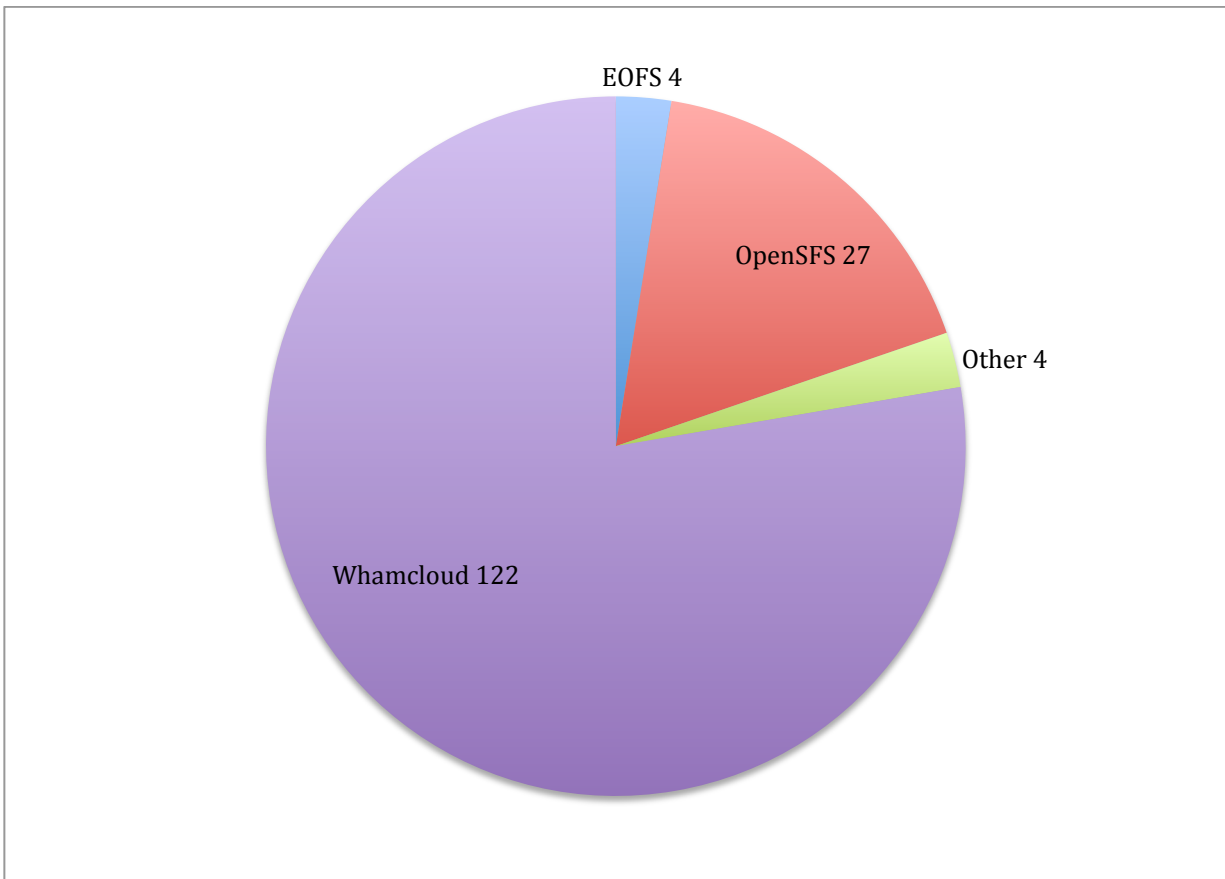




## OpenSFS-Whamcloud Lustre Tree Report - Q4 2011

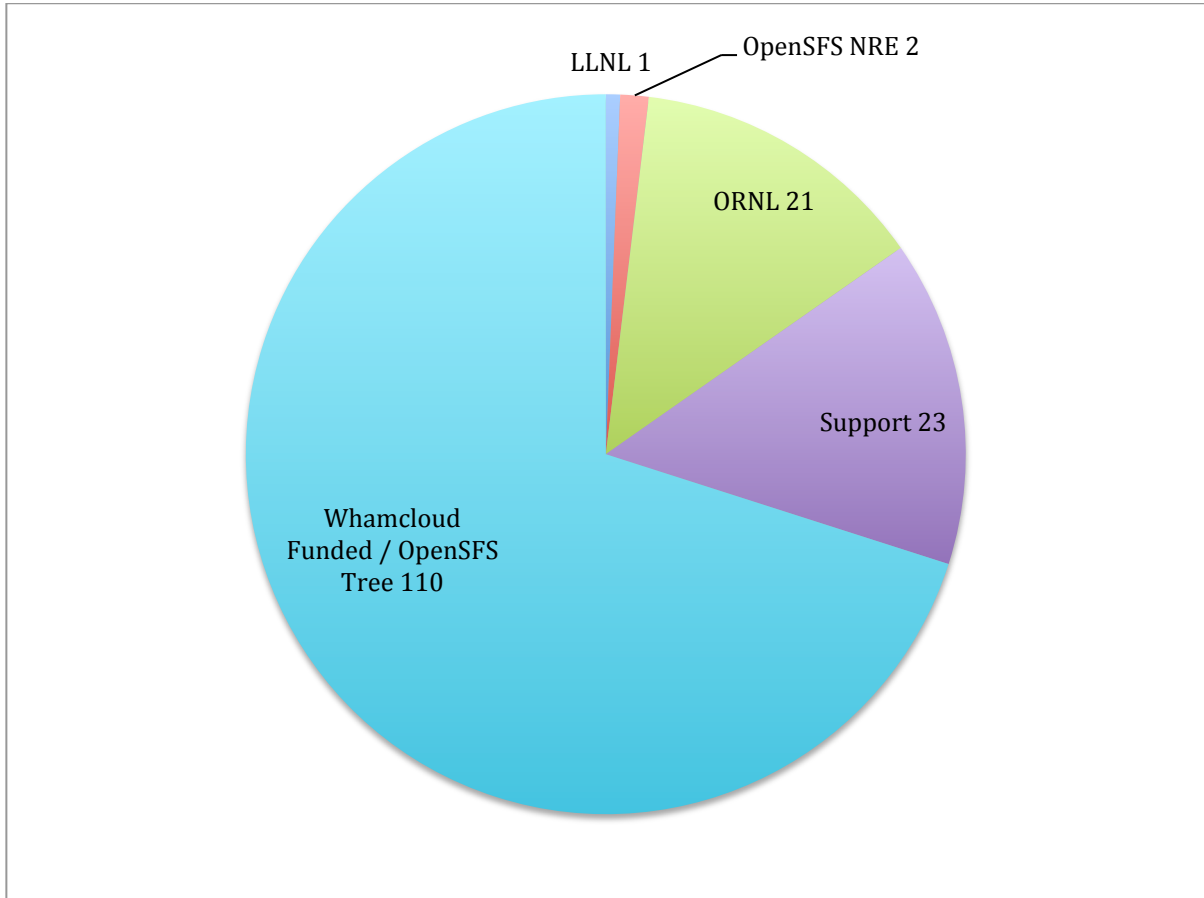
This report provides a brief summary of the highlights of activity on the Lustre master branch for Q4 2011. The full details of landings can be seen at <http://tinyurl.com/wcgit>.

### 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. Some organizations are a member of both EOFS and OpenSFS and these have been classified as OpenSFS for this purpose as this document relates to an OpenSFS contract.

