RELEASE PLAN

Project: NVMe over Fabric

Team: Team NVMe

Release Name: Winter Release

Release Date: 3/11/16

Revision Number: 2.0

Revision Date: 1/23/16

HIGH LEVEL GOALS

- Get server operational.
- Get servers communicating with each other.
- Use Mellanox Accelio software to test RDMA Over Converged Ethernet (RoCE).
- Get nbdX running.
- Benchmark the throughput of the data.
- Create daemon to stress test RoCE.

USER STORIES FOR RELEASE (Ranked in terms of highest priority. Include story points for each user story)

Sprint 1:

1. As a developer, I need the right power supply so that I can get the physical servers up and running. (5 SP - Out of our hands)
2. As a developer, I need iLO set up so that I can install the software as well as remote management. (5 SP)
3. As a developer, I need CentOS installed and configured so that I can have an OS. (5 SP)
4. As a developer, I need to install GIT on the physical server so that I can have GIT on the server. (1 SP)

5. As a developer, I need a GIT repo configured so that I have a version control repository. (5 SP)
6. As a developer, I need to understand the iLO so that I can remotely manage the physical servers. (3 SP)
7. As a developer, I need to understand the installation, setup and management of CentOS so that I can work with my physical servers. (3 SP)
8. As a developer, I need to understand GIT so that I can properly use GIT. (5 SP)

Sprint 2:

1. As a developer, I need to create a full system backup of the physical server so that I can restore to a safe point in the event something happens. (5 SP)
2. As a developer, I need an upgraded kernel so that I have compatibility with the nbdX server. (13 SP)
3. As a developer, I need to install the Mellanox drivers so that the Mellanox cards are functioning. (3 SP)
4. As a developer, I need to test Accelio API calls across the two HPE physical servers so that I can build the virtual nbdX server and ensure that the software stack is working. (5 SP)
5. As a developer, I need to build the virtual nbdX server so that I can do performance benchmarking. (13 SP)
6. As a developer, I need to understand the Accelio API so that I can familiarize ourselves with the tools necessary for nbdX setup. (5 SP - May need to be expanded)

7. As a developer, I need to understand the nbdX server technology so that I can better understand the higher layers of the technology stack that I am utilizing. (8 SP)
8. As a developer, I need to understand the RoCE protocol so that I can better understand the lower layers of the technology stack that I am utilizing. (5 SP)
9. As a user of the system, I must be able to read online documentation of NVMe over Fabric so that I can build and run the project. (3 SP)

Sprint 3:

1. As a developer, I need to run initial benchmarking of throughput so that I can establish a baseline. (13 SP)
2. As a developer, I need to develop a daemon that emulates an NVMe drive so that I can test NVMe drives with nbdX. (21 SP)
3. As a tester, I need to be able to run a test suite so that I can check for regression and functionality in my software stack and the code that I write. (8 SP)

PRODUCT BACKLOG

High Level Goals

- Gather data about the throughput capabilities of the servers over RoCE.
- Polish the testbed so that it is in a usable state for integration with Hewlett Packard Enterprise.

User Stories

1. As a sponsor, I need to be able to see a poster and presentation so that I know what goals have been accomplished. (21 SP)
2. As a developer, I need to create scripts to generate and capture throughput data so that I can have information for my report. (13 SP)
3. As a tester, I need to be able to automate the testing so that I don’t have to initiate the testing myself. (3 SP)

Poster and presentation, with turnaround time with the mentor sponsor. Midpoint slide by the end of the Winter quarter.