

Workload Management: How do I install MOAB in Bright?

How do I install MOAB on top of Bright Cluster Manager?

To install MOAB on top of BCM, the following are needed:-

1. A working license file for MOAB.
2. The source code tarball provided by Adaptive Computing.

The following steps are then carried out as root. These steps were done for Bright Cluster Manager versions 6.1 and 7.0 for both RHEL6 and SLES11:

1. Extract the sources tarball and move to the created directory (The tarball name may differ depending on MOAB version and the Linux distribution used).

```
# tar xzf moab-7.2.7-e7c070d1-b3-EL6-linux-x86_64-torque.tar.gz
# cd moab-7.2.7-e7c070d1-b3-EL6
```

2. Configure MOAB installation.

```
# ./configure --prefix=/cm/shared/apps/moab --with-init --with-modulefiles=/cm/local/modulefiles
```

3. Compile the code and install MOAB.

```
# make install
```

4. Edit MOAB configuration file using the preferable text editor.

Replace this line:

```
RMCFG[pbs] TYPE=PBS
```

with this line:

```
RMCFG[torque] SUBMITCMD=/cm/shared/apps/torque/current/bin/qsub
```

5. Configure LD by creating /etc/ld.so.conf/moab.cfg.

```
# cat /etc/ld.so.conf.d/moab.conf
/cm/shared/apps/torque/current/lib
/cm/shared/apps/moab/lib
# ldconfig
```

6. Install the license by copying the license file to the configuration directory.

```
# cp <license_file> /opt/moab/etc/
```

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7. Disable the currently installed workload manager.

```
# wlm-setup -w <currently_used_wlm> -d
```

8. Enable torquemoabworkload manager.

```
# wlm-setup -w torquemoab -s
    Disabling torque services ..... [ OK ]
    Creating default torque config ..... [ OK ]
    Initializing torque setup ..... [ OK ]
        Setting permissions ..... [ OK ]
    Enabling torque services ..... [ OK ]
        Finalizing ..... [ OK ]
```

9. Share the created MOAB module file.

```
# cp -r /cm/local/modulefiles/moab/ /cm/shared/modulefiles/
```

10. Start the MOAB service on the head node.

```
# service moab start
Starting moab: [ OK ]
```

11. Make sure that MOAB is working by loading the module and checking the available resources.

```
# module load moab/7.2.7-e7c070d1-b3-EL6
# mdiag -n
compute node summary
Name State Procs Memory Opsys

node001 Idle 1:1 2004:2004 linux
node002 Down 0:1 1:1 DEFAULT
tnode001 Down 0:1 1:1 DEFAULT
centos6-ext2 Down 0:1 1:1 DEFAULT
----- --- 1:4 2007:2007 -----

Total Nodes: 4 (Active: 0 Idle: 1 Down: 3)
```

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