

# Glexec: status overview (and LCAS and LCMAPS)

Gerben Venekamp & Oscar Koeroo







www.eu-egee.org

INFSO-RI-508833





- End of life for EDG support
- Status on the preview test-beds

Enabling Grids for E-sciencE

- OSG and glexec
- Latest developments
- SAML-XACML
- JIT updates
- TODO

### EDG: End of life (and lessons learned)

Enabling Grids for E-sciencE

# "We will no-longer support EDG-LCAS and EDG-LCMAPS and their plugins"

#### • Reasons:

eee)

- We (developers of...) have no control over the code that is currently in production.
- We see all kinds of complication rise from VOMS and we've made the move to FQANs two years ago.
  - LCG did not move with our newer versions and missed our move to FQANs (for the last three years)
- It's an evolutionary process but we decided to make it official
  - It has been taken over by LCG; contact point Maarten Litmaath
- Big bang of software...  $\rightarrow$  Glite 3.1
  - Featuring GT4 and VOMS in the FQAN format
- Warnings were declined because there is not enough manpower for certification in SA3



• Not much has changed since Catania

Enabling Grids for E-sciencE

- CREAM CE seems to run without any complaint @ NIKHEF
- HIP cluster is reinstalled; failing qsub should work
- Holidays
  - We both had our holidays 🙂
  - No time left to spend on the Preview Testbed in the past months  $\ensuremath{\textcircled{\otimes}}$

#### • NIKHEF Preview Testbed nodes will be restructured

- Some downtime when our local sys-admins give the Go
- Currently running as 4 VMs on a dual-dualcore high-end machine
- Will move to a lower end machine, due to usage rates and demand for the high-end machines
  - May move back when usage rates go up



- Glexec distribution to OSG has improved
  - More in sync with recent version
  - Using our build infrastructure (Etics) can build their own versions
  - VDT is picking up the code and building it with Etics
    - Will receive an Etics free script soon

#### • Glexec code in better shape

- Code hardening/clean up
- Tracking down potentially dangerous code and fixing it
- Sudden Seg. Fault conditions experienced only at Fermilab are now gone (forever...?)

#### • We're unhappy about the rpaths in all our binaries

- Because of our "non-GNU" build method



- Added the linger keyword to the glexec config file
  - it controls the fork behaviour.
  - linger yes is the default and makes glexec fork and wait
  - linger no makes glexec just exec()

Enabling Grids for E-sciencE

- done on request of Condor (and LCG)
- Changes the behaviour of glexec in regard to interpretation of poolaccount entries
  - Side info: this mechanism is used to whitelist Unix account that can execute glexec
  - one could specify poolaccounts like so: pool\*, i.e. pooladmin is a match
  - now pool\* matches pool[0-9]\* only
  - introduced .pool to comply with the syntax used in gridmap files
  - .pool and pool\* are handled equally
  - preference of .pool over pool\* (might get deprecated)



- Able to use LCAS and LCMAPS from GT4 services
  - Like: GT4 gatekeeper, gridFTPd and GSI-OpenSSHd
- Done by implementing the provided AuthZ (and Mapping) interface from GT4
  - No need for an 'edg' or 'glite' variant of the gatekeeper/gridftpd





## SAML-XACML

- Planning to implement:
  - LCAS and LCMAPS plugins that form a PEP
    - Goal: get the UID and GID information from a central source securely
  - Implement the PDP side as the Central Service that provides the UID and GID information
    - based on LCAS and LCMAPS

#### • Using SAML-XACML standards to get the job done

- Obligations: current topics were
  - where in the XML-structure do we put them
  - How do we extract them and enforce them
- Supporting SAML-tickets

#### • Stress point: We need a C implementation of the library



- TCG states SAML-XACML interface work to create a site central service just gave the *Go Ahead*
- Needed library need to be able to function without the entire GT4 library
  - We want this ASAP



• Handle list of existing (open) bugs

Enabling Grids for E-sciencE

- When time allows or when management applies force: make glexec and L&L work natively on x86\_64 (and Itanium)
- Make the SAML-XACML interface a successful implementation that we can use through out our infrastructures
- Continuous effort on code hardening in glexec and the frameworks on which all is based
- Deal with other big list with small items that we must do
- Documentation...