Community Development Working Group

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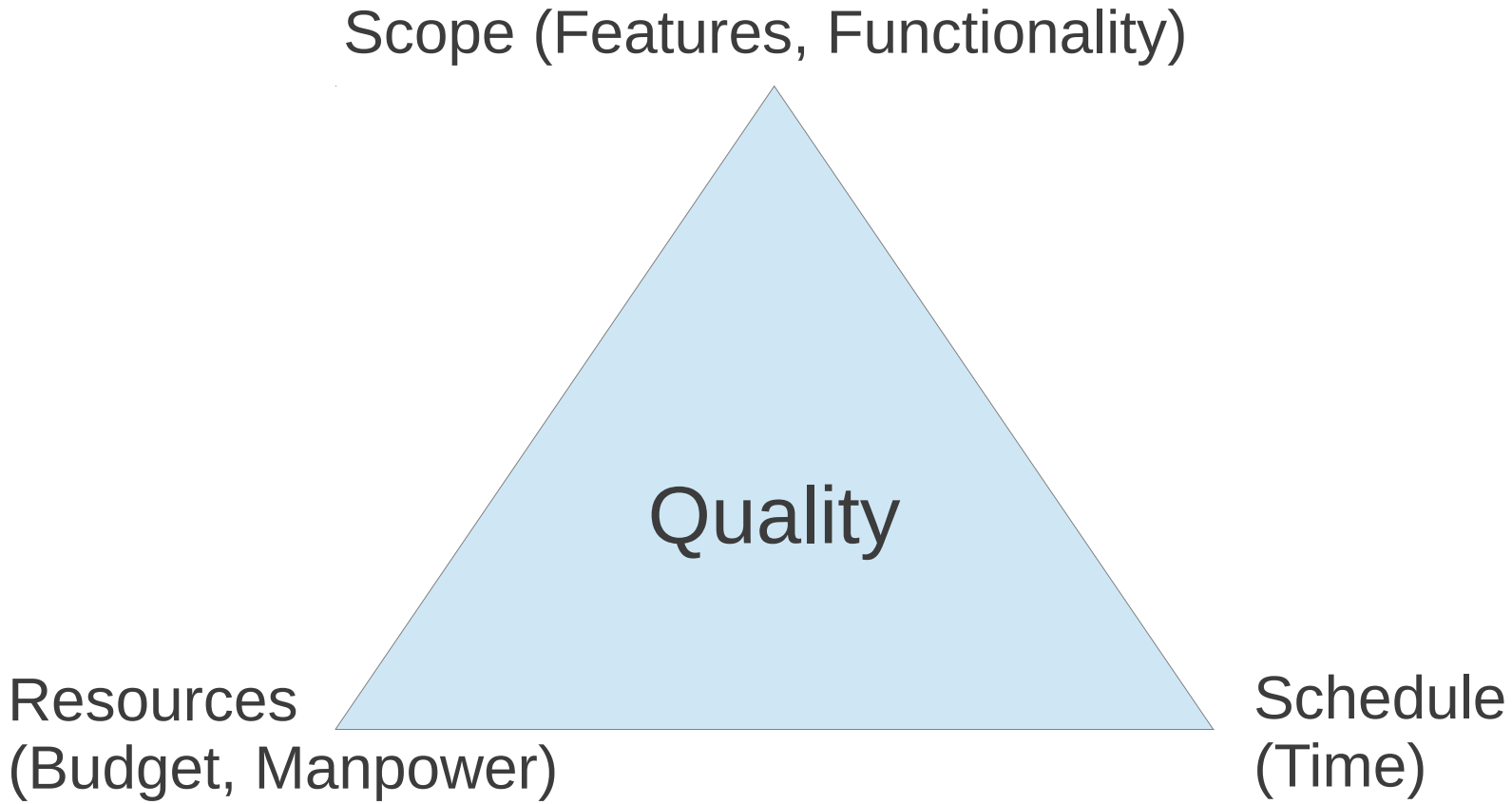
LUG 2013, April 16, 2013

