

SCDB migration

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Quattor Workshop

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Why

- More users
 - Need to have real username in commits
 - CVS so well hidden : no conflict resolution
- Cdb2sql heavy
- Kerberos problems
 - Could not have authentication working after kerberos server moved to Windows

CDB template structure

- Profiles directory (1440 templates)
- pro/{components, hardware, pan, quattor, repository, software, system}
- OS dependent directories in :
 - pro/repository
 - pro/software
- pro/component/*/lhcb.tpl for common settings for the component

CDB template structure

- pro/lhcb.tpl template for all common settings
- pro/*_server.tpl per machine type
- Other 'feature' templates in pro/
 - Will go in pro/system

SCDB installation

- Followed the documentation
 - We don't use QWG
 - So to initialize the repository :

```
`svn export https://svn.lal.in2p3.fr/LCG/QWG/SCDB/trunk/`
```
- Then modified several things
 - LDAP authentication
 - DHCPD config / aii-dhcp
 - quattor.build.xml
 - build-tag.py

quattor.build.xml

- No cluster & no group
- Namespaced templates
 - /profiles/
 - /profiles/diskless_nodes/
 - /profiles/ccpcs/*/
- Base quattor.build.xml don't handle
- `compile.recursive.profiles` target

```
clusters.directory=profiles  
profiles.recursive.enable=true
```

LDAP config

- Base LDAP configuration for full svn access
 - All LDAP users
 - Or only 'quattor' LDAP group
 - Apache 2.3 will permit subgroups
- svnperms.py pre-commit hook to limit who can do commits
 - Modified by Mandriva to support LDAP

LDAP config

/etc/httpd/conf.d/subversion.conf

```
SSLRequireSSL
```

```
AuthType Basic
```

```
AuthBasicProvider ldap
```

```
AuthName "Quattor SVN server"
```

```
AuthLDAPURL "ldap://ldap01.lbdaq.cern.ch \
dc02.lbdaq.cern.ch/OU=LHCB,dc=lbdaq,dc=cern,dc=ch?cn?sub" NONE
```

```
## To authenticate all users with an ldap account
```

```
# AuthzLDAPAuthoritative off
```

```
# Require valid-user
```

```
# To authenticate members of the quattor group (subgroups not supported  
on apache 2.2)
```

```
Require ldap-group CN=quattor,OU=Groups,OU=LHCB,DC=LBDAQ,DC=CERN,DC=CH
```


Special use case

- Let sub-detector people change their ccpc mac address definitions
- Script :
 - let user checkout only his subfolder
 - Change the mac address
 - check-in
 - Make a tag to deploy
- May have to modify `svnperms.py` to support tag creation
- What if we have some non working check-ins
 - Commit only working sets : how can we enforce

svnperms.conf

```
[global]
permissions-source = ldap
verbose = 1

[ldap]
host = ldap01.lbdaq.cern.ch
port = 389
basedn = OU=Groups,OU=LHCB,dc=lbdaq,dc=cern,dc=ch
groups-filter-format = (&(objectClass=group)
(member=CN=$user,OU=Users,OU=LHCB,dc=lbdaq,dc=cern,dc=ch))
groups-name-attribute = cn

[online]
.* = @admin(add,remove,update)
trunk/cfg/profiles/ccpc/muon/. * = @muon(add,update)
```

Post-commit

- Post-commit bash script run :
 - commit-email.pl to send the commits to a mailing list
 - SCDB post-commit.py
 - We can add other scripts

post-commit.py

- Why run build-tag.py as root ?
 - Put build-tag.py and the svn cache in /var/svn, owned by apache
 - Run it there, as apache
 - without sudo nor ssh
- use_none parameter in quattor-deploy.conf

build-tag.py

- 2 add-ons
 - Run quatview.py
 - Keep versionned xml files
 - in a separate svn repository
- 2 new sections in quattor-deploy.conf

```
[quatview]
enable: 1
# If not starting with /, it is searched at the same place as
# build-tag.py
quatview_cmd: quatview.py
verbose: 1
quatview_stdout: /tmp/quatview.log

[xml_svn]
enable: 1
```

build-tag.py

- Svn repository of generated xml files
- To be able to track back changes
- Uses the same tags as the scdb repository
- Repository should exist
- Will update existing files and create the new ones

What's more

- All v1 to All v2
- Lots of cleanup
- The big migration still to be done
- Many more cleanup needed