



# Lustre 2.0 Alpha-6 Summary

## Summary

The focus of the fifth Alpha release (Alpha-6) of 2.0 was to continue improve stability of Lustre while landing fixes to HEAD and completing additional bug fixes. 104 total fixes were landed during this cycle.

This release was tested on RHEL5/x86\_64 servers with both IB and TCP connectivity. Known failures are documented in the HEAD Daily Testing Document available from [lustre.org](http://lustre.org).

## Timeline

The Alpha-6 bug fix period was from October 9, 2009 – November 25, 2009. The build on November 25 marks the Lustre 2.0 Alpha-6 release which was announced and available for download December 2, 2009.

## Fixes Landed

Below is a summary listing of all unique landings to HEAD during the Lustre 2.0 Alpha-6 Milestone period. This is inclusive of all landings -- code fixes as well as test framework fixes.

1. Bug 14109: Making new e2fsprogs releases  
NOTE: There were 2 landings made according to bonsai but no attachments in the bug.
2. Bug 14250: 2.6.23-2.6.26 patchless support  
Attachment: 25921
3. Bug 15504: acc-sm needs the possibility to start from the defined test  
Attachment: 26517
4. Bug 15691: sanity.sh: FAIL: test\_123a statahead is slow! failure seen on v1\_6\_5\_RC1 with acc-sm  
Attachment: 26243
5. Bug 16818: recovery-small test\_26b: @@@@ @@@@ FAIL: client not evicted from MDS  
Attachment: 27029 Attachment: 24373
6. Bug 17103: Rewrite ptlrpc\_queue\_wait() using sets  
Attachment: 25645
7. Bug 18150: conf\_sanity test 22 hang  
Attachment: 25975
8. Bug 18478: obdfilter-survey doesn't work on 1.6.7RC3a  
Attachment: 26068 Attachment: 26913
9. Bug 18479: NULL pointer in llog\_cat\_current\_log  
NOTE: There was a landing made according to bonsai but no attachment in the bug.  
Bug was closed as a duplicate of bug 18374.
10. Bug 18631: Unify req format on client/servers  
Attachment: 26886 Attachment: 26885 Attachment: 26746
11. Bug 18782: lqs\_putref is racy

- Attachment: 26490
12. Bug 18857: namei.c:732:ll\_create\_node()) ASSERTION(list\_empty(&inode->i\_dentry)) failed  
NOTE: While there is a record of landing on bonsai, there is no attachment which was landed in the bug.
  13. Bug 19128: corruptions occur after server failover with async bulk  
Attachment: 26763
  14. Bug 19200: File join code needs to be removed  
Attachment: 26560
  15. Bug 19242: replay-single, test\_44a : lctl failed with: Try interactive use without arguments or use one of  
Attachment: 26032 Attachment: 26735
  16. Bug 19325: ldlm\_extent\_internal\_policy\_waiting() causing soft lockups  
Attachment: 26003
  17. Bug 19345: soft lockups on 1.8RC6  
Attachment: 25948
  18. Bug 19518: Move lustre hashes to libcfs  
Attachment: 24268 Attachment: 27126
  19. Bug 19557: BUG: soft lockup - CPU#1 stuck for 10s! [ll\_mdt\_07:4523]  
Attachment: 25564 Attachment: 26657
  20. Bug 19669: Store HSM flags on MDT and release  
Attachment: 26601 Attachment: 26912
  21. Bug 19720: various -Werror illicit errors  
Attachment: 26309
  22. Bug 19721: debian/ubuntu .deb build bits  
Attachment: 27055
  23. Bug 19742: sanity test\_130a/b/c/e: @@@@ @@@@ FAIL: FIEMAP on 1-stripe file(/mnt/lustre/f130a) failed;  
NOTE: A landing was reported by bonsai but there is no attachment in the bug.
  24. Bug 19747: enhance Yala to re-run acc-sm test suit from failed test  
NOTE: There were 2 landings made according to bonsai but no attachments in the bug.
  25. Bug 19763: quotacheck performance/scaling issues  
Attachment: 24175
  26. Bug 19808: 2.6.29-fc11 patchless client support  
Attachment: 26852  
NOTE: a second landing is reported by bonsai but there is no other attachment which is marked as landed. I suspect it's Attachment # 26985
  27. Bug 19884: replay-dual test\_14b: @@@@ @@@@ FAIL: after 485836 > before 485832  
Attachment: 26330
  28. Bug 19906: watchdog triggered on OST side - simul, performance sanity and others  
Attachment: 26720 Attachment: 26888, this was also reverted and then landed again.  
Attachment # 27058; Attachment # 27059; Attachment # 27111; Attachment # 27100  
NOTE: There may have been other patches reverted or partially reverted, as there were 3 more references to landings or reversions in bonsai.
  29. Bug 19919: OST Pools test - setstripe with non-existent pool does not fail  
Attachment: 26805
  30. Bug 19928: hyperion: simul failed during simul\_truncate,  
Attachment: 27125
  31. Bug 20018: YALA should re-run a untested test in case of setup failure  
NOTE: Bonsai referenced 2 landings but there were no attachments in the bug.
  32. Bug 20098: mod use after free  
Attachment: 25823 was reverted. Landed for Alpha 5.  
Attachment: 25823 was landed again, then reverted 7 days later.  
Attachment: 26429
  33. Bug 20136: dbench: failed for handle 9937 (Cannot send after transport endpoint

