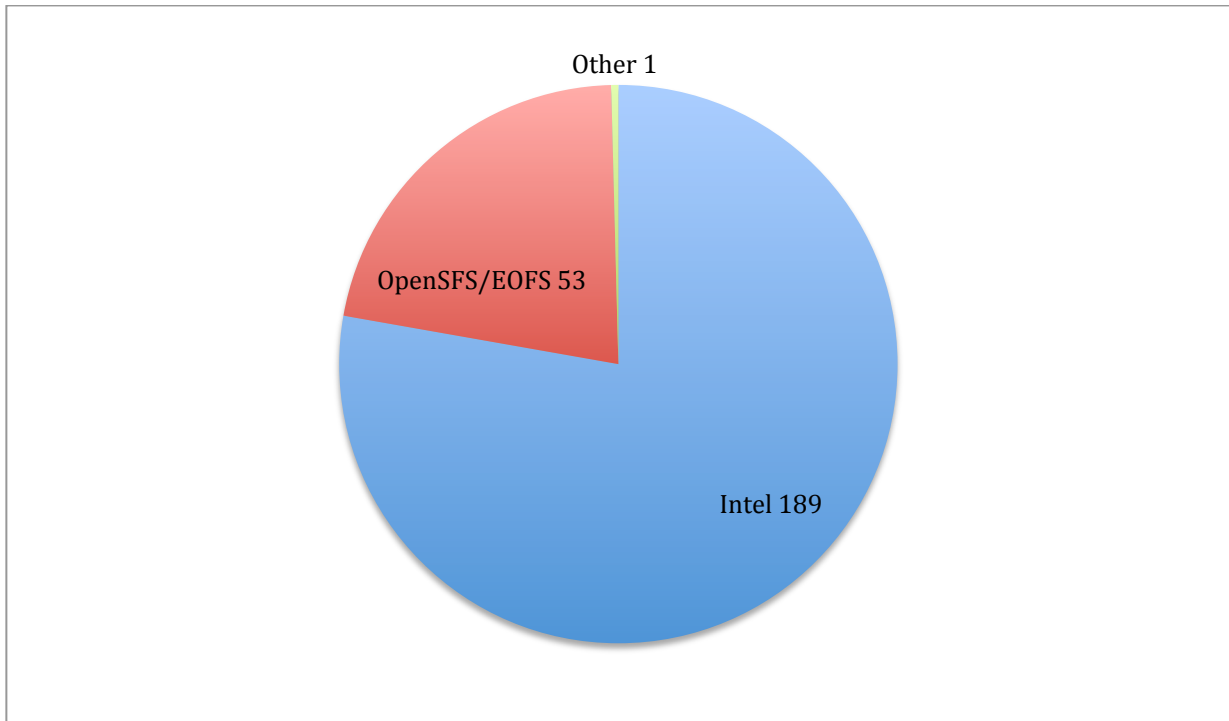## OpenSFS-Intel Lustre Tree Report – Q3 2012

