



A Community Resource

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Lustre[®] User Group 2013
April 16, 2013

Many thanks to Norm Morse



- Norm has been instrumental in the formation of OpenSFS
- Thank you Norm for all your contributions, we wish you well in your future ventures!

OpenSFS is transitioning to an Association Management Company – VTM Group

- VTM Group has over 20 years experience in managing non-profit organizations very similar to OpenSFS
- Successfully managing major initiatives such as the InfiniBand® Trade Association (IBTA), Ethernet Alliance (EA), PCI-SIG®, and many others

Welcome our 2013 Community Representative Director



- Director of Advanced Computing Systems at the Texas Advanced Computing Center

And many thanks to our 2012 Community Representative Director



- Data Capacitor project lead and manager of the High Performance File Systems group at Indiana University

What Is OpenSFS?

- OpenSFS is a vendor neutral, member supported non-profit organization bringing together the open source file system community for the high performance computing sector.
- Our mission is to aggregate community resources and be the center of collaborative activities to ensure efficient coordination of technology advancement, development and education.
- The end goal is the continued evolution of robust open source file systems for the HPC community.

Who Are We?

Promoters



Adopters

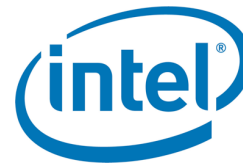


Supporters



Please Help Welcome Our New Participants!

