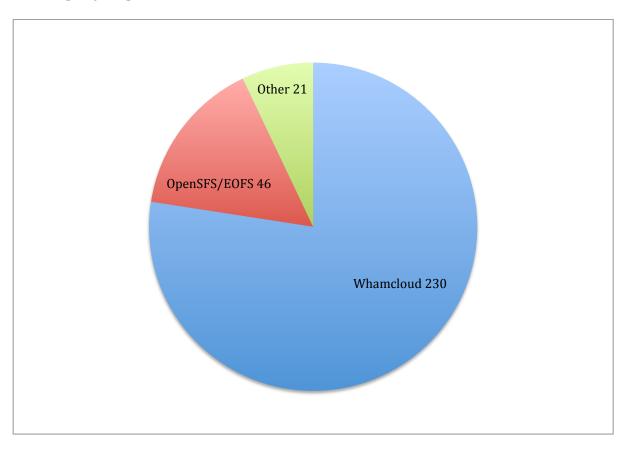




OpenSFS-Whamcloud Lustre Tree Report - Q2 2012

This report provides a brief summary of the highlights of activity on the Lustre master branch for Q2 2012. The full details of landings can be seen at http://tinyurl.com/wcgit.

Landings By Organization



These are just straight totals of the number of landings made to master during the quarter broken down by the organization. Contributions from outside Whamcloud are broken down by the contributing engineer's community affiliation.

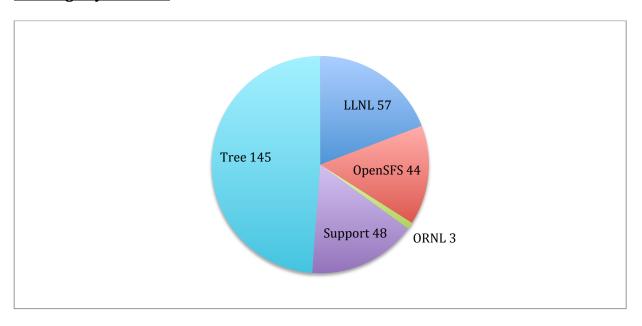
Note that the number of landings is lower than the number of git commits because it excludes

- Landings which were subsequently reverted within the same cycle, thus reinstating the original code
- The creation of tags





Landings By Contract

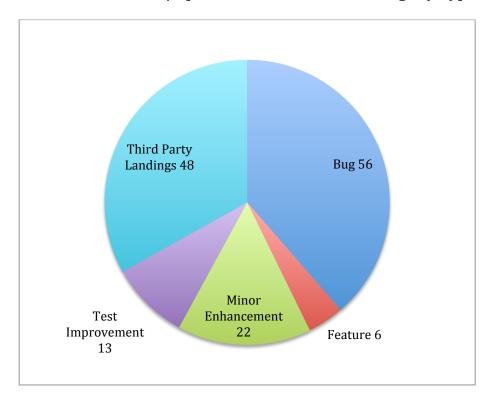


LLNL: Landing of work related to the LLNL-Whamcloud NRE contract **OpenSFS NRE**: Landing of work funded by the OpenSFS-Whamcloud NRE contract **ORNL**: Landing of work related to the ORNL-Whamcloud NRE contract **Support**: Landing of work funded by Whamcloud support contracts **Whamcloud Funded/Open SFS Tree**: Landing of work not covered by other contracts. This work is partially funded by the OpenSFS-Whamcloud Lustre Tree contract and otherwise covered by Whamcloud.





Whamcloud Funded/OpenSFS Tree Contract Landings by Type



Bug: Correcting Lustre code in response to a defect discovered by Whamcloud or an unsupported organization

Minor Enhancement: Enhancing Lustre to provide minor new capabilities e.g. supporting new kernels, etc

Test Improvement: Improvements made to Lustre tests (fixed flaws in the tests that can result in false failures, adding new tests, etc)

Third Party Landing: Performing inspections and testing on contribution from organization without support arrangements in place.





Quality Metrics

The below report shows a summary of testing results from maloo.

Note that many test failures are due to issues with the tests themselves rather than bugs in Lustre.

This report can be generated dynamically at https://maloo.whamcloud.com/reports and the individual details can be drilled into and mapped to issues in JIRA.

Tests highlighted in red have either declined compared to the previous revision or else are new tests with at least one failure.

Tests highlighted in orange have one or more failures but an improved pass rate compared to the prior revision.

Tests highlighted in green passed all test runs.