This report provides a brief summary of the highlights of activity on the Lustre master branch for Q3 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 Intel 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
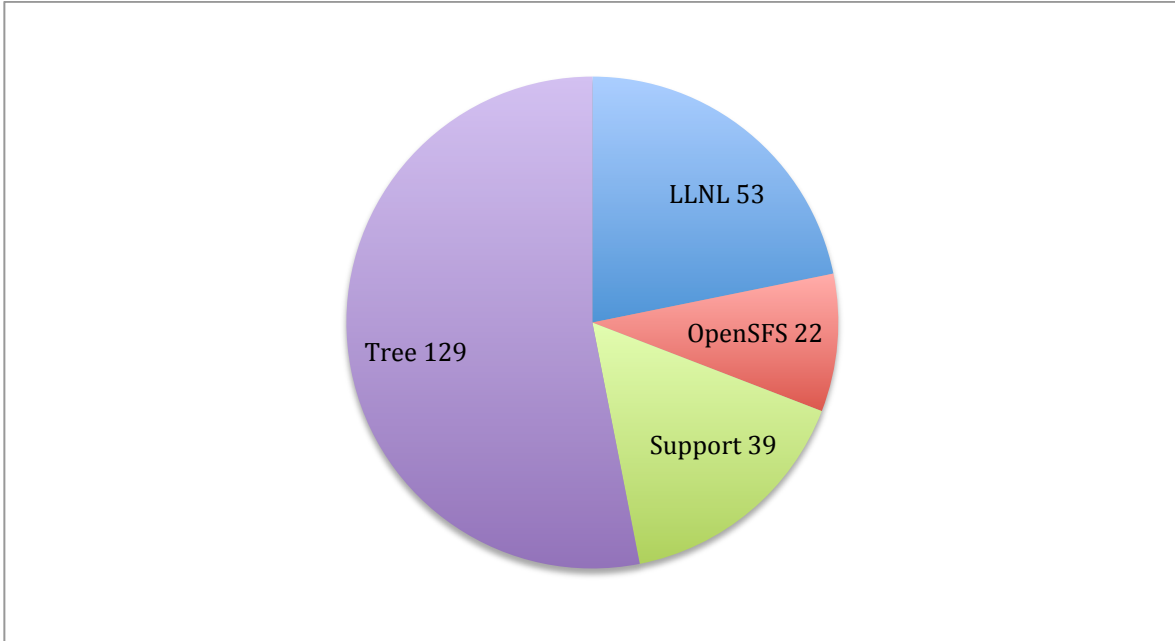
LLNL: Landing of work related to the LLNL-Intel NRE contract
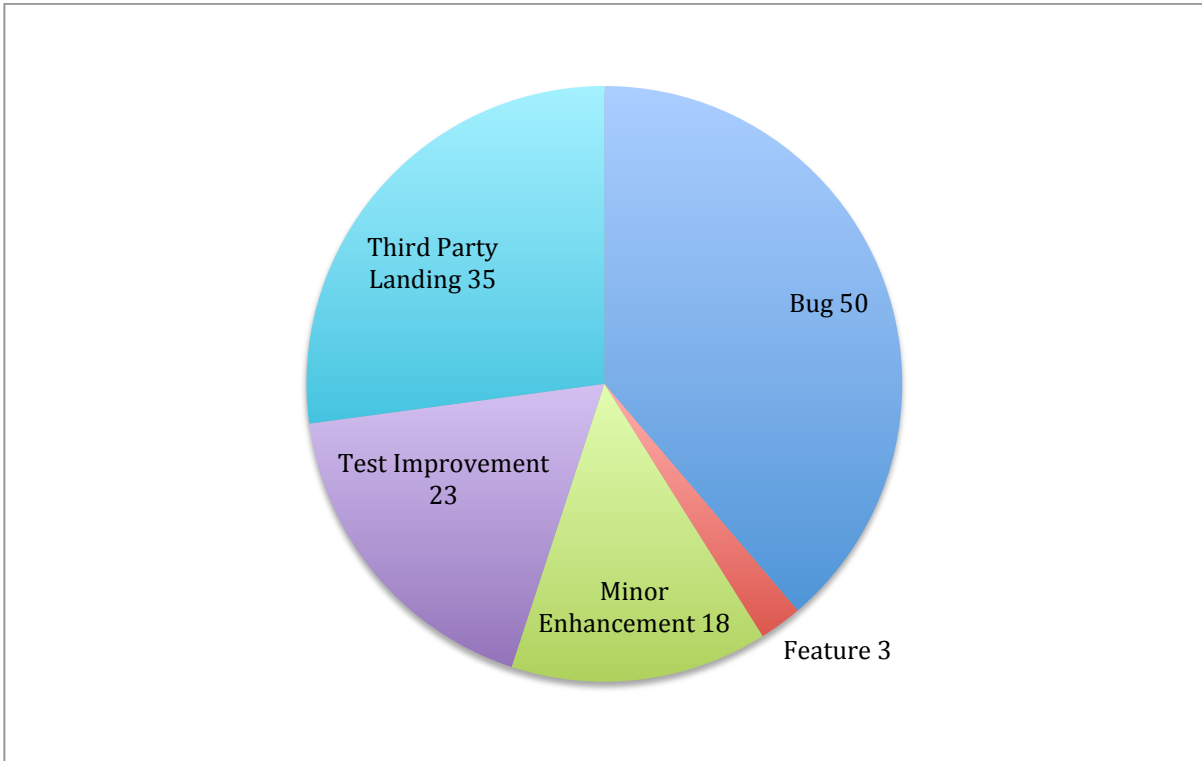**OpenSFS NRE**: Landing of work funded by the OpenSFS-Intel NRE contract
Support: Landing of work funded by Intel support contracts
Intel Funded/Open SFS Tree: Landing of work not covered by other contracts. This work is partially funded by the OpenSFS-Intel Lustre Tree contract and otherwise covered by Intel.

Intel Funded/OpenSFS Tree Contract Landings by Type

Bug: Correcting Lustre code in response to a defect discovered by Intel 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.

<u>Quality Metrics</u>

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

Note that many test failures are due to issues with the testing environment or the test scripts 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.

Note that runracer test suite was renamed to racer and liblustre testing was suspended because this code has been deprecated.

