Lustre Tools

In addition to the Lustre code, a number of tools exist to help maintain a Lustre filesystem

e2fsprogs

e2fsprogs is a set of utilities for maintaining ext2, ext3 and ext4 filesystems. Lustre servers using `ldiskfs` require the Lustre-specific version of e2fsprogs to create and check `ldiskfs` filesystems because of features that have not yet landed into the upstream e2fsprogs. The `filefrag` utility included in the Lustre e2fsprogs is also useful on the client to report file block allocations for striped files (the standard `filefrag` utility can work with 1-stripe files).

Getting e2fsprogs

We recommend using the latest binary, pre-built RPMs from the Whamcloud download site.

Installing e2fsprogs

e2fsprogs and e2fsprogs-libs must be simultaneously installed with `rpm -U`:

```
rpm -Uvh ./e2fsprogs-1.41.90.wc2-7.el6.x86_64.rpm  ./e2fsprogs-libs-1.41.90.wc2-7.el6.x86_64.rpm
```

lustre-tar

Lustre-tar is a modified version of tar, patched to enhance tar on a Lustre filesystem.
Whamcloud provide a tar 1.19 with specific patches.
These patches include:

- Support for xattrs - necessary to record file and directory striping information.
- fix for: `--sparse` fails to restore file names longer than 100 chars from PAX header LU-504.
- Optimization for Lustre-tar on completely sparse files LU-682.

NOTE RHEL 6.{0,1,2} package a version of `tar` includes xattr patches necessary to record striping. However, depending on your use case, you may wish to use the Whamcloud build on RHEL 6.{0,1,2}.

> (i) **tar from RHEL 6.3**
>
> The release of RHEL 6.3 includes `tar` version `tar 1.26`, which has support for backup and restore of xattrs and sparse files optimization.
> Using the RHEL 6.3 or later version of `tar` alleviates the needs for the Lustre-specific version available below.

Getting lustre-tar

Lustre-tar is available as source and pre-built x86 and x86_64 RPMs for RHEL.

lustre-diagnostics

Lustre-diagnostics is a tool to that enables system debugging. The tool works by collecting relevant system and Lustre configuration information. The information is saved into a standard format.

Getting lustre-diagnostics

Lustre-diagnostics is available from the Whamcloud download site. The code consists of a series of scripts.

lustre-iokit

Lustre-iokit is a suite of tools for benchmarking Lustre systems, from the underlying disks, to the OST filesystem, the network, through to the client.

Getting lustre-iokit

The installation and source rpms for lustre-iokit are available in the RPMS and SRPMS directories for each Lustre release, available from the Whamcloud download site.