Maloo - Pass Rate Report lustre-release - master (Tagged Versions)

12-06-23 10:08 PM

Pass rate report for lustre-release - master

| | 2.2.57 b3b8bc5 2012-06-19 | 2.2.56 68eb992 2012-06-18 | 2.2.55 4ae3e06 2012-06-14 | 2.2.54 2405f4f 2012-05-29 | 2.2.53 d4635b8 2012-05-23 | 2.2.52 3535f0e 2012-05-08 | 2.2.50 368b67d 2012-03-06 | 2.1.56 e41a9f0 2012-02-18 | 2.1.55 1255aa5 2012-01-25 | 2.1.54 107a010 2012-01-11 | 2.1.52 31569d7 2011-11-12 | 2.1.0 9d71fe8 2011-09-16 | 2.1.0-RC1 1f1c672 2011-08-23 | 2.1.0-RC0 65156ed 2011-08-20 | 2.0.66.0 78bd429 2011-07-26 | 2.0.65.0 a2cccb1 2011-07-08 | 2.0.64.0 5c53b76 2011-07-07 |
|-----------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|--------------------------------|------------------------------------|------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| conf-sanity | 6/6 | 3/3 | 4/4 | 5/7 | | 9/9 | 3/3 | 6/6 | 6/13 | 2/3 | 7/7 | 1/20 | 1/2 | | 0/1 | 0/1 | 1/1 |
| insanity | 6/6 | 3/3 | 0/4 | 7/7 | | 9/9 | 3/3 | 5/5 | 8/8 | 3/3 | 7/7 | 20/20 | 3/3 | | 2/2 | 1/1 | 1/1 |
| large-scale | 6/6 | 3/3 | 3/4 | 6/6 | | 8/8 | 2/2 | 5/5 | 7/7 | 3/3 | 7/7 | | | | | | |
| Ifsck | 1/6 | 1/3 | 0/4 | 3/7 | | 6/9 | 2/3 | 7/8 | 1/10 | 1/3 | 5/7 | 23/25 | 2/2 | | 1/1 | | |
| liblustre | | | | | | | | 3/5 | 10/16 | 2/3 | 1/7 | 7/25 | 2/2 | | 1/1 | | |
| Inet-selftest | 6/6 | 3/3 | 3/4 | 6/6 | | 8/8 | 2/2 | 5/5 | 7/7 | 3/3 | 7/7 | 16/16 | 3/4 | | 3/3 | 1/1 | 1/1 |
| lustre-rsync-test | 5/5 | 2/2 | 3/4 | 5/6 | | 9/9 | 2/2 | 5/5 | 9/9 | 2/2 | 7/7 | 13/13 | | | | | |
| mds-survey | 4/4 | 2/2 | 2/3 | 2/5 | | 5/8 | | | | | | | | | | | |
| metadata-updates | 6/6 | 3/3 | 3/4 | 7/7 | | 9/9 | 2/2 | 5/5 | 10/10 | 3/3 | 7/7 | 20/20 | 3/3 | | 2/2 | 1/1 | 1/1 |
| mmp | 6/7 | 3/3 | 4/5 | 7/9 | | 9/9 | 2/2 | 5/5 | 8/8 | 2/3 | 7/7 | 18/19 | 4/4 | | 1/2 | 1/1 | 1/1 |
| obdfilter-survey | 6/6 | 3/3 | 3/4 | 6/6 | | 8/8 | 2/2 | 5/5 | 6/8 | 3/3 | 0/7 | 16/16 | 4/4 | | 2/3 | 0/1 | 0/1 |
| ost-pools | 6/6 | 3/3 | 3/4 | 7/7 | | 9/9 | 2/2 | 5/5 | 4/10 | 2/3 | 3/7 | 11/20 | 2/3 | | 1/2 | 1/1 | 1/1 |
| parallel-scale | 5/6 | 3/3 | 3/4 | 4/7 | | 4/8 | 2/2 | 4/5 | 2/7 | 0/3 | 2/7 | 10/19 | 0/4 | | 0/2 | | |
| parallel-scale-nfsv3 | 4/5 | 2/3 | 2/3 | 5/5 | | 2/7 | 0/1 | 1/5 | | | | | | | | | |
| parallel-scale-nfsv4 | 1/5 | 1/3 | 0/3 | 2/5 | | 2/7 | 0/1 | 1/6 | | | | | | | | | |
| performance-sanity | 6/6 | 3/3 | 4/4 | 6/7 | | 6/8 | 2/2 | 4/5 | 5/7 | 3/3 | 3/7 | 15/19 | 0/4 | | 0/2 | | |
| racer | 6/6 | 3/3 | 4/4 | 7/7 | | 9/9 | 3/3 | 6/6 | 1/10 | 3/3 | 7/7 | 17/21 | | | | | |
| recovery-double-scale | 1/1 | | 0/2 | 1/2 | | | | 2/3 | 0/1 | | | | | | | | |
| recovery-mds-scale | 1/1 | | 0/2 | 1/2 | | 0/1 | | 2/5 | 1/1 | | | | | | | | |
| recovery-random-scale | 1/1 | | 0/2 | 0/2 | | | • | 2/5 | 0/1 | | | | | | | | |
| recovery-small | 6/7 | 3/3 | 0/5 | 7/9 | | 9/9 | 4/4 | 5/7 | 10/10 | 3/3 | 7/7 | 19/20 | 2/2 | | 1/1 | 1/1 | 1/1 |
| replay-dual | 6/7 | 3/3 | 2/5 | 7/9 | | 8/9 | 5/5 | 5/5 | 10/10 | 3/3 | 7/7 | 18/20 | 2/2 | | 1/1 | 1/1 | 1/1 |
| replay-ost-single | 6/7 | 3/3 | 2/5 | 7/9 | | 9/9 | 4/4 | 5/5 | 10/10 | 3/3 | 7/7 | 20/20 | 2/2 | | 1/1 | 1/1 | 1/1 |
| replay-single | 5/7 | 3/3 | 0/5 | 5/9 | | 8/9 | 3/3 | 5/6 | 9/11 | 2/3 | 6/7 | 19/20 | 2/2 | | 0/1 | 1/1 | 1/1 |
| replay-vbr | 6/7 | 3/3 | 0/5 | 7/9 | | 9/9 | 3/5 | 5/5 | 1/10 | 2/3 | 7/7 | 18/20 | 2/2 | | 2/2 | | |
| runracer | | | | | • | | | | | | | | 1/1 | | | 1/1 | 1/1 |
| runtests | 8/8 | 3/3 | 3/4 | 7/7 | | 10/10 | 3/3 | 9/9 | 13/13 | 3/3 | 7/7 | 26/29 | 1/1 | 1/1 | 3/3 | | |
| sanity | 3/8 | 1/3 | 0/4 | 4/7 | | 3/10 | 0/3 | 0/9 | 0/13 | 0/3 | 5/7 | 9/30 | 0/1 | 0/1 | 1/3 | 1/1 | 0/1 |
| sanity-benchmark | 6/7 | 3/3 | 4/4 | 6/7 | | 7/9 | 3/3 | 8/10 | 10/10 | 3/3 | 5/7 | 2/28 | 0/1 | | 0/2 | 1/1 | 1/1 |
| sanity-quota | 6/6 | 3/3 | 3/4 | 7/7 | | 9/9 | 2/3 | 5/5 | 7/8 | 3/3 | 7/7 | 18/20 | 3/3 | | 2/2 | 1/1 | 0/1 |
| sanity-sec | 5/5 | 2/2 | 3/4 | 6/6 | | 9/9 | 2/2 | 5/5 | 9/9 | 2/2 | 7/7 | 13/13 | 2/2 | | 1/1 | 1/1 | 1/1 |
| sanityn | 6/6 | 3/3 | 4/4 | 7/7 | | 9/9 | 3/3 | 8/8 | 10/10 | 3/3 | 7/7 | 24/26 | 2/2 | | 1/1 | 1/1 | 1/1 |
| sgpdd-survey | | | | | | | | | 0/1 | | 0/7 | 0/16 | 0/4 | | 0/3 | | |