Promoters



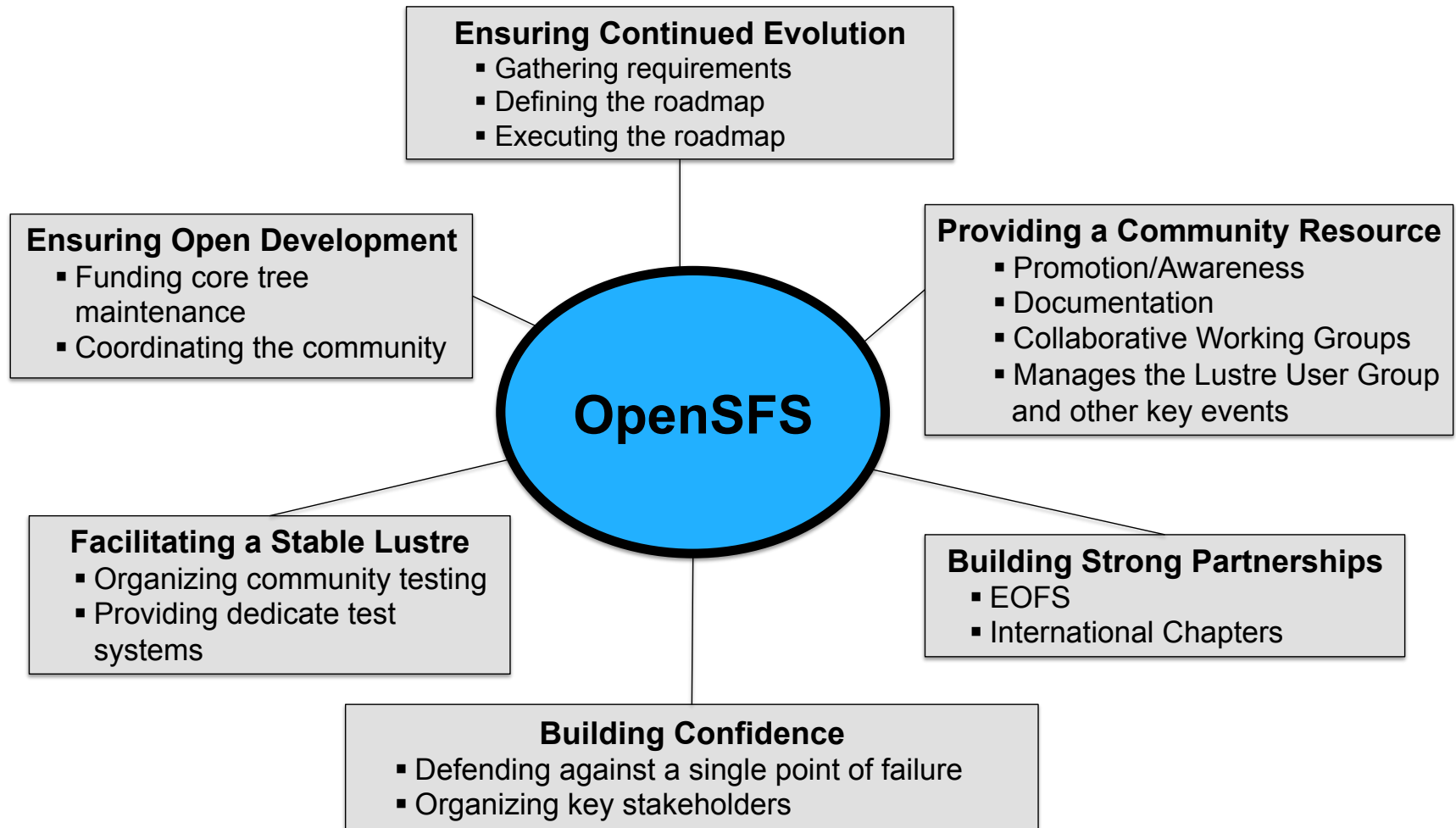
Adopters



Supporters



OpenSFS Provides a Community Structure for Open Source File Systems



A Community Working Group Model

- Technical Working Group
 - Gather requirements from community
 - Propose and manage development projects
 - Generate Lustre feature roadmap
- Community Development Working Group
 - Manage Lustre releases
 - Coordinate release roadmap for new features
- Benchmarking Working Group
 - Investigate HPC user workloads
 - Define tests to evaluate system performance and scalability
- WAN Working Group
 - Coordinate use cases and features for wide area Lustre

New Working Group Under Consideration

- Marketing Working Group
 - Brand management – guide and direct use of OpenSFS brand footprint
 - Event marketing – Promotion and exhibit opportunities for OpenSFS and its participants
 - Public relations – Editor relations, press releases, contributed articles
 - Social Media – Promotions on Twitter, LinkedIn, FB, etc.
 - Participant growth – Targeted outreach to new participants
 - Co-marketing – Build mutually beneficial alliances with complimentary industry organizations
- We look forward to your feedback!

What has OpenSFS done in the past year?

- Support and maintenance of Lustre – \$1.5M
- Development programs to meet future requirements - \$800K
- Community support related activities - \$125K

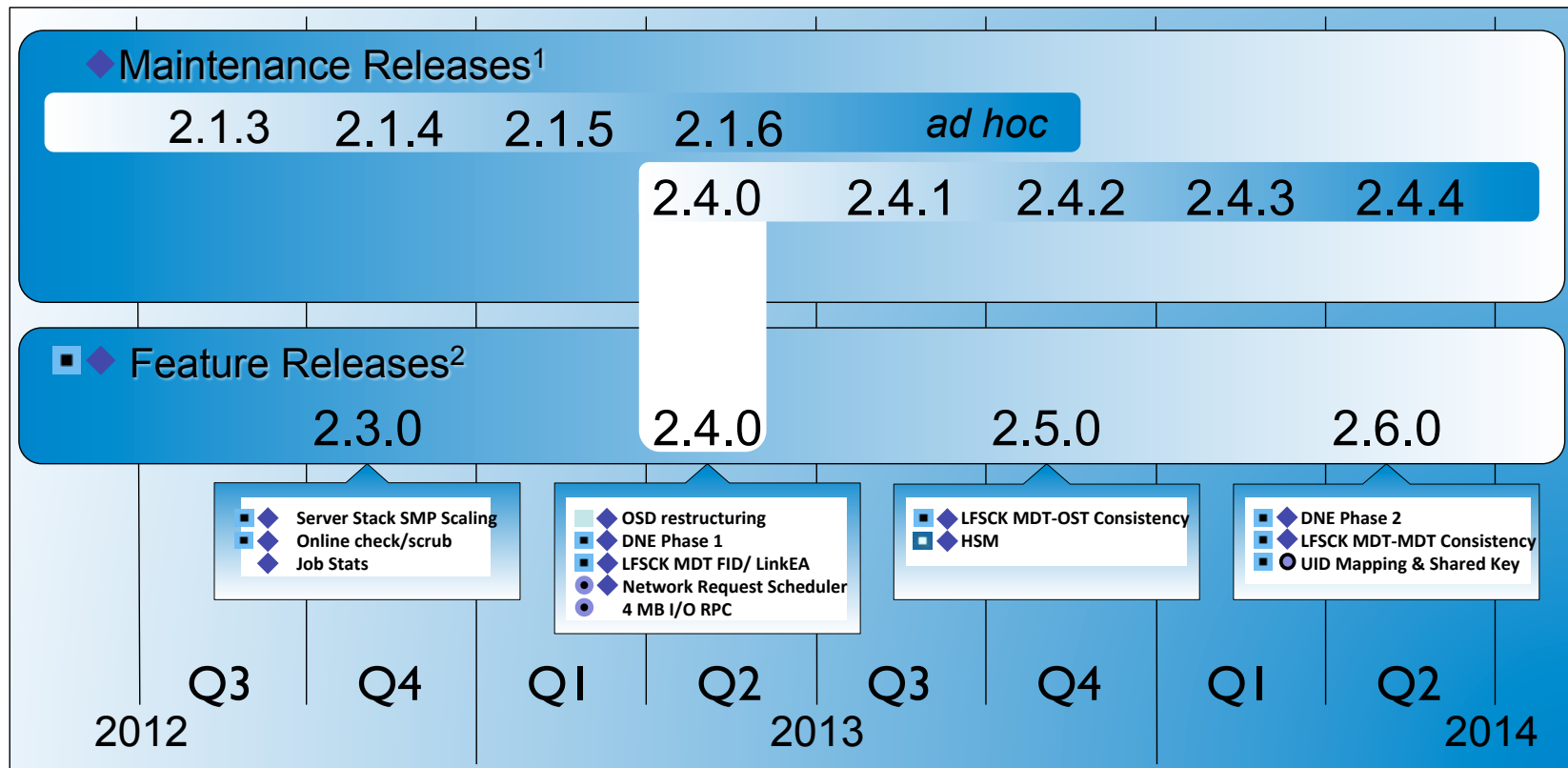
There are real costs* to each of these components.