- shutdown  
Attachment: 26653
34. Bug 20149: umount hang before running runtests  
Attachment: 25515
  35. Bug 20198: replay-single test\_37: @@@@ @ FAIL: test\_37 failed with 2  
Attachment: 27002
  36. Bug 20274: replay-ost-single.sh: FAIL: test\_6 test\_6 failed with 3  
NOTE: Bonsai references a landing but there is no attachment in the bug.
  37. Bug 20278: ASSERTION(cli->cl\_avail\_grant >= 0) failed  
Attachment: 25139
  38. Bug 20302: Racer test passed, but there are some error in syslog.  
Attachment: 26613
  39. Bug 20308: integrate current statahead script into acc-sm, create new statahead test  
Attachment: 26692
  40. Bug 20354: DEBUG\_REQ causes LBUG  
Attachment: 27033
  41. Bug 20368: fsck fixes for fid in dirent  
NOTE: Bonsai reports 2 landings for this bug but there were no attachments in the bug that were landed in the release period.
  42. Bug 20394: recovery-mds-scale (FLAVOR=OSS): (filter.c:151:filter\_finish\_transno()) LBUG  
Attachment: 25680
  43. Bug 20444: iozone failed because of network bulk transfer timeout  
Attachment: 26387
  44. Bug 20498: replay\_single : test 70b: mds recovery, fail to cleanup  
Attachment: 26267
  45. Bug 20529: Patch to fix the problem in vvp\_mmap\_locks  
Attachment: 26562
  46. Bug 20530: quota slaves should not retry indefinitely when the master is not available  
Attachment: 26847
  47. Bug 20571: liblustre does not keep openflags in fd->fd\_flags  
Attachment: 26269
  48. Bug 20584: (mdc\_locks.c:738:mdc\_finish\_intent\_lock()) ASSERTION(!it\_disposition(it, DISP\_OPEN\_CREATE)) failed  
Attachment: 25847
  49. Bug 20592: libcfs\_debug\_dumplog\_thread stuck in do\_exit()  
Attachment: 26718
  50. Bug 20617: Add mptlinux and nxge drivers to Lustre builds  
Attachment: 26803, which was reverted 1 day later.  
NOTE: Bonsai reported another landing but no further attachments were landed during the release period.
  51. Bug 20619: OFED 1.5.0 support  
Attachment: 26950
  52. Bug 20633: Evictions due to Cray portals not being able to send messages  
Attachment: 25924
  53. Bug 20642: ASSERTION(!rs->rs\_scheduled) failed  
Attachment: 26360
  54. Bug 20645: LBUG: (lov\_io.c:256:lov\_page\_subio()) ASSERTION(lio->lis\_cl.cis\_io != NULL) failed  
Attachment: 26814
  55. Bug 20689: Server downgrade testing for the OST Pools feature  
Attachment: 26094
  56. Bug 20696: OST pools test\_23 : quota testing hang  
Attachment: 26698
  57. Bug 20703: trivial code cleanups on HEAD  
Attachment: 26889

