

TEST PARAMETERS AND FEATURE TEST PLANS

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LAD Developer's Day

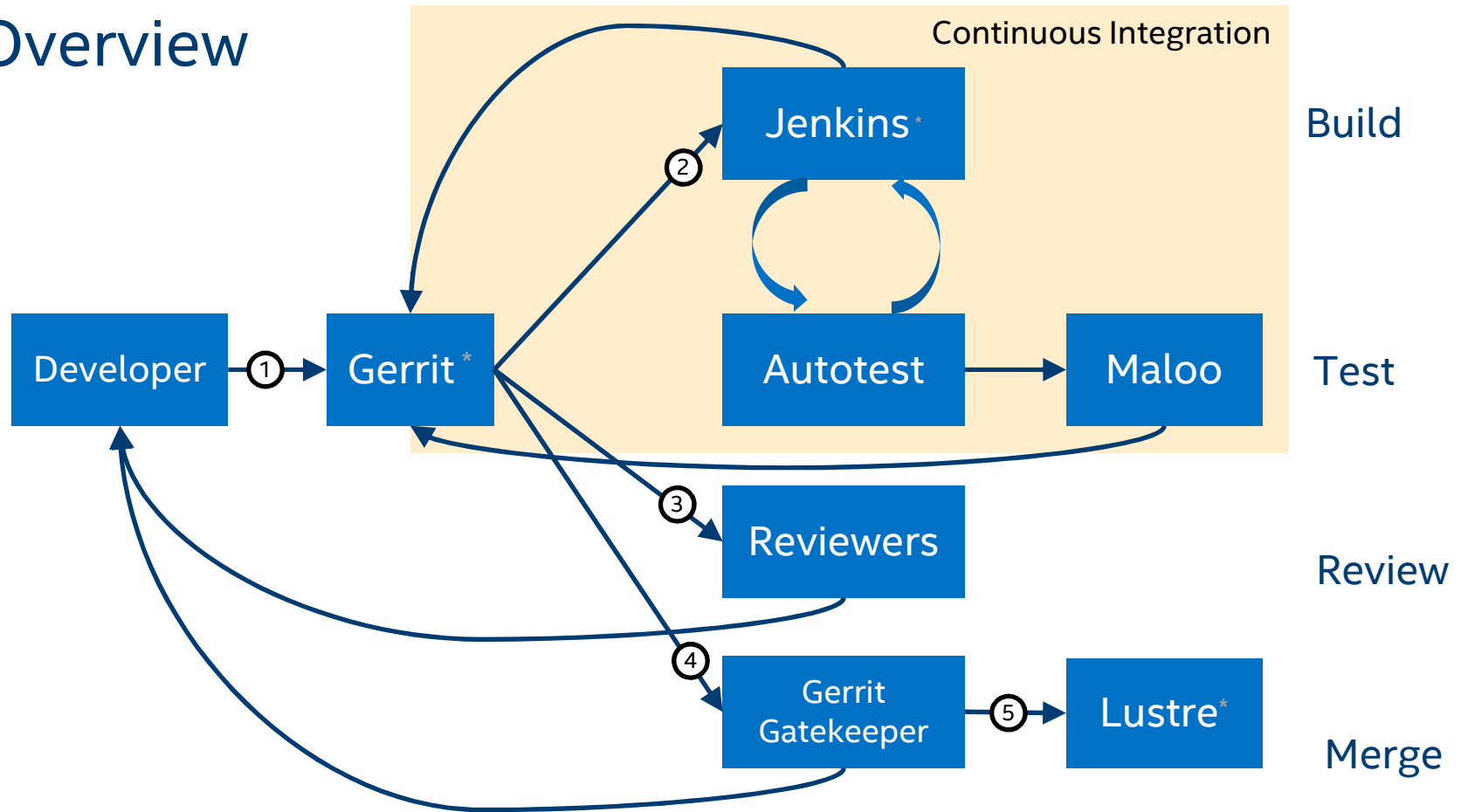
September 2016

Agenda

- Patch Test Parameters
- Feature Test Plan - Proposal

Patch Test Parameters

Overview



Stage 2: Test



Gerrit notifies the developer of test success or failure

- If a test fails, developer must analyze the failure and mark reason in Maloo
 - If patch caused failure, the patch must be fixed and resubmitted
 - Associate failed test(s) with LU ticket of the patch itself
 - If patch didn't cause failure, tests need to be restarted in Jenkins or Maloo
 - Associate failed test(s) with existing LU ticket, or Raise a new LU ticket
- A failed test session is not retrigged automatically

