

**whamcloud**

The logo for Whamcloud features the word "whamcloud" in a bold, dark grey, lowercase sans-serif font. A thick blue horizontal line underlines the text. On the right side, a blue graphic element consisting of two overlapping curved lines forms a stylized shape that resembles a cloud or a drop, partially overlapping the end of the text and the underline.

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# Lustre Community Releases

- Peter Jones  
Support Manager  
Whamcloud, Inc.

# Agenda

- Rationale
- Lustre 1.8.x Releases
- Lustre 2.1
- Future 2.x Releases
- Summary

# Rationale

- Late in 2010 Oracle changes strategy for Lustre
  - Lustre was placed into sustaining mode
  - All work suspended on 2.x
  - Initially unclear whether there would be further 1.8.x releases
- **Lustre community needs stable 2.x release**
  - All future Lustre feature development based on 2.x codeline
  - Lustre 2.0 went GA July 2010 but performance comparison to 1.8.x was deferred
  - Intention of 2.1 is to provide a stable 2.x release with performance that matches or exceeds 1.8.x in common usage patterns

# Lustre 1.8.x Releases

- Most production Lustre sites running 1.8.x
  - 1.8.x has been available for some time and is quite stable
- Oracle has now clarified that it will continue to make Lustre 1.8.x releases
- No clear reason for the community to produce 1.8.x releases
  - Whamcloud is continuing to push fixes upstream
  - Whamcloud does have the capability to produce 1.8.x releases if needed at some future point

## Lustre 2.1 – the Problem

- All Oracle work on 2.1 has ceased
  - There have been no checkins to master since the turn of the year
- How to fill the vacuum?
  - Who would do the work?
  - Where would the code be checked in?
  - Who would do the testing?

## Lustre 2.1 – the Solution

- Some things are the same
  - Many of the same engineers performing the work
  - Community involvement in testing
- Some significant differences
  - Whamcloud had much of the necessary infrastructure in place to create Lustre releases and so volunteered to host 2.1 community release (git, JIRA, gerrit, jenkins, maloo etc)
  - 2.1 Release meetings open to anyone
  - Whamcloud contributor agreement means that **no single organization will ever hold Lustre copyright again**
  - All three community groups (EOFS, HPCFS and OpenSFS) are in support of this approach

## Lustre 2.1 – the Scope

- RHEL6 Server and Client support
- Async journal commits by default
  - Added in 1.8.2; turned off by default
  - Already used in production at many sites (LLNL, ORNL, DDN sites)
- Ext4 by default
- 2.x performance to match/exceed 1.8.x
  - SMP Scaling\IO performance



## Lustre 2.1 – the Logistics

- Adopted proven management model for Lustre releases
  - **Peter Jones** release manager, co-ordinating efforts
  - **Oleg Drokin** technical lead, acting as gatekeeper
- Broad community interest in release
  - 25 different organizations registered on mailing list (at least)
  - 11 different organizations represented at meetings
  - 3 different organizations submitted patches (LLNL, ORNL, Xyratex)
  - 4 different organizations offered to help with testing (Bull, Cray, LLNL, ORNL)

## Lustre 2.1 – the Current Status

- Status is changing rapidly as we converge on an RC
  - You can view the current # of blockers using the “Lustre 2.1 blockers” filter found under Manage Filters – Popular in JIRA
- Get more directly involved
  - Mailing list <http://groups.google.com/group/lustre-21>
  - Weekly calls on Tuesday 9:30am PT 866-914-3976 534986#

## Future 2.x Releases

- Lustre 2.1 is relatively simple
  - The scope of the release was already defined and most of the work was done
- It will be much harder to manage release content for future releases across multiple stakeholder groups
  - Need to find a workable long-term model
- Whamcloud will be producing future 2.x releases for its customers
  - Core Lustre code will be open to all and available to any other releases

# Summary

- Oracle will continue to produce Lustre 1.8.x releases
- Lustre 2.1 due out this summer
- Lustre 2.x releases TBD



**Thank You**

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