CDWG Goals

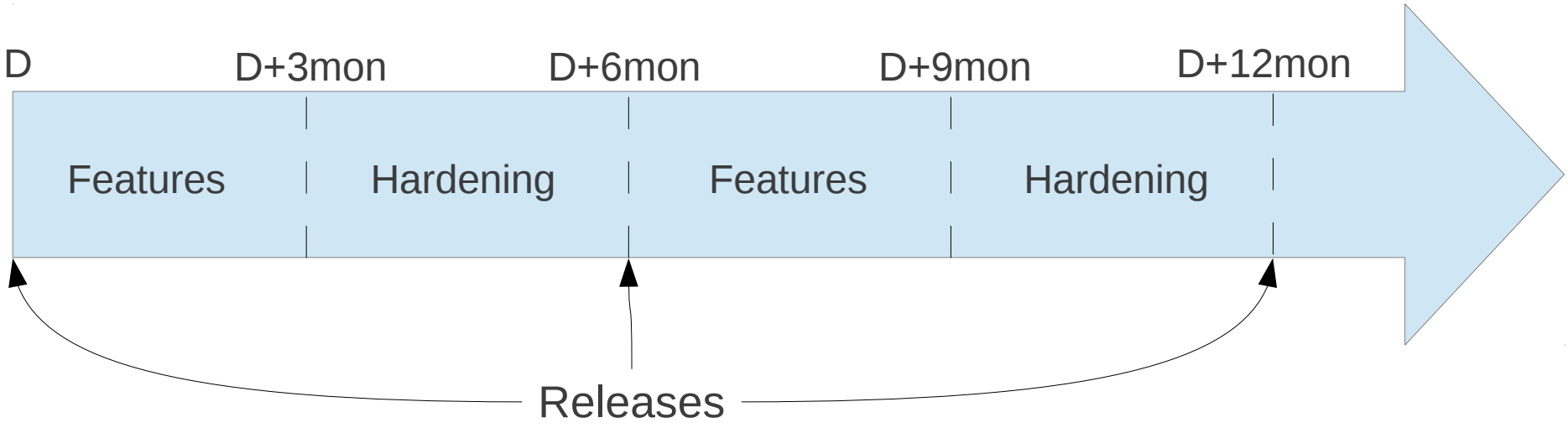
- Facilitate community development of the Lustre software tree.
  - Coordinate efforts of multiple contributors
  - Plan release schedule
  - Develop internet infrastructure
  - Provide forum for settling disputes

Software Development "Iron Triangle"



Train Development Model

- Published schedule of release dates
- Features that miss the train get left behind



