

# WLCG VOBOX deployment documentation

## Functional description

The WLCG VOBOX is a grid service that provides:

- a grid UI
- a GSI-OpenSSH (gsisshd) service
- a proxy renewal and VO agent service

The VOBOX typically is dedicated to a single VO of which only certain privileged users (e.g. software managers, "sgm" users) are given access through GSI-OpenSSH, while only the site admins have root access. The privileged users can register proxies to be regularly renewed by the proxy renewal service. The same service can also be used to start (stop) VO daemons automatically at boot (shutdown) time. The VO daemons can use grid UI functionalities as needed. The proxy renewal service relies on the VOBOX host DN being recognized as an *authorized renewer* by the MyProxy server that was specified when a particular proxy was registered (by default `$MYPROXY_SERVER`).

## Installation instructions

We assume the machine already has a basic OS setup compatible with SL6 or CentOS/EL7, as well as a *host certificate and key* ready to be installed as `/etc/grid-security/host{cert,key}.pem` (mind the key file needs to have mode 400 or 600).

Then:

- `yum install yum-priorities yum-protectbase`

The grid UI should be taken from the EGI UMD:

- **UMD 4 - SL6**

```
yum install http://repository.egi.eu/sw/production/umd/4/sl6/x86_64/updates/umd-release
```

- **UMD 4 - CentOS7**

```
yum install http://repository.egi.eu/sw/production/umd/4/centos7/x86_64/updates/umd-release
```

Install the WLCG repo rpm:

- **WLCG SL6**

```
yum install http://linuxsoft.cern.ch/wlcg/sl6/x86_64/wlcg-repo-1.0.0-1.el6.noarch.rpm
```

- **WLCG CentOS7**

```
yum install http://linuxsoft.cern.ch/wlcg/centos7/x86_64/wlcg-repo-1.0.0-1.el7.noarch.rpm
```

Install the WLCG VOBOX meta package:

- `yum install wlcg-vobox`

If many dependencies cannot be resolved, ensure the `epel` repository is enabled.

The **Certificate Authorities** should get pulled in automatically via the grid UI.

If the *host certificate and key* were not yet installed as `/etc/grid-security/host{cert,key}.pem`, please do that now (mind the key file needs to have mode 400 or 600).

**Beware:** CVMFS [↗](#) and/or HEP\_OSlibs(**SL6**) from the WLCG repository [↗](#) may also be required, e.g. for an ALICE VOBOX.

Next the VOBOX can be configured with YAIM:

- **example** `site-info.def`

```
#####
GROUPS_CONF=/root/groups.conf
USERS_CONF=/root/users.conf

SITE_NAME=MY-SITE

VOBOX_HOST=`hostname -f`
WMS_HOST=required.but.unused
PX_HOST=myproxy.cern.ch
BDII_HOST=lcg-bdii.cern.ch

SE_LIST=my-se.my-domain # required, but unused on an ALICE VOBOX

VOS="alice"

VO_ALICE_SW_DIR=. # a dot value means YAIM should skip it (CVMFS is used instead)
VO_ALICE_DEFAULT_SE=my-se.my-domain # required, but unused on an ALICE VOBOX
VO_ALICE_VOMS_SERVERS="\
'vomss://lcg-voms2.cern.ch:8443/voms/alice?/alice/' \
'vomss://voms2.cern.ch:8443/voms/alice?/alice/' \
"
VO_ALICE_VOMSES="\
'alice lcg-voms2.cern.ch 15000 \
/DC=ch/DC=cern/OU=computers/CN=lcg-voms2.cern.ch alice 24' \
'alice voms2.cern.ch 15000 \
/DC=ch/DC=cern/OU=computers/CN=voms2.cern.ch alice 24' \
"
VO_ALICE_VOMS_CA_DN="\
'/DC=ch/DC=cern/CN=CERN Grid Certification Authority' \
'/DC=ch/DC=cern/CN=CERN Grid Certification Authority' \
"
#####
```

- **example** `groups.conf`

```
"/alice/ROLE=lcgadmin":::sgm:
```

- **example** `users.conf`

```
60101:sgmali01:1397,1395:alicesgm,alice:alice:sgm
```

- **example** YAIM command

```
/opt/glite/yaim/bin/yaim -c -s site-info.def -n VOBOX
```

## WLCGvoboxDeployment < LCG < TWiki

Finally, ensure port 1975 is open for remote access to the GSI-OpenSSH service.

**NOTE:** `gsissh` may prompt for a password if the **SELinux** context of the host certificate or key is incorrect. To fix that, run this command:

```
chcon -v --type=etc_t /etc/grid-security/host*.pem
```

---

This topic: LCG > WLCGvoboxDeployment

Topic revision: r20 - 2018-10-02 - MaartenLitmaath



Copyright &© 2008-2019 by the contributing authors. All material on this collaboration platform is the property of the contributing authors.

Ideas, requests, problems regarding TWiki? Send feedback