

# Quattor Usage at Nikhef

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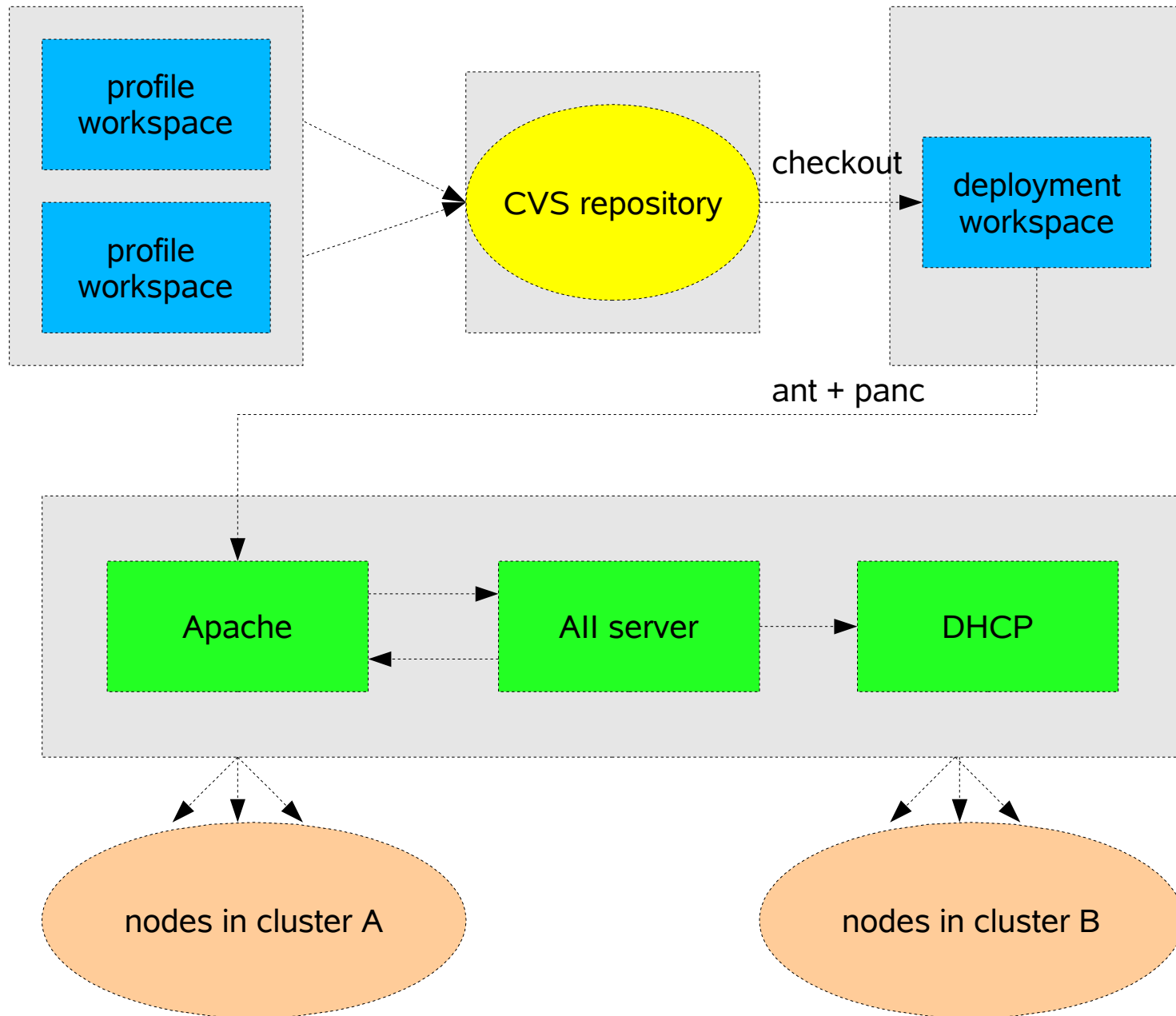
- Projects:
  - EGEE grid
  - Tier-1 for LHC (with SARA)
  - national projects (VL-e, BIG GRID)
- Sites:
  - NIKHEF-ELPROD: ~150 hosts (~400 cores)
    - Including main (LCG) services
    - Strong increase expected
  - Installation Test Bed: ~15 nodes
    - Similar setup as production
- Staf:
  - 2.5 FTE (4 people)
  - 0.5 FTE hardware support

- Install with Quattor:
  - Nearly all grid machines (CentOS 3, 4, 5 i386)
  - Not: core server (LDAP, NFS user homes), Quattor server
  - Not *yet*: x86\_64 machines (servers)
- Configure with Quattor (ncm-components):
  - Basic Linux services
  - Grid Middleware using Yaim via ncm-yaim
    - Many local modifications to standard Yaim
    - Requires frequent patching
  - Torque + Maui

- Major operation to use namespaces
  - Supporting various OS + arch was troublesome
- New hierarchy inspired by QWG templates
  - facility (“prd”, “itb”, “generic”) ~ clusters
  - sites - generic configuration
  - grid
    - common
    - glite-3.0 + glite-3.1 (LOADPATH)
    - vle (multiple releases may coexist)
    - machine-types
    - users + vo
  - os (LOADPATH)
  - standard (symlinks)
- Not consistent: dealing with rpms
  - rpms/OS\_TAG/x vs service/rpms

- Pan compiler v7
  - Faster, some initial memory issues
  - Enables more efficient structuring
  - Compile time 145 objects:
    - 2:25 (production server)
    - 0:53 (server for tests in VM)
- All
- SPMA
- “SCDB--”:
  - SCDB-based (compile, deploy, update repos)
  - no Subversion
  - shell script hiding ant calls:

```
makexprof -f prd
pushxprof -f itb tbn14 tbn16
```



- New setup works well
  - At cost of 6 weeks re-organizing
  - Should allow for 64-bit installs
- Issues:
  - Pan compiler performance: remains concern
  - Scaling problems when concurrently installing 129 nodes
  - Monitoring of update results
  - Occasionally reconfiguration does not occur
- Future:
  - Xen virtualization
  - Nagios setup under Quattor