



Enabling Grids for E-science

Distributing the gLite Worker Node tarball

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- **Have different versions of the gLite Worker Node (WN) available on WLCG.**
- **Available on already existing WNs.**
- **Visible in the information system.**
- **Version of the gLite WN can be chosen via jdl attributes.**
- **Benefits**
 - Make new versions of middleware available quickly.
 - Support different architectures.
 - Interoperability .

How to distribute the WN tarball

- **Send a job to the site that installs and configures the WN_tar.**
- **Then publish a tag for this version of the middleware.**
- **Is being done by the OPS VO (available on all WLCG sites).**
- **Removing of older versions of WN_tar is also foreseen.**
- **Several versions of WN_tar can co-exist on a site.**

- **Place the right requirements into the jdl**

```
MWVersion = "3.1.0-6";
```

```
Requirements = Member("VO-ops-GLITE-3.1.0-6",  
other.GlueHostApplicationSoftwareRunTimeEnvironment);
```

- **Use a 3.1 WMS to submit the job (the mechanism doesn't work with RB).**

- **WN tarballs get installed into**

```
$OSG_APP/ops/glite/$PLATFORM/$GLITE_VERSION
```

- **The file**

```
$MY_CE_APPLICATION_DIR/lcg-jobwrapper-hook.sh
```

is sourced whenever a job arrives on the WN.

- **The WMS provides a variable reflecting the MWVersion attribute. The lcg-jobwrapper-hook script then sources the grid-env.sh file of the corresponding WN tarball.**
- **The job uses the desired version of the WN.**

- **The file**

```
/etc/profile.d/a1_grid_env.sh
```

is the first to be sourced by the job and makes sure that the requested version of the gLite WN tarball gets sourced.

- **We have to make sure that other scripts in /etc/profile.d don't overwrite the gLite specific variables.**
- **This can only be done at sites running gLite 3.1 WNs configured with yaim 4.**

- Demonstrated to work on OSG sites (PPS site CMS-BURT-IT)
- For LCG sites we have to wait until 3.1 WNs configured with yaim 4 are available. The a1 script also needs to be updated.
- We will use SAM to manage the distribution of WN_tar.