

# Use of Quattor in BEgrid

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Quattor Workshop  
18-20/10/2006

## Use of Quattor in BEgrid: current situation

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### BEgrid & administration experience:

- current: it's working
  - 4 sites on QWG LCG (based on old structure)
  - 2 sites on QWG glite
    - big chance, no branch and re-merge
    - new repository, start from scratch
- we want(ed) to share a lot of the work and expertise
  - a bit difficult (not so much other FTEs for this)
- we want to lower the “new-site startup level”
  - “New site in 1 day” goal? For experienced users only!
  - New users: should be less than 1 week
    - Client-side script + yum based install
      - Well documented
    - NEXT: learn pan, write site config, install & test

# Use of Quattor in BEgrid: additions

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- QWG:
  - se\_dcach
  - Lemon + oracle XE full server setup
  - system/hardware
    - IPMI (will be used again)
  - Ganglia client/server setup
  - All passwords/sensitive info in 1 file
  - Using SLC was a real problem
  - Test of WNs in VMWare on WinXP
    - Free server edition, 80% CPU efficiency
- All
  - SINDES/All integration
    - Change in templates also needed
  - Install kernel in ks, not in ks-post-install

# Use of Quattor in BEgrid: feature request

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- Panc support for faster building of bulk machines
  - Build 1 dummy machine, reuse most of the config for lot of other machines (eg WNs)
  - Requires new “include”: if INCLUDE\_LIST variable is a non-empty list, ONLY include these tpls, ignore others
  - Current solution is too ugly
    - Uses eg

```
include {dinc("pro_lcg2_service_ganglia_client_nodes");};
```
    - Needs modification of too many QWG tpls
- More working site examples
  - QWG example cluster is nice, but “real world” enough

# Use of Quattor in BEgrid: Questions?

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Questions?

# Use of Quattor in BEgrid: layout

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## Proposed solution:

- central server
  - configuration repository (SCDB)
  - rpm repository (swrep)
  - SCDB: access/acl based on certificates
  - Swrep: access/acl based on keys/roles  
(certificates should be possible?)
- site/client : All server/swrep-cache
  - No sensitive data in repo, correct rebuild on site
  - No auto-update on site level
- Not a new idea: “inspired” by Grid Ireland and GRIF

# Use of Quattor in BEgrid: workflow

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## Admin (on desktop):

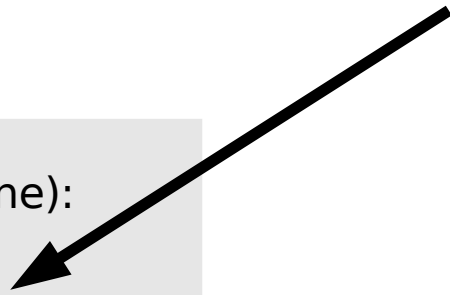
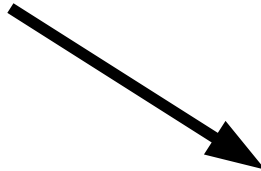
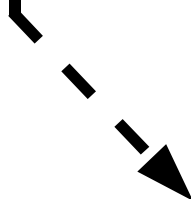
- Edit profiles (eclipse ;)
  - Branches/trunk
  - order: clusters/site/standard
  - If useful for others: deploy/tag
- Add rpms to repo

## Central server:

- SCDB: collect configuration
  - On deploy: build + notify
- Swrep: collect swrep
- acls in place: who can do what?
  - Already in svn + swrep
- Sends email around on deploy

## Admin (on site-client machine):

- Admin is notified of tag
  - If interesting, build tag
- Admin is testing something new
  - Build from trunk/branch



# Use of Quattor in BEgrid: issues

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## Tools used:

- Standard: svn/ant/https/python
- Easy to setup, fullfills our needs, well known

## No real “centralised administration”

- Not wanted: auto-update might be bad idea
- Not allowed on all sites
- Could be interesting for smaller institutes/multiple clusters

## Sensitive data:

- Not allowed to share
- No standard “encryption” in pan
- Solution: use dummy values + real ones on site