

Software Management: Can I use Lustre on the Intel Xeon Phi?

Can I use Lustre on the Intel Xeon Phi?

Yes. You will need to update the Bright Cluster Manager 7.0 `intel-mic-*-<distro>` packages to the latest version and make sure that MPSS 3.3 is installed.

You can download native Lustre RPMs for the Xeon Phi from:

http://support.brightcomputing.com/latest/lustre_mic/

and you need to place them in:

```
/cm/images/<software image of MIC host node>/cm/local/apps/intel-mic/current/RPMS
```

You will also need to define an overlay of type RPM so that those RPMs get installed when the MPSS service starts:

In CMSH:

```
[root@micdev ~]# cmsht
[micdev]% category use mic-default
[micdev->category[mic-default]]% micsettings
[micdev->category[mic-default]->micsettings]% overlay
[micdev->category[mic-default]->micsettings->overlay]% add mic-modules
[micdev->category*[mic-default*]->micsettings*->overlay*[mic-modules*]
]% set type rpm
[micdev->category*[mic-default*]->micsettings*->overlay*[mic-modules*]
]% set source /cm/local/apps/intel-mic/current/RPMS/lustre-client-
mic-modules-2.6.51-2.6.38.8+mpss3.3_gbcec0e8.klom.rpm
[micdev->category*[mic-default*]->micsettings*->overlay*[mic-modules*]
```

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URL: <http://oldkb.brightcomputing.com/faq/index.php?action=artikel&cat=15&id=228&artlang=en>

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```
]% commit
[micdev->category[mic-default]->micsettings->overlay[mic-modules]]% ..
[micdev->category[mic-default]->micsettings->overlay]% add mic-client
[micdev->category*[mic-default*]->micsettings*->overlay*[mic-client*]]
% set type rpm
[micdev->category*[mic-default*]->micsettings*->overlay*[mic-client*]]
% set source
[micdev->category*[mic-default*]->micsettings*->overlay*[mic-client*]]
% set source /cm/local/apps/intel-mic/current/RPMS/lustre-client-mic-
2.6.51-2.6.38.8+mpss3.3_gbcec0e8.klom.rpm
[micdev->category*[mic-default*]->micsettings*->overlay*[mic-client*]]
% commit
[micdev->category[mic-default]->micsettings->overlay[mic-client]]%
```

After that you will need to reboot the MIC host nodes.

When the node boots you can verify that the installation works with:

On the MIC host verify that the following line exists in the auto-generated section of the MIC configuration packages:

```
[root@node001 ~]# cat /etc/mpss/mic0.conf | grep lustre
Overlay rpm /cm/local/apps/intel-mic/current/RPMS/lustre-client-mic-modules-2.6.51-2.6.38.8+mpss3.3_gbcec0e8.klom.rpm on
```

Finally, verify that Lustre is available on the MIC itself:

```
[root@node001-mic0 ~]# mount.lustre --version
mount.lustre 2.6.51
[root@node001-mic0 ~]# rpm -qa | grep lustre
lustre-client-mic-modules-2.6.51-2.6.38.8+mpss3.3_gbcec0e8.klom
lustre-client-mic-2.6.51-2.6.38.8+mpss3.3_gbcec0e8.klom
[root@node001-mic0 ~]# dmesg | grep lustre
[ 10.012543] lustre-client-mic-modules-2.6.51-2.6.38.8+mpss3.3_gbcec0e8.klom
[ 14.758675] lustre-client-mic-2.6.51-2.6.38.8+mpss3.3_gbcec0e8.klom
```

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```
[ 1361.593508] Module lustre loaded at 0xfffffffffa04a3000  
[root@node001-mic0 ~]#
```

Unique solution ID: #1228

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