

QWG Templates Status

Michel Jouvin

LAL/Orsay

jouvin@lal.in2p3.fr

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- Why QWG templates ? Who is using them ?
- QWG Releases
- Documentation and Support
- Changes since October 06
- Todo list
- Open questions



• EGEE/LCG MW installation tool : YAİM

- Shell scripts configured through environment variables
- Initial installation only, reconfiguration difficult
 - Not adapted to the need to frequently deploy patches
- Machine oriented rather than service oriented
 - Assume a machine dedicated to a service
 - Should change in next YAİM version (3.1)

• QWG Templates : service oriented

- Take advantage of NCM components being service oriented
- PAN templates are easy to organize by service
- Easy mix of service on a machine
 - As long as MW supports the mix (port conflict...)
 - No side effect of one service configuration on another service
- Configuration consistency of common low level service
 - Accounts, cron, NFS mounts...

- # LCG Quattor working group
- Official working group of LCG GDB
 - Mandate to ease and coordinate use of Quattor in grid context
 - Not a task force with significant manpower... Never been more than spare time from a few people !
 - Chairman : Michel Jouvin taking over responsibility from Cal Loomis
 - QWG review at next GDB in Prague
 - Main responsibility : PAN templates and NCM components for EGEE/LCG MW configuration and deployment
 - Contribution to maintenance and development of Quattor
 - SCDB (Subversion based CDB) as an alternative CDB implementation



- # Usage Status
- Sites using QWG templates increasing : several sites with 200+ machines
 - GRIF : 5 sites, 200 machines, grid + non grid usage, 1 SCDB
 - +150 machines to arrive in June
 - 6 french T2/T3s : 1 SCDB per site, 10-50 machines/site
 - BEGRID : 6 sites, 150 machines, 1 SCDB
 - Irish grid : 15+ sites, 1 CVS SCDB
 - UAM : 200 + 500 nodes , CDB
 - gLite templates are really generic and pretty flexible
 - Now in use in different contexts
 - Upgrading template releases relatively easy, based on French experience
 - Site configuration clearly separated from standard templates (OS and MW)
 - Still room for improvements...



- # QWG Releases
- 1 QWG release made of templates for MW, OS and other standard templates
 - Each release contains working examples
 - 1 release goes for a 1 week beta, except urgent fixes
 - Often triggered by availability of a new gLite update
 - Try to release a beta with the update within a week from the update announcement for normal releases (asap for critical updates)
 - Each release tag based on MW version : currently 3.0.2
 - QWG release number doesn't match gLite update numbers
 - QWG releases announced in LCGQWG site roadmap
 - Each milestone contains the description of main changes with a link to corresponding repository revisions



- # Release Policy
- Compatibility, compatibility, compatibility...
 - My personal obsession...!!!
 - New and changed features should not required any change to an existing configuration if not using it
 - A success for 1 year...
 - Reason for a new release
 - MW update
 - Adding features or flexibility
 - Support for new services
 - Bug fixes
 - 9 releases in six months
 - No requirement to upgrade but fixes part of new release
 - Interested by site feedback on this "short" release cycle



- QWG packaging : preferred distribution through Subversion
 - Also produce a tarball of each release, do we need it ?
- In addition to releases, access to intermediate releases through Subversion repository
 - 1 branch per MW version : currently gLite-3.0.0
 - Should have been gLite-3.0 but renaming will break too many things
 - This branch contains beta material, supposed to work but requiring more testing
 - Some revisions of the branches are tagged as releases
- If using SVN to get releases, very easy to switch between a tagged release and betas
 - svn switch
- 1 branch for non grid usage : no-grid
 - Mainly OS templates
 - Plan to include working examples based on LAL non grid



- # Contributing to QWG
- Contributions are welcome...
 - Some non LAL contributors in the last months (Stephen, Stijn, Edith, Eric)
 - Preference for contribution directly in QWG repository (SVN) rather than patch sent by email
 - Ask me for an account to get write access to QWG repository
 - A contribution can range from new HW support to more sophisticated changes : no need to be a certified expert
 - All contributions **MUST** be made to the trunk
 - Trunk is a log of work in progress, no guarantee to work at every revision
 - Try to use Trac wiki syntax in your commit messages
 - Each changes are reviewed before being moved to a release branch
 - Expect an email if I have difficulty with your proposed change...
 - Release branch contains only merges from trunk
 - Commit message states explicitly which revisions

- Huge effort on QWG templates documentation since 1 year...
- Main source of information is LCGQWG site : almost full coverage of all aspects of templates usage
 - <https://trac.lal.in2p3.fr/LCGQWG>
 - 3 areas : documentation, release notes (about releases) download and installation instructions
 - Try to keep up to date with releases : in fact often in advance...!!!
 - Contributors are welcome... send me your certificate DN
- Mailing list : mainly QWG mailing list
 - Announcement of new releases (not beta) also sent to Quattor mailing list
- Support through Savannah ELFms
 - Trac tickets not used for QWG support but for development planning



- VO configuration : adding support for a VO requires only adding its name in one list
 - 2 structure templates per VO
 - `vo/params/vo.tpl` contains all the VO specific parameters
 - `vo/certs/server.tpl` contains certificate of the VOMS server
 - VOMS server cert is common to all VOs using the same VOMS server
 - Most of the work done through functions
 - Sites can override default VO params without editing standard templates
- NFS configuration
 - NFS server is a role that can be attached to any machine
 - Support for dedicated NFS server
 - Support for several NFS servers, on a filesystem basis
- Cleanup of ssh usage in CE
 - Trusted ssh (through host keys) configured only if not using shared home directories



- Support for selectable CE LRMS
 - Templates are LRMS neutral
 - Condor support added (Stephen Childs)
 - Torque v2 with MAUI by default
- MPI support
 - Integration of last agreed configuration for MPI support (Dublin workshop, Dec. 06)
 - Changes required by the users



- VO configuration
 - Ability to specify 2 certs per VOMS server for easier upgrade
 - Support for several VOMS server per VO
- gWMS and gCE
- Complete migration to namespace
 - Mainly components and repositories
 - Will probably use namespace in sites/ and clusters/ for consistency
 - Backward compatibility will be ensured
- Add flexibility for services that require more
 - Express your requirements



- CA updates : is a new release needed and appropriate
 - A new release often has other changes. Even if claiming for compatibility, sites may be afraid of installing it
 - Provided script (utils/CA/create_template) not difficult to use...
 - What sites would like to see ?
- VO parameters update (eg. VOMS server certs)
 - Also probably not worth a release by themselves
 - Are the sites comfortable enough with SVN to get them from repository trunk
- Torque v1 support : do we still need to maintain it ?
- OS errata in QWG templates releases
 - Currently provided as a separate template (errata.tpl in OS rpms/) that the site must explicitly deploy

• ncm-glite future

- Allowing entirely generated templates for all pure gLite services based on XML configuration
- Unfortunately, XML configuration abandoned in favor of new service based YAIM with per service input files
- Unclear if new YAIM (+ncm-yaim) will allow to replace XML configuration + ncm-glite
 - If not, may raise the need for new components...



- QWG site : <http://trac.lal.in2p3.fr/LCGQWG>
 - Description of QWG templates (OS and MW)
 - Description of SCDB
 - Description of PAN language
 - Actively updated
- Tutorials (pretty old materials...) :
 - French :
<http://agenda.lal.in2p3.fr/fullAgenda.php?ida=a05110>
 - English :
<http://quattor.web.cern.ch/quattor/documentation/tutorials/>