Stage 2: Test Notes

All test-groups must pass for a patch to be considered for landing

- The following test-groups are currently run in parallel test sessions
 - review-lldiskfs (~4 hours)
 - review-zfs-part-1 (~5 hours)
 - review-zfs-part-2 (~6 hours)
 - review-dne-part-1 (~8 hours)
 - review-dne-part-2 (~8 hours)
- Times for each test session can vary by more than an hour depending on node used
- Test-groups are composed of one or more Lustre test-suite

Changing Test Parameters

How:

- Gerrit commit messages

Why:

- Control what tests are run
- Control Lustre* configuration
- Control test environment variables

What:

- Each Test-Parameters: line is in *addition* to the normal test sessions

All **My** Projects People Documentation Search term Search James Nunez

Changes Drafts Draft Comments Watched Changes Starred Changes

intel Intel HPDD Code Review

Change 21565 - Needs Code-Review [Edit Message](#) [Reply...](#) Patch Sets (2/2) Download ☆

LU-6455 tests: Re-enable replay-vbr and replay-single tests

Tests replay-vbr 4i, 4j, 4k and 10b and replay-single test 28 were added to the ALWAYS_EXCEPT list because they were failing on e17. The issues causing those failures have been fixed and landed in <http://review.whamcloud.com/#/c/14928/>.

The replay-vbr and replay-single tests need to be re-enabled.

Test-Parameters: trivial testlist=replay-vbr, replay-single

Signed-off-by: James Nunez <james.a.nunez@intel.com>
Change-Id: Icb911849ee96673072e4e1a7abe96706c7c9f87f

Owner James Nunez
Reviewers Jenkins Maloo Add...
Autotest Cliff White HPDD Checkpatch
Misc Code Checks Robot (Gatekeeper helper)
Saurabh Tandan Wei Liu

Project fs/lustre-release
Branch master
Topic
Strategy Cherry Pick
Updated 7 weeks ago

Cherry Pick Rebase Abandon

Code-Review
Verified +1 Jenkins Maloo

Author James Nunez <james.a.nunez@intel.com> Jul 28, 2016 9:13 AM
Committer James Nunez <james.a.nunez@intel.com> Jul 28, 2016 9:47 AM
Commit 9aa2de3e7b82a6b4c221ffb8b23495ea2c6f9c2a (gitweb)
Parent(s) 9bb5a2fd3e76b460fd5121d48bc492be27a2e4f5 (gitweb)
Change-Id Icb911849ee96673072e4e1a7abe96706c7c9f87f

Files [Open All](#) Diff against: Base

File Path	Comments	Size
Commit Message		
lustre/tests/replay-single.sh		6
lustre/tests/replay-vbr.sh		6
		+0, -12

History [Expand All](#)

James Nunez	Uploaded patch set 1.	Jul 28 9:27 AM
Jenkins	Patch Set 1: Build Started https://build.hpdd.intel.com/job/lustre-reviews-parallel/10/ (2/2)	Jul 28 9:27 AM
HPDD Checkpatch	Patch Set 1: Looks good to me.	Jul 28 9:30 AM
Misc Code Check...	Patch Set 1: Code-wise looks good to me.	Jul 28 9:33 AM
Misc Code Check...	Patch Set 1: PPC64 Builder: build succesful	Jul 28 9:41 AM

