

HPC Network Storage Driver How-To

Helen Wang - 2025-02-14 - Research Systems

Mellanox OFED Installation With Lustre

The version used on Rocky Linux 8.9 (subject to change if kernel is upgraded)

MLNX_OFED_LINUX-5.8-3.0.7.0-rhel8.8-x86_64

Lustre client version lustre-client-2.12.9_ddn8-1.el8.x86_64

Original open sources from Whamcloud were not passing the compilation, client used on SOMHPC was provided by DDN.

DDN version [DDN Customer Portal](https://www.ddn.com/customer-portal)

<https://www.ddn.com/solutions/lustre-multi-level-security/>

(updated version of lustre client for DDN can be acquired by contacting DDN customer support if OS kernel changed for security reason)

Installation procedure:

1. Log in to the installation machine as root.
2. Mount the ISO image on your machine.

```
mount -o ro,loop MLNX_OFED_LINUX-<ver>-<OS label>-<CPU arch>.iso /mnt
```

3. Run the installation script. */mnt/mlnxofedinstall*

(Based on DDN solutions in our case) assumes non-standard compilation for the Mellanox OFED driver, don't forget to add *--add-kernel-support --kmp --without-fw-update*

4. rebuild the initramfs

```
cp /boot/initramfs-$(uname -r).img /boot/initramfs-$(uname -r).bak.$(date +%m-%d-%H%M%S).img
```

```
dracut -f -v
```

5. # Extract Lustre sources into that directory

```
tar xvzf lustre-client-{version}.tar.gz -C lustre-{version}_MOFED-{mofed_version}_{uname -r} --strip-components=1
```

Lustre client RPMs build

```
cd lustre-{version}_MOFED-{mofed_version}_{uname -r}
```

```
./configure --disable-server
```

```
make rpms
```