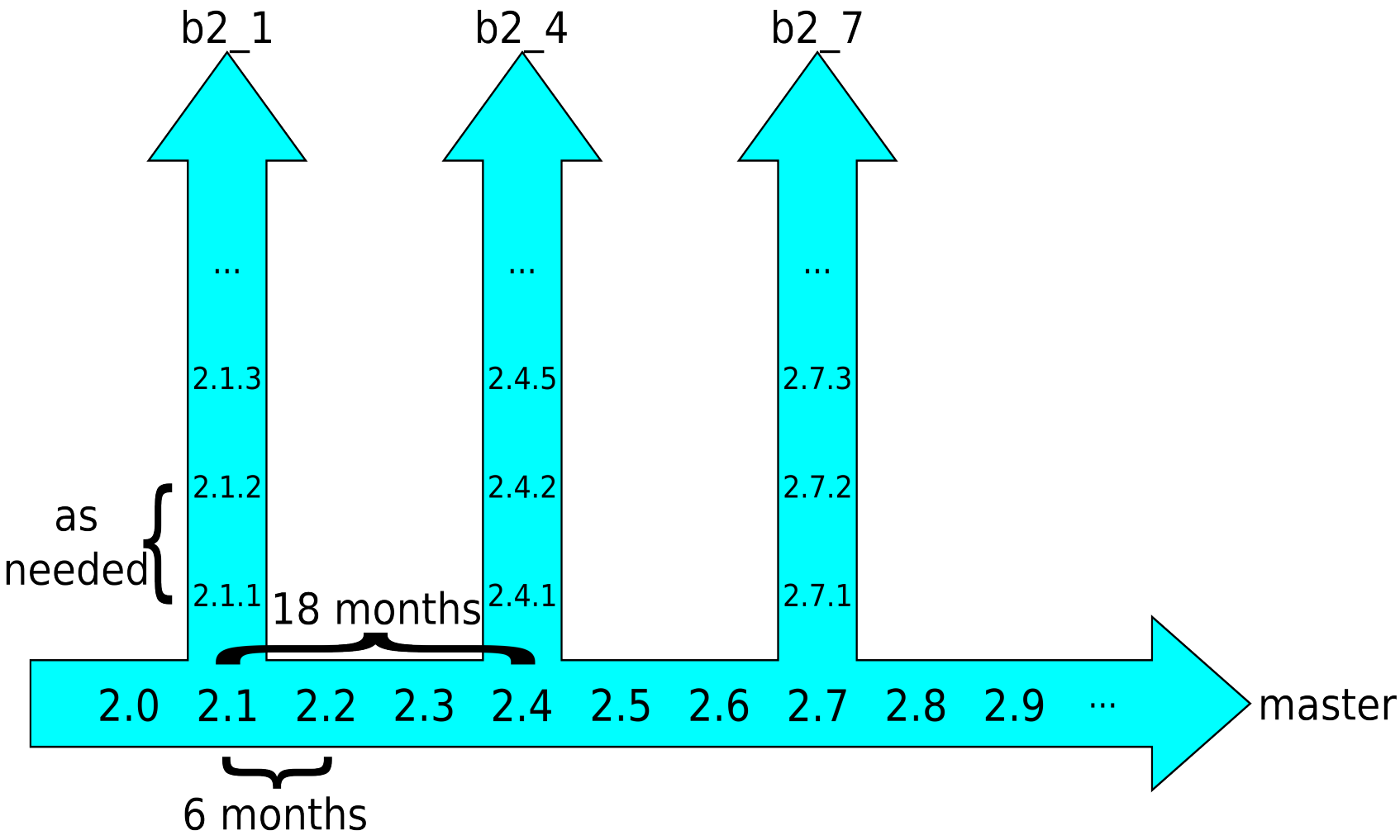
Advantages of Train Model

- Well known time table
  - Better coordination between organizations
  - More efficient scheduling of resources

Disadvantages of Model

- Timescale mismatch
  - Users often stick with one version for 3+ years
- Interoperability testing requirements grow exponentially
- Too few resources to patch more than 2 or 3 branches

Maintenance Branches



Community Tree Development Contract

- *Partially* funds care, testing, and development of *master* branch
- Granted to Whamcloud (now Intel) Nov. 2011
- Ongoing at OpenSFS/Intel mutual agreement
- Collection of requirements for refresh begun
  - http://wiki.opensfs.org/Community_Tree_Development_Contract

2012 Lustre Feature Releases

- Lustre 2.2.0 (March 30, 2012)