Pass rate report for lustre-release - b2_3

	2.3.0-RC1 1279a4e 2012-09-22	2.2.96 15b63a0 2012-09-13	2.2.95 0f54a6b 2012-09-13	2.2.94 f20666e 2012-08-28	2.2.93 861105f 2012-08-16	2.2.92 fee5548 2012-07-30	2.2.91 cae478c 2012-07-19	2.2.90 1934a98 2012-07-10	2.2.59 84a414b 2012-07-02	2.2.57 b3b8bc5 2012-06-19	2.2.56 68eb992 2012-06-18	2.2.55 4ae3a06 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 3156f9d7 2011-11-12	2.1.0 9d71fa8 2011-09-16	2.1.0-RC1 1f1c672 2011-08-23
clean_post_upgrade							1/1															
clean_pre_upgrade							1/1															
conf-sanity	8/9	5/7	1/1	7/8	6/6	9/10	4/6	10/10	6/6	6/6	3/3	4/4	5/7		9/9	3/3	6/6	6/13	2/3	7/7	1/20	1/2
insanity	9/9	4/4	1/1	7/8	6/6	10/10	6/6	10/10	6/6	6/6	3/3	0/4	7/7		9/9	3/3	5/5	8/8	3/3	7/7	20/20	3/3
large-scale	8/9	2/2	0/1	8/10	6/6	6/9	4/6	10/10	6/6	6/6	3/3	3/4	6/6		8/8	2/2	5/5	7/7	3/3	7/7		
lfsck	8/9	5/7	1/1	7/8	2/6	2/10	2/6	3/10	4/6	1/6	1/3	0/4	3/7		6/9	2/3	7/8	1/10	1/3	5/7	23/25	2/2
liblustre																	3/5	10/16	2/3	1/7	7/25	2/2
lnet-selftest	9/9	2/2	1/1	7/9	6/6	6/9	5/6	10/10	6/6	6/6	3/3	3/4	6/6		8/8	2/2	5/5	7/7	3/3	7/7	16/16	3/4
lustre-rsync-test	6/8	1/3		5/7	5/5	6/9	4/5	7/8	5/5	5/5	2/2	3/4	5/6		9/9	2/2	5/5	9/9	2/2	7/7	13/13	
mds-survey	6/7	1/1		6/6	5/5	3/7	3/4	7/7	4/4	4/4	2/2	2/3	2/5		5/8							
metadata-updates	9/9	2/2	1/1	8/8	6/6	10/10	5/6	10/10	6/6	6/6	3/3	3/4	7/7		9/9	2/2	5/5	10/10	3/3	7/7	20/20	3/3
mmp	10/11	3/3	1/1	7/9	6/6	7/10	5/8	10/14	6/8	6/7	3/3	4/5	7/9		9/9	2/2	5/5	8/8	2/3	7/7	18/19	4/4
obdfilter-survey	9/9	2/2	1/1	6/8	1/6	6/9	5/6	10/10	6/6	6/6	3/3	3/4	6/6		8/8	2/2	5/5	6/8	3/3	0/7	16/16	4/4
ost-pools	9/9	2/2	1/1	7/8	0/6	9/10	5/6	10/10	6/6	6/6	3/3	3/4	7/7		9/9	2/2	5/5	4/10	2/3	3/7	11/20	2/3
parallel-scale	8/9	2/2	0/1	7/8	5/6	6/10	4/6	7/10	6/6	5/6	3/3	3/4	4/7		4/8	2/2	4/5	2/7	0/3	2/7	10/19	0/4
parallel-scale-nfsv3	7/9	1/2	0/1	6/9	4/5	0/8	2/5	6/9	4/5	4/5	2/3	2/3	5/5		2/7	0/1	1/5					
parallel-scale-nfsv4	8/9	2/2	0/1	7/7	5/5	0/7	1/4	7/9	6/6	1/5	1/3	0/3	2/5		2/7	0/1	1/6					
performance-sanity	8/9	2/2	0/1	8/8	6/6	7/10	4/6	9/10	6/6	6/6	3/3	4/4	6/7		6/8	2/2	4/5	5/7	3/3	3/7	15/19	0/4
posix	5/6	1/1		4/4	3/4	2/6	0/3	0/7	0/4													
racer	8/9	3/6	1/1	4/9	2/6	6/10	5/6	10/10	5/6	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	3/3	1/1	1/1	1/2			0/2	0/4	0/2	1/1		0/2	1/2									
recovery-mds-scale	0/3	0/1	0/1	0/2			0/2	0/4	0/2	1/1		0/2	1/2		0/1		2/5	1/1				
recovery-random-scale	1/3	1/1	0/1	0/2			0/2	0/4	0/2	1/1		0/2	0/2				2/5	0/1				
recovery-small	8/11	3/5	1/1	6/9	6/6	9/10	5/8	10/14	6/8	6/7	3/3	0/5	7/9		9/9	4/4	5/7	10/10	3/3	7/7	19/20	2/2
replay-dual	11/11	5/5	1/1	8/10	6/6	8/10	5/8	10/14	6/8	6/7	3/3	2/5	7/9		8/9	5/5	5/5	10/10	3/3	7/7	18/20	2/2
replay-ost-single	7/11	4/5	1/1	8/9	6/6	10/10	6/8	10/14	6/8	6/7	3/3	2/5	7/9		9/9	4/4	5/5	10/10	3/3	7/7	20/20	2/2
replay-single	8/11	4/5	1/1	6/9	6/6	7/10	4/8	0/14	6/7	5/7	3/3	0/5	5/9		8/9	3/3	5/6	9/11	2/3	6/7	19/20	2/2
replay-vbr	9/11	4/5	1/1	7/9	6/6	9/10	6/8	10/14	6/8	6/7	3/3	0/5	7/9		9/9	3/5	5/5	1/10	2/3	7/7	18/20	2/2
runracer																						1/1
runtests	9/9	7/7	2/2	7/8	6/6	9/10	5/6	10/10	7/7	8/8	3/3	3/4	7/7		10/10	3/3	9/9	13/13	3/3	7/7	26/29	1/1
sanity	6/9	2/7	0/2	7/8	5/6	8/10	2/7	4/10	1/7	3/8	1/3	0/4	4/7		3/10	0/3	0/9	0/13	0/3	5/7	9/30	0/1
sanity-benchmark	9/9	7/7	1/2	8/8	6/6	9/10	5/6	10/10	6/6	6/7	3/3	4/4	6/7		7/9	3/3	8/10	10/10	3/3	5/7	2/28	0/1
sanity-quota	9/9	4/4	1/1	7/8	6/6	9/10	5/6	10/10	6/6	6/6	3/3	3/4	7/7		9/9	2/3	5/5	7/8	3/3	7/7	18/20	3/3
sanity-scrub	6/6	4/4	0/1	4/5	5/5	2/2																
sanity-sec	8/8	3/3		7/7	5/5	9/9	5/5	8/8	5/5	5/5	2/2	3/4	6/6		9/9	2/2	5/5	9/9	2/2	7/7	13/13	2/2
sanityn	9/9	7/7	1/1	8/8	6/6	9/10	5/6	10/10	6/6	6/6	3/3	4/4	7/7		9/9	3/3	8/8	10/10	3/3	7/7	24/26	2/2
sgpdd-survey																	0/1			0/7	0/16	0/4