Control Testing

Build Lustre* only, no testing:

```
Test-Parameters: forbuildonly
```

Test only, do not land:

```
Test-Parameters: fortestonly
```

“Trivial” changes only:

```
Test-Parameters: trivial  
Test-Parameters: trivial testlist=conf-sanity  
Test-Parameters: trivial testgroup=full
```

Additional test configurations/runs for intermittent failures:

```
Test-Parameters: testlist=conf-sanity,conf-sanity,conf-sanity  
Test-Parameters: testlist=conf-sanity,conf-sanity,conf-sanity
```

Control Lustre* Configuration

Linux Distribution:

```
Test-Parameters: clientdistro=el6.7 ossdistro=el7 \  
mdsdistro=sles11sp3
```

File system and server count:

```
Test-Parameters: mdtfilesystemtype=ldiskfs \  
ostfilesystemtype=zfs mdscount=2 mdtcount=4
```

Interoperability:

```
Test-Parameters: clientjob=lustre-b2_7 mdsjob=lustre-b2_8 \  
ossjob=lustre-b2_8 clientbuildno=38 serverbuildno=13
```

Other configurable file system parameters:

- combinedmdsmgs, clientcount, osscount, ostcount, clientarch=ppc

Control Test Suite Variables

Run SLOW tests:

```
Test-Parameters: envdefinitions=SLOW=yes
```

Specify test subset:

```
Test-Parameters: envdefinitions=ONLY=32 testlist=conf-sanity
```

Run tests with feature enabled during development:

```
Test-Parameters: envdefinitions=FILESET=subdir testlist=sanity
```

```
Test-Parameters: envdefinitions=SHAREDKEY=true testlist=sanity-sec
```

Feature Test Plan Proposal

Feature Test Plan - Proposal

Purpose

- Inform the community about a new Lustre* feature
- How to use the feature
- How was the feature tested

Attach to JIRA* ticket

Based on IEEE 829 “IEEE Test Plan Template”

Required for landing features

Feature Test Plan Information

Introduction

Documentation

Installation and Set up

What to Test

- Unit Testing
- Functional and Regression Testing
- Manual Testing

What to Test (continued)

- Performance Testing
- Scalability Testing
- User Interface
- Testing failure conditions

What not to test

Test Environment

Document Info and Introduction

Revision History

Table of Contents

Introduction

- a detailed description of the feature or a high-level description of the feature with a reference where the reader can get a detailed description of the feature
- the problem statement - why the feature is being developed or what problem will it solve
- expected use cases of the feature that motivated your development
- any requirements that the feature must meet
- JIRA tickets that track the progress of this feature. If there is a single parent ticket that lists all work being done in other JIRA tickets, listing this parent ticket is sufficient.
- describe any interactions between this new feature and existing features

Feature Documentation

Lustre Manual updates (LUDOC)

- <https://wiki.hpdd.intel.com/display/PUB/Making+changes+to+the+Lustre+Manual>

Man page updates

- Create a separate `lfs-foo.1` or `lctl-foo.8` page for subcommands

Feature Installation and Set-Up

How to install the feature

- Including any external components needed for the feature to work

How to setup and configure the file system to make use of the feature

How to enable the feature

How to monitor the feature including

- How to determine if the feature is working, running, stopped or has encountered a problem
- Include any /proc or /sys files to monitor to see if the feature is progressing or working

How to, and when should the feature be turned off or paused

What to Test and What Not to Test

Unit tests

Functional and regression testing

Manual testing

Performance testing

Scalability testing

User interface components

Failure conditions to test (often omitted)

What not to test?

Environmental Needs

Hardware requirements to properly run or test this feature

Software requirements, outside of the file system, that need to be installed to properly use or test this feature

Does another feature need to be employed to test this feature?

- e.g. your feature needs Kerberos enabled or only works with DNE

Non-standard testing tools required

References

Changing Test Parameters

- <https://wiki.hpdd.intel.com/display/PUB/Changing+Test+Parameters+with+Gerrit+Commit+Messages>

Test Plan Template

- Will upload to lustre.org if there is support for this proposal

Questions?

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