58. Bug 20719: replay-single test\_80a: @@@@ @@@@ FAIL: needs >= 2 MDTs  
Attachment: 26548
59. Bug 20740: lockless direct write crashes Lustre  
Attachment: 26247
60. Bug 20757: allow LND sysctl even if CFS\_SYSFS\_MODULE\_PARM enabled  
Attachment: 25901
61. Bug 20765: LustreError: 3317:0:(osc\_create.c:162:osc\_interpret\_create()) @@@  
Unknown rc -4 from async create: failing oscc  
Attachment: 27117
62. Bug 20766: Add flags to ChangeLog UNLINK event  
Attachment: 26481
63. Bug 20773: Kernel update for RHEL5.4 2.6.18-164.6.1.el5.  
Attachment: 26726; Attachment # 26180;; Attachment # 26259; Attachment # 26725
64. Bug 20790: utils/ltrack\_stats is missing HEAD  
Attachment: 25961
65. Bug 20801: replay-single test\_20c: @@@@ @@@@ FAIL: File was truncated  
Attachment: 26678
66. Bug 20802: LustreError: 6861:0:(class\_obd.c:672:cleanup\_obdclass()) obd\_memory  
max: 18004774, leaked: 6296  
Attachment: 25978; Attachment # 26399; Attachment # 26477; Attachment # 26478;  
Attachment # 26563
67. Bug 20811: sanity\_benchmark test is timed out after running for 7200 seconds  
ASSERTION(loi->loi\_id) failed  
Attachment: 26662
68. Bug 20816: replay-single test\_67b: @@@@ @@@@ FAIL: cp failed : EIO  
Attachment: 26749 Attachment: 26882
69. Bug 20818: user options libcfs\_console\_(maxlmin)\_delay ignored by libcfs  
Attachment: 26025
70. Bug 20824: sanityN test\_16: @@@@ @@@@ FAIL: test\_16 failed with 120  
Attachment: 26622
71. Bug 20826: parallel-scale test\_write\_append\_truncate: @@@@ @@@@ FAIL:  
write\_append\_truncate failed! 1  
Attachment: 26333
72. Bug 20830: Provided Lustre e2fsprogs RPM is faulty  
Attachment: 26688
73. Bug 20831: replay-dual: ldlm\_lock.c:1622:ldlm\_lock\_cancel()) LBUG type: PLN  
Attachment: 26650
74. Bug 20847: Yala should reboot the nodes after sysrq run  
NOTE: Bonsai reports a landing but there is no attachment in the bug.
75. Bug 20863: OST pools testing does not clean up after itself  
Attachment: 26553
76. Bug 20887: client is timed out during recovery with AT turned on  
Attachment: 26294
77. Bug 20889: debugfs command to display MMP info  
Attachment: 26672
78. Bug 20897: ksocknal\_close\_conn\_locked assertions  
Attachment: 26230
79. Bug 20975: ost-pools test\_25: @@@@ @@@@ FAIL: /usr/bin/lfs setstripe -p pool1  
/mnt/lustre/d0.ost-pools/d25/file1  
Attachment: 26468
80. Bug 20984: sanity test\_27o: @@@@ @@@@ FAIL: mdt-s : inodes count OLD 236 NEW  
236  
Attachment: 26743
81. Bug 21028: hyperion: Oops during mdtest  
Attachment: 26474
82. Bug 21031: Infinite loop with ldiskfs\_orphan\_cleanup

