OpenSFS Technical Working Group (DRAFT v2)

Mission Statement

The mission of the OpenSFS Technical Working Group (TWG) is to work with the Lustre community to ensure that Lustre continues to support the stability, performance, and management requirements of the OpenSFS members as HPC compute platforms continue to scale. The TWG is responsible for creating and managing the roadmap for the OpenSFS community. To complete the roadmap, the TWG must gather requirements from the Lustre HPC community, initiate RFPs for important features, and work with contractors to meet these requirements. The TWG will work closely with the OpenSFS board to review requirements and prioritize development projects.

Lustre Roadmap

The OpenSFS members require Lustre to run on Linux server platforms and to include features critical to the continued growth in scale of Lustre installations. We recognize that the needs of the HPC community is focused on file system scalability and stability and seek to provide a Lustre roadmap for features that meet their requirements.

The TWG will survey the other OpenSFS working groups, the general OpenSFS membership, and the Lustre HPC community to determine the critical HPC requirements for Lustre. The TWG will evaluate the requirements in terms of short and long term goals to generate a roadmap that can be presented to the OpenSFS board. Features defined in the roadmap will then be prioritized and resourced for development.

Feature Development

With Board approval, the TWG will initiate requests for proposal (RFPs) for development projects related to support of the roadmap. The TWG will create high-level estimates of the impacts and costs of each requirement in the roadmap, then generate the RFPs, develop resource allocation proposals, and work with Contractors on meeting the technical requirements in the RFPs. The TWG will work with the other OpenSFS working groups to provide schedule updates and status for its development projects.

It is the goal of the TWG that any completed Lustre development project be submitted to Oracle for inclusion in their master Lustre tree. Since the stability of the master is critical to us all, we will work with contractors to develop release collateral for every patch to facilitate understanding of the scope of the feature and the thoroughness of its testing. To add continuity to the process, contractors will be required to work with the Release Planning and Support working groups to ensure integration of new features into the OpenSFS source tree and support model.

Member Requirements

TWG members are expected to prepare for and attend working group meetings. While the TWG is gathering requirements, sub-teams of the working group will be expected to meet with external groups to gather and document new requirements. The sub-teams will present any collected requirements to

the whole working group to assign a priority to the new features for inclusion in the working group's roadmap.

While RFPs are in progress, the TWG will assign two members to act as co-leads to shepherd each RFP through its life cycle. The RFP leads will be expected to supervise the work of the contractors and provide status updates to the rest of the working group. RFP leads may need to make significant time commitments at various phases of the RFP to ensure successful management of the project.

The working group is lead by two co-chairs. These members of the TWG are responsible for leading team meetings and interfacing with the other working groups and the board. Initially, the co-chairs were assigned by the board. As the OpenSFS organization matures, we anticipate that the board will adopt procedures to allow any member of the working group be nominated for the co-chair position.

Meeting Schedule

The TWG will meet at least quarterly to ensure that progress is being made toward the roadmap and, if necessary, to amend the roadmap as new requirements arise. While there is open business, the TWG will meet bi-weekly to discuss pending work items.