  - Improved Performance
  - Faster Recovery
  - Max stripe size increased to 2000 (was 160)
- Lustre 2.3.0 (October 22, 2012)
  - Object Index (OI) Scrub
  - Improved MDS SMP performance of shared dir

Lustre 2.4.0
(Late April 2013)

- Feature release + begins maintenance branch
- Features
  - ZFS support (new OSD architecture)
  - Stage 1 of Distributed NamespaceE (DNE1)
  - Lustre File System Check 1.5 (LFSCK 1.5)
  - Network Request Scheduler (NRS)
  - Hierarchical Storage Management (HSM)

Lustre 2.4 Contributors

- Wide community involvement
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Lustre 2.5.0
(Late October 2013)

- Feature Release
- Currently revising expected feature list
- Expected Features
  - Blah

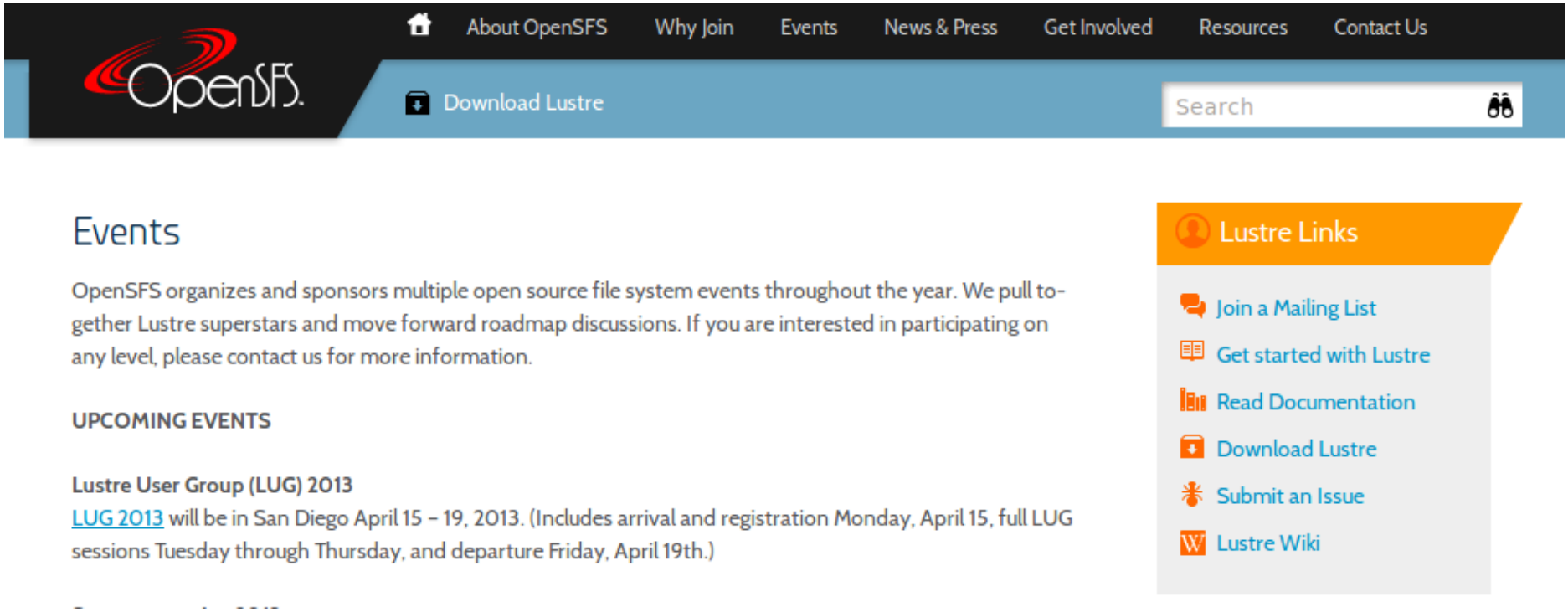
Lustre 2.6.0
(Late April 2014)

