**OFI Data Storage / Data Access Subteam Weekly telecom – 04/26/2016**

**DS/DA Shared Documents:** <http://downloads.openfabrics.org/WorkGroups/ofiwg/>

**Agenda**

* roll call, agenda bashing
* Continue kfabric discussion
* next steps

**Continuing kfabric discussion**

* Suggestion is to focus on a) use cases for kfabric, b) kfabric providers
* Further thought: from a use case perspective, focus separately on classical storage applications and accesses to persistent memory**.** Specifically, are there use cases for accesses to PM that require a kernel API, or are all anticipate use cases fundamentally based on user mode?
* NVMe/F is a block model and therefore a potential client for a kfabric API.
* Hard to know where the industry is going w.r.t. NVM-based storage; clearly filesystems will have to be re-written because they spend a lot of time/energy on mapping to blocks and tracks and so on.
* It seems that user based file access will always have to eventually go through a kernel since they amount to accesses to a shared resource. On the other hand, there are emerging user-land file systems like Ceph.
* Think of kfabric as a communications middleware that abstracts the lower level details of the wire.
* It seems that we may not move forward until/unless there is a new wire that could take advantage of the enhanced efficiencies offered by a kfabric API.
* Meanwhile, Bull’s new fabric, which is based on Portals4, does support these features, including Lustre support, but no sense that any of this has been open-sourced. Stan will reach out to them. They do have a current interest in libfabric, perhaps this is a natural extension.
* Frank points out again that the High Availability use case doesn’t really have a ULP, per se. Although having an identified ‘ULP’ isn’t strictly a requirement, it certainly makes the case easier to sell. Also, keep in mind that the strategy w.r.t. the kernel community is likely to be to begin with a vendor-specific kernel device driver partitioned in such a way as to lend itself to generalization and use by other providers that might emerge.
* Does it make sense for this group to try to define a ‘model ULP’ as a driver? What about using NVMe/F as a useful ULP? Rumor is that Christoph Hellwig is working toward NVMe/F.
* It appears that the objective is to move kverbs more towards an object model with a focus on the user/kernel interface.

**Next Steps**

* Strong desire to not lose the value of the work that’s been done here already, and a recognition that this work is having an impact on the industry.
* NetApp is going to push its existing kfabric verbs provider up to Github
* Plan to meet in two weeks. Agenda will be to review the state of that verbs provider.

**Next Agenda**

* Discuss the state of the current NetApp verbs provider, especially focusing on areas where it may diverge from the existing kfabric definition.
* Next meeting in two weeks – 5/10/16

**Webex Recording:**

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| [**Play recording**](https://cisco.webex.com/ciscosales/ldr.php?RCID=62746608649aa4a8d6d241b1110ede19) (57 min)  |
| Recording password: EnPy49Px  |  |

**Next regular telecom:**

Next meeting: Tuesday, 5/10/16

8am-9am Pacific daylight time

**NOTE:** We have switched over to using Webex (courtesy of Cisco). The URL for joining meetings is:

[Join WebEx meeting](https://cisco.webex.com/ciscosales/j.php?MTID=m221d8a20185d84b30daa0096aca0f182)

**Join by phone**

+1-866-432-9903 Call-in toll-free number (US/Canada)

+1-408-525-6800 Call-in toll number (US/Canada)

Access code: 201 212 241