The HPC community must share these costs if there is to be production capable open source file systems

- In 2013 OpenSFS plans to provide over \$3M* in support of open source activities

*costs are approximate for January – December 2012, 2013 budget is subject to change

Community Lustre Roadmap



Sponsors for Development and Releases: ● ORNL ■ OpenSFS ■ LLNL ◆ Intel
 ■ CEA ● Xyratex ● Indiana University

¹ Maintenance releases focus on bug fixes and stability. Updates to the current version are made at 3 month intervals. Updates to past versions will be made on an ad hoc basis.
² Feature releases focus on introducing new features. New release versions are expected at 6 month intervals. New maintenance versions from the feature release stream are anticipated at 18 month intervals.

Features Brought to You By OpenSFS

Feature	Impact	Release
Server Stack SMP Scaling	Performance	2.3
Online check/scrub	Reliability	2.3
Distributed NamespacE (DNE 1)	Performance/Scalability	2.4
LFCK MDT FID/LinKEA	Usability/Reliability	2.4
FCK MDT-OST Consistency	Usability/Reliability	2.5
DNE Phase 2	Performance/Scalability	2.6
LFCK MDT-MDT Consistency	Usability/Reliability	2.6
UID Mapping & Shared Key	Usability	2.6

Snapshot of our next steps

- Continue the Lustre roadmap
 - File system availability and robustness
 - Storage management: HSM, migration, rebalancing
 - Performance: single client, file create, directory traversal
 - Lustre networking: channel bonding, robustness and dynamic configuration
 - Reducing technical debt: refactoring, code documentation, etc.
 - Tools: storage monitoring, storage management, and data management
 - ***Many of these features will enable even broader adoption of Lustre***
- Lustre community portal development
- Increase community participation in Lustre
 - Increasing OpenSFS membership
 - We look forward to your participation in OpenSFS both during LUG and throughout the year

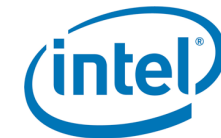
Ensuring the Future of Lustre

- What does OpenSFS do for you?
 - OpenSFS participants are responsible for virtually all Lustre development and driving the Lustre roadmap
 - Funds the lion-share of the Lustre roadmap, without which Lustre would atrophy
 - Funds half of the Lustre tree support, ensuring a free and open Lustre tree
 - Provides a collaborative environment for ensuring the continued success of the Lustre file system
 - Manages and hosts major community events including the LUG and the Lustre presence at SC and ISC
- Why you should join OpenSFS?
 - Your dues contribute to the continued success of Lustre
 - Participation in OpenSFS put you in the drivers seat of the future of Lustre
 - Critical mass gives us the ability to influence the entire ecosystem

How Can You Get Involved?

- Encourage your organization to join OpenSFS
- Actively participate in an OpenSFS working group
- Contribute to the furtherance of the Lustre file system
 - Contribute documentation
 - Contribute testing, testing, and more testing
 - Contribute code: bug fixes, features
- Help us shape the future of Lustre
- Help us improve OpenSFS as a vibrant community
- Spread the word about OpenSFS and Lustre
 - And don't forget to follow us on twitter @opensfs

Thanks to Our LUG 2013 Sponsors!



Thank you!