FINAL

Work Completed

The focus for Q3 2012 was testing and stabilization for the upcoming Lustre 2.3 release (targeted for September 2012). The initial portion of the quarter saw some residual feature landings for this release.

The following features were landed during the quarter

OI Scrub: funded by the OpenSFS-Intel NRE contract. (LU-957)
SMP Scaling: funded by the OpenSFS-Intel NRE contract. (LU-56/LU-1315/16)

Release testing was completed according to the 2.3 test plan on the following tags – 2.2.59, 2.2.90, 2.2.91, 2.2.92, 2.2.93, 2.2.94, 2.2.95, 2.2.96, and 2.3.0-RC1. A number of bugs were found and fixed as a result.

RHEL 6.3 server and client support landed.

Released a version of e2fsprogs that supports 2.3 features.

POSIX tests are now included in automated test runs rather than being executed manually.

Exclusive Hyperion access was provided for five days and 2.2.92 was tested at scale with 476 clients.

Upgraded to latest version of JIRA.

Resolved a long-standing problem with the way Lustre tests are provisioned for running in virtual machines to avoid provisioning failures at times of high network load.

The master branch was open for landings for Lustre 2.4 towards the end of Q3 but the activity relating to this will be included in the Q4 report (for clarity).

Work In Progress

Many patches have already been landed in preparation for supporting clients for newer 3.x kernels. In particular, SLES11 SP2 clients can now build and will shortly become the default for SLES11 client testing on master.

Peter Jones
Intel
October 1st 2012

FINAL

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=10205.

Milestone	Planned Date	Actual Date
Call for Features	February 29th 2012	February 6th 2012
Open for Landings	April 1st 2012	March 6th 2012
Feature Freeze	June 30th 2012	June 30th 2012
Code Freeze	August 31st 2012	August 16th 2012
GA	September 30th 2012	TBD

Appendix B: Landings for Lustre 2.3 By Organization

This combines the data from Q2 2012 and Q3 2012. Note that the Q2 data has been retroactively adjusted to reflect current OpenSFS/EOFS membership status. This data is complete up until RC1 and so the final numbers will be higher if further RCs are required before 2.3 is declared GA.

FINAL