### Landings By Contract



**LLNL:** Landing of work related to the LLNL-Whamcloud NRE contract

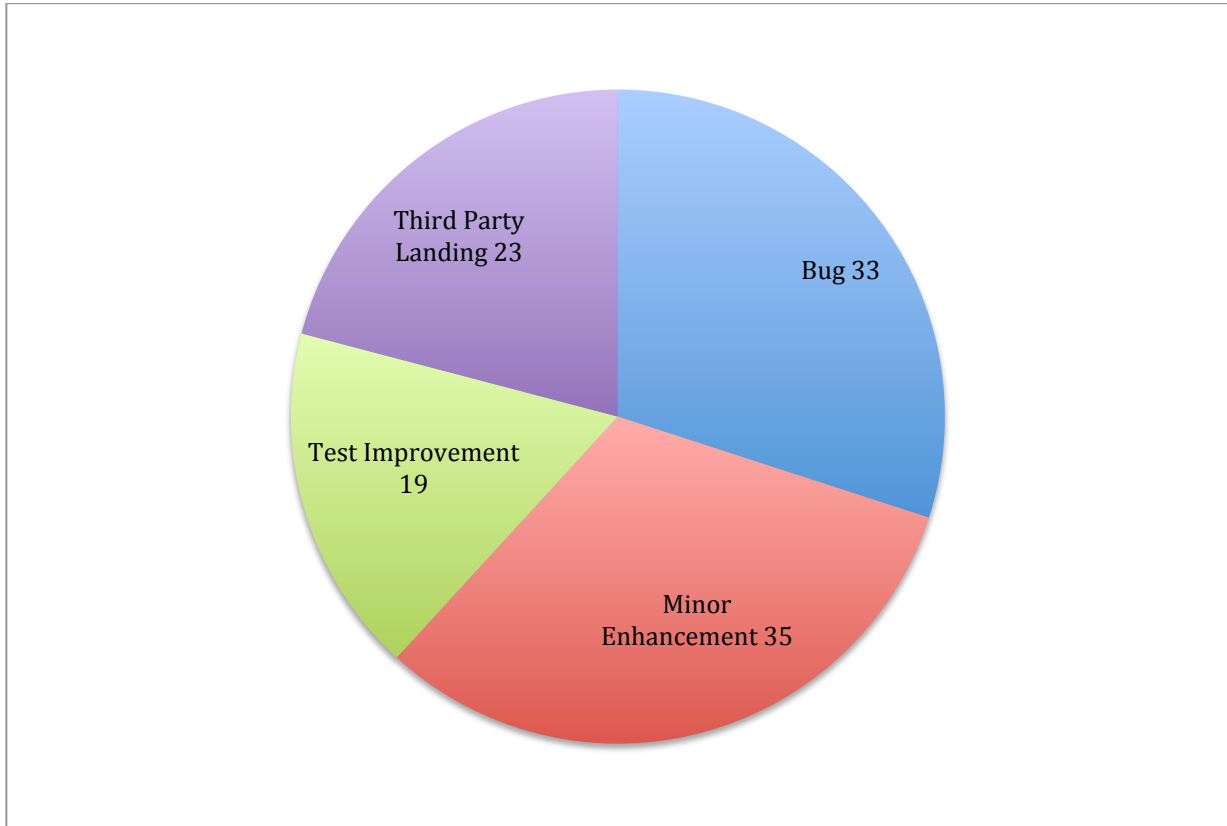
**OpenSFS NRE:** Landing of work funded by the OpenSFS-Whamcloud NRE contract

**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.

### Work Completed

The focus for Q4 2011 was landing features for the upcoming Lustre 2.2 release (targeted for March 2012).

The following features were landed during the quarter



**Imperative Recovery:** funded by the ORNL-Whamcloud NRE contract.

**Multi-threaded ptlrpcd:** funded by the ORNL-Whamcloud NRE contract.

**Parallel directory operations (pDirops):** funded by the OpenSFS-Whamcloud NRE contract.

**SLES11 Server support:** Work completed by ORNL. SLES servers are not tested as part of Whamcloud's automated regression testing, but the necessary patches are now in the tree for those interested in using them.

**Statahead:** funded by the ORNL-Whamcloud NRE contract.

In addition to the routine automated testing, a full release test run was completed for tag 2.1.52, and scale testing was performed on Hyperion.

Released a version of lustre-tar for RHEL.

Maloo (the test results database) was upgraded to the latest version of Ruby and had several bugfixes and enhancements.

Autotest had an enhancement to skip test runs for patches that have a newer version uploaded into gerrit. This should prevent wasting of test resources and improve throughput.

### **Work In Progress**

A great deal of effort has been expended on the Large Xattrs feature (aka "wide striping"). This work was initiated by an ORNL-Sun NRE contract but never landed to the Lustre mainline. Whamcloud has been leading efforts to complete and land this work with assistance from ORNL and Xyratex.

Development work has begun to automate NFS and failover testing. These tests are currently done manually during release testing.

Peter Jones  
Whamcloud  
January 3<sup>rd</sup> 2012



**Appendix: Timeline for Lustre 2.2**

<b>Milestone</b>	<b>Planned Date</b>	<b>Actual Date</b>
Call for Features	August 31 <sup>st</sup> 2011	August 23 <sup>rd</sup> 2011
Open for Landings	September 30 <sup>th</sup> 2011	September 15 <sup>th</sup> 2011
Feature Freeze	January 7 <sup>th</sup> 2012	January 7 <sup>th</sup> 2012
Code Freeze	February 29 <sup>th</sup> 2012	
GA	March 31 <sup>st</sup> 2012	