- Attachment: 26595
83. Bug 21044: ASSERTION(lov\_mds\_md\_size(lmm->imm\_stripe\_count, lmm->imm\_magic) == lmm\_size) failed  
Attachment: 26656
84. Bug 21049: sanity test\_27p: @@@@ @@@@ FAIL  
NOTE: Bonsai reports a landing but no attachment is marked as landed in the bug. I suspect Attachment # 27216 but cant confirm that.
85. Bug 21056: recovery-small test\_61: kernel NULL pointer at cb\_statfs\_update+0x90/0x280  
Attachment: 26681
86. Bug 21064: runtests timed out  
Attachment: 26748 Attachment: 27049
87. Bug 21068: test metabench: metabench: error messages  
Attachment: 26893
88. Bug 21102: lbuild needs to consider the name on reuse kernels for RCs  
Attachment: 26642
89. Bug 21108: insanity test 6: Sixth Failure Mode: OST/CLIENT: killed pdsh  
Attachment: 26906
90. Bug 21150: kernel oops while stopping mds in sanity-quota test 18c  
Attachment: 26715 Attachment: 26752
91. Bug 21168: 1.8<->2.0 interop: sanity test\_150: FAIL: /tmp/f150 /mnt/lustre/f150 differ (remount)  
Attachment: 26782
92. Bug 21178: (cl\_io.c:1667:cl\_sync\_io\_wait()) ASSERTION(atomic\_read(&anchor->csi\_sync\_nr) == 0) failed  
Attachment: 27061
93. Bug 21188: OST crashes after upgrade of LBATS build nodes to v1\_8\_2\_01: Assertion failure in dx\_probe(): dx\_get\_limit(entries) == dx\_node\_limit (dir)  
Attachment: 27148  
NOTE: Bonsai reported 3 other landings for this bug but no additional attachments wer in the bug. I suspect that changes were reverted and then added back in again but can't confirm this.
94. Bug 21208: replay-single test 25 :LustreError: 28402:0 (ldlm\_lib.c:1117:target\_request\_copy\_put()) LBUG  
Attachment: 26896
95. Bug 21224: running sanity\_quota or OST pools test 23 from acc-sm on b1\_8 causes reboot of test system  
NOTE: Bonsai reported a landing but no attachment was marked as landed in HEAD. I suspect Attachment # 26944 but can't confirm.
96. Bug 21231: Fix --without-lustre-iokit  
Attachment: 26813
97. Bug 21240: replay-single test\_44a: error: recover: Connection timed out  
NOTE: Bonsai reported a landing but the bug does not confirm this. I suspect Attachment # 27262, which has permission to land but has not yet been marked as landed.
98. Bug 21243: mdt\_rec\_XXX functions not tested in wirecheck.c  
Attachment: 27047
99. Bug 21255: parallel-scale: short timeout  
NOTE: Bonsai reports a landing but no attachment is in the bug.
100. Bug 21266: Node failure woth no logs or crashdumps  
NOTE: Bonsai reports a landing but no attachment is in the bug.
101. Bug 21281: error building lustre/tests with gcc-4.4.0: flocks\_test.c:243: error: suggest parentheses around operand of '!' or change '&' to '&&' or '!' to '!~'  
Attachment: 26952
102. Bug 21304: sanity test\_200g: @@@@ @@@@ FAIL: Pools OSTs 'lustre-OST0001\_UUID'

Attachment: 27041

103. Bug 21306: ost-pools test\_6: @@@@ @@@@ FAIL: /usr/bin/lfs setstripe -p pool1 failed.

Attachment: 27011

104. Bug 21349: LOWMEM feature in yala is not working

NOTE: Bonsai reports a landing but no attachment is in the bug.

## Results

Please review the Lustre 2.0 Alpha Test Plan document and Head Daily Testing Results spreadsheet (both available on [lustre.org](http://lustre.org)) for detailed plans and daily testing results.

The Lustre 2.0 Alpha-6 has the following characteristics:

- Testing completed for RHEL5/x86\_64 using IB and TCP
- Fix landed and tested successfully for persistent bug 19906
- Known Failures: sanity (21079, 20948), sanityn(21434), liblustre(21399)

Lustre 2.0 Alpha-6 was delivered on December 2, 2009 and is available from:

<http://downloads.lustre.org/public/lustre/v2.0/latest/>

or

[http://downloads.lustre.org/public/lustre/v2.0/alpha/Lustre\\_2.0\\_Alpha6/](http://downloads.lustre.org/public/lustre/v2.0/alpha/Lustre_2.0_Alpha6/)