- Feature Release
- Expected Features
  - Blah

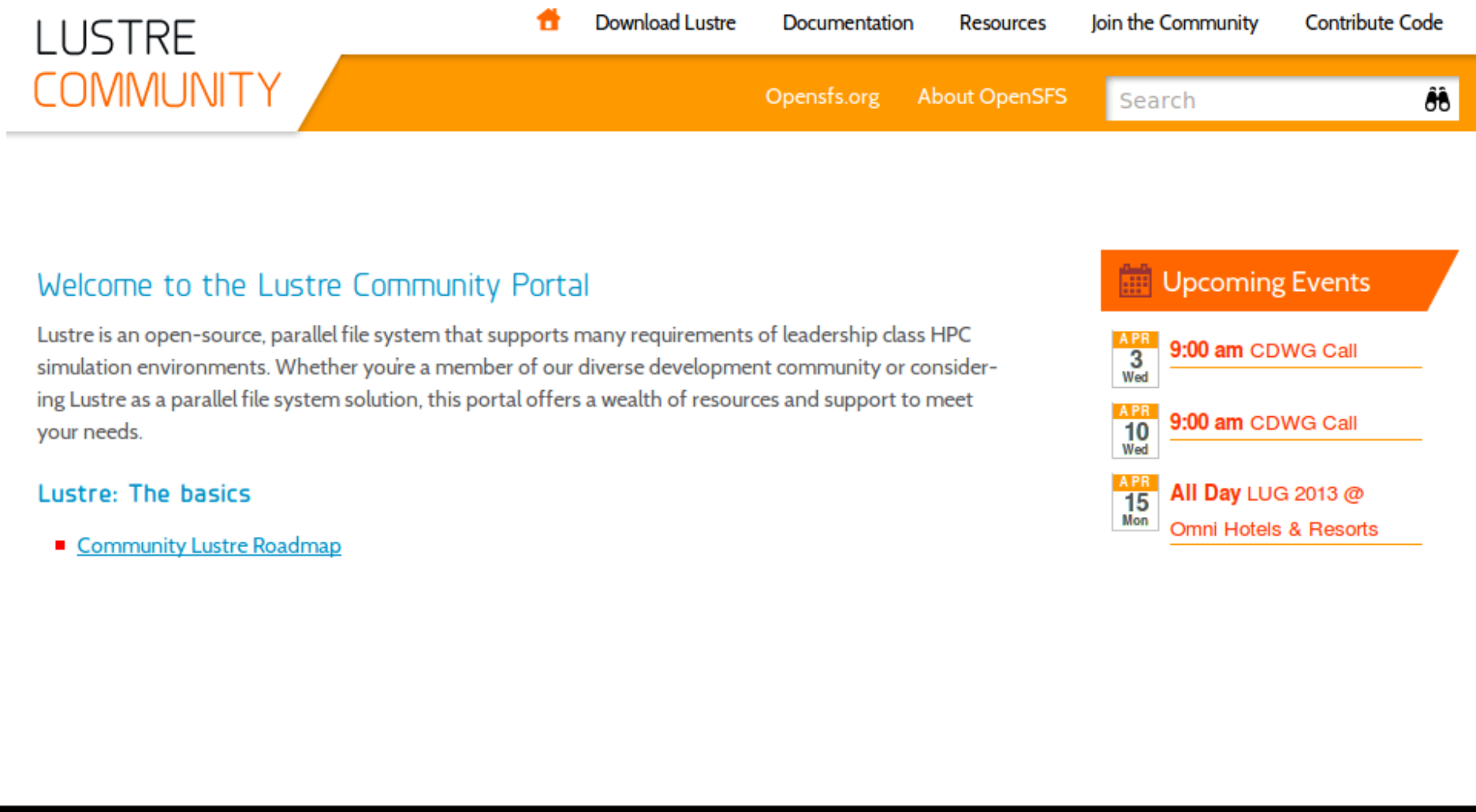
2013 Lustre Survey

- Lots of interesting stats
- Compare with 2012 stats

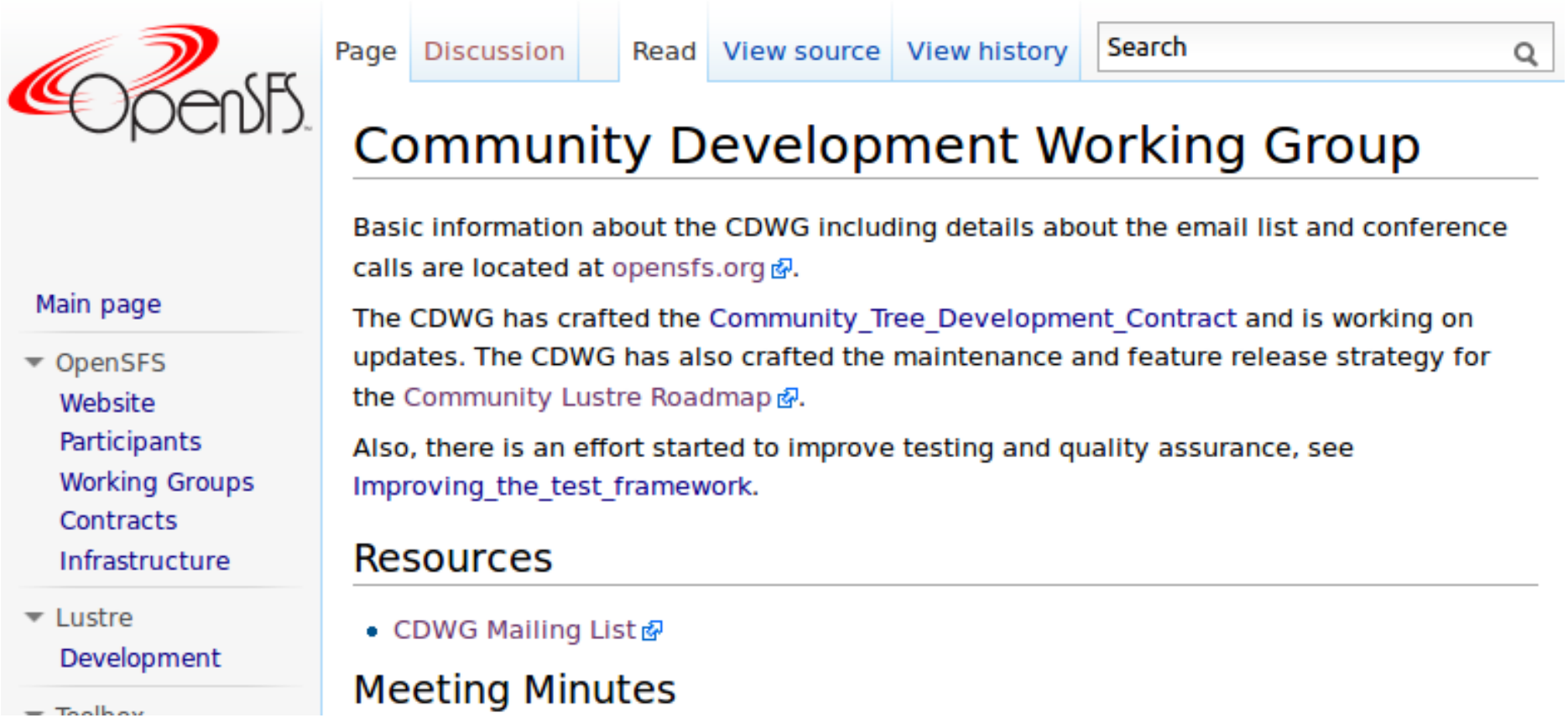
New OpenSFS Website
http://www.opensfs.org



Lustre Portal
http://lustre.opensfs.org



OpenSFS and Lustre Wiki
http://wiki.opensfs.org



We want YOU!
(to help with testing)

Resources:

http://wiki.opensfs.org/CDWG

http://lustre.opensfs.org