

Workload Management: How can I submit TORQUE or SLURM Jobs from my Linux Desktops

Bright provides an AdvancedConfig which allows additional submit hosts. This is configured in the "/cm/local/apps/cmd/etc/cmd.conf" as follows.

```
AdvancedConfig = { "AdditionalSubmitHosts=node002,login01,user-desktop1,
user-desktop2" }
```

It is important to note that only one AdvancedConfig should be configured. Additional options may be appended to the list of options with a comma.

```
AdvancedConfig = { "=", "=", ... }
```

Note: You must restart cmd for these changes to be in effect.

```
service cmd restart
```

You will also need to open the workload manager ports in your firewall so that external clients can connect to the workload manager. To do this edit /etc/shorewall/rules

For example with TORQUE you would open the following ports:

```
ACCEPT net fw tcp 18906
ACCEPT net fw tcp 15001
ACCEPT net fw tcp 15002
ACCEPT net fw tcp 15003
ACCEPT net fw tcp 15004
```

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For SLURM, the clients will try to connect to the SlurmctldPort which is 6817 in a default Bright install.

```
ACCEPT net fw tcp 6817
```

Note: You must restart Shorewall before these ports will be open to the workstations.

```
service shorewall restart
```

Finally, you will need to download the workload manager and configure/compile it on your submit host and edit its configuration to point to the head node.

- For TORQUE edit `/var/spool/torque/server_name` and change the name to the server IP address or hostname. Start `torqueauthd` and try to run `pbs_nodes`.
- For SLURM, you can copy the `slurm.conf` from the head node `/etc/slurm/slurm.conf` and place this on the submit host.

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