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Definition

- Build Cern RPMS in a centralized system and distribute package in our repositories.

Requirement

- Approval process ; keep it manual but easy way to move package from -testing to stable.
- -testing for each repository
- possibility to exclude packages
- add -debug repository
- sign package
- compatibility with el5/6.
- SSO (kerberos ?)

Proof of concept 1 : Koji

Configuration

You can configure koji client in 2 ways :

- /etc/koji.conf
- ~/.koji/config

You need to have the following lines in either file :

```
[koji]
server = http://lxsoft06.cern.ch/kojihub
weburl = http://lxsoft06.cern.ch/koji
pkgurl = http://lxsoft06.cern.ch/packages
```

Check if you can list all tags

```
koji list-tags
```

You should get :

```
el6
el6-build
el6_0
el6_0-build
el6_1
el6_1-build
el6_2
el6_2-build
slc6
slc6-build
```

Koji builder (kojid)

```
yum install kojid
/etc/init.d/kojid stop

copy /etc/kojid/kojid.conf from lxbslc6-i386

cd /etc/kojid/
ln -s ../krb5.keytab kojid.keytab

Change fstab :
lxsoft06:/mnt/koji/hub /mnt/koji nfs defaults 0 0

/etc/init.d/kojid start
check /var/log/kojid.log

chkconfig kojid on
```

Building packages

Single Package

```
koji add-pkg --owner <owner> <dist-tag> <package>
e.g : koji add-pkg --owner slc-team el6 xorg-x11-server-utils
koji build <dist-tag> <srpm>
e.g : koji build el6 xorg-x11-server-utils-7.5-5.2.el6.src.rpm
```

Koji in the workflow

```
/afs/cern.ch/project/linux/dev/build/rpmbuild/slc6X/bin/cleanall -n -i
/afs/cern.ch/project/linux/dev/build/rpmbuild/slc6X/bin/src2build
/afs/cern.ch/project/linux/dev/build/rpmbuild/slc6X/bin/bin2build
/afs/cern.ch/project/linux/dev/build/rpmbuild/slc6X/bin/prep4build
/afs/cern.ch/project/linux/dev/build/rpmbuild/slc6X/bin/buildall.koji
```

Live Logs for a task can be checked on the web interface or with the id number : `koji watch-logs`

```
/afs/cern.ch/project/linux/dev/build/rpmbuild/slc6X/bin/downloadall.koji
```

You can run `downloadall.koji` when all packages are built. It will use the same symlink logic as before. If packages failed you can re-run `prep4build`.

```
/afs/cern.ch/project/linux/dev/build/rpmbuild/slc6X/bin/showbuild
/afs/cern.ch/project/linux/dev/build/rpmbuild/slc6X/bin/signall
/afs/cern.ch/project/linux/dev/build/rpmbuild/slc6X/bin/biarch2build
```

Web interface

Connect with firefox : <https://lxsoft06.cern.ch/koji/index>

Authentication is done with Kerberos so you need to add in "about:config" two options:

```
network.negotiate-auth.delegation-uris = cern.ch
network.negotiate-auth.trusted-uris = cern.ch
```

Add user account

```
koji add-user --principal=<username>@CERN.CH <username>
koji grant-permission build <username>
```

Send user to the documentation:

<https://twiki.cern.ch/twiki/bin/viewauth/AgileInfrastructure/BuildingPackages>

Add admin account

```
koji add-user --principal=<username>@CERN.CH <username>
koji grant-permission admin <username>
```

Repository management ; kojira | mash | bodhi

This topic: LinuxSupport > BuildingSystem

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