work day
- Most of that time was getting RSV working
  - CE install no longer assumes you want to run RSV on your CE. You have to explicitly run 'yum install rsv condor-cron'. If you want condor-cron but not the condor RPM, you need to install the empty-condor rpm.
  - The production gatekeeper (OSG1.2) runs RSV with the userid 'rsvuser'. OSG 3.0 requires it to run as 'rsv'. I followed the MapServiceCertToRsvUser doc, but that procedure did not work. Careful comparison to the previous mapping showed a couple of missed steps, which I've added to that procedure.
- Globus gatekeeper would not start, with error 'Address family not supported by protocol '. This is covered in section 8.1 of the install document. We have ipv6 disabled by default in an /etc/modprobe.d/ file, which I've added to the list of files to check in that doc.

Production Install Procedure

- The production gatekeeper failed 3 days before our planned downtime. Rather than bring it back up, we used the opportunity to upgrade
- We had a KVM pre-provisioned for the upgrade with OS, and with more resources allocated than the previous gatekeeper. This KVM was re-assigned with the previous gatekeeper's hostname and IP
- From there I followed the test procedure, but with CEMon and RSV gratia consumer turned on

Production Install Results

- The new install took about 2 hours
- An outside factor complicated things – that day the host cert for our GUMS server expired
- Because we had not drained of running jobs, we had a large number of lost heartbeat failures
- We don’t normally drain of pilots, but these were a problem as well. Because autopilot thought we had a number of pilots queued, it was slow to submit new pilots. Eventually these old pilots were marked cancelled.

References

- https://twiki.grid.iu.edu/bin/view/Documentation/Release3/InstallComputeElement
- https://twiki.grid.iu.edu/bin/view/Documentation/Release3/InstallRSV
- https://twiki.grid.iu.edu/bin/view/Documentation/Release3/InstallCertScripts
- https://twiki.grid.iu.edu/bin/view/Documentation/Release3/MapServiceCertToRsvUser
- https://twiki.grid.iu.edu/bin/view/Documentation/Release3/ValidatingComputeElement