**OFI Data Storage / Data Access Subteam Weekly telecom – 04/12/2016**

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

**Agenda**

* roll call, agenda bashing
* re-cap Monterey meeting with kernel maintainer
* next steps

**re-cap kernel maintainer discussion**

* Doug L. recognizes that re-working the kernel verbs stack to exorcise the verbs-isms would be a long and arduous task. He seems to accept the premise that underlies kfabric.
* There are two forms of “evolution, (not revolution)”:
  + Christoph Hellwig is currently engaged in ‘genericizing’ the existing kverbs API, or
  + Introduce a hardware device driver for a (new) fabric which is partitioned in such a way that new additional device drivers could leverage the same upper half (the kfabric part).
* The objective in introducing kfabric is NOT to force existing ULPs to adapt to it. Rather, the next time a new fabric comes along that is not ‘verbs-like’, the ULPs are going to have to adapt to it regardless. If that’s the case, the new ‘fabric’ to which they must adapt might as well be based on a generic read/write interface.
* There seemed to be some misunderstanding that kfabric is intended to replace the existing RDMA stack (kverbs). The flipside is that a new RDMA stack (kfabric) existing parallel to an existing RDMA stack (kverbs) may cause confusion.
* Another question – what if a new kernel interface is introduced, but no ULPs adopt it?
* Two possible consumers that were mentioned (this is not new)
  + Storage community would like an API that is, indeed, transport agnostic. Non-transparent bridging over PCIe is one use case.
  + Lustre LNDs are another.
* What is really needed is an API that upper layer protocols can use that won’t require changes to the ULP every time the underlying wire changes somehow (including modifications to the existing RDMA stack).
* From the Lustre perspective, what is needed is read/write semantics, not queue pairs.
* Pithy quote of the day: “verbs is a library of mechanisms, it’s not an API.”
* Conclusion: unless/until we have both a provider that exports kfabric, and a compelling ULP-based use case for it, we are not likely to succeed.

**Next Agenda**

* Continue brainstorming a little while longer.
* Agreed to defer the next meeting for two weeks.

**Webex Recording:**

**Next regular telecom:**

Next meeting: Tuesday, 4/26/16

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