eGee

Enabling Grids for E-science in Europe

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Quattor Installation of Grid Software

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Contents

Use Quattor to

install machines

maintain clusters

manage (grid) software configuration

- Development
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Development

- ## Core Quattor Effort

  Continued development
  - G. Cancio (CERN), R. Leiva, M. Bock (UAM)

  CERN (IT/FIO):
  - development focused on managing CERN fabric
  - contributed generic core components
  - no mandate for grid-specific components

- ## Community Effort

  Quattor meeting March 26, 2004:
  - Attendance by ~20 people
  - Strong interest in Quattor use

  LCFG port of components/configuration
  - ~2 people; part-time *reducing to* ~1 person; part-time
  - D. Groep (NIKHEF), C. Loomis (LAL)

Priorities (LAL perspective)

- "Full" LCG-2 installation
  - Benefit: push to finish Quattor port
  - Risk: revert to LCFG
- *Fully*-automatic installation & configuration
  - Secure credential distribution
  - Missing configuration (e.g. MySQL)
- gLite installation
- Other software:
  - Standard services (DHCP, DNS, ...)
  - Other grid software (XtremeWeb, XGrid, ...)

Quattor Components Used

- AII: Automatic Installation Infrastructure
- CDB: Configuration Database
    - pan/panc: used directly
    - cdbop: subversion/ant
- SWRep: Software Repository
    - apache
- CCM: Configuration Cache Manager
- NCM/NCD: Node Configuration Management
- SPMA: Software Package Management Agent

Status

- Matured significantly since March
  - "Complete" standard Pan library
  - Critical configuration components exist
  - Offers end-to-end solution
- OS Installation
  - Easy for RH-like OSes:
    - comps.xml description
    - RPM package format
    - Proven with RH7.3, RH9, FC1, FC2, *SL3.01*, CEL3
  - Solaris at CERN
- LCG-2 configuration
  - http://grid05.lal.in2p3.fr/svn/egee-cfg/trunk (subversion)
  - RPM lists all ported; all install.

Testing

- UI (OK)
- CE

    mkgridmap problem; GK problems

- WN

    probably OK (see UI); PBS client part not tested

- SE

    mkgridmap problem; configuration ~OK; gridftp OK

- RB

    mkgridmap problem; WM, LM, JC daemons die

- LCG-BDII (OK)
- PX (OK)

Outstanding Tasks

- Fix mkgridmap
    - RPM dependencies incomplete
    - PERL dependency problems
- NCM components
    - template facility
    - ceinfo (needs testing to finish)
    - MySQL
    - quattor services
    - fabric monitoring
    - maintenance (log rotate, etc.)
- Testing
- Credential distribution

Conclusions

- Quattor
  - Offers end-to-end installation & configuration tool
  - Better control/checking than past tools

- LCG-2 configuration
  - All rpm lists exist (and install)
  - All critical configuration components exist
  - Several node types work; others need testing
  - Configuration re-factored to make more flexible

- Issues:
  - Reduction of community effort
  - Longer-term maintenance of configuration