**OFI Data Storage / Data Access Subteam Weekly telecom – 08/16/2016**

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

**Agenda**

* roll call, agenda bashing
* Review slide materials for discussion with NVMe SIG
* Re; Intel’s proposed OFA API extensions for RDMA, possible discussion of
  + ‘barrier’ vs ‘fence’ – impacts on subsequent write operations?
  + Ordering questions w.r.t. an explicit commit list.  Required ordering semantics?  Intel proposal requires commit and fence flags via separate write requests when writing to the same memory region (same R\_KEY).  IETF draft, by comparison, uses an explicit commit list.

**Review slide deck for use with introductory discussion with NVMe SIG**

**See the slide deck titled “OFA\_NVMe\_SIG\_2016\_0815.pptx**

* Still looking for a compelling driver – NVMe is a strong possibility.
* Meeting planned for August 22 between OFA and NVMe Consortium. This is a ‘get to know you’ meet-and-greet meeting (20 minutes) with two topics on the agenda:
  + “NVMe/K” – describe the direction the OFA seems to be taking with kfabric, based mainly on the presentations done at the workshop.
  + Dual licensing issues – current NVMe (/F?) is single licensed which poses a problem for the OFA. There have been indications that the NVMe Consortium is willing to dual license its code, but…
* There are also some pockets of resistance (e.g. Christoph Helwig) in the NVMe Consortium to both dual licensing and to kfabric.
* There appear to be plans emerging in some companies to begin experimenting with kfabric for NVMe. If the performance numbers are encouraging the direction would seem to be in favor of adopting kfabric as another potential transport interface for NVMe.
* Upcoming meeting with NVMe SIG Board to a) introduce us, and b) discuss the dual licensing issue.
* PSM-1 does run over IB wires, PSM-2 runs over OPA, change ‘IP’ box with ‘Enet’. Change PSM to PSM-2 and replace IB w/ OPA. Under ofi, add the providers in the box, do something with the arbitrary box. “Abstract”, current fabric hardware. Consider including RoCEv2 alongside iWARP.
* Do wordsmithing on the expression “Responsible for NVM work”.

**Conclude discussion of Intel proposal**

* ‘barrier’ vs ‘fence’ – what are the impacts on subsequent write operations?
  + ‘barrier’ characteristically impacts prior and subsequent write operations.
  + ‘fence’ characteristically impacts prior operations, but not subsequent writes.
* Software already knows how to do its own fencing, so why introduce a new mechanism?
* NetApp and Cray prefer a barrier (vs a fence), reasoning that it simplifies things for the client.
* The existence of a barrier (or even a fence) may obviate the need for an explicit commit list.
* Many seem to feel that the commit list is unnecessarily complex.
* Ordering questions w.r.t. an explicit commit list. What are the required ordering semantics?

**Webex Recording:**

**Next regular telecom:**

Next meeting: Tuesday, 8/16/16

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)

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