Work Completed

The focus for Q2 2012 was feature landing for the upcoming Lustre 2.3 release (targeted for September 2012).

The following features were landed during the quarter

Flock Improvements: Development work by Xyratex. (LU-1157)

Job Stats: Development work funded by Whamcloud. (LU-694)

OSD-OFD: Development work funded by the LLNL-Whamcloud NRE contract. (LU-911/LU-1406)

OSD-CLIO RPC engine: Development work funded by Whamcloud. (LU-1030)

2.6.38 client support: Development work funded by Whamcloud. (LU-506)

Release testing was completed according to the 2.3 test plan on the following tags – 2.2.50, 2.2.51, 2.2.52, 2.2.53, 2.2.54, 2.2.55, 2.2.56, and 2.2.57. A number of bugs were found and fixed as a result.

Released a version of e2fsprogs that includes a number of bugfixes.

Whamcloud completed the relocation of the build-test infrastructure to a facility better attuned to the community's needs. Furthermore, Whamcloud funded, acquired and installed an additional eight nodes for the Toro test system. These nodes will be used to improve the throughput of builds and uploading of results into maloo – both areas have proven to be bottlenecks during times of peak usage - and also to provide a staging area to allow modifications to the test infrastructure to be tested before rolling into production. All these measures should provide improved reliability for the development infrastructure the community relies upon.

Work In Progress

RHEL 6.3 server and client support underway. The majority of the work has landed for the SMP Scaling and OI Scrub features and only a few patches remain to complete this work.

Peter Jones Whamcloud July 1st 2012





Appendix A: Timeline for Lustre 2.3

Release criterion is zero blockers remaining on the Lustre 2.3 Blockers filter in JIRA $\,$

http://jira.whamcloud.com/secure/IssueNavigator.jspa?mode=hide&requestId=10 205

| Milestone | Planned Date | Actual Date | | | | |
|-------------------|---------------------------------|-------------------------------|--|--|--|--|
| Call for Features | February 29 th 2012 | February 6 th 2012 | | | | |
| Open for Landings | April 1st 2012 | March 6 th 2012 | | | | |
| Feature Freeze | June 30 th 2012 | | | | | |
| Code Freeze | August 31st 2012 | | | | | |
| GA | September 30 th 2012 | | | | | |